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DRAFT

PHASE II ENVIRONMENTAL SITE INVESTIGATION

**Former Summerfield Property
Mt. Morris, Michigan**

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1.0 INTRODUCTION

1.1 PURPOSE

Conestoga-Rovers & Associates (CRA) was retained by Remediation and Liability Management (REALM), a subsidiary of General Motors Corporation (GM), to complete a Phase II Environmental Site Investigation (Phase II ESI) for the former Summerfield Property (Site) located near the intersection of Stanley and Lewis Roads in both the City of Mt. Morris and Genesee Township, Genesee County, Michigan. A Site location map is presented on Figure 1.1.

The purpose of the Phase II ESI was to perform an intrusive investigation to confirm or deny existence of a release to the environment at Potential Areas of Environmental Concern (PAOCs) or Potential Areas of Environmental Release (PAORs) identified in the Phase I Environmental Site Assessment (Phase I ESA) at levels which may adversely impact public health or the environment.

The Phase II ESI included the installation of test trenches, soil borings, temporary groundwater wells; and the collection and analysis of soil, sediment, groundwater, and surface water samples.

1.2 BACKGROUND AND HISTORY

The Site consists of approximately 80 acres of vacant land covered by wooded areas, scrub areas, open areas, and trails. The Site is divided into three separate portions by Consumers Power Company power transmission lines. The Site has an irregular shape as shown on Figure 1.2 and is bordered by a Consumers Power electrical substation to the south and beyond by Stanley Road and an industrial property; to the west by the CSX railroad and beyond by mixed residential, commercial, and industrial properties; to the north by residential and undeveloped/vacant properties, and to the east by residential property and beyond by Lewis Road.

Based on a review of historical aerial photographs, the Site has been used for gravel mining operations and has remained vacant since 1941. Currently, no gravel mining or

any other operations are being conducted. The Site is vacant and no structures currently exist.

1.3 SUMMARY OF PHASE I ESA

A Phase I ESA was conducted by CRA for the Site in November 1998 in general accordance with GM Specifications and ASTM Standard E1527-97 for conducting environmental assessments. The purpose of the Phase I ESA was to perform a non-intrusive investigation to identify any PAOCs and PAORs that may require investigation through subsequent phases of work. The Phase I ESA included an environmental database search, title search, historical records review, a site inspection, a review of available Site records, and interviews with individuals associated with the Site.

Based on the Phase I ESA, no PAORs and six PAOCs were identified at the Site. The PAOCs identified include four potential solid waste disposal areas, potential contamination along utility corridors, and potential contamination in the drainage ditch along the western boundary of the Site,

1.4 REPORT ORGANIZATION

The remainder of the Phase II ESI Report is organized as follows:

Section 2.0	Environmental Setting
Section 3.0	Scope of Work
Section 4.0	Results of Investigation
Section 5.0	Summary and Conclusions
Section 6.0	References

2.0 ENVIRONMENTAL SETTING

2.1 REGIONAL GEOLOGY AND HYDROGEOLOGY

Based on knowledge of regional geology, the topography and overburden soil at the Site is the result of glacial and post-glacial deposition and erosional processes. The Site is located in an area where up to 150 feet of overburden have been deposited over bedrock. The shallow overburden consists of clay, silt, and sand. Sand and silt layers are often found within the top 50 feet of overburden. The frequency of sand and silt layers decreases with depth past 50 feet to the point that an extensive clay layer exists separating the groundwater and surface water from any underlying aquifers.

Based on a regional knowledge of groundwater conditions, groundwater is believed to be 10 to 15 feet bgs. Shallow groundwater flow is believed to be toward the northwest. Drinking water in the vicinity of the Site is obtained from the municipal water supply or from wells completed in the bedrock aquifer. Based on available information, these bedrock wells range from 240 to 300 feet bgs.

2.2 SITE GEOLOGY AND HYDROGEOLOGY

Information regarding the geologic conditions at the Site was collected during the Phase II ESI. The overburden at the Site consists of a sand and/or clay surficial layer containing varying amounts of gravel, sand, silt, and clay, underlain by interbedded layers of silt and clay material. The stratigraphic logs generated during the Phase II ESI are presented in Appendix A.

Groundwater was encountered during the Phase II ESI field activities at approximately 10 feet bgs. Perched discontinuous water exists regionally, dependent upon surface conditions (i.e. topography, improved surface conditions of asphalt or concrete, etc.). The regional perched groundwater is known to be discontinuous and seasonal.

2.3 TOPOGRAPHY

The Site is located at an elevation of approximately 790 feet above mean sea level (AMSL). The Site topography is small hills and valleys, presumably from historical gravel mining operations, with elevation changes of 10 to 20 feet across the Site. Figure 1.1 presents the Site location and topography of the immediate area surrounding the Site.

2.4 HYDROLOGY

The Site is undeveloped with small hills and valleys, with elevation changes of 10 to 20 feet across the Site.

The nearest surface water body to the Site is Flint River located approximately 5 miles to the southeast of the Site. Additionally, intermittent drainage ditches are present along the western edge of the Site, and a low area is present near the center of the Site, which may collect and hold water during rain events. The low area was observed to be dry during the Site inspection. The drainage ditches along the western edge of the property were mostly dry, however some standing water was present in the northern most drainage ditch.

3.0 SCOPE OF WORK

3.1 SUMMARY OF THE SAMPLING AND ANALYSIS PLAN

The Sampling and Analysis Plan (SAP) for the Phase II ESI involved the investigation of the six PAOCs identified during the Phase I ESA.

The SAP included the installation of four test trenches, two soil borings, and two temporary monitoring wells, and the collection of nine soil samples, three sediment samples, three groundwater samples, and one surface water sample.

Soil and groundwater samples collected to investigate potential disposal areas were analyzed for target compound list (TCL) volatile organic compounds (VOCs), TCL semi-volatile organic compounds (SVOCs), Resource Conservation and Recovery Act (RCRA) metals, and polychlorinated biphenyls (PCBs). Sediment and surface water samples collected to investigate the drainage ditch were analyzed for TCL VOCs, TCL SVOCs, RCRA metals, herbicides, and PCBs. Surface soil samples collected to investigate the utility corridors were analyzed for herbicides.

3.2 SUMMARY OF PAOCS EVALUATED

The PAOCs evaluated were four potential disposal areas (PAOC), including surficial debris (PAOC No. 1), surficial wood blocks (PAOC No. 2), surficial tires, foam, and wood blocks (PAOC No. 3), and surficial debris and concrete (PAOC No. 4), potential contamination along utility corridors (PAOC No. 5), and potential contamination in the drainage ditch along the western boundary of the Site (PAOC No.6).

PAOCs No. 1 through 4 were investigated through the installation of four test trenches, two soil borings (TB1-99 and TB4-99), and two temporary monitoring wells (TW2-99 and TW3-99) and the collection of four soil samples and three groundwater samples. Soil and groundwater samples were analyzed for TCL VOCs, TCL SVOCs, RCRA metals, and PCBs.

Potential herbicide contamination along the utility corridors, PAOC No. 5, was investigated through the collection of five surface soil samples (SS1-99 through SS5-99). Surface soil samples were analyzed for herbicides.

Potential contamination in the drainage ditch, PAOC No. 6, was investigated through the collection of three sediment samples (SD1-99, SD1-99 (duplicate), and SD2-99) and one surface water sample (SW1-99). Sediment and surface water samples were analyzed for TCL VOCs, TCL SVOCs, RCRA metals, herbicides, and PCBs.

3.3 SOIL/SEDIMENT INVESTIGATION

3.3.1 TEST TRENCH INSTALLATION

A total of four test trenches were installed, approximately 20 feet in length and approximately 10 feet in depth, to investigate PAOCs No. 1 through 4 identified during the Phase I ESA.

Each test trench was installed using a rubber-tired excavator. Prior to advancement of each test trench, the excavator bucket was decontaminated. Test trench locations are presented on Figure 3.1.

All excavating equipment that came into contact with potentially impacted materials was decontaminated prior to field use and after each test trench was installed. Decontamination of excavating equipment was performed as follows:

- i) use a stiff brush, if necessary, to remove any debris or soil; and
- ii) rinse thoroughly with a hot, potable water, high-pressure, low-volume wash.

Wash and rinse water were discharged to the ground surface at the Site.

3.3.2 SOIL BORING INSTALLATION/SOIL SAMPLING

A total of four soil borings (TB1-99, TW2-99, TW3-99, and TB4-99) were advanced and four soil samples were collected to investigate PAOCs No. 1 through 4.

Each soil boring was advanced to the required interval using a 3 ½-inch hollow stem auger (HSA). Samples were collected using a 2-inch diameter, 2 foot long, split spoon sampler. Borehole and soil sample locations are presented on Figure 3.1.

Following retrieval, soil samples were carefully examined by a CRA field technician for color, soil type, stratigraphy, banding, moisture, odor, visual evidence of impact, and screened with a photoionization detector. All soil samples collected were described and classified according to the Unified Soil Classification System (USCS). Boring stratigraphic logs are presented in Appendix A. Samples collected for chemical analysis were placed directly into pre-cleaned laboratory supplied sample jars. The samples were submitted under chain-of-custody (COC) protocol to Safety-Kleen (Encotec), located in Ann Arbor, Michigan for chemical analysis.

Soil cuttings generated during boring installation were replaced in the boring. Following completion, any void space in the boring was filled to the surface with bentonite chips.

All sampling equipment that came in contact with potentially impacted materials was decontaminated prior to field use and after each sample was collected. Decontamination of equipment was performed as follows:

- i) clean water and non-phosphate detergent wash using a brush, if necessary, to remove all visible foreign matter;
- ii) rinse thoroughly with potable water;
- iii) rinse with Alconox
- iv) rinse thoroughly with deionized water.

All drilling equipment that came into contact with potentially impacted materials was decontaminated prior to field use and after each boring was installed. Decontamination of drilling equipment was performed as follows:

- iii) use a stiff brush, if necessary, to remove any debris or soil; and
- iv) rinse thoroughly with a hot, potable water, high-pressure, low-volume wash.

Wash and rinse water were discharged to the ground surface at the Site.

3.3.3 SURFACE SOIL SAMPLING

A total of five surface soil samples were collected at the Site, to investigate potential herbicide contamination along utility corridors, identified as PAOC No. 5 during the Phase I ESA.

Surface soil samples were collected using a grab method at a depth of approximately 1 to 2 feet bgs. Samples collected for chemical analysis were placed directly into precleaned laboratory supplied sample jars. The samples were submitted under COC protocol to Encotec for chemical analysis. Surface soil sample locations are presented on Figure 3.1.

All sampling equipment that came into contact with potentially impacted material was decontaminated prior to field use and after each sample was collected. Decontamination of equipment was performed as described in Section 3.3.2.

3.3.4 SEDIMENT SAMPLING

A total of three sediment samples were collected at the Site to investigate potential contamination in the drainage ditch along the western portion of the Site, identified as PAOC No. 6 during the Phase I ESA. Sediment sample locations are presented on Figure 3.1.

Samples collected for chemical analysis were placed directly into pre-cleaned laboratory supplied sample jars. The samples were submitted under COC protocol to Encotec for chemical analysis.

A stainless steel sampling device was used to collect the sediment samples. All sampling equipment that came into contact with potentially impacted material was decontaminated prior to field use and after each sample was collected. Decontamination of equipment was performed as described in Section 3.3.2.

3.4 GROUNDWATER INVESTIGATION

3.4.1 MONITORING WELL INSTALLATION

Two temporary monitoring wells (TW2-99 and TW3-99) were installed at the Site to investigate PAOC No. 2 (surficial wood blocks) and PAOC No. 3 (surficial tires, foam, and wood blocks), identified during the Phase I ESA.

Monitoring wells were advanced using a 4 ¼-inch HSA. The monitoring wells were constructed with 5-foot lengths (as appropriate) of 10-slot, 2-inch diameter PVC well screen joined to a Schedule 40, 2-inch diameter, PVC riser with flush threaded joints.

The riser and screen were placed in the HSA and groundwater was allowed to accumulate in the well. Water was purged from the well using a peristaltic pump and Teflon tubing.

Each monitoring well was developed by purging a minimum of five well volumes utilizing a peristaltic pump, in order to stabilize the wells prior to sample collection. No PID readings were collected, however based upon visual observation, TW2-99 was clear and TW3-99 was silty. After development, the static water levels were measured and recorded.

3.4.2 GROUNDWATER SAMPLING

A total of three groundwater samples were collected to investigate PAOCs No. 2 and 3. Monitoring well and groundwater sample locations are presented on Figure 3.1.

Samples collected for chemical analysis were placed directly into pre-cleaned laboratory supplied sample jars. Sample numbers SSH-210, from TW3-99, and SSH-211 (and duplicate sample SSH-212), from TW2-99, were collected and analyzed without filtering. The samples were submitted under COC protocol to Encotec for chemical analysis.

Groundwater samples were collected using clean disposable polyethylene bailers. Bailers were dedicated to individual monitoring wells and disposed after use.

3.5 SURFACE WATER INVESTIGATION

3.5.1 SURFACE WATER SAMPLING

One surface water sample was collected to investigate potential contamination in the drainage ditch located along the western boundary of the Site, identified as PAOC No. 6 during the Phase I ESA.

The surface water sample was collected using a stainless steel sampling device. The sample collected for chemical analysis was placed directly into pre-cleaned laboratory supplied sample jars. The sample was submitted under COC protocol to Encotec for chemical analysis.

All sampling equipment that came into contact with potentially impacted material was decontaminated prior to field use and after each sample was collected. Decontamination of equipment was performed as described in Section 3.3.2.

3.6 SAMPLE ANALYSES/QUALITY ASSURANCE/QUALITY CONTROL

Soil, sediment, groundwater and surface water samples were submitted under COC protocol to Encotec in Ann Arbor, Michigan and analyzed within a 14-day turn-around time. Samples were analyzed for TCL VOCs, TCL SVOCs, RCRA metals, herbicides and PCBs using approved methods set forth in SW-846, Test Methods for Evaluating Solid Waste. Quality Assurance/Quality Control (QA/QC) procedures were conducted by SPL Laboratory during sample analysis.

A QA/QC review of laboratory analytical data was also performed by a CRA chemist and is presented in Section 4.3.

4.0 RESULTS OF INVESTIGATION

4.1 APPLICABLE REGULATORY STANDARDS

4.1.1 RELEVANT CRITERIA/STANDARDS

Analytical results of soil samples were evaluated against the Michigan Act 451 Part 201 (Michigan Part 201) Generic Cleanup Criteria and Screening Levels for Residential Drinking Water Protection Criteria (DWPC) and Direct Contact Criteria (DCC). Additionally, the statewide default background levels are provided for comparison purposes.

Standards have not been promulgated within the State of Michigan for sediments, therefore analytical results of sediment samples were evaluated against the "Guidelines for the Protection and Management of Aquatic Sediment Quality in Ontario", Ontario Sediment Quality Criteria (Ontario Sediment Quality Criteria).

Analytical results of groundwater water samples were evaluated against the Michigan Part 201 Generic Cleanup Criteria and Screening Levels for Residential Drinking Water Criteria (DWC) and DCC for groundwater.

Analytical results of surface water samples were evaluated against the Michigan Drinking Water Maximum Contaminant Level (MCL) Standards, which incorporate by reference, the United States Environmental Protection Agency (U.S. EPA) Drinking Water MCLs, Secondary MCLs, or Action Levels, as applicable.

4.2 RESULTS OF PAOC INVESTIGATION

4.2.1 PAOC NO. 1

One test trench and one soil boring (TB1-99) were advanced, and one surface soil sample was collected to investigate PAOC No. 1. The location of the test trench and the surface soil sample are presented on Figure 3.1. The soil sample was analyzed for TCL VOCs, TCL SVOCs, RCRA metals, and PCBs as presented in Table 3.1.

Lead was detected in the soil sample collected from TB1-99 at a concentration of 20 mg/kg, which is above the Michigan Part 201 Residential DWPC of 1.0 mg/kg and below the Michigan Part 201 Residential DCC of 400 mg/kg. No other RCRA metals were detected in the soil sample at concentrations above the Michigan Part 201 Residential DWPC or DCC. No TCL VOCs, TCL SVOCs, or PCBs were detected in the soil sample at concentrations above the Michigan Part 201 Residential DWPC or DCC. Table 4.1 presents a summary of detected parameters in soil samples. Analytical results are presented in Appendix B.

4.2.2 PAOC NO. 2

One test trench was advanced and one soil boring/temporary monitoring well (TW2-99) was installed and one soil sample and two groundwater samples, including one duplicate sample, were collected to investigate PAOC No. 2. The location of the test trench and the temporary monitoring well are presented on Figure 3.1. The soil and groundwater samples were analyzed for TCL VOCs, TCL SVOCs, RCRA metals, and PCBs as presented in Table 3.1.

Lead was detected in the soil sample collected from TW2-99 at a concentration of 4.0 mg/kg, which is above the Michigan Part 201 Residential DWPC of 1.0 mg/kg and below the Michigan Part 201 Residential DCC of 400 mg/kg. No other RCRA metals were detected in the soil sample at concentrations above the Michigan Part 201 Residential DWPC or DCC. No TCL VOCs, TCL SVOCs, or PCBs were detected in the soil sample at concentrations above the Michigan Part 201 Residential DWPC or DCC. Table 4.1 presents a summary of detected parameters in soil samples.

No TCL VOCs, TCL SVOCs, RCRA metals, or PCBs were detected in groundwater samples at concentrations above the Michigan Part 201 Residential DWPC or DCC. Table 4.3 presents a summary of detected parameters in groundwater samples. Analytical results are presented in Appendix B.

4.2.3 PAOC NO. 3

One test trench was advanced and one soil boring/temporary monitoring well (TW3-99) was installed and one soil and one groundwater sample were collected to investigate PAOC No. 3. The location of the test trench and the temporary monitoring well are presented on Figure 3.1. The soil and groundwater samples were analyzed for TCL VOCs, TCL SVOCs, RCRA metals, and PCBs as presented in Table 3.1.

Lead was detected in the soil sample collected from TW3-99 at a concentration of 11 mg/kg, which is above the Michigan Part 201 Residential DWPC of 1.0 mg/kg and below the Michigan Part 201 Residential DCC of 400 mg/kg. No other RCRA metals were detected in the soil sample at concentrations above the Michigan Part 201 Residential DWPC or DCC. No TCL VOCs, TCL SVOCs, or PCBs were detected in the soil sample at concentrations above the Michigan Part 201 Residential DWPC or DCC. Table 4.1 presents a summary of detected parameters in soil samples.

Lead was detected in the unfiltered groundwater sample, SSH-210, collected from TW3-99 at a concentration 440 µg/L, which is above the Michigan Part 201 DWC of 4.0 µg/L. No DCC criteria has been developed in Michigan for lead, due to insufficient data. Mercury was detected in the unfiltered groundwater sample collected from TW3-99 at a concentration of 3.0 µg/L, which is above the Michigan Part 201 DWC of 2.0 µg/L and below the Michigan Part 201 DCC. No other RCRA metals were detected in the unfiltered groundwater sample above the Michigan Part 201 DWC or DCC. No TCL VOCs, TCL SVOCs, or PCBs were detected in groundwater samples at concentrations above the Michigan Part 201 Residential DWC or DCC. Table 4.3 presents a summary of detected parameters in groundwater samples. Analytical results are presented in Appendix B.

4.2.4 PAOC NO. 4

One test trench was advanced and one test boring (TB4-99) was installed, and one soil sample was collected to investigate PAOC No. 4. The location of the test trench and the surface soil sample are presented on Figure 3.1. The soil sample was analyzed for TCL VOCs, TCL SVOCs, RCRA metals, and PCBs as presented in Table 3.1.

Lead was detected in the soil sample collected from TB4-99 at a concentration of 160 mg/kg, which is above the Michigan Part 201 Residential DWPC of 1.0 mg/kg and below the Michigan Part 201 Residential DCC of 400 mg/kg. No other RCRA metals were detected in the soil sample at concentrations above the Michigan Part 201 Residential DWPC or DCC. No TCL VOCs, TCL SVOCs, or PCBs were detected in the soil sample at concentrations above the Michigan Part 201 Residential DWPC or DCC. Table 4.1 presents a summary of detected parameters in soil samples. Analytical results are presented in Appendix B.

4.2.5 PAOC No. 5

Five surface soil samples were obtained from five different locations along the utility corridors to investigate PAOC No. 5. Sample locations are presented on Figure 3.1. The soil samples were analyzed for herbicides.

No herbicides were detected in any of the soil samples at concentrations above the Michigan Part 201 Residential DWPC or DCC. Table 4.1 presents a summary of detected parameters in soil samples. Analytical results are presented in Appendix B.

4.2.6 PAOC NO.6

Three sediment samples (SD1-99, SD1-99 (duplicate), and SD2-99) and one surface water sample (SW1-99) were collected to investigate PAOC No. 6, the drainage ditch along the western boundary at the Site. Sample locations are presented on Figure 3.1. The sediment samples and surface water sample were analyzed for TCL VOCs, TCL SVOCs, RCRA metals, herbicides, and PCBs as presented in Table 3.1.

Silver was detected in the sediment sample collected from SD1-99 at a concentration of 650 µg/kg, which is above the Ontario Sediment Quality Criteria of 500 µg/kg. Cadmium was detected in the duplicate sediment sample collected from SD1-99 at a concentration of 660 µg/kg, which is above the Ontario Sediment Quality Criteria of 600 µg/kg. Arsenic was detected at a concentration of 6,300 µg/kg, which is above the

Ontario Sediment Quality Criteria of 6,000 µg/kg. No other RCRA metals were detected in the soil sample at concentrations above the Ontario Sediment Quality Criteria. No TCL VOCs, TCL SVOCs, herbicides, or PCBs were detected in the sediment samples at concentrations above the Ontario Sediment Quality Criteria. It should be noted however, that no criteria have been promulgated within the state of Michigan for sediments. Table 4.2 presents a summary of detected parameters in sediment samples.

No TCL VOCs, TCL SVOCs, RCRA metals, herbicides, or PCBs were detected in the surface water sample at concentrations above the U.S. EPA MCLs. Table 4.4 presents a summary of detected parameters in the surface water sample. Analytical results are presented in Appendix B.

4.3 DATA VALIDATION RESULTS SUMMARY

The laboratory analytical data was reviewed by a CRA chemist to determine the quality and validity of the analytical data resulting from the collection and analysis of Soil, sediment, groundwater, and surface water samples. The laboratory analytical data is presented in Appendix B.

The quality assessment and validation indicate that the data collected exhibits acceptable levels of accuracy and precision, with minor qualifiers. The qualifier associated with TCL SVOC results is due to a laboratory control sample percent recovery violation. The qualifiers associated with the PCB results are due to violation of surrogate percent recovery criteria. The qualifiers associated with RCRA metals, specifically arsenic and selenium, are due to outlying matrix spike recovery data. The data may be used, as presented in this report, and as qualified in the data validation memorandum presented in Appendix C.

5.0 SUMMARY AND CONCLUSIONS

5.1 SUMMARY OF ANALYTICAL RESULTS

- 1) PAOC No. 1: Lead was detected in the soil sample collected from TB1-99 at a concentration of 20 mg/kg, which is above the Michigan Part 201 Residential DWPC of 1.0 mg/kg and below the Michigan Part 201 Residential DCC of 400 mg/kg. No other parameters were detected in the soil sample at concentrations above the Michigan Part 201 Residential DWPC or DCC.
- 2) PAOC No. 2: Lead was detected in the soil sample collected from TW2-99 at a concentration of 4.0 mg/kg, which is above the Michigan Part 201 Residential DWPC of 1.0 mg/kg and below the Michigan Part 201 Residential DCC of 400 mg/kg. No other parameters were detected in the soil sample at concentrations above the Michigan Part 201 Residential DWPC or DCC.

No parameters were detected in groundwater samples at concentrations above the Michigan Part 201 Residential DWPC or DCC.

- 3) PAOC No. 3: Lead was detected in the soil sample collected from TW3-99 at a concentration of 11 mg/kg, which is above the Michigan Part 201 Residential DWPC of 1.0 mg/kg and below the Michigan Part 201 Residential DCC of 400 mg/kg. No other parameters were detected in the soil sample at concentrations above the Michigan Part 201 Residential DWPC or DCC.

Lead was detected in the unfiltered groundwater sample collected from TW3-99 at a concentration 440 µg/L, which is above the Michigan Part 201 DWPC of 4.0 µg/L. No DCC criteria has been developed in Michigan for lead, due to insufficient data. Mercury was detected in the unfiltered groundwater sample collected from TW3-99 at a concentration of 3.0 µg/L, which is above the Michigan Part 201 DWPC of 2.0 µg/L and below the Michigan Part 201 DCC. No other parameters were detected in the groundwater sample above the Michigan Part 201 DWPC or DCC.

- 4) **PAOC No. 4:** Lead was detected in the soil sample collected from TB4-99 at a concentration of 160 mg/kg, which is above the Michigan Part 201 Residential DWPC of 1.0 mg/kg and below the Michigan Part 201 Residential DCC of 400 mg/kg. No other parameters were detected in the soil sample at concentrations above the Michigan Part 201 Residential DWPC or DCC.

- 5) **PAOC No. 5:** No herbicides were detected in any of the soil samples at concentrations above the Michigan Part 201 Residential DWPC or DCC.

- 6) **PAOC No. 6:** Silver was detected in the sediment sample collected from SD1-99 at a concentration of 650 µg/kg, which is above the Ontario Sediment Quality Criteria of 500 µg/kg. Cadmium was detected in the duplicate sediment sample collected from SD1-99 at a concentration of 660 µg/kg, which is above the Ontario Sediment Quality Criteria of 600 µg/kg. Arsenic was detected at a concentration of 6,300 µg/kg, which is above the Ontario Sediment Quality Criteria of 6,000 µg/kg. No other parameters were detected in the sediment samples at concentrations above the Ontario Sediment Quality Criteria.

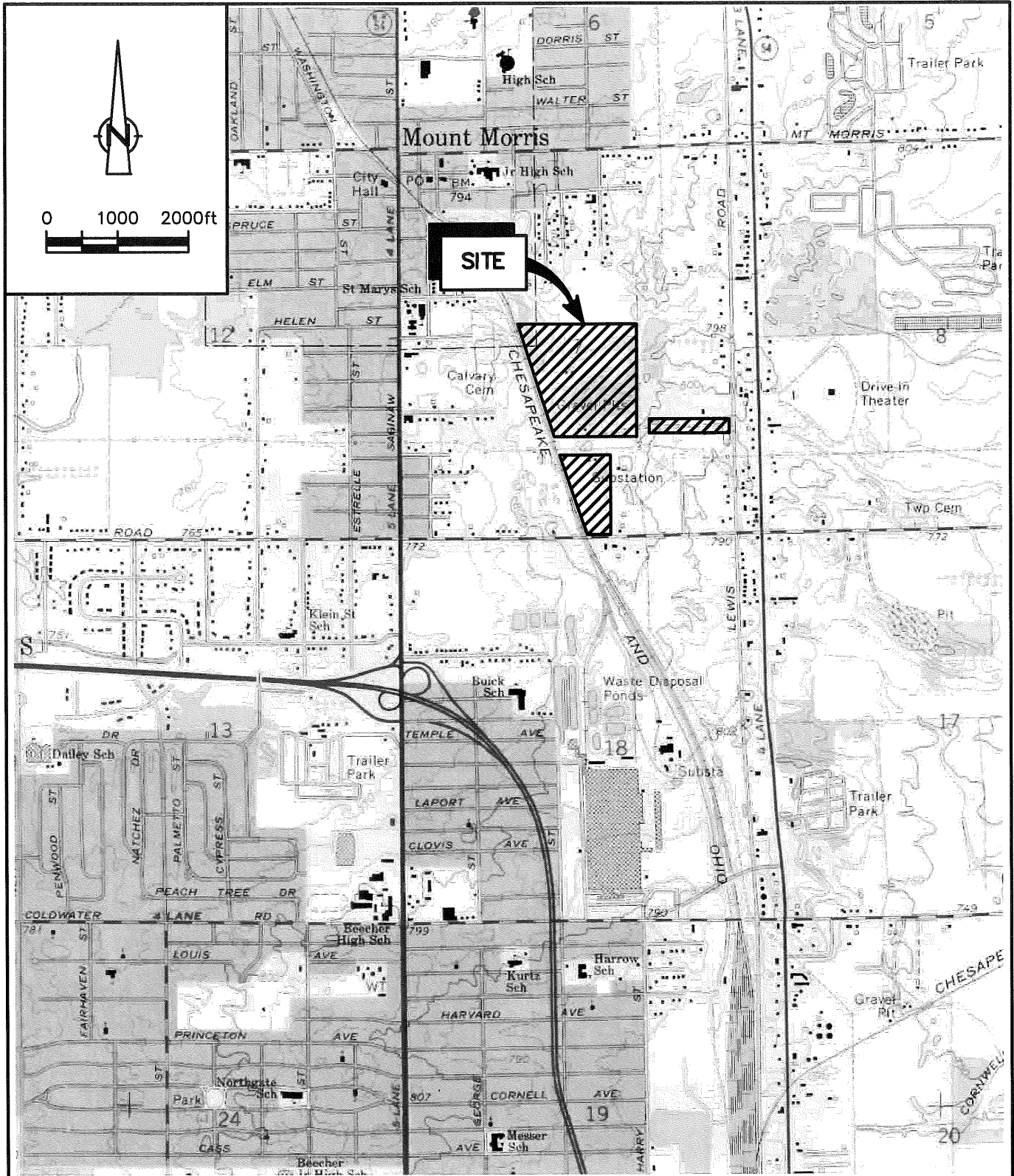
No parameters were detected in the surface water sample at concentrations above the U.S. EPA MCLs.

5.2 **CONCLUSIONS**

Based upon the data collected during the Phase II ESI, the Site is considered a "facility" pursuant to Michigan Act 451, Part 201. Based upon the status of the Site as a "facility" pursuant to Michigan Act 451, Part 201, a Baseline Environmental Assessment should be prepared and submitted to the Michigan Department of Environmental Quality to define the existing environmental conditions at the Site so that in the event of a subsequent release, there is a means of distinguishing impacts attributable to the new release from previously existing contamination.

6.0 REFERENCES

- Michigan Act 451 Revised Part 201 Operational Memorandum # 18 Cleanup Criteria Tables, Soil: Residential and Commercial I, Generic Cleanup Criteria and Screening Levels, January 29, 1999;
- Michigan Act 451 Revised Part 201 Operational Memorandum # 18 Cleanup Criteria Tables, Groundwater: Residential and Industrial-Commercial, Generic Cleanup Criteria and Screening Levels, January 29, 1999;
- Ministry of Environment and Energy "Guidelines for the Protection and Management of Aquatic Sediment Quality in Ontario, " August 1993;
- Michigan Act 399 Section 6 and Rule 601 promulgated thereunder;
- U.S. EPA, Office of Water, Drinking Water Regulations and Health Advisories, Maximum Contaminant Levels, October 1996 and revisions;
- Draft Phase I Environmental Site Assessment Report, CRA, May, 1999; and
- General Motors Specification Section 01042 (Draft) for Phase II Environmental Site Investigations, currently under development.



SOURCE: USGS QUADRANGLE MAP;
FLINT NORTH, MICHIGAN



figure 1.1
SITE LOCATION
FORMER SUMMERFIELD PROPERTY
Mt. Morris, Michigan

CRA

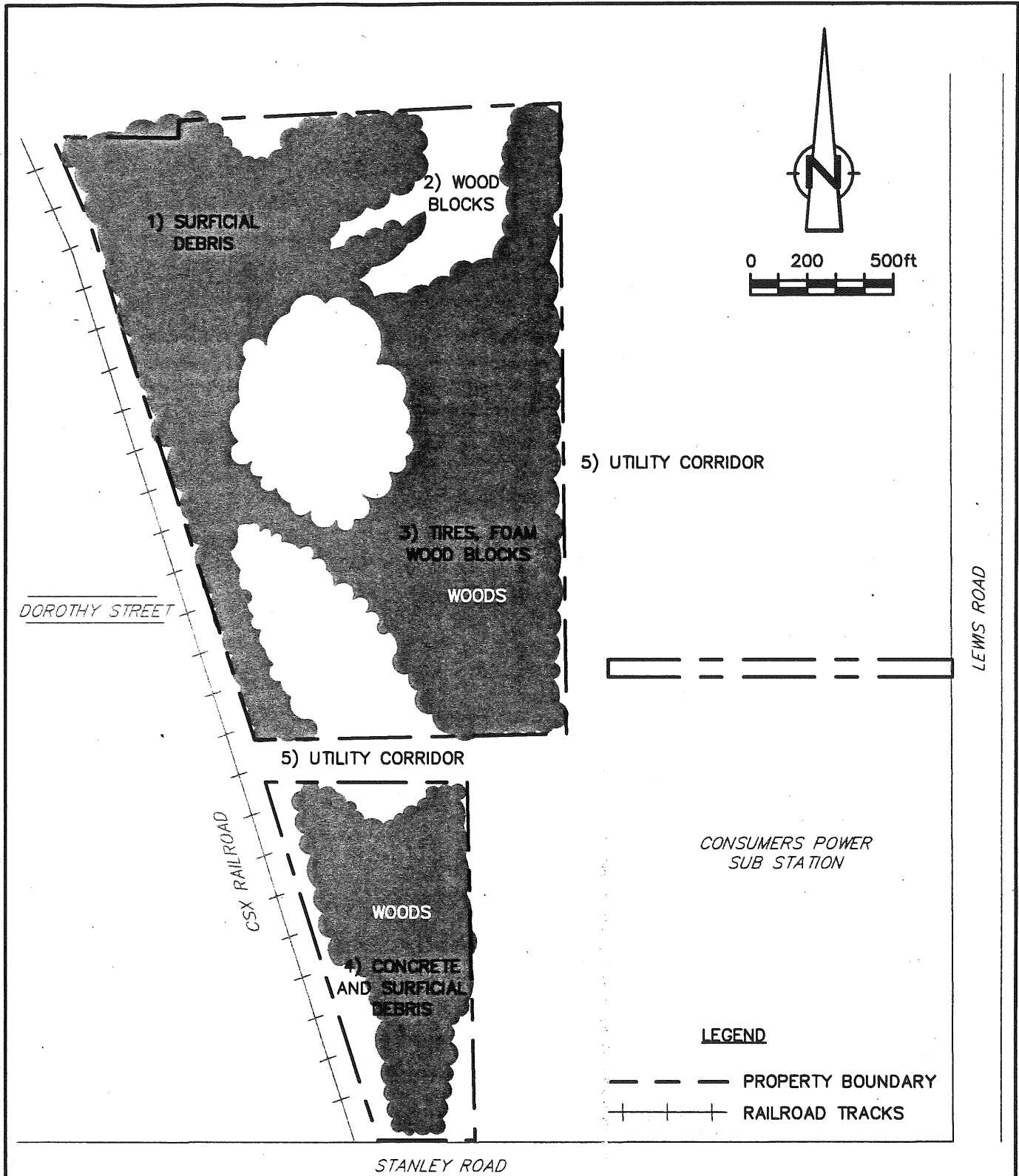


figure 1.2
 SITE PLAN
 FORMER SUMMERFIELD PROPERTY
 Mt. Morris, Michigan

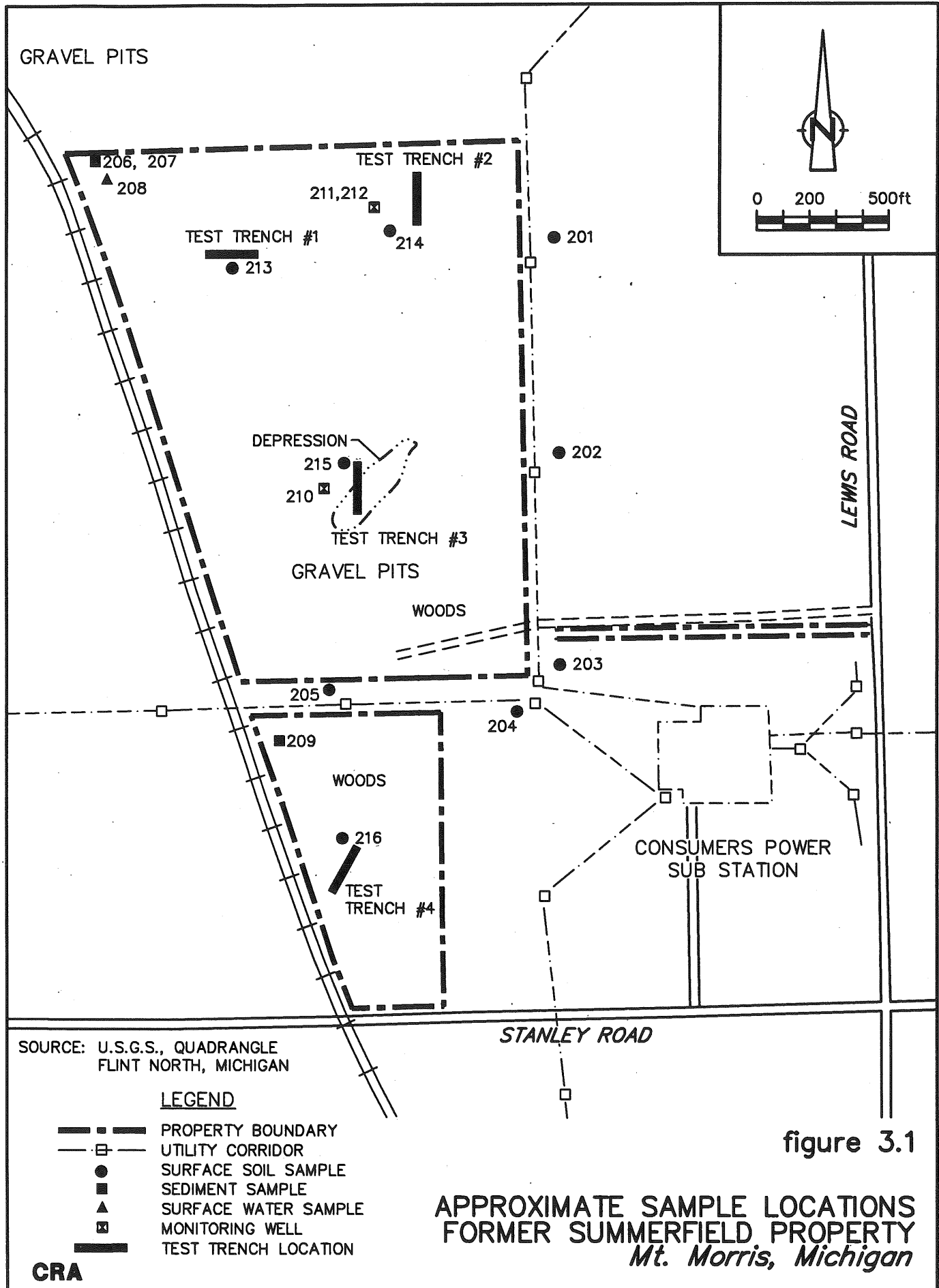


TABLE 3.1
SAMPLE SUMMARY
PHASE II ENVIRONMENTAL SITE INVESTIGATION
FORMER SUMMERFIELD PROPERTY
MT. MORRIS, MICHIGAN

<i>Sample Identification</i>	<i>Sample Location</i>	<i>Sample Interval (ft. bgs)</i>	<i>Sample Matrix</i>	<i>QA/QC</i>	<i>Analysis</i>
SD-990211-12626-SSH-201	SS1-99	0 - 1	Soil		Herbicides
SD-990211-12626-SSH-202	SS2-99	0 - 1	Soil		Herbicides
SD-990211-12626-SSH-203	SS3-99	0 - 1	Soil		Herbicides
SD-990211-12626-SSH-204	SS4-99	0 - 1	Soil		Herbicides
SD-990211-12626-SSH-205	SS5-99	0 - 1	Soil		Herbicides
SD-990211-12626-SSH-206	SD1-99	0 - 1	Sediment		TCL VOCs, TCL SVOCs, PCBs RCRA Metals, Herbicides
SD-990211-12626-SSH-207	SD1-99	0 - 1	Sediment	Duplicate	TCL VOCs, TCL SVOCs, PCBs RCRA Metals, Herbicides
W-990211-12626-SSH-208	SW1-99	NA	Water		TCL VOCs, TCL SVOCs, PCBs RCRA Metals, Herbicides
SD-990211-12626-SSH-209	SD2-99	0 - 1	Sediment		TCL VOCs, TCL SVOCs, PCBs RCRA Metals, Herbicides
W-990212-12626-SSH-210	TW3-99	NA	Water		TCL VOCs, TCL SVOCs, PCBs, RCRA Metals
W-990212-12626-SSH-211	TW2-99	NA	Water		TCL VOCs, TCL SVOCs, PCBs, RCRA Metals
W-990212-12626-SSH-212	TW2-99	NA	Water	Duplicate	TCL VOCs, TCL SVOCs, PCBs, RCRA Metals
S-990215-12626-SSH-213	TB1-99	0 - 1	Soil	MS/MSD	TCL VOCs, TCL SVOCs, PCBs, RCRA Metals
S-990215-12626-SSH-214	TW2-99	0 - 1	Soil		TCL VOCs, TCL SVOCs, PCBs, RCRA Metals
S-990215-12626-SSH-215	TW3-99	0 - 1	Soil		TCL VOCs, TCL SVOCs, PCBs, RCRA Metals
S-990215-12626-SSH-216	TB4-99	0 - 1	Soil		TCL VOCs, TCL SVOCs, PCBs, RCRA Metals

Notes:

Collected samples were packed in ice and shipped under chain-of-custody (COC) protocol to Encotec Laboratory in Ann Arbor, Michigan to be analyzed within a 14 day turn around time.

ft. bgs - feet below ground surface

TCL - Target Compound List

VOCs - Volatile Organic Compounds

SVOCs - Semi-volatile Organic Compounds

PCBs - Polychlorinated Biphenyls

RCRA - Resource Conservation and Recovery Act

RCRA Metals - Arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver.

