SHELL CANADA PRODUCTS

3005 DUNDAS STREET WEST
OAKVILLE, ON (C05875)
PHASE I ENVIRONMENTAL SITE ASSESSMENT

REF.: S09125

THIS REPORT IS SUBJECT TO A DISCLAIMER BY SHELL.

Submitted:
October 2012

Prepared by:
SNC-Lavalin Environment
Toronto, Ontario

SNC·LAVALIN
Environment

TABLE OF CONTENTS

Page

1. EXECUTIVE SUMMARY 3

2. INTRODUCTION 6
2.1 Phase I Property Information 6

3. SCOPE OF INVESTIGATION 7

4. RECORDS REVIEW 8
4.1 General Information 8
4.1.1 Phase I Study Area Determination 8
4.1.2 First Developed Use Determination 9
4.1.3 Fire Insurance Plans 9
4.1.4 Chain of Title 10
4.1.5 Environmental Reports and Correspondence 10
4.2 Environmental Source Information 17
4.2.1 EcoLog Database Information 17
4.2.2 MOE Freedom of Information (FOI) Request 18
4.2.3 Local Municipality 19
4.2.4 TSSA Records Search 20
4.3 Physical Setting Sources 21
4.3.1 Aerial Photographs 21
4.3.2 Topography, Hydrology and Geology 21
4.3.3 Fill Materials 22
4.3.4 Water Bodies and Areas of Natural Significance 22
4.3.5 Water Well Records 23
4.4 Site Operating Records 23

5. INTERVIEW 24

6. SITE INSPECTION/RECONNAISSANCE 25
6.1 General Requirements 25
6.2 Specific Observations at Phase I Property 25
6.2.1 Surrounding Land Use 25
6.2.2 Storage Tanks 25
6.2.3 Utilities 26
6.2.4 Septic Systems 26
6.2.5 Fill Materials 26
6.2.6 Air Emissions 26

6.2.7 Odour 26
6.2.8 Pits and Lagoons 26
6.2.9 Spills 26
6.3 Enhanced Investigation at the Property 27
6.4 Written Description of Investigation 27

7. REVIEW AND EVALUATION OF INFORMATION 28
7.1 Current and Past Uses 28
7.2 Potential Contaminating Activity 28
7.3 Areas of Potential Environmental Concern 28
7.4 Phase I Conceptual Site Model (CSM) 29

8. CONCLUSIONS 31
8.1 QP Statement 31
8.2 Disclaimer 32

9. REFERENCES 33

LIST OF FIGURES

Figure 1 Site Location Plan
Figure 2 Historical Site Layout
Figure 3 Historical Site And Surrounding Land Use
Figure 4 Topography and Areas of Natural Significance
Figure 5 Phase I Conceptual Site Model Showing Areas of Potential Environmental Concern

LIST OF APPENDICES

Appendix A Site Survey
Appendix B Fire Insurance Plans
Appendix C Chain of Title
Appendix D Environmental Reports and Correspondence
Appendix E Ecolog Report
Appendix F Ministry of the Environment – Freedom of Information Search
Appendix G Municipal Directories
Appendix H Technical Standards & Safety Authority – Records Search
Appendix I Aerial Photographs
Appendix J Ministry of the Environment – Water Well Records
Appendix K Site Photographs

1. EXECUTIVE SUMMARY

SNC Lavalin Environment (SLE), Division of SNC-Lavalin Inc. was retained by Shell Canada Products (Shell) to complete a Phase I Environmental Site Assessment (ESA) of the site located at 3005 Dundas Street West Oakville, Ontario (the Site). It should be noted that this Phase I ESA was completed to meet the requirements for filing of a Record of Site Condition under Ontario Regulation 153/04 (as amended), and is an update of a previous Phase I ESA completed for the site in December 2010.

A Transition Notice was filed with the MOE by SLE on December 21, 2010, to allow filing of a Record of Site Condition (RSC) under the MOE 2004 standards.

The site measures approximately 0.6 acres (0.2 ha) and is located on the northwest corner of Old Bronte Road and Dundas Street West. The site was formerly developed as a retail fuel and automotive service facility prior to a decommissioning and remedial excavation program completed between 2007 and 2009. The site is currently vacant, and an in-situ groundwater remediation program is on-going.

The purpose of the Phase I ESA was to identify potentially contaminating activities that may have impacted the site and that were not addressed during the previous remedial excavation program and to satisfy the requirements for potential future filing of a Record of Site Condition (RSC).

The topography of the site is generally flat. The regional surface geology is predominantly of Halton till (silt to silty clay matrix) and the regional bedrock geology consists of Queenston Shale. The nearest water body is a tributary of Fourteen Mile Creek, located approximately 7.5 km south of the site. Regional groundwater flow is expected towards the south-southeast.

The site was developed for petroleum hydrocarbon retailing and automotive servicing in approximately the mid-1960s. No other potentially contaminating activities were identified on or immediately adjacent to the site.

A review of available environmental reports, Ministry of the Environment and Ecolog Eris records, aerial photographs and fire insurance plans provided a summary of the following site information:

- The site has had a history of petroleum hydrocarbon (PHC) spills and leaks;
- Several environmental site assessments were completed at the site prior to the site's decommissioning 2007-2008. These investigations identified concentrations of one or more of benzene, toluene, ethylbenzene and xylenes (BTEX), petroleum hydrocarbon fractions (PHC) fraction F1 to F4 and methyl-t-butyl ether (MTBE) above the MOE Table 2 standards in soil and/or groundwater on-site;

- On-site soil and groundwater impacts for the identified contaminants of concern were addressed through a remedial excavation program completed between 2008 and 2009;
- The resulting remedial excavation extended offsite to the south and east; residual impacts (BTEX, PHC F1 to F4 and MTBE) to soil and groundwater remain in the road allowance;
- Results of post-remedial groundwater assessment completed in 2009 suggested low-level groundwater impacts (benzene and MTBE) exceeding the MOE Table 2 standards remain in localized areas in the southern portion of the site, with some off-site migration of impacted groundwater to the south;
- Shell implemented an in-situ chemical oxidation program in October 2010 to remediate the residual benzene and MTBE impacts to groundwater on-site, as well as an quarterly (on-site) and annual (off-site) groundwater monitoring and sampling program to document ongoing conditions;
- A series of post injection groundwater sampling events was completed between December 2010 and December 2011. The analytical results from the September and December 2011 sampling events indicated the concentrations of benzene and MTBE measured in all on-site monitoring wells are below the MOE Table 2 standards; and,
- Concentrations of MTBE exceeding the MOE Table 2 standards in groundwater remain in one (1) off-site location (BH 105), located south of the property on Dundas Street West.

In conclusion:

- The Phase II ESA and remedial excavation programs completed at the Phase I Property have effectively remediated the on-site soils and groundwater for the identified contaminants of concern (BTEX, PHC F1 to F4 and MTBE), with the exception of the localized groundwater impacts (benzene and MTBE) identified in the southern portion of the site;
- In order to remediate the residual on-site groundwater exceedances, Shell has implemented an in-situ chemical oxidation (ISCO) program on the Phase I Property;
- In order to file an RSC for the Phase I Property, concentrations of the contaminants of concern (benzene and MTBE) must be less than the MOE Table 2 standards during four (4) consecutive quarterly sampling events, the first conducted at least ninety (90) days following the last remedial activity;
- Based on the analytical results from the two (2) most recent sampling events completed in September and December 2011, which met the MOE Table 2 standards, two (2) additional quarterly sampling events, also meeting the MOE Table 2 standards, are required before filing for a RSC; and,
- It is expected that with the removal of source material from the Phase I Property, and the implementation of the ISCO `program on-site that the offsite impacts will attenuate with

time. A contaminated management plan has been implemented to monitor and document the off-site conditions.

2. INTRODUCTION

SNC-Lavalin Environment, Division of SNC-Lavalin Inc. (SLE) was retained by Shell Canada Products (Shell) to complete a Phase I Environmental Site Assessment (ESA) of the former retail fuel facility located at 3005 Dundas Street West in Oakville, Ontario (the Phase I Property). The Phase I Property is identified with a "C" Location Number C05875.

The purpose of the Phase I ESA was to identify potentially contaminating activities that may have impacted the site and that were not addressed during the previous remediation program and to satisfy the requirements for potential future filing of a record of site condition (RSC).

2.1 Phase I Property Information

The Phase I Property measures approximately 0.6 acres (0.2 ha) and is located on the northwest corner of Old Bronte Road and Dundas Street West (Figure 1). The retail fuel facility operations began in the mid 1960's and terminated in 2007. The site infrastructure was decommissioned in 2007 and a soil remediation program was completed in 2008-2009. The former service station building was also removed at the time of the site remediation program; the site is currently vacant.

Contact Information

Site Owner	Shell Canada Products 90 Sheppard Avenue East Toronto, Ontario
Person requesting Phase I ESA	Mr. Lee Howell Project Manager, Environmental Services Shell Canada Products

3. SCOPE OF INVESTIGATION

The Phase I ESA was requested to satisfy the requirements for the potential filing of a Record of Site Condition for the property.

The objectives of this Phase I ESA are to:

- Identify areas of potential environmental concern and preferential contaminant migration pathways; and,
- Determine the need for further investigations, if required, and the basis for carrying out such investigations.

The Phase I work program was based on the Canadian Standards Association (CSA) "Phase I Environmental Site Assessment" Standard Z768-01 (CSA, 2001) and Ontario Regulation (O.Reg.) 153 as amended, subject to the following study limitations:

- A Phase I ESA does not constitute a Compliance Audit. No review of environmental regulatory compliance was carried out as part of this assessment;
- No soil, water or other samples were collected or analysed as part of this work program;
- The review of files and records pertaining to the Phase I Property was limited to the available information provided to SLE by Shell. Other company files or records were not reviewed as part of this assessment. Site interviews were not completed as part of this work program; and,
- Inspections of surrounding properties were limited to visual observations from the Phase I Property and from publicly accessible vantage points. The Phase I Property has been non-operational since 2007.

To meet the objective described above and in conjunction with Shell, SLE completed the following work:

- Reviewed available historical and regulatory information for the Phase I Property;
- Completed a site reconnaissance to observe the current condition of the Phase I Property; and,
- Provided conclusions based on an evaluation of information gathered during this investigation.

4. RECORDS REVIEW

SLE conducted a review of historical and environmental records relating to the Phase I Property and adjacent properties to identify evidence of actual or potential contamination in connection with the Phase I Property. The following information sources were reviewed:

4.1 General Information

4.1.1 Phase I Study Area Determination

The Phase I Property is described as follows:

Address:	3005 Dundas Street West, Oakville, Ontario
Legal Description:	PT LT 31, CON 1 Trafalgar, North of Dundas Street, As in TW29654, Except PT1, 2OR187 and PM856; Oakville/Trafalgar
Location:	Northwest corner of Old Bronte Road and Dundas Street West
Approximate Size:	0.6 acres (0.2 ha) (Ref. Source : Sexton McKay Survey Plan, August 16, 2010)
Zoning:	(C6) Commercial Zone (Oakville Zoning By-law 1984-063)
Current Use:	Vacant

The historical site layout of the Phase I Property is shown in Figure 2. A current plan of survey of the Phase I Property providing the legal description of the property is provided in Appendix A.

For the purpose of this investigation, the following properties were identified as being adjacent to the Phase I Property.

North: Old Bronte Road with Residential housing development beyond (Zoning Bylaw 1984-063 - Agricultural Zone “A”).

South: Residential housing development (Zoning Bylaw 1984-063 - Residential Zone “R7&R8”).

East: Dundas Street West with Commercial developments (plaza) beyond (Zoning Bylaw 1984-063 - Commercial Zone “C4”).

West: Vacant Land (Zoning Bylaw 1984-063 - Agricultural Zone “A”) with Bronte Road beyond.

Historical Site and Surrounding Land Use are shown in Figure 3 and include the Phase I Property and all properties located wholly and/or partially within 250 metres of the Phase I Property. Based on the current and historical records reviewed as part of this investigation, it was determined that the Phase I Study Area would include all properties within 250 metres from

the boundaries of the site. No issues of significant environmental concern were identified through the review of historical records to suggest that the Phase I ESA Study Area should be expanded.

4.1.2 First Developed Use Determination

A review of the chain of title for the Phase I Property reveals that the Phase I Property was transferred to Canadian Oil Companies Ltd. in 1945, which suggests petroleum sales may have begun as early as 1945. However, a Phase I ESA of the site completed by Jacques Whitford in 1998, as reported by Wardrop in 2008, stated that up to the mid-1960's, the site was undeveloped. Review of aerial photos during the current work program show the Phase I Property to be developed with a structure that appears to be a shed or a barn for agricultural use in 1934 (Ref: Aerial Photo 1934) and with a retail fuel facility and an auto service station building in about 1965 (Ref: Aerial Photo 1965). A review of historic drawings and a fire insurance plan also revealed the Phase I Property development period as 1965 to 2008. No other supporting evidence showing potentially contaminating activities on the Phase I Property prior to 1965 was obtained.

The first developed use of the Phase I Property was determined to be approximately the mid 1930's with petroleum retailing activity beginning in the mid-1960.

4.1.3 Fire Insurance Plans

A fire insurance plan (FIP) from the year 1967 was available for the area from Risk Management Services (RMS); and the following information about the site and immediately adjacent properties was obtained:

- **Phase I Property:** One and a half storey, auto service station building located on the southern portion of the site. The building was constructed with metal walls and a tar and gravel roof. Underground gasoline service tank or tanks were located on the east side of the site. The total number of USTs on-site was not marked on the plan.
- **Adjacent Properties:** One to two storey buildings constructed with stone, brick or metal walls and with roofs comprised of tar and gravel or shingles are observed to the immediate northeast, southeast and far southwest (across Dundas Street) of the site. One of these buildings was indicated as a store (2506 Bronte Road). The existing Church building (2521 Dundas Street) located northeast of the subject site is also shown. The use of the remaining buildings shown is not indicated on the FIP.

No information related to any other potential contaminating activity could be inferred from the available FIP. A copy of the FIP is also provided in Appendix B.

4.1.4 Chain of Title

Land titles and the legal property descriptions were provided by Ms. Diane Harman, an independent title searcher of Milton, Ontario. As the approximate development period of the Phase I Property was unknown when the search was requested, the title search was completed from Crown to present. The results are summarized below and provided in Appendix C.

Year	Grant/Transfer/Lease
1808	Site granted from Crown to David Hagar
1812 - 1945	Site transferred to Lawrence Hagar in 1812 and privately held by individuals until 1945.
1945	Site transferred to Canadian Oil Companies Limited.
1954	Site transferred to Confederation Life Insurance Company
1967 - 1998	Site leased to the Hesper Oil Company Limited/Canadian Oil Companies Limited
1998	Site transferred by Confederation Life Insurance Company to Shell Canada Products Limited

4.1.5 Environmental Reports and Correspondence

The following environmental reports and correspondence documenting work at the Phase I Property were reviewed by SLE to assess the history of the Phase I Property. The documentation review included six (6) reports prepared by Wardrop Engineering Inc (Wardrop) between 2008 and 2009, one (1) report prepared by Aqua Terre Solutions Inc. (Aqua Terre), now SNC-Lavalin Environment (SLE), and four (4) reports/letters prepared by SLE.

- Wardrop Engineering Inc (Wardrop), 2008b. "*Phase II Environmental Site Assessment, Shell Retail No. C05875, Oakville, Ontario*". Report to Shell Canada Products dated September 25, 2008.
- Wardrop Engineering Inc (Wardrop), 2009a. "*Environmental Remediation During Site Decommissioning, Former Shell Station - C05875 3005 Dundas Street West, Oakville, Ontario*". Report to Shell Canada Products dated June 02, 2009.
- Wardrop Engineering Inc (Wardrop), 2009b. "*Environmental Assessment and Remediation of Right-of-Way Properties Adjacent to Former Shell Station - C05875, Oakville, Ontario*". Report to Shell Canada Products dated June 02, 2009.
- Wardrop Engineering Inc (Wardrop), 2009c. "*Post Remediation Assessment, Former Shell Retail Station (C05875) 3005 Dundas Street West, Oakville, Ontario*". Report to Shell Canada Products dated June 02, 2009.

- Aqua Terre Solutions Inc. (Aqua Terre), "*On- and Off-Site Groundwater Sampling – Former Retail Fuel Outlet, 3005 Dundas Street West, Oakville, Ontario (C05875)*". Report to Shell Canada Products dated December 30, 2009. Report includes a cover letter to the MOE dated June 07, 2010.
- SNC-Lavalin Environment (SLE), 2010. "*Evaluation of Potential Groundwater Remedial Approaches, Former Shell Retail Fuel Outlet – 3005 Dundas Street West, Oakville, Ontario (C05875)*". Letter to Shell Canada Products dated July 15, 2010.
- SNC-Lavalin Environment (SLE) filed a Transition Notice with the MOE on December 21, 2010, to allow filing of a Record of Site Condition (RSC) under the MOE 2004 standards.
- SNC-Lavalin Environment (SLE), 2012. "Former Shell Retail Fuel Outlet, 3005 Dundas St. West, Oakville, Ontario (C05875) On-Site Groundwater Monitoring and Sampling (January to December 2010)". Report to Shell Canada Products dated June 29, 2011.
- SNC-Lavalin Environment (SLE), 2012. "Former Shell Retail Fuel Outlet, 3005 Dundas St. West, Oakville, Ontario (C05875) On-Site Groundwater Monitoring and Sampling (2011)". Report to Shell Canada Products dated April 23, 2012.

Appendix D contains site plans showing borehole/monitoring well locations and/or remedial excavation details, borehole/monitoring well logs and analytical tables from the seven (7) reports and two (2) letters listed above.

The following summary of the environmental history of the Phase I Property was compiled from the Wardrop Phase II ESA report (Wardrop, 2008b):

- In 1992 Barenco Inc. completed a site investigation to evaluate the impact of product loss due to an underground pipe leak that occurred in 1991. The results of this investigation identified elevated levels of benzene, toluene, ethylbenzene and xylenes (BTEX) in groundwater. In 1992, a remedial excavation was completed in the southwest corner of the site to mitigate identified contamination. During the site cleanup activities liquid gasoline was identified in the subsurface in the vicinity of the fill pipes for the USTs. About 1200 L of liquid gasoline was recovered and over 1300 tonnes of impacted soil was removed and disposed at licensed landfills.
- Jacques Whitford Environment Ltd. completed a Phase I ESA of the site in 1998. The review of the Phase I ESA report indicated similar information pertaining to the development of the site as determined during the current (SLE) Phase I ESA.
- In 2007, during the routine semi-annual water and sewer assessment program, Wardrop noted possible hydrocarbon odour emanating from the tap water in the washroom. The analytical results of a tap water sample indicated an ethylbenzene concentration that exceeded the MOE Table 2 standard in the analyzed. The analytical results of the follow-up confirmatory sampling program completed at a later date indicated that at least one or more concentrations of ethylbenzene, xylenes and petroleum hydrocarbons

(PHC) fraction F1+F2 exceeded the MOE Table 2 standards in the analyzed samples recovered from the on-site tap and from the drilled well.

- Phase II ESA was completed at the Phase I Property by Wardrop, between December 17, 2007 and May 6, 2008 (Wardrop, 2008b). The summary of this Phase II ESA was as follows:
  - A total of eight (8) boreholes (BH1 to BH8) were advanced and instrumented with monitoring wells to assess the soil and groundwater conditions throughout the Site;
  - A total of thirteen (13) soil samples were collected from the boreholes and submitted for laboratory analysis of BTEX and petroleum hydrocarbon fractions F1 to F4. One (1) soil sample collected from borehole BH1 was also analyzed for VOCs, PAHs and lead;
  - The Site was assessed in accordance with the requirements of O. Reg. 153/04 made under Part XV.1 of the *Environmental Protection Act*. The assessment standards selected for the Site were the Table 2 Full Depth Generic Site Condition Standards in a potable ground water condition with industrial/commercial/community property use and medium and fine textured soil conditions;
  - The laboratory analysis results of the soil samples collected from boreholes BH2 to BH6 indicated concentrations of one or more of benzene, toluene, ethylbenzene, xylene, PHC F1 to PHC F3 exceeded the applicable Table 2 standards. All other concentrations, where detected, were below the applicable Table 2 standards. The laboratory analytical results for the soil samples submitted from BH1, BH7 and BH8 indicated, where detected, measured concentrations below the applicable Table 2 standards for all parameters analyzed;
  - On January 8 and May 6, 2008, groundwater monitoring was completed at the Site. The monitoring wells were monitored for organic vapour meter (OVM) readings and fluid levels. The OVM readings measured in the monitoring well headspaces ranged from 25 parts per million (ppm) to 100 percent of lower explosive limit (% LEL). Groundwater was measured at depths ranging from 0.28 to 3.53 m below grade on May 6, 2008. Free product was not observed using a manual bailer or detected by the hydrocarbon interface sensor in any of the eight (8) monitoring wells;
  - A total of nine (9) groundwater samples were submitted for laboratory analysis of BTEX and petroleum hydrocarbon fractions F1 to F4. Groundwater samples collected from monitoring wells BH3, BH4 and BH6, located in the areas of the fuel storage and dispensing equipment, were analyzed for VOCs and lead. Groundwater samples collected from BH7 and BH8 were analyzed for MTBE and lead; and,

- The laboratory analysis results of groundwater samples collected from six (6) of the monitoring wells (BH2 to BH7) indicated concentrations of one or more of benzene, toluene, ethylbenzene, xylene, MTBE and PHC F1 + F2 exceeded the applicable Table 2 standards. The concentrations of other analyzed parameters, where detected, were below the applicable Table 2 standards. The laboratory analysis results of the remaining groundwater samples submitted from BH1 and BH8 indicate that, where detected, concentrations were below the applicable Table 2 standards for all parameters analyzed.

- The results of the on-site investigation activities indentified soils impacted with BTEX and PHC F1 to F3 exceeding the MOE Table 2 standards within the area of the gasoline fuel storage and dispensing equipment south of the service station building, and extending to an approximate depth of 2.5 m. Follow up groundwater sampling of the monitoring wells installed as part of this investigation indicated measured concentrations of BTEX, PHC F1 to F2 and MTBE, exceeding the MOE Table 2 standards, within the same area. No evidence of liquid-phase petroleum hydrocarbons (LPH) was reported by Wardrop. Based on the results of the Wardrop investigation, the contaminants of concern (CoC) at the site include: BTEX and PHC F1 to F3 in the soils; BTEX, PHC F1 to F2 and MTBE in groundwater.

Reports documenting environmental remediation and post-remediation work programs completed on the Phase I Property and off-site between 2008 and 2010 are summarized below:

- An environmental remediation program was completed at and adjacent to the site by Wardrop between October 2008 and March 2009 (Wardrop, 2009b & 2009c); the results of which are summarized below:
  - Pre-remedial site activities included the decommissioning of the following: one (1) potable water well and two (2) water wells (previously unidentified); a concrete septic tank and tile bed to the west of the site; five (5) 22,700 L single wall fiberglass USTs for gasoline, located on the southwest corner of the site and a previously unknown UST (likely the fuel oil UST identified in the Jacques Whitford 1998 report);
  - The final remedial excavation measured approximately 1,740 m2 in area and covered the former tank nest and pump islands. The remedial excavation extended to depths from 1.5 to 3.0 m below grade. The excavation extended off site to the south and east into the Dundas Street West and Old Bronte Road allowances;
  - Approximately 9,000 tonnes of soil was excavated; 6,000 tonnes of which was disposed of off-site at an MOE licensed facility;
  - Concentrations of BTEX and PHC F1 to F4 measured in confirmatory soil samples recovered from the final excavation walls were less than the selected

standards in analysed samples from the north and west walls and the floor of the on-site excavation;

- The final limits of the south and east excavation wall extended offsite. Measured concentrations of one or more of BTEX, PHC (F1 and F2) exceeded the selected standards in the analysed soil samples collected from south and east walls of the excavation;
- Approximately 3,000 tonnes of excavated soil was treated on-site with an Allu bucket before being reused on-site as backfill material, along with clean imported fill material;
- All imported fill material used as backfill was obtained from licensed Ontario pits. Analytical results of representative soil samples submitted from the reusable backfill material and imported granular fill material satisfied the MOE Table 2 standards; and,
- As part of the backfilling activities, powdered Oxygen Release Compound (ORC) was mixed with the reusable backfill for further aerobic degradation in selected areas of the remedial excavation.

- A post-remediation environmental (groundwater) assessment was completed on the Phase I Property by Wardrop in March 2009 (Wardrop, 2009a); a summary of which is provided below:
  - Six (6) boreholes were drilled within the previously remediate area of the site, with each borehole completed as a monitoring well (BH301 to BH306). Soil samples were not recovered for analysis during this field program, as the boreholes were advanced in the backfill material;
  - Follow up monitoring indicated no evidence of LPH, with measured well headspace concentrations ranging from 20 ppm to 50 ppm; and,
  - Groundwater samples were recovered from each of the six (6) wells and analyzed for the CoC: BTEX, PHC F1 to F4 and MTBE. Measured concentrations of the site's CoC were below the selected MOE Table 2 standards in four (4) of the monitoring wells sampled (BH301, BH303, BH305 and BH306). The analytical results for the groundwater samples submitted from BH302 and BH304 indicated measured concentrations of benzene (BH302) and ethylbenzene (BH302 and BH304) that exceeded the selected MOE Table 2 standards.
- A post-remedial groundwater monitoring and sampling program completed on and in the vicinity of the Phase I Property by Aqua Terre in 2009; a summary of which is provided below:
  - All six (6) of the Wardrop monitoring wells (BH301 to BH306) were dry or had insufficient water for sampling, and were decommissioned;

- Five (5) new monitoring wells (MW-401 to MW-405) were installed in the immediate vicinity of five (5) former Wardrop wells (BH302 to BH306). As with the drilling of the post-remedial Wardrop wells, the purpose of the new monitoring wells was for groundwater sampling, so soil samples were not collected during borehole drilling;
- During the follow-up groundwater monitoring and sampling event, evidence of groundwater mounding was identified on-site, likely due to the fill material used to backfill the remedial excavation. As such, groundwater flow is expected to flow away (off-site) from the artificially elevated groundwater levels on-site;
- Groundwater samples were collected from all on- and off-site monitoring wells, with the exception of monitoring wells BH103 and BH104 (dry during sampling event), and were submitted for laboratory analysis for the CoC: BTEX, PHCs F1-F4 and MTBE;
- Measured concentrations of benzene, toluene and PHC F1+F2, exceeding the selected Table 2 standards, was identified in one on-site well (MW-401) during one or both of the September and December 2009 sampling events;
- Measured concentrations of MTBE exceeding the selected Table 2 standard were identified in the analysed samples from on-site monitoring well MW-402 (December 2009) and off-site monitoring well BH105 (October 2009); and,
- Based on these results, it was determined that low-level, localized groundwater impacts remained on site with some off site migration to the south.