TABLE 4.1

SUMMARY OF DETECTED PARAMETERS IN SOIL SAMPLES
PHASE II ENVIRONMENTAL SITE INVESTIGATION
FORMER SUMMERFIELD PROPERTY
MT. MORRIS, MICHIGAN

<i>Sample Location</i>	<i>Michigan</i>	<i>Michigan</i>	<i>Statewide</i>	<i>SS1-99</i>	<i>SS2-99</i>	<i>SS3-99</i>	<i>SS4-99</i>	<i>SS5-99</i>
<i>Sample ID (SD-990211-12626-)</i>	<i>Residential and</i>	<i>Residential and</i>	<i>Default</i>	<i>SSH-201</i>	<i>SSH-202</i>	<i>SSH-203</i>	<i>SSH-204</i>	<i>SSH-205</i>
<i>Depth (feet bgs)</i>	<i>Commercial I</i>	<i>Commercial I</i>	<i>Background</i>	<i>0 -1</i>	<i>0 -1</i>	<i>0 -1</i>	<i>0 -1</i>	<i>0 -1</i>
<i>Date Sampled</i>	<i>Drinking Water</i>	<i>Direct Contact</i>	<i>Levels (1)</i>	<i>2/11/99</i>	<i>2/11/99</i>	<i>2/11/99</i>	<i>2/11/99</i>	<i>2/11/99</i>
<i>Units</i>	<i>Protection Criteria (1)</i>	<i>Criteria (1)</i>		<i>mg/kg</i>	<i>mg/kg</i>	<i>mg/kg</i>	<i>mg/kg</i>	<i>mg/kg</i>
<i>Parameter (mg/kg)</i>								
<i>Inorganics</i>								
Arsenic	23	6.6	5.8	NA	NA	NA	NA	NA
Barium	1,300	30,000	75	NA	NA	NA	NA	NA
Cadmium	6.0	210	1.2	NA	NA	NA	NA	NA
Chromium	30 (2)	2,000 (2)	18 (3)	NA	NA	NA	NA	NA
Lead	1.0	400	21	NA	NA	NA	NA	NA
Mercury	1.7	130	0.13	NA	NA	NA	NA	NA
Selenium	4.0	2,100	0.41	NA	NA	NA	NA	NA
Silver	4.5	2,000	1.0	NA	NA	NA	NA	NA
<i>TCL SVOCs</i>								
N-Nitrosodiphenylamine	3.4	520	NC	NA	NA	NA	NA	NA
Pyrene	47,000	32,000	NC	NA	NA	NA	NA	NA

Notes:

- (1) - Michigan Department of Environmental Quality - Environmental Response Division, revised Part 201 Operational Memorandum #18, Cleanup Criteria Tables, Soil: Residential and Commercial I, Part 201 Generic Cleanup Criteria and Screening Levels, January 29, 1999.
- (2) - Chromium VI criteria utilized for comparison purposes.
- (3) - Value represents total chromium.
- NA - Sample not analyzed for indicated parameter.
- NC - No criteria available for this parameter.
- ND () - Parameter not detected above the reported detection limit in the parenthesis.
- Boxed analytical result indicates exceedance of one or more comparison criteria.

TABLE 4.1

SUMMARY OF DETECTED PARAMETERS IN SOIL SAMPLES
PHASE II ENVIRONMENTAL SITE ASSESSMENT
FORMER SUMMERFIELD PROPERTY
MT. MORRIS, MICHIGAN

Sample Location	Michigan	Michigan	Statewide	TB1-99	TW2-99	TW3-99	TB4-99
Sample ID (S-990215-12626-)	Residential and	Residential and	Default	SSH-213	SSH-214	SSH-215	SSH-216
Depth (feet bgs)	Commercial I	Commercial I	Background	0 - 1	0 - 1	0 - 1	0 - 1
Date Sampled	Drinking Water	Direct Contact	Levels (1)	2/15/99	2/15/99	2/15/99	2/15/99
Units	Protection Criteria (1)	Criteria (1)		mg/kg	mg/kg	mg/kg	mg/kg
<u>Parameter (mg/kg)</u>							
Arsenic	23	6.6	5.8	1.3	3.1	3.3	4.1
Barium	1,300	30,000	75	26	11	23	13
Cadmium	6.0	210	1.2	0.22	0.078	0.3	3.8
Chromium	30 (2)	2,000 (2)	18 (3)	2.9	3.0	5.2	25
Lead	1.0	400	21	20	4.0	11	160
Mercury	1.7	130	0.13	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Selenium	4.0	2,100	0.41	ND (0.3)	ND (0.22)	0.4	0.79
Silver	4.5	2,000	1.0	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
<u>TCL SVOCs</u>							
N-Nitrosodiphenylamine	3.4	520	NC	ND (0.33)	ND (0.33)	ND (0.33)	0.86
Pyrene	47,000	32,000	NC	ND (0.33)	ND (0.33)	ND (0.33)	0.43

Notes:

- (1) - Michigan Department of Environmental Quality - Environmental Response Division, revised Part 201 Operational Memorandum #18, Cleanup Criteria Tables, Soil: Residential and Commercial I, Part 201 Generic Cleanup Criteria and Screening Levels, January 29, 1999.
- (2) - Chromium VI criteria utilized for comparison purposes.
- (3) - Value represents total chromium.
- NA - Sample not analyzed for indicated parameter.
- NC - No criteria available for this parameter.
- ND () - Parameter not detected above the reported detection limit in the parenthesis.
- Boxed analytical result indicates exceedance of one or more comparison criteria.

TABLE 4.2

SUMMARY OF DETECTED PARAMETERS IN SEDIMENT SAMPLES
PHASE II ENVIRONMENTAL SITE INVESTIGATION
FORMER SUMMERFIELD PROPERTY
MT. MORRIS, MICHIGAN

<i>Sample Location</i>	<i>Ontario</i>	<i>SD1-99</i>	<i>SD1-99</i>	<i>SD2-99</i>
<i>Sample ID (SD-990211-12626-)</i>	<i>Sediment</i>	<i>SSH-206</i>	<i>SSH-207</i>	<i>SSH-208</i>
<i>Depth (feet bgs)</i>	<i>Quality</i>	<i>0 - 1</i>	<i>0 - 1</i>	<i>0 - 1</i>
<i>Date Sampled</i>	<i>Criteria (1)</i>	<i>2/11/99</i>	<i>2/11/99</i>	<i>2/11/99</i>
<i>Units</i>		<i>ug/kg</i>	<i>ug/kg</i>	<i>ug/kg</i>
			<i>Duplicate</i>	
<u><i>Parameter (ug/kg)</i></u>				
Arsenic	6,000	980	5,100	6,300
Barium	NV	16,000	50,000	89,000
Cadmium	600	140	660	510
Chromium	26,000	2,100	8,700	12,000
Lead	31,000	4,700	22,000	19,000
Mercury	200	ND (100)	ND (100)	ND (100)
Selenium	NV	ND (300)	630	360
Silver	500	650	ND (500)	ND (500)

Notes:

- (1) - Ministry of Environment and Energy "Guidelines for the Protection and Management of Aquatic Sediment Quality in Ontario," August 1993.
- NV - No value derived.
- ND () - Parameter not detected above the reported detection limit in the parenthesis.
- Boxed analytical result indicates exceedance of one or more comparison criteria.

TABLE 4.3

SUMMARY OF DETECTED PARAMETERS IN GROUNDWATER SAMPLES
 PHASE II ENVIRONMENTAL SITE INVESTIGATION
 FORMER SUMMERFIELD PROPERTY
 MT. MORRIS, MICHIGAN

<i>Sample Location</i>	<i>Michigan</i>	<i>Michigan</i>	<i>TW2-99</i>	<i>TW2-99</i>	<i>TW3-99</i>
<i>Sample ID</i>	<i>Groundwater</i>	<i>Residential and</i>	<i>W-990212-12626-SSH-211</i>	<i>W-990212-12626-SSH-212</i>	<i>W-990212-12626-SSH-210</i>
<i>Depth (feet bgs)</i>	<i>Direct</i>	<i>Commercial I</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>
<i>Date Sampled</i>	<i>Contact</i>	<i>Drinking Water</i>	<i>2/12/99</i>	<i>2/12/99</i>	<i>2/12/99</i>
<i>Units</i>	<i>Criteria (1)</i>	<i>Criteria (1)</i>	<i>ug/L</i>	<i>ug/L</i>	<i>ug/L</i>
				<i>Duplicate</i>	
<u><i>Parameter (ug/L)</i></u>					
Arsenic	4,700	50	ND (1.0)	ND (1.0)	42
Barium	15,000,000	2,000	ND (200)	ND (200)	1,100
Cadmium	210,000	5.0	ND (0.20)	ND (0.20)	4.5
Chromium	1,000,000	100	ND (5.0)	ND (5.0)	36
Lead	ID	4.0	ND (3.0)	ND (3.0)	440
Mercury	56	2.0	ND (0.20)	ND (0.20)	3.0
Selenium	1,100,000	50	ND (5.0)	ND (5.0)	ND (5.0)
Silver	1,000,000	34	ND (0.50)	ND (0.50)	ND (0.50)

Notes:

(1) - Michigan Department of Environmental Quality, Environmental Response Division, Revised Part 201 Operational Memorandum #18, Cleanup Criteria Tables, Groundwater: Residential and Industrial-Commercial, Part 201 Generic Cleanup Criteria and Screening Levels, January 29, 1999.

NA - Not applicable.

ID - Insufficient data to develop criteria.

Boxed analytical result indicates exceedance of one or more criteria.

TABLE 4.4

SUMMARY OF DETECTED PARAMETERS IN THE SURFACE WATER SAMPLE
 PHASE II ENVIRONMENTAL SITE INVESTIGATION
 FORMER SUMMERFIELD PROPERTY
 MT. MORRIS, MICHIGAN

<i>Sample Location</i>	<i>U.S. EPA</i>	<i>SW1-99</i>
<i>Sample ID</i>	<i>Drinking Water</i>	<i>W-990211-12626-SSH-208</i>
<i>Depth (feet bgs)</i>	<i>Maximum</i>	<i>NA</i>
<i>Date Sampled</i>	<i>Contaminant</i>	<i>2/11/99</i>
<i>Units</i>	<i>Levels (1)</i>	<i>ug/L</i>
<u><i>Parameter (ug/L)</i></u>		
Arsenic	50	1.6
Barium	2,000	ND (200)
Cadmium	5.0	ND (0.20)
Chromium	100	ND (5.0)
Lead	15 (2)	ND (3.0)
Mercury	2.0	0.47
Selenium	50	ND (5.0)
Silver	100 (3)	ND (0.50)

Notes:

- (1) - United States Environmental Protection Agency, Office of Water, Drinking Water Regulations and Health Advisories, Maximum Contaminant Levels, October 1996 and revisions.
Michigan Safe Drinking Water Act MCLs consistent with U.S. EPA standards and criteria.
- (2) - Action level utilized for comparison purposes.
- (3) - Secondary maximum contaminant level utilized for comparison purposes.
- NA - Not applicable.
- ID - Insufficient data to develop criteria.
- Boxed analytical result indicates exceedance of one or more criteria.

APPENDIX A

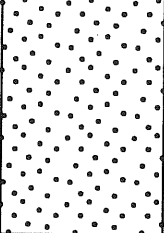
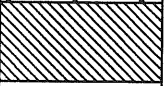
STRATIGRAPHIC AND MONITORING WELL
CONSTRUCTION LOGS

TEST PIT STRATIGRAPHIC LOG

(DL-01)
Page 1 of 1

PROJECT NAME: FORMER SUMMERFIELD PROPERTY
 PROJECT NUMBER: 12626
 CLIENT: GENERAL MOTORS CORPORATION
 LOCATION: MOUNT MORRIS, MICHIGAN

TEST PIT DESIGNATION: TP-1
 DATE COMPLETED: FEBRUARY 11, 1999
 TEST PIT METHOD: BACKHOE
 CRA SUPERVISOR: S. HOEVEMEYER

DEPTH ft. BGS	SAMPLE DESCRIPTION	ELEV. ft.	GRAPHIC LOG	SAMPLE			ANALYSIS	
				NUMBER	SAMPLE INTERVAL	PID (ppm)	GRAIN SIZE	CHEMICAL
	GROUND SURFACE	0.00						
-2.5	- concrete debris, sparse grass cover sand, tan to brown, dry to moist, loose, trace gravel				0.0 - 8.0	0.0		
-5.0								
-7.5	clay, fairly hard, brownish grey, dry to moist, trace sand and gravel	-6.0						
	BOTTOM OF TEST PIT @ 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								

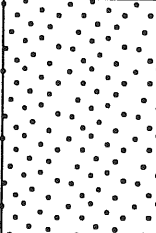
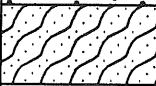
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ▼

TEST PIT STRATIGRAPHIC LOG

(DL-02)
Page 1 of 1

PROJECT NAME: FORMER SUMMERFIELD PROPERTY
 PROJECT NUMBER: 12626
 CLIENT: GENERAL MOTORS CORPORATION
 LOCATION: MOUNT MORRIS, MICHIGAN

TEST PIT DESIGNATION: TP-2
 DATE COMPLETED: FEBRUARY 11, 1999
 TEST PIT METHOD: BACKHOE
 CRA SUPERVISOR: S. HOEVEMEYER

DEPTH ft. BGS	SAMPLE DESCRIPTION	ELEV. ft.	GRAPHIC LOG	SAMPLE			ANALYSIS	
				NUMBER	SAMPLE INTERVAL	PID (ppm)	GRAIN SIZE	CHEMICAL
	GROUND SURFACE	0.00						
-2.5	- wooden floor blocks, sand sand, tan, loose, dry to moist, trace gravel				0.0 - 8.0	0.0		
-5.0								
-7.5	sandy clay, grey, moist to wet, soft, trace gravel	-8.0						
-10.0	BOTTOM OF TEST PIT @ 8.0ft BGS	-8.0						
-12.5								
-15.0								
-17.5								
-20.0								
-22.5								
-25.0								
-27.5								
-30.0								
-32.5								

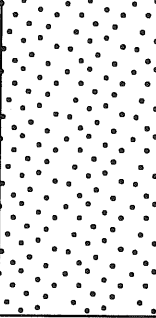
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ∇

TEST PIT STRATIGRAPHIC LOG

(DL-03)
Page 1 of 1

PROJECT NAME: FORMER SUMMERFIELD PROPERTY
 PROJECT NUMBER: 12626
 CLIENT: GENERAL MOTORS CORPORATION
 LOCATION: MOUNT MORRIS, MICHIGAN

TEST PIT DESIGNATION: TP-3
 DATE COMPLETED: FEBRUARY 11, 1999
 TEST PIT METHOD: BACKHOE
 CRA SUPERVISOR: S. HOEVEMEYER

DEPTH ft. BGS	SAMPLE DESCRIPTION	ELEV. ft.	GRAPHIC LOG	SAMPLE			ANALYSIS	
				NUMBER	SAMPLE INTERVAL	PID (ppm)	GRAIN SIZE	CHEMICAL
	GROUND SURFACE	0.00						
-2.5	- grass covered, dead wood sand, tan, loose, moist, trace gravel	-1.5			0.0 - 8.0	0.0		
-5.0	sand, tan to brownish grey, loose, moist to wet, trace gravel							
-7.5	- clay, soft, grey, wet, little sand, trace gravel BOTTOM OF TEST PIT @ 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								

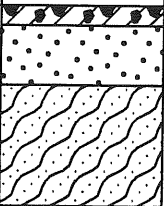
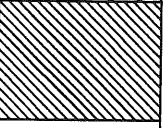
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ▼

TEST PIT STRATIGRAPHIC LOG

(DL-04)
Page 1 of 1

PROJECT NAME: FORMER SUMMERFIELD PROPERTY
 PROJECT NUMBER: 12626
 CLIENT: GENERAL MOTORS CORPORATION
 LOCATION: MOUNT MORRIS, MICHIGAN

TEST PIT DESIGNATION: TP-4
 DATE COMPLETED: FEBRUARY 11, 1999
 TEST PIT METHOD: BACKHOE
 CRA SUPERVISOR: S. HOEVEMEYER

DEPTH ft. BGS	SAMPLE DESCRIPTION	ELEV. ft.	GRAPHIC LOG	SAMPLE			ANALYSIS	
				NUMBER	SAMPLE INTERVAL	PID (ppm)	GRAIN SIZE	CHEMICAL
	GROUND SURFACE	0.00						
-2.5	black burnt ashes, rubber, concrete sand, brownish tan, loose, dry to moist, trace gravel sandy clay, tan, moist, firm, trace gravel	-0.5 -2.0			0.0 - 8.0	0.0		
-5.0	clay, hard, tan to grey, moist, trace gravel and sand	-5.0						
-7.5	BOTTOM OF TEST PIT @ 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 ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

(DL-05)
Page 1 of 1

PROJECT NAME: FORMER SUMMERFIELD PROPERTY
 PROJECT NUMBER: 12626
 CLIENT: GENERAL MOTORS CORPORATION
 LOCATION: MOUNT MORRIS, MICHIGAN

HOLE DESIGNATION: TB-1
 DATE COMPLETED: FEBRUARY 12, 1999
 DRILLING METHOD: 3 1/2" HSA
 CRA SUPERVISOR: S. HOEVEMEYER

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft.	MONITOR INSTALLATION	SAMPLE				
				NUMBER	STATE	'N' VALUE	PID (ppm)	
	GROUND SURFACE	0.00						
-2.5	-concrete debris, sparse grass cover SAND, tan to brown, dry to moist, loose, trace gravel							
-5.0								
-7.5	CLAY, fairly hard, brownish grey, dry to moist, trace sand and gravel	-6.0						
-10.0	SILTY CLAY, grey, trace sand, little gravel, moist	-8.0		7"Ø BOREHOLE	1SS	X	28	0.0
-15.0				BENTONITE CHIPS	2SS	X	9	0.0
-20.0	VERY SILTY CLAY, grey, trace sand and gravel, moist	-18.0			3SS	X	10	0.0
-20.0	END OF HOLE @ 20.0ft BGS	-20.0						
-22.5								
-25.0								
-27.5								
-30.0								
-32.5								

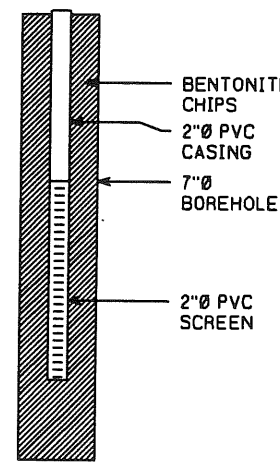
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ▼ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

(DL-06)
Page 1 of 1

PROJECT NAME: FORMER SUMMERFIELD PROPERTY
 PROJECT NUMBER: 12626
 CLIENT: GENERAL MOTORS CORPORATION
 LOCATION: MOUNT MORRIS, MICHIGAN

HOLE DESIGNATION: SB-2/TW-2
 DATE COMPLETED: FEBRUARY 12, 1999
 DRILLING METHOD: 3½" HSA
 CRA SUPERVISOR: S. HOEVEMEYER

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft.	MONITOR INSTALLATION	SAMPLE				
				NUMBER	STATE	'N' VALUE	PID (ppm)	
	GROUND SURFACE	0.00						
	- wooden floor blocks, sand SAND, tan, loose, dry to moist, trace gravel		 <p style="font-size: small;">BENTONITE CHIPS 2"Ø PVC CASING 7"Ø BOREHOLE 2"Ø PVC SCREEN</p> <p>SCREEN DETAILS Screened interval: 5.0 to 10.0ft BGS Length: 5.0ft Diameter: 2" Slot Size: #10 Material: PVC</p>					
-2.5								
-5.0								
-7.5	SANDY CLAY, grey, moist to wet, soft, trace gravel	-6.0						
	SAND, grey to tan, wet, trace silt and gravel	-8.0						
-10.0	SAND, grey, wet, trace silt and gravel	-9.0			ISS	X	10	0.0
	SILTY SANDY CLAY, grey, wet	-11.0						
-12.5	END OF HOLE @ 12.0ft BGS	-12.0			2SS	X	8	0.0
-15.0								
-17.5								
-20.0								
-22.5								
-25.0								
-27.5								
-30.0								
-32.5								

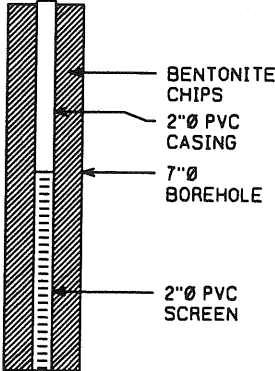
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ▼ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

(DL-07)
Page 1 of 1

PROJECT NAME: FORMER SUMMERFIELD PROPERTY
 PROJECT NUMBER: 12626
 CLIENT: GENERAL MOTORS CORPORATION
 LOCATION: MOUNT MORRIS, MICHIGAN

HOLE DESIGNATION: SB-3/TW-3
 DATE COMPLETED: FEBRUARY 11, 1999
 DRILLING METHOD: 3½" HSA
 CRA SUPERVISOR: S. HOEVEMEYER

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft.	MONITOR INSTALLATION	SAMPLE				
				NUMBER	STATE	'N' VALUE	PID (ppm)	
	GROUND SURFACE	0.00						
	- grass covered, dead wood							
	SAND, tan, loose, moist, trace gravel	-1.5	 <p style="font-size: small;">BENTONITE CHIPS 2"Ø PVC CASING 7"Ø BOREHOLE 2"Ø PVC SCREEN</p> <p>SCREEN DETAILS Screened interval: 5.0 to 10.0ft BGS Length: 5.0ft Diameter: 2" Slot Size: #10 Material: PVC</p>					
-2.5	SAND, tan to brownish grey, loose, moist to wet, trace gravel							
-5.0				ISS	X	6	0.0	
-7.5								
-8.0	CLAY, soft, grey, wet, little sand, trace gravel							
-10.0	END OF HOLE @ 10.0ft BGS	-10.0		2SS	X	10	0.0	
-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)

(DL-08)
Page 1 of 1

PROJECT NAME: FORMER SUMMERFIELD PROPERTY
 PROJECT NUMBER: 12626
 CLIENT: GENERAL MOTORS CORPORATION
 LOCATION: MOUNT MORRIS, MICHIGAN

HOLE DESIGNATION: TB-4
 DATE COMPLETED: FEBRUARY 12, 1999
 DRILLING METHOD: 3 1/2" HSA
 CRA SUPERVISOR: S. HOEVEMEYER

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft.	MONITOR INSTALLATION	SAMPLE			
				NUMBER	STATE	'N' VALUE	PID (ppm)
	GROUND SURFACE	0.00					
	-black, burnt ashes, rubber, concrete	-.5					
	SAND, brownish tan, loose, dry to moist, trace gravel	-2.0					
-2.5	SANDY CLAY, tan, moist, firm, trace gravel						
-5.0	CLAY, hard, tan to grey, moist, trace gravel and sand	-5.0					
-7.5							
	CLAY, grey, little gravel, trace silt and sand, medium hard, moist	-8.0					
-10.0				1SS	X	13	0.0
-12.5				2SS	X	9	0.0
-15.0				3SS	X	9	0.0
-17.5							
-20.0			4SS	X	7	0.0	
	END OF HOLE @ 20.0ft BGS	-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 ▼

APPENDIX B

LABORATORY ANALYTICAL DATA



March 2, 1999

REC'D
#12626
SDG #1

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

RE: Analytical Results /GM Mt. Morris
12626

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 Safety-Kleen (ENCOTEC), Inc. on the 12th of February 1999.

Enclosed is a copy of the "Invoice Detail" for your review. The actual invoice will be sent to you under separate cover from our accounting department at our Corporate office.

If you have any questions or need additional assistance please contact me directly.

Sincerely,
Safety-Kleen (ENCOTEC), Inc.

J. Shawn Letwin
J. Shawn Letwin
Project Manager

Enclosure

SDG CRA-GMM-99B1
Batch # 16156
#33000

#12626 #CRA-GMM-99B1
Site: Mt. Morris Dump
Project:
Samples: 8-Soil ; 2-Water
Analytes: VOC's, SVOC's, PCBs, Metals,
Herbs
Holding: 14 days (Met)
Lab: Encotec
Requested Against: 1/1/1999
Date: 3/5/99
Time of Report: 4/1/99
Time of Receipt: 4/1/99

DATA PACKAGE COVER PAGE

This report contains 79 pages, excluding the cover letter and is only for the submitted samples.

If any pages are missing please contact Safety-Kleen (ENCOTEC), Inc. immediately.

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

This document cannot be reproduced, except in full, without the prior written consent of Safety-Kleen (ENCOTEC), Inc..

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

- | | |
|---|--|
| <p>U = The analyte was not detected at or above the quantitation limit.</p> <p>E = The analyte was detected at a concentration greater than the calibration range; therefore the result is estimated.</p> <p>DL = The sample was diluted due to sample matrix, therefore QC was not recoverable.</p> <p>• = The value is outside quality control limits.</p> <p>K = Reported concentration is proportional to dilution factor and may be exaggerated.</p> <p>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.</p> <p>G = Result is greater than the numerical value presented.</p> | <p>J = The analyte was detected at a concentration below the quantitation limit but above the method detection limit.</p> <p>B = The analyte was detected in the associated method blank.</p> <p>M = Matrix interference has resulted in an elevated quantitation limit or distorted QC result.</p> <p>NC = Not Calculable.</p> <p>NA = Not Applicable.</p> <p>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.</p> <p>CA = Combustion aid was necessary to achieve results.</p> <p>W = Result is always reported as "wet weight."</p> |
|---|--|

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 The date on which a sample was analyzed a second time, at a dilution different than that on Date 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: 12626
 Project Number: 33000
 Sample Delivery Group: CRA-GMM-99B1
 Batch Number(s): 100016156
 Narrative Date: March 1, 1999

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.

Surrogate Spike Recovery Outliers

QC Set ID	Analysis	Corrective Action/Result
BNAB1814S	Semivolatiles	EPA data validation guidelines allow either one acid and/or base neutral surrogate to recover outside QC windows.
PCBA2803W	PCB's	Surrogate outlier in method blank. Since no target analytes were detected in the associated sample(s), corrective action was deemed unnecessary.

LCS Recovery Outliers

QC Set ID	Analysis	Corrective Action/Result
BNAB1207W BNAB1814S	Semivolatiles	Since $\geq 80\%$ of the LCS recoveries were within QC windows, corrective action was deemed unnecessary.

MS Recovery Outliers

QC Set ID	Analysis	Corrective Action/Result
IMSB1602 ICPB1302	Arsenic, Selenium, Silver Barium	Since $\geq 80\%$ 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.
IMSB1602	Chromium	Since $\geq 80\%$ 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.

MS/MSD Recovery Outliers

QC Set ID	Analysis	Corrective Action/Result
BNAB1207W	Semivolatiles	Since $\geq 80\%$ of the fortified analytes in the LCS recovered within QC windows, acceptable accuracy was demonstrated and matrix interference is assumed. Corrective action was deemed unnecessary.


Matrix Duplicate RPD Outliers

QC Set ID	Analysis	Corrective Action/Result
ICPB1302	Barium	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
BNAB1207W	Semivolatiles	Since $\geq 80\%$ of the RPDs were within QC windows, acceptable precision was demonstrated and 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 has been narrated herein.



Walt Roudebush (or designee)
Technical Director

3/1/99
Date

METHOD DESCRIPTION REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

SDG: CRA-GMM-99B1

Submission ID(s): 100016156

<u>Method Reference</u>	<u>Description</u>
160.3	Residue, Total, Gravimetric, Dried at 103-105o C
6020	Inductively Coupled Plasma - Mass Spectrometry
6010	Inductively Coupled Plasma - Atomic Emission Spectroscopy
7471	Mercury, Cold Vapor, Non-Aqueous Matrices
7470	Mercury, Cold Vapor, Aqueous Matrix
8151	Chlorinated Herbicides by GC: Capillary Column
8082	Polychlorinated Biphenyls by Gas Chromatography
8260B/5035	Volatile Organic Compounds by GC/MS: Capillary Column
8260B	Volatiles Organic Compounds by GC/MS: Capillary Column
8270	Semivolatile Organic Compounds by GC/MS: Capillary Column

Safety-Kleen (ENCOTEC), Inc.

3985 Research Park Drive - Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

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SAMPLE CROSS REFERENCE REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

SDG: CRA-GMM-99B1

Submission ID(s): 100016156

<u>Client Sample ID</u>	<u>ENCOTEC Sample ID</u>	<u>Sample Matrix</u>	<u>Date Sampled</u>	<u>Date Received</u>
SD-990211-12626-SSH-201	200117921	SOIL	02/11/99	02/12/99
SD-990211-12626-SSH-202	200117922	SOIL	02/11/99	02/12/99
SD-990211-12626-SSH-203	200117923	SOIL	02/11/99	02/12/99
SD-990211-12626-SSH-204	200117924	SOIL	02/11/99	02/12/99
SD-990211-12626-SSH-205	200117925	SOIL	02/11/99	02/12/99
SD-990211-12626-SSH-206	200117926	SOIL	02/11/99	02/12/99
SD-990211-12626-SSH-207	200117927	SOIL	02/11/99	02/12/99
W-990211-12626-SSH-208	200117928	WATER	02/11/99	02/12/99
SD-990211-12626-SSH-209	200117929	SOIL	02/11/99	02/12/99
TRIP BLANK	200117930	TRIP BLANK	02/11/99	02/12/99

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Sample Data

ANALYTICAL REPORT

Client: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 12626
Sample ID: SD-990211-12626-SSH-206

Date Sampled	02/11/99	ENCOTEC Project ID:	33000
Date Received:	02/12/99	ENCOTEC SDG ID:	CRA-GMM-99B1
Date Extracted:	N/A	ENCOTEC QC Set ID:	See below
Date Analyzed:	See below	ENCOTEC Submission ID:	100016156
Method Reference:	See below	ENCOTEC Sample ID:	200117926
Matrix:	SOIL	Analyte List:	N/A
Percent Total Solids:	68.6	Calculation Basis:	Dry Weight

	Metals Inorganics	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Flag
1	Arsenic	IMSB1602	02/17/99	6020	ug/Kg	300	5	980	
2	Barium	ICPB1302	02/16/99	6010	ug/Kg	1000	1	16000	
3	Cadmium	IMSB1602	02/17/99	6020	ug/Kg	60	5	140	
4	Chromium	IMSB1602	02/17/99	6020	ug/Kg	500	5	2100	
5	Lead	IMSB1602	02/17/99	6020	ug/Kg	1000	5	4700	
6	Mercury	CVAB1801	02/20/99	7471	ug/Kg	100	1	U	
7	Selenium	IMSB1602	02/17/99	6020	ug/Kg	300	5	U	M
8	Silver	IMSB1602	02/17/99	6020	ug/Kg	500	5	650	

Safety-Kleen (ENCOTEC), Inc.
 3985 Research Park Drive ■ Ann Arbor, MI 48108
 Telephone: (734) 761-1389 - Telefax: (734) 761-1034

Report Date: 02/22/99

ANALYTICAL REPORT

Client: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 12626
Sample ID: SD-990211-12626-SSH-207

Date Sampled	02/11/99	ENCOTEC Project ID:	3300
Date Received:	02/12/99	ENCOTEC SDG ID:	CRA-GMM-99B1
Date Extracted:	N/A	ENCOTEC QC Set ID:	See below
Date Analyzed:	See below	ENCOTEC Submission ID:	10001615
Method Reference:	See below	ENCOTEC Sample ID:	20011792 /
Matrix:	SOIL	Analyte List:	N/A
Percent Total Solids:	46.1	Calculation Basis:	Dry Weigh

	Metals Inorganics	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Fl. j
1	Arsenic	IMSB1602	02/17/99	6020	ug/Kg	440	5	5100	
2	Barium	ICPB1302	02/16/99	6010	ug/Kg	1000	1	50000	
3	Cadmium	IMSB1602	02/17/99	6020	ug/Kg	89	5	660	
4	Chromium	IMSB1602	02/17/99	6020	ug/Kg	500	5	8700	
5	Lead	IMSB1602	02/17/99	6020	ug/Kg	1000	5	22000	
6	Mercury	CVAB1801	02/20/99	7471	ug/Kg	100	1	U	
7	Selenium	IMSB1602	02/17/99	6020	ug/Kg	440	5	630	
8	Silver	IMSB1602	02/17/99	6020	ug/Kg	500	5	U	

ANALYTICAL REPORT

Client: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 12626
Sample ID: W-990211-12626-SSH-208

Date Sampled	02/11/99	ENCOTEC Project ID:	33000
Date Received:	02/12/99	ENCOTEC SDG ID:	CRA-GMM-99B1
Date Extracted:	N/A	ENCOTEC QC Set ID:	See below
Date Analyzed:	See below	ENCOTEC Submission ID:	100016156
Method Reference:	See below	ENCOTEC Sample ID:	200117928
Matrix:	WATER	Analyte List:	N/A
Percent Total Solids:	N/A	Calculation Basis:	N/A

	Metals Inorganics	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Flag
1	Arsenic	IMSB1601	02/17/99	6020	ug/L	1.0	1	1.6	
2	Barium	ICPB1603	02/16/99	6010	ug/L	200	1	U	
3	Cadmium	IMSB1601	02/17/99	6020	ug/L	0.20	1	U	
4	Chromium	IMSB1601	02/18/99	6020	ug/L	5.0	1	U	
5	Lead	IMSB1601	02/17/99	6020	ug/L	3.0	1	U	
6	Mercury	CVAB1701	02/17/99	7470	ug/L	0.20	1	0.47	
7	Selenium	IMSB1601	02/17/99	6020	ug/L	5.0	1	U	
8	Silver	IMSB1601	02/18/99	6020	ug/L	0.50	1	U	

ANALYTICAL REPORT

Client: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: SD-990211-12626-SSH-209

Date Sampled	02/11/99	ENCOTEC Project ID:	3300
Date Received:	02/12/99	ENCOTEC SDG ID:	CRA-GMM-99B1
Date Extracted:	N/A	ENCOTEC QC Set ID:	See below
Date Analyzed:	See below	ENCOTEC Submission ID:	10001615
Method Reference:	See below	ENCOTEC Sample ID:	200117929
Matrix:	SOIL	Analyte List:	N/A
Percent Total Solids:	55.0	Calculation Basis:	Dry Weigh

	Metals Inorganics	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Fl
1	Arsenic	IMSB1602	02/17/99	6020	ug/Kg	350	5	6300	
2	Barium	ICPB1302	02/16/99	6010	ug/Kg	1000	1	89000	
3	Cadmium	IMSB1602	02/17/99	6020	ug/Kg	70	5	510	
4	Chromium	IMSB1602	02/17/99	6020	ug/Kg	500	5	12000	
5	Lead	IMSB1602	02/17/99	6020	ug/Kg	1000	5	19000	
6	Mercury	CVAB1801	02/20/99	7471	ug/Kg	100	1	U	
7	Selenium	IMSB1602	02/17/99	6020	ug/Kg	350	5	360	
8	Silver	IMSB1602	02/17/99	6020	ug/Kg	500	5	U	

Safety-Kleen (ENCOTEC), Inc.
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 Telephone: (734) 761-1389 - Telefax: (734) 761-1034

Report Date: 02/22/99

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 12626
Sample ID: SD-990211-12626-SSH-201

Date Sampled:	02/11/99	ENCOTEC Project ID:	33000
Date Received:	02/12/99	ENCOTEC SDG ID:	CRA-GMM-99B1
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	HRBB0802S
Analysis Date:	02/22/99	ENCOTEC Submission ID:	100016156
Second Analysis Date:	02/25/99	ENCOTEC Sample ID:	200117921
Method Reference:	8151	Percent Total Solids:	63.7
Matrix:	SOIL	Calculation Basis:	Dry Weight

#	Herbicides List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Dalapon	75-99-0	310	1	U	
2	Dicamba	1918-00-9	78	1	U	
3	2,4-Dichlorophenoxy acetic acid	94-75-7	200	1	U	
4	Picloram	1918-02-1	310	1	U	
5	2,4,5-T	93-76-5	63	1	U	
6	2,4,5-TP (Silvex)	93-72-1	50	1	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: SD-990211-12626-SSH-202

Date Sampled:	02/11/99	ENCOTEC Project ID:	33000
Date Received:	02/12/99	ENCOTEC SDG ID:	CRA-GMM-99B1
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	HRBB08027
Analysis Date:	02/22/99	ENCOTEC Submission ID:	100016150
Second Analysis Date:	02/25/99	ENCOTEC Sample ID:	200117922
Method Reference:	8151	Percent Total Solids:	87.2
Matrix:	SOIL	Calculation Basis:	Dry Weight

#	Herbicides List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flg
1	Dalapon	75-99-0	230	1	U	
2	Dicamba	1918-00-9	57	1	U	
3	2,4-Dichlorophenoxy acetic acid	94-75-7	200	1	U	
4	Picloram	1918-02-1	230	1	U	
5	2,4,5-T	93-76-5	50	1	U	
6	2,4,5-TP (Silvex)	93-72-1	50	1	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: SD-990211-12626-SSH-203

Date Sampled:	02/11/99	ENCOTEC Project ID:	33000
Date Received:	02/12/99	ENCOTEC SDG ID:	CRA-GMM-99B1
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	HRBB0802S
Analysis Date:	02/22/99	ENCOTEC Submission ID:	100016156
Second Analysis Date:	02/25/99	ENCOTEC Sample ID:	200117923
Method Reference:	8151	Percent Total Solids:	83.1
Matrix:	SOIL	Calculation Basis:	Dry Weight

	Herbicides List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Dalapon	75-99-0	240	1	U	
2	Dicamba	1918-00-9	60	1	U	
3	2,4-Dichlorophenoxy acetic acid	94-75-7	200	1	U	
4	Picloram	1918-02-1	240	1	U	
5	2,4,5-T	93-76-5	50	1	U	
6	2,4,5-TP (Silvex)	93-72-1	50	1	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: SD-990211-12626-SSH-204

Date Sampled:	02/11/99	ENCOTEC Project ID:	33000
Date Received:	02/12/99	ENCOTEC SDG ID:	CRA-GMM-99B1
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	HRBB08027
Analysis Date:	02/22/99	ENCOTEC Submission ID:	100016150
Second Analysis Date:	02/25/99	ENCOTEC Sample ID:	200117924
Method Reference:	8151	Percent Total Solids:	76.4
Matrix:	SOIL	Calculation Basis:	Dry Weight

	Herbicides List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Fl g
1	Dalapon	75-99-0	260	1	U	
2	Dicamba	1918-00-9	65	1	U	
3	2,4-Dichlorophenoxy acetic acid	94-75-7	200	1	U	
4	Picloram	1918-02-1	260	1	U	
5	2,4,5-T	93-76-5	52	1	U	
6	2,4,5-TP (Silvex)	93-72-1	50	1	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 12626
Sample ID: SD-990211-12626-SSH-205

Date Sampled:	02/11/99	ENCOTEC Project ID:	33000
Date Received:	02/12/99	ENCOTEC SDG ID:	CRA-GMM-99B1
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	HRBB0802S
Analysis Date:	02/22/99	ENCOTEC Submission ID:	100016156
Second Analysis Date:	02/25/99	ENCOTEC Sample ID:	200117925
Method Reference:	8151	Percent Total Solids:	88.2
Matrix:	SOIL	Calculation Basis:	Dry Weight

#	Herbicides List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Dalapon	75-99-0	450	2	U	M
2	Dicamba	1918-00-9	110	2	U	M
3	2,4-Dichlorophenoxy acetic acid	94-75-7	230	2	U	M
4	Picloram	1918-02-1	450	2	U	M
5	2,4,5-T	93-76-5	91	2	U	M
6	2,4,5-TP (Silvex)	93-72-1	50	2	U	M

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 12626
Sample ID: SD-990211-12626-SSH-206

Date Sampled:	02/11/99	ENCOTEC Project ID:	33000
Date Received:	02/12/99	ENCOTEC SDG ID:	CRA-GMM-99B1
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	HRBB08020
Analysis Date:	02/22/99	ENCOTEC Submission ID:	100016150
Second Analysis Date:	02/25/99	ENCOTEC Sample ID:	200117926
Method Reference:	8151	Percent Total Solids:	68.6
Matrix:	SOIL	Calculation Basis:	Dry Weight

#	Herbicides List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Fl g
1	Dalapon	75-99-0	290	1	U	
2	Dicamba	1918-00-9	73	1	U	
3	2,4-Dichlorophenoxy acetic acid	94-75-7	200	1	U	
4	Picloram	1918-02-1	290	1	U	
5	2,4,5-T	93-76-5	58	1	U	
6	2,4,5-TP (Silvex)	93-72-1	50	1	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: SD-990211-12626-SSH-207

Date Sampled:	02/11/99	ENCOTEC Project ID:	33000
Date Received:	02/12/99	ENCOTEC SDG ID:	CRA-GMM-99B1
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	HRBB0802S
Analysis Date:	02/22/99	ENCOTEC Submission ID:	100016156
Second Analysis Date:	02/25/99	ENCOTEC Sample ID:	200117927
Method Reference:	8151	Percent Total Solids:	46.1
Matrix:	SOIL	Calculation Basis:	Dry Weight

	Herbicides List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Dalapon	75-99-0	430	1	U	
2	Dicamba	1918-00-9	110	1	U	
3	2,4-Dichlorophenoxy acetic acid	94-75-7	220	1	U	
4	Picloram	1918-02-1	430	1	U	
5	2,4,5-T	93-76-5	87	1	U	
6	2,4,5-TP (Silvex)	93-72-1	50	1	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: W-990211-12626-SSH-208

Date Sampled:	02/11/99	ENCOTEC Project ID:	33000
Date Received:	02/12/99	ENCOTEC SDG ID:	CRA-GMM-99B1
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	HRBB1605P
Analysis Date:	02/22/99	ENCOTEC Submission ID:	100016150
Second Analysis Date:	02/25/99	ENCOTEC Sample ID:	200117926
Method Reference:	8151	Percent Total Solids:	N/A
Matrix:	WATER	Calculation Basis:	N/A

#	Herbicides List	CAS #	Quant Limit (ug/L)	Dil	Conc (ug/L)	Fl g
1	Dalapon	75-99-0	10	1	U	
2	Dicamba	1918-00-9	1.0	1	U	
3	2,4-Dichlorophenoxy acetic acid	94-75-7	10	1	U	
4	Picloram	1918-02-1	10	1	U	
5	2,4,5-T	93-76-5	1.0	1	U	
6	2,4,5-TP (Silvex)	93-72-1	1.0	1	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: SD-990211-12626-SSH-209

Date Sampled:	02/11/99	ENCOTEC Project ID:	33000
Date Received:	02/12/99	ENCOTEC SDG ID:	CRA-GMM-99B1
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	HRBB0802S
Analysis Date:	02/22/99	ENCOTEC Submission ID:	100016156
Second Analysis Date:	02/25/99	ENCOTEC Sample ID:	200117929
Method Reference:	8151	Percent Total Solids:	55.0
Matrix:	SOIL	Calculation Basis:	Dry Weight

	Herbicides List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Dalapon	75-99-0	360	1	U	
2	Dicamba	1918-00-9	91	1	U	
3	2,4-Dichlorophenoxy acetic acid	94-75-7	200	1	U	
4	Picloram	1918-02-1	360	1	U	
5	2,4,5-T	93-76-5	73	1	U	
6	2,4,5-TP (Silvex)	93-72-1	50	1	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: SD-990211-12626-SSH-206

Date Sampled:	02/11/99	ENCOTEC Project ID:	3300
Date Received:	02/12/99	ENCOTEC SDG ID:	CRA-GMM-99B1
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	PCBB1802
Analysis Date:	02/20/99	ENCOTEC Submission ID:	10001615
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200117926
Method Reference:	8082	Percent Total Solids:	68.6
Matrix:	SOIL	Calculation Basis:	Dry Weight

	PCB MDEQ Part 201 List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Fig
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: 12626

Sample ID: SD-990211-12626-SSH-207

Date Sampled:	02/11/99	ENCOTEC Project ID:	33000
Date Received:	02/12/99	ENCOTEC SDG ID:	CRA-GMM-99B1
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	PCBB1802S
Analysis Date:	02/20/99	ENCOTEC Submission ID:	100016156
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200117927
Method Reference:	8082	Percent Total Solids:	46.1
Matrix:	SOIL	Calculation Basis:	Dry Weight

	PCB MDEQ Part 201 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: 12626

Sample ID: W-990211-12626-SSH-208

Date Sampled:	02/11/99	ENCOTEC Project ID:	3300
Date Received:	02/12/99	ENCOTEC SDG ID:	CRA-GMM-99B1
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	PCBA2803
Analysis Date:	02/20/99	ENCOTEC Submission ID:	10001615
Second Analysis Date:	N/A	ENCOTEC Sample ID:	20011792
Method Reference:	8082	Percent Total Solids:	N/A
Matrix:	WATER	Calculation Basis:	N/

	PCB MDEQ Part 201 List	CAS #	Quant Limit (ug/L)	Dil	Conc (ug/L)	F g
1	PCB-1016	12674-11-2	0.20	1	U	
2	PCB-1221	11104-28-2	0.20	1	U	
3	PCB-1232	11141-16-5	0.40	1	U	
4	PCB-1242	53469-21-9	0.20	1	U	
5	PCB-1248	12672-29-6	0.20	1	U	
6	PCB-1254	11097-69-1	0.20	1	U	
7	PCB-1260	11096-82-5	0.20	1	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: SD-990211-12626-SSH-209

Date Sampled:	02/11/99	ENCOTEC Project ID:	33000
Date Received:	02/12/99	ENCOTEC SDG ID:	CRA-GMM-99B1
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	PCBB1802S
Analysis Date:	02/20/99	ENCOTEC Submission ID:	100016156
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200117929
Method Reference:	8082	Percent Total Solids:	55.0
Matrix:	SOIL	Calculation Basis:	Dry Weight

	PCB MDEQ Part 201 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: 12626

Sample ID: SD-990211-12626-SSH-206

Date Sampled:	02/11/99	ENCOTEC Project ID:	3300
Date Received:	02/12/99	ENCOTEC SDG ID:	CRA-GMM-99B1
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	BNAB1814
Analysis Date:	02/19/99	ENCOTEC Submission ID:	10001615
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200117926
Method Reference:	8270	Percent Total Solids:	68.6
Matrix:	SOIL	Calculation Basis:	Dry Weigh

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	F g
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	4-Chloro-3-methylphenol	59-50-7	330	1.0	U	
12	4-Chloroaniline	106-47-8	1300	1.0	U	
13	bis(2-Chloroethoxy)methane	111-91-1	330	1.0	U	
14	bis(2-Chloroethyl) ether	111-44-4	330	1.0	U	
15	bis(2-Chloroisopropyl) ether	108-60-1	330	1.0	U	
16	2-Chloronaphthalene	91-58-7	330	1.0	U	
17	2-Chlorophenol	95-57-8	330	1.0	U	
18	4-Chlorophenyl phenyl ether	7005-72-3	330	1.0	U	
19	Chrýsene	218-01-9	330	1.0	U	
20	Di-n-butyl phthalate	84-74-2	330	1.0	U	
21	Di-n-octyl phthalate	117-84-0	330	1.0	U	
22	Dibenz (a, h) anthracene	53-70-3	330	1.0	U	
23	Dibenzofuran	132-64-9	330	1.0	U	
24	3,3'-Dichlorobenzidine	91-94-1	2000	1.0	U	
25	2,4-Dichlorophenol	120-83-2	330	1.0	U	
26	Diethyl phthalate	84-66-2	330	1.0	U	
27	Dimethyl phthalate	131-11-3	330	1.0	U	
28	2,4-Dimethylphenol	105-67-9	330	1.0	U	
29	4,6-Dinitro-2-methylphenol	534-52-1	1700	1.0	U	
30	2,4-Dinitrophenol	51-28-5	1700	1.0	U	
31	2,6-Dinitrotoluene	606-20-2	330	1.0	U	
32	2,4-Dinitrotoluene	121-14-2	330	1.0	U	
33	bis(2-Ethylhexyl) phthalate	117-81-7	330	1.0	U	
34	Fluoranthene	206-44-0	330	1.0	U	
35	Fluorene	86-73-7	330	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: SD-990211-12626-SSH-206

Date Sampled:	02/11/99	ENCOTEC Project ID:	33000
Date Received:	02/12/99	ENCOTEC SDG ID:	CRA-GMM-99B1
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	BNAB1814S
Analysis Date:	02/19/99	ENCOTEC Submission ID:	100016156
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200117926
Method Reference:	8270	Percent Total Solids:	68.6
Matrix:	SOIL	Calculation Basis:	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
36	Hexachlorobenzene	118-74-1	330	1.0	U	
37	Hexachlorobutadiene	87-68-3	330	1.0	U	
38	Hexachlorocyclopentadiene	77-47-4	330	1.0	U	
39	Hexachloroethane	67-72-1	330	1.0	U	
40	Indeno (1,2,3-c,d) pyrene	193-39-5	330	1.0	U	
41	Isophorone	78-59-1	330	1.0	U	
42	2-Methylnaphthalene	91-57-6	330	1.0	U	
43	2-Methylphenol	95-48-7	330	1.0	U	
44	4-Methylphenol	106-44-5	330	1.0	U	
45	N-Nitroso-di-n-propylamine	621-64-7	330	1.0	U	
46	N-Nitrosodiphenylamine	86-30-6	330	1.0	U	
47	Naphthalene	91-20-3	330	1.0	U	
48	3-Nitroaniline	99-09-2	1700	1.0	U	
49	2-Nitroaniline	88-74-4	1700	1.0	U	
50	4-Nitroaniline	100-01-6	1700	1.0	U	
51	Nitrobenzene	98-95-3	330	1.0	U	
52	4-Nitrophenol	100-02-7	1700	1.0	U	
53	2-Nitrophenol	88-75-5	330	1.0	U	
54	Pentachlorophenol	87-86-5	3400	1.0	U	
55	Phenanthrene	85-01-8	330	1.0	U	
56	Phenol	108-95-2	330	1.0	U	
57	Pyrene	129-00-0	330	1.0	U	
58	1,2,4-Trichlorobenzene	120-82-1	330	1.0	U	
59	2,4,6-Trichlorophenol	88-06-2	330	1.0	U	
60	2,4,5-Trichlorophenol	95-95-4	1700	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: SD-990211-12626-SSH-207

Date Sampled:	02/11/99	ENCOTEC Project ID:	33001
Date Received:	02/12/99	ENCOTEC SDG ID:	CRA-GMM-99B1
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	BNAB18147
Analysis Date:	02/19/99	ENCOTEC Submission ID:	100016150
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200117927
Method Reference:	8270	Percent Total Solids:	46.1
Matrix:	SOIL	Calculation Basis:	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	F. g
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	4-Chloro-3-methylphenol	59-50-7	330	1.0	U	
12	4-Chloroaniline	106-47-8	1300	1.0	U	
13	bis (2-Chloroethoxy) methane	111-91-1	330	1.0	U	
14	bis (2-Chloroethyl) ether	111-44-4	330	1.0	U	
15	bis (2-Chloroisopropyl) ether	108-60-1	330	1.0	U	
16	2-Chloronaphthalene	91-58-7	330	1.0	U	
17	2-Chlorophenol	95-57-8	330	1.0	U	
18	4-Chlorophenyl phenyl ether	7005-72-3	330	1.0	U	
19	Chrysene	218-01-9	330	1.0	U	
20	Di-n-butyl phthalate	84-74-2	330	1.0	U	
21	Di-n-octyl phthalate	117-84-0	330	1.0	U	
22	Dibenz (a, h) anthracene	53-70-3	330	1.0	U	
23	Dibenzofuran	132-64-9	330	1.0	U	
24	3,3'-Dichlorobenzidine	91-94-1	2000	1.0	U	
25	2,4-Dichlorophenol	120-83-2	330	1.0	U	
26	Diethyl phthalate	84-66-2	330	1.0	U	
27	Dimethyl phthalate	131-11-3	330	1.0	U	
28	2,4-Dimethylphenol	105-67-9	330	1.0	U	
29	4,6-Dinitro-2-methylphenol	534-52-1	1700	1.0	U	
30	2,4-Dinitrophenol	51-28-5	1700	1.0	U	
31	2,6-Dinitrotoluene	606-20-2	330	1.0	U	
32	2,4-Dinitrotoluene	121-14-2	330	1.0	U	
33	bis (2-Ethylhexyl) phthalate	117-81-7	330	1.0	U	
34	Fluoranthene	206-44-0	330	1.0	U	
35	Fluorene	86-73-7	330	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: SD-990211-12626-SSH-207

Date Sampled:	02/11/99	ENCOTEC Project ID:	33000
Date Received:	02/12/99	ENCOTEC SDG ID:	CRA-GMM-99B1
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	BNAB1814S
Analysis Date:	02/19/99	ENCOTEC Submission ID:	100016156
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200117927
Method Reference:	8270	Percent Total Solids:	46.1
Matrix:	SOIL	Calculation Basis:	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
36	Hexachlorobenzene	118-74-1	330	1.0	U	
37	Hexachlorobutadiene	87-68-3	330	1.0	U	
38	Hexachlorocyclopentadiene	77-47-4	330	1.0	U	
39	Hexachloroethane	67-72-1	330	1.0	U	
40	Indeno (1,2,3-c,d) pyrene	193-39-5	330	1.0	U	
41	Isophorone	78-59-1	330	1.0	U	
42	2-Methylnaphthalene	91-57-6	330	1.0	U	
43	2-Methylphenol	95-48-7	330	1.0	U	
44	4-Methylphenol	106-44-5	330	1.0	U	
45	N-Nitroso-di-n-propylamine	621-64-7	330	1.0	U	
46	N-Nitrosodiphenylamine	86-30-6	330	1.0	U	
47	Naphthalene	91-20-3	330	1.0	U	
48	3-Nitroaniline	99-09-2	1700	1.0	U	
49	2-Nitroaniline	88-74-4	1700	1.0	U	
50	4-Nitroaniline	100-01-6	1700	1.0	U	
51	Nitrobenzene	98-95-3	330	1.0	U	
52	4-Nitrophenol	100-02-7	1700	1.0	U	
53	2-Nitrophenol	88-75-5	330	1.0	U	
54	Pentachlorophenol	87-86-5	3400	1.0	U	
55	Phenanthrene	85-01-8	330	1.0	U	
56	Phenol	108-95-2	330	1.0	U	
57	Pyrene	129-00-0	330	1.0	U	
58	1,2,4-Trichlorobenzene	120-82-1	330	1.0	U	
59	2,4,6-Trichlorophenol	88-06-2	330	1.0	U	
60	2,4,5-Trichlorophenol	95-95-4	1700	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: W-990211-12626-SSH-208

Date Sampled:	02/11/99	ENCOTEC Project ID:	33000
Date Received:	02/12/99	ENCOTEC SDG ID:	CRA-GMM-99B1
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	BNAB1207W
Analysis Date:	02/20/99	ENCOTEC Submission ID:	100016156
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200117926
Method Reference:	8270	Percent Total Solids:	N/A
Matrix:	WATER	Calculation Basis:	N/A

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/L)	Dil	Conc (ug/L)	Fl g
1	Acenaphthene	83-32-9	5.0	1.0	U	
2	Acenaphthylene	208-96-8	5.0	1.0	U	
3	Anthracene	120-12-7	5.0	1.0	U	
4	Benzo (a) anthracene	56-55-3	5.0	1.0	U	
5	Benzo (a) pyrene	50-32-8	5.0	1.0	U	
6	Benzo (b) fluoranthene	205-99-2	5.0	1.0	U	
7	Benzo (g, h, i) perylene	191-24-2	5.0	1.0	U	
8	Benzo (k) fluoranthene	207-08-9	5.0	1.0	U	
9	4-Bromophenyl phenyl ether	101-55-3	5.0	1.0	U	
10	Butyl benzyl phthalate	85-68-7	5.0	1.0	U	
11	4-Chloro-3-methylphenol	59-50-7	5.0	1.0	U	
12	4-Chloroaniline	106-47-8	5.0	1.0	U	
13	bis (2-Chloroethoxy) methane	111-91-1	5.0	1.0	U	
14	bis (2-Chloroethyl) ether	111-44-4	5.0	1.0	U	
15	bis (2-Chloroisopropyl) ether	108-60-1	5.0	1.0	U	
16	2-Chloronaphthalene	91-58-7	5.0	1.0	U	
17	2-Chlorophenol	95-57-8	5.0	1.0	U	
18	4-Chlorophenyl phenyl ether	7005-72-3	5.0	1.0	U	
19	Chrysene	218-01-9	5.0	1.0	U	
20	Di-n-butyl phthalate	84-74-2	5.0	1.0	U	
21	Di-n-octyl phthalate	117-84-0	5.0	1.0	U	
22	Dibenz (a, h) anthracene	53-70-3	5.0	1.0	U	
23	Dibenzofuran	132-64-9	5.0	1.0	U	
24	3,3'-Dichlorobenzidine	91-94-1	20	1.0	U	
25	2,4-Dichlorophenol	120-83-2	5.0	1.0	U	
26	Diethyl phthalate	84-66-2	5.0	1.0	U	
27	Dimethyl phthalate	131-11-3	5.0	1.0	U	
28	2,4-Dimethylphenol	105-67-9	5.0	1.0	U	
29	4,6-Dinitro-2-methylphenol	534-52-1	20	1.0	U	
30	2,4-Dinitrophenol	51-28-5	20	1.0	U	
31	2,6-Dinitrotoluene	606-20-2	5.0	1.0	U	
32	2,4-Dinitrotoluene	121-14-2	5.0	1.0	U	
33	bis (2-Ethylhexyl) phthalate	117-81-7	5.0	1.0	U	
34	Fluoranthene	206-44-0	5.0	1.0	U	
35	Fluorene	86-73-7	5.0	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: W-990211-12626-SSH-208

Date Sampled:	02/11/99	ENCOTEC Project ID:	33000
Date Received:	02/12/99	ENCOTEC SDG ID:	CRA-GMM-99B1
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	BNAB1207W
Analysis Date:	02/20/99	ENCOTEC Submission ID:	100016156
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200117928
Method Reference:	8270	Percent Total Solids:	N/A
Matrix:	WATER	Calculation Basis:	N/A

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/L)	Dil	Conc (ug/L)	Flag
36	Hexachlorobenzene	118-74-1	5.0	1.0	U	
37	Hexachlorobutadiene	87-68-3	5.0	1.0	U	
38	Hexachlorocyclopentadiene	77-47-4	5.0	1.0	U	
39	Hexachloroethane	67-72-1	5.0	1.0	U	
40	Indeno (1,2,3-c,d) pyrene	193-39-5	5.0	1.0	U	
41	Isophorone	78-59-1	5.0	1.0	U	
42	2-Methylnaphthalene	91-57-6	5.0	1.0	U	
43	2-Methylphenol	95-48-7	5.0	1.0	U	
44	4-Methylphenol	106-44-5	5.0	1.0	U	
45	N-Nitroso-di-n-propylamine	621-64-7	5.0	1.0	U	
46	N-Nitrosodiphenylamine	86-30-6	5.0	1.0	U	
47	Naphthalene	91-20-3	5.0	1.0	U	
48	3-Nitroaniline	99-09-2	20	1.0	U	
49	2-Nitroaniline	88-74-4	20	1.0	U	
50	4-Nitroaniline	100-01-6	20	1.0	U	
51	Nitrobenzene	98-95-3	5.0	1.0	U	
52	4-Nitrophenol	100-02-7	20	1.0	U	
53	2-Nitrophenol	88-75-5	5.0	1.0	U	
54	Pentachlorophenol	87-86-5	20	1.0	U	
55	Phenanthrene	85-01-8	5.0	1.0	U	
56	Phenol	108-95-2	5.0	1.0	U	
57	Pyrene	129-00-0	5.0	1.0	U	
58	1,2,4-Trichlorobenzene	120-82-1	5.0	1.0	U	
59	2,4,6-Trichlorophenol	88-06-2	5.0	1.0	U	
60	2,4,5-Trichlorophenol	95-95-4	20	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: SD-990211-12626-SSH-209

Date Sampled: 02/11/99
Date Received: 02/12/99
Date Extracted: 02/18/99
Analysis Date: 02/20/99
Second Analysis Date: N/A
Method Reference: 8270
Matrix: SOIL

ENCOTEC Project ID: 3300
ENCOTEC SDG ID: CRA-GMM-99B1
ENCOTEC QC Set ID: BNAB1814
ENCOTEC Submission ID: 10001615
ENCOTEC Sample ID: 20011792
Percent Total Solids: 55.0
Calculation Basis: Dry Weigh

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	F g
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	4-Chloro-3-methylphenol	59-50-7	330	1.0	U	
12	4-Chloroaniline	106-47-8	1300	1.0	U	
13	bis(2-Chloroethoxy)methane	111-91-1	330	1.0	U	
14	bis(2-Chloroethyl) ether	111-44-4	330	1.0	U	
15	bis(2-Chloroisopropyl) ether	108-60-1	330	1.0	U	
16	2-Chloronaphthalene	91-58-7	330	1.0	U	
17	2-Chlorophenol	95-57-8	330	1.0	U	
18	4-Chlorophenyl phenyl ether	7005-72-3	330	1.0	U	
19	Chrysene	218-01-9	330	1.0	U	
20	Di-n-butyl phthalate	84-74-2	330	1.0	U	
21	Di-n-octyl phthalate	117-84-0	330	1.0	U	
22	Dibenz(a,h)anthracene	53-70-3	330	1.0	U	
23	Dibenzofuran	132-64-9	330	1.0	U	
24	3,3'-Dichlorobenzidine	91-94-1	2000	1.0	U	
25	2,4-Dichlorophenol	120-83-2	330	1.0	U	
26	Diethyl phthalate	84-66-2	330	1.0	U	
27	Dimethyl phthalate	131-11-3	330	1.0	U	
28	2,4-Dimethylphenol	105-67-9	330	1.0	U	
29	4,6-Dinitro-2-methylphenol	534-52-1	1700	1.0	U	
30	2,4-Dinitrophenol	51-28-5	1700	1.0	U	
31	2,6-Dinitrotoluene	606-20-2	330	1.0	U	
32	2,4-Dinitrotoluene	121-14-2	330	1.0	U	
33	bis(2-Ethylhexyl) phthalate	117-81-7	330	1.0	U	
34	Fluoranthene	206-44-0	330	1.0	U	
35	Fluorene	86-73-7	330	1.0	U	

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ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: SD-990211-12626-SSH-209

Date Sampled:	02/11/99	ENCOTEC Project ID:	33000
Date Received:	02/12/99	ENCOTEC SDG ID:	CRA-GMM-99B1
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	BNAB1814S
Analysis Date:	02/20/99	ENCOTEC Submission ID:	100016156
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200117929
Method Reference:	8270	Percent Total Solids:	55.0
Matrix:	SOIL	Calculation Basis:	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
36	Hexachlorobenzene	118-74-1	330	1.0	U	
37	Hexachlorobutadiene	87-68-3	330	1.0	U	
38	Hexachlorocyclopentadiene	77-47-4	330	1.0	U	
39	Hexachloroethane	67-72-1	330	1.0	U	
40	Indeno (1,2,3-c,d) pyrene	193-39-5	330	1.0	U	
41	Isophorone	78-59-1	330	1.0	U	
42	2-Methylnaphthalene	91-57-6	330	1.0	U	
43	2-Methylphenol	95-48-7	330	1.0	U	
44	4-Methylphenol	106-44-5	330	1.0	U	
45	N-Nitroso-di-n-propylamine	621-64-7	330	1.0	U	
46	N-Nitrosodiphenylamine	86-30-6	330	1.0	U	
47	Naphthalene	91-20-3	330	1.0	U	
48	3-Nitroaniline	99-09-2	1700	1.0	U	
49	2-Nitroaniline	88-74-4	1700	1.0	U	
50	4-Nitroaniline	100-01-6	1700	1.0	U	
51	Nitrobenzene	98-95-3	330	1.0	U	
52	4-Nitrophenol	100-02-7	1700	1.0	U	
53	2-Nitrophenol	88-75-5	330	1.0	U	
54	Pentachlorophenol	87-86-5	3400	1.0	U	
55	Phenanthrene	85-01-8	330	1.0	U	
56	Phenol	108-95-2	330	1.0	U	
57	Pyrene	129-00-0	330	1.0	U	
58	1,2,4-Trichlorobenzene	120-82-1	330	1.0	U	
59	2,4,6-Trichlorophenol	88-06-2	330	1.0	U	
60	2,4,5-Trichlorophenol	95-95-4	1700	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: SD-990211-12626-SSH-206

Date Sampled:	02/11/99	ENCOTEC Project ID:	33000
Date Received:	02/12/99	ENCOTEC SDG ID:	CRA-GMM-99B1
Date Extracted:	N/A	ENCOTEC QC Set ID:	VOJB1801
Analysis Date:	02/18/99	ENCOTEC Submission ID:	1000161E
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200117926
Method Reference:	8260B/5035	Percent Total Solids:	68.2
Matrix:	SOIL	Calculation Basis:	Dry Weigh

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	F...g
1	Acetone	67-64-1	5000	1.0	U	
2	Benzene	71-43-2	73	1.0	U	
3	Bromodichloromethane	75-27-4	100	1.0	U	
4	Bromoform	75-25-2	100	1.0	U	
5	Bromomethane	74-83-9	250	1.0	U	
6	2-Butanone (MEK)	78-93-3	2500	1.0	U	
7	Carbon disulfide	75-15-0	250	1.0	U	
8	Carbon tetrachloride	56-23-5	73	1.0	U	
9	Chlorobenzene	108-90-7	73	1.0	U	
10	Chloroethane	75-00-3	360	1.0	U	
11	Chloroform	67-66-3	73	1.0	U	
12	Chloromethane	74-87-3	360	1.0	U	
13	Dibromochloromethane	124-48-1	100	1.0	U	
14	1,2-Dichloroethane	107-06-2	73	1.0	U	
15	1,1-Dichloroethane	75-34-3	73	1.0	U	
16	total 1,2-Dichloroethene	540-59-0	73	1.0	U	
17	1,1-Dichloroethene	75-35-4	73	1.0	U	
18	1,2-Dichloropropane	78-87-5	73	1.0	U	
19	trans-1,3-Dichloropropene	10061-02-6	73	1.0	U	
20	cis-1,3-Dichloropropene	10061-01-5	73	1.0	U	
21	Ethylbenzene	100-41-4	73	1.0	U	
22	2-Hexanone	591-78-6	2500	1.0	U	
23	4-Methyl-2-pentanone (MIBK)	108-10-1	2500	1.0	U	
24	Methylene chloride	75-09-2	360	1.0	U	
25	Styrene	100-42-5	73	1.0	U	
26	1,1,2,2-Tetrachloroethane	79-34-5	100	1.0	U	
27	Tetrachloroethene	127-18-4	73	1.0	U	
28	Toluene	108-88-3	73	1.0	U	
29	1,1,2-Trichloroethane	79-00-5	73	1.0	U	
30	1,1,1-Trichloroethane	71-55-6	73	1.0	U	
31	Trichloroethene	79-01-6	73	1.0	U	
32	Vinyl chloride	75-01-4	100	1.0	U	
33	total Xylenes	1330-20-7	220	1.0	U	

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ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: SD-990211-12626-SSH-207

Date Sampled:	02/11/99	ENCOTEC Project ID:	33000
Date Received:	02/12/99	ENCOTEC SDG ID:	CRA-GMM-99B1
Date Extracted:	N/A	ENCOTEC QC Set ID:	VOJB1801M
Analysis Date:	02/18/99	ENCOTEC Submission ID:	100016156
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200117927
Method Reference:	8260B/5035	Percent Total Solids:	46.1
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	5000	1.0	U	
2	Benzene	71-43-2	110	1.0	U	
3	Bromodichloromethane	75-27-4	110	1.0	U	
4	Bromoform	75-25-2	110	1.0	U	
5	Bromomethane	74-83-9	250	1.0	U	
6	2-Butanone (MEK)	78-93-3	2500	1.0	U	
7	Carbon disulfide	75-15-0	250	1.0	U	
8	Carbon tetrachloride	56-23-5	110	1.0	U	
9	Chlorobenzene	108-90-7	110	1.0	U	
10	Chloroethane	75-00-3	540	1.0	U	
11	Chloroform	67-66-3	110	1.0	U	
12	Chloromethane	74-87-3	540	1.0	U	
13	Dibromochloromethane	124-48-1	110	1.0	U	
14	1,2-Dichloroethane	107-06-2	110	1.0	U	
15	1,1-Dichloroethane	75-34-3	110	1.0	U	
16	total 1,2-Dichloroethene	540-59-0	110	1.0	U	
17	1,1-Dichloroethene	75-35-4	110	1.0	U	
18	1,2-Dichloropropane	78-87-5	110	1.0	U	
19	trans-1,3-Dichloropropene	10061-02-6	110	1.0	U	
20	cis-1,3-Dichloropropene	10061-01-5	110	1.0	U	
21	Ethylbenzene	100-41-4	110	1.0	U	
22	2-Hexanone	591-78-6	2500	1.0	U	
23	4-Methyl-2-pentanone (MIBK)	108-10-1	2500	1.0	U	
24	Methylene chloride	75-09-2	540	1.0	U	
25	Styrene	100-42-5	110	1.0	U	
26	1,1,2,2-Tetrachloroethane	79-34-5	110	1.0	U	
27	Tetrachloroethene	127-18-4	110	1.0	U	
28	Toluene	108-88-3	110	1.0	U	
29	1,1,2-Trichloroethane	79-00-5	110	1.0	U	
30	1,1,1-Trichloroethane	71-55-6	110	1.0	U	
31	Trichloroethene	79-01-6	110	1.0	U	
32	Vinyl chloride	75-01-4	110	1.0	U	
33	total Xylenes	1330-20-7	330	1.0	U	

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ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: W-990211-12626-SSH-208

Date Sampled:	02/11/99	ENCOTEC Project ID:	33000
Date Received:	02/12/99	ENCOTEC SDG ID:	CRA-GMM-99B1
Date Extracted:	N/A	ENCOTEC QC Set ID:	VOJB1201
Analysis Date:	02/17/99	ENCOTEC Submission ID:	10001615
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200117928
Method Reference:	8260B	Percent Total Solids:	N/A
Matrix:	WATER	Calculation Basis:	N/

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/L)	Dil	Conc (ug/L)	F g
1	Acetone	67-64-1	100	1.0	U	
2	Benzene	71-43-2	5.0	1.0	U	
3	Bromodichloromethane	75-27-4	1.0	1.0	U	
4	Bromoform	75-25-2	1.0	1.0	U	
5	Bromomethane	74-83-9	1.0	1.0	U	
6	2-Butanone (MEK)	78-93-3	50	1.0	U	
7	Carbon disulfide	75-15-0	50	1.0	U	
8	Carbon tetrachloride	56-23-5	1.0	1.0	U	
9	Chlorobenzene	108-90-7	1.0	1.0	U	
10	Chloroethane	75-00-3	1.0	1.0	U	
11	Chloroform	67-66-3	1.0	1.0	U	
12	Chloromethane	74-87-3	1.0	1.0	U	
13	Dibromochloromethane	124-48-1	1.0	1.0	U	
14	1,2-Dichloroethane	107-06-2	1.0	1.0	U	
15	1,1-Dichloroethane	75-34-3	1.0	1.0	U	
16	total 1,2-Dichloroethene	540-59-0	1.0	1.0	U	
17	1,1-Dichloroethene	75-35-4	1.0	1.0	U	
18	1,2-Dichloropropane	78-87-5	1.0	1.0	U	
19	trans-1,3-Dichloropropene	10061-02-6	1.0	1.0	U	
20	cis-1,3-Dichloropropene	10061-01-5	1.0	1.0	U	
21	Ethylbenzene	100-41-4	1.0	1.0	U	
22	2-Hexanone	591-78-6	50	1.0	U	
23	4-Methyl-2-pentanone (MIBK)	108-10-1	50	1.0	U	
24	Methylene chloride	75-09-2	5.0	1.0	U	
25	Styrene	100-42-5	1.0	1.0	U	
26	1,1,2,2-Tetrachloroethane	79-34-5	1.0	1.0	U	
27	Tetrachloroethene	127-18-4	1.0	1.0	U	
28	Toluene	108-88-3	1.0	1.0	U	
29	1,1,2-Trichloroethane	79-00-5	1.0	1.0	U	
30	1,1,1-Trichloroethane	71-55-6	1.0	1.0	U	
31	Trichloroethene	79-01-6	1.0	1.0	U	
32	Vinyl chloride	75-01-4	1.0	1.0	U	
33	total Xylenes	1330-20-7	3.0	1.0	U	

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ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: SD-990211-12626-SSH-209

Date Sampled:	02/11/99	ENCOTEC Project ID:	33000
Date Received:	02/12/99	ENCOTEC SDG ID:	CRA-GMM-99B1
Date Extracted:	N/A	ENCOTEC QC Set ID:	VOJB1801M
Analysis Date:	02/18/99	ENCOTEC Submission ID:	100016156
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200117929
Method Reference:	8260B/5035	Percent Total Solids:	55.0
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	5000	1.0	U	
2	Benzene	71-43-2	91	1.0	U	
3	Bromodichloromethane	75-27-4	100	1.0	U	
4	Bromoform	75-25-2	100	1.0	U	
5	Bromomethane	74-83-9	250	1.0	U	
6	2-Butanone (MEK)	78-93-3	2500	1.0	U	
7	Carbon disulfide	75-15-0	250	1.0	U	
8	Carbon tetrachloride	56-23-5	91	1.0	U	
9	Chlorobenzene	108-90-7	91	1.0	U	
10	Chloroethane	75-00-3	450	1.0	U	
11	Chloroform	67-66-3	91	1.0	U	
12	Chloromethane	74-87-3	450	1.0	U	
13	Dibromochloromethane	124-48-1	100	1.0	U	
14	1,2-Dichloroethane	107-06-2	91	1.0	U	
15	1,1-Dichloroethane	75-34-3	91	1.0	U	
16	total 1,2-Dichloroethene	540-59-0	91	1.0	U	
17	1,1-Dichloroethene	75-35-4	91	1.0	U	
18	1,2-Dichloropropane	78-87-5	91	1.0	U	
19	trans-1,3-Dichloropropene	10061-02-6	91	1.0	U	
20	cis-1,3-Dichloropropene	10061-01-5	91	1.0	U	
21	Ethylbenzene	100-41-4	91	1.0	U	
22	2-Hexanone	591-78-6	2500	1.0	U	
23	4-Methyl-2-pentanone (MIBK)	108-10-1	2500	1.0	U	
24	Methylene chloride	75-09-2	450	1.0	U	
25	Styrene	100-42-5	91	1.0	U	
26	1,1,2,2-Tetrachloroethane	79-34-5	100	1.0	U	
27	Tetrachloroethene	127-18-4	91	1.0	U	
28	Toluene	108-88-3	91	1.0	U	
29	1,1,2-Trichloroethane	79-00-5	91	1.0	U	
30	1,1,1-Trichloroethane	71-55-6	91	1.0	U	
31	Trichloroethene	79-01-6	91	1.0	U	
32	Vinyl chloride	75-01-4	100	1.0	U	
33	total Xylenes	1330-20-7	270	1.0	U	

QUALITY ASSESSMENT REPORT - METHOD BLANK ANALYSIS

Extraction Date	N/A	ENCOTEC Project ID:	3300
Analysis Date:	See Below	ENCOTEC SDG ID:	CRA-GMM-99E
Second Analysis Date:	N/A	ENCOTEC QC Set ID:	See Below
Method Reference:	See Below	ENCOTEC Submission ID:	100016156