- SLE submitted a letter to MOE, dated June 7, 2010, suggesting the post-remedial groundwater monitoring and sampling program to be continued on and in the vicinity of the Phase I Property until groundwater was determined to meet the MOE Table 2 standards. The letter recommended a semi-annual groundwater monitoring and sampling program be conducted on the Phase I Property, in conjunction with annual groundwater monitoring and sampling off-site monitoring wells in the vicinity the Phase I Property.
- SLE submitted a letter to Shell, dated July 15, 2010, proposing a preliminary plan for a remedial strategy to address the residual groundwater impacts on and in the vicinity of the Phase I Property. The following was recommended:
  - In-situ chemical oxidation involving the injection of an oxidant (base-activated persulfate) to decrease concentrations of contaminants of concern;
  - Monitoring and sampling of the on-site monitoring wells four (4) to six (6) weeks after injections; and,
  - Conduct quarterly groundwater sampling of the on-site monitoring wells until there are four (4) consecutive sampling events with concentrations less than the MOE Table 2 standards for a period of one year following completion of the groundwater remedial strategy.

- As part of the groundwater remediation program to address the benzene and MTBE impacts identified in the southern portion of the site, SLE managed an in-situ chemical oxidation (ISCO) program at the site, as well as quarterly and annual groundwater sampling programs for the on-site and off-site monitoring wells in 2010 and 2011 (SLE, 2011 and 2012). A summary of these activities is provided below:
    - Four (4) boreholes (BH-501 to BH-504), completed as monitoring wells (MW-501 to MW-504), were drilled in the vicinity and down-gradient of MW-401 and MW-402 in August 2010 to evaluate the pre-injection soil and groundwater conditions, and to establish that the soil conditions in the vicinity of MW401 and MW402 were unlikely to contribute to potential groundwater impact;
    - Collection of soil samples from all four (4) boreholes and submission of selected soil samples for laboratory analysis of BTEX, PHC F1 to F4 and MTBE;
    - Pre-injection groundwater monitoring and sampling of the nine (9) on-site monitoring wells (MW-401 to MW-405 and MW-501 to MW-504) and submitting groundwater samples for laboratory analysis of BTEX, PHC F1 to F4 and MTBE to provide a baseline for comparison to post-injection results;
    - In-situ injections of sodium persulfate via eight (8) injection points located in the vicinity of monitoring wells MW-401 and MW-402 via direct push technology; completed by Vertex Environmental Solutions Inc. of Cambridge, Ontario in October 2010;
    - Bi-weekly post-injection groundwater monitoring in select on-site wells for a period of four (4) weeks;
    - Groundwater monitoring and sampling of the nine (9) on-site monitoring wells and submitting groundwater sampling for laboratory analysis of BTEX, PHC F1 to F4 and MTBE approximately six weeks post- injection;
    - Groundwater monitoring and sampling completed in 2011 included four (4) quarterly sampling events of the nine (9) on-site monitoring wells and one (1) sampling event of the eight (8) off-site monitoring wells between February and December 2011; submission of groundwater samples from all wells for laboratory analysis of BTEX, PHC F1 to F4 and MTBE;
    - Measured concentrations of benzene exceeding the selected Table 2 standard were identified in the analysed samples from one on-site monitoring well MW-401 (June and July 2011), with the July 2011 sampling event an additional sampling event conducted to confirm the June results. The analytical results from the other sampling events and on-site monitoring wells sampled between February and December 2011 met the Table 2 standards;
    - Measured concentrations of MTBE exceeding the selected Table 2 standard were identified in the analysed samples from one off-site monitoring well MW-105 during the annual sampling program conducted in June 2011; and,

- Based on these results, it was determined that low-level, localized groundwater impacts remained on site in one location (MW-401), with some off site migration to the south.

4.2 Environmental Source Information

4.2.1 EcoLog Database Information

A copy of the Ecolog ERIS report, including a complete listing of the databases searched, is provided as Appendix E. The database review also identified records for properties located between 250 m and 2 km; however, these records were considered of low significance and are considered unlikely to have an adverse impact on the Phase I Property. As a result the Phase I Study Area was not expanded to include these properties.

Information that may be pertinent to the environmental condition of the Phase I Property is discussed below:

Phase I Property:

- The C of A database identified one (1) C of A issued in 1992 for industrial wastewater. The current status of the C of A is indicated as "Cancelled";
- Two (2) hazardous waste generator listings between 2007 and 2010 registered for various wastes such as light fuels, oil skimmings/sludges and petroleum based waste oils;
- The Private and Retail Fuel Storage Tanks database lists one (1) license issued to Palermo Shell for a self serve gasoline station;
- The Ontario Spills database identified the following three (3) spills on the site:
  - Unknown quantity of gasoline to the ground and water table due to an underground storage tank leak confirmed on July 31, 1991;
  - A spill of gasoline of unknown quantity from a pipe or hose to ground and storm sewer on March 25, 1993; and,
  - A gasoline spill of 100 L to the ground from a Harmac transport truck's pipe or hose leak due to equipment failure on November 14, 2001.
- The Water Well Information System (WWIS) database identified approximately eleven (11) water wells constructed between 1976 and 2009 (reported use: one (1) – water supply, nine (9) – test holes and one (1) – abandoned supply) located at the subject site. The depth of the wells ranged from 8 ft to 50 ft.

Surrounding Properties:

- One (1) hazardous waste generator listing in 2010 registered to P.G. Noble Enterprises at 3015 Dundas Street located immediately west of the site for waste crankcase oils and lubricants;
- The Ontario Spills database identified one (1) spill at the intersection of Dundas street and Bronte road:
    - A spill of 9.1 L of sodium dichromate to the road from a transport truck on April 30, 1999.
- The Water Well Information System (WWIS) database identified approximately thirty (30) water wells constructed between 1976 and 2009 (status: 23 – water supply and 1 – abandoned supply) located in the vicinity of the site. The depth of the wells ranged from 8 ft to 73 ft.

In summary, the Ecolog database confirms the site history as a retail fuel facility and documents a history of spills prior to the remediation completed in 2008/2009. Locally, groundwater is or has been used for potable purposes.

4.2.2 MOE Freedom of Information (FOI) Request

A request was submitted to the MOE under the FOI Act on August 16, 2010. SLE received historic records and reports related to the site from the MOE providing the following information:

- The MOE spill action centre reports indicated the following:
    - On March 25, 1993 a spill of unknown quantity of gasoline to the ground and storm sewer. It was also reported that the clean-up activities included pumping out the gasoline from a recovery well onsite. Subsequently, the industrial waste abatement inspector reported that no gasoline was present in the storm sewer system and the receiving stream at the time of inspection and that no further action was required;
    - On September 15, 1994 pressure test failure of two product lines was reported. The lines were shut down until further investigation;
    - A gasoline spill of 2 L to the ground due to a customer overfilling the car on April 18, 1998. It was also reported that the spill was contained by absorbent material and the gasoline was contained from reaching the sewers or the drains;
    - A gasoline spill of 100 L to the ground from a Harmac transport truck on November 14, 2001. It was also reported that no gasoline reached the sewers;
    - In March 2004, the Shell site operator reported ingress of water in the gold tank (UST). The report also indicated that a hole on the top of the tank is suspected and the water from the vapour cross was leaking in. The tank and connecting

dispensers were shut down and TSSA was informed. The exact reason of the leak was undetermined at the time of incident reporting; and,

- In December 2008, a notification of the soil/groundwater remediation scheduled to be completed at the site in January 2009 was identified.

- Barenco report documenting site investigation completed onsite in 1992 and subsequent site cleanup activities completed in 1992 (as previously discussed in section 4.1.5 of this report). The report also stated that an off-site, post-clean up investigation was also completed at the road allowance property. The results of the investigation confirmed that there was no migration of quantifiable petroleum product and would continue monitoring and using sorbent pads, combined with a pump out in the spring, to collect any free floating layer of residual product;
- The MOE approvals branch indicated that an application for a mobile C of A and a remedial plan was submitted by Strata Soil Sampling Inc in 2008 for the in-situ remediation process (injection of bio-stimulation compounds) to treat PHC impacted soil and groundwater onsite; and,
- The MOE Hazardous Waste Information Network (HWIN) record indicated that the site is registered as a generator of liquid hazardous waste of class 251 – L (waste oil sludges) and 221 – L (waste light fuels and water).

A copy of the records and reports received from the MOE is provided in Appendix F.

The information obtained from the FOI request corresponds with the spills, assessment and remediation work documented in the environmental reports and Ecolog report.

4.2.3 Local Municipality

Municipal directories for the Phase I Property and surrounding properties available from the years 1969, 1974, 1979, 1984, 1989, 1994 and 2000 were searched. The results are summarized below and a copy of the directories search provided by EcoLog is provided in Appendix G:

Phase I Property

Year	Listing
Prior to 1969	Not listed
1974 – 1979	Palermo Shell
1984	Palermo Shell and Hohs B
1989	Palermo Shell, Bell Robert K and De Ore Bernard E
1994	Palermo Shell
2000	Not listed

Surrounding Properties

The surrounding properties with the addresses of 3015, 2512, 2521, 2527, 3024 and 3055 Dundas Street West, 3114 and 3118 Old Bronte Road were searched. The following information was obtained:

- Most of the above mentioned addresses were not listed in directories prior to 2000; the exceptions were as follows:
  - 3015 Dundas Street West was listed under the name of various individuals from 1979 to 2000;
  - 2527 Dundas Street West appeared as a residence with one (1) tenant from 1974 to 1994 and was listed as "Green Light Graphics Inc" in 2000;
  - 2512 Dundas Street West was listed as "Tim Hortons Donuts" in 2000; and,
  - 2521 Dundas Street West was listed as "Halton Presbytery Palermo United Church" in 2000.

No issues of significant environmental concern were identified with regards to the surrounding properties within 300 m of the Phase I Property to suggest that the Phase I ESA Study Area should be expanded beyond the 250 m radial distance.

4.2.4 TSSA Records Search

TSSA records were searched for the site and the following information was available:

- Five (5) 22,700 L single wall fibreglass USTs for gasoline installed in 1984. The licenses for all of the USTs expired as of April 2009;
- Various reports providing details of environmental assessment and remediation work conducted at and adjacent to the site following the site decommissioning in late 2008, indicating that all petroleum storage equipment has been removed from the site and that residual hydrocarbon impacts to soil and groundwater remain on and/or off site; and,
- Under the Memorandum of Understanding, regulatory jurisdiction for closed fuel handling sites, the "lead" agency for this site was transferred from the TSSA to the MOE, Halton-Peel District Office.

Information provided by the TSSA supports and is consistent with other records reviewed (such as environmental reports, MOE FOI and Ecolog).

It should be noted that TSSA did not register private fuel storage tanks prior to January 1990. Information provided by the TSSA is provided in Appendix H.

4.3 Physical Setting Sources

4.3.1 Aerial Photographs

A review of aerial photographs was completed for the years 1934, 1965, 1979, and 1985 where reasonable development/changes of the Phase I Study Area were visible/noticeable. These years were selected for review to also observe development/changes at the site prior to purchase by the Canadian Oil Company (possibly first potentially contaminating activity) and up to the period covered in the environmental reports. The significant observations made are summarized below.

Year	Observations
1934	The site appears to be under agricultural use and/or is undeveloped, with the exception of one (1) structure in the eastern portion of the site that appears to be a barn or a shed. The surrounding area is largely under rural agricultural land use. The presence of farm homesteads raises the possibility for the presence of offsite underground storage tanks (USTs; for heating or vehicular fuel storage), on nearby properties.
1965	The site no longer appears to be in use for agricultural purposes, or undeveloped. Construction of a square building and some vehicular traffic is evident in the central portion of the site which likely relates to a retail fuel facility. To the west (adjacent to the Shell property), a residential development is evident. Further development of some buildings which may be possibly residential and/or commercial is visible to the south and north.
1979	The site and surrounding land appeared relatively unchanged from the 1965 photograph.
1985	No substantial changes in the site layout and the surrounding land are apparent.

The original aerial photographs cover a large area and provide only large scale (low resolution) information. Detailed interpretation of these photographs is precluded. Observations from the aerial photographs are consistent with other records reviewed. Copies of the aerial photographs for the selected years are provided in Appendix I.

The aerial photograph reviews supports a first developed use of prior to 1934 (as discussed in this report, section 4.1.2).

4.3.2 Topography, Hydrology and Geology

The regional surface geology, as interpreted from Map 2556, Quaternary Geology of Ontario, Southern Sheet (Barnett et. al., 1991) is Halton Till that consists predominantly of silt to silty clay

matrix. The bedrock geology, as interpreted from Map 2554, Bedrock Geology of Ontario, Southern Sheet (Barnett et. al., 1991) consists of Queenston Shale underlying the area from approximately 45 m to 100 m below ground surface (bgs).

The nearest water body is a tributary of Fourteen Mile Creek, located approximately 7.5 km south of the site. Regional groundwater flow is expected towards the south-southeast.

Soil and groundwater investigations completed on the subject site prior to remediation indicated that the overburden soil type on site was comprised of sand, gravel and silty clay, overlying shale bedrock. Following the completion of the remedial excavation in 2008/2009, the site was back filled with clear stone, native and/or imported granular fill material.

The topography of the site is generally flat. Prior to remediation, the depth to groundwater on site ranged from 0.23 m to 3.85 m bgs (Wardrop, 2008b). Post-remediation investigation indicate that the depth to ground water ranged from 1.02 m to 1.78 m below ground surface (bgs) on site and from 2.30 m to 4.21 m bgs off site (Aqua Terre, 2009). Groundwater mounding was observed on site post remediation, likely associated with the fill material present on site. Based on the groundwater monitoring and elevation data from the right-of-way property to the southeast of the site, groundwater flow is expected to be towards the south and east.

4.3.3 Fill Materials

Native soil encountered on site prior to excavation was predominantly silt with clay and gravel with cobbles (medium to fine textured) (Wardrop, 2008b). The site is predominantly reworked native and imported granular fill material since remediation. Some coarse-grained fill was observed as surface cover during the site inspection.

4.3.4 Water Bodies and Areas of Natural Significance

The nearest water body is a tributary of Fourteen Mile Creek, located approximately 7.5 km south of the site. Regional groundwater flow is expected towards the south-southeast.

A desktop search of the Ontario Ministry of Natural Resources' (MNR) Natural Heritage Information Centre (NHIC) Database did not identify any significant geological and biological features in the Phase I Study Area and therefore the site is not considered an Area of Natural and Scientific Interest.

The topographic map from the Ontario Base Map series that includes the Phase I Study Area is provided in Figure 4.

4.3.5 Water Well Records

A review of MOE water well records identified seventy six (76) wells within 1 km of the site. The wells were drilled from 1951 to 2009 and have casing diameters between 0.05 and 0.8 m. It is not known how many of these well are currently in use. Twelve (12) of these wells are located within approximately 100 m of the site and most of these wells were drilled to depths of 10 to 16 m below ground surface (bgs). Five (5) of these wells are reportedly for domestic water supply, two (2) of the wells are for commercial purposes, one (1) well is reported as not in use and the use of remaining four (4) wells is unknown. Information on the majority of these wells is consistent with the information obtained from the Ecolog report (WWIS database). Review of the well formations states that the stratigraphy of the general area is comprised of shallow layers of sand gravel fill and silty clay overlying red shale, which is consistent with the regional surface geology and with the information obtained in the records review (environmental reports). A copy of the MOE water well computer printout is provided in Appendix J.

4.4 Site Operating Records

The retail fuel facility operations terminated in 2007 and associated infrastructure was decommissioned in 2008. The former service station building on-site was also demolished at this time. Shell corporate files indicated that a remedial program consisting of in-situ chemical oxidation is planned to further remediate the low-level localised petroleum hydrocarbon contamination present in groundwater on site. No other site operating records were reviewed as part of this Phase I ESA.

5. INTERVIEW

The site is currently vacant and contact information for the previous site operator knowledgeable about the former operations prior to 2007 and vicinity was not available. The only "knowledgeable" people available to interview with regards to site history and operations were Shell personnel, including Lee Howell (Project Manager, Environmental Services). Discussions were held with these various Shell Personnel from 2009 to the present; the results of which corroborate, but do not expand on the site history summarized within the body of this report.

6. SITE INSPECTION/RECONNAISSANCE

6.1 General Requirements

SLE personnel, Ms. Allison McIntosh, B.Sc., Dipl. Envir. Eng. and Mr. Lucas Arnold, B.Eng., conducted a site inspection on August 19, 2010. The weather conditions noted at the time of inspection was a temperature of 25 degree Celsius, with overcast skies. The approximate length of time of the inspection was one (1) hour. The purpose of the inspection was to assess if there were any potential areas of environmental concern. At the time of inspection, the site was vacant with no buildings or structures. No evidence of staining or stressed vegetation was noted at the time of inspection. Two (2) drums containing soil cuttings generated from the ongoing remedial activities were observed onsite. Nine (9) monitoring wells related to the post remedial groundwater sampling program were observed on the site. Two (2) monitoring wells were also observed on the off-site property to the west (close to the fence). These are likely two of the three off-site wells previously installed by Shell. High voltage hydro transmission lines were observed along Old Bronte Road, extending from the northwest to northeast of the site. Selected photographs taken during the site visit are presented in Appendix K.

Two additional site inspections were completed in 2012: on March 22 by Ms. Wing-Shun Wu, M.Sc. and June 27 by Ms. Caitlin Radich, Environmental Scientist. The weather conditions noted at the time of March inspection was a temperature of 25 degree Celsius, and sunny, while at the time of the June inspection, the temperature was 20 degree Celsius, with overcast skies and light rain. No appreciable differences were noted with regards to the site observations made at the time of the August 19, 2010 inspection, with the exception that the soil drums observed on-site in August 2010 had been removed.

6.2 Specific Observations at Phase I Property

6.2.1 Surrounding Land Use

Land use observed on immediately adjacent properties during the inspection is consistent with the information obtained during records review.

6.2.2 Storage Tanks

No ASTs or evidence of USTs (e.g. vent and fill pipes) were observed on the Phase I Property. This is consistent with the site decommissioning, as reported by Wardrop in 2009.

Two (2) plastic drums were located in the northeast corner of the Phase I Property. The drums contained soil cuttings from the ongoing remedial activities and were subsequently disposed of

off-site in accordance with applicable regulations. There was no evidence of staining on the ground in the area of these drums.

6.2.3 Utilities

No potable water wells were noted on the Phase I Property at the time of inspection, which is consistent with the information obtained during the records review (environmental reports) and the reported decommissioning of the Phase I Property. Hydro poles were located on the north side of the Phase I Property, evidence of on-site hydro service prior to site decommissioning.

No catch basins or manholes suggestive of storm or sanitary sewers were observed on the Phase I Property.

6.2.4 Septic Systems

No evidence of an active septic tank and tile bed were noted on the Phase I Property during the current site inspection; this is consistent with the information obtained during the records review (environmental reports). However indications of the former septic tank and tile bed were noted on the north portion of the Phase I Property, consistent with the previous site layout.

6.2.5 Fill Materials

At the time of inspection the Phase I Property was gravel covered, which is consistent with the reported use of fill to backfill the excavated portions of the Phase I Property.

6.2.6 Air Emissions

No air emissions were noted at the time of the site inspection.

6.2.7 Odour

No odours were noted on the Phase I Property at the time of the site inspection.

6.2.8 Pits and Lagoons

No pits or lagoons were identified at the Phase I Property.

6.2.9 Spills

No staining or other evidence of spill was identified at the Phase I Property.

6.3 Enhanced Investigation at the Property

At the time of the site visit, the Phase I Property was a vacant parcel of land, exhibiting no visual evidence of the former retail petroleum outlet or automotive service station. As such, there was none of the following activities present on the site:

- Operations
- Products manufactured
- Raw materials handling
- Operating oil water separator
- Vehicle and equipment maintenance areas
- Liquid discharge points
- Hydraulic lift equipment
- Hazardous materials storage
- Byproducts or wastes storage
- Drums totes or bins

Based on the historical activity that occurred on-site, the site meets the definition of an "enhanced investigation property"; however, the property has been the subject of substantial environmental investigation and remediation for both soil and groundwater. A review of the previous environmental reports (see Section 4.1.5) indicates the soil and groundwater conditions underlying the Phase I Property have been remediated, with the exception of some localized groundwater exceedances of benzene and MTBE in the southern portion of the property which require further remediation.

6.4 Written Description of Investigation

The site reconnaissance was conducted by visiting and observing the Phase I Property and publicly accessible portions of the Phase I Study Area. Preliminary information obtained from the records review was considered prior to conducting the site visit.

Based on the specific observations for the Phase I Property, areas of potential environmental concern (APECs) associated with the potentially contaminating activities include:

- Shell site – 3005 Dundas Street West – residual groundwater impacts.

Based on the specific observations for the Phase I study area, the following potentially contaminating activities were identified:

- Dundas Street West and Old Bronte Road allowances south and east of the site – residual soil and groundwater impacts.

Details of these observed areas of potentially contaminating activities, issues identified from records review, and resulting APECs, are presented in Section 7.

7. REVIEW AND EVALUATION OF INFORMATION

7.1 Current and Past Uses

The following provides a general overview of the history of the site and surrounding properties based on the information reviewed as part of this Phase I ESA. The current and historical site layout is presented in Figure 2. A summary of current and past uses of the Phase I Property is provided below:

Past Site Use (include past development, activities)	Current and Proposed Site Use (include current development and activities)
• First developed use of property mid-1930's (use unknown) • Retail Fuel Facility with an Automotive Service Garage (mid-1960's to 2007) • Decommissioned and remediated (2008 to 2009)	• Vacant land • Future development unknown

7.2 Potential Contaminating Activity

Historical operations of a retail fuel outlet and automotive service garage on site were the only potential contaminating activities identified prior to the site remediation activities completed at the site between 2008 and 2009. The site has been vacant since decommissioning and remediation activities were completed. No other potential contaminating activity in the vicinity is suspected to contribute to the site.

7.3 Areas of Potential Environmental Concern

Based on records review, observations made during the site visits and information gathered from other sources, two Areas of Potential Environmental Concern (APEC) were identified for the Phase I Property. These APECs are presented on Figure 5 and area summarized below:

APEC and Rationale	Potential Contaminants of Concern (PCOC)	Comments/ Uncertainties
APEC #1 (on-site) Location of former retail fuel outlet and automotive service garage – residual (localized) groundwater impacts identified in southern portion of the property.	• Benzene and MTBE – Groundwater	Results based on available records, reports and historical information
APEC #2 (off-site) Dundas Street West and Old Bronte Road allowances south and east of the site – residual soil and groundwater impacts	• BTEX, PHC F1 to F4 – Soil and/or Groundwater • MTBE – Groundwater	

7.4 Phase I Conceptual Site Model (CSM)

A pictorial representation of the CSM is shown in Figure 5 and presents the following:

- Existing buildings, structures, roadways and their names, if any, within the Phase I Study Area;
- Water bodies and areas of natural significance, if any (also discussed in Section 4.3.4);
- Water wells, if any, within the Phase I Study Area (also discussed in Section 4.3.5);
- Land uses within the Phase I Study Area; and,
- Areas of potentially contaminating activity and APECs, if any, (also discussed in Section 7.2 and Section 7.3, respectively).

No utilities that could potentially serve as preferential migration pathways were identified as remaining on-site.

The topography of the site is generally flat. The regional surface geology is predominantly of silt to silty clay matrix and the regional bedrock geology, consists of gray shale. Soil investigations prior to remediation indicate that soil type in the area beneath the existing surface cover, comprised fill of sand and gravel and silty clay, overlying shale bedrock. At the conclusion of the on-site remediation program, excavated areas of the site were backfilled with clear stone, native and/or imported granular fill.

The nearest water body is a tributary of Fourteen Mile Creek, located approximately 7.5 km south of the site. Regional groundwater flow is expected towards the south-southeast. Following the onsite remediation program groundwater mounding was observed onsite, likely associated with the fill material used as backfill; suggest groundwater flow offsite to the west, east and south.

Based on the historical use of the site as a retail petroleum outlet and automotive service station, potential contaminants of concern were identified as BTEX, PHC F1 to F4, VOCs and PAHs. These contaminants of concern were investigated during environmental assessments completed between March and September 2008. The results of the investigation identified actual contaminants of concern in soil and groundwater as BTEX, PHC F1 to F4 and MTBE. A site remediation program was implemented in 2008 and completed 2009 to address identified exceedances of these actual contaminants of concern.

Based on a review of the available environmental investigative and remedial reports for the Phase I Property, the remaining on-site concentrations for the actual contaminants of concern were less than the MOE Table 2 standards in all of the (final) analyzed soil and groundwater samples, with the two exceptions. Measured groundwater concentrations of benzene and MTBE exceeding the MOE Table 2 standards were identified in two wells located in the southern portion of the property: MW401 (benzene) and MW402 (MTBE), which constitute a remaining environmental concern on-site.