	Analyte	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Fl g
1	Arsenic	IMSB1601	02/17/99	6020	ug/L	1.0	1	U	
2	Barium	ICPB1603	02/16/99	6010	ug/L	200	1	U	
3	Cadmium	IMSB1601	02/17/99	6020	ug/L	0.20	1	U	
4	Chromium	IMSB1601	02/18/99	6020	ug/L	5.0	1	U	
5	Lead	IMSB1601	02/17/99	6020	ug/L	3.0	1	U	
6	Mercury	CVAB1701	02/17/99	7470	ug/L	0.20	1	U	
7	Selenium	IMSB1601	02/17/99	6020	ug/L	5.0	1	U	
8	Silver	IMSB1601	02/17/99	6020	ug/L	0.50	1	U	
9	Arsenic	IMSB1602	02/17/99	6020	ug/Kg	100	1	U	
10	Barium	ICPB1302	02/16/99	6010	ug/Kg	1000	1	U	
11	Cadmium	IMSB1602	02/17/99	6020	ug/Kg	50	1	U	
12	Chromium	IMSB1602	02/17/99	6020	ug/Kg	500	1	U	
13	Lead	IMSB1602	02/17/99	6020	ug/Kg	1000	1	U	
14	Mercury	CVAB1801	02/20/99	7471	ug/Kg	100	1	U	
15	Selenium	IMSB1602	02/17/99	6020	ug/Kg	200	1	U	
16	Silver	IMSB1602	02/17/99	6020	ug/Kg	500	1	U	

QUALITY ASSESSMENT REPORT - LCS Analysis

ENCOTEC Project ID:	33000
ENCOTEC SDG ID:	CRA-GMM-99B1
ENCOTEC QC Set ID:	See Below
ENCOTEC Submission ID:	100016156

#	Analyte	QC Set ID	Conc Spiked	Conc LCS	Units	Percent Recovery (%)	Flag	Quality Control Windows (%)
1	Arsenic	IMSB1601	0.0500	0.0482	mg/L	96		80-120
2	Barium	ICPB1603	1.00	1.02	mg/L	102		80-120
3	Cadmium	IMSB1601	0.0500	0.0501	mg/L	100		80-120
4	Chromium	IMSB1601	0.0500	0.0490	mg/L	98		80-120
5	Lead	IMSB1601	0.0500	0.0507	mg/L	101		80-120
6	Mercury	CVAB1701	0.00215	0.00231	mg/L	107		80-120
7	Selenium	IMSB1601	0.0500	0.0505	mg/L	101		80-120
8	Silver	IMSB1601	0.0500	0.0480	mg/L	96		80-120
9	Arsenic	IMSB1602	0.0500	0.0498	mg/Kg	100		80-120
10	Barium	ICPB1302	50.0	49.6	mg/Kg	99		80-120
11	Cadmium	IMSB1602	0.0500	0.0483	mg/Kg	97		80-120
12	Chromium	IMSB1602	0.0500	0.0506	mg/Kg	101		80-120
13	Lead	IMSB1602	0.0500	0.0485	mg/Kg	97		80-120
14	Mercury	CVAB1801	0.108	0.103	mg/Kg	95		80-120
15	Selenium	IMSB1602	0.0500	0.0508	mg/Kg	102		80-120
16	Silver	IMSB1602	0.0500	0.0465	mg/Kg	93		80-120

D=Detected, result must be greater than zero.
 Recovery: 0 out of 16 outside QC Windows

QUALITY ASSESSMENT REPORT - MS Analysis

ENCOTEC SDG ID: CRA-GMM-99B1
ENCOTEC QC Set ID: See Below
ENCOTEC Submission ID: 100016156
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	Arsenic	200118035	IMSB1601	0.0500	U	0.0480	mg/L	96		75-125
2	Barium	200117684	ICPB1603	1.00	U	1.01	mg/L	101		80-120
3	Cadmium	200118035	IMSB1601	0.0500	U	0.0483	mg/L	97		75-125
4	Chromium	200118035	IMSB1601	0.0500	U	0.0460	mg/L	92		75-125
5	Lead	200118035	IMSB1601	0.0500	U	0.0486	mg/L	97		75-125
6	Mercury	200117786	CVAB1701	2.15	0.17	2.23	mg/L	96		80-125
7	Selenium	200118035	IMSB1601	0.0500	U	0.0509	mg/L	102		75-125
8	Silver	200118035	IMSB1601	0.0500	U	0.0458	mg/L	92		75-125
9	Arsenic	200117629	IMSB1602	2.10	3.1	6.26	mg/Kg	150 *		75-125
10	Barium	200117608	ICPB1302	42.5	28	89.4	mg/Kg	144 *		80-125
11	Cadmium	200117629	IMSB1602	2.10	0.11	2.04	mg/Kg	92		75-125
12	Chromium	200117629	IMSB1602	2.10	5.2	8.55	mg/Kg	160 *		75-125
13	Lead	200117629	IMSB1602	2.10	16	20.0	mg/Kg	190	A	75-125
14	Mercury	200117650	CVAB1801	0.295	U	0.276	mg/Kg	94		75-125
15	Selenium	200117629	IMSB1602	2.10	U	U	mg/Kg	0 *		75-125
16	Silver	200117629	IMSB1602	2.10	U	1.31	mg/Kg	62 *		75-125

D=Detected, result must be greater than zero.
 Recovery: 5 out of 15 outside QC Windows

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QUALITY ASSESSMENT REPORT - MD Analysis

ENCOTEC SDG ID: CRA-GMM-99B1
ENCOTEC QC Set ID: See Below
ENCOTEC Submission ID: 100016156
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	Arsenic	200118035	IMSB1601	U	U	mg/L	NC		20
2	Barium	200117684	ICPB1603	U	U	mg/L	NC		20
3	Cadmium	200118035	IMSB1601	U	U	mg/L	NC		20
4	Chromium	200118035	IMSB1601	U	U	mg/L	NC		35
5	Lead	200118035	IMSB1601	U	U	mg/L	NC		20
6	Mercury	200117786	CVAB1701	0.17	U	mg/L	NC		20
7	Selenium	200118035	IMSB1601	U	U	mg/L	NC		20
8	Silver	200118035	IMSB1601	U	U	mg/L	NC		35
9	Arsenic	200117629	IMSB1602	3.1	4.4	mg/Kg	35		35
10	Barium	200117608	ICPB1302	28	54	mg/Kg	63 *		20
11	Cadmium	200117629	IMSB1602	0.11	0.18	mg/Kg	48	P	35
12	Chromium	200117629	IMSB1602	5.2	6.0	mg/Kg	14		35
13	Lead	200117629	IMSB1602	16	15	mg/Kg	6		35
14	Mercury	200117650	CVAB1801	U	U	mg/Kg	NC		35
15	Selenium	200117629	IMSB1602	U	U	mg/Kg	NC		35
16	Silver	200117629	IMSB1602	U	U	mg/Kg	NC		35

D=Detected, result must be greater than zero.
 RPD: 1 out of 4 outside QC Windows

QUALITY ASSESSMENT REPORT - METHOD BLANK ANALYSIS

Extraction Date:	02/18/99	ENCOTEC Project ID:	33000
Analysis Date:	02/22/99	ENCOTEC SDG ID:	CRA-GMM-99B
Second Analysis Date:	02/25/99	ENCOTEC QC Set ID:	HRBB0802S
Method Reference:	8151	ENCOTEC Submission ID:	100016156
Matrix:	SOIL	ENCOTEC Method Blank ID:	20011621!

	Herbicides List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Fla
1	Dalapon	75-99-0	200	1	U	
2	Dicamba	1918-00-9	50	1	U	
3	2,4-Dichlorophenoxy acetic acid	94-75-7	200	1	U	
4	Picloram	1918-02-1	200	1	U	
5	2,4,5-T	93-76-5	50	1	U	
6	2,4,5-TP (Silvex)	93-72-1	50	1	U	

QUALITY ASSESSMENT REPORT - METHOD BLANK ANALYSIS

Extraction Date:	02/18/99	ENCOTEC Project ID:	33000
Analysis Date:	02/20/99	ENCOTEC SDG ID:	CRA-GMM-99B1
Second Analysis Date:	02/25/99	ENCOTEC QC Set ID:	HRBB1605W
Method Reference:	8151	ENCOTEC Submission ID:	100016156
Matrix:	WATER	ENCOTEC Method Blank ID:	200116217

	Herbicides List	CAS #	Quant Limit (ug/L)	Dil	Conc (ug/L)	Flag
1	Dalapon	75-99-0	10	1	U	
2	Dicamba	1918-00-9	1.0	1	U	
3	2,4-Dichlorophenoxy acetic acid	94-75-7	10	1	U	
4	Picloram	1918-02-1	10	1	U	
5	2,4,5-T	93-76-5	1.0	1	U	
6	2,4,5-TP (Silvex)	93-72-1	1.0	1	U	

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**WATER MATRIX SURROGATE RECOVERY
HERBICIDES**

Project Name: CONESTOGA-ROVERS & ASSOCIATES
Project Number: 33000
Report Date: March 1, 1999
QC Set I.D.: HRBB1605W

<u>ENCOTEC Sample Number</u>	<u>Percent Recovery of Dichlorprop (58-135)**</u>
200117928	87
200116217 MB	58
200116451 LCS	99
200117906 MS	94
200117906 MSD	90

* Value outside of established quality control windows.

** Percent recovery 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 5 outside QC Windows.

Note:

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**SOIL MATRIX SURROGATE RECOVERY
HERBICIDES**

Project Name: CONESTOGA-ROVERS & ASSOCIATES
Project Number: 33000
Report Date: March 1, 1999
QC Set I.D.: HRBB0802S

<u>ENCOTEC Sample Number</u>	<u>Percent Recovery of Dichlorprop (63-167)**</u>
200117921	67
200117922	64
200117923	63
200117924	68
200117925	86
200117926	68
200117927	68
200117929	70
200116215 MB	71
200116451 LCS	99
200117906 MS	94
200117906 MSD	90

* Value outside of established quality control windows.

** Percent recovery 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 12 outside QC Windows.

Note:

Form 047HSL2G.GN1

Rev. 10/08/98

SAFETY-KLEEN, Inc./ENCOTEC

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**Laboratory Control Sample (LCS)
Herbicides - Soil Matrix**

Project Name: ENCOTEC
Project Number: 10000
QC Set I.D.: HRBB0802S

Sample Spiked- ENCOTEC I.D.: 200116448

Compound	Conc. Spiked (ug/kg)	FILES:	A21H012	Percent Recovery (%)	QUALITY CONTROL
			Conc. LCS (ug/kg)		Recovery (%)
2,4-D	1667		1332	80	59 - 138
2,4,5-TP	167		142	85	57 - 132
2,4,5-T	333		280	84	58 - 125

D = Detected, result must be greater than zero.

Recovery: 0 out of 3 outside QC windows.

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Laboratory Control Sample (LCS) Herbicides - Water Matrix

Project Name: ENCOTEC
Project Number: 10000
QC Set I.D.: HRBB1605W

Sample Spiked- ENCOTEC I.D.: 200116451

Compound	FILES: B25H053		QUALITY CONTROL	
	Conc. Spiked (ug/L)	Conc. LCS (ug/L)	Percent Recovery (%)	WINDOWS Recovery (%)
2,4-D	5.00	4.96	99	74 - 124
2,4,5-TP	0.50	0.47	94	64 - 116
2,4,5-T	1.00	0.98	98	75 - 126

D = Detected, result must be greater than zero.

Recovery: 0 out of 3 outside QC windows.

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Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Herbicides - Soil Matrix

Project Name: ENCOTEC
Project Number: 10000
QC Set I.D.: HRBB0802S

Sample Spiked- ENCOTEC I.D.: 200117437

Compound	FILES: A21H015		A21H016	A21H021			QUALITY CONTROL		
	Conc. Spiked (ug/kg)	Sample Result (ug/kg)	Conc. MS (ug/kg)	Percent Recovery (%)	Conc. MSD (ug/kg)	Percent Recovery (%)	RPD (%)	RPD (%)	Recovery (%)
2,4-D	1667	U	1443	87	1236	74	15	47	40 - 164
2,4,5-TP	167	U	130	78	109	65	18	25	39 - 151
2,4,5-T	333	U	305	92	257	77	17	36	52 - 134

D = Detected, result must be greater than zero.

Recovery: 0 out of 6 outside QC windows.

RPD: 0 out of 3 outside QC windows.

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Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Herbicides - Water Matrix

Project Name: ENCOTEC
Project Number: 10000
QC Set I.D.: HRBB1605W

Sample Spiked- ENCOTEC I.D.: 200117906

Compound	FILES: B25H016		B25H017		B25H018		QUALITY CONTROL		
	Conc. Spiked (ug/L)	Sample Result (ug/L)	Conc. MS (ug/L)	Percent Recovery (%)	Conc. MSD (ug/L)	Percent Recovery (%)	RPD (%)	RPD (%)	Recovery (%)
2,4-D	5.00	U	4.66	93	4.58	92	1.6	25	59 - 119
2,4,5-TP	0.50	U	0.47	95	0.46	91	3.9	25	58 - 126
2,4,5-T	1.00	U	0.94	94	0.89	89	5.5	25	64 - 124

D = Detected, result must be greater than zero.

Recovery: 0 out of 6 outside QC windows.

RPD: 0 out of 3 outside QC windows.

QUALITY ASSESSMENT REPORT - METHOD BLANK ANALYSIS

Extraction Date:	02/18/99	ENCOTEC Project ID:	3300^
Analysis Date:	02/20/99	ENCOTEC SDG ID:	CRA-GMM-99B
Second Analysis Date:	N/A	ENCOTEC QC Set ID:	PCBB18025
Method Reference:	8082	ENCOTEC Submission ID:	100016156
Matrix:	SOIL	ENCOTEC Method Blank ID:	20011621

	PCB MDEQ Part 201 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	

QUALITY ASSESSMENT REPORT - METHOD BLANK ANALYSIS

Extraction Date:	02/18/99	ENCOTEC Project ID:	33000
Analysis Date:	02/20/99	ENCOTEC SDG ID:	CRA-GMM-99B1
Second Analysis Date:	N/A	ENCOTEC QC Set ID:	PCBA2803W
Method Reference:	8082	ENCOTEC Submission ID:	100016156
Matrix:	WATER	ENCOTEC Method Blank ID:	200116212

	PCB MDEQ Part 201 List	CAS #	Quant Limit (ug/L)	Dil	Conc (ug/L)	Flag
1	PCB-1016	12674-11-2	0.20	1	U	
2	PCB-1221	11104-28-2	0.20	1	U	
3	PCB-1232	11141-16-5	0.40	1	U	
4	PCB-1242	53469-21-9	0.20	1	U	
5	PCB-1248	12672-29-6	0.20	1	U	
6	PCB-1254	11097-69-1	0.20	1	U	
7	PCB-1260	11096-82-5	0.20	1	U	

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**SOILS\SOLIDS MATRIX SURROGATE RECOVERY
POLYCHLORINATED BIPHENYLS**

Project Name: CONESTOGA-ROVERS & ASSOCIATES
Project Number: 33000
Report Date: 02/23/99
QC Set I.D.: PCBB1802S

<u>ENCOTEC</u> <u>Sample Number</u>	<u>Percent Recovery</u> <u>2,4,5,6-TCMX</u> (40 - 130)	<u>Percent Recovery</u> <u>Decachlorobiphenyl</u> (32 - 136)
200117926	79	55
200117927	62	41
200117929	111	43
200116213 MB	75	75
200116450 LCS	75	68
200118112 MS	94	70
200118112 MSD	100	84

* 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.GN2

Rev. 09/02/98

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**WATER MATRIX SURROGATE RECOVERY
POLYCHLORINATED BIPHENYLS**

Project Name: CONESTOGA-ROVERS & ASSOCIATES
Project Number: 33000
Report Date: 02/23/99
QC Set I.D.: PCBA2803W

<u>ENCOTEC</u> <u>Sample Number</u>	<u>Percent Recovery</u> <u>2,4,5,6-TCMX</u> (36 - 125)	<u>Percent Recovery</u> <u>Decachlorobiphenyl</u> (32 - 138)
200117928	81	67
200116212 MB	8*	50
200113150 LCS	71	74
200114999 MS	67	68
200114999 MSD	75	56

* 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: 1 out of 10 outside QC Windows.

Note:

Form 057CWN2G.GN4

Rev. 09/02/98

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SOIL MATRIX LABORATORY CONTROL SAMPLE
POLYCHLORINATED BIPHENYLS

Project Name: ENCOTEC
Project Number: 10000
QC Set ID: PCBB1802S

ENCOTEC ID: 200116450

AROCLOR	AMOUNT SPIKED (ug/Kg)	AMOUNT RECOVERED (ug/Kg)	PERCENT RECOVERED (percent)	QC LIMITS RANGE (percent)
PCB 1016	333	280	84	30 - 120
PCB 1260	333	263	79	37 - 166

RECOVERY: 0 out of 2 outside QC Windows

Form 057CSM4G.GN1

Rev. 12/03/98

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WATER MATRIX LABORATORY CONTROL SAMPLE RECOVERY
POLYCHLORINATED BIPHENYLS

Project Name: ENCOTEC
Project Number: 10000
QC Set ID: PCBA2803W

ENCOTEC ID: 200113150

AROCLOR	AMOUNT SPIKED (ug/L)	AMOUNT RECOVERED (ug/L)	PERCENT RECOVERED (percent)	QC LIMITS RANGE (percent)
PCB 1016	1.0	0.95	95	53 - 116
PCB 1260	1.0	0.87	87	70 - 122

RECOVERY: 0 out of 2 outside QC Windows

Form 057CWN4G.GN2

Rev. 12/02/98

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

Project Name: ENCOTEC
 Project Number: 10000
 QC Set ID: PCBB1802S

SAMPLE SPIKED - ENCOTEC ID: 200118112

<u>Aroclor</u>	<u>Concentration Spiked (ug/Kg)</u>	<u>Sample Result (ug/Kg)</u>	<u>MS Conc (ug/Kg)</u>	<u>% Rec</u>	<u>MSD Conc (ug/Kg)</u>	<u>% Rec</u>	<u>RPD</u>	<u>QUALITY CONTROL WINDOWS</u>	
								<u>RPD</u>	<u>% Recovery</u>
PCB 1016	333	U	312	94	341	102	8.9	40	30-120
PCB 1260	333	U	283	85	332	100	15.9	23	37-166

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-3

RPD: 0 out of 2 outside QC Windows.
 RECOVERY: 0 out of 4 outside QC Windows.

Note:

Form 057CSM3G.GN1

Rev. 12/03/98

Safety-Kleen (ENCOTEC), Inc.
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MATRIX SPIKE (MS) AND MATRIX SPIKE DUPLICATE (MSD)
 POLYCHLORINATED BIPHENYLS - WATER MATRIX

Project Name: ENCOTEC
 Project Number: 10000
 QC Set I.D.: PCBA2803W

SAMPLE SPIKED - ENCOTEC ID: 200114999

Aroclor	Concentration Spiked (ug/L)	Sample Result (ug/L)	MS Conc (ug/L)	% Rec	MSD Conc (ug/L)	% Rec	RPD	QUALITY CONTROL WINDOWS	
								RPD	% Recovery
PCB 1016	1.0	U	1.05	105	0.96	96	9.6	40	30-120
PCB 1260	1.0	U	0.84	84	0.81	81	4.4	23	41-123

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 CS

RPD: 0 out of 2 outside QC Windows.
 RECOVERY: 0 out of 4 outside QC Windows.

Note:

Form 057CWN3G.GN2

Rev. 08/10/98

QUALITY ASSESSMENT REPORT - METHOD BLANK ANALYSIS

Extraction Date:	02/18/99	ENCOTEC Project ID:	33000
Analysis Date:	02/19/99	ENCOTEC SDG ID:	CRA-GMM-99B
Second Analysis Date:	N/A	ENCOTEC QC Set ID:	BNAB1814J
Method Reference:	8270	ENCOTEC Submission ID:	100016156
Matrix:	SOIL	ENCOTEC Method Blank ID:	200116247

	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	4-Chloro-3-methylphenol	59-50-7	330	1.0	U	
12	4-Chloroaniline	106-47-8	1300	1.0	U	
13	bis(2-Chloroethoxy) methane	111-91-1	330	1.0	U	
14	bis(2-Chloroethyl) ether	111-44-4	330	1.0	U	
15	bis(2-Chloroisopropyl) ether	108-60-1	330	1.0	U	
16	2-Chloronaphthalene	91-58-7	330	1.0	U	
17	2-Chlorophenol	95-57-8	330	1.0	U	
18	4-Chlorophenyl phenyl ether	7005-72-3	330	1.0	U	
19	Chrysene	218-01-9	330	1.0	U	
20	Di-n-butyl phthalate	84-74-2	330	1.0	U	
21	Di-n-octyl phthalate	117-84-0	330	1.0	U	
22	Dibenz (a, h) anthracene	53-70-3	330	1.0	U	
23	Dibenzofuran	132-64-9	330	1.0	U	
24	3,3'-Dichlorobenzidine	91-94-1	2000	1.0	U	
25	2,4-Dichlorophenol	120-83-2	330	1.0	U	
26	Diethyl phthalate	84-66-2	330	1.0	U	
27	Dimethyl phthalate	131-11-3	330	1.0	U	
28	2,4-Dimethylphenol	105-67-9	330	1.0	U	
29	4,6-Dinitro-2-methylphenol	534-52-1	1700	1.0	U	
30	2,4-Dinitrophenol	51-28-5	1700	1.0	U	
31	2,6-Dinitrotoluene	606-20-2	330	1.0	U	
32	2,4-Dinitrotoluene	121-14-2	330	1.0	U	
33	bis(2-Ethylhexyl) phthalate	117-81-7	330	1.0	U	
34	Fluoranthene	206-44-0	330	1.0	U	
35	Fluorene	86-73-7	330	1.0	U	
36	Hexachlorobenzene	118-74-1	330	1.0	U	
37	Hexachlorobutadiene	87-68-3	330	1.0	U	
38	Hexachlorocyclopentadiene	77-47-4	330	1.0	U	
39	Hexachloroethane	67-72-1	330	1.0	U	
40	Indeno (1,2,3-c,d) pyrene	193-39-5	330	1.0	U	
41	Isophorone	78-59-1	330	1.0	U	
42	2-Methylnaphthalene	91-57-6	330	1.0	U	

QUALITY ASSESSMENT REPORT - METHOD BLANK ANALYSIS

Extraction Date:	02/18/99	ENCOTEC Project ID:	33000
Analysis Date:	02/19/99	ENCOTEC SDG ID:	CRA-GMM-99B1
Second Analysis Date:	N/A	ENCOTEC QC Set ID:	BNAB1814S
Method Reference:	8270	ENCOTEC Submission ID:	100016156
Matrix:	SOIL	ENCOTEC Method Blank ID:	200116247

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
43	2-Methylphenol	95-48-7	330	1.0	U	
44	4-Methylphenol	106-44-5	330	1.0	U	
45	N-Nitroso-di-n-propylamine	621-64-7	330	1.0	U	
46	N-Nitrosodiphenylamine	86-30-6	330	1.0	U	
47	Naphthalene	91-20-3	330	1.0	U	
48	3-Nitroaniline	99-09-2	1700	1.0	U	
49	2-Nitroaniline	88-74-4	1700	1.0	U	
50	4-Nitroaniline	100-01-6	1700	1.0	U	
51	Nitrobenzene	98-95-3	330	1.0	U	
52	4-Nitrophenol	100-02-7	1700	1.0	U	
53	2-Nitrophenol	88-75-5	330	1.0	U	
54	Pentachlorophenol	87-86-5	3400	1.0	U	
55	Phenanthrene	85-01-8	330	1.0	U	
56	Phenol	108-95-2	330	1.0	U	
57	Pyrene	129-00-0	330	1.0	U	
58	1,2,4-Trichlorobenzene	120-82-1	330	1.0	U	
59	2,4,6-Trichlorophenol	88-06-2	330	1.0	U	
60	2,4,5-Trichlorophenol	95-95-4	1700	1.0	U	

QUALITY ASSESSMENT REPORT - METHOD BLANK ANALYSIS

Extraction Date:	02/18/99	ENCOTEC Project ID:	3300^
Analysis Date:	02/19/99	ENCOTEC SDG ID:	CRA-GMM-99B
Second Analysis Date:	N/A	ENCOTEC QC Set ID:	BNAB1207w
Method Reference:	8270	ENCOTEC Submission ID:	100016156
Matrix:	WATER	ENCOTEC Method Blank ID:	20011624

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/L)	Dil	Conc (ug/L)	Fla
1	Acenaphthene	83-32-9	5.0	1.0	U	
2	Acenaphthylene	208-96-8	5.0	1.0	U	
3	Anthracene	120-12-7	5.0	1.0	U	
4	Benzo (a) anthracene	56-55-3	5.0	1.0	U	
5	Benzo (a) pyrene	50-32-8	5.0	1.0	U	
6	Benzo (b) fluoranthene	205-99-2	5.0	1.0	U	
7	Benzo (g, h, i) perylene	191-24-2	5.0	1.0	U	
8	Benzo (k) fluoranthene	207-08-9	5.0	1.0	U	
9	4-Bromophenyl phenyl ether	101-55-3	5.0	1.0	U	
10	Butyl benzyl phthalate	85-68-7	5.0	1.0	U	
11	4-Chloro-3-methylphenol	59-50-7	5.0	1.0	U	
12	4-Chloroaniline	106-47-8	5.0	1.0	U	
13	bis(2-Chloroethoxy)methane	111-91-1	5.0	1.0	U	
14	bis(2-Chloroethyl) ether	111-44-4	5.0	1.0	U	
15	bis(2-Chloroisopropyl) ether	108-60-1	5.0	1.0	U	
16	2-Chloronaphthalene	91-58-7	5.0	1.0	U	
17	2-Chlorophenol	95-57-8	5.0	1.0	U	
18	4-Chlorophenyl phenyl ether	7005-72-3	5.0	1.0	U	
19	Chrysene	218-01-9	5.0	1.0	U	
20	Di-n-butyl phthalate	84-74-2	5.0	1.0	U	
21	Di-n-octyl phthalate	117-84-0	5.0	1.0	U	
22	Dibenz (a, h) anthracene	53-70-3	5.0	1.0	U	
23	Dibenzofuran	132-64-9	5.0	1.0	U	
24	3,3'-Dichlorobenzidine	91-94-1	20	1.0	U	
25	2,4-Dichlorophenol	120-83-2	5.0	1.0	U	
26	Diethyl phthalate	84-66-2	5.0	1.0	U	
27	Dimethyl phthalate	131-11-3	5.0	1.0	U	
28	2,4-Dimethylphenol	105-67-9	5.0	1.0	U	
29	4,6-Dinitro-2-methylphenol	534-52-1	20	1.0	U	
30	2,4-Dinitrophenol	51-28-5	20	1.0	U	
31	2,6-Dinitrotoluene	606-20-2	5.0	1.0	U	
32	2,4-Dinitrotoluene	121-14-2	5.0	1.0	U	
33	bis(2-Ethylhexyl) phthalate	117-81-7	5.0	1.0	1.0	J
34	Fluoranthene	206-44-0	5.0	1.0	U	
35	Fluorene	86-73-7	5.0	1.0	U	
36	Hexachlorobenzene	118-74-1	5.0	1.0	U	
37	Hexachlorobutadiene	87-68-3	5.0	1.0	U	
38	Hexachlorocyclopentadiene	77-47-4	5.0	1.0	U	
39	Hexachloroethane	67-72-1	5.0	1.0	U	
40	Indeno (1,2,3-c,d) pyrene	193-39-5	5.0	1.0	U	
41	Isophorone	78-59-1	5.0	1.0	U	
42	2-Methylnaphthalene	91-57-6	5.0	1.0	U	

QUALITY ASSESSMENT REPORT - METHOD BLANK ANALYSIS

Extraction Date:	02/18/99	ENCOTEC Project ID:	33000
Analysis Date:	02/19/99	ENCOTEC SDG ID:	CRA-GMM-99B1
Second Analysis Date:	N/A	ENCOTEC QC Set ID:	BNAB1207W
Method Reference:	8270	ENCOTEC Submission ID:	100016156
Matrix:	WATER	ENCOTEC Method Blank ID:	200116245

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/L)	Dil	Conc (ug/L)	Flag
43	2-Methylphenol	95-48-7	5.0	1.0	U	
44	4-Methylphenol	106-44-5	5.0	1.0	U	
45	N-Nitroso-di-n-propylamine	621-64-7	5.0	1.0	U	
46	N-Nitrosodiphenylamine	86-30-6	5.0	1.0	U	
47	Naphthalene	91-20-3	5.0	1.0	U	
48	3-Nitroaniline	99-09-2	20	1.0	U	
49	2-Nitroaniline	88-74-4	20	1.0	U	
50	4-Nitroaniline	100-01-6	20	1.0	U	
51	Nitrobenzene	98-95-3	5.0	1.0	U	
52	4-Nitrophenol	100-02-7	20	1.0	U	
53	2-Nitrophenol	88-75-5	5.0	1.0	U	
54	Pentachlorophenol	87-86-5	20	1.0	U	
55	Phenanthrene	85-01-8	5.0	1.0	U	
56	Phenol	108-95-2	5.0	1.0	U	
57	Pyrene	129-00-0	5.0	1.0	U	
58	1,2,4-Trichlorobenzene	120-82-1	5.0	1.0	U	
59	2,4,6-Trichlorophenol	88-06-2	5.0	1.0	U	
60	2,4,5-Trichlorophenol	95-95-4	20	1.0	U	

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**WATER MATRIX SURROGATE RECOVERY
 SEMIVOLATILE ORGANICS**

Project Name: CONESTOGA-ROVERS & ASSOCIATES
 Project Number: 33000
 Report Date: 02/24/99
 QC Set I.D.: BNAB1207W

ENCOTEC Sample ID	BASE-NEUTRAL EXTRACTABLE ANALYTES			ACID EXTRACTABLE ANALYTES		
	% Recovery Nitro- benzene-d ₅ (23 - 120)	% Recovery 2-Fluorobi- phenyl (30 - 115)	% Recovery Ter- phenyl-d ₄ (18 - 140)	% Recovery Phenol -d ₅ (15 - 115)	% Recovery 2-Fluoro- phenol (15 - 121)	% Recovery 2,4,6-Tribromo- phenol (15 - 130)
200117928	92	80	128	38	53	92
200116245 MB	92	85	92	37	57	93
200116461 LCS	113	108	95	56	77	115
200117861 MS	105	101	81	78	100	107
200117861 MSD	108	92	79	78	98	111

* 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 30 outside QC Windows

Note:

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SOIL MATRIX SURROGATE RECOVERY
 SEMIVOLATILE ORGANICS

Project Name: CONESTOGA-ROVERS & ASSOCIATES
 Project Number: 33000
 Report Date: 02/24/99
 QC Set I.D.: BNAB1814S

ENCOTEC Sample I.D.	BASE-NEUTRAL EXTRACTABLE ANALYTES (23-120)		ACID EXTRACTABLE ANALYTES (24-113)		ACID EXTRACTABLE ANALYTES (25-121)		% Recovery 2,4,6-Tribromo- phenol (19-122)	
	% Recovery Nitrobenzene -d5	% Recovery 2-Fluorobi- phenyl (30-115)	% Recovery Terphenyl -d14 (18-137)	% Recovery Phenol-d5 (24-113)	% Recovery 2-Fluoro- phenol (25-121)	% Recovery 2,4,6-Tribromo- phenol (19-122)		
200117926	85	84	130	92	81	112		
200117927	68	66	111	74	65	88		
200117929	78	78	130	79	73	91		
200116247 MB	75	80	90	77	74	99		
200116468 LCS	86	79	109	88	81	110		
200118112 MS	86	82	133	83	78	113		
200118112 MSD	95	83	139*	90	78	115		

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

RECOVERY: 1 out of 42 outside QC Windows

Note:

Form 090SSL2G.GNI

Rev. 10/08/98

LABORATORY CONTROL SAMPLE (LCS)
 SEMIVOLATILE ORGANICS - SOIL MATRIX

Project Name: ENCOTEC
 Project Number: 10000
 QC Set ID: BNAB1814S

ENCOTEC ID: 200116468

Compound	Conc.	Conc.	Percent	Quality Control
	pike	LCS	Recovery	Windows
	(mg/kg)	(mg/kg)	(%)	Recovery (%)
2-Chlorophenol	2.00	1.68	84	57-112
bis(2-Chloroethyl)ether	2.00	1.61	81	61-123
Phenol	2.00	1.62	81	58-120
1,3-Dichlorobenzene	2.00	1.55	78	68-114
1,4-Dichlorobenzene	2.00	1.74	87	67-119
1,2-Dichlorobenzene	2.00	1.83	92	71-116
bis(2-Chloroisopropyl) ether	2.00	1.61	81	52-151
Hexachloroethane	2.00	1.85	93	69-126
n-Nitroso-di-n-propylamine	2.00	2.26	113	79-114
Nitrobenzene	2.00	1.68	84	46-137
Isophorone	2.00	1.95	98	61-126
2-Nitrophenol	2.00	1.75	88	62-113
2,4-Dimethylphenol	2.00	1.85	93	54-121
bis(2-Chloroethoxy)methane	2.00	1.73	87	74-127
2,4-Dichlorophenol	2.00	1.85	93	61-116
1,2,4-Trichlorobenzene	2.00	1.71	86	74-120
Naphthalene	2.00	1.74	87	75-119
Hexachlorobutadiene	2.00	1.93	97	58-162
4-Chloro-3-methylphenol	2.00	1.91	96	80-117
2,4,6-Trichlorophenol	2.00	1.74	87	62-116
2-Chloronaphthalene	2.00	1.65	83	70-124
Acenaphthylene	2.00	1.78	89	69-118
2,6-Dinitrotoluene	2.00	1.90	95	30-167
Acenaphthene	2.00	1.85	93	68-131
2,4-Dinitrophenol	2.00	0.790	40	D-113
2,4-Dinitrotoluene	2.00	2.16	108	78-121
4-Nitrophenol	2.00	2.26	113 *	56-109
Fluorene	2.00	1.84	92	74-132
4-Chlorophenyl phenyl ether	2.00	1.78	89	74-128
Diethylphthalate	2.00	1.86	93	72-128
4,6-Dinitro-2-methylphenol	2.00	1.42	71	2-175
n-Nitrosodiphenylamine	2.00	1.84	92	30-171
4-Bromophenyl phenyl ether	2.00	1.84	92	68-131
Hexachlorobenzene	2.00	1.90	95	68-128
Pentachlorophenol	2.00	1.54	77	18-100
Phenanthrene	2.00	1.98	99	74-126
Anthracene	2.00	2.13	107	75-132
Di-n-butyl phthalate	2.00	2.07	104	77-126
Fluoranthene	2.00	2.30	115	69-141
Pyrene	2.00	1.85	93	65-145
Butyl benzyl phthalate	2.00	1.96	98	71-143
Benzo(a)anthracene	2.00	2.02	101	69-139
Chrysene	2.00	2.10	105	48-182
3-3'-Dichlorobenzidine	2.00	1.42	71	D-292
bis(2-Ethylhexyl)phthalate	2.00	1.96	98	38-188
Di-n-octyl phthalate	2.00	2.01	101	21-173
Benzo(b)fluoranthene	2.00	1.84	92	50-135
Benzo(k)fluoranthene	2.00	1.68	84	62-141
Benzo(a)pyrene	2.00	1.79	90	70-134
Indeno(1,2,3-cd)pyrene	2.00	2.01	101	35-169
Dibenz(a,h)anthracene	2.00	2.33	117	41-171
Benzo(ghi)perylene	2.00	2.00	100	2-192

Recovery: 1 out of 52 outside QC windows

Note:
 SAVED AS: C:\NPPCHEM\1\DATA\QC\BLB1814SU.XLS

65

LABORATORY CONTROL SAMPLE (LCS)
 SEMIVOLATILE ORGANICS - WATER MATRIX

Project Name: ENCOTEC
 Project Number: 10000
 QC Set ID: BNAB1207W

ENCOTEC ID: 200116461

Compound	Conc.	Conc	Percent	Quality Control
	Spiked	LCS	Recovery	Windows
	(mg/L)	(mg/L)	(%)	Recovery
				(%)
2-Chlorophenol	0.100	0.118	118	59-114
bis(2-Chloroethyl) ether	0.100	0.111	111	55-126
Phenol	0.100	0.0478	48	21-100
1,3-Dichlorobenzene	0.100	0.0933	93	47-100
1,4-Dichlorobenzene	0.100	0.0946	95	48-106
1,2-Dichlorobenzene	0.100	0.0975	97	50-107
bis(2-Chloroisopropyl) ether	0.100	0.124	124	58-123
Hexachloroethane	0.100	0.106	106	47-113
n-Nitroso-di-n-propylamine	0.100	0.136	136	60-144
Nitrobenzene	0.100	0.124	124	60-121
Isophorone	0.100	0.115	115	62-125
2-Nitrophenol	0.100	0.107	107	58-123
2,4-Dimethylphenol	0.100	0.100	100	51-114
bis(2-Chloroethoxy)methane	0.100	0.122	122	60-130
2,4-Dichlorophenol	0.100	0.114	114	58-116
1,2,4-Trichlorobenzene	0.100	0.0952	95	50-101
Naphthalene	0.100	0.111	111	56-114
Hexachlorobutadiene	0.100	0.116	116	47-115
4-Chloro-3-methylphenol	0.100	0.118	118	59-114
2,4,6-Trichlorophenol	0.100	0.118	118	47-128
2-Chloronaphthalene	0.100	0.111	111	53-115
Acenaphthylene	0.100	0.114	114	55-116
2,6-Dinitrotoluene	0.100	0.116	116	56-129
Acenaphthene	0.100	0.117	117	62-120
2,4-Dinitrophenol	0.100	0.0132	13	30-135
2,4-Dinitrotoluene	0.100	0.130	130	59-126
4-Nitrophenol	0.100	0.0275	28	30-89
Fluorene	0.100	0.115	115	53-123
4-Chlorophenyl phenyl ether	0.100	0.119	119	52-124
Diethylphthalate	0.100	0.0535	53	30-118
4,6-Dinitro-2-methylphenol	0.100	0.0826	83	30-156
n-Nitrosodiphenylamine	0.100	0.119	119	57-124
4-Bromophenyl phenyl ether	0.100	0.119	119	62-119
Hexachlorobenzene	0.100	0.114	114	48-150
Pentachlorophenol	0.100	0.0876	88	30-139
Phenanthrene	0.100	0.115	115	61-124
Anthracene	0.100	0.119	119	56-128
Di-n-butyl phthalate	0.100	0.0928	93	40-113
Fluoranthene	0.100	0.104	104	56-127
Pyrene	0.100	0.115	115	53-130
Butyl benzyl phthalate	0.100	0.0837	84	30-120
Benzo(a) anthracene	0.100	0.118	118	59-127
Chrysene	0.100	0.119	119	72-161
3,3'-Dichlorobenzidine	0.100	0.126	126	30-287
bis(2-Ethylhexyl)phthalate	0.100	0.118	118	58-128
Di-n-octyl phthalate	0.100	0.117	117	54-135
Benzo(b) fluoranthene	0.100	0.0966	97	55-121
Benzo(k) fluoranthene	0.100	0.112	112	51-133
Benzo(a) pyrene	0.100	0.105	105	58-122
Indeno(1,2,3-cd) pyrene	0.100	0.121	121	44-139
Dibenz(a,h) anthracene	0.100	0.142	142	67-175
Benzo(ghi) perylene	0.100	0.129	129	54-133

D = Detected, result must be greater than zero.