A second area of potential environmental concern relates to the residual soil and groundwater impacts remaining off-site, adjacent to the Phase I Property's east and south property boundaries. The potential contaminants of concern are BTEX, PHC F1 to F4 and MTBE. Although the residual soil impacts are not anticipated to be a concern, there is the potential for migration of impacted groundwater back onto the property. However, the local groundwater flow direction is to the south-southeast, and away from the property. In addition, Aqua Terre's 2009 report indicated the groundwater levels measured on-site appeared to be artificially elevated due to the granular backfill material predominant the southern portion of the property. , which would create hydraulic mounding. This situation would effectively "push" the shallow groundwater offsite to the west, east and south, and mitigate the possible migration of impacted groundwater from the east back onto the property.

No other potentially environmental concerns were identified on or adjacent to the Phase I Property.

8. CONCLUSIONS

Based on the above `information, the following conclusions are provided:

- The Phase II ESA programs completed at the Phase I Property during 2007 and 2008 have effectively investigated the on-site soils and groundwater with regards to potentially contaminating activities;
- The remediation excavation program completed at the Phase I Property during 2008-2009 effectively remediated the on-site soils and groundwater for the identified contaminants of concern (BTEX, PHC F1 to F4 and MTBE), with the exception of two (2) localized areas of residual groundwater impact in the south portion of the site;
- In September 2009, post-remedial groundwater concentrations of benzene and MTBE, above the MOE Table 2 standards, were identified in two (2) on-site wells (MW401 and MW402), located in the southern portion of the Phase I Property. To remediate this residual on-site groundwater impact, an in-situ chemical oxidation (ISCO) program was implemented on the Phase I Property in October 2010;
- In order to file an RSC for the Phase I Property, concentrations of the contaminants of concern (benzene and MTBE) must be less than the MOE Table 2 standards during four (4) consecutive quarterly sampling events, the first conducted at least ninety (90) days following the last remedial activity;
- A series of post injection groundwater sampling events was completed between December 2010 and December 2011. The analytical results from the September and December 2011 sampling events indicated the concentrations of benzene and MTBE measured in all on-site monitoring wells are below the MOE Table 2 standards. As such, two (2) additional quarterly sampling events, also meeting the MOE Table 2 standards, are required before filing for a RSC;
- Concentrations of MTBE exceeding the MOE Table 2 standards in groundwater remain in one (1) off-site location (BH 105), located south of the property on Dundas Street West; and,
- It is expected that with the removal of source material from the Phase I Property, and the implementation of an in-situ oxidation program on-site that the offsite impacts will attenuate with time. A contaminated management plan has been implemented to monitor and document the off-site conditions.

8.1 QP Statement

The Phase I ESA was supervised by undersigned qualified person(s) and all findings and conclusions of the Phase I ESA are included in the report.

8.2 Disclaimer

The statements made in this report are based solely on the information obtained to date as part of the above referenced study. SNC-Lavalin Environment, Division of SNC-Lavalin Inc. (SLE) has used its professional judgement in assessing this information and formulating its opinion and recommendations. New information may result in a change in this opinion. The mandate at SLE is to perform the tasks prescribed by the Client with the due diligence of the profession. No other warranty or representation, expressed or implied, as to the accuracy of the information or recommendations is included or intended in this report. The results of this study should in no way be construed as a warranty that the subject property is free from any and all contamination.

SLE disclaims any liability or responsibility to any person or party, other than the party to whom this report is addressed, for any loss, damage, expense, fine, or penalty which may arise or result from the use of any information or recommendations contained in this report. Any use which a third party makes of this report, or any reliance on or decisions made based on it, are the sole responsibility of the third party.

Submitted by:

SNC-LAVALIN ENVIRONMENT
DIVISION OF SNC-LAVALIN INC.

for Reshma Fazlullah, M.Eng.
Environmental Scientist

Randy Helliwell, P.Eng.
Senior Engineer

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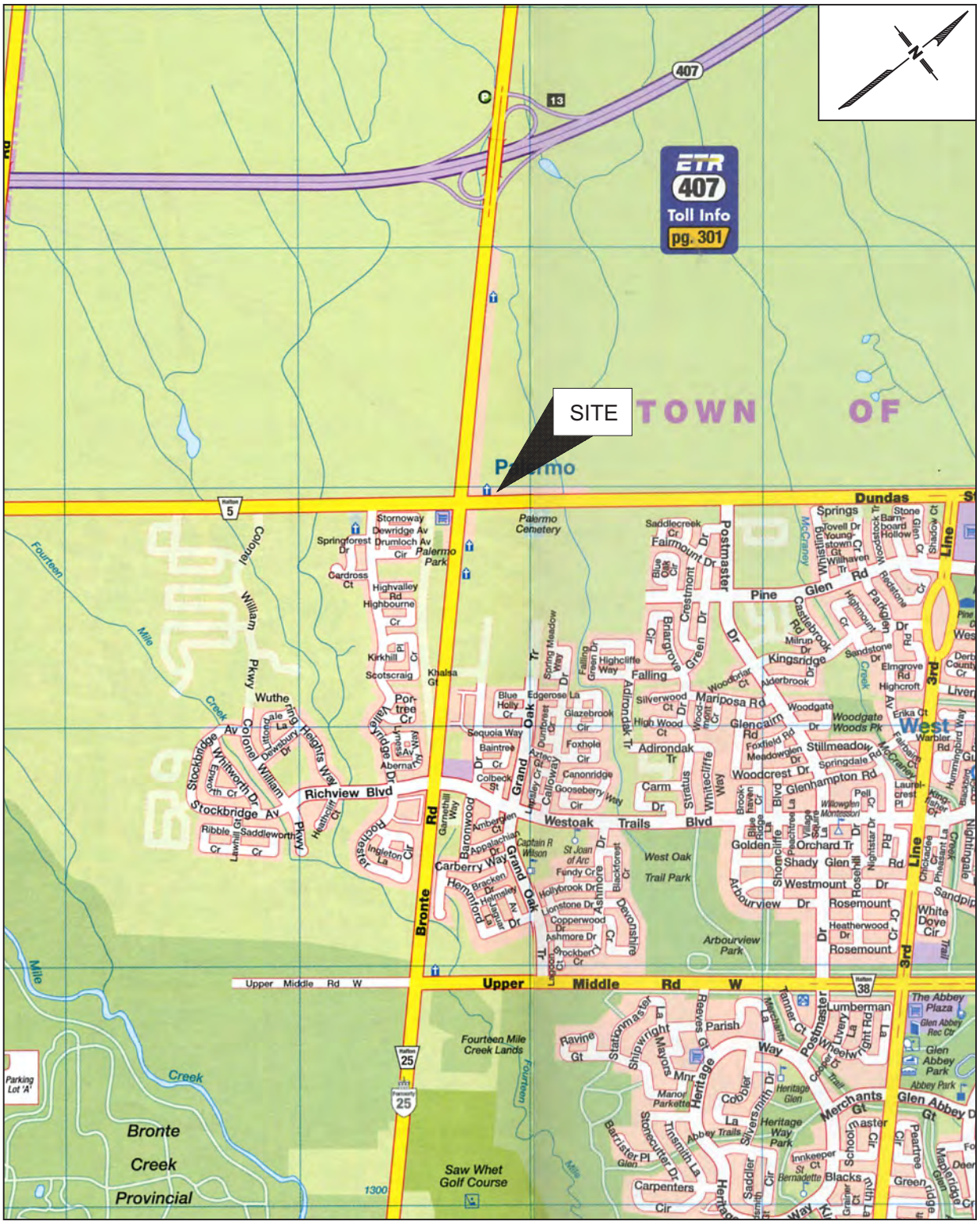
FIGURES



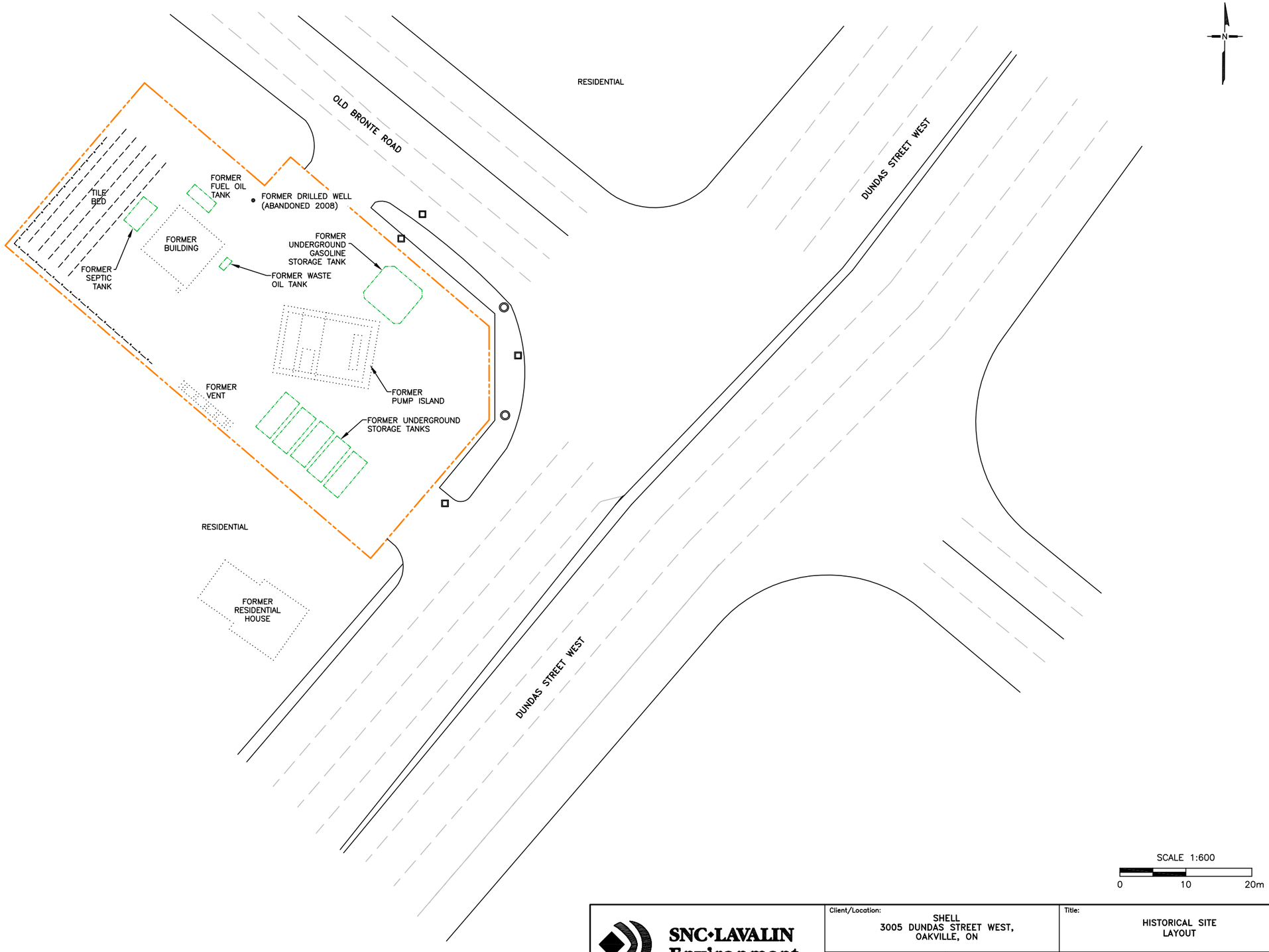
SOURCE: SCHWERDT GRAPHIC ARTS LTD., (MapArt), 2007 EDITION

SCALE 1:25,000

0 0.5 1km

SNC·LAVALIN Environment

Client/Location: SHELL 3005 DUNDAS STREET WEST OAKVILLE, ON		Title: SITE LOCATION PLAN	
Project No: S09125	Filename: 19F01_S09125	Date: OCTOBER 2012	Dwg No: FIGURE 1
Drawn: DM	Verified:	Project Manager:	



LEGEND

- MANHOLE
- CATCH BASIN
- SITE PROPERTY LINE
- EXISTING BUILDING
- INFRASTRUCTURE
- FORMER INFRASTRUCTURE
- CHAIN LINK FENCE
- FORMER TANK

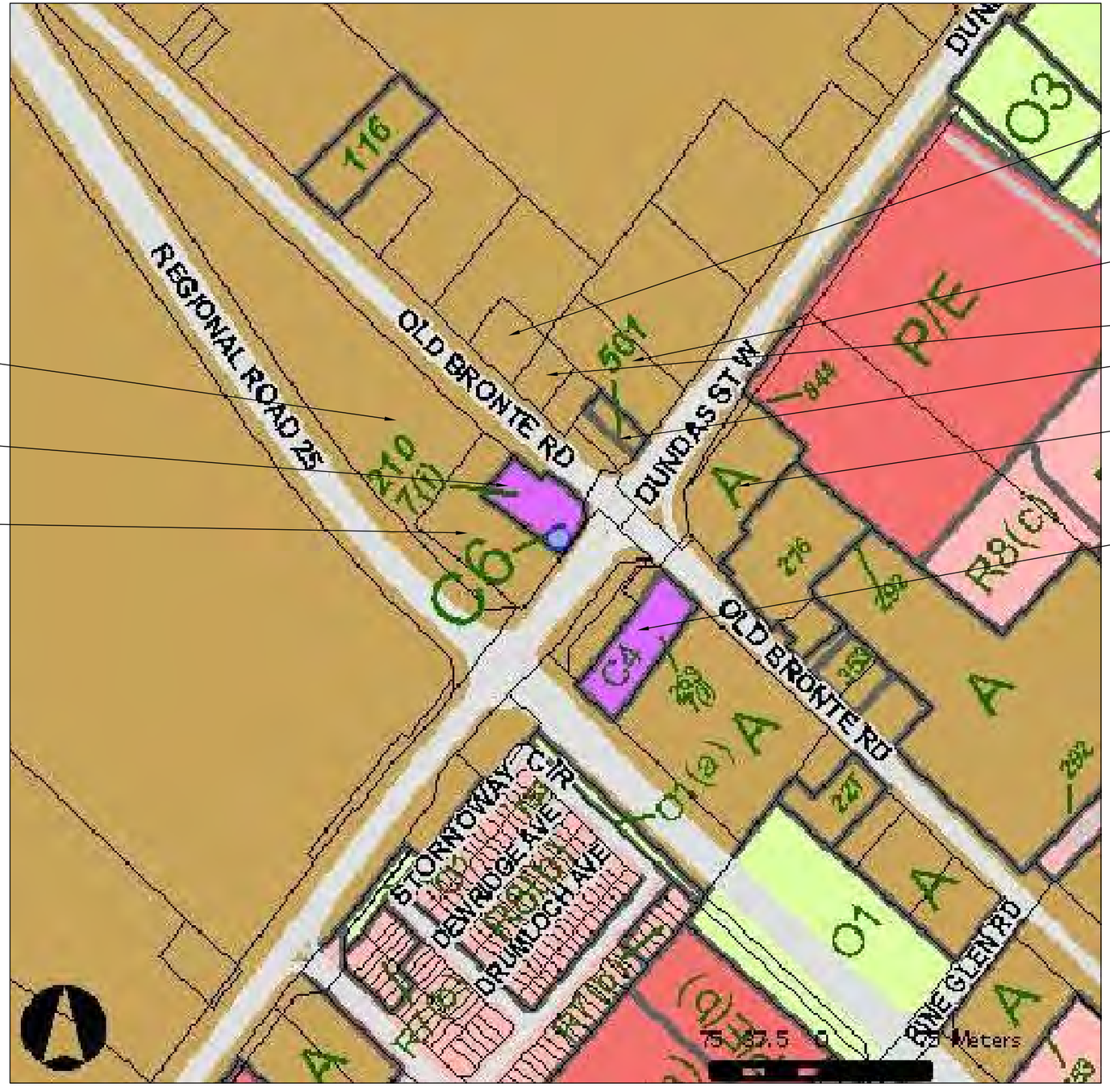
NOTE(S):
1. SCALE AND SITE INFRASTRUCTURE LOCATIONS ARE APPROXIMATE
2. INFORMATION ON THIS FIGURE MAY BE LOST IF IT IS PRINTED, PHOTOCOPIED OR FAXED IN OTHER THAN ITS ORIGINAL SIZE AND COLOURS
3. "m" : METRES

SNC·LAVALIN Environment

Client/Location: SHELL 3005 DUNDAS STREET WEST, OAKVILLE, ON		Title: HISTORICAL SITE LAYOUT	
Project No: S09125	Filename: 19F02_S09125	Date: OCTOBER 2012	Dwg No: FIGURE 2
Drawn: AG	Verified:	Project Manager:	

PAGE FORMAT: 11x17

FILENAME: P:\2009\091xx\09125 - Shell - 3005 Dundas St., W., Oakville\Figures\Series\2012\019\19F02_S09125.dwg



VACANT LAND

SUBJECT SITE
3005 DUNDAS STREET WEST
(FORMER SHELL SERVICE STATION)

3015 DUNDAS STREET WEST
(RESIDENTIAL)

3023 OLD BRONTE ROAD
(RESIDENTIAL)

2521 DUNDAS STREET WEST
CHURCH
(INSTITUTIONAL)

3017 OLD BRONTE ROAD
(RESIDENTIAL)

2527 DUNDAS STREET WEST
(RESIDENTIAL)

VACANT LAND

3024 DUNDAS STREET WEST
STRIP PLAZA (COMMERCIAL)
(PALERMO PUBLIC HOUSE;
AMBIANCE BEAUTY SALON AND SPA;
WESTOAK ANIMAL HOSPITAL;
FASADA BLINDS AND DRAPES STORE)

SCALE 1:3500

0 70 140m

NOTE(S):
1. SCALE AND SITE INFRASTRUCTURE LOCATIONS ARE APPROXIMATE
2. INFORMATION ON THIS FIGURE MAY BE LOST IF IT IS PRINTED, PHOTOCOPIED OR FAXED IN OTHER THAN ITS ORIGINAL SIZE AND COLOURS
3. "m" : METRES

SOURCE(S):
1. TOWN OF OAKVILLE, ZONING BYLAW, SEPTEMBER 1, 2010

SNC·LAVALIN Environment

Client/Location: SHELL 3005 DUNDAS STREET WEST, OAKVILLE, ON		Title: HISTORICAL SITE AND SURROUNDING LAND USE	
Project No: S09125	Filename: 19F03_S09125	Date: OCTOBER 2012	Dwg No: FIGURE 3
Drawn: AG	Verified:	Project Manager:	

PAGE FORMAT: 11x17

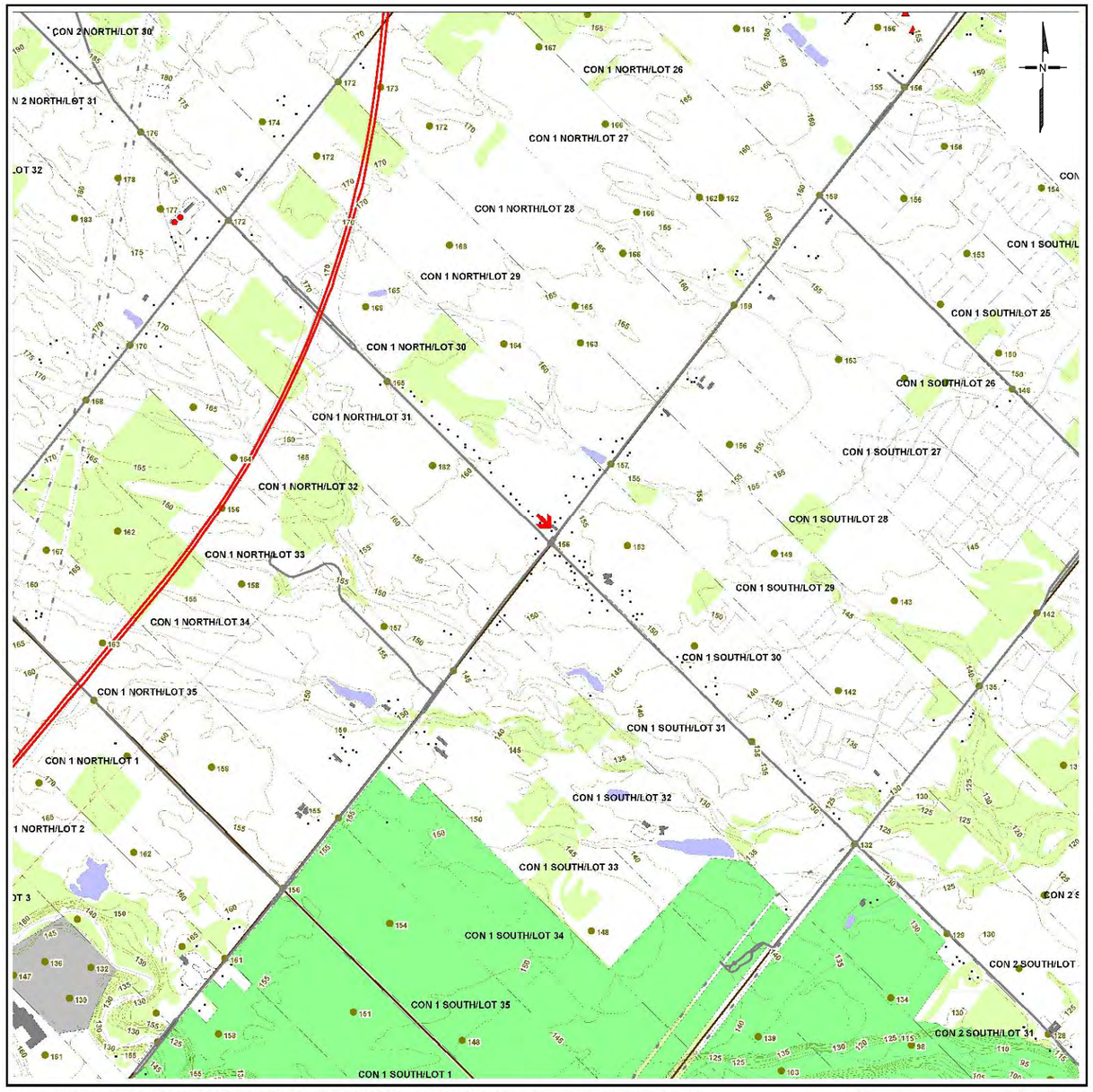
FILENAME: P:\2009\091xx\09125 - Shell - 3005 Dundas St. W., Oakville\Figures\Series\2012\019\19F03_S09125.dwg

LEGEND

- Project Property
- Airport
- Building Scale
- Building Symbol
- Roads - Hwy/Major
- Roads - Secondary
- Roads - Residential
- Utility Line
- Transport Line
- Trails
- Railway
- Spot Height
- Contour
- Utility Site
- Transport Point
- Miscellaneous Point
- Beaverdams
- Water Structure
- Waterbody River
- Wetland
- Waterbody - Lake
- Unorganized Area
- Tank
- Tower
- Pit / Quarry
- Mine Site
- Concession
- Lot
- Provincial Park Zone Regulated
- Provincial Park Regulated
- NGO Nature Reserve
- Natural Wildlife Area
- National Park
- Municipal Upper Tier
- Municipal Lower Tier
- Land Ownership
- Geographic Township
- Municipal Park
- Crown Leased Land
- Crown Game Reserve
- Conservation Reserve
- Conservation Authority Area
- Conservation Area
- Wooded Area

NOTE(S):
1. SCALE AND SITE INFRASTRUCTURE LOCATIONS ARE APPROXIMATE
2. INFORMATION ON THIS FIGURE MAY BE LOST IF IT IS PRINTED, PHOTOCOPIED OR FAXED IN OTHER THAN ITS ORIGINAL SIZE AND COLOURS
3. "m" : METRES

SOURCE(S):
1. ECOLOG ERIS LTD.



Produced by EcoLog ERIS Ltd., under Licence with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2009.