Recovery: 8 out of 52 outside QC windows

Note:

SAVED AS: C:\HPCHEM\1\DATA\QC\BLB1207WY.XLS

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

Project Name: ENCOTEC
 Project Number: 10000
 QC Set ID: BNAB1814S

SAMPLE SPIKED - ENCOTEC ID: 200118112

Compound	Conc. Spiked (mg/Kg)	Sample Result (mg/Kg)	Conc. MS (mg/Kg)	Percent Recovery (%)	Conc. MSD (mg/Kg)	Percent Recovery (%)	Quality Control Limits		
							RPD (%)	Recovery (%)	
1,2,4-Trichlorobenzene	2.00	U	1.66	83	1.80	90	7.84	23	43-113
Acenaphthene	2.00	U	1.33	66	1.32	66	0.73	19	45-124
2,4-Dinitrotoluene	2.00	U	1.44	72	1.47	73	2.02	47	44-109
Pyrene	2.00	U	1.66	83	1.66	83	0.00	36	24-142
N-Nitroso-di-n-propylamine	2.00	U	2.17	108	2.27	113	4.41	38	44-115
1,4-Dichlorobenzene	2.00	U	1.46	73	1.66	83	12.40	27	40-108
Pentachlorophenol	3.00	U	2.49	83	2.79	93	11.12	47	33-129
Phenol	3.00	U	2.46	82	2.31	77	6.33	35	60-97
2-Chlorophenol	3.00	U	2.47	82	2.73	91	9.98	50	49-111
4-Chloro-3-methylphenol	3.00	U	2.69	90	2.81	94	4.49	33	49-120
4-Nitrophenol	3.00	U	3.51	117	3.34	111	4.77	50	41-133

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

Note:

SAVED AS: C:\HPCHEM\1\DATA\QC\BMB1814SU.XLS

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

Project Name: ENCOTEC
 Project Number: 10000
 QC Set ID: BNAB1207W

SAMPLE SPIKED - ENCOTEC ID: 200117861

Compound	Conc. Spiked (mg/L)	Sample Result (mg/L)	Conc. MS (mg/L)	Percent Recovery (%)	Conc. MSD (mg/L)	Percent Recovery (%)	Quality Control Limits		
							RPD (%)	Recovery (%)	
1,2,4-Trichlorobenzene	0.100	U	0.0989	99	0.106	106	6.83	24	56-126
Acenaphthene	0.100	U	0.0631	63	0.0612	61	3.12	21	59-125
2,4-Dinitrotoluene	0.100	U	0.0633	63 *	0.0659	66 *	4.04	22	67-119
Pyrene	0.100	U	0.0706	71	0.0692	69	1.96	32	48-150
N-Nitroso-di-n-propylamine	0.100	U	0.0932	93	0.103	103	10.40	24	49-140
1,4-Dichlorobenzene	0.100	U	0.0879	88	0.0948	95	7.51	27	64-113
Pentachlorophenol	0.150	U	0.0465	31	0.0993	66	72.41 *	31	D-171
Phenol	0.150	U	0.107	71	0.101	68	5.29	18	D-112
2-Chlorophenol	0.150	U	0.155	103	0.157	104	1.32	19	35-133
4-Chloro-3-methylphenol	0.150	U	0.148	99	0.159	106	6.93	16	47-129
4-Nitrophenol	0.150	U	0.0499	33	0.0599	40	18.25	44	D-106

D = Detected, result must be greater than zero.

RPD: 1 out of 11 outside of QC Windows.

Recovery: 2 out of 22 outside of QC Windows.

Note:

SAVED AS: C:\HPCHEM\1\DATA\QC\BMB1207W.XLS
 Form 090SWN3G.XLS

QUALITY ASSESSMENT REPORT - METHOD BLANK ANALYSIS

Extraction Date:	N/A	ENCOTEC Project ID:	3300^
Analysis Date:	02/18/99	ENCOTEC SDG ID:	CRA-GMM-99B
Second Analysis Date:	N/A	ENCOTEC QC Set ID:	VOJB1801.17
Method Reference:	8260B/5035	ENCOTEC Submission ID:	100016156
Matrix:	SOIL	ENCOTEC Method Blank ID:	20011621

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flt
1	Acetone	67-64-1	5000	1.0	U	
2	Benzene	71-43-2	50	1.0	U	
3	Bromodichloromethane	75-27-4	100	1.0	U	
4	Bromoform	75-25-2	100	1.0	U	
5	Bromomethane	74-83-9	250	1.0	U	
6	2-Butanone (MEK)	78-93-3	2500	1.0	U	
7	Carbon disulfide	75-15-0	250	1.0	U	
8	Carbon tetrachloride	56-23-5	50	1.0	U	
9	Chlorobenzene	108-90-7	50	1.0	U	
10	Chloroethane	75-00-3	250	1.0	U	
11	Chloroform	67-66-3	50	1.0	U	
12	Chloromethane	74-87-3	250	1.0	U	
13	Dibromochloromethane	124-48-1	100	1.0	U	
14	1,2-Dichloroethane	107-06-2	50	1.0	U	
15	1,1-Dichloroethane	75-34-3	50	1.0	U	
16	total 1,2-Dichloroethene	540-59-0	50	1.0	U	
17	1,1-Dichloroethene	75-35-4	50	1.0	U	
18	1,2-Dichloropropane	78-87-5	50	1.0	U	
19	trans-1,3-Dichloropropene	10061-02-6	50	1.0	U	
20	cis-1,3-Dichloropropene	10061-01-5	50	1.0	U	
21	Ethylbenzene	100-41-4	50	1.0	U	
22	2-Hexanone	591-78-6	2500	1.0	U	
23	4-Methyl-2-pentanone (MIBK)	108-10-1	2500	1.0	U	
24	Methylene chloride	75-09-2	250	1.0	U	
25	Styrene	100-42-5	50	1.0	U	
26	1,1,2,2-Tetrachloroethane	79-34-5	100	1.0	U	
27	Tetrachloroethene	127-18-4	50	1.0	U	
28	Toluene	108-88-3	50	1.0	U	
29	1,1,2-Trichloroethane	79-00-5	50	1.0	U	
30	1,1,1-Trichloroethane	71-55-6	50	1.0	U	
31	Trichloroethene	79-01-6	50	1.0	U	
32	Vinyl chloride	75-01-4	100	1.0	U	
33	total Xylenes	1330-20-7	150	1.0	U	

Safety-Kleen (ENCOTEC)
3985 Research Park Drive * Ann Arbor, MI 48108
734 / 761-1389

VOLATILE ORGANICS DATA SUMMARY SHEET

Project Name: CONESTOGA-ROVERS & ASSOCIATES
Project Number: 33000
Method: 8260
Report Date: FEBRUARY 23, 1999

Sample I.D.: METHOD BLANK
Sample Date: NA
Date Received: NA
Date Analyzed: 02/17/99
ENCOTEC I.D.: 200116277
QC Set I.D.: VOJB1201W

U = Analyte not detected.

MICHIGAN DNR LIST ¹⁾ VOLATILE ORGANICS	CAS NUMBER	CONC. (ug/L)	DETECTION LIMIT (ug/L)
Acetone	67-64-1	U	100
Benzene	71-43-2	U	5.0
Bromochloromethane	74-97-5	U	1.0
Bromodichloromethane	75-27-4	U	1.0
Bromoform	75-25-2	U	1.0
Bromomethane	74-83-9	U	1.0
2-Butanone	78-93-3	U	50
Carbon disulfide	75-15-0	U	50
Carbon tetrachloride	56-23-5	U	1.0
Chlorobenzene	108-90-7	U	1.0
Chloroethane	75-00-3	U	1.0
Chloroform	67-66-3	U	1.0
Chloromethane	74-87-3	U	1.0
Dibromochloromethane	124-48-1	U	1.0
1,2-Dibromoethane	106-93-4	U	1.0
1,2-Dibromo-3-chloropropane	96-12-8	U	1.0
1,2-Dichlorobenzene	95-50-1	U	1.0
1,3-Dichlorobenzene	541-73-1	U	1.0
1,4-Dichlorobenzene	106-46-7	U	1.0
1,1-Dichloroethane	75-34-3	U	1.0
1,2-Dichloroethane	107-06-2	U	1.0

¹⁾ MERA Memoranda #6, Rev. 4.

Safety-Kleen (ENCOTEC)
 3985 Research Park Drive * Ann Arbor, MI 48108
 734 / 761-1389

VOLATILE ORGANICS DATA SUMMARY SHEET

Project Name: CONESTOGA-ROVERS & ASSOCIATES
 Project Number: 33000
 Method: 8260
 Report Date: FEBRUARY 23, 1999

Sample I.D.: METHOD BLANK
 Sample Date: NA
 Date Received: NA
 Date Analyzed: 02/17/99
 ENCOTEC I.D.: 200116277
 QC Set I.D.: VOJB1201W

U = Analyte not detected.

MICHIGAN DNR LIST ¹⁾ VOLATILE ORGANICS	CAS NUMBER	CONC. (ug/L)	DETECTION LIMIT (ug/L)
1,1-Dichloroethene	75-35-4	U	1.0
cis-1,2-Dichloroethene	156-59-2	U	1.0
trans-1,2-Dichloroethene	156-60-5	U	1.0
1,2-Dichloropropane	78-87-5	U	1.0
cis-1,3-Dichloropropene	10061-01-5	U	1.0
trans-1,3-Dichloropropene	10061-02-6	U	1.0
Ethylbenzene	100-41-4	U	1.0
2-Hexanone	591-78-6	U	50
Methylene chloride	75-09-2	U	5.0
4-Methyl-2-pentanone	108-10-1	U	50
Styrene	100-42-5	U	1.0
1,1,2,2-Tetrachloroethane	79-34-5	U	1.0
Tetrachloroethene	127-18-4	U	1.0
Toluene	108-88-3	U	1.0
1,1,1-Trichloroethane	71-55-6	U	1.0
1,1,2-Trichloroethane	79-00-5	U	1.0
Trichloroethene	79-01-6	U	1.0
Vinyl chloride	75-01-4	U	1.0
total-Xylenes	1330-20-7	U	3.0

¹⁾ MERA Memoranda #6, Rev. 4.

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

**WATER MATRIX SURROGATE RECOVERY
VOLATILE ORGANICS**

Project Name: Conestoga-Rovers & Associates
Project Number: 33000
Report Date: February 22, 1999
QC Set I.D.: VOJB1201W

ENCOTEC Sample I.D.	% Recovery <u>Dibromofluoromethane</u> (86-118)	% Recovery <u>D4-1,2-Dichloroethane</u> (80-120)	% Recovery <u>D8-Toluene</u> (88-110)	% Recovery <u>BFB</u> (86-115)
200117928	93	94	99	104
200117930	94	95	99	102
200116277 MB	95	98	100	96
200116431 LCS	100	113	98	101
200115636 MS	101	108	97	100
200115636 MSD	101	107	97	99

All samples fortified with 0.05 mg/L of each surrogate analyte.

* 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:

Form 065VWN2G.GN1

Rev. 08/10/98

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

**WATER MATRIX SURROGATE RECOVERY
 VOLATILE ORGANICS**

Project Name: Conestoga-Rovers & Associates
 Project Number: 33000
 Report Date: February 22, 1999
 QC Set I.D.: VOJB1801M

ENCOTEC Sample I.D.	% Recovery Dibromofluoromethane (80-120)	% Recovery D4-1,2-Dichloroethane (70-121)	% Recovery D8-Toluene (81-117)	% Recovery BFB (74-121)
200117926	93	93	102	111
200117927	92	91	100	106
200117929	93	90	99	97
200116214 MB	92	89	99	97
200116462 LCS	97	100	97	101
200118024 MS	94	90	99	103
200118024 MSD	92	91	99	106

All samples fortified with 0.05 mg/L of each surrogate analyte.

* 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:

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

LABORATORY CONTROL SAMPLE (LCS)
 LOW LEVEL VOLATILE ORGANICS - WATER MATRIX

Project Name: ENCOTEC
 Project Number: 10000
 QC Set ID: VOJB1201W

ENCOTEC ID: 200116431

Compound	Conc.	Conc.	Percent	Quality Control
	Spiked	LCS	Recovery	Limits
	(mg/L)	(mg/L)	(%)	(%)
Benzene	0.0100	0.0117	117	60-142
Bromodichloromethane	0.0100	0.0117	117	63-132
Bromoform	0.0100	0.0117	117	44-151
Carbon tetrachloride	0.0100	0.0126	126	48-141
Chlorobenzene	0.0100	0.0115	115	72-126
Chloroform	0.0100	0.0117	117	67-138
Dibromochloromethane	0.0100	0.0113	113	60-133
1,1-Dichloroethane	0.0100	0.0127	127	61-137
1,2-Dichloroethane	0.0100	0.0120	120	54-155
1,1-Dichloroethene	0.0100	0.0120	120	35-142
trans-1,2-Dichloroethene	0.0100	0.0120	120	60-136
1,2-Dichloropropane	0.0100	0.0119	119	64-138
Ethylbenzene	0.0100	0.0115	115	64-130
Methylene chloride	0.0100	0.0127	127	7-168
1,1,2,2-Tetrachloroethane	0.0100	0.0106	106	53-141
Tetrachloroethene	0.0100	0.0117	117	53-134
Toluene	0.0100	0.0116	116	65-132
1,1,1-Trichloroethane	0.0100	0.0119	119	55-142
1,1,2-Trichloroethane	0.0100	0.0108	108	61-138
Trichloroethene	0.0100	0.0119	119	47-139

Recovery: 0 out of 20 outside QC windows

Note:

SAVED AS: C:\HPCHEM\1\DATA\QC\VLB12W1J.XLS

Safety-Kleen / ENCOTEC
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 313 / 761-1389

LABORATORY CONTROL SAMPLE (LCS)
 VOLATILE ORGANICS - SOIL MATRIX

Project Name: ENCOTEC
 Project Number: 10000
 QC Set ID: VOJB1801M

ENCOTEC ID: 200116462

<u>Compound</u>	<u>Conc. Spiked (mg/Kg)</u>	<u>Conc. LCS (mg/Kg)</u>	<u>Percent Recovery (%)</u>	Quality Control
				<u>Windows Recovery (%)</u>
Benzene	0.0100	0.0109	109	76-136
Bromodichloromethane	0.0100	0.0108	108	78-131
Bromoform	0.0100	0.0099	99	68-124
Carbon tetrachloride	0.0100	0.0107	107	70-136
Chlorobenzene	0.0100	0.0110	110	73-127
Chloroform	0.0100	0.0109	109	78-126
Dibromochloromethane	0.0100	0.0102	102	67-133
1,1-Dichloroethane	0.0100	0.0112	112	66-140
1,2-Dichloroethane	0.0100	0.0102	102	63-140
1,1-Dichloroethene	0.0100	0.0103	103	47-187
trans-1,2-Dichloroethene	0.0100	0.0110	110	69-143
1,2-Dichloropropane	0.0100	0.0110	110	70-122
Ethylbenzene	0.0100	0.0113	113	73-129
Methylene chloride	0.0100	0.0095	95	61-163
1,1,2,2-Tetrachloroethane	0.0100	0.0100	100	68-120
Tetrachloroethene	0.0100	0.0107	107	61-135
Toluene	0.0100	0.0109	109	71-133
1,1,1-Trichloroethane	0.0100	0.0104	104	67-129
1,1,2-Trichloroethane	0.0100	0.0102	102	73-125
Trichloroethene	0.0100	0.0115	115	64-152

Recovery: 0 out of 20 outside QC windows

Note:

SAVED AS: C:\HPCHEM\1\DATA\QC\VLB18M1J.XLS

Rev. 02/24/97

75

Safety-Kleen / ENCOTEC
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 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: VOJB1201W

ENCOTEC ID: 200115636

Compound	Conc. Spiked (mg/L)	Sample Result (mg/L)	Conc. MS (mg/L)	Percent Recovery (%)	Conc. MSD (mg/L)	Percent Recovery (%)	Quality Control Limits		
							RPD (%)	RPD (%)	Recovery (%)
1,1-Dichloroethene	2.50	U	2.20	88	2.21	88	0.57	14	61-145
Trichloroethene	2.50	U	2.57	103	2.53	101	1.77	14	71-120
Chlorobenzene	2.50	U	2.87	115	2.88	115	0.43	13	75-130
Toluene	2.50	8.2	10.5	95	10.6	97	0.50	13	76-125
Benzene	2.50	U	2.66	107	2.67	107	0.37	11	76-127

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

Safety-Kleen / 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: VOJB1801M

ENCOTEC ID: 200118024

Compound	Conc. Spiked (mg/Kg)	Sample Result	Conc. MS (mg/Kg)	Percent Recovery (%)	Conc. MSD (mg/Kg)	Percent Recovery (%)	Quality Control Limits		
							RPD (%)	RPD (%)	Recovery (%)
1,1-Dichloroethene	0.500	U	0.459	92	0.451	90	1.76	22	59-172
Trichloroethene	0.500	U	0.499	100	0.496	99	0.70	24	62-137
Chlorobenzene	0.500	U	0.499	100	0.513	103	2.77	21	60-133
Toluene	0.500	U	0.499	100	0.506	101	1.39	21	59-139
Benzene	0.500	U	0.486	97	0.479	96	1.45	21	66-142

77

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

Chains of Custody

CRA

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

CHAIN OF CUSTODY RECORD

SAMPLER'S SIGNATURE: *St. J. Morris* PRINTED NAME: *Steven S. Howeneyer*

SHIPPED TO (Laboratory Name):

Safety Kleen (Encotec), Inc.

REFERENCE NUMBER:

12626

PROJECT NAME:

Mt. Morris Dump Site

SAMPLE No. DATE TIME

1 2/11/99 SS-990211-12626-SSH-201 Soil

2 -202

3 -203

4 -204

5 SS-990211-12626-SSH-205

6 SS-990211-12626-SSH-206

7 SS-990211-12626-SSH-207

8 WS-990211-12626-SSH-208 water

9 SS-990211-12626-SSH-209 soil

10 Trip blank water

PARAMETERS: *SOils, PCBs, Metals (Mn, Pb, Cu, Zn, Ni, Cr, Cd, Hg, As, Se, Mo, V, Co, Fe, S, Cl, Br, I, F, Cl⁻, SO₄²⁻, NO₃⁻, NO₂⁻, NH₄⁺, PO₄³⁻, H₂O₂, H₂S, H₂SO₄, H₂CO₃, H₂PO₄⁻, H₂PO₃⁻, H₂PO₂⁻, H₂SiO₄²⁻, H₂SiO₃⁻, H₂SiO₂, H₂SiO₃, H₂SiO₄, H₂SiO₅, H₂SiO₆, H₂SiO₇, H₂SiO₈, H₂SiO₉, H₂SiO₁₀, H₂SiO₁₁, H₂SiO₁₂, H₂SiO₁₃, H₂SiO₁₄, H₂SiO₁₅, H₂SiO₁₆, H₂SiO₁₇, H₂SiO₁₈, H₂SiO₁₉, H₂SiO₂₀, H₂SiO₂₁, H₂SiO₂₂, H₂SiO₂₃, H₂SiO₂₄, H₂SiO₂₅, H₂SiO₂₆, H₂SiO₂₇, H₂SiO₂₈, H₂SiO₂₉, H₂SiO₃₀, H₂SiO₃₁, H₂SiO₃₂, H₂SiO₃₃, H₂SiO₃₄, H₂SiO₃₅, H₂SiO₃₆, H₂SiO₃₇, H₂SiO₃₈, H₂SiO₃₉, H₂SiO₄₀, H₂SiO₄₁, H₂SiO₄₂, H₂SiO₄₃, H₂SiO₄₄, H₂SiO₄₅, H₂SiO₄₆, H₂SiO₄₇, H₂SiO₄₈, H₂SiO₄₉, H₂SiO₅₀, H₂SiO₅₁, H₂SiO₅₂, H₂SiO₅₃, H₂SiO₅₄, H₂SiO₅₅, H₂SiO₅₆, H₂SiO₅₇, H₂SiO₅₈, H₂SiO₅₉, H₂SiO₆₀, H₂SiO₆₁, H₂SiO₆₂, H₂SiO₆₃, H₂SiO₆₄, H₂SiO₆₅, H₂SiO₆₆, H₂SiO₆₇, H₂SiO₆₈, H₂SiO₆₉, H₂SiO₇₀, H₂SiO₇₁, H₂SiO₇₂, H₂SiO₇₃, H₂SiO₇₄, H₂SiO₇₅, H₂SiO₇₆, H₂SiO₇₇, H₂SiO₇₈, H₂SiO₇₉, H₂SiO₈₀, H₂SiO₈₁, H₂SiO₈₂, H₂SiO₈₃, H₂SiO₈₄, H₂SiO₈₅, H₂SiO₈₆, H₂SiO₈₇, H₂SiO₈₈, H₂SiO₈₉, H₂SiO₉₀, H₂SiO₉₁, H₂SiO₉₂, H₂SiO₉₃, H₂SiO₉₄, H₂SiO₉₅, H₂SiO₉₆, H₂SiO₉₇, H₂SiO₉₈, H₂SiO₉₉, H₂SiO₁₀₀*

REMARKS: *TAT - Standard*

TOTAL NUMBER OF CONTAINERS: *20*

RELINQUISHED BY: *St. J. Morris*

DATE: *2/11/99*
TIME: *1500*

RECEIVED BY: *Johnnie J. Ocho*

DATE: *2/21/99*
TIME: *915*

RELINQUISHED BY:

DATE:
TIME:

RECEIVED BY:

DATE:
TIME:

RELINQUISHED BY:

DATE:
TIME:

RECEIVED BY:

DATE:
TIME:

METHOD OF SHIPMENT: *FedEx*

AIR BILL No. *809174620379*

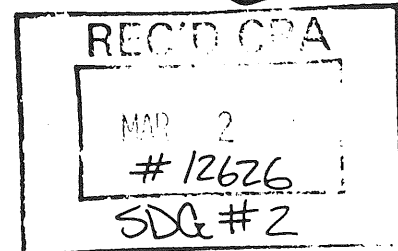
White - Fully Executed Copy
Yellow - Receiving Laboratory Copy
Pink - Shipper Copy
Goldenrod - Sampler Copy

SAMPLE TEAM: *SSH*

RECEIVED FOR LABORATORY BY:

5409

DATE: TIME:



March 2, 1999

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

RE: Analytical Results /GM Mt. Morris
12626

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 Safety-Kleen (ENCOTEC), Inc. on the 13th of February 1999.

Enclosed is a copy of the "Invoice Detail" for your review. The actual invoice will be sent to you under separate cover from our accounting department at our Corporate office.

If you have any questions or need additional assistance please contact me directly.

Sincerely,
Safety-Kleen (ENCOTEC), Inc.

J. Shawn Letwin
J. Shawn Letwin
Project Manager

Enclosure

SDG CRA-GMM-99B2
Batch # 16179
#33000

#12626 : #CRA-GMM-99
Mt. Morris Dump
I
Samples: 3-Water
VOC's, SVOC's, Metals,
RBs
14 days
Lab: Encotec
3/5/99
4/7/99

DATA PACKAGE COVER PAGE

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

If any pages are missing please contact Safety-Kleen (ENCOTEC), Inc. immediately.

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

This document cannot be reproduced, except in full, without the prior written consent of Safety-Kleen (ENCOTEC), Inc..

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

- | | |
|---|--|
| <p>U = The analyte was not detected at or above the quantitation limit.</p> <p>E = The analyte was detected at a concentration greater than the calibration range; therefore the result is estimated.</p> <p>DL = The sample was diluted due to sample matrix, therefore QC was not recoverable.</p> <p>° = The value is outside quality control limits.</p> <p>K = Reported concentration is proportional to dilution factor and may be exaggerated.</p> <p>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.</p> <p>G = Result is greater than the numerical value presented.</p> | <p>J = The analyte was detected at a concentration below the quantitation limit but above the method detection limit.</p> <p>B = The analyte was detected in the associated method blank.</p> <p>M = Matrix interference has resulted in an elevated quantitation limit or distorted QC result.</p> <p>NC = Not Calculable.</p> <p>NA = Not Applicable.</p> <p>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.</p> <p>CA = Combustion aid was necessary to achieve results.</p> <p>W = Result is always reported as "wet weight."</p> |
|---|--|

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: 12626
Project Number: 33000
Sample Delivery Group: CRA-GMM-99B2
Batch Number(s): 100016179
Narrative Date: March 2, 1999

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.

One sample container for sample, W-990212-1262-SSH-210, was received broken. Sufficient sample volume remained to perform the requested analyses.

The metals for sample, W-990212-1262-SSH-210, was received unpreserved. Per EPA guidelines, ENCOTEC preserved the sample but waited at least sixteen hours prior to digestion/analysis.

LCS Recovery Outliers

QC Set ID	Analysis	Corrective Action/Result
BNAB1207W	Semivolatiles	Since $\geq 80\%$ of the LCS recoveries were within QC windows, corrective action was deemed unnecessary.

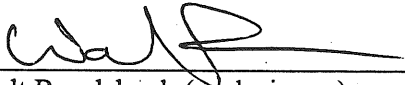
MS/MSD Recovery Outliers

QC Set ID	Analysis	Corrective Action/Result
BNAB1207W	Semivolatiles	Since $\geq 80\%$ of the fortified analytes in the LCS recovered within QC windows, acceptable accuracy was demonstrated and matrix interference is assumed. Corrective action was deemed unnecessary.

MS/MSD RPD Outliers

QC Set ID	Analysis	Corrective Action/Result
BNAB1207W	Semivolatiles	Since $\geq 80\%$ of the RPDs were within QC windows, acceptable precision was demonstrated and 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 has been narrated herein.


Walt Roudebush (or designee)
Technical Director

3/2/99
Date

METHOD DESCRIPTION REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

SDG: CRA-GMM-99B2

Submission ID(s): 100016179

<u>Method Reference</u>	<u>Description</u>
6020	Inductively Coupled Plasma - Mass Spectrometry
6010	Inductively Coupled Plasma - Atomic Emission Spectroscopy
7470	Mercury, Cold Vapor, Aqueous Matrix
8082	Polychlorinated Biphenyls by Gas Chromatography
8260B	Volatiles Organic Compounds by GC/MS: Capillary Column
8270	Semivolatile Organic Compounds by GC/MS: Capillary Column

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SAMPLE CROSS REFERENCE REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

SDG: CRA-GMM-99B2

Submission ID(s): 100016179

<u>Client Sample ID</u>	<u>ENCOTEC Sample ID</u>	<u>Sample Matrix</u>	<u>Date Sampled</u>	<u>Date Received</u>
W-990212-12626-SSH-210	200118033	WATER	02/12/99	02/13/99
W-990212-12626-SSH-211	200118034	WATER	02/12/99	02/13/99
W-990212-12626-SSH-212	200118035	WATER	02/12/99	02/13/99
TRIP BLANK	200118036	TRIP BLANK	02/12/99	02/13/99

Safety-Kleen (ENCOTEC), Inc.

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Sample Data

ANALYTICAL REPORT

Client: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 12626
Sample ID: W-990212-12626-SSH-210

Date Sampled	02/12/99	ENCOTEC Project ID:	33000
Date Received:	02/13/99	ENCOTEC SDG ID:	CRA-GMM-99B2
Date Extracted:	N/A	ENCOTEC QC Set ID:	See below
Date Analyzed:	See below	ENCOTEC Submission ID:	100016179
Method Reference:	See below	ENCOTEC Sample ID:	200118033
Matrix:	WATER	Analyte List:	N/A
Percent Total Solids:	N/A	Calculation Basis:	N/A

	Metals Inorganics	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Flag
1	Arsenic	IMSB1601	02/17/99	6020	ug/L	1.0	1	42	
2	Barium	ICPB1603	02/16/99	6010	ug/L	200	1	1100	
3	Cadmium	IMSB1601	02/17/99	6020	ug/L	0.20	1	4.5	
4	Chromium	IMSB1601	02/18/99	6020	ug/L	5.0	1	36	
5	Lead	IMSB1601	02/18/99	6020	ug/L	5.0	5	440	
6	Mercury	CVAB2201	02/23/99	7470	ug/L	0.20	1	3.0	
7	Selenium	IMSB1601	02/17/99	6020	ug/L	5.0	1	U	
8	Silver	IMSB1601	02/18/99	6020	ug/L	0.50	1	U	

ANALYTICAL REPORT

Client: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: W-990212-12626-SSH-211

Date Sampled:	02/12/99	ENCOTEC Project ID:	33000
Date Received:	02/13/99	ENCOTEC SDG ID:	CRA-GMM-99B2
Date Extracted:	N/A	ENCOTEC QC Set ID:	See below
Date Analyzed:	See below	ENCOTEC Submission ID:	10001617
Method Reference:	See below	ENCOTEC Sample ID:	200118034
Matrix:	WATER	Analyte List:	N/A
Percent Total Solids:	N/A	Calculation Basis:	N/

	Metals Inorganics	QC Set ID	Date Analyzed	Method Ref.	Units	Quant. Limit	Dil	Conc	Flg
1	Arsenic	IMSB1601	02/17/99	6020	ug/L	1.0	1	U	
2	Barium	ICPB1603	02/16/99	6010	ug/L	200	1	U	
3	Cadmium	IMSB1601	02/17/99	6020	ug/L	0.20	1	U	
4	Chromium	IMSB1601	02/18/99	6020	ug/L	5.0	1	U	
5	Lead	IMSB1601	02/17/99	6020	ug/L	3.0	1	U	
6	Mercury	CVAB2201	02/23/99	7470	ug/L	0.20	1	U	
7	Selenium	IMSB1601	02/17/99	6020	ug/L	5.0	1	U	
8	Silver	IMSB1601	02/18/99	6020	ug/L	0.50	1	U	

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ANALYTICAL REPORT

Client: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: W-990212-12626-SSH-212

Date Sampled	02/12/99	ENCOTEC Project ID:	33000
Date Received:	02/13/99	ENCOTEC SDG ID:	CRA-GMM-99B2
Date Extracted:	N/A	ENCOTEC QC Set ID:	See below
Date Analyzed:	See below	ENCOTEC Submission ID:	100016179
Method Reference:	See below	ENCOTEC Sample ID:	200118035
Matrix:	WATER	Analyte List:	N/A
Percent Total Solids:	N/A	Calculation Basis:	N/A

	Metals Inorganics	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Flag
1	Arsenic	IMSB1601	02/17/99	6020	ug/L	1.0	1	U	
2	Barium	ICPB1603	02/16/99	6010	ug/L	200	1	U	
3	Cadmium	IMSB1601	02/17/99	6020	ug/L	0.20	1	U	
4	Chromium	IMSB1601	02/18/99	6020	ug/L	5.0	1	U	
5	Lead	IMSB1601	02/17/99	6020	ug/L	3.0	1	U	
6	Mercury	CVAB2201	02/23/99	7470	ug/L	0.20	1	U	
7	Selenium	IMSB1601	02/17/99	6020	ug/L	5.0	1	U	
8	Silver	IMSB1601	02/18/99	6020	ug/L	0.50	1	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 12626
Sample ID: W-990212-12626-SSH-210

Date Sampled:	02/12/99	ENCOTEC Project ID:	33000
Date Received:	02/13/99	ENCOTEC SDG ID:	CRA-GMM-99B2
Date Extracted:	02/19/99	ENCOTEC QC Set ID:	PCBB0801
Analysis Date:	02/22/99	ENCOTEC Submission ID:	10001617
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200118033
Method Reference:	8082	Percent Total Solids:	N/A
Matrix:	WATER	Calculation Basis:	N/.

	PCB MDEQ Part 201 List	CAS #	Quant Limit (ug/L)	Dil	Conc (ug/L)	F g
1	PCB-1016	12674-11-2	0.20	1	U	
2	PCB-1221	11104-28-2	0.20	1	U	
3	PCB-1232	11141-16-5	0.40	1	U	
4	PCB-1242	53469-21-9	0.20	1	U	
5	PCB-1248	12672-29-6	0.20	1	U	
6	PCB-1254	11097-69-1	0.20	1	U	
7	PCB-1260	11096-82-5	0.20	1	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: W-990212-12626-SSH-211

Date Sampled:	02/12/99	ENCOTEC Project ID:	33000
Date Received:	02/13/99	ENCOTEC SDG ID:	CRA-GMM-99B2
Date Extracted:	02/19/99	ENCOTEC QC Set ID:	PCBB0801W
Analysis Date:	02/20/99	ENCOTEC Submission ID:	100016179
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200118034
Method Reference:	8082	Percent Total Solids:	N/A
Matrix:	WATER	Calculation Basis:	N/A

	PCB MDEQ Part 201 List	CAS #	Quant Limit (ug/L)	Dil	Conc (ug/L)	Flag
1	PCB-1016	12674-11-2	0.20	1	U	
2	PCB-1221	11104-28-2	0.20	1	U	
3	PCB-1232	11141-16-5	0.40	1	U	
4	PCB-1242	53469-21-9	0.20	1	U	
5	PCB-1248	12672-29-6	0.20	1	U	
6	PCB-1254	11097-69-1	0.20	1	U	
7	PCB-1260	11096-82-5	0.20	1	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 12626
Sample ID: W-990212-12626-SSH-212

Date Sampled:	02/12/99	ENCOTEC Project ID:	3300
Date Received:	02/13/99	ENCOTEC SDG ID:	CRA-GMM-99B2
Date Extracted:	02/19/99	ENCOTEC QC Set ID:	PCBB0801
Analysis Date:	02/20/99	ENCOTEC Submission ID:	10001617
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200118035
Method Reference:	8082	Percent Total Solids:	N/A
Matrix:	WATER	Calculation Basis:	N/

	PCB MDEQ Part 201 List	CAS #	Quant Limit (ug/L)	Dil	Conc (ug/L)	F g
1	PCB-1016	12674-11-2	0.20	1	U	
2	PCB-1221	11104-28-2	0.20	1	U	
3	PCB-1232	11141-16-5	0.40	1	U	
4	PCB-1242	53469-21-9	0.20	1	U	
5	PCB-1248	12672-29-6	0.20	1	U	
6	PCB-1254	11097-69-1	0.20	1	U	
7	PCB-1260	11096-82-5	0.20	1	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: W-990212-12626-SSH-210

Date Sampled:	02/12/99	ENCOTEC Project ID:	33000
Date Received:	02/13/99	ENCOTEC SDG ID:	CRA-GMM-99B2
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	BNAB1207W
Analysis Date:	02/20/99	ENCOTEC Submission ID:	100016179
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200118033
Method Reference:	8270	Percent Total Solids:	N/A
Matrix:	WATER	Calculation Basis:	N/A

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/L)	Dil	Conc (ug/L)	Flag
1	Acenaphthene	83-32-9	5.0	1.0	U	
2	Acenaphthylene	208-96-8	5.0	1.0	U	
3	Anthracene	120-12-7	5.0	1.0	U	
4	Benzo (a) anthracene	56-55-3	5.0	1.0	U	
5	Benzo (a) pyrene	50-32-8	5.0	1.0	U	
6	Benzo (b) fluoranthene	205-99-2	5.0	1.0	U	
7	Benzo (g, h, i) perylene	191-24-2	5.0	1.0	U	
8	Benzo (k) fluoranthene	207-08-9	5.0	1.0	U	
9	4-Bromophenyl phenyl ether	101-55-3	5.0	1.0	U	
10	Butyl benzyl phthalate	85-68-7	5.0	1.0	U	
11	4-Chloro-3-methylphenol	59-50-7	5.0	1.0	U	
12	4-Chloroaniline	106-47-8	5.0	1.0	U	
13	bis(2-Chloroethoxy)methane	111-91-1	5.0	1.0	U	
14	bis(2-Chloroethyl) ether	111-44-4	5.0	1.0	U	
15	bis(2-Chloroisopropyl) ether	108-60-1	5.0	1.0	U	
16	2-Chloronaphthalene	91-58-7	5.0	1.0	U	
17	2-Chlorophenol	95-57-8	5.0	1.0	U	
18	4-Chlorophenyl phenyl ether	7005-72-3	5.0	1.0	U	
19	Chrysene	218-01-9	5.0	1.0	U	
20	Di-n-butyl phthalate	84-74-2	5.0	1.0	U	
21	Di-n-octyl phthalate	117-84-0	5.0	1.0	U	
22	Dibenz (a, h) anthracene	53-70-3	5.0	1.0	U	
23	Dibenzofuran	132-64-9	5.0	1.0	U	
24	3,3'-Dichlorobenzidine	91-94-1	20	1.0	U	
25	2,4-Dichlorophenol	120-83-2	5.0	1.0	U	
26	Diethyl phthalate	84-66-2	5.0	1.0	U	
27	Dimethyl phthalate	131-11-3	5.0	1.0	U	
28	2,4-Dimethylphenol	105-67-9	5.0	1.0	U	
29	4,6-Dinitro-2-methylphenol	534-52-1	20	1.0	U	
30	2,4-Dinitrophenol	51-28-5	20	1.0	U	
31	2,6-Dinitrotoluene	606-20-2	5.0	1.0	U	
32	2,4-Dinitrotoluene	121-14-2	5.0	1.0	U	
33	bis(2-Ethylhexyl) phthalate	117-81-7	5.0	1.0	U	
34	Fluoranthene	206-44-0	5.0	1.0	U	
35	Fluorene	86-73-7	5.0	1.0	U	

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ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: W-990212-12626-SSH-210

Date Sampled:	02/12/99	ENCOTEC Project ID:	33000
Date Received:	02/13/99	ENCOTEC SDG ID:	CRA-GMM-99B2
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	BNAB1207V
Analysis Date:	02/20/99	ENCOTEC Submission ID:	100016179
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200118033
Method Reference:	8270	Percent Total Solids:	N/A
Matrix:	WATER	Calculation Basis:	N/A

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/L)	Dil	Conc (ug/L)	Flg
36	Hexachlorobenzene	118-74-1	5.0	1.0	U	
37	Hexachlorobutadiene	87-68-3	5.0	1.0	U	
38	Hexachlorocyclopentadiene	77-47-4	5.0	1.0	U	
39	Hexachloroethane	67-72-1	5.0	1.0	U	
40	Indeno (1,2,3-c,d) pyrene	193-39-5	5.0	1.0	U	
41	Isophorone	78-59-1	5.0	1.0	U	
42	2-Methylnaphthalene	91-57-6	5.0	1.0	U	
43	2-Methylphenol	95-48-7	5.0	1.0	U	
44	4-Methylphenol	106-44-5	5.0	1.0	U	
45	N-Nitroso-di-n-propylamine	621-64-7	5.0	1.0	U	
46	N-Nitrosodiphenylamine	86-30-6	5.0	1.0	U	
47	Naphthalene	91-20-3	5.0	1.0	U	
48	3-Nitroaniline	99-09-2	20	1.0	U	
49	2-Nitroaniline	88-74-4	20	1.0	U	
50	4-Nitroaniline	100-01-6	20	1.0	U	
51	Nitrobenzene	98-95-3	5.0	1.0	U	
52	4-Nitrophenol	100-02-7	20	1.0	U	
53	2-Nitrophenol	88-75-5	5.0	1.0	U	
54	Pentachlorophenol	87-86-5	20	1.0	U	
55	Phenanthrene	85-01-8	5.0	1.0	U	
56	Phenol	108-95-2	5.0	1.0	U	
57	Pyrene	129-00-0	5.0	1.0	U	
58	1,2,4-Trichlorobenzene	120-82-1	5.0	1.0	U	
59	2,4,6-Trichlorophenol	88-06-2	5.0	1.0	U	
60	2,4,5-Trichlorophenol	95-95-4	20	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: W-990212-12626-SSH-211