0 641 Metres

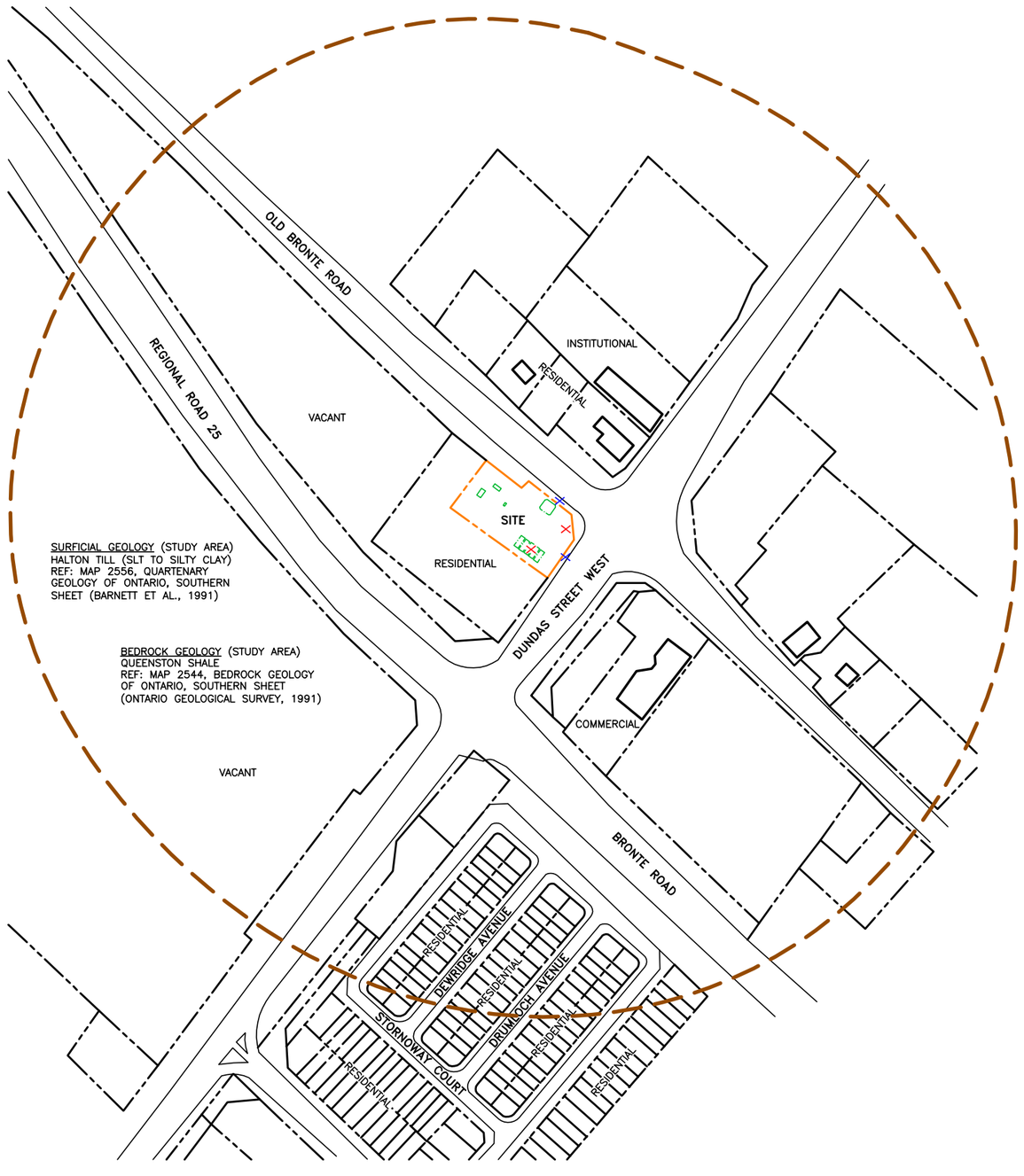
SNC·LAVALIN Environment

Client/Location: SHELL 3005 DUNDAS STREET WEST, OAKVILLE, ON		Title: TOPOGRAPHY AND AREAS OF NATURAL SIGNIFICANCE	
Project No: S09125	Filename: 19F04_S09125	Date: OCTOBER 2012	Dwg No: FIGURE 4
Drawn: DM	Verified:	Project Manager:	

PAGE FORMAT: 11x17

FILENAME: P:\2009\091xx\09125 – Shell – 3005 Dundas St., W., Oakville\Figures\Series\2012\019\19F04_S09125.dwg

ON PHASE I STUDY PROPERTY ARE THERE?		
EXISTING STRUCTURES/BUILDINGS	NO	DEMOLISHED
DRINKING WATER WELLS	NO	DECOMMISSIONED
IN PHASE I STUDY AREA ARE THERE?		
ROADS	YES	SEE FIGURE
WATER BODIES	NO	
AREA OF NATURAL SIGNIFICANCE	NO	
POTENTIAL CONTAMINATING ACTIVITIES	YES	DECOMMISSIONED GASOLINE RETAIL/AUTOMOTIVE SERVICE FACILITY
TANKS	NO	ONSITE REMOVED, SEE FIGURE FOR FORMER LOCATIONS
AREAS OF POTENTIAL ENVIRONEMNTAL CONCERN	YES	ON-SITE: CONCENTRATIONS OF MTBE/BENZENE (GROUNDWATER) ABOVE MOE TABLE 2 STANDARD IN SOUTH PORTION OF SITE OFF-SITE: RESIDUAL SOIL AND GROUNDWATER IMPACTS ALONG THE EAST AND SOUTH PROPERTY LINES (BTEX, PHC F1 to F4, MTBE)



LEGEND

- AREA OF POTENTIAL ENVIRONMENTAL CONCERN (ON-SITE)
- AREA OF POTENTIAL ENVIRONMENTAL CONCERN (OFF-SITE)
- PROPERTY LINE
- SITE PROPERTY LINE
- PHASE I STUDY AREA (250m)
- FORMER UNDERGROUND TANK

NOTE(S):
1. SCALE AND SITE INFRASTRUCTURE LOCATIONS ARE APPROXIMATE
2. INFORMATION ON THIS FIGURE MAY BE LOST IF IT IS PRINTED, PHOTOCOPIED OR FAXED IN OTHER THAN ITS ORIGINAL SIZE AND COLOURS
3. "m" : METRES

SOURCE(S):
1. ZONING BYLAW, TOWN OF OAKVILLE, 2010

SCALE 1:3000

0 60 120m

SNC·LAVALIN Environment

Client/Location: SHELL 3005 DUNDAS STREET WEST, OAKVILLE, ON		Title: PHASE 1 CONCEPTUAL SITE MODEL SHOWING AREAS OF POTENTIAL ENVIRONMENTAL CONCERN	
Project No: S09125	Filename: 19F05_S09125	Date: OCTOBER 2012	Dwg No: FIGURE 5
Drawn: AG	Verified:	Project Manager:	

FILENAME: L:\2009\091xx\09125 - Shell - 3005 Dundas St. W., Oakville\Figures\Series\2012\019\19F05_S09125.dwg

PAGE FORMAT: 11x17

QUALIFICATIONS OF THE ASSESSORS

Site Assessors – Ms. Allison McIntosh, B.Sc., and Mr. Lucas Arnold, B.Eng. The site assessors are environmental scientists with 1.5 to more than six (6) years experience in coordinating and conducting environmental site assessment and remediation projects. The site assessment team has extensive experience in completing Phase I, II and III environmental site assessments, designated substance surveys and the sampling and inventorying of asbestos containing materials. The team has completed numerous site evaluations (including historical research, air photo analysis of potentially contaminated sites, and implementation of surface and subsurface soil and groundwater sampling) for industrial, commercial and residential properties.

Report Author – Ms. Reshma Fazlullah, M.Eng. Ms. Fazlullah has over eight (8) years relevant experience in environmental assessments and management. She has extensive experience in conducting and implementing Phase I assessments, air quality evaluations as well as asbestos and designated substance assessment and management.

Senior Reviewer – Mr. Randy Helliwell, P.Eng. Mr. Helliwell has over eighteen (18) years experience in the assessment and remediation of contaminated sites. Mr. Helliwell is responsible for providing management and technical direction to environmental and hydrogeological investigations. He experience includes the design and implementation of site investigations, interpretation of environmental data, and the development and implementation of remedial action plans for sites affected by petroleum hydrocarbons, chlorinated solvents and other organic and inorganic contaminants. He has designed and implemented Phase I ESAs based on the "Canadian Standards Association (CSA) "Phase I Environmental Site Assessment" Standard Z768-01 (CSA, 2001), as well as Ontario Regulation 153/04 (as amended). Mr. Helliwell's projects have included a wide variety of industrial/commercial and residential sites, located throughout Ontario, and for a variety of petroleum, residential, industrial clients.

APPENDIX A

SITE SURVEY

SURVEYOR'S REAL PROPERTY REPORT
PART 1) PLAN OF

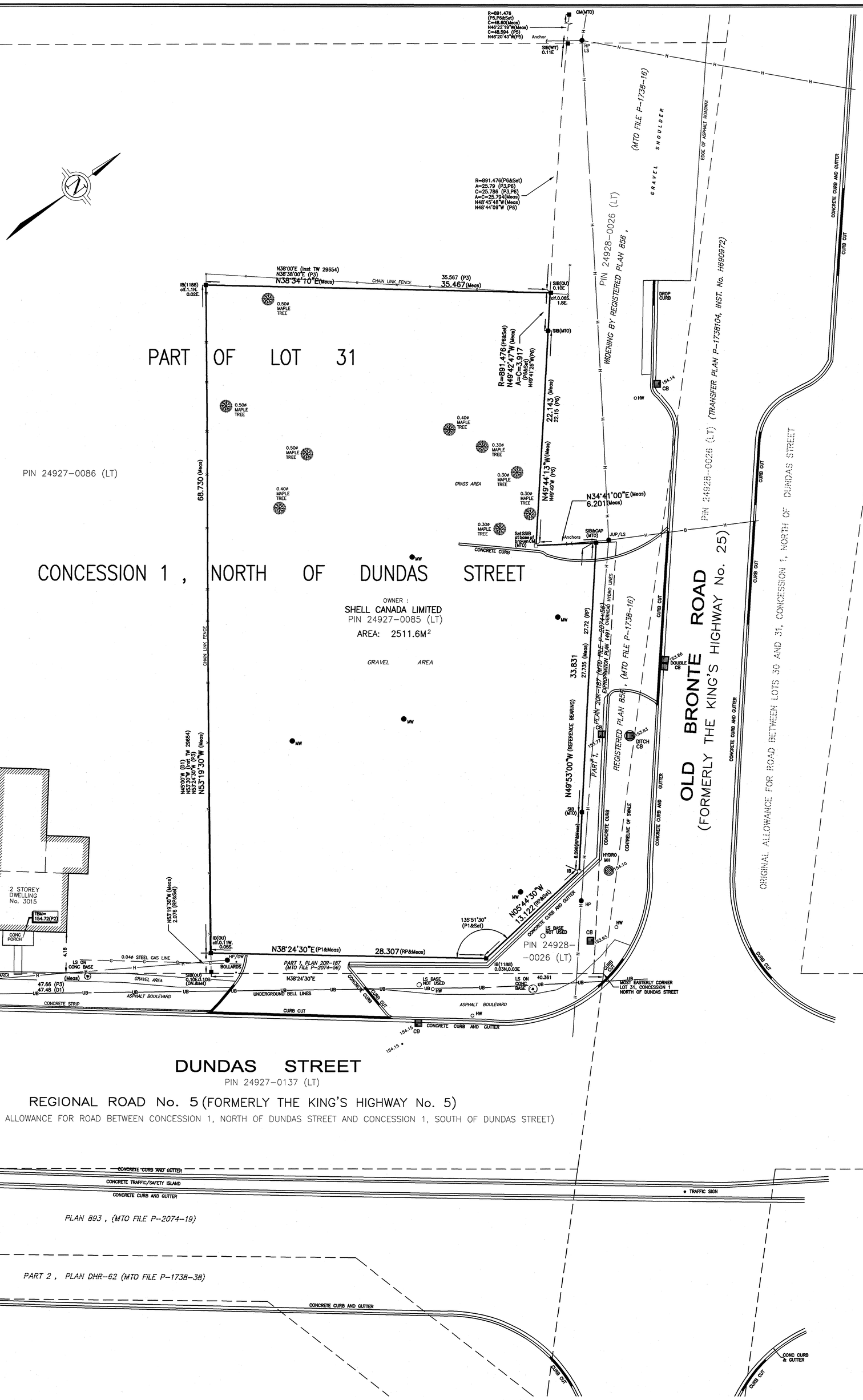
PART OF LOT 31, CONCESSION 1
NORTH OF DUNDAS STREET
(GEOGRAPHIC TOWNSHIP OF TRAFALGAR)

TOWN OF OAKVILLE
REGIONAL MUNICIPALITY OF HALTON

SEXTON McKAY LIMITED
ONTARIO LAND SURVEYORS
CANADA LANDS SURVEYOR

Scale 1:200

0 10 metres



PART 2) Report Summary

DESCRIPTION OF LAND:

BEING PART OF LOT 31, CONCESSION 1, NORTH OF DUNDAS STREET (GEOGRAPHIC TOWNSHIP OF TRAFALGAR) NOW IN THE TOWN OF OAKVILLE, MUNICIPAL No. 3005 DUNDAS STREET PIN 24927-0085(LT) AS IN INST. NO. TW29654, EXCEPT PART 1, PLAN 20R-187 AND PM856.

REGISTERED EASEMENTS and/or RIGHTS-OF-WAY:

NONE

ENCROACHMENTS:

NONE

COMPLIANCE WITH MUNICIPAL ZONING BY-LAWS:

NOT CERTIFIED BY THIS REPORT

ADDITIONAL REMARKS:

NONE

METRIC

DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

LEGEND

■	DENOTES SURVEY MONUMENT FOUND
□	DENOTES SURVEY MONUMENT SET
SIB	DENOTES STANDARD IRON BAR
IB	DENOTES IRON BAR
SSIB	DENOTES SHORT STANDARD IRON BAR
CC	DENOTES CUT CROSS
ø	DENOTES ROUND
WIT	DENOTES WITNESS
RP	DENOTES REGISTERED PLAN 1491
P2	DENOTES SURVEY PLAN BY C.A. SEXTON, OLS DATED MAY 16th., 1974
P3	DENOTES PLAN 20R-11003
P4	DENOTES PLAN 20R-16040
P5	DENOTES DEPOSITED PLAN 834
P6	DENOTES DEPOSITED PLAN 856
D1	DENOTES INSTRUMENT No. 67448
MTO	DENOTES MINISTRY OF TRANSPORTATION ONTARIO
CM	DENOTES CONCRETE MONUMENT
MH	DENOTES MANHOLE
CB	DENOTES CATCH BASIN
B	DENOTES BOLLARD
LS	DENOTES LIGHT STANDARD
MW	DENOTES MONITORING WELL
WV	DENOTES WATER VALVE
HP	DENOTES HYDRO POLE
DW	DENOTES DOWN WIRE
TLS	DENOTES TRAFFIC LIGHT SIGNAL
TS	DENOTES TRAFFIC SIGN
HW	DENOTES HAND WELL
-H-	DENOTES OVERHEAD HYDRO
-H-	DENOTES OVERHEAD HYDRO
-G-	DENOTES GASMAIN
-W-	DENOTES WATERMAIN
-S-	DENOTES SANITARY SEWER
-ST-	DENOTES STORM SEWER
-UB-	DENOTES UNDERGROUND BELL LINES
ON	DENOTES SURVEY PLAN BY SEXTON McKAY, O.L.S., DATED APRIL 5TH., 2007

NOTE

BEARINGS SHOWN HEREON ARE ASTRONOMIC AND ARE REFERRED TO THE SOUTHWESTERLY LIMIT OF PART 1, AS SHOWN ON REGISTERED PLAN 1491, (MTO FILE P-2074-67) HAVING A BEARING OF N49°53'00"W.

TEMPORARY BENCH MARK

TOP OF CONCRETE PORCH IN FRONT OF HOUSE No. 3015 DUNDAS STREET AND SHOWN ON FACE OF PLAN

ELEVATION = 154.72

THIS REPORT WAS PREPARED FOR SHELL CANADA LIMITED AND THE UNDERSIGNED ACCEPTS NO RESPONSIBILITY FOR USE BY OTHER PARTIES.

SURVEYOR'S CERTIFICATE

I CERTIFY THAT

1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT AND THE LAND TITLES ACT AND THE REGULATIONS MADE UNDER THEM,
2. THE SURVEY WAS COMPLETED ON THE 12TH. DAY OF AUGUST 2010,

August 12 2010
DATE

C.A. SEXTON
ONTARIO LAND SURVEYOR

CAUTION

LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE. OTHER BURIED UTILITIES MAY EXIST WHICH ARE NOT SHOWN BECAUSE OF INSUFFICIENT INFORMATION. CONTACT ALL POTENTIAL OWNERS OF UNDERGROUND UTILITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION

ASSOCIATION OF ONTARIO LAND SURVEYORS
PLAN SUBMISSION FORM
1773643

THIS PLAN IS NOT VALID UNLESS IT IS AN EMBOSSED ORIGINAL COPY ISSUED BY THE SURVEYOR In accordance with Regulation 1026, Section 29(3)

SHELL CANADA PRODUCTS

DRAWN BY: JD/ml		JOB No. 20384-1
CHECKED BY: C.A. SEXTON, OLS		

SEXTON McKAY LIMITED - ONTARIO LAND SURVEYORS - CANADA LANDS SURVEYOR
70 EAST BEAVER CREEK ROAD, UNIT 44 & 45, RICHMOND HILL, ONTARIO L4B 3B2
Tel:(905)889-9103 Fax:(905)889-8941

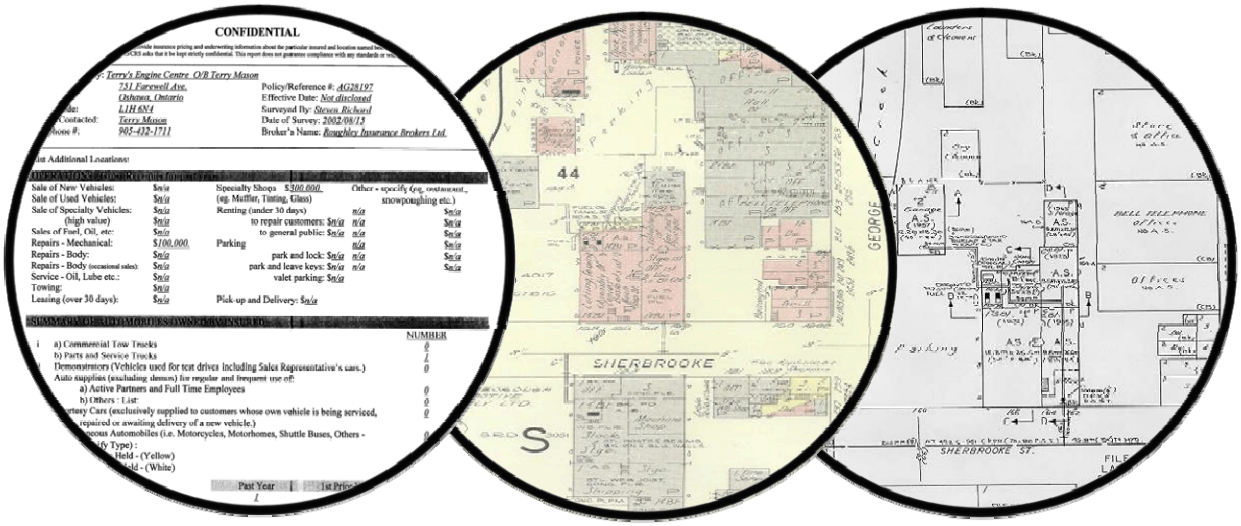
PLOT DATE : AUGUST 13, 2010

APPENDIX B

FIRE INSURANCE PLAN

HEIRS™

Historical
Environmental
Information
Reporting
System



Site Address:
3005 Dundas Street West,
Oakville, ON

Project No:
20100803020

Requested by:
Eleanor Goolab
Ecolog Eris

Date Completed:
August 11, 2010

RISK MANAGEMENT SERVICES
An **SCM** Company

150 Commerce Valley Drive W
Thornhill, ON L3T 7Z3
Tel: (905) 882-6300 ext 5210
www.scm-rms.ca

Report Completed By:
Devon Mallay

ISO 9001 Certified

Risk Management Services

150 Commerce Valley Drive W
8th Floor
Markham, ON
L3T 7Z3

Tel: (905) 882-6300 x5210
Fax: (905) 695-6543

Historical Environmental Information Reporting System (HEIRS™)

Eleanor Goolab
EcologERIS
12 Concorde Place, Suite 800
Toronto, ON
M3C 4J2

August 11, 2010

Regarding: 3005 Dundas Street West, Oakville - 20100803020

As requested, we have searched our records concerning the above site and the following information as listed below is appended hereto:

Information	Date(s)
Fire Insurance Plan(s)	1967
Property Underwriters' Report(s)	NO
Property Underwriters' Plan(s)	NO

NRF: No Records Found NO: Not Ordered

Our invoice in the amount of $125.00 (+ GST) for the information provided will follow in due course.

Thank you for employing our services.

Devon Mallay
Environmental Services

New Website – www.scm-rms.ca

24

— OAKVILLE, ONT. —
(PALERMO)
— FEBRUARY 1967 —

1967

FOR LOCATION SEE KEY SHEET 1-1

613

Auto Service

(HWY "25")

66'

893

PALERMO UNITED CHURCH

DUNDAS WEST

120'

80'

3005

3004

3114

2527

2521

2517

ST. LUKE'S CHURCH
(Ang.)

Hall

Church

Cemetary

FUEL OIL

114A.

614

BRONTE RD.

2516

2512

2506

SCALE 100 FEET TO 1 INCH

100'

2322

893

Kitchen

Rest.

Auto Service

FOR LOCATION SEE KEY SHEET 1-1

TRAFALGAR COURT MOTEL

894

APPENDIX C

CHAIN OF TITLE

CHAIN OF TITLE RE PIN 24927-0085 – 3005 Dundas St. W. Oakville:

Patent: 6 July 1808 Crown to David Hagar;

1953 Bargain & Sale 22 Feb. 1812 ...Hagar to Lawrence Hagar;

61 B & S 10 Nov./58 ...Hagar to Thomas H. Thompson;

519 B & S 20 Oct./60 Estate of Thomas H. Thompson to William McWilliams;

235 B & S 12 Oct,/69 ...McWilliams to James E. Burger;

4655 Deed 16 Oct./86 Estate of James E. Burger to William Burger;

5009 B & S 3 Apr./88 ...Burger to Francis Henry Porritt;

5322 B & S 6 Aug./89 Francis Henry Porritt to Bella Degraw;

6423 B & S 22 Sept./94 Bella Degraw to Francis Henry Porritt;

7075 Quit Claim Deed 30 Apr./98 ...Porritt to Lawrence Pearson Eager;

7122 Deed 4 Oct./98 ...Eager to John Carkriff;

17084 Grant 23 May 1930 ...Carkriff to Ralph H. Thompson;

20857 Release of Equity of Redemption 15 Apr./45 ...Thompson to Canadian Oil Companies Ltd.;

29654 Grant 30 Apr./54 Canadian... to Confederation Life Association;

224701 Lease 1967-06-05 The Hesper Oil Company Limited/Canadian Oil Companies Limited;

H736339 Application to Change Name 1998-05-21 – now Confederation Life Insurance Company;

H736340 Transfer 1998/05/21 Confederation Life Insurance Company to Shell Canada Products Limited;

H756963 Notice 1998-09-25 Shell Canada Products Limited – Environmental Protection Act;

H766969 Application to Change Name 1998-11-30 The Hesper Oil Company Limited/Canadian Oil Companies Limited to Canadian Oil Company Limited;

H766970 Notice of Determination/Surrender of Lease 1998-11-30 – Canadian Oil Company Limited;

HR797328 App. To Change Name 2009-11-04 Shell Canada Products Limited to Shell Canada Limited.

Ontario ServiceOntario

PARCEL REGISTER (ABBREVIATED) FOR PROPERTY IDENTIFIER

LAND REGISTRY OFFICE #20

24927-0085 (LT)

PREPARED FOR DIANE HARMAN ON 2010/08/03 AT 15:26:21

* CERTIFIED BY LAND REGISTRAR IN ACCORDANCE WITH LAND TITLES ACT * SUBJECT TO RESERVATIONS IN CROWN GRANT *

PROPERTY DESCRIPTION: PT LT 31, CON 1 TRAFALGAR, NORTH OF DUNDAS STREET , AS IN TW29654, EXCEPT PT 1, 20R187 & PM856 ; OAKVILLE/TRAFALGAR

PROPERTY REMARKS:

ESTATE/QUALIFIER:
FEE SIMPLE
LT CONVERSION QUALIFIED

RECENTLY:
FIRST CONVERSION FROM BOOK

PIN CREATION DATE:
1996/03/25

OWNERS' NAMES
SHELL CANADA LIMITED

CAPACITY SHARE
BENO

REG. NUM.	DATE	INSTRUMENT TYPE	AMOUNT	PARTIES FROM	PARTIES TO	CERT/ CHKD
EFFECTIVE 2000/07/29 THE NOTATION OF THE "BLOCK IMPLEMENTATION DATE" OF 1996/03/25 ON THIS PIN						
WAS REPLACED WITH THE "PIN CREATION DATE" OF 1996/03/25						
** PRINTOUT INCLUDES ALL DOCUMENT TYPES AND DELETED INSTRUMENTS SINCE: 1996/03/22 **						
**SUBJECT, ON FIRST REGISTRATION UNDER THE LAND TITLES ACT, TO:						
** SUBSECTION 44(1) OF THE LAND TITLES ACT, EXCEPT PARAGRAPH 11, PARAGRAPH 14, PROVINCIAL SUCCESSION DUTIES *						
** AND ESCHEATS OR FORFEITURE TO THE CROWN.						
** THE RIGHTS OF ANY PERSON WHO WOULD, BUT FOR THE LAND TITLES ACT, BE ENTITLED TO THE LAND OR ANY PART OF						
** IT THROUGH LENGTH OF ADVERSE POSSESSION, PRESCRIPTION, MISDESCRIPTION OR BOUNDARIES SETTLED BY						
** CONVENTION.						
** ANY LEASE TO WHICH THE SUBSECTION 70(2) OF THE REGISTRY ACT APPLIES.						
**DATE OF CONVERSION TO LAND TITLES: 1996/03/25 **						
TW29654	1954/04/30	TRANSFER		*** COMPLETELY DELETED ***	CONFEDERATION LIFE ASSOCIATION	
224701	1967/06/05	LEASE		*** COMPLETELY DELETED ***		
493575	1978/12/05	AGREEMENT			THE CORPORATION OF THE TOWN OF OAKVILLE	C
H736339	1998/05/21	APL CH NAME OWNER		*** COMPLETELY DELETED *** CONFEDERATION LIFE ASSOCIATION	CONFEDERATION LIFE INSURANCE COMPANY	
H736340	1998/05/21	TRANSFER	$141,000	CONFEDERATION LIFE INSURANCE COMPANY	SHELL CANADA PRODUCTS LIMITED	C
	REMARKS: PLANNING ACT STATEMENTS					
H756963	1998/09/25	NOTICE		SHELL CANADA PRODUCTS LIMITED		C

NOTE: ADJOINING PROPERTIES SHOULD BE INVESTIGATED TO ASCERTAIN DESCRIPTIVE INCONSISTENCIES, IF ANY, WITH DESCRIPTION REPRESENTED FOR THIS PROPERTY.
NOTE: ENSURE THAT YOUR PRINTOUT STATES THE TOTAL NUMBER OF PAGES AND THAT YOU HAVE PICKED THEM ALL UP.

REG. NUM.	DATE	INSTRUMENT TYPE	AMOUNT	PARTIES FROM	PARTIES TO	CERT/ CHKD
	REMARKS: ENVIRONMENTAL PROTECTION ACT					
H766969	1998/11/30	APL CH NAME OWNER		THE HESPER OIL COMPANY LIMITED CANADIAN OIL COMPANIES LIMITED	CANADIAN OIL COMPANY LIMITED	C
H766970	1998/11/30	NO DET/SURR LEASE		*** COMPLETELY DELETED ***	CANADIAN OIL COMPANY LIMITED	
	REMARKS: RE: 224701					
HR797328	2009/11/04	APL CH NAME OWNER		SHELL CANADA PRODUCTS LIMITED	SHELL CANADA LIMITED	C

NOTE: ADJOINING PROPERTIES SHOULD BE INVESTIGATED TO ASCERTAIN DESCRIPTIVE INCONSISTENCIES, IF ANY, WITH DESCRIPTION REPRESENTED FOR THIS PROPERTY.
NOTE: ENSURE THAT YOUR PRINTOUT STATES THE TOTAL NUMBER OF PAGES AND THAT YOU HAVE PICKED THEM ALL UP.

APPENDIX D

ENVIRONMENTAL REPORTS AND CORRESPONDENCE

APPENDIX D1

PHASE II ENVIRONMENTAL SITE ASSESSMENT (WARDROP, 2008b)

REFERENCE: MAPART PUBLISHING

N.T.S.

WARDROP | Engineering Inc.

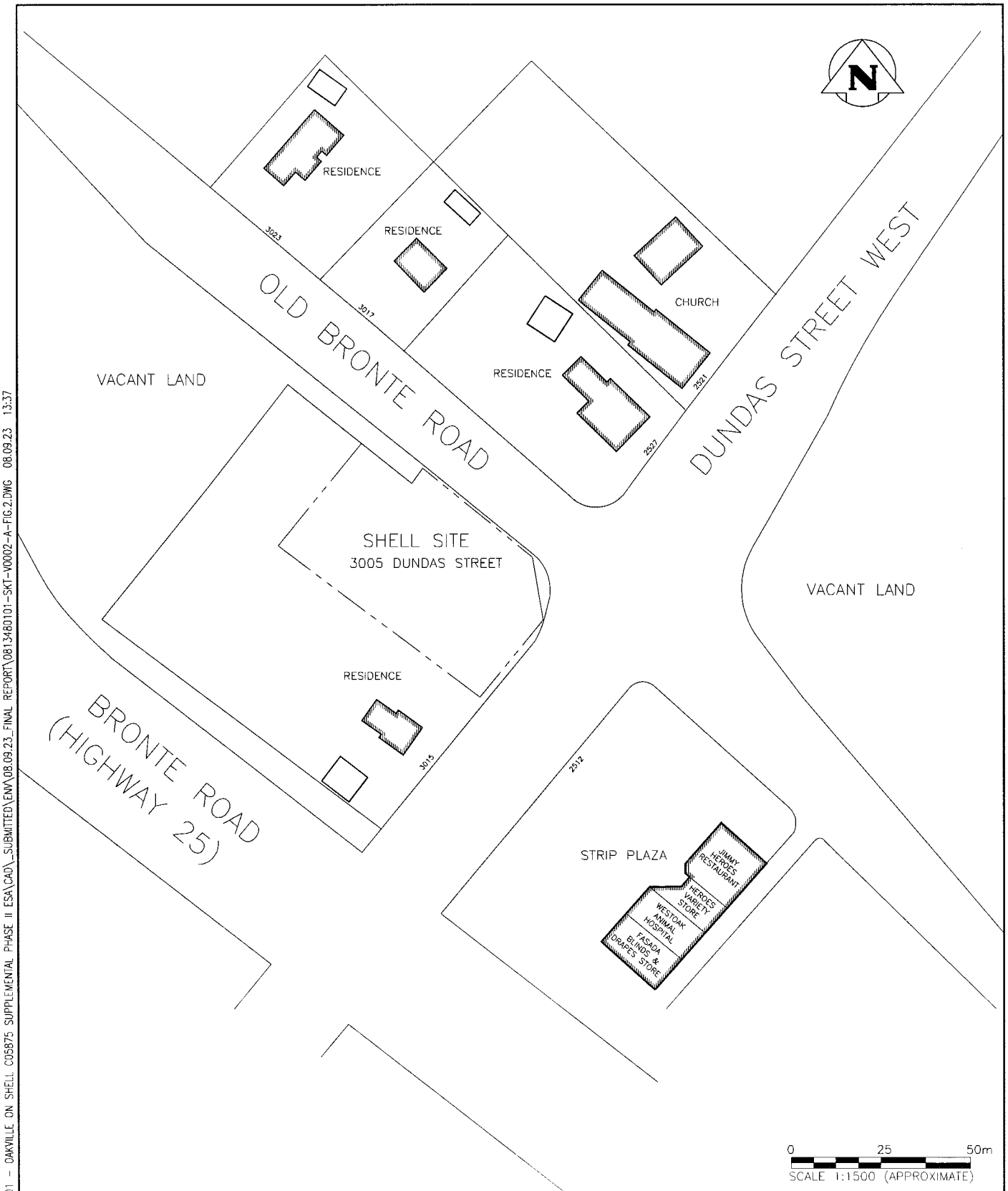
CLIENT: **Shell Canada Products**

DWG DESCRIPTION:

SITE PLAN LOCATION - OAKVILLE
SHELL RETAIL No. C05875

DRAWN BY:	HR	DATE:	08.05.15	FIGURE 1	REV. 00
REVISED BY:	HR	DATE:	08.05.15		
DESIGNED BY:	FT	CHECKED BY:	FT	DWG NO.	0813480101-SKT-V0001-A

X:\N-S\SHELL - 1348\0813480101 - OAKVILLE ON SHELL C05875 SUPPLEMENTAL PHASE II ESA\CAD_SUBMITTED\ENV\08.09.23_FINAL REPORT\0813480101-SKT-V0001-A-FIG.1.DWG 08.09.23 13:36



WARDROP | Engineering Inc.

CLIENT: **Shell Canada Products**

DWG DESCRIPTION: LOCAL LAND USE PLAN - SHELL RETAIL No. C05875
3005 DUNDAS STREET WEST
OAKVILLE, ONTARIO

DRAWN BY: HR	DATE: 08.05.15	FIGURE 2	REV. 00
REVISED BY: HR	DATE: 08.05.15		
DESIGNED BY: FT	CHECKED BY: JC	DWG NO. 0813480101-SKT-V0002-A	

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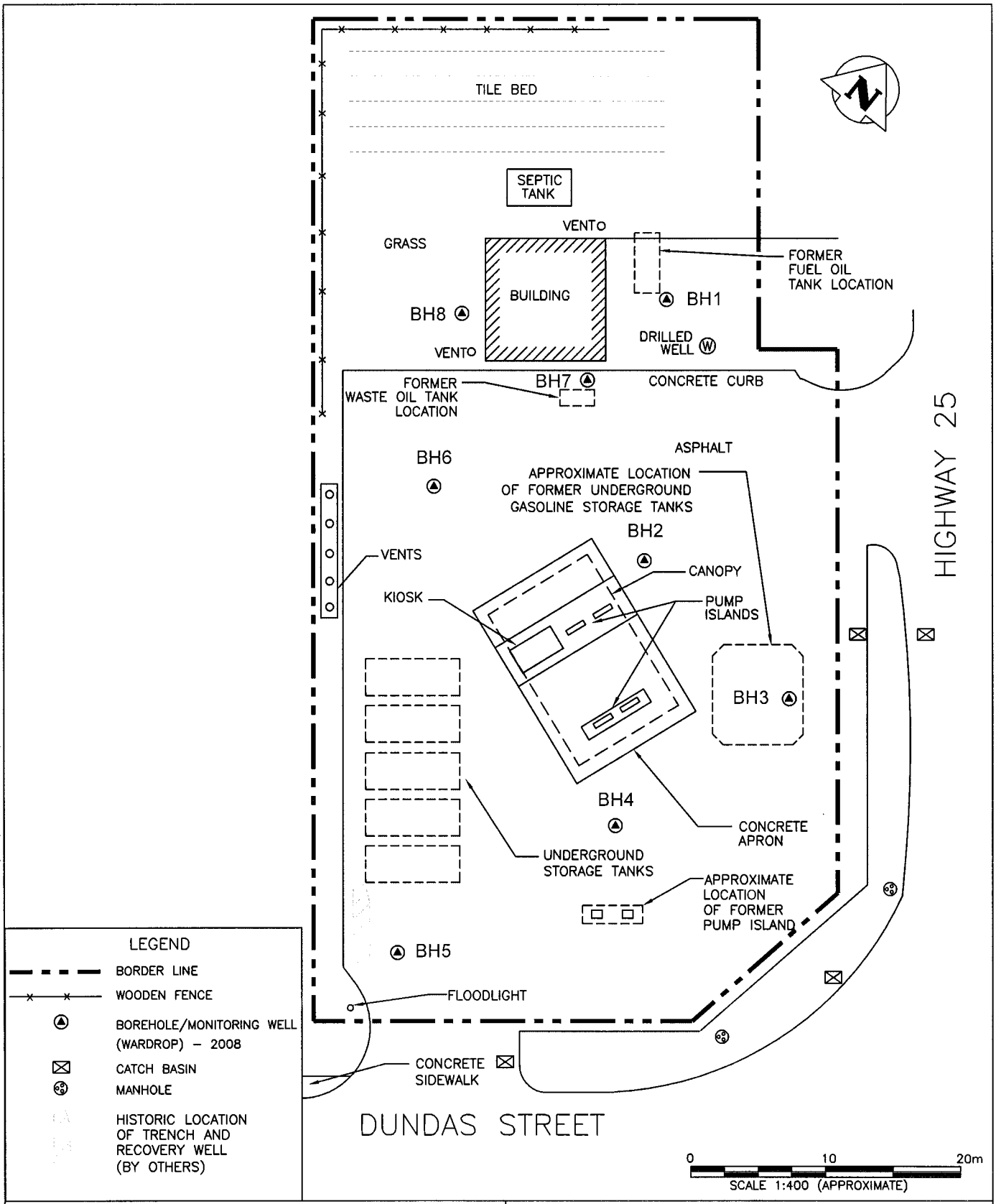

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WARDROP | Engineering Inc.

CLIENT: **Shell Canada Products**

DWG DESCRIPTION: SITE PLAN - SHELL RETAIL No. C05875
3005 DUNDAS STREET WEST
OAKVILLE, ONTARIO

DRAWN BY: HR	DATE: 08.05.15	FIGURE 3	REV. 00
REVISED BY: HR	DATE: 08.05.22		
DESIGNED BY: FT	CHECKED BY: JL	DWG NO.	0813480101-SKT-V0003-A

BH7 — DATE SAMPLED: APRIL/03/2008

Sample ID	Depth (mbg)	B	T	E	X	F1	F2	F3	F4	Lead
BH7–SS1	2.3 – 2.9	<	<	<	<	<	<	<	<	16

BH1 — DATE SAMPLED: DECEMBER/18/2007

Sample ID	Depth (mbg)	B	T	E	X	F1	F2	F3	F4	Lead
BH1–SS4	2.3 – 2.9	0.004	0.008	<	0.009	<	<	<	<	13

BH8 — DATE SAMPLED: APRIL/03/2008

Sample ID	Depth (mbg)	B	T	E	X	F1	F2	F3	F4	Lead
BH8–AS6	1.5 – 1.8	<	<	<	<	<	<	<	<	11

BH2 — DATE SAMPLED: DECEMBER/18/2007

Sample ID	Depth (mbg)	B	T	E	X	F1	F2	F3	F4	Lead
BH2–SS2	0.8 – 1.4	0.98	0.09	0.92	0.082	37	<	<	<	NA
BH2–SS3	1.5 – 2.1	<	<	<	<	<	<	<	<	NA

BH6 — DATE SAMPLED: DECEMBER/18/2007

Sample ID	Depth (mbg)	B	T	E	X	F1	F2	F3	F4	Lead
BH6–SS1	0.0 – 0.6	11	1.7	62	260	2,000	190	3,100	1,900	NA
BH6–SS3	1.5 – 2.1	<	<	0.06	0.26	<	<	<	<	NA

BH3 — DATE SAMPLED: DECEMBER/17/2007

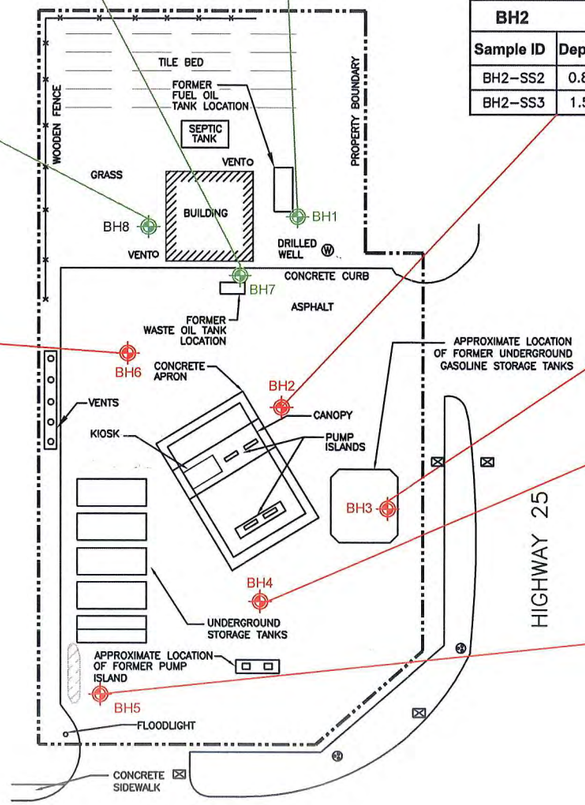
Sample ID	Depth (mbg)	B	T	E	X	F1	F2	F3	F4	Lead
BH3–SS2	0.8 – 1.4	6.2	1.6	110	440	4,100	1,900	360	92	NA
BH3–SS4	2.4 – 2.9	<	<	0.15	0.73	10	12	26	<	NA

BH4 — DATE SAMPLED: DECEMBER/17/2007

Sample ID	Depth (mbg)	B	T	E	X	F1	F2	F3	F4	Lead
BH4–SS3	1.5 – 2.1	0.42	<	0.46	<	16	<	<	<	NA

BH5 — DATE SAMPLED: DECEMBER/18/2007

Sample ID	Depth (mbg)	B	T	E	X	F1	F2	F3	F4	Lead
BH5–SS2	0.8 – 1.4	5.6	65	26	160	160	16	<	<	NA
DUP*	0.8 – 1.4	2.0	23	9.7	53	190	98	13	<	NA
BH5–SS4	2.3 – 2.9	<	0.08	<	0.06	<	<	<	<	NA



SITE CONDITION STANDARDS

THE STANDARDS SHOWN ARE THE *TABLE 2* FULL DEPTH GENERIC SITE CONDITION STANDARDS IN A POTABLE GROUND WATER CONDITION WITH INDUSTRIAL/COMMERCIAL/COMMUNITY PROPERTY USE AND MEDIUM AND FINE TEXTURED SOIL CONDITIONS SELECTED FROM THE SOIL, GROUND WATER AND SEDIMENT STANDARDS FOR USE UNDER PART XV.1 OF THE ENVIRONMENTAL PROTECTION ACT

SHOWN AS	PARAMETER	UNITS	RDL	*Table 2* Standards
B	Benzene	µg/g	0.02	0.24
T	Toluene	µg/g	0.02	2.1
E	Ethylbenzene	µg/g	0.02	0.28
X	Total Xylenes	µg/g	0.04	25
F1	C6–C10; Excluding BTEX	µg/g	10	180
F2	>C10–C16	µg/g	10	250
F3	>C16–C34	µg/g	10	2,500
F4	>C34–C50	µg/g	10	6,600
Lead	Lead	µg/g	5	1,000

LEGEND

- – BOREHOLE WITH MONITORING WELL
- – AT LEAST ONE SOIL SAMPLE EXCEEDED THE APPLICABLE *TABLE 2* STANDARDS FOR AT LEAST ONE PARAMETER ANALYSED
- – ALL SOIL SAMPLES MET THE APPLICABLE *TABLE 2* STANDARDS FOR ALL PARAMETERS ANALYSED
- TEXT – EXCEEDED *TABLE 2* STANDARD FOR THIS PARAMETER
- TEXT – MET *TABLE 2* STANDARD FOR THIS PARAMETER
- < – PARAMETER PRESENT BELOW THE LABORATORY RDL

- mbg – METRES BELOW GRADE
- * – DENOTES BLIND FIELD DUPLICATE SAMPLE OF PRECEDING SAMPLE
- NA – PARAMETER NOT ANALYSED
- RDL – REPORTABLE DETECTION LIMIT
- µg/g – MICROGRAM(S) PER GRAM
- ⊠ – CATCH BASIN
- ⊛ – MANHOLE

APPROXIMATE LOCATION OF HISTORIC TRENCH AND RECOVERY WELL (BY OTHERS)

0 20 40m

SCALE 1:600 (APPROXIMATE)

CLIENT: **Shell Canada Products**

DWG DESCRIPTION: SOIL LABORATORY DATA - SHELL RETAIL No. C05875
3005 DUNDAS STREET WEST
OAKVILLE, ONTARIO

DRAWN BY:	HR	DATE: 08.01.15	
REVISED BY:	HR	DATE: 08.06.18	
DESIGNED BY:	FT	CHECKED BY: JL	

FIGURE 4 REV. 00

DWG NO. 0123456789–DWG–V0005A

X:\N-S\SHELL - 1348\08134801.01 - OAKVILLE ON SHELL C05875 SUPPLEMENTAL PHASE II ESA\CAD_SUBMITTED\ENV\08.09.23_FINAL REPORT\0813480101-SKT-V0006-A1-FIG.5.DWG 08.09.23 13:41

BH1 — SCREEN INTERVAL: 1.4 - 4.4 mbg

Date	Sample ID	B	T	E	X	F1+F2	F3+F4	Lead	MTBE
JAN/08/08	BH1	<	0.3	<	<	<	<	NA	NA

BH7 — SCREEN INTERVAL: 0.6-3.7mbg

Date	Sample ID	B	T	E	X	F1+F2	F3+F4	Lead	MTBE
APR/07/08	BH7	46	<	2.0	<	<	<	<	7

DRILLED WATER WELL & WASHROOM TAP

Date	Sample ID	B	T	E	X	F1+F2	F3+F4
JUN/13/06	OAK	<	<	<	<	<	<
OCT/19/06	FALL-OAKVILLE	<	<	<	0.14	<	<
MAR/23/07	OAKVILLE-SPRING	<	<	<	<	<	<
OCT/12/07	OAKVILLE-FALL	0.4	2.9	23	88	240	<
OCT/24/07	OAKVILLE-WELL	<	24	93	480	1650	<
OCT/24/07	OAKVILLE-EQUIPMENET	<	<	<	<	<	<
OCT/24/07	OAKVILLE-TAP-NO PURGE	<	0.9	18	32	300	<
OCT/24/07	OAKVILLE-TAP-PURGED	<	1.3	6.7	31	110	<
OCT/24/07	OAKVILLE-TAP-DUP	<	1.4	6.8	31	110	<

BH8 — SCREEN INTERVAL: 0.6-3.7mbg

Date	Sample ID	B	T	E	X	F1+F2	F3+F4	Lead	MTBE
APR/07/08	BH8	<	<	<	0.1	<	<	<	0.7

BH2 — SCREEN INTERVAL: 1.4 - 4.4 mbg

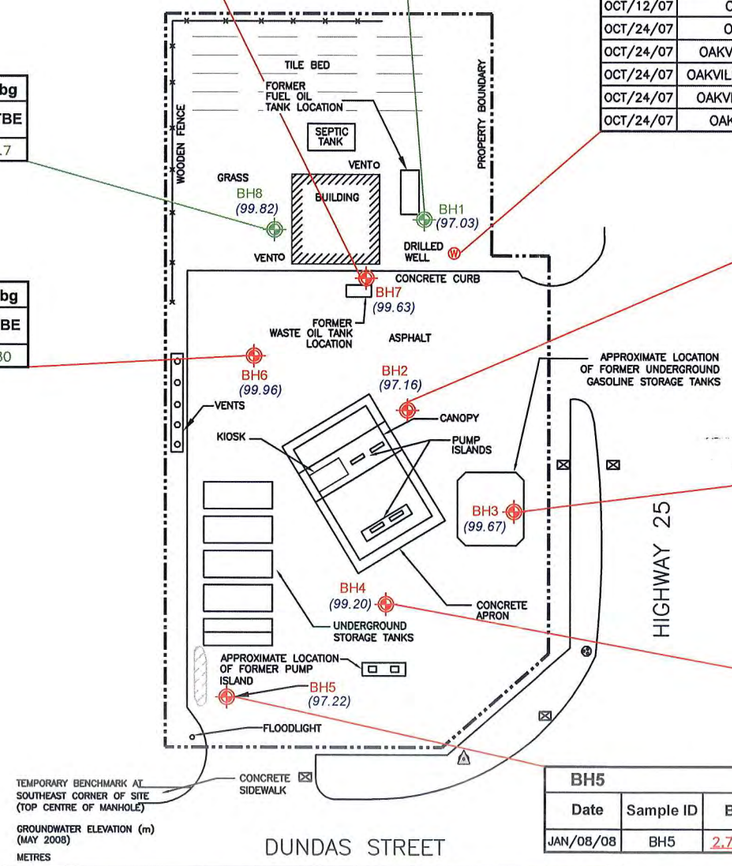
Date	Sample ID	B	T	E	X	F1+F2	F3+F4	Lead	MTBE
JAN/08/08	BH2	31	9.5	13	71	<	<	NA	NA

BH6 — SCREEN INTERVAL: 0.6 - 3.7 mbg

Date	Sample ID	B	T	E	X	F1+F2	F3+F4	Lead	MTBE
JAN/08/08	BH6	2,600	<	460	1,900	900	140	<	180

BH3 — SCREEN INTERVAL: 0.8 - 3.8 mbg

Date	Sample ID	B	T	E	X	F1+F2	F3+F4	Lead	MTBE
JAN/08/08	BH3	340	<	630	3,100	10,800	<	<	<



BH4 — SCREEN INTERVAL: 0.6 - 3.7 mbg

Date	Sample ID	B	T	E	X	F1+F2	F3+F4	Lead	MTBE
JAN/08/08	BH4	2,000	<	660	380	860	<	<	2,000
JAN/08/08	DUP*	2,300	<	930	650	1,100	130	4.5	1,800

BH5 — SCREEN INTERVAL: 1.4 - 4.4 mbg

Date	Sample ID	B	T	E	X	F1+F2	F3+F4	Lead	MTBE
JAN/08/08	BH5	2,700	3,000	430	950	710	130	NA	NA

SITE CONDITION STANDARDS

THE STANDARDS SHOWN ARE THE *TABLE 2* FULL DEPTH GENERIC SITE CONDITION STANDARDS IN A POTABLE GROUND WATER CONDITION WITH ALL TYPES OF PROPERTY USE AND MEDIUM AND FINE TEXTURED SOIL CONDITIONS SELECTED FROM THE SOIL, GROUNDWATER AND SEDIMENT STANDARDS FOR USE UNDER PART XV.1 OF THE ENVIRONMENTAL PROTECTION ACT

SHOWN AS	PARAMETER	UNITS	RDL	*Table 2* Standards
B	Benzene	µg/L	0.1	5.0
T	Toluene	µg/L	0.2	24
E	Ethylbenzene	µg/L	0.1	2.4
X	Total Xylenes	µg/L	0.1	300
F1 + F2	C6-C16; Excluding BTEX	µg/L	10	1,000
F3 + F4	>C16-C50	µg/L	10	1,000
Lead	Lead	µg/L	0.5	10
MTBE	Methyl t-butyl ether	µg/L	0.2	700

LEGEND

- – BOREHOLE WITH MONITORING WELL
- – AT LEAST ONE GROUNDWATER SAMPLE EXCEEDED THE APPLICABLE *TABLE 2* STANDARDS FOR AT LEAST ONE PARAMETER ANALYSED
- – ALL GROUNDWATER SAMPLES MET THE APPLICABLE STANDARDS FOR ALL PARAMETERS ANALYSED *TABLE 2*
- TEXT – EXCEEDED *TABLE 2* STANDARD FOR THIS PARAMETER
- TEXT – MET *TABLE 2* STANDARD FOR THIS PARAMETER
- < – PARAMETER PRESENT BELOW THE LABORATORY RDL
- △ – TEMPORARY BENCHMARK AT SOUTHEAST CORNER OF SITE (TOP CENTRE OF MANHOLE
- (96.75) – GROUNDWATER ELEVATION (MAY 2008)
- (m) – METRES
- mbg – METRES BELOW GRADE
- * – DENOTES BLIND FIELD DUPLICATE SAMPLE OF PRECEDING SAMPLE
- NA – PARAMETER NOT ANALYSED
- RDL – REPORTABLE DETECTION LIMIT
- ug/L – MICROGRAM(S) PER LITRE
- ⊠ – CATCH BASIN
- ⊕ – MANHOLE
- APPROXIMATE LOCATION OF HISTORIC TRENCH AND RECOVERY WELL (BY OTHERS)

0 20 40m

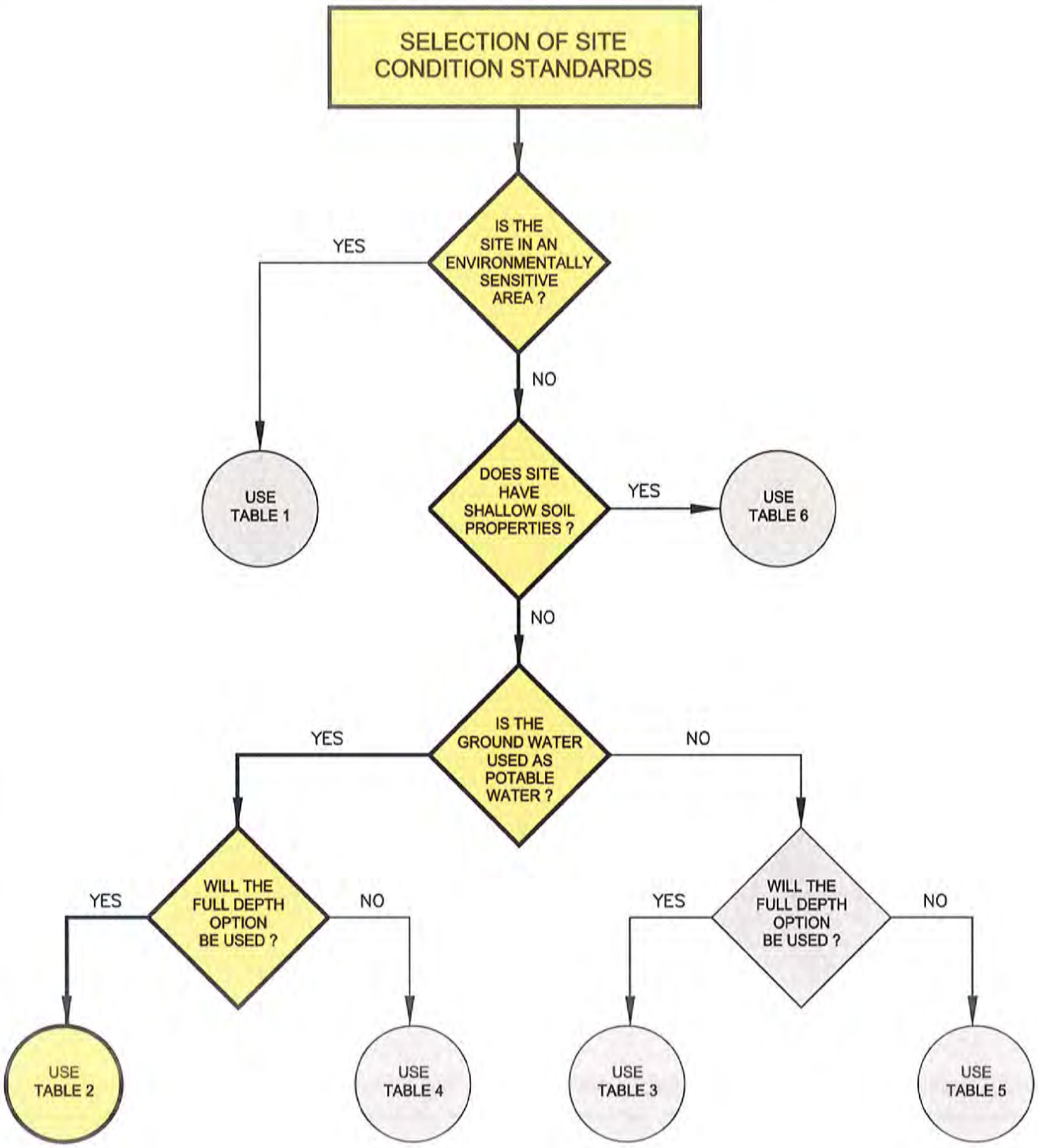
SCALE 1:600 (APPROXIMATE)

WARDROP | Engineering Inc.