Date Sampled:	02/12/99	ENCOTEC Project ID:	33000
Date Received:	02/13/99	ENCOTEC SDG ID:	CRA-GMM-99B2
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	BNAB1207W
Analysis Date:	02/22/99	ENCOTEC Submission ID:	100016179
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200118034
Method Reference:	8270	Percent Total Solids:	N/A
Matrix:	WATER	Calculation Basis:	N/A

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/L)	Dil	Conc (ug/L)	Flag
1	Acenaphthene	83-32-9	5.0	1.0	U	
2	Acenaphthylene	208-96-8	5.0	1.0	U	
3	Anthracene	120-12-7	5.0	1.0	U	
4	Benzo(a)anthracene	56-55-3	5.0	1.0	U	
5	Benzo(a)pyrene	50-32-8	5.0	1.0	U	
6	Benzo(b)fluoranthene	205-99-2	5.0	1.0	U	
7	Benzo(g,h,i)perylene	191-24-2	5.0	1.0	U	
8	Benzo(k)fluoranthene	207-08-9	5.0	1.0	U	
9	4-Bromophenyl phenyl ether	101-55-3	5.0	1.0	U	
10	Butyl benzyl phthalate	85-68-7	5.0	1.0	U	
11	4-Chloro-3-methylphenol	59-50-7	5.0	1.0	U	
12	4-Chloroaniline	106-47-8	5.0	1.0	U	
13	bis(2-Chloroethoxy)methane	111-91-1	5.0	1.0	U	
14	bis(2-Chloroethyl) ether	111-44-4	5.0	1.0	U	
15	bis(2-Chloroisopropyl) ether	108-60-1	5.0	1.0	U	
16	2-Chloronaphthalene	91-58-7	5.0	1.0	U	
17	2-Chlorophenol	95-57-8	5.0	1.0	U	
18	4-Chlorophenyl phenyl ether	7005-72-3	5.0	1.0	U	
19	Chrysene	218-01-9	5.0	1.0	U	
20	Di-n-butyl phthalate	84-74-2	5.0	1.0	U	
21	Di-n-octyl phthalate	117-84-0	5.0	1.0	U	
22	Dibenz(a,h)anthracene	53-70-3	5.0	1.0	U	
23	Dibenzofuran	132-64-9	5.0	1.0	U	
24	3,3'-Dichlorobenzidine	91-94-1	20	1.0	U	
25	2,4-Dichlorophenol	120-83-2	5.0	1.0	U	
26	Diethyl phthalate	84-66-2	5.0	1.0	U	
27	Dimethyl phthalate	131-11-3	5.0	1.0	U	
28	2,4-Dimethylphenol	105-67-9	5.0	1.0	U	
29	4,6-Dinitro-2-methylphenol	534-52-1	20	1.0	U	
30	2,4-Dinitrophenol	51-28-5	20	1.0	U	
31	2,6-Dinitrotoluene	606-20-2	5.0	1.0	U	
32	2,4-Dinitrotoluene	121-14-2	5.0	1.0	U	
33	bis(2-Ethylhexyl) phthalate	117-81-7	5.0	1.0	U	
34	Fluoranthene	206-44-0	5.0	1.0	U	
35	Fluorene	86-73-7	5.0	1.0	U	

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Report Date: 02/25/99

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: W-990212-12626-SSH-211

Date Sampled:	02/12/99	ENCOTEC Project ID:	33000
Date Received:	02/13/99	ENCOTEC SDG ID:	CRA-GMM-99B2
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	BNAB1207
Analysis Date:	02/22/99	ENCOTEC Submission ID:	10001617
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200118034
Method Reference:	8270	Percent Total Solids:	N/A
Matrix:	WATER	Calculation Basis:	N/

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/L)	Dil	Conc (ug/L)	F g
36	Hexachlorobenzene	118-74-1	5.0	1.0	U	
37	Hexachlorobutadiene	87-68-3	5.0	1.0	U	
38	Hexachlorocyclopentadiene	77-47-4	5.0	1.0	U	
39	Hexachloroethane	67-72-1	5.0	1.0	U	
40	Indeno (1, 2, 3-c, d) pyrene	193-39-5	5.0	1.0	U	
41	Isophorone	78-59-1	5.0	1.0	U	
42	2-Methylnaphthalene	91-57-6	5.0	1.0	U	
43	2-Methylphenol	95-48-7	5.0	1.0	U	
44	4-Methylphenol	106-44-5	5.0	1.0	U	
45	N-Nitroso-di-n-propylamine	621-64-7	5.0	1.0	U	
46	N-Nitrosodiphenylamine	86-30-6	5.0	1.0	U	
47	Naphthalene	91-20-3	5.0	1.0	U	
48	3-Nitroaniline	99-09-2	20	1.0	U	
49	2-Nitroaniline	88-74-4	20	1.0	U	
50	4-Nitroaniline	100-01-6	20	1.0	U	
51	Nitrobenzene	98-95-3	5.0	1.0	U	
52	4-Nitrophenol	100-02-7	20	1.0	U	
53	2-Nitrophenol	88-75-5	5.0	1.0	U	
54	Pentachlorophenol	87-86-5	20	1.0	U	
55	Phenanthrene	85-01-8	5.0	1.0	U	
56	Phenol	108-95-2	5.0	1.0	U	
57	Pyrene	129-00-0	5.0	1.0	U	
58	1,2,4-Trichlorobenzene	120-82-1	5.0	1.0	U	
59	2,4,6-Trichlorophenol	88-06-2	5.0	1.0	U	
60	2,4,5-Trichlorophenol	95-95-4	20	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: W-990212-12626-SSH-212

Date Sampled:	02/12/99	ENCOTEC Project ID:	33000
Date Received:	02/13/99	ENCOTEC SDG ID:	CRA-GMM-99B2
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	BNAB1207W
Analysis Date:	02/22/99	ENCOTEC Submission ID:	100016179
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200118035
Method Reference:	8270	Percent Total Solids:	N/A
Matrix:	WATER	Calculation Basis:	N/A

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/L)	Dil	Conc (ug/L)	Flag
1	Acenaphthene	83-32-9	5.0	1.0	U	
2	Acenaphthylene	208-96-8	5.0	1.0	U	
3	Anthracene	120-12-7	5.0	1.0	U	
4	Benzo(a)anthracene	56-55-3	5.0	1.0	U	
5	Benzo(a)pyrene	50-32-8	5.0	1.0	U	
6	Benzo(b)fluoranthene	205-99-2	5.0	1.0	U	
7	Benzo(g,h,i)perylene	191-24-2	5.0	1.0	U	
8	Benzo(k)fluoranthene	207-08-9	5.0	1.0	U	
9	4-Bromophenyl phenyl ether	101-55-3	5.0	1.0	U	
10	Butyl benzyl phthalate	85-68-7	5.0	1.0	U	
11	4-Chloro-3-methylphenol	59-50-7	5.0	1.0	U	
12	4-Chloroaniline	106-47-8	5.0	1.0	U	
13	bis(2-Chloroethoxy)methane	111-91-1	5.0	1.0	U	
14	bis(2-Chloroethyl) ether	111-44-4	5.0	1.0	U	
15	bis(2-Chloroisopropyl) ether	108-60-1	5.0	1.0	U	
16	2-Chloronaphthalene	91-58-7	5.0	1.0	U	
17	2-Chlorophenol	95-57-8	5.0	1.0	U	
18	4-Chlorophenyl phenyl ether	7005-72-3	5.0	1.0	U	
19	Chrysene	218-01-9	5.0	1.0	U	
20	Di-n-butyl phthalate	84-74-2	5.0	1.0	U	
21	Di-n-octyl phthalate	117-84-0	5.0	1.0	U	
22	Dibenz(a,h)anthracene	53-70-3	5.0	1.0	U	
23	Dibenzofuran	132-64-9	5.0	1.0	U	
24	3,3'-Dichlorobenzidine	91-94-1	20	1.0	U	
25	2,4-Dichlorophenol	120-83-2	5.0	1.0	U	
26	Diethyl phthalate	84-66-2	5.0	1.0	U	
27	Dimethyl phthalate	131-11-3	5.0	1.0	U	
28	2,4-Dimethylphenol	105-67-9	5.0	1.0	U	
29	4,6-Dinitro-2-methylphenol	534-52-1	20	1.0	U	
30	2,4-Dinitrophenol	51-28-5	20	1.0	U	
31	2,6-Dinitrotoluene	606-20-2	5.0	1.0	U	
32	2,4-Dinitrotoluene	121-14-2	5.0	1.0	U	
33	bis(2-Ethylhexyl) phthalate	117-81-7	5.0	1.0	U	
34	Fluoranthene	206-44-0	5.0	1.0	U	
35	Fluorene	86-73-7	5.0	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: W-990212-12626-SSH-212

Date Sampled: 02/12/99
 Date Received: 02/13/99
 Date Extracted: 02/18/99
 Analysis Date: 02/22/99
 Second Analysis Date: N/A
 Method Reference: 8270
 Matrix: WATER

ENCOTEC Project ID: 33000
 ENCOTEC SDG ID: CRA-GMM-99B2
 ENCOTEC QC Set ID: BNAB120717
 ENCOTEC Submission ID: 100016179
 ENCOTEC Sample ID: 200118035
 Percent Total Solids: N/A
 Calculation Basis: N/A

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/L)	Dil	Conc (ug/L)	F
36	Hexachlorobenzene	118-74-1	5.0	1.0	U	
37	Hexachlorobutadiene	87-68-3	5.0	1.0	U	
38	Hexachlorocyclopentadiene	77-47-4	5.0	1.0	U	
39	Hexachloroethane	67-72-1	5.0	1.0	U	
40	Indeno (1,2,3-c,d)pyrene	193-39-5	5.0	1.0	U	
41	Isophorone	78-59-1	5.0	1.0	U	
42	2-Methylnaphthalene	91-57-6	5.0	1.0	U	
43	2-Methylphenol	95-48-7	5.0	1.0	U	
44	4-Methylphenol	106-44-5	5.0	1.0	U	
45	N-Nitroso-di-n-propylamine	621-64-7	5.0	1.0	U	
46	N-Nitrosodiphenylamine	86-30-6	5.0	1.0	U	
47	Naphthalene	91-20-3	5.0	1.0	U	
48	3-Nitroaniline	99-09-2	20	1.0	U	
49	2-Nitroaniline	88-74-4	20	1.0	U	
50	4-Nitroaniline	100-01-6	20	1.0	U	
51	Nitrobenzene	98-95-3	5.0	1.0	U	
52	4-Nitrophenol	100-02-7	20	1.0	U	
53	2-Nitrophenol	88-75-5	5.0	1.0	U	
54	Pentachlorophenol	87-86-5	20	1.0	U	
55	Phenanthrene	85-01-8	5.0	1.0	U	
56	Phenol	108-95-2	5.0	1.0	U	
57	Pyrene	129-00-0	5.0	1.0	U	
58	1,2,4-Trichlorobenzene	120-82-1	5.0	1.0	U	
59	2,4,6-Trichlorophenol	88-06-2	5.0	1.0	U	
60	2,4,5-Trichlorophenol	95-95-4	20	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: W-990212-12626-SSH-210

Date Sampled:	02/12/99	ENCOTEC Project ID:	33000
Date Received:	02/13/99	ENCOTEC SDG ID:	CRA-GMM-99B2
Date Extracted:	N/A	ENCOTEC QC Set ID:	VOPB2001W
Analysis Date:	02/20/99	ENCOTEC Submission ID:	100016179
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200118033
Method Reference:	8260B	Percent Total Solids:	N/A
Matrix:	WATER	Calculation Basis:	N/A

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/L)	Dil	Conc (ug/L)	Flag
1	Acetone	67-64-1	100	1.0	U	
2	Benzene	71-43-2	5.0	1.0	U	
3	Bromodichloromethane	75-27-4	1.0	1.0	U	
4	Bromoform	75-25-2	1.0	1.0	U	
5	Bromomethane	74-83-9	1.0	1.0	U	
6	2-Butanone (MEK)	78-93-3	50	1.0	U	
7	Carbon disulfide	75-15-0	50	1.0	U	
8	Carbon tetrachloride	56-23-5	1.0	1.0	U	
9	Chlorobenzene	108-90-7	1.0	1.0	U	
10	Chloroethane	75-00-3	1.0	1.0	U	
11	Chloroform	67-66-3	1.0	1.0	U	
12	Chloromethane	74-87-3	1.0	1.0	U	
13	Dibromochloromethane	124-48-1	1.0	1.0	U	
14	1,2-Dichloroethane	107-06-2	1.0	1.0	U	
15	1,1-Dichloroethane	75-34-3	1.0	1.0	U	
16	total 1,2-Dichloroethene	540-59-0	1.0	1.0	U	
17	1,1-Dichloroethene	75-35-4	1.0	1.0	U	
18	1,2-Dichloropropane	78-87-5	1.0	1.0	U	
19	trans-1,3-Dichloropropene	10061-02-6	1.0	1.0	U	
20	cis-1,3-Dichloropropene	10061-01-5	1.0	1.0	U	
21	Ethylbenzene	100-41-4	1.0	1.0	U	
22	2-Hexanone	591-78-6	50	1.0	U	
23	4-Methyl-2-pentanone (MIBK)	108-10-1	50	1.0	U	
24	Methylene chloride	75-09-2	5.0	1.0	U	
25	Styrene	100-42-5	1.0	1.0	U	
26	1,1,2,2-Tetrachloroethane	79-34-5	1.0	1.0	U	
27	Tetrachloroethene	127-18-4	1.0	1.0	U	
28	Toluene	108-88-3	1.0	1.0	U	
29	1,1,2-Trichloroethane	79-00-5	1.0	1.0	U	
30	1,1,1-Trichloroethane	71-55-6	1.0	1.0	U	
31	Trichloroethene	79-01-6	1.0	1.0	U	
32	Vinyl chloride	75-01-4	1.0	1.0	U	
33	total Xylenes	1330-20-7	3.0	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: W-990212-12626-SSH-211

Date Sampled:	02/12/99	ENCOTEC Project ID:	3300
Date Received:	02/13/99	ENCOTEC SDG ID:	CRA-GMM-99B2
Date Extracted:	N/A	ENCOTEC QC Set ID:	VOPB2001
Analysis Date:	02/20/99	ENCOTEC Submission ID:	10001617
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200118034
Method Reference:	8260B	Percent Total Solids:	N/A
Matrix:	WATER	Calculation Basis:	N/

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/L)	Dil	Conc (ug/L)	F g
1	Acetone	67-64-1	100	1.0	U	
2	Benzene	71-43-2	5.0	1.0	U	
3	Bromodichloromethane	75-27-4	1.0	1.0	U	
4	Bromoform	75-25-2	1.0	1.0	U	
5	Bromomethane	74-83-9	1.0	1.0	U	
6	2-Butanone (MEK)	78-93-3	50	1.0	U	
7	Carbon disulfide	75-15-0	50	1.0	U	
8	Carbon tetrachloride	56-23-5	1.0	1.0	U	
9	Chlorobenzene	108-90-7	1.0	1.0	U	
10	Chloroethane	75-00-3	1.0	1.0	U	
11	Chloroform	67-66-3	1.0	1.0	U	
12	Chloromethane	74-87-3	1.0	1.0	U	
13	Dibromochloromethane	124-48-1	1.0	1.0	U	
14	1,2-Dichloroethane	107-06-2	1.0	1.0	U	
15	1,1-Dichloroethane	75-34-3	1.0	1.0	U	
16	total 1,2-Dichloroethene	540-59-0	1.0	1.0	U	
17	1,1-Dichloroethene	75-35-4	1.0	1.0	U	
18	1,2-Dichloropropane	78-87-5	1.0	1.0	U	
19	trans-1,3-Dichloropropene	10061-02-6	1.0	1.0	U	
20	cis-1,3-Dichloropropene	10061-01-5	1.0	1.0	U	
21	Ethylbenzene	100-41-4	1.0	1.0	U	
22	2-Hexanone	591-78-6	50	1.0	U	
23	4-Methyl-2-pentanone (MIBK)	108-10-1	50	1.0	U	
24	Methylene chloride	75-09-2	5.0	1.0	U	
25	Styrene	100-42-5	1.0	1.0	U	
26	1,1,2,2-Tetrachloroethane	79-34-5	1.0	1.0	U	
27	Tetrachloroethene	127-18-4	1.0	1.0	U	
28	Toluene	108-88-3	1.0	1.0	U	
29	1,1,2-Trichloroethane	79-00-5	1.0	1.0	U	
30	1,1,1-Trichloroethane	71-55-6	1.0	1.0	U	
31	Trichloroethene	79-01-6	1.0	1.0	U	
32	Vinyl chloride	75-01-4	1.0	1.0	U	
33	total Xylenes	1330-20-7	3.0	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: W-990212-12626-SSH-212

Date Sampled:	02/12/99	ENCOTEC Project ID:	33000
Date Received:	02/13/99	ENCOTEC SDG ID:	CRA-GMM-99B2
Date Extracted:	N/A	ENCOTEC QC Set ID:	VOPB2001W
Analysis Date:	02/20/99	ENCOTEC Submission ID:	100016179
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200118035
Method Reference:	8260B	Percent Total Solids:	N/A
Matrix:	WATER	Calculation Basis:	N/A

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/L)	Dil	Conc (ug/L)	Flag
1	Acetone	67-64-1	100	1.0	U	
2	Benzene	71-43-2	5.0	1.0	U	
3	Bromodichloromethane	75-27-4	1.0	1.0	U	
4	Bromoform	75-25-2	1.0	1.0	U	
5	Bromomethane	74-83-9	1.0	1.0	U	
6	2-Butanone (MEK)	78-93-3	50	1.0	U	
7	Carbon disulfide	75-15-0	50	1.0	U	
8	Carbon tetrachloride	56-23-5	1.0	1.0	U	
9	Chlorobenzene	108-90-7	1.0	1.0	U	
10	Chloroethane	75-00-3	1.0	1.0	U	
11	Chloroform	67-66-3	1.0	1.0	U	
12	Chloromethane	74-87-3	1.0	1.0	U	
13	Dibromochloromethane	124-48-1	1.0	1.0	U	
14	1,2-Dichloroethane	107-06-2	1.0	1.0	U	
15	1,1-Dichloroethane	75-34-3	1.0	1.0	U	
16	total 1,2-Dichloroethene	540-59-0	1.0	1.0	U	
17	1,1-Dichloroethene	75-35-4	1.0	1.0	U	
18	1,2-Dichloropropane	78-87-5	1.0	1.0	U	
19	trans-1,3-Dichloropropene	10061-02-6	1.0	1.0	U	
20	cis-1,3-Dichloropropene	10061-01-5	1.0	1.0	U	
21	Ethylbenzene	100-41-4	1.0	1.0	U	
22	2-Hexanone	591-78-6	50	1.0	U	
23	4-Methyl-2-pentanone (MIBK)	108-10-1	50	1.0	U	
24	Methylene chloride	75-09-2	5.0	1.0	U	
25	Styrene	100-42-5	1.0	1.0	U	
26	1,1,2,2-Tetrachloroethane	79-34-5	1.0	1.0	U	
27	Tetrachloroethene	127-18-4	1.0	1.0	U	
28	Toluene	108-88-3	1.0	1.0	U	
29	1,1,2-Trichloroethane	79-00-5	1.0	1.0	U	
30	1,1,1-Trichloroethane	71-55-6	1.0	1.0	U	
31	Trichloroethene	79-01-6	1.0	1.0	U	
32	Vinyl chloride	75-01-4	1.0	1.0	U	
33	total Xylenes	1330-20-7	3.0	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: TRIP BLANK

Date Sampled: 02/12/99
 Date Received: 02/13/99
 Date Extracted: N/A
 Analysis Date: 02/20/99
 Second Analysis Date: N/A
 Method Reference: 8260B
 Matrix: TRIP BLANK

ENCOTEC Project ID: 33000
 ENCOTEC SDG ID: CRA-GMM-99B2
 ENCOTEC QC Set ID: VOPB2001
 ENCOTEC Submission ID: 10001617
 ENCOTEC Sample ID: 200118036
 Percent Total Solids: N/A
 Calculation Basis: N/A

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/L)	Dil	Conc (ug/L)	F. g
1	Acetone	67-64-1	100	1.0	U	
2	Benzene	71-43-2	5.0	1.0	U	
3	Bromodichloromethane	75-27-4	1.0	1.0	U	
4	Bromoform	75-25-2	1.0	1.0	U	
5	Bromomethane	74-83-9	1.0	1.0	U	
6	2-Butanone (MEK)	78-93-3	50	1.0	U	
7	Carbon disulfide	75-15-0	50	1.0	U	
8	Carbon tetrachloride	56-23-5	1.0	1.0	U	
9	Chlorobenzene	108-90-7	1.0	1.0	U	
10	Chloroethane	75-00-3	1.0	1.0	U	
11	Chloroform	67-66-3	1.0	1.0	U	
12	Chloromethane	74-87-3	1.0	1.0	U	
13	Dibromochloromethane	124-48-1	1.0	1.0	U	
14	1,2-Dichloroethane	107-06-2	1.0	1.0	U	
15	1,1-Dichloroethane	75-34-3	1.0	1.0	U	
16	total 1,2-Dichloroethene	540-59-0	1.0	1.0	U	
17	1,1-Dichloroethene	75-35-4	1.0	1.0	U	
18	1,2-Dichloropropane	78-87-5	1.0	1.0	U	
19	trans-1,3-Dichloropropene	10061-02-6	1.0	1.0	U	
20	cis-1,3-Dichloropropene	10061-01-5	1.0	1.0	U	
21	Ethylbenzene	100-41-4	1.0	1.0	U	
22	2-Hexanone	591-78-6	50	1.0	U	
23	4-Methyl-2-pentanone (MIBK)	108-10-1	50	1.0	U	
24	Methylene chloride	75-09-2	5.0	1.0	U	
25	Styrene	100-42-5	1.0	1.0	U	
26	1,1,2,2-Tetrachloroethane	79-34-5	1.0	1.0	U	
27	Tetrachloroethene	127-18-4	1.0	1.0	U	
28	Toluene	108-88-3	1.0	1.0	U	
29	1,1,2-Trichloroethane	79-00-5	1.0	1.0	U	
30	1,1,1-Trichloroethane	71-55-6	1.0	1.0	U	
31	Trichloroethene	79-01-6	1.0	1.0	U	
32	Vinyl chloride	75-01-4	1.0	1.0	U	
33	total Xylenes	1330-20-7	3.0	1.0	U	

QC Summary

QUALITY ASSESSMENT REPORT - METHOD BLANK ANALYSIS

Extraction Date	N/A	ENCOTEC Project ID:	33000
Analysis Date:	See Below	ENCOTEC SDG ID:	CRA-GMM-99I
Second Analysis Date:	N/A	ENCOTEC QC Set ID:	See Below
Method Reference:	See Below	ENCOTEC Submission ID:	100016179

	Analyte	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Flag
1	Arsenic	IMSB1601	02/17/99	6020	ug/L	1.0	1	U	
2	Barium	ICPB1603	02/16/99	6010	ug/L	200	1	U	
3	Cadmium	IMSB1601	02/17/99	6020	ug/L	0.20	1	U	
4	Chromium	IMSB1601	02/18/99	6020	ug/L	5.0	1	U	
5	Lead	IMSB1601	02/17/99	6020	ug/L	3.0	1	U	
6	Mercury	CVAB2201	02/23/99	7470	ug/L	0.20	1	U	
7	Selenium	IMSB1601	02/17/99	6020	ug/L	5.0	1	U	
8	Silver	IMSB1601	02/17/99	6020	ug/L	0.50	1	U	

QUALITY ASSESSMENT REPORT - LCS Analysis

ENCOTEC Project ID:	33000
ENCOTEC SDG ID:	CRA-GMM-99B2
ENCOTEC QC Set ID:	See Below
ENCOTEC Submission ID:	100016179

#	Analyte	QC Set ID	Conc Spiked	Conc LCS	Units	Percent Recovery (%)	Flag	Quality Control Windows (%)
1	Arsenic	IMSB1601	0.0500	0.0482	mg/L	96		80-120
2	Barium	ICPB1603	1.00	1.02	mg/L	102		80-120
3	Cadmium	IMSB1601	0.0500	0.0501	mg/L	100		80-120
4	Chromium	IMSB1601	0.0500	0.0490	mg/L	98		80-120
5	Lead	IMSB1601	0.0500	0.0507	mg/L	101		80-120
6	Mercury	CVAB2201	0.00215	0.00212	mg/L	99		80-120
7	Selenium	IMSB1601	0.0500	0.0505	mg/L	101		80-120
8	Silver	IMSB1601	0.0500	0.0480	mg/L	96		80-120

D=Detected, result must be greater than zero.
 Recovery: 0 out of 8 outside QC Windows

QUALITY ASSESSMENT REPORT - MS Analysis

ENCOTEC SDG ID: CRA-GMM-99B2
ENCOTEC QC Set ID: See Below
ENCOTEC Submission ID: 100016179
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	Arsenic	200118035	IMSB1601	0.0500	U	0.0480	mg/L	96		75-125
2	Barium	200117684	ICPB1603	1.00	U	1.01	mg/L	101		80-120
3	Cadmium	200118035	IMSB1601	0.0500	U	0.0483	mg/L	97		75-125
4	Chromium	200118035	IMSB1601	0.0500	U	0.0460	mg/L	92		75-125
5	Lead	200118035	IMSB1601	0.0500	U	0.0486	mg/L	97		75-125
6	Mercury	200118135	CVAB2201	0.00215	U	0.00203	mg/L	94		75-125
7	Selenium	200118035	IMSB1601	0.0500	U	0.0509	mg/L	102		75-125
8	Silver	200118035	IMSB1601	0.0500	U	0.0458	mg/L	92		75-125

D=Detected, result must be greater than zero.

Recovery: 0 out of 8 outside QC Windows

QUALITY ASSESSMENT REPORT - MD Analysis

ENCOTEC SDG ID: CRA-GMM-99B2
ENCOTEC QC Set ID: See Below
ENCOTEC Submission ID: 100016179
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	Arsenic	200118035	IMSB1601	U	U	mg/L	NC		20
2	Barium	200117684	ICPB1603	U	U	mg/L	NC		20
3	Cadmium	200118035	IMSB1601	U	U	mg/L	NC		20
4	Chromium	200118035	IMSB1601	U	U	mg/L	NC		35
5	Lead	200118035	IMSB1601	U	U	mg/L	NC		20
6	Mercury	200118135	CVAB2201	U	U	mg/L	NC		20
7	Selenium	200118035	IMSB1601	U	U	mg/L	NC		20
8	Silver	200118035	IMSB1601	U	U	mg/L	NC		35

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

QUALITY ASSESSMENT REPORT - METHOD BLANK ANALYSIS

Extraction Date:	02/19/99	ENCOTEC Project ID:	33000
Analysis Date:	02/20/99	ENCOTEC SDG ID:	CRA-GMM-99B
Second Analysis Date:	N/A	ENCOTEC QC Set ID:	PCBB08011
Method Reference:	8082	ENCOTEC Submission ID:	100016179
Matrix:	WATER	ENCOTEC Method Blank ID:	200116211

	PCB MDEQ Part 201 List	CAS #	Quant Limit (ug/L)	Dil	Conc (ug/L)	Fla-
1	PCB-1016	12674-11-2	0.20	1	U	
2	PCB-1221	11104-28-2	0.20	1	U	
3	PCB-1232	11141-16-5	0.40	1	U	
4	PCB-1242	53469-21-9	0.20	1	U	
5	PCB-1248	12672-29-6	0.20	1	U	
6	PCB-1254	11097-69-1	0.20	1	U	
7	PCB-1260	11096-82-5	0.20	1	U	

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**WATER MATRIX SURROGATE RECOVERY
POLYCHLORINATED BIPHENYLS**

Project Name: CONESTOGA-ROVERS & ASSOCIATES
Project Number: 33000
Report Date: March 1, 1999
QC Set I.D.: PCBB0801W

<u>ENCOTEC Sample Number</u>	<u>Percent Recovery 2, 4, 5, 6-TCMX (36 - 125)</u>	<u>Percent Recovery Decachlorobiphenyl (32 - 138)</u>
200118033	79	21M
200118034	75	33
200118035	109	72
200116214 MB	87	87
200116447 LCS	102	100
200117282 MS	58	49
200117282 MSD	61	65

* 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 13 outside QC Windows.

Note:

Form 057CWN2G.GN4

Rev. 09/02/98

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**WATER MATRIX LABORATORY CONTROL SAMPLE RECOVERY
POLYCHLORINATED BIPHENYLS**

Project Name: ENCOTEC
Project Number: 10000
QC Set ID: PCBB0801W

ENCOTEC ID: 200116447

AROCLOR	AMOUNT SPIKED (ug/L)	AMOUNT RECOVERED (ug/L)	PERCENT RECOVERED (percent)	QC LIMITS RANGE (percent)
PCB 1016	1.0	0.99	99	53 - 116
PCB 1260	1.0	0.89	89	70 - 122

RECOVERY: 0 out of 2 outside QC Windows

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**MATRIX SPIKE (MS) AND MATRIX SPIKE DUPLICATE (MSD)
 POLYCHLORINATED BIPHENYLS - WATER MATRIX**

Project Name: ENCOTEC
 Project Number: 10000
 QC Set I.D.: PCB0801W

SAMPLE SPIKED - ENCOTEC ID: 200117282

Aroclor	Concentration Spiked (ug/L)	Sample Result (ug/L)	MS Conc (ug/L)	% Rec	MSD Conc (ug/L)	% Rec	RPD	QUALITY	
								CONTROL WINDOWS	RPD
PCB 1016	1.0	U	0.84	84	1.08	108	25	40	30-120
PCB 1260	1.0	U	0.62	62	0.67	67	7.8	23	41-123

RPD: 0 out of 2 outside QC Windows.
 RECOVERY: 0 out of 4 outside QC Windows.

Note:

Form 057CWN3G.GN2

Rev. 08/10/98

QUALITY ASSESSMENT REPORT - METHOD BLANK ANALYSIS

Extraction Date: 02/18/99
Analysis Date: 02/19/99
Second Analysis Date: N/A
Method Reference: 8270
Matrix: WATER

ENCOTEC Project ID: 3300^
ENCOTEC SDG ID: CRA-GMM-99B
ENCOTEC QC Set ID: BNAB1207..
ENCOTEC Submission ID: 100016179
ENCOTEC Method Blank ID: 20011624

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/L)	Dil	Conc (ug/L)	Flt
1	Acenaphthene	83-32-9	5.0	1.0	U	
2	Acenaphthylene	208-96-8	5.0	1.0	U	
3	Anthracene	120-12-7	5.0	1.0	U	
4	Benzo (a) anthracene	56-55-3	5.0	1.0	U	
5	Benzo (a) pyrene	50-32-8	5.0	1.0	U	
6	Benzo (b) fluoranthene	205-99-2	5.0	1.0	U	
7	Benzo (g, h, i) perylene	191-24-2	5.0	1.0	U	
8	Benzo (k) fluoranthene	207-08-9	5.0	1.0	U	
9	4-Bromophenyl phenyl ether	101-55-3	5.0	1.0	U	
10	Butyl benzyl phthalate	85-68-7	5.0	1.0	U	
11	4-Chloro-3-methylphenol	59-50-7	5.0	1.0	U	
12	4-Chloroaniline	106-47-8	5.0	1.0	U	
13	bis (2-Chloroethoxy) methane	111-91-1	5.0	1.0	U	
14	bis (2-Chloroethyl) ether	111-44-4	5.0	1.0	U	
15	bis (2-Chloroisopropyl) ether	108-60-1	5.0	1.0	U	
16	2-Chloronaphthalene	91-58-7	5.0	1.0	U	
17	2-Chlorophenol	95-57-8	5.0	1.0	U	
18	4-Chlorophenyl phenyl ether	7005-72-3	5.0	1.0	U	
19	Chrysene	218-01-9	5.0	1.0	U	
20	Di-n-butyl phthalate	84-74-2	5.0	1.0	U	
21	Di-n-octyl phthalate	117-84-0	5.0	1.0	U	
22	Dibenz (a, h) anthracene	53-70-3	5.0	1.0	U	
23	Dibenzofuran	132-64-9	5.0	1.0	U	
24	3,3'-Dichlorobenzidine	91-94-1	20	1.0	U	
25	2,4-Dichlorophenol	120-83-2	5.0	1.0	U	
26	Diethyl phthalate	84-66-2	5.0	1.0	U	
27	Dimethyl phthalate	131-11-3	5.0	1.0	U	
28	2,4-Dimethylphenol	105-67-9	5.0	1.0	U	
29	4,6-Dinitro-2-methylphenol	534-52-1	20	1.0	U	
30	2,4-Dinitrophenol	51-28-5	20	1.0	U	
31	2,6-Dinitrotoluene	606-20-2	5.0	1.0	U	
32	2,4-Dinitrotoluene	121-14-2	5.0	1.0	U	
33	bis (2-Ethylhexyl) phthalate	117-81-7	5.0	1.0	1.0	J
34	Fluoranthene	206-44-0	5.0	1.0	U	
35	Fluorene	86-73-7	5.0	1.0	U	
36	Hexachlorobenzene	118-74-1	5.0	1.0	U	
37	Hexachlorobutadiene	87-68-3	5.0	1.0	U	
38	Hexachlorocyclopentadiene	77-47-4	5.0	1.0	U	
39	Hexachloroethane	67-72-1	5.0	1.0	U	
40	Indeno (1,2,3-c,d) pyrene	193-39-5	5.0	1.0	U	
41	Isophorone	78-59-1	5.0	1.0	U	
42	2-Methylnaphthalene	91-57-6	5.0	1.0	U	

QUALITY ASSESSMENT REPORT - METHOD BLANK ANALYSIS

Extraction Date:	02/18/99	ENCOTEC Project ID:	33000
Analysis Date:	02/19/99	ENCOTEC SDG ID:	CRA-GMM-99B2
Second Analysis Date:	N/A	ENCOTEC QC Set ID:	BNAB1207W
Method Reference:	8270	ENCOTEC Submission ID:	100016179
Matrix:	WATER	ENCOTEC Method Blank ID:	200116245

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/L)	Dil	Conc (ug/L)	Flag
43	2-Methylphenol	95-48-7	5.0	1.0	U	
44	4-Methylphenol	106-44-5	5.0	1.0	U	
45	N-Nitroso-di-n-propylamine	621-64-7	5.0	1.0	U	
46	N-Nitrosodiphenylamine	86-30-6	5.0	1.0	U	
47	Naphthalene	91-20-3	5.0	1.0	U	
48	3-Nitroaniline	99-09-2	20	1.0	U	
49	2-Nitroaniline	88-74-4	20	1.0	U	
50	4-Nitroaniline	100-01-6	20	1.0	U	
51	Nitrobenzene	98-95-3	5.0	1.0	U	
52	4-Nitrophenol	100-02-7	20	1.0	U	
53	2-Nitrophenol	88-75-5	5.0	1.0	U	
54	Pentachlorophenol	87-86-5	20	1.0	U	
55	Phenanthrene	85-01-8	5.0	1.0	U	
56	Phenol	108-95-2	5.0	1.0	U	
57	Pyrene	129-00-0	5.0	1.0	U	
58	1,2,4-Trichlorobenzene	120-82-1	5.0	1.0	U	
59	2,4,6-Trichlorophenol	88-06-2	5.0	1.0	U	
60	2,4,5-Trichlorophenol	95-95-4	20	1.0	U	

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**WATER MATRIX SURROGATE RECOVERY
 SEMIVOLATILE ORGANICS**

Project Name: CONESTOGA-ROVERS & ASSOCIATES
 Project Number: 33000
 Report Date: FEBRUARY 25, 1999
 QC Set I.D.: BNAB1207W

ENCOTEC Sample ID	BASE-NEUTRAL EXTRACTABLE ANALYTES			ACID EXTRACTABLE ANALYTES		
	% Recovery Nitro- benzene-d ₅ (23 - 120)	% Recovery 2-Fluorobi- phenyl (30 - 115)	% Recovery Ter- phenyl-d ₁₄ (18 - 140)	% Recovery Phenol -d ₅ (15 - 115)	% Recovery 2-Fluoro- phenol (15 - 121)	% Recovery 2,4,6-Tribromo- phenol (15 - 130)
200118033	81	78	105	35	52	63
200118034	96	90	104	34	54	74
200118035	92	81	119	36	56	69
200116245 MB	92	85	92	37	57	93
200116461 LCS	113	108	95	56	77	115
200117861 MS	105	101	81	78	100	107
200117861 MSD	108	92	79	78	98	111

35

* 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:

LABORATORY CONTROL SAMPLE (LCS)
 SEMIVOLATILE ORGANICS - WATER MATRIX

Project Name: ENCOTEC
 Project Number: 10002
 QC Set ID: BNAB1207W

ENCOTEC ID: 200116461

Compound	Conc. Spiked (mg/L)	Conc LCS (mg/L)	Percent Recovery (%)	Quality Control
				Windows Recovery
2-Chlorophenol	0.100	0.118	118	58-114
Bis(2-Chloroethyl)ether	0.100	0.111	111	55-126
Phenol	0.100	0.0478	48	21-100
1,3-Dichlorobenzene	0.100	0.0933	93	47-100
1,4-Dichlorobenzene	0.100	0.0946	95	48-100
1,2-Dichlorobenzene	0.100	0.0975	97	50-107
Bis(2-Chloroisopropyl)ether	0.100	0.124	124	56-123
Hexachloroethane	0.100	0.106	106	47-113
n-Nitroso-di-n-propylamine	0.100	0.136	136	60-144
Nitrobenzene	0.100	0.124	124	60-121
Isophorone	0.100	0.115	115	62-125
2-Nitrophenol	0.100	0.107	107	58-123
2,4-Dimethylphenol	0.100	0.100	100	51-114
bis(2-Chloroethoxy)methane	0.100	0.122	122	60-130
2,4-Dichlorophenol	0.100	0.114	114	58-116
1,2,4-Trichlorobenzene	0.100	0.0952	95	50-101
Naphthalene	0.100	0.111	111	56-114
Hexachlorobutadiene	0.100	0.116	116	47-115
4-Chloro-3-methylphenol	0.100	0.118	118	59-114
2,4,6-Trichlorophenol	0.100	0.116	116	47-128
2-Chloronaphthalene	0.100	0.111	111	53-115
Acenaphthylene	0.100	0.114	114	55-116
2,6-Dinitrotoluene	0.100	0.116	116	56-125
Acenaphthene	0.100	0.117	117	62-121
1,4-Dinitrophenol	0.100	0.0132	13	30-135
2,4-Dinitrotoluene	0.100	0.130	130	59-126
4-Nitrophenol	0.100	0.0275	28	30-84
Fluorene	0.100	0.115	115	53-123
4-Chlorophenyl phenyl ether	0.100	0.119	119	50-124
Diethylphthalate	0.100	0.0535	53	30-128
4,6-Dinitro-2-methylphenol	0.100	0.0620	63	30-156
n-Nitrosodiphenylamine	0.100	0.119	119	57-124
4-Bromophenyl phenyl ether	0.100	0.119	119	62-119
Hexachlorobenzene	0.100	0.114	114	48-150
Pentachlorophenol	0.100	0.0576	58	30-129
Phenanthrene	0.100	0.115	115	51-124
Anthracene	0.100	0.119	119	50-128
Di-n-butyl phthalate	0.100	0.0928	93	40-113
Fluoranthene	0.100	0.104	104	54-127
Pyrene	0.100	0.115	115	53-130
Butyl benzyl phthalate	0.100	0.0837	84	30-120
Benzo(a) anthracene	0.100	0.118	118	59-127
Chrysene	0.100	0.119	119	72-161
3,3'-Dichlorobenzidine	0.100	0.126	126	30-267
bis(2-Ethylhexyl)phthalate	0.100	0.118	118	58-128
Di-n-octyl phthalate	0.100	0.117	117	54-135
Benzo(b) fluoranthene	0.100	0.0966	97	55-121
Benzo(k) fluoranthene	0.100	0.112	112	51-133
Benzo(a) pyrene	0.100	0.105	105	58-122
Indeno(1,2,3-cd) pyrene	0.100	0.101	101	44-131
Dibenz(a,h) anthracene	0.100	0.140	140	67-175
Benzo(ghi) perylene	0.100	0.119	119	54-131

D = Detected, result must be greater than zero.