CLIENT: **Shell Canada Products**

DWG DESCRIPTION: GROUNDWATER ELEVATIONS & LABORATORY DATA - SHELL RETAIL No. C05875 3005 DUNDAS STREET WEST OAKVILLE, ONTARIO

DRAWN BY:	HR	DATE: 08.01.15	FIGURE 5 REV. 00
REVISED BY:	HR	DATE: 08.06.18	
DESIGNED BY:	FT	CHECKED BY: JC	DWG NO. 0813480101-SKT-V0006-A1



NOTE:
CPG–FRANZ ENVIRONMENTAL INC. FLOWCHART, DERIVED FROM THE ONTARIO REGULATION 153/04 MADE UNDER THE ENVIRONMENTAL PROTECTION ACT. SOIL, GROUND WATER AND SEDIMENT STANDARDS FOR USE UNDER PART XV.1 OF THE *ENVIRONMENTAL PROTECTION ACT* DATED MARCH 9, 2004

WARDROP | Engineering Inc.

CLIENT: **Shell Canada Products**

DWG DESCRIPTION:
STANDARD SELECTION FLOW CHART - SHELL RETAIL No. C05875
3005 DUNDAS STREET WEST
OAKVILLE, ONTARIO

DRAWN BY: HR	DATE: 08.05.15	FIGURE 6	REV. 00
REVISED BY: HR	DATE: 08.05.22		
DESIGNED BY: FT	CHECKED BY: JC	DWG NO. 0813480101–SKT–V0004–A	

X:\N-S\SHELL - 1348\0813480101 - OAKVILLE ON SHELL C05875 SUPPLEMENTAL PHASE II ESA\CAD_SUBMITTED\ENV\08.09.23_FINAL REPORT\0813480101-SKT-V0004-A-FIG.6.DWG 08.09.23 13:42

TABLE 1
HISTORIC GROUNDWATER LABORATORY ANALYSES (DRILLED WATER WELL AND WASHROOM TAP)
PETROLEUM HYDROCARBON PARAMETERS

Sampling Date	Sample ID Laboratory ID	Benzene	Toluene	Ethylbenzene	Xylenes	F1 + F2	F3 + F4
	RDL[2]	0.2	0.2	0.2	0.4	100	100
	UNITS	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	MOE Reg 153/04 Table 2[1]	**5.0**	**24**	**2.4**	**300**	**1000**	**1000**
13-Jun-06	OAK M54512	<	<	<	<	<	<
19-Oct-06	FALL - OAKVILLE O96271	<	<	<	0.14	<	<
23-Mar-07	OAKVILLE-SPRING R49413	<	<	<	<	<	<
12-Oct-07	OAKVILLE-FALL V21272	0.4	2.9	**23**	88	240	<
24-Oct-07	OAKVILLE-WELL V44893	<	24	**93**	**480**	**1650**	<
	OAKVILLE-EQUIPMENT V44894	<	<	<	<	<	<
	OAKVILLE-TAP-NO PURGE V44895	<	0.9	**18**	32	300	<
	OAKVILLE-TAP-PURGED V44896	<	1.3	**6.7**	31	110	<
	OAKVILLE-TAP-DUP V44897	<	1.4	**6.8**	31	110	<

Notes:
1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for All Types of Property Use and Medium and Fine Textured Soil Conditions.
2. Typical *Table 2* RDL's shown. Refer to laboratory certificates of analysis for any RDL adjustments.
3. **Bold** - Parameters exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (NV) = no value derived; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NM) = not measured; (mbg) = meters below grade; (NA) = not analysed.

TABLE 2

GRAIN SIZE AND pH ANALYSES

Sample ID	Depth (mbg)	pH	Percent (by Mass) of Particles Finer than 75 µm in Mean Diameter	Type of Material	Soil Texture[1]
BH3-SS2	0.8 - 1.4	7.33	-	-	-
BH5-SS4	2.3 - 2.9	7.78	-	-	-
BH6-SS4	2.3 - 2.9	-	85%	Silty Clay	Medium and Fine

Notes:

1. Soil texture is defined in the MOE Soil, Ground Water and Sediment Standards (March 9, 2004) as the following: If it is determined that at least 1/3 of the soil at the property measured by volume consists of "coarse textured soil" (means soil that contains more than 50 per cent by mass of particles that are 75 µm or larger in mean diameter) the standard for coarse textured soil shall be applied; or in any other case, the standard for "medium and fine" (means soil that contains 50 percent or more by mass of particles that are smaller than 75 µm in mean diameter) textured soil shall be applied.
2. Refer to laboratory Certificates of Analysis (Appendix F) for Methods of Analysis.

Table Abbreviations: (mbg) = metres below grade; (µm) = micrometres.

TABLE 3
SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS

Sample ID Laboratory ID	RDL[2]	UNITS	BH1-SS4 W50364	BH2-SS2 W50365	BH2-SS3 W50366	BH3-SS2 W50367	BH3-SS4 W50368	*MOE Reg 153/04 Table 2 Standard*[1]
OVM Reading	-	ppm/% LEL	50 ppm	430 ppm	25 ppm	40% LEL	110 ppm	-
Sample Depth	-	mbg	2.3 - 2.9	0.8 - 1.4	1.5 - 2.1	0.8 - 1.4	2.3 - 2.9	-
Sampling Date	-	-	18-Dec-07	18-Dec-07	18-Dec-07	17-Dec-07	17-Dec-07	-
Benzene	0.02	µg/g	0.004	**0.98**	<	**6.2**	<	0.24
Toluene	0.02	µg/g	0.008	0.09	<	1.6	<	2.1
Ethylbenzene	0.02	µg/g	<	**0.92**	<	**110**	0.15	0.28
Total Xylenes	0.04	µg/g	0.009	0.82	<	**440**	0.73	25
F1 (C6-C10; excluding BTEX)	10	µg/g	<	37	<	**4100**	10	180
F2 (>C10-C16)	10	µg/g	<	<	<	**1900**	12	250
F3 (>C16-C34)	10	µg/g	<	<	<	360	26	2500
F4 (>C34-C50)	10	µg/g	<	<	<	92	<	6600
Lead	5	µg/g	13	NA	NA	NA	NA	1000

Notes:
1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. Typical RDL values shown. Refer to laboratory certificate of analysis for any RDL adjustments.
3. Refer to laboratory Certificates of Analysis (Appendix F) for Methods of Analysis.
4. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (NV) = no value derived; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NM) = not measured; (mbg) = meters below grade; (NA) = not analysed.

TABLE 3 (cont'd)
SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS

Sample ID Laboratory ID	RDL[2]	UNITS	BH4-SS3 W50369	BH5-SS2 W50370	DUP (field duplicate of BH5-SS2) W50375	BH5-SS4 W50371	BH6-SS1 W50372	*MOE Reg 153/0 Table 2 Standard*[1]
OVM Reading	-	ppm/% LEL	110 ppm	90% LEL	-	80 ppm	80% LEL	-
Sample Depth	-	mbg	1.5 - 2.1	0.8 - 1.4	-	2.3 - 2.9	0.0 - 0.6	-
Sampling Date	-	-	17-Dec-07	18-Dec-07	18-Dec-07	18-Dec-07	18-Dec-07	-
Benzene	0.02	µg/g	**0.42**	**5.6**	**2.0**	<	**11**	0.24
Toluene	0.02	µg/g	<	**65**	**23**	0.08	1.7	2.1
Ethylbenzene	0.02	µg/g	**0.46**	**26**	**9.7**	<	**62**	0.28
Total Xylenes	0.04	µg/g	<	**160**	**53**	0.06	**260**	25
F1 (C6-C10; excluding BTEX)	10	µg/g	16	160	**190**	<	**2,000**	180
F2 (>C10-C16)	10	µg/g	<	16	98	<	190	250
F3 (>C16-C34)	10	µg/g	<	<	13	<	**3,100**	2500
F4 (>C34-C50)	10	µg/g	<	<	<	<	1900	6600
Lead	5	µg/g	NA	NA	NA	NA	NA	1000

Notes:
1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. Typical RDL values shown. Refer to laboratory certificate of analysis for any RDL adjustments.
3. Refer to laboratory Certificates of Analysis (Appendix F) for Methods of Analysis.
4. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (NV) = no value derived; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NM) = not measured; (mbg) = meters below grade; (NA) = not analysed.

TABLE 3 (cont'd)

SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS

Sample ID Laboratory ID	RDL[2]	UNITS	BH6-SS3 W50373	BH7-SS1 X92904	BH8-AS6 X92905	*MOE Reg 153/04 Table 2 Standard*[1]
OVM Reading	-	ppm/% LEL	75 ppm	100 ppm	100 ppm	-
Sample Depth	-	mbg	1.5 - 2.1	2.3 -2.9	1.5 -1.8	-
Sampling Date	-	-	18-Dec-07	3-Apr-08	3-Apr-08	-
Benzene	0.02	µg/g	<	<	<	0.24
Toluene	0.02	µg/g	<	<	<	2.1
Ethylbenzene	0.02	µg/g	0.06	<	<	0.28
Total Xylenes	0.04	µg/g	0.26	<	<	25
F1 (C6-C10; excluding BTEX)	10	µg/g	<	<	<	180
F2 (>C10-C16)	10	µg/g	<	<	<	250
F3 (>C16-C34)	10	µg/g	<	<	<	2500
F4 (>C34-C50)	10	µg/g	<	<	<	6600
Lead	5	µg/g	NA	16	11	1000

Notes:
1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. Typical RDL values shown. Refer to laboratory certificate of analysis for any RDL adjustments.
3. Refer to laboratory Certificates of Analysis (Appendix F) for Methods of Analysis.
4. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (NV) = no value derived; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NM) = not measured; (mbg) = meters below grade; (NA) = not analysed.

TABLE 4

SUMMARY OF SOIL LABORATORY ANALYSES
POLYCYCLIC AROMATIC HYDROCARBONS (PAHs)

Sample ID Laboratory ID	RDL	UNITS	BH1-SS4 W50364	*MOE Reg 153/04 Table 2 Standard*[1]
OVM Reading	-	ppm/% LEL	50 ppm	-
Sample Depth	-	mbg	2.3 - 2.9	-
Sampling Date	-	-	18-Dec-07	-
Acenaphthene	0.01	µg/g	<	15
Acenaphthylene	0.005	µg/g	<	130
Anthracene	0.005	µg/g	<	28
Benzo(a)anthracene	0.01	µg/g	<	6.6
Benzo(a)pyrene	0.005	µg/g	<	1.9
Benzo(b/j)fluroanthene	0.005	µg/g	<	18
Benzo(g,h,i)perylene	0.02	µg/g	<	40
Benzo(k)fluoranthene	0.01	µg/g	<	18
Chrysene	0.01	µg/g	<	17
Dibenzo(a,h)anthracene	0.02	µg/g	<	1.9
Fluoranthene	0.005	µg/g	0.005	40
Fluorene	0.005	µg/g	<	340
Indeno(1,2,3-cd)pyrene	0.02	µg/g	<	19
1-Methylnaphthalene[2]	0.005	µg/g	<	1.2
2-Methylnaphthalene	0.005	µg/g	<	1.2
Naphthalene	0.005	µg/g	<	4.6
Phenanthrene	0.005	µg/g	<	40
Pyrene	0.005	µg/g	<	250

Notes:

1. The Standards shown are the MOE Ontario Regulation 153/04 Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.

2. 2-methyl naphthalene soil standard is applicable to 1-methyl naphthalene with the provision that if both are detected in the soil, the sum of the two concentrations cannot exceed the soil standard.
3. Refer to laboratory Certificates of Analysis (Appendix F) for Methods of Analysis.
4. **Bold** - Parameter exceeded the applicable MOE Table 2 Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (NV) = no value derived; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NM) = not measured; (mbg) = meters below grade.

TABLE 5

SUMMARY OF SOIL LABORATORY ANALYSES
VOLATILE ORGANIC COMPOUNDS (VOCs)

Sample ID Laboratory ID	RDL	UNITS	BH1-SS4 W50364	*MOE Reg 153/04 Table 2 Standard*[1]
OVM Reading	-	ppm/% LEL	50 ppm	-
Sample Depth	-	mbg	2.3 - 2.9	-
Sampling Date	-	-	18-Dec-07	-
Acetone	0.1	µg/g	0.1	3.5
Benzene	0.002	µg/g	0.004	0.24
Bromodichloromethane	0.002	µg/g	<	0.12
Bromoform	0.002	µg/g	<	0.11
Bromomethane	0.003	µg/g	<	0.38
Carbon Tetrachloride	0.002	µg/g	<	0.64
Chlorobenzene	0.002	µg/g	<	2.4
Chloroform	0.002	µg/g	<	0.13
Dibromochloromethane	0.002	µg/g	<	0.09
1,2-Dichlorobenzene	0.002	µg/g	0.010	0.88
1,3-Dichlorobenzene	0.002	µg/g	<	30
1,4-Dichlorobenzene	0.002	µg/g	<	0.32
1,1-Dichloroethane	0.002	µg/g	<	3.0
1,2-Dichloroethane	0.002	µg/g	<	0.05
1,1-Dichloroethylene	0.002	µg/g	<	0.015
cis-1,2-Dichloroethylene	0.002	µg/g	<	2.3
trans-1,2-Dichloroethylene	0.002	µg/g	<	4.1
1,2-Dichloropropane	0.002	µg/g	<	0.12
cis-1,3-Dichloropropene	0.002	µg/g	<	NV
trans-1,3-Dichloropropene	0.002	µg/g	<	0.04
Ethylbenzene	0.002	µg/g	<	0.28
Ethylene Dibromide	0.002	µg/g	<	0.012
Methylene Chloride	0.003	µg/g	<	1.1
Methyl Isobutyl Ketone	0.025	µg/g	<	0.48
Methyl Ethyl Ketone	0.025	µg/g	<	0.27
Methyl t-butyl ether (MTBE)	0.002	µg/g	0.002	5.7
Styrene	0.002	µg/g	<	1.7
1,1,1,2-Tetrachloroethane	0.002	µg/g	<	0.12
1,1,2,2-Tetrachloroethane	0.002	µg/g	<	0.01
Tetrachloroethylene	0.002	µg/g	<	0.45
Toluene	0.002	µg/g	0.008	2.1
1,1,1-Trichloroethane	0.002	µg/g	<	34
1,1,2-Trichloroethane	0.002	µg/g	<	0.28
Trichloroethylene	0.002	µg/g	<	3.9
Vinyl Chloride	0.002	µg/g	<	0.0075
Xylenes	0.002	µg/g	0.009	25

Notes:
1. The Standards shown are the MOE Ontario Regulation 153/04 Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. Refer to laboratory Certificates of Analysis (Appendix F) for Methods of Analysis.
3. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (NV) = no value derived; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NM) = not measured; (mbg) = meters below grade.

TABLE 6
SUMMARY OF SOIL LABORATORY ANALYSES
REGULATION 558/00 TCLP LEACHATE ANALYSIS

Sample ID Laboratory ID	RDL	UNITS	REG W50404	*MOE Schedule 4* [1] *Leachate Quality Criteria*
Sampling Date	-	-	17-Dec-07	-
Benzene	0.01	mg/L	0.06	0.5
Leachable Total PCBs	3	mg/L	<	0.3
Leachable Benzo(a)pyrene	0.1	mg/L	<	0.001
Leachable Nitrate + Nitrite	1	mg/L	43	1000
Leachable Free Cyanide	0.002	mg/L	<	20
Leachable Fluoride	0.1	mg/L	1.7	150
Leachable Mercury	0.001	mg/L	<	0.1
Leachable Arsenic	0.2	mg/L	<	2.5
Leachable Barium	0.2	mg/L	0.6	100
Leachable Boron	0.1	mg/L	4.3	500
Leachable Cadmium	0.05	mg/L	<	0.5
Leachable Chromium	0.1	mg/L	<	5.0
Leachable Lead	0.1	mg/L	<	5.0
Leachable Selenium	0.2	mg/L	<	1.0
Leachable Silver	0.01	mg/L	<	5
Leachable Uranium	0.01	mg/L	<	10
Ignitability	1	mm/min	NI	NV

Notes:
1. Criteria shown are for contaminants listed in *Schedule 4* of Ontario *Regulation 558/00* derived from the document titled Registration Guidance Manual For Generators of Liquid Industrial and Hazardous Waste, dated October 2000.
2. Refer to laboratory Certificates of Analysis (Appendix F) for Methods of Analysis.
3. **Bold** - Parameter exceeded the MOE *Schedule 4* Leachate Quality Criteria.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (NV) = no value derived; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NM) = not measured; (mbg) = meters below grade.

TABLE 7
MONITORING AND SURVEY DATA
January 8, 2008

Monitoring Point	Free Product (cm)	OVM Reading Well Headspace (ppm or % LEL)	Top of Pipe Elevation[1] (m)	Grade Elevation[1] (m)	Water Level (mbtop)	Groundwater Elevation (m)
BH1	0	100 ppm	100.41	100.56	3.66	96.75
BH2	0	20% LEL	100.11	100.24	3.05	97.06
BH3	0	25% LEL	99.78	99.95	0.23	99.55
BH4	0	100% LEL	100.01	100.14	0.85	99.16
BH5	0	100% LEL	99.96	100.06	3.85	96.11
BH6	0	100% LEL	100.25	100.38	1.82	98.43

Notes: 1. Top of pipe and grade elevations are shown in metres and were surveyed to a benchmark (top and centre of man hole located in the grass boulevard in the southeast corner of the Site) with an assigned datum of 100.00 metres.

Table Abbreviations: (cm) = centimetres; (OVM) = organic vapour meter; (ppm) = parts per million; (% LEL) = percentage of the lower explosive limit; (mbtop) = metres below top of pipe; (m) = metres; (N/A) = not applicable.

TABLE 8

MONITORING AND SURVEY DATA
May 6, 2008

Monitoring Point	Free Product (cm)	OVM Reading Well Headspace (ppm or % LEL)	Top of Pipe Elevation[1] (m)	Grade Elevation[1] (m)	Water Level (mbtop)	Groundwater Elevation (m)
BH1	0	25 ppm	100.41	100.56	3.38	97.03
BH2	0	30% LEL	100.11	100.24	2.95	97.16
BH3	0	420 ppm	99.78	99.95	0.11	99.67
BH4	0	100% LEL	100.01	100.14	0.81	99.20
BH5	0	90% LEL	99.96	100.06	2.74	97.22
BH6	0	10% LEL	100.25	100.38	0.29	99.96
BH7	0	40 ppm	100.58	100.74	0.95	99.63
BH8	0	85 ppm	100.78	100.88	0.96	99.82

Notes: 1. Top of pipe and grade elevations are shown in metres and were surveyed to a benchmark (top and centre of man hole located in the grass boulevard in the southeast corner of the Site) with an assigned datum of 100.00 metres.

Table Abbreviations: (cm) = centimetres; (OVM) = organic vapour meter; (ppm) = parts per million; (% LEL) = percentage of the lower explosive limit; (mbtop) = metres below top of pipe; (m) = metres; (N/A) = not applicable.

TABLE 9
SUMMARY OF GROUNDWATER LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS

Sample ID Laboratory ID	RDL[2]	UNITS	BH1 W69277	BH2 W69278	BH3 W69279	BH4 W69280	DUP (field duplicate of BH4) W69284	*MOE Reg 153/04 Table 2*[1]
OVM Reading	-	ppm/% LEL	100 ppm	20% LEL	25% LEL	100% LEL	-	-
Sampling Date	-	-	8-Jan-08	8-Jan-08	8-Jan-08	8-Jan-08	8-Jan-08	-
Benzene	0.2	µg/L	<	**31**	**340**	**2,000**	**2,300**	5.0
Toluene	0.2	µg/L	0.3	9.5	<	<	<	24
Ethylbenzene	0.2	µg/L	<	**13**	**630**	**660**	**930**	2.4
Total Xylenes	0.4	µg/L	<	71	**3,100**	**380**	**650**	300
F1 + F2 (C6-C16; excluding BTEX)	100	µg/L	<	<	**10,800**	860	**1,100**	1000
F3 + F4 (>C16-C50)	100	µg/L	<	<	<	<	130	1000
Lead	0.5	µg/L	NA	NA	<	<	4.5	10

Notes:

1. The Standards shown are the MOE Ontario Regulation 153/04 Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for All Types of Property Use and Medium and FineTextured Soil Conditions
2. Typical *Table 2* RDL's shown. Refer to laboratory certificate of analysis for any RDL adjustments.
3. Trip spike results are expressed as a percentage of the spiked amounts.
4. Total xylenes Trip Spike recoveries are reported as o-Xylene/p+m-Xylene.
5. Only F2 Trip Spike recovery reported.
6. F3 + F4 Trip Spike recoveries are reported as F3/F4.
7. Refer to laboratory Certificates of Analysis (Appendix F) for Methods of Analysis.
8. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (NV) = no value derived; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NM) = not measured; (mbg) = meters below grade; (NA) = not analysed.

TABLE 9 (cont'd)
SUMMARY OF GROUNDWATER LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS

Sample ID Laboratory ID	RDL[2]	UNITS	BH5 W69281	BH6 W69282	*MOE Reg 153/04 Table 2*[1]	FB W69283	TRIP BLANK W69285	TRIP SPIKE[3] W69286
OVM Reading	-	ppm/% LEL	100% LEL	100% LEL	-	-	-	-
Sampling Date	-	-	8-Jan-08	8-Jan-08	-	8-Jan-08	-	-
Benzene	0.2	µg/L	**2,700**	**2,600**	5.0	<	<	96
Toluene	0.2	µg/L	**3,000**	<	24	<	<	100
Ethylbenzene	0.2	µg/L	**430**	**460**	2.4	<	<	100
Total Xylenes	0.4	µg/L	**950**	**1,900**	300	<	<	98/100[4]
F1 + F2 (C6-C16; excluding BTEX)	100	µg/L	710	900	1000	<	<	79[5]
F3 + F4 (>C16-C50)	100	µg/L	130	140	1000	<	<	79/79[6]
Lead	0.5	µg/L	NA	<	10	<	<	99

Notes:

1. The Standards shown are the MOE Ontario Regulation 153/04 Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for All Types of Property Use and Medium and FineTextured Soil Conditions
2. Typical *Table 2* RDL's shown. Refer to laboratory certificate of analysis for any RDL adjustments.
3. Trip spike results are expressed as a percentage of the spiked amounts.
4. Total xylenes Trip Spike recoveries are reported as o-Xylene/p+m-Xylene.
5. Only F2 Trip Spike recovery reported.
6. F3 + F4 Trip Spike recoveries are reported as F3/F4.
7. Refer to laboratory Certificates of Analysis (Appendix F) for Methods of Analysis.
8. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (NV) = no value derived; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NM) = not measured; (mbg) = meters below grade; (NA) = not analysed.