Recovery: 5 out of 51 outside QC windows

Note:

SAVED AS: C:\NHP\CHEM\1\DATA\QC\BLB1207WY.XLS

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

Project Name: ENCOTEC
 Project Number: 10000
 QC Set ID: BNAB1207W

SAMPLE SPIKED - ENCOTEC ID: 200117861

Compound	Conc. Spiked (mg/L)	Sample Result (mg/L)	Conc. MS (mg/L)	Percent Recovery (%)	Conc. MSD (mg/L)	Percent Recovery (%)	Quality Control Limits		
							RPD (%)	RPD (%)	Recovery (%)
1,2,4-Trichlorobenzene	0.100	U	0.0989	99	0.106	106	6.83	24	56-126
Acenaphthene	0.100	U	0.0631	63	0.0612	61	3.12	21	59-125
2,4-Dinitrotoluene	0.100	U	0.0633	63 *	0.0659	66 *	4.04	22	67-119
Pyrene	0.100	U	0.0706	71	0.0692	69	1.96	32	48-150
N-Nitroso-di-n-propylamine	0.100	U	0.0932	93	0.103	103	10.40	24	49-140
1,4-Dichlorobenzene	0.100	U	0.0879	88	0.0948	95	7.51	27	64-113
Pentachlorophenol	0.150	U	0.0465	31	0.0993	66	72.41 *	31	D-171
Phenol	0.150	U	0.107	71	0.101	68	5.29	18	D-112
2-Chlorophenol	0.150	U	0.155	103	0.157	104	1.32	19	35-133
4-Chloro-3-methylphenol	0.150	U	0.148	99	0.159	106	6.93	16	47-129
4-Nitrophenol	0.150	U	0.0499	33	0.0599	40	18.25	44	D-106

D = Detected, result must be greater than zero.

RPD: 1 out of 11 outside of QC Windows.

Recovery: 2 out of 22 outside of QC Windows.

Note:

SAVED AS: C:\HPCHEM\1\DATA\QC\BMB1207WY.XLS
 Form 090SWN3G.XLS

QUALITY ASSESSMENT REPORT - METHOD BLANK ANALYSIS

Extraction Date:	N/A	ENCOTEC Project ID:	33000
Analysis Date:	02/20/99	ENCOTEC SDG ID:	CRA-GMM-99B2
Second Analysis Date:	N/A	ENCOTEC QC Set ID:	VOPB2001W
Method Reference:	8260B	ENCOTEC Submission ID:	100016179
Matrix:	WATER	ENCOTEC Method Blank ID:	200116294

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/L)	Dil	Conc (ug/L)	Flag
1	Acetone	67-64-1	100	1.0	U	
2	Benzene	71-43-2	5.0	1.0	U	
3	Bromodichloromethane	75-27-4	1.0	1.0	U	
4	Bromoform	75-25-2	1.0	1.0	U	
5	Bromomethane	74-83-9	1.0	1.0	U	
6	2-Butanone (MEK)	78-93-3	50	1.0	U	
7	Carbon disulfide	75-15-0	50	1.0	U	
8	Carbon tetrachloride	56-23-5	1.0	1.0	U	
9	Chlorobenzene	108-90-7	1.0	1.0	U	
10	Chloroethane	75-00-3	1.0	1.0	U	
11	Chloroform	67-66-3	1.0	1.0	U	
12	Chloromethane	74-87-3	1.0	1.0	U	
13	Dibromochloromethane	124-48-1	1.0	1.0	U	
14	1,2-Dichloroethane	107-06-2	1.0	1.0	U	
15	1,1-Dichloroethane	75-34-3	1.0	1.0	U	
16	total 1,2-Dichloroethene	540-59-0	1.0	1.0	U	
17	1,1-Dichloroethene	75-35-4	1.0	1.0	U	
18	1,2-Dichloropropane	78-87-5	1.0	1.0	U	
19	trans-1,3-Dichloropropene	10061-02-6	1.0	1.0	U	
20	cis-1,3-Dichloropropene	10061-01-5	1.0	1.0	U	
21	Ethylbenzene	100-41-4	1.0	1.0	U	
22	2-Hexanone	591-78-6	50	1.0	U	
23	4-Methyl-2-pentanone (MIBK)	108-10-1	50	1.0	U	
24	Methylene chloride	75-09-2	5.0	1.0	U	
25	Styrene	100-42-5	1.0	1.0	U	
26	1,1,2,2-Tetrachloroethane	79-34-5	1.0	1.0	U	
27	Tetrachloroethene	127-18-4	1.0	1.0	U	
28	Toluene	108-88-3	1.0	1.0	U	
29	1,1,2-Trichloroethane	79-00-5	1.0	1.0	U	
30	1,1,1-Trichloroethane	71-55-6	1.0	1.0	U	
31	Trichloroethene	79-01-6	1.0	1.0	U	
32	Vinyl chloride	75-01-4	1.0	1.0	U	
33	total Xylenes	1330-20-7	3.0	1.0	U	

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**WATER MATRIX SURROGATE RECOVERY
 VOLATILE ORGANICS**

Project Name: CONESTOGA-ROVERS & ASSOCIATES
 Project Number: 33000
 Report Date: February 25, 1999
 QC Set I.D.: VOPB2001W

ENCOTEC Sample I.D.	% Recovery Dibromofluoromethane (86-118)	% Recovery D4-1,2-Dichloroethane (80-120)	% Recovery D8-Toluene (88-110)	% Recovery BFB (86-115)
200118033	100	95	97	97
200118034	101	95	96	97
200118035	101	94	96	94
200118036	100	99	97	96
200116294 MB	106	111	93	97
200116382 LCS	103	100	93	98
200118023 MS	105	95	94	96
200118023 MSD	102	99	95	97

All samples fortified with 0.05 mg/L of each surrogate analyte.

* 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 32 outside QC Windows.

Note:

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LABORATORY CONTROL SAMPLE (LCS)
 LOW LEVEL VOLATILE ORGANICS - WATER MATRIX

Project Name: ENCOTEC
 Project Number: 10000
 QC Set ID: VOPB2001W

ENCOTEC ID: 200116382

Compound	Conc.	Conc.	Percent	Quality Control
	Spiked (mg/L)	LCS (mg/L)	Recovery (%)	Limits Recovery (%)
Benzene	0.0100	0.0083	83	60-142
Bromodichloromethane	0.0100	0.0103	103	63-132
Bromoform	0.0100	0.0100	100	44-151
Carbon tetrachloride	0.0100	0.0073	73	48-141
Chlorobenzene	0.0100	0.0095	95	72-126
Chloroform	0.0100	0.0094	94	67-138
Dibromochloromethane	0.0100	0.0103	103	60-133
1,1-Dichloroethane	0.0100	0.0092	92	61-137
1,2-Dichloroethane	0.0100	0.0103	103	54-155
1,1-Dichloroethene	0.0100	0.0071	71	35-142
trans-1,2-Dichloroethene	0.0100	0.0079	79	60-136
1,2-Dichloropropane	0.0100	0.0096	96	64-138
Ethylbenzene	0.0100	0.0086	86	64-130
Methylene chloride	0.0100	0.0086	86	7-168
1,1,2,2-Tetrachloroethane	0.0100	0.0101	101	53-141
Tetrachloroethene	0.0100	0.0075	75	53-134
Toluene	0.0100	0.0079	79	65-132
1,1,1-Trichloroethane	0.0100	0.0071	71	55-142
1,1,2-Trichloroethane	0.0100	0.0100	100	61-138
Trichloroethene	0.0100	0.0085	85	47-139

Recovery: 0 out of 20 outside QC windows

Note:

SAVED AS: C:\HPCHEM\1\DATA\QC\VLB20W1P.XLS

Rev. 02/24/97

Safety-Kleen / 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: VOPB2001W

ENCOTEC ID: 200118023

Compound	Conc. Spiked (mg/L)	Sample Result (mg/L)	Conc. MS (mg/L)	Percent Recovery (%)	Conc. MSD (mg/L)	Percent Recovery (%)	Quality Control Limits		
							RPD (%)	RPD (%)	Recovery (%)
1,1-Dichloroethene	0.250	U	0.217	87	0.215	86	1.04	14	61-145
Trichloroethene	0.250	U	0.255	102	0.257	103	0.59	14	71-120
Chlorobenzene	0.250	U	0.251	100	0.252	101	0.60	13	75-130
Toluene	0.250	0.068	0.303	94	0.305	95	0.58	13	76-125
Benzene	0.250	U	0.246	98	0.252	101	2.61	11	76-127

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

Note:

SAVER AS: C:\HPCHEM\1\DATA\QC\VMB20W1P.XLS

Chains of Custody

CRA

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

CHAIN OF CUSTODY RECORD

SAMPLER'S SIGNATURE: *St. A. Hamm* PRINTED NAME: Steven S. Hammeyer

SEQ. No.	DATE	TIME	SAMPLE TYPE	CONTAINERS	REMARKS
1	2/12/99		water	8	IAT - standard
2				8	
3				8	
4			trip blank	1	

SHIPPED TO (Laboratory Name):

Safety-Klein (ENCOTECH), Inc.

REFERENCE NUMBER:

12626

PROJECT NAME:

Mt. Morris Dump Site

PARAMETERS

Volts	X
PH	X
Temp	X
DO	X
TOC	X
SS	X
TS	X
SR	X
SRB	X

REMARKS

IAT - standard

TOTAL NUMBER OF CONTAINERS

RELINQUISHED BY: *St. A. Hamm*

DATE: 2/12/99
TIME: 1700

RECEIVED BY: 1.

DATE: _____
TIME: _____

RELINQUISHED BY: _____

DATE: _____
TIME: _____

RECEIVED BY: 2.

DATE: _____
TIME: _____

RELINQUISHED BY: _____

DATE: _____
TIME: _____

RECEIVED BY: 1.

DATE: _____
TIME: _____

METHOD OF SHIPMENT: **FedEx**

AIR BILL No. 809194620368

White - Fully Executed Copy
Yellow - Receiving Laboratory Copy

SAMPLE TEAM: **SSH**

RECEIVED FOR LABORATORY BY: *St. A. Hamm*

5410

DATE: 2/13/99 TIME: 915



REC'D CRA
 MAR 10 1999
 #12626
 SDG #3

March 2, 1999

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

RE: Analytical Results /GM Mt. Morris
 12626

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 Safety-Kleen (ENCOTEC), Inc. on the 16th of February 1999.

Enclosed is a copy of the "Invoice Detail" for your review. The actual invoice will be sent to you under separate cover from our accounting department at our Corporate office.

If you have any questions or need additional assistance please contact me directly.

Sincerely,
 Safety-Kleen (ENCOTEC), Inc.

J. Shawn Letwin
 J. Shawn Letwin
 Project Manager

Enclosure

SDG CRA-GMM-99B3
 Batch # 16190
 #53000

12626 GMM-99B3
 Mt. Morris Dump
 Phase II ESA
 4-Soil
 VOC, SVOC, Metals, PCBs
 14 days (Met)
 Encotec
 3/15 3C
 4/12/99
 4/7/99

DATA PACKAGE COVER PAGE

This report contains 47 pages, excluding the cover letter and is only for the submitted samples.

If any pages are missing please contact Safety-Kleen (ENCOTEC), Inc. immediately.

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

This document cannot be reproduced, except in full, without the prior written consent of Safety-Kleen (ENCOTEC), Inc..

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

- | | |
|---|--|
| <p>U = The analyte was not detected at or above the quantitation limit.</p> <p>E = The analyte was detected at a concentration greater than the calibration range; therefore the result is estimated.</p> <p>DL = The sample was diluted due to sample matrix, therefore QC was not recoverable.</p> <p>* = The value is outside quality control limits.</p> <p>K = Reported concentration is proportional to dilution factor and may be exaggerated.</p> <p>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.</p> <p>G = Result is greater than the numerical value presented.</p> | <p>J = The analyte was detected at a concentration below the quantitation limit but above the method detection limit.</p> <p>B = The analyte was detected in the associated method blank.</p> <p>M = Matrix interference has resulted in an elevated quantitation limit or distorted QC result.</p> <p>NC = Not Calculable.</p> <p>NA = Not Applicable.</p> <p>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.</p> <p>CA = Combustion aid was necessary to achieve results.</p> <p>W = Result is always reported as "wet weight."</p> |
|---|--|

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: 12626
 Project Number: 33000
 Sample Delivery Group: CRA-GMM-99B3
 Batch Number(s): 100016190
 Narrative Date: March 2, 1999

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.

Surrogate Spike Recovery Outliers

QC Set ID	Analysis	Corrective Action/Result
BNAB1814S	Semivolatiles	EPA data validation guidelines allow either one acid and/or base neutral surrogate to recover outside QC windows.


LCS Recovery Outliers

QC Set ID	Analysis	Corrective Action/Result
BNAB1814S	Semivolatiles	Since $\geq 80\%$ of the LCS recoveries were within QC windows, corrective action was deemed unnecessary.

MS Recovery Outliers

QC Set ID	Analysis	Corrective Action/Result
IMSB2201	Arsenic, Selenium	Since $\geq 80\%$ 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.

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 has been narrated herein.


 Walt Roudebush (or designee)
 Technical Director

3/2/99
 Date

METHOD DESCRIPTION REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

SDG: CRA-GMM-99B3

Submission ID(s): 100016190

<u>Method Reference</u>	<u>Description</u>
160.3	Residue, Total, Gravimetric, Dried at 103-105o C
6020	Inductively Coupled Plasma - Mass Spectrometry
6010	Inductively Coupled Plasma - Atomic Emission Spectroscopy
7471	Mercury, Cold Vapor, Non-Aqueous Matrices
8082	Polychlorinated Biphenyls by Gas Chromatography
8260B/5035	Volatile Organic Compounds by GC/MS: Capillary Column
8270	Semivolatile Organic Compounds by GC/MS: Capillary Column

Safety-Kleen (ENCOTEC), Inc.

3985 Research Park Drive - Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

SAMPLE CROSS REFERENCE REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

SDG: CRA-GMM-99B3

Submission ID(s): 100016190

<u>Client Sample ID</u>	<u>ENCOTEC Sample ID</u>	<u>Sample Matrix</u>	<u>Date Sampled</u>	<u>Date Received</u>
S-990215-12626-SSH-213	200118112	SOIL	02/15/99	02/16/99
S-990215-12626-SSH-214	200118113	SOIL	02/15/99	02/16/99
S-990215-12626-SSH-215	200118114	SOIL	02/15/99	02/16/99
S-990215-12626-SSH-216	200118115	SOIL	02/15/99	02/16/99

Safety-Kleen (ENCOTEC), Inc.

3985 Research Park Drive - Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

11

Sample Data

ANALYTICAL REPORT

Client: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 12626
Sample ID: S-990215-12626-SSH-213

Date Sampled:	02/15/99	ENCOTEC Project ID:	33000
Date Received:	02/16/99	ENCOTEC SDG ID:	CRA-GMM-99B3
Date Extracted:	N/A	ENCOTEC QC Set ID:	See below
Date Analyzed:	See below	ENCOTEC Submission ID:	100016190
Method Reference:	See below	ENCOTEC Sample ID:	200118112
Matrix:	SOIL	Analyte List:	N/A
Percent Total Solids:	67.1	Calculation Basis:	Dry Weight

	Metals Inorganics	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Flg
1	Arsenic	IMSB2201	02/22/99	6020	ug/Kg	300	5	1300	
2	Barium	ICPB2102	02/23/99	6010	ug/Kg	1000	1	26000	
3	Cadmium	IMSB2201	02/22/99	6020	ug/Kg	60	5	220	
4	Chromium	IMSB2201	02/22/99	6020	ug/Kg	500	5	2900	
5	Lead	IMSB2201	02/22/99	6020	ug/Kg	1000	5	20000	
6	Mercury	CVAB2204	02/24/99	7471	ug/Kg	100	1	U	
7	Selenium	IMSB2201	02/22/99	6020	ug/Kg	300	5	U	M
8	Silver	IMSB2201	02/22/99	6020	ug/Kg	500	5	U	

ANALYTICAL REPORT

Client: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 12626
Sample ID: S-990215-12626-SSH-214

Date Sampled	02/15/99	ENCOTEC Project ID:	33000
Date Received:	02/16/99	ENCOTEC SDG ID:	CRA-GMM-99B3
Date Extracted:	N/A	ENCOTEC QC Set ID:	See below
Date Analyzed:	See below	ENCOTEC Submission ID:	100016190
Method Reference:	See below	ENCOTEC Sample ID:	200118113
Matrix:	SOIL	Analyte List:	N/A
Percent Total Solids:	95.2	Calculation Basis:	Dry Weight

#	Metals Inorganics	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Flag
1	Arsenic	IMSB2201	02/22/99	6020	ug/Kg	220	5	3100	
2	Barium	ICPB2102	02/23/99	6010	ug/Kg	1000	1	11000	
3	Cadmium	IMSB2201	02/22/99	6020	ug/Kg	50	5	78	
4	Chromium	IMSB2201	02/22/99	6020	ug/Kg	500	5	3000	
5	Lead	IMSB2201	02/22/99	6020	ug/Kg	1000	5	4000	
6	Mercury	CVAB2204	02/24/99	7471	ug/Kg	100	1	U	
7	Selenium	IMSB2201	02/22/99	6020	ug/Kg	220	5	U	M
8	Silver	IMSB2201	02/22/99	6020	ug/Kg	500	5	U	

ANALYTICAL REPORT

Client: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 12626
Sample ID: S-990215-12626-SSH-215

Date Sampled:	02/15/99	ENCOTEC Project ID:	33000
Date Received:	02/16/99	ENCOTEC SDG ID:	CRA-GMM-99B3
Date Extracted:	N/A	ENCOTEC QC Set ID:	See below
Date Analyzed:	See below	ENCOTEC Submission ID:	100016190
Method Reference:	See below	ENCOTEC Sample ID:	200118114
Matrix:	SOIL	Analyte List:	N/A
Percent Total Solids:	67.9	Calculation Basis:	Dry Weight

	Metals Inorganics	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Fla.
1	Arsenic	IMSB2201	02/22/99	6020	ug/Kg	290	5	3300	
2	Barium	ICPB2102	02/23/99	6010	ug/Kg	1000	1	23000	
3	Cadmium	IMSB2201	02/22/99	6020	ug/Kg	58	5	300	
4	Chromium	IMSB2201	02/22/99	6020	ug/Kg	500	5	5200	
5	Lead	IMSB2201	02/22/99	6020	ug/Kg	1000	5	11000	
6	Mercury	CVAB2204	02/24/99	7471	ug/Kg	100	1	U	
7	Selenium	IMSB2201	02/22/99	6020	ug/Kg	290	5	400	
8	Silver	IMSB2201	02/22/99	6020	ug/Kg	500	5	U	

ANALYTICAL REPORT

Client: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 12626
Sample ID: S-990215-12626-SSH-216

Date Sampled:	02/15/99	ENCOTEC Project ID:	33000
Date Received:	02/16/99	ENCOTEC SDG ID:	CRA-GMM-99B3
Date Extracted:	N/A	ENCOTEC QC Set ID:	See below
Date Analyzed:	See below	ENCOTEC Submission ID:	100016190
Method Reference:	See below	ENCOTEC Sample ID:	200118115
Matrix:	SOIL	Analyte List:	N/A
Percent Total Solids:	70.7	Calculation Basis:	Dry Weight

	Metals Inorganics	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Flag
1	Arsenic	IMSB2201	02/22/99	6020	ug/Kg	280	5	4100	
2	Barium	ICPB2102	02/23/99	6010	ug/Kg	1000	1	13000	
3	Cadmium	IMSB2201	02/22/99	6020	ug/Kg	56	5	3800	
4	Chromium	IMSB2201	02/22/99	6020	ug/Kg	500	5	25000	
5	Lead	IMSB2201	02/22/99	6020	ug/Kg	2800	50	160000	
6	Mercury	CVAB2204	02/24/99	7471	ug/Kg	100	1	U	
7	Selenium	IMSB2201	02/22/99	6020	ug/Kg	280	5	790	
8	Silver	IMSB2201	02/22/99	6020	ug/Kg	500	5	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: S-990215-12626-SSH-213

Date Sampled:	02/15/99	ENCOTEC Project ID:	3300
Date Received:	02/16/99	ENCOTEC SDG ID:	CRA-GMM-99B3
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	PCBB18027
Analysis Date:	02/20/99	ENCOTEC Submission ID:	10001619
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200118114
Method Reference:	8082	Percent Total Solids:	67.1
Matrix:	SOIL	Calculation Basis:	Dry Weight

	PCB MDEQ Part 201 List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	F ig
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	

Safety-Kleen (ENCOTEC), Inc.
 3985 Research Park Drive ■ Ann Arbor, MI 48108
 Telephone: (734) 761-1389 - Telefax: (734) 761-1034

Report Date: 03/01/99

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 12626
Sample ID: S-990215-12626-SSH-214

Date Sampled:	02/15/99	ENCOTEC Project ID:	33000
Date Received:	02/16/99	ENCOTEC SDG ID:	CRA-GMM-99B3
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	PCBB1802S
Analysis Date:	02/20/99	ENCOTEC Submission ID:	100016190
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200118113
Method Reference:	8082	Percent Total Solids:	95.2
Matrix:	SOIL	Calculation Basis:	Dry Weight

	PCB MDEQ Part 201 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: 12626
Sample ID: S-990215-12626-SSH-215

Date Sampled:	02/15/99	ENCOTEC Project ID:	3300
Date Received:	02/16/99	ENCOTEC SDG ID:	CRA-GMM-99B3
Date Extracted:	02/25/99	ENCOTEC QC Set ID:	PCBB1802
Analysis Date:	02/27/99	ENCOTEC Submission ID:	10001619
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200118114
Method Reference:	8082	Percent Total Solids:	67.9
Matrix:	SOIL	Calculation Basis:	Dry Weigh

	PCB MDEQ Part 201 List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	F g
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: 12626
Sample ID: S-990215-12626-SSH-216

Date Sampled:	02/15/99	ENCOTEC Project ID:	33000
Date Received:	02/16/99	ENCOTEC SDG ID:	CRA-GMM-99B3
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	PCBB1802S
Analysis Date:	02/22/99	ENCOTEC Submission ID:	100016190
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200118115
Method Reference:	8082	Percent Total Solids:	70.7
Matrix:	SOIL	Calculation Basis:	Dry Weight

	PCB MDEQ Part 201 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: 12626

Sample ID: S-990215-12626-SSH-213

Date Sampled:	02/15/99	ENCOTEC Project ID:	3300
Date Received:	02/16/99	ENCOTEC SDG ID:	CRA-GMM-99B3
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	BNAB1814
Analysis Date:	02/19/99	ENCOTEC Submission ID:	10001619
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200118112
Method Reference:	8270	Percent Total Solids:	67.1
Matrix:	SOIL	Calculation Basis:	Dry Weigh

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	F g
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	4-Chloro-3-methylphenol	59-50-7	330	1.0	U	
12	4-Chloroaniline	106-47-8	1300	1.0	U	
13	bis(2-Chloroethoxy)methane	111-91-1	330	1.0	U	
14	bis(2-Chloroethyl) ether	111-44-4	330	1.0	U	
15	bis(2-Chloroisopropyl) ether	108-60-1	330	1.0	U	
16	2-Chloronaphthalene	91-58-7	330	1.0	U	
17	2-Chlorophenol	95-57-8	330	1.0	U	
18	4-Chlorophenyl phenyl ether	7005-72-3	330	1.0	U	
19	Chrysene	218-01-9	330	1.0	U	
20	Di-n-butyl phthalate	84-74-2	330	1.0	U	
21	Di-n-octyl phthalate	117-84-0	330	1.0	U	
22	Dibenz (a, h) anthracene	53-70-3	330	1.0	U	
23	Dibenzofuran	132-64-9	330	1.0	U	
24	3,3'-Dichlorobenzidine	91-94-1	2000	1.0	U	
25	2,4-Dichlorophenol	120-83-2	330	1.0	U	
26	Diethyl phthalate	84-66-2	330	1.0	U	
27	Dimethyl phthalate	131-11-3	330	1.0	U	
28	2,4-Dimethylphenol	105-67-9	330	1.0	U	
29	4,6-Dinitro-2-methylphenol	534-52-1	1700	1.0	U	
30	2,4-Dinitrophenol	51-28-5	1700	1.0	U	
31	2,6-Dinitrotoluene	606-20-2	330	1.0	U	
32	2,4-Dinitrotoluene	121-14-2	330	1.0	U	
33	bis(2-Ethylhexyl) phthalate	117-81-7	330	1.0	U	
34	Fluoranthene	206-44-0	330	1.0	U	
35	Fluorene	86-73-7	330	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: S-990215-12626-SSH-213

Date Sampled:	02/15/99	ENCOTEC Project ID:	33000
Date Received:	02/16/99	ENCOTEC SDG ID:	CRA-GMM-99B3
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	BNAB1814S
Analysis Date:	02/19/99	ENCOTEC Submission ID:	100016190
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200118112
Method Reference:	8270	Percent Total Solids:	67.1
Matrix:	SOIL	Calculation Basis:	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
36	Hexachlorobenzene	118-74-1	330	1.0	U	
37	Hexachlorobutadiene	87-68-3	330	1.0	U	
38	Hexachlorocyclopentadiene	77-47-4	330	1.0	U	
39	Hexachloroethane	67-72-1	330	1.0	U	
40	Indeno(1,2,3-c,d)pyrene	193-39-5	330	1.0	U	
41	Isophorone	78-59-1	330	1.0	U	
42	2-Methylnaphthalene	91-57-6	330	1.0	U	
43	2-Methylphenol	95-48-7	330	1.0	U	
44	4-Methylphenol	106-44-5	330	1.0	U	
45	N-Nitroso-di-n-propylamine	621-64-7	330	1.0	U	
46	N-Nitrosodiphenylamine	86-30-6	330	1.0	U	
47	Naphthalene	91-20-3	330	1.0	U	
48	3-Nitroaniline	99-09-2	1700	1.0	U	
49	2-Nitroaniline	88-74-4	1700	1.0	U	
50	4-Nitroaniline	100-01-6	1700	1.0	U	
51	Nitrobenzene	98-95-3	330	1.0	U	
52	4-Nitrophenol	100-02-7	1700	1.0	U	
53	2-Nitrophenol	88-75-5	330	1.0	U	
54	Pentachlorophenol	87-86-5	3400	1.0	U	
55	Phenanthrene	85-01-8	330	1.0	U	
56	Phenol	108-95-2	330	1.0	U	
57	Pyrene	129-00-0	330	1.0	U	
58	1,2,4-Trichlorobenzene	120-82-1	330	1.0	U	
59	2,4,6-Trichlorophenol	88-06-2	330	1.0	U	
60	2,4,5-Trichlorophenol	95-95-4	1700	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: S-990215-12626-SSH-214

Date Sampled:	02/15/99	ENCOTEC Project ID:	3300
Date Received:	02/16/99	ENCOTEC SDG ID:	CRA-GMM-99B3
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	BNAB1814
Analysis Date:	02/20/99	ENCOTEC Submission ID:	10001619
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200118113
Method Reference:	8270	Percent Total Solids:	95.2
Matrix:	SOIL	Calculation Basis:	Dry Weigh

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	F g
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	4-Chloro-3-methylphenol	59-50-7	330	1.0	U	
12	4-Chloroaniline	106-47-8	1300	1.0	U	
13	bis(2-Chloroethoxy)methane	111-91-1	330	1.0	U	
14	bis(2-Chloroethyl) ether	111-44-4	330	1.0	U	
15	bis(2-Chloroisopropyl) ether	108-60-1	330	1.0	U	
16	2-Chloronaphthalene	91-58-7	330	1.0	U	
17	2-Chlorophenol	95-57-8	330	1.0	U	
18	4-Chlorophenyl phenyl ether	7005-72-3	330	1.0	U	
19	Chrysene	218-01-9	330	1.0	U	
20	Di-n-butyl phthalate	84-74-2	330	1.0	U	
21	Di-n-octyl phthalate	117-84-0	330	1.0	U	
22	Dibenz (a, h) anthracene	53-70-3	330	1.0	U	
23	Dibenzofuran	132-64-9	330	1.0	U	
24	3,3'-Dichlorobenzidine	91-94-1	2000	1.0	U	
25	2,4-Dichlorophenol	120-83-2	330	1.0	U	
26	Diethyl phthalate	84-66-2	330	1.0	U	
27	Dimethyl phthalate	131-11-3	330	1.0	U	
28	2,4-Dimethylphenol	105-67-9	330	1.0	U	
29	4,6-Dinitro-2-methylphenol	534-52-1	1700	1.0	U	
30	2,4-Dinitrophenol	51-28-5	1700	1.0	U	
31	2,6-Dinitrotoluene	606-20-2	330	1.0	U	
32	2,4-Dinitrotoluene	121-14-2	330	1.0	U	
33	bis(2-Ethylhexyl) phthalate	117-81-7	330	1.0	U	
34	Fluoranthene	206-44-0	330	1.0	U	
35	Fluorene	86-73-7	330	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: S-990215-12626-SSH-214

Date Sampled:	02/15/99	ENCOTEC Project ID:	33000
Date Received:	02/16/99	ENCOTEC SDG ID:	CRA-GMM-99B3
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	BNAB1814S
Analysis Date:	02/20/99	ENCOTEC Submission ID:	100016190
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200118113
Method Reference:	8270	Percent Total Solids:	95.2
Matrix:	SOIL	Calculation Basis:	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
36	Hexachlorobenzene	118-74-1	330	1.0	U	
37	Hexachlorobutadiene	87-68-3	330	1.0	U	
38	Hexachlorocyclopentadiene	77-47-4	330	1.0	U	
39	Hexachloroethane	67-72-1	330	1.0	U	
40	Indeno (1,2,3-c,d) pyrene	193-39-5	330	1.0	U	
41	Isophorone	78-59-1	330	1.0	U	
42	2-Methylnaphthalene	91-57-6	330	1.0	U	
43	2-Methylphenol	95-48-7	330	1.0	U	
44	4-Methylphenol	106-44-5	330	1.0	U	
45	N-Nitroso-di-n-propylamine	621-64-7	330	1.0	U	
46	N-Nitrosodiphenylamine	86-30-6	330	1.0	U	
47	Naphthalene	91-20-3	330	1.0	U	
48	3-Nitroaniline	99-09-2	1700	1.0	U	
49	2-Nitroaniline	88-74-4	1700	1.0	U	
50	4-Nitroaniline	100-01-6	1700	1.0	U	
51	Nitrobenzene	98-95-3	330	1.0	U	
52	4-Nitrophenol	100-02-7	1700	1.0	U	
53	2-Nitrophenol	88-75-5	330	1.0	U	
54	Pentachlorophenol	87-86-5	3400	1.0	U	
55	Phenanthrene	85-01-8	330	1.0	U	
56	Phenol	108-95-2	330	1.0	U	
57	Pyrene	129-00-0	330	1.0	U	
58	1,2,4-Trichlorobenzene	120-82-1	330	1.0	U	
59	2,4,6-Trichlorophenol	88-06-2	330	1.0	U	
60	2,4,5-Trichlorophenol	95-95-4	1700	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 12626
Sample ID: S-990215-12626-SSH-215

Date Sampled:	02/15/99	ENCOTEC Project ID:	3300
Date Received:	02/16/99	ENCOTEC SDG ID:	CRA-GMM-99B3
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	BNAB18147
Analysis Date:	02/20/99	ENCOTEC Submission ID:	10001619
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200118114
Method Reference:	8270	Percent Total Solids:	67.9
Matrix:	SOIL	Calculation Basis:	Dry Weigh

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	F g
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	4-Chloro-3-methylphenol	59-50-7	330	1.0	U	
12	4-Chloroaniline	106-47-8	1300	1.0	U	
13	bis(2-Chloroethoxy)methane	111-91-1	330	1.0	U	
14	bis(2-Chloroethyl) ether	111-44-4	330	1.0	U	
15	bis(2-Chloroisopropyl) ether	108-60-1	330	1.0	U	
16	2-Chloronaphthalene	91-58-7	330	1.0	U	
17	2-Chlorophenol	95-57-8	330	1.0	U	
18	4-Chlorophenyl phenyl ether	7005-72-3	330	1.0	U	
19	Chrysene	218-01-9	330	1.0	U	
20	Di-n-butyl phthalate	84-74-2	330	1.0	U	
21	Di-n-octyl phthalate	117-84-0	330	1.0	U	
22	Dibenz(a,h)anthracene	53-70-3	330	1.0	U	
23	Dibenzofuran	132-64-9	330	1.0	U	
24	3,3'-Dichlorobenzidine	91-94-1	2000	1.0	U	
25	2,4-Dichlorophenol	120-83-2	330	1.0	U	
26	Diethyl phthalate	84-66-2	330	1.0	U	
27	Dimethyl phthalate	131-11-3	330	1.0	U	
28	2,4-Dimethylphenol	105-67-9	330	1.0	U	
29	4,6-Dinitro-2-methylphenol	534-52-1	1700	1.0	U	
30	2,4-Dinitrophenol	51-28-5	1700	1.0	U	
31	2,6-Dinitrotoluene	606-20-2	330	1.0	U	
32	2,4-Dinitrotoluene	121-14-2	330	1.0	U	
33	bis(2-Ethylhexyl) phthalate	117-81-7	330	1.0	U	
34	Fluoranthene	206-44-0	330	1.0	U	
35	Fluorene	86-73-7	330	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: S-990215-12626-SSH-215

Date Sampled:	02/15/99	ENCOTEC Project ID:	33000
Date Received:	02/16/99	ENCOTEC SDG ID:	CRA-GMM-99B3
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	BNAB1814S
Analysis Date:	02/20/99	ENCOTEC Submission ID:	100016190
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200118114
Method Reference:	8270	Percent Total Solids:	67.9
Matrix:	SOIL	Calculation Basis:	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
36	Hexachlorobenzene	118-74-1	330	1.0	U	
37	Hexachlorobutadiene	87-68-3	330	1.0	U	
38	Hexachlorocyclopentadiene	77-47-4	330	1.0	U	
39	Hexachloroethane	67-72-1	330	1.0	U	
40	Indeno (1,2,3-c,d) pyrene	193-39-5	330	1.0	U	
41	Isophorone	78-59-1	330	1.0	U	
42	2-Methylnaphthalene	91-57-6	330	1.0	U	
43	2-Methylphenol	95-48-7	330	1.0	U	
44	4-Methylphenol	106-44-5	330	1.0	U	
45	N-Nitroso-di-n-propylamine	621-64-7	330	1.0	U	
46	N-Nitrosodiphenylamine	86-30-6	330	1.0	U	
47	Naphthalene	91-20-3	330	1.0	U	
48	3-Nitroaniline	99-09-2	1700	1.0	U	
49	2-Nitroaniline	88-74-4	1700	1.0	U	
50	4-Nitroaniline	100-01-6	1700	1.0	U	
51	Nitrobenzene	98-95-3	330	1.0	U	
52	4-Nitrophenol	100-02-7	1700	1.0	U	
53	2-Nitrophenol	88-75-5	330	1.0	U	
54	Pentachlorophenol	87-86-5	3400	1.0	U	
55	Phenanthrene	85-01-8	330	1.0	U	
56	Phenol	108-95-2	330	1.0	U	
57	Pyrene	129-00-0	330	1.0	U	
58	1,2,4-Trichlorobenzene	120-82-1	330	1.0	U	
59	2,4,6-Trichlorophenol	88-06-2	330	1.0	U	
60	2,4,5-Trichlorophenol	95-95-4	1700	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: S-990215-12626-SSH-216

Date Sampled:	02/15/99	ENCOTEC Project ID:	33000
Date Received:	02/16/99	ENCOTEC SDG ID:	CRA-GMM-99B3
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	BNAB18147
Analysis Date:	02/20/99	ENCOTEC Submission ID:	10001619
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200118115
Method Reference:	8270	Percent Total Solids:	70.7
Matrix:	SOIL	Calculation Basis:	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	f ig
1	Acenaphthene	83-32-9	350	2.5	U	
2	Acenaphthylene	208-96-8	350	2.5	U	
3	Anthracene	120-12-7	350	2.5	U	
4	Benzo (a) anthracene	56-55-3	350	2.5	U	
5	Benzo (a) pyrene	50-32-8	350	2.5	U	
6	Benzo (b) fluoranthene	205-99-2	350	2.5	U	
7	Benzo (g, h, i) perylene	191-24-2	350	2.5	U	
8	Benzo (k) fluoranthene	207-08-9	350	2.5	U	
9	4-Bromophenyl phenyl ether	101-55-3	350	2.5	U	
10	Butyl benzyl phthalate	85-68-7	350	2.5	U	
11	4-Chloro-3-methylphenol	59-50-7	350	2.5	U	
12	4-Chloroaniline	106-47-8	1300	2.5	U	
13	bis (2-Chloroethoxy) methane	111-91-1	350	2.5	U	
14	bis (2-Chloroethyl) ether	111-44-4	350	2.5	U	
15	bis (2-Chloroisopropyl) ether	108-60-1	350	2.5	U	
16	2-Chloronaphthalene	91-58-7	350	2.5	U	
17	2-Chlorophenol	95-57-8	350	2.5	U	
18	4-Chlorophenyl phenyl ether	7005-72-3	350	2.5	U	
19	Chrysene	218-01-9	350	2.5	U	
20	Di-n-butyl phthalate	84-74-2	350	2.5	U	
21	Di-n-octyl phthalate	117-84-0	350	2.5	U	
22	Dibenz (a, h) anthracene	53-70-3	350	2.5	U	
23	Dibenzofuran	132-64-9	350	2.5	U	
24	3,3'-Dichlorobenzidine	91-94-1	2000	2.5	U	
25	2,4-Dichlorophenol	120-83-2	350	2.5	U	
26	Diethyl phthalate	84-66-2	350	2.5	U	
27	Dimethyl phthalate	131-11-3	350	2.5	U	
28	2,4-Dimethylphenol	105-67-9	350	2.5	U	
29	4,6-Dinitro-2-methylphenol	534-52-1	1700	2.5	U	
30	2,4-Dinitrophenol	51-28-5	1700	2.5	U	
31	2,6-Dinitrotoluene	606-20-2	350	2.5	U	
32	2,4-Dinitrotoluene	121-14-2	350	2.5	U	
33	bis (2-Ethylhexyl) phthalate	117-81-7	350	2.5	U	
34	Fluoranthene	206-44-0	350	2.5	U	
35	Fluorene	86-73-7	350	2.5	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: S-990215-12626-SSH-216