TABLE 9 (cont'd)
SUMMARY OF GROUNDWATER LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS

Sample ID Laboratory ID	RDL[2]	UNITS	BH7 X98955	BH8 X98956	*MOE Reg 153/04 Table 2*[1]	FB X99117	TRIP BLANK X99118	TRIP SPIKE[3] X99119
OVM Reading	-	ppm/% LEL	100 ppm	175 ppm	-	-	-	-
Sampling Date	-	-	7-Apr-08	7-Apr-08	-	7-Apr-08	-	-
Benzene	0.2	µg/L	**46**	<	5.0	<	<	75
Toluene	0.2	µg/L	<	<	24	<	<	75
Ethylbenzene	0.2	µg/L	2.0	<	2.4	<	<	76
Total Xylenes	0.4	µg/L	<	0.1	300	<	<	81/87[4]
F1 + F2 (C6-C16; excluding BTEX)	100	µg/L	<	<	1000	<	<	97[5]
F3 + F4 (>C16-C50)	100	µg/L	<	<	1000	<	<	97/97[6]
Lead	0.5	µg/L	<	<	10	<	<	98

Notes:

1. The Standards shown are the MOE Ontario Regulation 153/04 Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for All Types of Property Use and Medium and FineTextured Soil Conditions
2. Typical *Table 2* RDL's shown. Refer to laboratory certificate of analysis for any RDL adjustments.
3. Trip spike results are expressed as a percentage of the spiked amounts.
4. Total xylenes Trip Spike recoveries are reported as o-Xylene/p+m-Xylene.
5. Only F2 Trip Spike recovery reported.
6. F3 + F4 Trip Spike recoveries are reported as F3/F4.
7. Refer to laboratory Certificates of Analysis (Appendix F) for Methods of Analysis.
8. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (NV) = no value derived; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NM) = not measured; (mbg) = meters below grade; (NA) = not analysed.

TABLE 10
SUMMARY OF GROUNDWATER LABORATORY ANALYSES
VOLATILE ORGANIC COMPOUNDS (VOCs)

Sample ID Laboratory ID	RDL[2]	UNITS	BH3 W69279	BH4 W69280	DUP (field duplicate of BH4) W69284	BH6 W69282	*MOE Reg 153/04 Table 2*[1]
OVM Reading	-	ppm/% LEL	25% LEL	100% LEL	-	100% LEL	-
Sampling Date	-	-	8-Jan-08	8-Jan-08	8-Jan-08	8-Jan-08	-
Acetone	10	µg/L	<	<	<	<	3000
Benzene	0.1	µg/L	**340**	**2,000**	**2,300**	**2,600**	5.0
Bromodichloromethane	0.1	µg/L	<	<	<	<	5.0
Bromoform	0.2	µg/L	<	<	<	<	5.0
Bromomethane	0.5	µg/L	<	<	<	<	10
Carbon Tetrachloride	0.1	µg/L	<	<	<	<	5.0
Chlorobenzene	0.1	µg/L	<	<	<	<	30
Chloroform	0.1	µg/L	<	<	<	<	5.0
Dibromochloromethane	0.2	µg/L	<	<	<	<	5.0
1,2-Dichlorobenzene	0.2	µg/L	<	<	<	<	3.0
1,3-Dichlorobenzene	0.2	µg/L	<	<	<	<	630
1,4-Dichlorobenzene	0.2	µg/L	<	<	<	<	1.0
1,1-Dichloroethane	0.1	µg/L	<	<	<	<	70
1,2-Dichloroethane	0.1	µg/L	<	<	<	<	5.0
1,1-Dichloroethylene	0.1	µg/L	<	<	<	<	4.1
cis-1,2-Dichloroethylene	0.1	µg/L	<	<	<	<	70
trans-1,2-Dichloroethylene	0.1	µg/L	<	<	<	<	100
1,2-Dichloropropane	0.1	µg/L	<	<	<	<	5.0
cis-1,3-Dichloropropene	0.2	µg/L	<	<	<	<	NV
trans-1,3-Dichloropropene	0.2	µg/L	<	<	<	<	1.4
Ethylbenzene	0.1	µg/L	**630**	**660**	**930**	**460**	2.4
Ethylene Dibromide	0.2	µg/L	<	<	<	<	1.0
Methylene Chloride	0.5	µg/L	<	<	<	<	50
Methyl Isobutyl Ketone	5	µg/L	<	<	<	<	350
Methyl Ethyl Ketone	5	µg/L	<	<	<	<	350
Methyl t-butyl ether (MTBE)	0.2	µg/L	<	**2,000**	**1,800**	180	700
Styrene	0.1	µg/L	<	<	<	<	100
1,1,1,2-Tetrachloroethane	0.1	µg/L	<	<	<	<	5.0
1,1,2,2-Tetrachloroethane	0.1	µg/L	<	<	<	<	1.0
Tetrachloroethylene	0.1	µg/L	<	<	<	<	5.0
Toluene	0.2	µg/L	<	<	<	<	24
1,1,1-Trichloroethane	0.1	µg/L	<	<	<	<	200
1,1,2-Trichloroethane	0.2	µg/L	<	<	<	<	5.0
Trichloroethylene	0.1	µg/L	<	<	<	<	50
Vinyl Chloride	0.2	µg/L	<	<	<	<	1.3
Xylene (Total)	0.05	µg/L	**3,100**	**380**	**650**	**1,900**	300

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for All Types of Property Use and Medium and Fine Textured Soil Conditions.
2. Typical *Table 2* RDL's shown. Refer to laboratory certificate of analysis for any RDL adjustments.
3. Trip spike results are expressed as a percentage of the spiked amounts.
4. Total xylenes Trip Spike recoveries are reported as o-Xylene/p+m-Xylene.
5. Refer to laboratory Certificates of Analysis (Appendix F) for Methods of Analysis.
6. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (NV)=no value derived; (µg/L) = micrograms per litre; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NM) = not measured; (mbg) = meters below grade; (NA) = not analysed.

TABLE 10 (cont'd)
SUMMARY OF GROUNDWATER LABORATORY ANALYSES
VOLATILE ORGANIC COMPOUNDS (VOCs)

Sample ID Laboratory ID	RDL[2]	UNITS	FB W69283	TRIP BLANK W69285	TRIP SPIKE[3] W69286
OVM Reading	-	ppm/% LEL	-	-	-
Sampling Date	-	-	8-Jan-08	-	-
Acetone	10	µg/L	<	<	99
Benzene	0.1	µg/L	<	<	96
Bromodichloromethane	0.1	µg/L	<	<	98
Bromoform	0.2	µg/L	<	<	110
Bromomethane	0.5	µg/L	<	<	100
Carbon Tetrachloride	0.1	µg/L	<	<	100
Chlorobenzene	0.1	µg/L	<	<	100
Chloroform	0.1	µg/L	<	<	97
Dibromochloromethane	0.2	µg/L	<	<	100
1,2-Dichlorobenzene	0.2	µg/L	<	<	98
1,3-Dichlorobenzene	0.2	µg/L	<	<	100
1,4-Dichlorobenzene	0.2	µg/L	<	<	100
1,1-Dichloroethane	0.1	µg/L	<	<	100
1,2-Dichloroethane	0.1	µg/L	<	<	94
1,1-Dichloroethylene	0.1	µg/L	<	<	100
cis-1,2-Dichloroethylene	0.1	µg/L	<	<	97
trans-1,2-Dichloroethylene	0.1	µg/L	<	<	97
1,2-Dichloropropane	0.1	µg/L	<	<	97
cis-1,3-Dichloropropene	0.2	µg/L	<	<	84
trans-1,3-Dichloropropene	0.2	µg/L	<	<	85
Ethylbenzene	0.1	µg/L	<	<	100
Ethylene Dibromide	0.2	µg/L	<	<	100
Methylene Chloride	0.5	µg/L	<	<	99
Methyl Isobutyl Ketone	5	µg/L	<	<	95
Methyl Ethyl Ketone	5	µg/L	<	<	99
Methyl t-butyl ether (MTBE)	0.2	µg/L	<	<	96
Styrene	0.1	µg/L	<	<	97
1,1,1,2-Tetrachloroethane	0.1	µg/L	<	<	98
1,1,2,2-Tetrachloroethane	0.1	µg/L	<	<	96
Tetrachloroethylene	0.1	µg/L	<	<	97
Toluene	0.2	µg/L	<	<	100
1,1,1-Trichloroethane	0.1	µg/L	<	<	99
1,1,2-Trichloroethane	0.2	µg/L	<	<	99
Trichloroethylene	0.1	µg/L	<	<	98
Vinyl Chloride	0.2	µg/L	<	<	110
Xylene (Total)	0.05	µg/L	<	<	98/100[4]

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), Table 2 Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for All Types of Property Use and Medium and Fine Textured Soil Conditions.
2. Typical *Table 2* RDL's shown. Refer to laboratory certificate of analysis for any RDL adjustments.
3. Trip spike results are expressed as a percentage of the spiked amounts.
4. Total xylenes Trip Spike recoveries are reported as o-Xylene/p+m-Xylene.
5. Refer to laboratory Certificates of Analysis (Appendix F) for Methods of Analysis.
6. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (NV)=no value derived; (µg/L) = micrograms per litre; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NM) = not measured; (mbg) = meters below grade; (NA) = not analysed.

TABLE 10 (cont'd)
SUMMARY OF GROUNDWATER LABORATORY ANALYSES
VOLATILE ORGANIC COMPOUNDS (VOCs)

Sample ID Laboratory ID	RDL[2]	UNITS	BH7 X98955	BH8 X98956	*MOE Reg 153/04 Table 2*[1]	FB X99117	TRIP BLANK X99118	TRIP SPIKE[3] X99119
OVM Reading	-	ppm/% LEL	100 ppm	175 ppm	-	-	-	-
Sampling Date	-	-	7-Apr-08	7-Apr-08	-	7-Apr-08	-	-
Acetone	10	µg/L	NA	NA	3000	NA	NA	NA
Benzene	0.1	µg/L	**46**	<	5.0	<	<	75
Bromodichloromethane	0.1	µg/L	NA	NA	5.0	NA	NA	NA
Bromoform	0.2	µg/L	NA	NA	5.0	NA	NA	NA
Bromomethane	0.5	µg/L	NA	NA	10	NA	NA	NA
Carbon Tetrachloride	0.1	µg/L	NA	NA	5.0	NA	NA	NA
Chlorobenzene	0.1	µg/L	NA	NA	30	NA	NA	NA
Chloroform	0.1	µg/L	NA	NA	5.0	NA	NA	NA
Dibromochloromethane	0.2	µg/L	NA	NA	5.0	NA	NA	NA
1,2-Dichlorobenzene	0.2	µg/L	NA	NA	3.0	NA	NA	NA
1,3-Dichlorobenzene	0.2	µg/L	NA	NA	630	NA	NA	NA
1,4-Dichlorobenzene	0.2	µg/L	NA	NA	1.0	NA	NA	NA
1,1-Dichloroethane	0.1	µg/L	NA	NA	70	NA	NA	NA
1,2-Dichloroethane	0.1	µg/L	NA	NA	5.0	NA	NA	NA
1,1-Dichloroethylene	0.1	µg/L	NA	NA	4.1	NA	NA	NA
cis-1,2-Dichloroethylene	0.1	µg/L	NA	NA	70	NA	NA	NA
trans-1,2-Dichloroethylene	0.1	µg/L	NA	NA	100	NA	NA	NA
1,2-Dichloropropane	0.1	µg/L	NA	NA	5.0	NA	NA	NA
cis-1,3-Dichloropropene	0.2	µg/L	NA	NA	NV	NA	NA	NA
trans-1,3-Dichloropropene	0.2	µg/L	NA	NA	1.4	NA	NA	NA
Ethylbenzene	0.1	µg/L	2.0	<	2.4	<	<	76
Ethylene Dibromide	0.2	µg/L	NA	NA	1.0	NA	NA	NA
Methylene Chloride	0.5	µg/L	NA	NA	50	NA	NA	NA
Methyl Isobutyl Ketone	5	µg/L	NA	NA	350	NA	NA	NA
Methyl Ethyl Ketone	5	µg/L	NA	NA	350	NA	NA	NA
Methyl t-butyl ether (MTBE)	0.2	µg/L	7	0.7	700	<	<	NA
Styrene	0.1	µg/L	NA	NA	100	NA	NA	NA
1,1,1,2-Tetrachloroethane	0.1	µg/L	NA	NA	5.0	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.1	µg/L	NA	NA	1.0	NA	NA	NA
Tetrachloroethylene	0.1	µg/L	NA	NA	5.0	NA	NA	NA
Toluene	0.2	µg/L	<	<	24	<	<	75
1,1,1-Trichloroethane	0.1	µg/L	NA	NA	200	NA	NA	NA
1,1,2-Trichloroethane	0.2	µg/L	NA	NA	5.0	NA	NA	NA
Trichloroethylene	0.1	µg/L	NA	NA	50	NA	NA	NA
Vinyl Chloride	0.2	µg/L	NA	NA	1.3	NA	NA	NA
Xylene (Total)	0.05	µg/L	<	0.1	300	<	<	81/87[4]

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for All Types of Property Use and Medium and Fine Textured Soil Conditions.
2. Typical *Table 2* RDL's shown. Refer to laboratory certificate of analysis for any RDL adjustments.
3. Trip spike results are expressed as a percentage of the spiked amounts.
4. Total xylenes Trip Spike recoveries are reported as o-Xylene/p+m-Xylene.
5. Refer to laboratory Certificates of Analysis (Appendix F) for Methods of Analysis.
6. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (NV)=no value derived; (µg/L) = micrograms per litre; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NM) = not measured; (mbg) = meters below grade; (NA) = not analysed.

PROJECT: PHASE II ENVIRONMENTAL SITE ASSESSMENT	BOREHOLE NO: BH1
LOCATION: 3005 DUNDAS STREET WEST, OAKVILLE, ONTARIO	METHOD: HOLLOW STEM
PROJECT NO: 3875 / DRILLING DATE: DEC/18/2007	AUGER O.D. (mm): 210
LOGGED BY: C. F. / CONTRACTOR: GEO ENVIRONMENTAL INC.	DRILLING EQUIPMENT: CME 55
VAPOUR ANALYZER: GASTECH 1238 WITHOUT RESPONSE TO METHANE	DATUM (100.00) TOP CENTRE OF MH ELEVATION: SE CORNER OF SITE

ELEVATION (metres)	WELL DATA	SYMBOL	SOIL DESCRIPTION	DEPTH METRES	DEPTH FEET	SAMPLE INTERVAL	SAMPLE NUMBER	N-VALUE	RECOVERY %	VAPOUR READINGS ● PPM ■ %LEL (100 200 300 400 PPM / 20 40 60 80 %LEL)	NOTES
100.56			GRASS								
100.41			TOPSOIL –Brown, Dry								
			SILTY CLAY (FILL) –Brown, Trace Gravel, Dry		1		SS1	11	60	●	
					2						
99.50				1	3		SS2	41	30	●	
99.12			–Trace Red Brick Debris		4						
					5						
					6		SS3	15	30	●	
				2	7						
			SILTY CLAY (TILL) –Green/Grey, Trace Gravel, Damp		8		SS4	7	40	●	LAB SAMPLE (BTEX/F1–F4/LEAD /VOCs/PAHs)
					9						
			–Grey Mottling, Trace Cobbles	3	10						
					11		SS5	20	70	●	
			(Water level @ 3.66 mbtop on Jan/07/08)		12						
96.75				4	13		SS6	>50	80	●	
96.14			–Shale Fragments		14						
			SHALE –Reddish Brown, Weathered, Some Clay and Trace Cobbles		15		SS7	>50	40	ND	
			END OF BOREHOLE @ 4.9 mbg DUE TO AUGER REFUSAL	5	16						
			Ground water sample submitted Jan/08/08 for BTEX and F1–F4 analyses using dedicated HDPE & Waterra type sampling equipment.		17						
					18						
					19						
				6	20						
					21						
					22						
				7	23						
					24						
					25						
				8	26						
					27						
					28						
					29						
				9	30						
					31						
					32						
				10	33						

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DATE: 01/14/08 | CHECKED BY: JC

LOCATION/FILE: Z:/PROJECTS/DRAFT/3875

PROJECT: PHASE II ENVIRONMENTAL SITE ASSESSMENT		BOREHOLE NO: BH2
LOCATION: 3005 DUNDAS STREET WEST, OAKVILLE, ONTARIO		METHOD: HOLLOW STEM
PROJECT NO: 3875	DRILLING DATE: DEC/18/2007	AUGER O.D. (mm): 210
LOGGED BY: C. F.	CONTRACTOR: GEO ENVIRONMENTAL INC.	DRILLING EQUIPMENT: CME 55
VAPOUR ANALYZER: GASTECH 1238 WITHOUT RESPONSE TO METHANE		DATUM(100.00) TOP CENTRE OF MH ELEVATION: SE CORNER OF SITE

ELEVATION (metres)	WELL DATA	SYMBOL	SOIL DESCRIPTION	DEPTH METRES	DEPTH FEET	SAMPLE INTERVAL	SAMPLE NUMBER	N-VALUE	RECOVERY %	VAPOUR READINGS ● PPM ■ %LEL (100 200 300 400 PPM; 20 40 60 80 %LEL)	NOTES
100.24											
100.11			ASPHALT (75 mm)								
			SAND AND GRAVEL (FILL) –Brown, Dry		1		SS1	6	20	●	
					2						
99.17			SILTY CLAY –Dark Brown, Trace Organics, with Some Possible Sand and Gravel Fill, Damp	1	3		SS2	7	40	●	LAB SAMPLE (BTEX/F1–F4)
98.87					4						
			–Green/Grey Mottling		5						
					6		SS3	10	70	●	LAB SAMPLE (BTEX/F1–F4)
				2	7						
					8						
					9		SS4	27	100	●	
			(Water level @ 3.05 mbtop on Jan/07/08)	3	10						
97.06			–Reddish Brown		11		SS5	23	100	●	
					12						
				4	13		SS6	33	70	●	
95.82			–Greyish		14						
					15						
			SHALE –Reddish Brown, Weathered, Dry		16		SS7	>50	60	●	
			END OF BOREHOLE @ 5.0 mbg DUE TO AUGER REFUSAL	5	17						
			Ground water sample submitted Jan/08/08 for BTEX and F1–F4 analyses using dedicated HDPE & Waterra type sampling equipment.		18						
					19						
				6	20						
					21						
					22						
				7	23						
					24						
					25						
				8	26						
					27						
					28						
					29						
				9	30						
					31						
					32						
				10	33						

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LOCATION/FILE: Z:/PROJECTS/DRAFT/3875

PROJECT: PHASE II ENVIRONMENTAL SITE ASSESSMENT		BOREHOLE NO: BH3
LOCATION: 3005 DUNDAS STREET WEST, OAKVILLE, ONTARIO		METHOD: HOLLOW STEM
PROJECT NO: 3875	DRILLING DATE: DEC/17/2007	AUGER O.D. (mm): 210
LOGGED BY: C. F.	CONTRACTOR: GEO ENVIRONMENTAL INC.	DRILLING EQUIPMENT: CME 55
VAPOUR ANALYZER: GASTECH 1238 WITHOUT RESPONSE TO METHANE		DATUM (100.00) TOP CENTRE OF MH ELEVATION: SE CORNER OF SITE

ELEVATION (metres)	WELL DATA	SYMBOL	SOIL DESCRIPTION	DEPTH METRES	DEPTH FEET	SAMPLE INTERVAL	SAMPLE NUMBER	N-VALUE	RECOVERY %	VAPOUR READINGS ● PPM ■ %LEL (100 200 300 400 PPM; 20 40 60 80 %LEL)	NOTES
99.95											
99.78			ASPHALT (100 mm)								
99.55			SAND AND GRAVEL (FILL) –Brown, Some Cobbles, Dry				SS1	5	5	■	
99.34					1						
99.19			SILTY CLAY (FILL) –Black, Trace Organics and Brick Debris, Some Cobbles, Saturated		2						
					3		SS2	5	10	■	LAB SAMPLE (BTEX/F1–F4) ODOURS & STAINING
				1	4						
			SILTY CLAY (TILL) –Brown and Black, Trace Organics , Damp		5						ODOURS & STAINING
			(Water level @ 0.23 mbtop on Jan/07/08)		6		SS3	3	70	■	LAB SAMPLE (BTEX/F1–F4) REG. 558
			–Brown/Grey, Dry to Damp	2	7						
					8						
					9		SS4	21	60	●	LAB SAMPLE (BTEX/F1–F4)
			–Reddish/Brown, Dry	3	10						
					11		SS5	32	75	●	
96.14					12						
			SHALE –Reddish Brown, Weathered, Some Clay	4	13		SS6	>50	–	●	
			END OF BOREHOLE @ 4.3 mbg DUE TO AUGER REFUSAL		14						
			Ground water sample submitted Jan/08/08 for VOCs, F1–F4, and Lead analyses using dedicated HDPE & Waterra type sampling equipment.		15						
				5	16						
					17						
					18						
					19						
				6	20						
					21						
					22						
				7	23						
					24						
					25						
					26						
				8	27						
					28						
					29						
				9	30						
					31						
					32						
				10	33						

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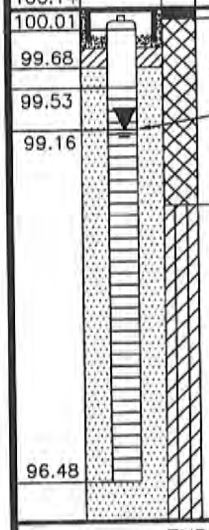
DATE: 01/14/08 | CHECKED BY: JC

LOCATION/FILE: Z:/PROJECTS/DRAFT/3875

PROJECT: PHASE II ENVIRONMENTAL SITE ASSESSMENT		BOREHOLE NO: BH4
LOCATION: 3005 DUNDAS STREET WEST, OAKVILLE, ONTARIO		METHOD: HOLLOW STEM
PROJECT NO: 3875	DRILLING DATE: DEC/17/2007	AUGER O.D. (mm): 210
LOGGED BY: C. F.	CONTRACTOR: GEO ENVIRONMENTAL INC.	DRILLING EQUIPMENT: CME 55
VAPOUR ANALYZER: GASTECH 1238 WITHOUT RESPONSE TO METHANE		DATUM (100.00) TOP CENTRE OF MH ELEVATION: SE CORNER OF SITE



ELEVATION (metres)	SOIL DESCRIPTION	METRES	FEET	INTERVAL	NUMBER	N-VALUE	RECOVERY %	NOTES
100.14								
100.01	ASPHALT (75 mm)							
99.68	SAND AND GRAVEL (FILL) -Brown, Some Clay, Dry							
99.53	*(Water level @ 0.85 mbtop on Jan/07/08)*							
99.16	-Reddish Brown with Shale Fragments				SS1	23	60	
		1	2					
			3		SS2	45	50	
			4					
	SILTY CLAY (TILL) -Brown, Trace Saturated Sand Seams, Damp		5					
		2	6		SS3	8	80	LAB SAMPLE (BTEX/F1-F4)
			7					
	-Green and Grey Mottling, Dry Trace Red Shale Fragments, Damp		8		SS4	20	70	
		3	9					
	-Shale Layers		10		SS5	36	50	
96.48			11					
			12		SS6	–	–	
	END OF BOREHOLE @ 4.3 mbg DUE TO AUGER REFUSAL	4	13					
	Ground water sample submitted Jan/08/08 for VOCs, F1-F4, and Lead analyses using dedicated HDPE & Waterra type sampling equipment.		14					
			15					
		5	16					
			17					
			18					
			19					
		6	20					
			21					
			22					
		7	23					
			24					
			25					
		8	26					
			27					
			28					
			29					
		9	30					
			31					
			32					
		10	33					

VAPOUR READINGS: ● PPM ■ %LEL
100 200 300 400 PPM
20 40 60 80 %LEL

WARDROP | Engineering Inc.	DATE: 01/14/08 CHECKED BY: JC
	LOCATION/FILE: Z:/PROJECTS/DRAFT/3875

PROJECT: PHASE II ENVIRONMENTAL SITE ASSESSMENT	BOREHOLE NO: BH5
LOCATION: 3005 DUNDAS STREET WEST, OAKVILLE, ONTARIO	METHOD: HOLLOW STEM
PROJECT NO: 3875 / DRILLING DATE: DEC/18/2007	AUGER O.D. (mm): 210
LOGGED BY: C. F. / CONTRACTOR: GEO ENVIRONMENTAL INC.	DRILLING EQUIPMENT: CME 55
VAPOUR ANALYZER: GASTECH 1238 WITHOUT RESPONSE TO METHANE	DATUM(100.00) TOP CENTRE OF MH ELEVATION: SE CORNER OF SITE

ELEVATION (metres)	WELL DATA	SYMBOL	SOIL DESCRIPTION	DEPTH METRES	DEPTH FEET	SAMPLE INTERVAL	SAMPLE NUMBER	N-VALUE	RECOVERY %	VAPOUR READINGS ● PPM ■ %LEL (100 200 300 400 PPM; 20 40 60 80 %LEL)	NOTES
100.06											
99.96			ASPHALT (75 mm)								
			SAND, GRAVEL AND CLAY (FILL) –Brown, Dry		1		SS1	10	30	●	PHC ODOURS
					2						
99.00			SILTY CLAY (TILL) –Brown with Green And Grey Mottling, Dry	1	3		SS2	11	50	■	PHC ODOURS LAB SAMPLE (BTEX/F1–F4)
98.69					4						
					5						
					6		SS3	22	80	●	
				2	7						
			–Reddish Brown, Fractured Shale Layers, Dry		8		SS4	30	80	●	LAB SAMPLE (BTEX/F1–F4)
					9						
			–Shale Fragments	3	10		SS5	>50	60	●	
			(Water level @ 3.85 mbtop on Jan/07/08)		11						
96.11					12		SS6	>50	40	●	
				4	13						
95.64					14						
					15		SS7	>50	70	●	
			SHALE		16						
				5	17						
			END OF BOREHOLE @ 5.0 mbg DUE TO AUGER REFUSAL		18						
			Ground water sample submitted Jan/08/08 for BTEX and F1–F4 analyses using dedicated HDPE & Waterra type sampling equipment.		19						
				6	20						
					21						
					22						
				7	23						
					24						
					25						
					26						
				8	27						
					28						
					29						
				9	30						
					31						
					32						
				10	33						