Date Sampled:	02/15/99	ENCOTEC Project ID:	33000
Date Received:	02/16/99	ENCOTEC SDG ID:	CRA-GMM-99B3
Date Extracted:	02/18/99	ENCOTEC QC Set ID:	BNAB1814S
Analysis Date:	02/20/99	ENCOTEC Submission ID:	100016190
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200118115
Method Reference:	8270	Percent Total Solids:	70.7
Matrix:	SOIL	Calculation Basis:	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
36	Hexachlorobenzene	118-74-1	350	2.5	U	
37	Hexachlorobutadiene	87-68-3	350	2.5	U	
38	Hexachlorocyclopentadiene	77-47-4	350	2.5	U	
39	Hexachloroethane	67-72-1	350	2.5	U	
40	Indeno (1,2,3-c,d) pyrene	193-39-5	350	2.5	U	
41	Isophorone	78-59-1	350	2.5	U	
42	2-Methylnaphthalene	91-57-6	350	2.5	U	
43	2-Methylphenol	95-48-7	350	2.5	U	
44	4-Methylphenol	106-44-5	350	2.5	U	
45	N-Nitroso-di-n-propylamine	621-64-7	350	2.5	U	
46	N-Nitrosodiphenylamine	86-30-6	350	2.5	860	
47	Naphthalene	91-20-3	350	2.5	U	
48	3-Nitroaniline	99-09-2	1700	2.5	U	
49	2-Nitroaniline	88-74-4	1700	2.5	U	
50	4-Nitroaniline	100-01-6	1700	2.5	U	
51	Nitrobenzene	98-95-3	350	2.5	U	
52	4-Nitrophenol	100-02-7	1700	2.5	U	
53	2-Nitrophenol	88-75-5	350	2.5	U	
54	Pentachlorophenol	87-86-5	3400	2.5	U	
55	Phenanthrene	85-01-8	350	2.5	U	
56	Phenol	108-95-2	350	2.5	U	
57	Pyrene	129-00-0	350	2.5	430	
58	1,2,4-Trichlorobenzene	120-82-1	350	2.5	U	
59	2,4,6-Trichlorophenol	88-06-2	350	2.5	U	
60	2,4,5-Trichlorophenol	95-95-4	1700	2.5	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES

Project/Site: 12626

Sample ID: S-990215-12626-SSH-213

Date Sampled:	02/15/99	ENCOTEC Project ID:	3300
Date Received:	02/16/99	ENCOTEC SDG ID:	CRA-GMM-99B3
Date Extracted:	N/A	ENCOTEC QC Set ID:	VOPB2301**
Analysis Date:	02/23/99	ENCOTEC Submission ID:	10001619
Second Analysis Date:	N/A	ENCOTEC Sample ID:	20011811z
Method Reference:	8260B/5035	Percent Total Solids:	67.1
Matrix:	SOIL	Calculation Basis:	Dry Weigh

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	F g
1	Acetone	67-64-1	5000	1.0	U	
2	Benzene	71-43-2	75	1.0	U	
3	Bromodichloromethane	75-27-4	100	1.0	U	
4	Bromoform	75-25-2	100	1.0	U	
5	Bromomethane	74-83-9	250	1.0	U	
6	2-Butanone (MEK)	78-93-3	2500	1.0	U	
7	Carbon disulfide	75-15-0	250	1.0	U	
8	Carbon tetrachloride	56-23-5	75	1.0	U	
9	Chlorobenzene	108-90-7	75	1.0	U	
10	Chloroethane	75-00-3	370	1.0	U	
11	Chloroform	67-66-3	75	1.0	U	
12	Chloromethane	74-87-3	370	1.0	U	
13	Dibromochloromethane	124-48-1	100	1.0	U	
14	1,2-Dichloroethane	107-06-2	75	1.0	U	
15	1,1-Dichloroethane	75-34-3	75	1.0	U	
16	total 1,2-Dichloroethene	540-59-0	75	1.0	U	
17	1,1-Dichloroethene	75-35-4	75	1.0	U	
18	1,2-Dichloropropane	78-87-5	75	1.0	U	
19	trans-1,3-Dichloropropene	10061-02-6	75	1.0	U	
20	cis-1,3-Dichloropropene	10061-01-5	75	1.0	U	
21	Ethylbenzene	100-41-4	75	1.0	U	
22	2-Hexanone	591-78-6	2500	1.0	U	
23	4-Methyl-2-pentanone (MIBK)	108-10-1	2500	1.0	U	
24	Methylene chloride	75-09-2	370	1.0	U	
25	Styrene	100-42-5	75	1.0	U	
26	1,1,2,2-Tetrachloroethane	79-34-5	100	1.0	U	
27	Tetrachloroethene	127-18-4	75	1.0	U	
28	Toluene	108-88-3	75	1.0	U	
29	1,1,2-Trichloroethane	79-00-5	75	1.0	U	
30	1,1,1-Trichloroethane	71-55-6	75	1.0	U	
31	Trichloroethene	79-01-6	75	1.0	U	
32	Vinyl chloride	75-01-4	100	1.0	U	
33	total Xylenes	1330-20-7	220	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 12626
Sample ID: S-990215-12626-SSH-214

Date Sampled:	02/15/99	ENCOTEC Project ID:	33000
Date Received:	02/16/99	ENCOTEC SDG ID:	CRA-GMM-99B3
Date Extracted:	N/A	ENCOTEC QC Set ID:	VOPB2301M
Analysis Date:	02/23/99	ENCOTEC Submission ID:	100016190
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200118113
Method Reference:	8260B/5035	Percent Total Solids:	95.2
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	5000	1.0	U	
2	Benzene	71-43-2	53	1.0	U	
3	Bromodichloromethane	75-27-4	100	1.0	U	
4	Bromoform	75-25-2	100	1.0	U	
5	Bromomethane	74-83-9	250	1.0	U	
6	2-Butanone (MEK)	78-93-3	2500	1.0	U	
7	Carbon disulfide	75-15-0	250	1.0	U	
8	Carbon tetrachloride	56-23-5	53	1.0	U	
9	Chlorobenzene	108-90-7	53	1.0	U	
10	Chloroethane	75-00-3	260	1.0	U	
11	Chloroform	67-66-3	53	1.0	U	
12	Chloromethane	74-87-3	260	1.0	U	
13	Dibromochloromethane	124-48-1	100	1.0	U	
14	1,2-Dichloroethane	107-06-2	53	1.0	U	
15	1,1-Dichloroethane	75-34-3	53	1.0	U	
16	total 1,2-Dichloroethene	540-59-0	53	1.0	U	
17	1,1-Dichloroethene	75-35-4	53	1.0	U	
18	1,2-Dichloropropane	78-87-5	53	1.0	U	
19	trans-1,3-Dichloropropene	10061-02-6	53	1.0	U	
20	cis-1,3-Dichloropropene	10061-01-5	53	1.0	U	
21	Ethylbenzene	100-41-4	53	1.0	U	
22	2-Hexanone	591-78-6	2500	1.0	U	
23	4-Methyl-2-pentanone (MIBK)	108-10-1	2500	1.0	U	
24	Methylene chloride	75-09-2	260	1.0	U	
25	Styrene	100-42-5	53	1.0	U	
26	1,1,2,2-Tetrachloroethane	79-34-5	100	1.0	U	
27	Tetrachloroethene	127-18-4	53	1.0	U	
28	Toluene	108-88-3	53	1.0	U	
29	1,1,2-Trichloroethane	79-00-5	53	1.0	U	
30	1,1,1-Trichloroethane	71-55-6	53	1.0	U	
31	Trichloroethene	79-01-6	53	1.0	U	
32	Vinyl chloride	75-01-4	100	1.0	U	
33	total Xylenes	1330-20-7	160	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 12626
Sample ID: S-990215-12626-SSH-215

Date Sampled:	02/15/99	ENCOTEC Project ID:	3300
Date Received:	02/16/99	ENCOTEC SDG ID:	CRA-GMM-99B3
Date Extracted:	N/A	ENCOTEC QC Set ID:	VOPB2301
Analysis Date:	02/23/99	ENCOTEC Submission ID:	10001619
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200118114
Method Reference:	8260B/5035	Percent Total Solids:	67.9
Matrix:	SOIL	Calculation Basis:	Dry Weigh

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	F g
1	Acetone	67-64-1	5000	1.0	U	
2	Benzene	71-43-2	74	1.0	U	
3	Bromodichloromethane	75-27-4	100	1.0	U	
4	Bromoform	75-25-2	100	1.0	U	
5	Bromomethane	74-83-9	250	1.0	U	
6	2-Butanone (MEK)	78-93-3	2500	1.0	U	
7	Carbon disulfide	75-15-0	250	1.0	U	
8	Carbon tetrachloride	56-23-5	74	1.0	U	
9	Chlorobenzene	108-90-7	74	1.0	U	
10	Chloroethane	75-00-3	370	1.0	U	
11	Chloroform	67-66-3	74	1.0	U	
12	Chloromethane	74-87-3	370	1.0	U	
13	Dibromochloromethane	124-48-1	100	1.0	U	
14	1,2-Dichloroethane	107-06-2	74	1.0	U	
15	1,1-Dichloroethane	75-34-3	74	1.0	U	
16	total 1,2-Dichloroethene	540-59-0	74	1.0	U	
17	1,1-Dichloroethene	75-35-4	74	1.0	U	
18	1,2-Dichloropropane	78-87-5	74	1.0	U	
19	trans-1,3-Dichloropropene	10061-02-6	74	1.0	U	
20	cis-1,3-Dichloropropene	10061-01-5	74	1.0	U	
21	Ethylbenzene	100-41-4	74	1.0	U	
22	2-Hexanone	591-78-6	2500	1.0	U	
23	4-Methyl-2-pentanone (MIBK)	108-10-1	2500	1.0	U	
24	Methylene chloride	75-09-2	370	1.0	U	
25	Styrene	100-42-5	74	1.0	U	
26	1,1,2,2-Tetrachloroethane	79-34-5	100	1.0	U	
27	Tetrachloroethene	127-18-4	74	1.0	U	
28	Toluene	108-88-3	74	1.0	U	
29	1,1,2-Trichloroethane	79-00-5	74	1.0	U	
30	1,1,1-Trichloroethane	71-55-6	74	1.0	U	
31	Trichloroethene	79-01-6	74	1.0	U	
32	Vinyl chloride	75-01-4	100	1.0	U	
33	total Xylenes	1330-20-7	220	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 12626
Sample ID: S-990215-12626-SSH-216

Date Sampled:	02/15/99	ENCOTEC Project ID:	33000
Date Received:	02/16/99	ENCOTEC SDG ID:	CRA-GMM-99B3
Date Extracted:	N/A	ENCOTEC QC Set ID:	VOPB2301M
Analysis Date:	02/23/99	ENCOTEC Submission ID:	100016190
Second Analysis Date:	N/A	ENCOTEC Sample ID:	200118115
Method Reference:	8260B/5035	Percent Total Solids:	70.7
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	5000	1.0	U	
2	Benzene	71-43-2	71	1.0	U	
3	Bromodichloromethane	75-27-4	100	1.0	U	
4	Bromoform	75-25-2	100	1.0	U	
5	Bromomethane	74-83-9	250	1.0	U	
6	2-Butanone (MEK)	78-93-3	2500	1.0	U	
7	Carbon disulfide	75-15-0	250	1.0	U	
8	Carbon tetrachloride	56-23-5	71	1.0	U	
9	Chlorobenzene	108-90-7	71	1.0	U	
10	Chloroethane	75-00-3	350	1.0	U	
11	Chloroform	67-66-3	71	1.0	U	
12	Chloromethane	74-87-3	350	1.0	U	
13	Dibromochloromethane	124-48-1	100	1.0	U	
14	1,2-Dichloroethane	107-06-2	71	1.0	U	
15	1,1-Dichloroethane	75-34-3	71	1.0	U	
16	total 1,2-Dichloroethene	540-59-0	71	1.0	U	
17	1,1-Dichloroethene	75-35-4	71	1.0	U	
18	1,2-Dichloropropane	78-87-5	71	1.0	U	
19	trans-1,3-Dichloropropene	10061-02-6	71	1.0	U	
20	cis-1,3-Dichloropropene	10061-01-5	71	1.0	U	
21	Ethylbenzene	100-41-4	71	1.0	U	
22	2-Hexanone	591-78-6	2500	1.0	U	
23	4-Methyl-2-pentanone (MIBK)	108-10-1	2500	1.0	U	
24	Methylene chloride	75-09-2	350	1.0	U	
25	Styrene	100-42-5	71	1.0	U	
26	1,1,2,2-Tetrachloroethane	79-34-5	100	1.0	U	
27	Tetrachloroethene	127-18-4	71	1.0	U	
28	Toluene	108-88-3	71	1.0	U	
29	1,1,2-Trichloroethane	79-00-5	71	1.0	U	
30	1,1,1-Trichloroethane	71-55-6	71	1.0	U	
31	Trichloroethene	79-01-6	71	1.0	U	
32	Vinyl chloride	75-01-4	100	1.0	U	
33	total Xylenes	1330-20-7	210	1.0	U	

QC Summary

QUALITY ASSESSMENT REPORT - METHOD BLANK ANALYSIS

Extraction Date:	N/A	ENCOTEC Project ID:	33000
Analysis Date:	See Below	ENCOTEC SDG ID:	CRA-GMM-99B3
Second Analysis Date:	N/A	ENCOTEC QC Set ID:	See Below
Method Reference:	See Below	ENCOTEC Submission ID:	100016190

	Analyte	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Flag
1	Arsenic	IMSB2201	02/22/99	6020	ug/Kg	100	1	U	
2	Barium	ICPB2102	02/22/99	6010	ug/Kg	1000	1	U	
3	Cadmium	IMSB2201	02/22/99	6020	ug/Kg	50	1	U	
4	Chromium	IMSB2201	02/22/99	6020	ug/Kg	500	1	U	
5	Lead	IMSB2201	02/22/99	6020	ug/Kg	1000	1	U	
6	Mercury	CVAB2204	02/24/99	7471	ug/Kg	100	1	U	
7	Selenium	IMSB2201	02/22/99	6020	ug/Kg	200	1	U	
8	Silver	IMSB2201	02/22/99	6020	ug/Kg	500	1	U	

QUALITY ASSESSMENT REPORT - LCS Analysis

ENCOTEC Project ID: 33000
ENCOTEC SDG ID: CRA-GMM-99B3
ENCOTEC QC Set ID: See Below
ENCOTEC Submission ID: 100016190

	Analyte	QC Set ID	Conc Spiked	Conc LCS	Units	Percent Recovery (%)	Flag	Quality Control Windows (%)
1	Arsenic	IMSB2201	0.0500	0.0467	mg/Kg	93		80-120
2	Barium	ICPB2102	50.0	50.4	mg/Kg	101		80-120
3	Cadmium	IMSB2201	0.0500	0.0474	mg/Kg	95		80-120
4	Chromium	IMSB2201	0.0500	0.0506	mg/Kg	101		80-120
5	Lead	IMSB2201	0.0500	0.0525	mg/Kg	105		80-120
6	Mercury	CVAB2204	0.108	0.111	mg/Kg	103		80-120
7	Selenium	IMSB2201	0.0500	0.0468	mg/Kg	94		80-120
8	Silver	IMSB2201	0.0500	0.0463	mg/Kg	93		80-120

D=Detected, result must be greater than zero.
 Recovery: 0 out of 8 outside QC Windows

QUALITY ASSESSMENT REPORT - MS Analysis

ENCOTEC SDG ID: CRA-GMM-99B3
ENCOTEC QC Set ID: See Below
ENCOTEC Submission ID: 100016190
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	Arsenic	200118112	IMSB2201	2.98	1.3	3.33	mg/Kg	68 *		75-125
2	Barium	200118112	ICPB2102	58.4	26	79.4	mg/Kg	91		80-120
3	Cadmium	200118112	IMSB2201	2.98	0.22	3.36	mg/Kg	105		75-125
4	Chromium	200118112	IMSB2201	2.98	2.9	5.71	mg/Kg	94		75-125
5	Lead	200118112	IMSB2201	2.98	20	20.7	mg/Kg	23	A	75-125
6	Mercury	200118112	CVAB2204	0.408	U	0.442	mg/Kg	108		75-125
7	Selenium	200118112	IMSB2201	2.98	U	1.23	mg/Kg	41 *		75-125
8	Silver	200118112	IMSB2201	2.98	U	2.23	mg/Kg	75		75-125

D=Detected, result must be greater than zero.
 Recovery: 2 out of 7 outside QC Windows

Safety-Kleen (ENCOTEC), Inc.
 3985 Research Park Drive • Ann Arbor, MI 48108
 Telephone: (734) 761-1389 - Telefax: (734) 761-1034

QUALITY ASSESSMENT REPORT - MD Analysis

ENCOTEC SDG ID: CRA-GMM-99B3
ENCOTEC QC Set ID: See Below
ENCOTEC Submission ID: 100016190
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	Arsenic	200118112	IMSB2201	1.3	1.6	mg/Kg	21		35
2	Barium	200118112	ICPB2102	26	24	mg/Kg	8		20
3	Cadmium	200118112	IMSB2201	0.22	0.24	mg/Kg	9		35
4	Chromium	200118112	IMSB2201	2.9	3.1	mg/Kg	7		35
5	Lead	200118112	IMSB2201	20	19	mg/Kg	5		35
6	Mercury	200118112	CVAB2204	U	U	mg/Kg	NC		35
7	Selenium	200118112	IMSB2201	U	U	mg/Kg	NC		35
8	Silver	200118112	IMSB2201	U	U	mg/Kg	NC		35

D=Detected, result must be greater than zero.
 RPD: 0 out of 5 outside QC Windows

QUALITY ASSESSMENT REPORT - METHOD BLANK ANALYSIS

Extraction Date:	02/18/99	ENCOTEC Project ID:	33000
Analysis Date:	02/20/99	ENCOTEC SDG ID:	CRA-GMM-99B3
Second Analysis Date:	N/A	ENCOTEC QC Set ID:	PCBB1802S
Method Reference:	8082	ENCOTEC Submission ID:	100016190
Matrix:	SOIL	ENCOTEC Method Blank ID:	200116213

	PCB MDEQ Part 201 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	

QUALITY ASSESSMENT REPORT - METHOD BLANK ANALYSIS

Extraction Date:	02/25/99	ENCOTEC Project ID:	33000
Analysis Date:	02/27/99	ENCOTEC SDG ID:	CRA-GMM-99B
Second Analysis Date:	N/A	ENCOTEC QC Set ID:	PCBB1802J
Method Reference:	8082	ENCOTEC Submission ID:	100016190
Matrix:	SOIL	ENCOTEC Method Blank ID:	20011621

	PCB MDEQ Part 201 List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flg
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	

Safety-Kleen (ENCOTEC), Inc.
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SOILS\SOLIDS MATRIX SURROGATE RECOVERY
POLYCHLORINATED BIPHENYLS

Project Name: CONESTOGA-ROVERS & ASSOCIATES
Project Number: 33000
Report Date: 03/01/99
QC Set I.D.: PCBB1802S

<u>ENCOTEC</u> <u>Sample Number</u>	<u>Percent Recovery</u> <u>2,4,5,6-TCMX</u> (40 - 130)	<u>Percent Recovery</u> <u>Decachlorobiphenyl</u> (32 - 136)
200118112	85	71
200118113	91	77
200118114	64	47
200118115	85	8M
200116213 MB	75	75
200116217 MB	86	88
200116450 LCS	75	68
200118112 MS	94	70
200118112 MSD	100	84

* 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 17 outside QC Windows.

Note:

Form 057CSN2G.GN2

Rev. 09/02/98

Safety-Kleen (ENCOTEC), Inc.
3985 Research Park Drive * Ann Arbor, MI 48108
(734) 761-1389

**SOIL MATRIX LABORATORY CONTROL SAMPLE
POLYCHLORINATED BIPHENYLS**

Project Name: ENCOTEC
Project Number: 10000
QC Set ID: PCBB1802S

ENCOTEC ID: 200116450

AROCLOR	AMOUNT SPIKED (ug/Kg)	AMOUNT RECOVERED (ug/Kg)	PERCENT RECOVERED (percent)	QC LIMITS RANGE (percent)
PCB 1016	333	280	84	30 - 120
PCB 1260	333	263	79	37 - 166

RECOVERY: 0 out of 2 outside QC Windows

Form 057CSM4G.GN1

Rev. 12/03/98

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

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

Project Name: ENCOTEC
 Project Number: 10000
 QC Set ID: PCBB1802S

SAMPLE SPIKED - ENCOTEC ID: 200118112

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 1016	333	U	312	94	341	102	8.9	40	30-120
PCB 1260	333	U	283	85	332	100	15.9	23	37-166

60
 60

RPD: 0 out of 2 outside QC Windows.
 RECOVERY: 0 out of 4 outside QC Windows.

Note:

Form 057CSM3G.GN1

Rev. 12/03/98

QUALITY ASSESSMENT REPORT - METHOD BLANK ANALYSIS

Extraction Date:	02/18/99	ENCOTEC Project ID:	3300 ⁰
Analysis Date:	02/19/99	ENCOTEC SDG ID:	CRA-GMM-99E
Second Analysis Date:	N/A	ENCOTEC QC Set ID:	BNAB1814J
Method Reference:	8270	ENCOTEC Submission ID:	100016190
Matrix:	SOIL	ENCOTEC Method Blank ID:	20011624

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flg
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	4-Chloro-3-methylphenol	59-50-7	330	1.0	U	
12	4-Chloroaniline	106-47-8	1300	1.0	U	
13	bis (2-Chloroethoxy) methane	111-91-1	330	1.0	U	
14	bis (2-Chloroethyl) ether	111-44-4	330	1.0	U	
15	bis (2-Chloroisopropyl) ether	108-60-1	330	1.0	U	
16	2-Chloronaphthalene	91-58-7	330	1.0	U	
17	2-Chlorophenol	95-57-8	330	1.0	U	
18	4-Chlorophenyl phenyl ether	7005-72-3	330	1.0	U	
19	Chrysene	218-01-9	330	1.0	U	
20	Di-n-butyl phthalate	84-74-2	330	1.0	U	
21	Di-n-octyl phthalate	117-84-0	330	1.0	U	
22	Dibenz (a, h) anthracene	53-70-3	330	1.0	U	
23	Dibenzofuran	132-64-9	330	1.0	U	
24	3,3'-Dichlorobenzidine	91-94-1	2000	1.0	U	
25	2,4-Dichlorophenol	120-83-2	330	1.0	U	
26	Diethyl phthalate	84-66-2	330	1.0	U	
27	Dimethyl phthalate	131-11-3	330	1.0	U	
28	2,4-Dimethylphenol	105-67-9	330	1.0	U	
29	4,6-Dinitro-2-methylphenol	534-52-1	1700	1.0	U	
30	2,4-Dinitrophenol	51-28-5	1700	1.0	U	
31	2,6-Dinitrotoluene	606-20-2	330	1.0	U	
32	2,4-Dinitrotoluene	121-14-2	330	1.0	U	
33	bis (2-Ethylhexyl) phthalate	117-81-7	330	1.0	U	
34	Fluoranthene	206-44-0	330	1.0	U	
35	Fluorene	86-73-7	330	1.0	U	
36	Hexachlorobenzene	118-74-1	330	1.0	U	
37	Hexachlorobutadiene	87-68-3	330	1.0	U	
38	Hexachlorocyclopentadiene	77-47-4	330	1.0	U	
39	Hexachloroethane	67-72-1	330	1.0	U	
40	Indeno (1,2,3-c,d) pyrene	193-39-5	330	1.0	U	
41	Isophorone	78-59-1	330	1.0	U	
42	2-Methylnaphthalene	91-57-6	330	1.0	U	

QUALITY ASSESSMENT REPORT - METHOD BLANK ANALYSIS

Extraction Date:	02/18/99	ENCOTEC Project ID:	33000
Analysis Date:	02/19/99	ENCOTEC SDG ID:	CRA-GMM-99B3
Second Analysis Date:	N/A	ENCOTEC QC Set ID:	BNAB1814S
Method Reference:	8270	ENCOTEC Submission ID:	100016190
Matrix:	SOIL	ENCOTEC Method Blank ID:	200116247

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
43	2-Methylphenol	95-48-7	330	1.0	U	
44	4-Methylphenol	106-44-5	330	1.0	U	
45	N-Nitroso-di-n-propylamine	621-64-7	330	1.0	U	
46	N-Nitrosodiphenylamine	86-30-6	330	1.0	U	
47	Naphthalene	91-20-3	330	1.0	U	
48	3-Nitroaniline	99-09-2	1700	1.0	U	
49	2-Nitroaniline	88-74-4	1700	1.0	U	
50	4-Nitroaniline	100-01-6	1700	1.0	U	
51	Nitrobenzene	98-95-3	330	1.0	U	
52	4-Nitrophenol	100-02-7	1700	1.0	U	
53	2-Nitrophenol	88-75-5	330	1.0	U	
54	Pentachlorophenol	87-86-5	3400	1.0	U	
55	Phenanthrene	85-01-8	330	1.0	U	
56	Phenol	108-95-2	330	1.0	U	
57	Pyrene	129-00-0	330	1.0	U	
58	1,2,4-Trichlorobenzene	120-82-1	330	1.0	U	
59	2,4,6-Trichlorophenol	88-06-2	330	1.0	U	
60	2,4,5-Trichlorophenol	95-95-4	1700	1.0	U	

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 734 / 761-1389

SOIL MATRIX SURROGATE RECOVERY
 SEMIVOLATILE ORGANICS

Project Name: CONESTOGA-ROVERS & ASSOCIATES
 Project Number: 33000
 Report Date: 02/24/99
 QC Set I.D.: BNAB1814S

ENCOTEC Sample I. D.	BASE-NEUTRAL EXTRACTABLE ANALYTES (23-120)		ACID EXTRACTABLE ANALYTES (24-113)		ACID EXTRACTABLE ANALYTES (25-121)		% Recovery 2,4,6-Tribromo- phenol (19-122)
	% Recovery Nitrobenzene -d5	% Recovery 2-Fluorobi- phenyl (30-115)	% Recovery Terphenyl -d14 (18-137)	% Recovery Phenol-d5 (24-113)	% Recovery 2-Fluoro- phenol (25-121)	% Recovery 2,4,6-Tribromo- phenol (19-122)	
200118112	83	84	118	80	81	104	
200118113	83	88	134	89	80	103	
200118114	77	76	121	75	75	90	
200118115	74	78	156*	73	67	92	
200116247 MB	75	80	90	77	74	99	
200116468 LCS	86	79	109	88	81	110	
200118112 MS	86	82	133	83	78	113	
200118112 MSD	95	93	139*	90	78	115	

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

RECOVERY: 2 out of 48 outside QC Windows

Note:

Form 090SSL2G.GN1

LABORATORY CONTROL SAMPLE (LCS)
 SEMIVOLATILE ORGANICS - SOIL MATRIX

Project Name: ENCOTEC
 Project Number: 10000
 QC Set ID: BNAB1814S

ENCOTEC ID: 200116468

Compound	Conc.	Conc.	Percent	Quality Control
	pike (mg/ka)	LCS (mg/ka)	Recovery (%)	Windows Recovery (%)
2-Chlorophenol	2.00	1.68	84	57-112
bis(2-Chloroethyl) ether	2.00	1.61	81	61-123
Phenol	2.00	1.62	81	58-120
1,3-Dichlorobenzene	2.00	1.55	78	68-114
1,4-Dichlorobenzene	2.00	1.74	87	67-119
1,2-Dichlorobenzene	2.00	1.83	92	71-116
bis(2-Chloroisopropyl) ether	2.00	1.61	81	52-151
Hexachloroethane	2.00	1.85	93	69-126
n-Nitroso-di-n-propylamine	2.00	2.26	113	79-114
Nitrobenzene	2.00	1.68	84	46-137
Isophorone	2.00	1.95	98	61-126
2-Nitrophenol	2.00	1.75	88	62-113
2,4-Dimethylphenol	2.00	1.85	93	54-121
bis(2-Chloroethoxy)methane	2.00	1.73	87	74-127
2,4-Dichlorophenol	2.00	1.85	93	61-116
1,2,4-Trichlorobenzene	2.00	1.71	86	74-120
Naphthalene	2.00	1.74	87	75-119
Hexachlorobutadiene	2.00	1.93	97	58-162
4-Chloro-3-methylphenol	2.00	1.91	96	80-117
2,4,6-Trichlorophenol	2.00	1.74	87	62-116
2-Chloronaphthalene	2.00	1.65	83	70-124
Acenaphthylene	2.00	1.78	89	69-118
2,6-Dinitrotoluene	2.00	1.90	95	30-167
Acenaphthene	2.00	1.85	93	68-131
2,4-Dinitrophenol	2.00	0.790	40	D-113
2,4-Dinitrotoluene	2.00	2.16	108	78-121
4-Nitrophenol	2.00	2.26	113 *	56-109
Fluorene	2.00	1.84	92	74-132
4-Chlorophenyl phenyl ether	2.00	1.78	89	74-128
Diethylphthalate	2.00	1.86	93	72-128
4,6-Dinitro-2-methylphenol	2.00	1.42	71	2-175
n-Nitrosodiphenylamine	2.00	1.84	92	30-171
4-Bromophenyl phenyl ether	2.00	1.84	92	68-131
Hexachlorobenzene	2.00	1.90	95	68-128
Pentachlorophenol	2.00	1.54	77	18-100
Phenanthrene	2.00	1.98	99	74-126
Anthracene	2.00	2.13	107	75-132
Di-n-butyl phthalate	2.00	2.07	104	77-126
Fluoranthene	2.00	2.30	115	69-141
Pyrene	2.00	1.85	93	65-145
Butyl benzyl phthalate	2.00	1.96	98	71-143
Benzo(a)anthracene	2.00	2.02	101	69-139
Chrysene	2.00	2.10	105	48-182
3,3'-Dichlorobenzidine	2.00	1.42	71	D-292
bis(2-Ethylhexyl)phthalate	2.00	1.96	98	38-188
Di-n-octyl phthalate	2.00	2.01	101	21-173
Benzo(b)fluoranthene	2.00	1.84	92	50-135
Benzo(k)fluoranthene	2.00	1.68	84	62-141
Benzo(a)pyrene	2.00	1.79	90	70-134
Indeno(1,2,3-cd)pyrene	2.00	2.01	101	35-169
Dibenz(a,h)anthracene	2.00	2.33	117	41-171
Benzo(ghi)perylene	2.00	2.00	100	2-192

Recovery: 1 out of 52 outside QC windows

QUALITY ASSESSMENT REPORT - METHOD BLANK ANALYSIS

Extraction Date:	N/A	ENCOTEC Project ID:	33000
Analysis Date:	02/23/99	ENCOTEC SDG ID:	CRA-GMM-99B3
Second Analysis Date:	N/A	ENCOTEC QC Set ID:	VOPB2301M
Method Reference:	8260B/5035	ENCOTEC Submission ID:	100016190
Matrix:	SOIL	ENCOTEC Method Blank ID:	200116201

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Acetone	67-64-1	5000	1.0	U	
2	Benzene	71-43-2	50	1.0	U	
3	Bromodichloromethane	75-27-4	100	1.0	U	
4	Bromoform	75-25-2	100	1.0	U	
5	Bromomethane	74-83-9	250	1.0	U	
6	2-Butanone (MEK)	78-93-3	2500	1.0	U	
7	Carbon disulfide	75-15-0	250	1.0	U	
8	Carbon tetrachloride	56-23-5	50	1.0	U	
9	Chlorobenzene	108-90-7	50	1.0	U	
10	Chloroethane	75-00-3	250	1.0	U	
11	Chloroform	67-66-3	50	1.0	U	
12	Chloromethane	74-87-3	250	1.0	U	
13	Dibromochloromethane	124-48-1	100	1.0	U	
14	1,2-Dichloroethane	107-06-2	50	1.0	U	
15	1,1-Dichloroethane	75-34-3	50	1.0	U	
16	total 1,2-Dichloroethene	540-59-0	50	1.0	U	
17	1,1-Dichloroethene	75-35-4	50	1.0	U	
18	1,2-Dichloropropane	78-87-5	50	1.0	U	
19	trans-1,3-Dichloropropene	10061-02-6	50	1.0	U	
20	cis-1,3-Dichloropropene	10061-01-5	50	1.0	U	
21	Ethylbenzene	100-41-4	50	1.0	U	
22	2-Hexanone	591-78-6	2500	1.0	U	
23	4-Methyl-2-pentanone (MIBK)	108-10-1	2500	1.0	U	
24	Methylene chloride	75-09-2	250	1.0	U	
25	Styrene	100-42-5	50	1.0	U	
26	1,1,2,2-Tetrachloroethane	79-34-5	100	1.0	U	
27	Tetrachloroethene	127-18-4	50	1.0	U	
28	Toluene	108-88-3	50	1.0	U	
29	1,1,2-Trichloroethane	79-00-5	50	1.0	U	
30	1,1,1-Trichloroethane	71-55-6	50	1.0	U	
31	Trichloroethene	79-01-6	50	1.0	U	
32	Vinyl chloride	75-01-4	100	1.0	U	
33	total Xylenes	1330-20-7	150	1.0	U	

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**SOIL MATRIX SURROGATE RECOVERY
 VOLATILE ORGANICS**

Project Name: CONESTOGA-ROVERS ASSOCIATES
 Project Number: 33000
 Report Date: March 1, 1999
 QC Set I.D.: VOPB2301M

ENCOTEC Sample I.D.	% Recovery Dibromofluoromethane (80-120)	% Recovery D4-1,2-Dichloroethane (80-120)	% Recovery D8-Toluene (81-117)	% Recovery BFB (74-121)
200118112	94	93	98	97
200118113	94	91	99	99
200118114	94	92	99	96
200118115	91	92	103	106
200116201 MB	106	99	96	97
200116452 LCS	100	98	97	98
200118112 MS	91	90	101	95
200118112 MSD	92	93	98	95

* 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 32 outside QC Windows.

Note:

Form 065VSL2G.GN1

Rev. 10/06/98

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LABORATORY CONTROL SAMPLE (LCS)
 VOLATILE ORGANICS - SOIL MATRIX

Project Name: ENCOTEC
 Project Number: 10000
 QC Set ID: VOPB2301M

ENCOTEC ID: 200116452

Compound	Conc. Spiked (mg/Kg)	Conc. LCS (mg/Kg)	Percent Recovery (%)	Quality Control Windows Recovery (%)
Benzene	0.0100	0.0106	106	76-136
Bromodichloromethane	0.0100	0.0109	109	78-131
Bromoform	0.0100	0.0106	106	68-124
Carbon tetrachloride	0.0100	0.0113	113	70-136
Chlorobenzene	0.0100	0.0107	107	73-127
Chloroform	0.0100	0.0105	105	78-126
Dibromochloromethane	0.0100	0.0109	109	67-133
1,1-Dichloroethane	0.0100	0.0112	112	66-140
1,2-Dichloroethane	0.0100	0.0107	107	63-140
1,1-Dichloroethene	0.0100	0.0114	114	47-187
trans-1,2-Dichloroethene	0.0100	0.0114	114	69-143
1,2-Dichloropropane	0.0100	0.0107	107	70-122
Ethylbenzene	0.0100	0.0114	114	73-129
Methylene chloride	0.0100	0.0108	108	61-163
1,1,2,2-Tetrachloroethane	0.0100	0.0114	114	68-120
Tetrachloroethene	0.0100	0.0105	105	61-135
Toluene	0.0100	0.0104	104	71-133
1,1,1-Trichloroethane	0.0100	0.0107	107	67-129
1,1,2-Trichloroethane	0.0100	0.0106	106	73-125
Trichloroethene	0.0100	0.0107	107	64-152

Recovery: 0 out of 20 outside QC windows

Note:

SAVED AS: C:\HPCHEM\1\DATA\QC\VLB23M1P.XLS

Rev. 02/24/97

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

Project Name: ENCOTEC
 Project Number: 10000
 QC Set ID: VOPB2301M

ENCOTEC ID: 200118112

Compound	Conc. Spiked (mg/Kg)	Sample Result (mg/Kg)	Conc. MS (mg/Kg)	Percent Recovery (%)	Conc. MSD (mg/Kg)	Percent Recovery (%)	Quality Control Limits		
							RPD (%)	Recovery (%)	
1,1-Dichloroethene	0.500	U	0.398	80	0.401	80	0.63	22	59-172
Trichloroethene	0.500	U	0.453	91	0.466	93	2.72	24	62-137
Chlorobenzene	0.500	U	0.467	93	0.493	99	5.42	21	60-133
Toluene	0.500	U	0.483	97	0.496	99	2.66	21	59-139
Benzene	0.500	U	0.472	94	0.502	100	6.16	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\VMB23M1P.XLS

Chains of Custody

CRA

CONESTOGA-ROVERS & ASSOCIATES, INC.
11100 Metro Airport Center Drive - Suite 160
Romulus, MI 48174 (734) 942-0909

SHIPPED TO (Laboratory Name):

Safety Klen (ENCOTECH) Inc

REFERENCE NUMBER:

12626

PROJECT NAME:

Mt. Morris Dump Site

CHAIN OF CUSTODY RECORD

SAMPLER'S SIGNATURE: *[Signature]* PRINTED NAME: *Sylvan S. Heavens*

SAMPLE TYPE

CONTAINERS

PARAMETERS

SEQ. No.	DATE	TIME	SAMPLE TYPE	CONTAINERS	PARAMETERS	REMARKS
1	2/15/99		S-790215-12626-SSA-213ms/msd	5	X X X X	TAT - standard
2	1		-214	2	X X X X	
3	1		-215	2	X X X X	
4			S-950215-12626-SSA-216	2	X X X X	*ms/msd
/						

TOTAL NUMBER OF CONTAINERS *11*

RELINQUISHED BY: *[Signature]* DATE: 2/15/99 TIME: 1730

RECEIVED BY: DATE: TIME:

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

METHOD OF SHIPMENT: *FedEx*

AIR BILL No.

White - Fully Executed Copy
Yellow - Receiving Laboratory Copy

SAMPLE TEAM: *[Signature]*

RECEIVED FOR LABORATORY BY: *[Signature]*

6718

DATE: 2/16/99 TIME:

APPENDIX C

DATA QUALITY VALIDATION MEMORANDUM

TO BE INCORPORATED UPON FINALIZATION