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DATE: 01/14/08 | CHECKED BY: JC

LOCATION/FILE: Z:/PROJECTS/DRAFT/3875

PROJECT: PHASE II ENVIRONMENTAL SITE ASSESSMENT		BOREHOLE NO: BH6
LOCATION: 3005 DUNDAS STREET WEST, OAKVILLE, ONTARIO		METHOD: HOLLOW STEM
PROJECT NO: 3875	DRILLING DATE: DEC/18/2007	AUGER O.D. (mm): 210
LOGGED BY: C. F.	CONTRACTOR: GEO ENVIRONMENTAL INC.	DRILLING EQUIPMENT: CME 55
VAPOUR ANALYZER: GASTECH 1238 WITHOUT RESPONSE TO METHANE		DATUM(100.00) TOP CENTRE OF MH ELEVATION: SE CORNER OF SITE

ELEVATION (metres)	WELL DATA	SYMBOL	SOIL DESCRIPTION	DEPTH METRES	DEPTH FEET	SAMPLE INTERVAL	SAMPLE NUMBER	N-VALUE	RECOVERY %	VAPOUR READINGS ● PPM ■ %LEL (100 200 300 400 PPM; 20 40 60 80 %LEL)	NOTES
100.40											
100.25			ASPHALT (75 mm)								
99.93			SAND AND GRAVEL (FILL) -Brown, Some Clay, Dry			1	SS1	26	20	■	LAB SAMPLE (BTEX/F1-F4)
99.80			-Reddish Brown with Shale Fragments	1	2 3 4	2	SS2	6	30	■	
98.43			SILTY CLAY (TILL) -Brown, Green and Grey Mottling, Trace Red Shale Fragments, Damp	2	5 6 7	3	SS3	20	80	●	LAB SAMPLE (BTEX/F1-F4)
			(Water level @ 1.82 mbtop on Jan/07/08)		8 9	4	SS4	22	100	●	GRAIN SIZE ANALYSIS
96.73			-Shale Layers	3	10 11 12	5	SS5	41	100	●	
			END OF BOREHOLE@ 4.4 mbg DUE TO AUGER REFUSAL Ground water sample submitted Jan/08/08 for VOCs, F1-F4, and Lead analyses using dedicated HDPE & Waterra type sampling equipment.	4	13 14 15	6	SS6	>50	70	●	
				5	16 17 18						
				6	19 20 21						
				7	22 23 24						
				8	25 26 27						
				9	28 29 30						
				10	31 32 33						

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DATE: 01/14/08 | CHECKED BY: JC

LOCATION/FILE: Z:/PROJECTS/DRAFT/3875

PROJECT: PHASE II ENVIRONMENTAL SITE ASSESSMENT	BOREHOLE NO: BH7
LOCATION: 3005 DUNDAS STREET WEST, OAKVILLE, ONTARIO	METHOD: HYDRO-VACUUM AND HOLLOW STEM
PROJECT NO: 3875 / DRILLING DATE: APRIL 3, 2008	AUGER O.D. (mm): 210
LOGGED BY: K.O. / CONTRACTOR: DIRECT LINE/ GEDI	DRILLING EQUIPMENT: TRACK MOUNTED CME 55
VAPOUR ANALYZER: GASTECH 1238 WITHOUT RESPONSE TO METHANE	DATUM ELEVATION: (100.00) TOP CENTRE OF MH SE CORNER OF SITE

ELEVATION (metres)	WELL DATA	SYMBOL	SOIL DESCRIPTION	DEPTH METRES	DEPTH FEET	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE N-VALUE	SAMPLE RECOVERY %	VAPOUR READINGS ● PPM ■ %LEL (100 200 300 400 PPM; 20 40 60 80 %LEL)	NOTES
100.74											
100.58			ASPHALT (75 mm)				AS1	–	–	●	DAYLIGHTED TO 2.1 m HAND AUGER SAMPLES TAKEN
100.28			LIMESTONE SCREENING FILL		1		AS2	–	–	●	
100.13			SILT Brown, Some Sand and Gravel, Trace Clay, Damp		2		AS3	–	–	●	
99.63			*(Water level @ 0.95 mbtop on May 6, 2008)* –Wet	1	3		AS4	–	–	●	
					4		AS5	–	–	●	
			SILTY CLAY Dark Brown, Some Sand and Gravel, Wet		5		AS6	–	–	●	
			–Brown/Grey Mottling, Trace Oxidation, Moist	2	6		AS7	–	–	●	
					7						
					8		SS1	31	80	●	LAB SAMPLE (BTEX/F1–F4/Lead)
				3	9						
					10						
			–Brown, Trace Gravel, Moist, Red Weathered Shale Fragments at Tip		11		SS2	49	50	●	
97.08					12						
				4	13		SS3	63	80	●	
96.34					14						
			END OF BOREHOLE @ 4.4 mbg		15						
			(On April 8, 2008 a ground water sample was collected using dedicated HDPE & Waterra type sampling equipment and was submitted for BTEX, F1–F4, and Lead analyses)		16						
				5	17						
					18						
					19						
				6	20						
					21						
					22						
				7	23						
					24						
					25						
				8	26						
					27						
					28						
					29						
				9	30						
					31						
					32						
				10	33						

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DATE: 05/06/08 | CHECKED BY: JC

LOCATION/FILE: Z:/PROJECTS/DRAFT/3875

PROJECT: PHASE II ENVIRONMENTAL SITE ASSESSMENT	BOREHOLE NO: BH8
LOCATION: 3005 DUNDAS STREET WEST, OAKVILLE, ONTARIO	METHOD: HYDRO-VACUUM AND HOLLOW STEM
PROJECT NO: 3875 / DRILLING DATE: APRIL 3, 2008	AUGER O.D. (mm): 210
LOGGED BY: K.O. / CONTRACTOR: DIRECT LINE/ GEDI	DRILLING EQUIPMENT: TRACK MOUNTED CME 55
VAPOUR ANALYZER: GASTECH 1238 WITHOUT RESPONSE TO METHANE	DATUM ELEVATION: (100.00) TOP CENTRE OF MH SE CORNER OF SITE

ELEVATION (metres)	WELL DATA	SYMBOL	SOIL DESCRIPTION	DEPTH METRES	DEPTH FEET	SAMPLE INTERVAL	SAMPLE NUMBER	N-VALUE	RECOVERY %	VAPOUR READINGS ● PPM ■ %LEL (100 20 200 40 300 60 400 80 PPM %LEL)	NOTES
100.88			GRASS								
100.78			TOPSOIL Dark Brown, Trace Organics, Moist		1		AS1	–	–	●	DAYLIGHTED TO 2.1 m HAND AUGER SAMPLES TAKEN
100.43			SILTY CLAY Brown, Trace Sand, Gravel and Organics, Moist		2		AS2	–	–	●	
100.27					3		AS3	–	–	●	
99.92			*(Water level @ 0.96 mbtop on May 6, 2008)*	1	4		AS4	–	–	●	
			–Trace Red Shale Fragments		5		AS5	–	–	●	
			–Trace Red Shale Fragments and Oxidation		6		AS6	–	–	●	LAB SAMPLE (BTEX/F1–F4/Lead)
			–Brown/Grey Mottling, Trace Shale Fragments, Moist to Wet	2	7		AS7	–	–	●	
			–Brown, Trace Gravel, Moist		8		SS1	32	30	●	
					9						
				3	10		SS2	32	80	●	
97.23					11						
					12		SS3	46	80	●	
96.48				4	13						
			END OF BOREHOLE @ 4.4 mbg (On April 8, 2008 a ground water sample was collected using dedicated HDPE & Waterra type sampling equipment and was submitted for BTEX, F1–F4, and Lead analyses)		14						
					15						
					16						
				5	17						
					18						
					19						
				6	20						
					21						
					22						
				7	23						
					24						
					25						
					26						
				8	27						
					28						
					29						
				9	30						
					31						
					32						
				10	33						

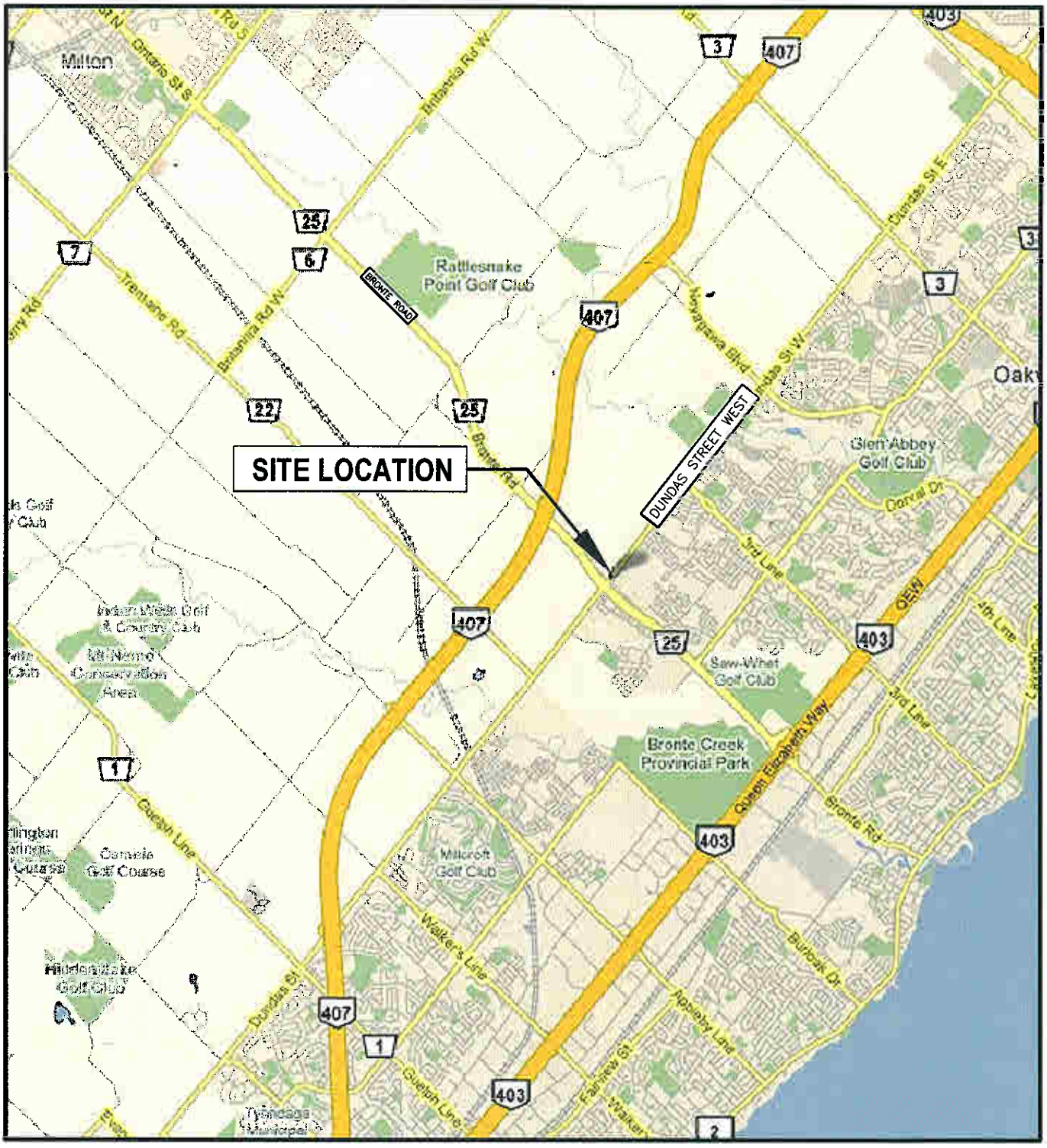
WARDROP | Engineering Inc.

DATE: 05/06/08 | CHECKED BY: JC

LOCATION/FILE: Z:/PROJECTS/DRAFT/3875

APPENDIX D2

ENVIRONMENTAL REMEDIATION DURING SITE DECOMMISSIONING (WARDROP, 2009a)



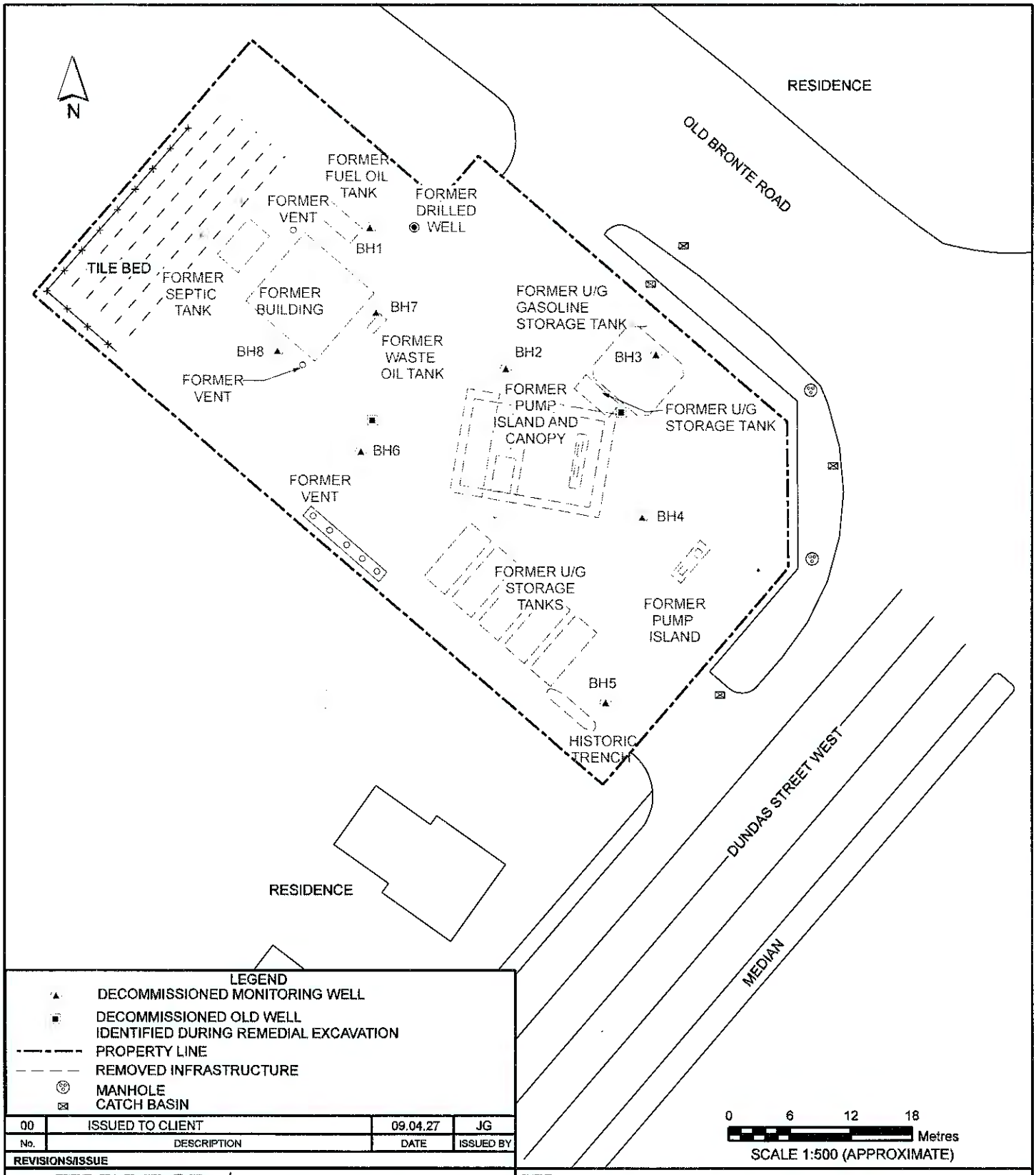
WARDROP | Engineering Inc.

CLIENT: **Shell Canada Products**

DWG DESCRIPTION:

SITE LOCATION MAP
ENVIRONMENTAL REMEDIATION DURING SITE DECOMMISSIONING
SHELL LOCATION C05875- OAKVILLE, ON

DRAWN BY:	HR	DATE:	09.03.17	FIGURE 1	REV. 00
REVISED BY:	JG	DATE:	09.03.23		
DESIGNED BY:	JG	CHECKED BY:	JG	DWG NO.	0813480103-SKT-V0007



LEGEND

- DECOMMISSIONED MONITORING WELL
- DECOMMISSIONED OLD WELL IDENTIFIED DURING REMEDIAL EXCAVATION
- PROPERTY LINE
- REMOVED INFRASTRUCTURE
- MANHOLE
- CATCH BASIN

No.	DESCRIPTION	DATE	ISSUED BY
00	ISSUED TO CLIENT	09.04.27	JG

REVISIONS/ISSUE

0 6 12 18 Metres

SCALE 1:500 (APPROXIMATE)

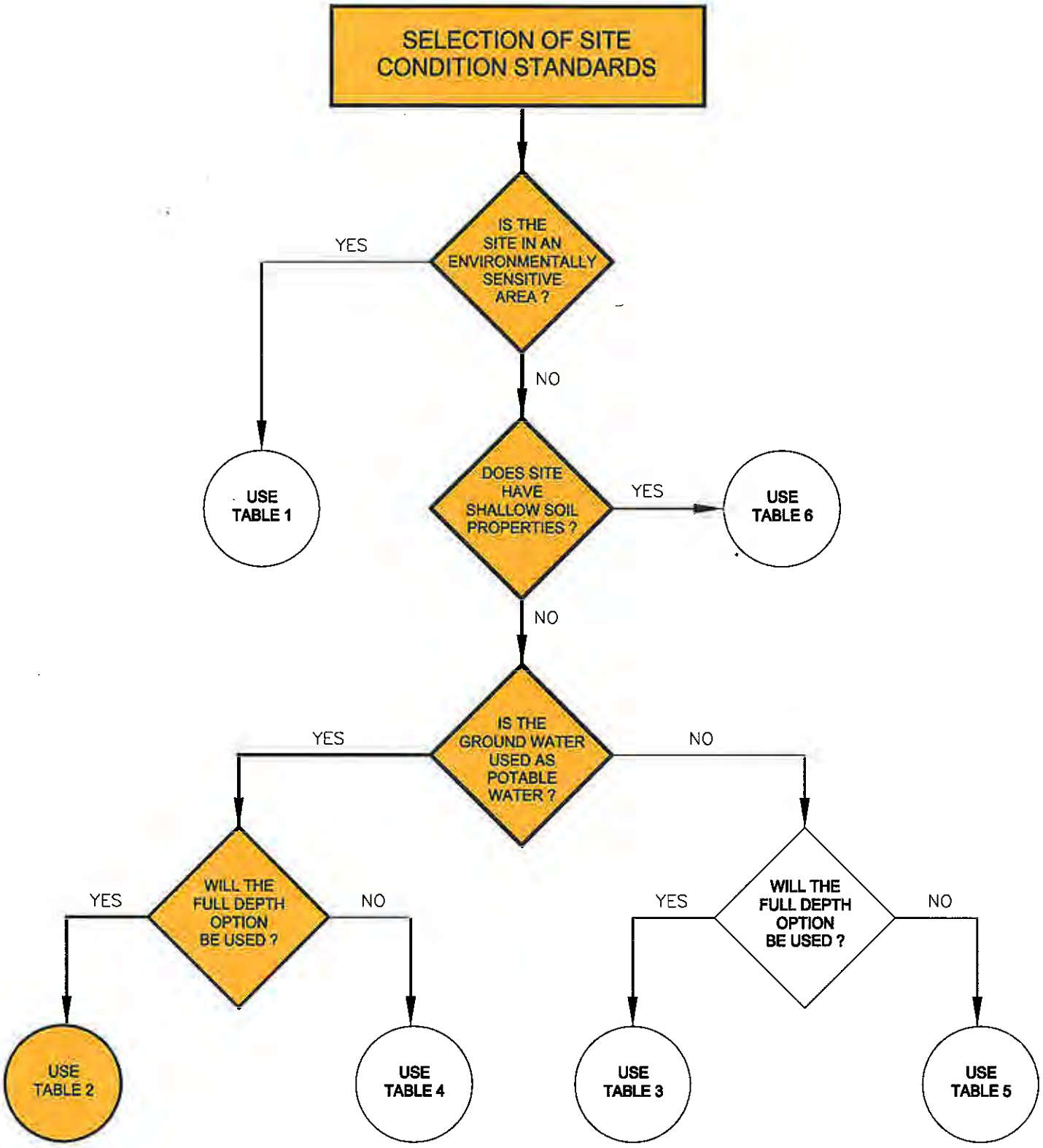
WARDROP Engineering Inc.

CLIENT: SHELL CANADA PRODUCTS

DWG DESCRIPTION

SITE PLAN SHOWING REMOVED SITE EQUIPMENT
ENVIRONMENTAL REMEDIATION DURING SITE DECOMMISSIONING
SHELL LOCATION C05875 - OAKVILLE, ON

DRAWN BY: HR	DATE: 09.03.17	FIGURE 2	REV. 00
REVISED BY: HR	DATE: 09.04.17		
DESIGNED BY: JG	CHECKED BY: JG	DWG NO. 0813480103-SKT-V0008	

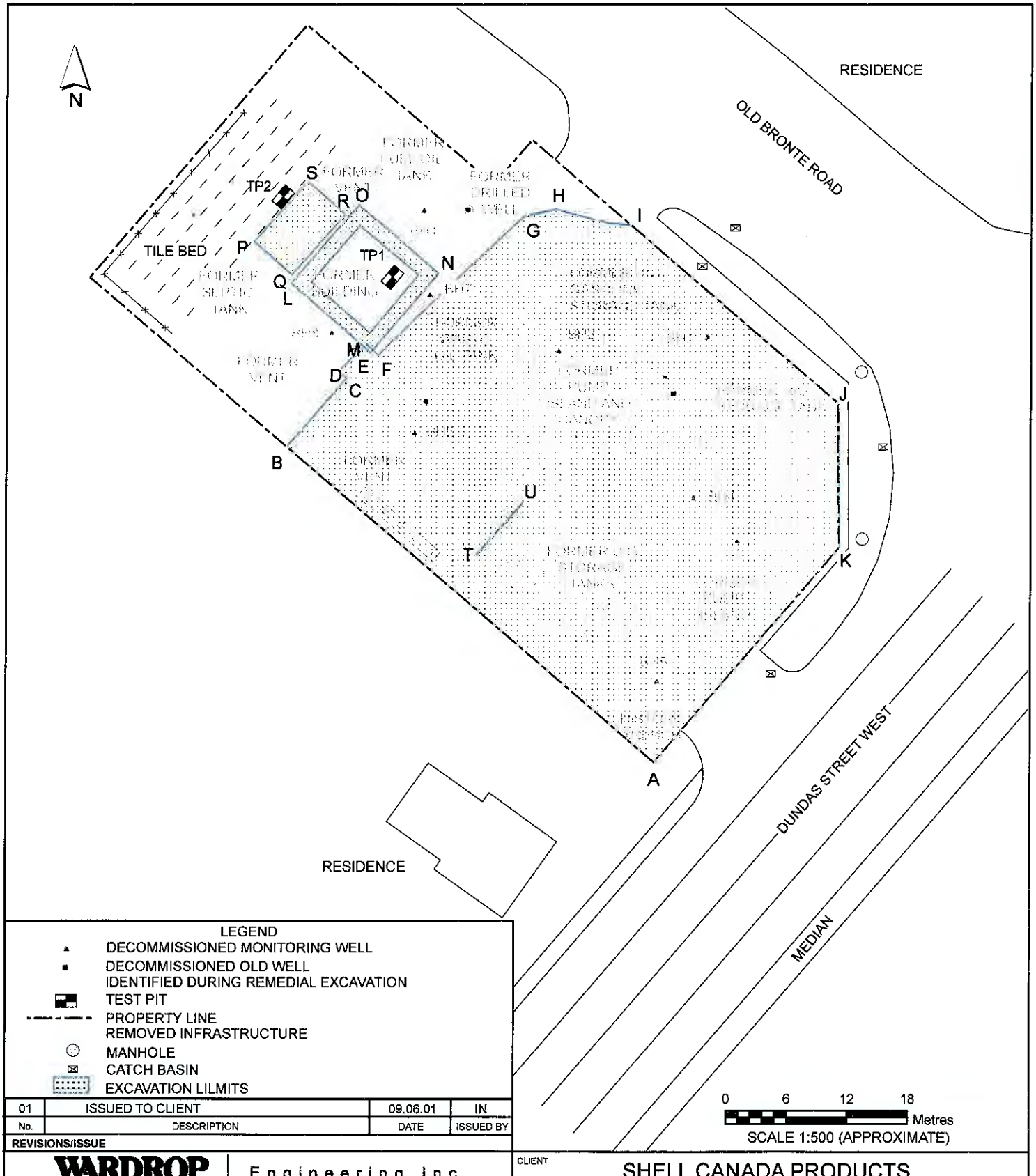


WARDROP | Engineering Inc.

CLIENT: **Shell Canada Products**

DWG DESCRIPTION:
SITE CONDITION STANDARDS FLOWCHART
ENVIRONMENTAL REMEDIATION DURING SITE DECOMMISSIONING
SHELL LOCATION C05875- OAKVILLE, ON

DRAWN BY:	HR	DATE:	09.03.17	FIGURE 3	REV. 00
REVISED BY:	JG	DATE:	09.03.23		
DESIGNED BY:	JG	CHECKED BY:	JG	DWG NO.	0813480103-SKT-V0009



LEGEND

- DECOMMISSIONED MONITORING WELL
- DECOMMISSIONED OLD WELL IDENTIFIED DURING REMEDIAL EXCAVATION
- TEST PIT
- PROPERTY LINE
- REMOVED INFRASTRUCTURE
- MANHOLE
- CATCH BASIN
- EXCAVATION LILMITS

No.	DESCRIPTION	DATE	ISSUED BY
01	ISSUED TO CLIENT	09.06.01	IN

REVISIONS/ISSUE

0 6 12 18 Metres

SCALE 1:500 (APPROXIMATE)

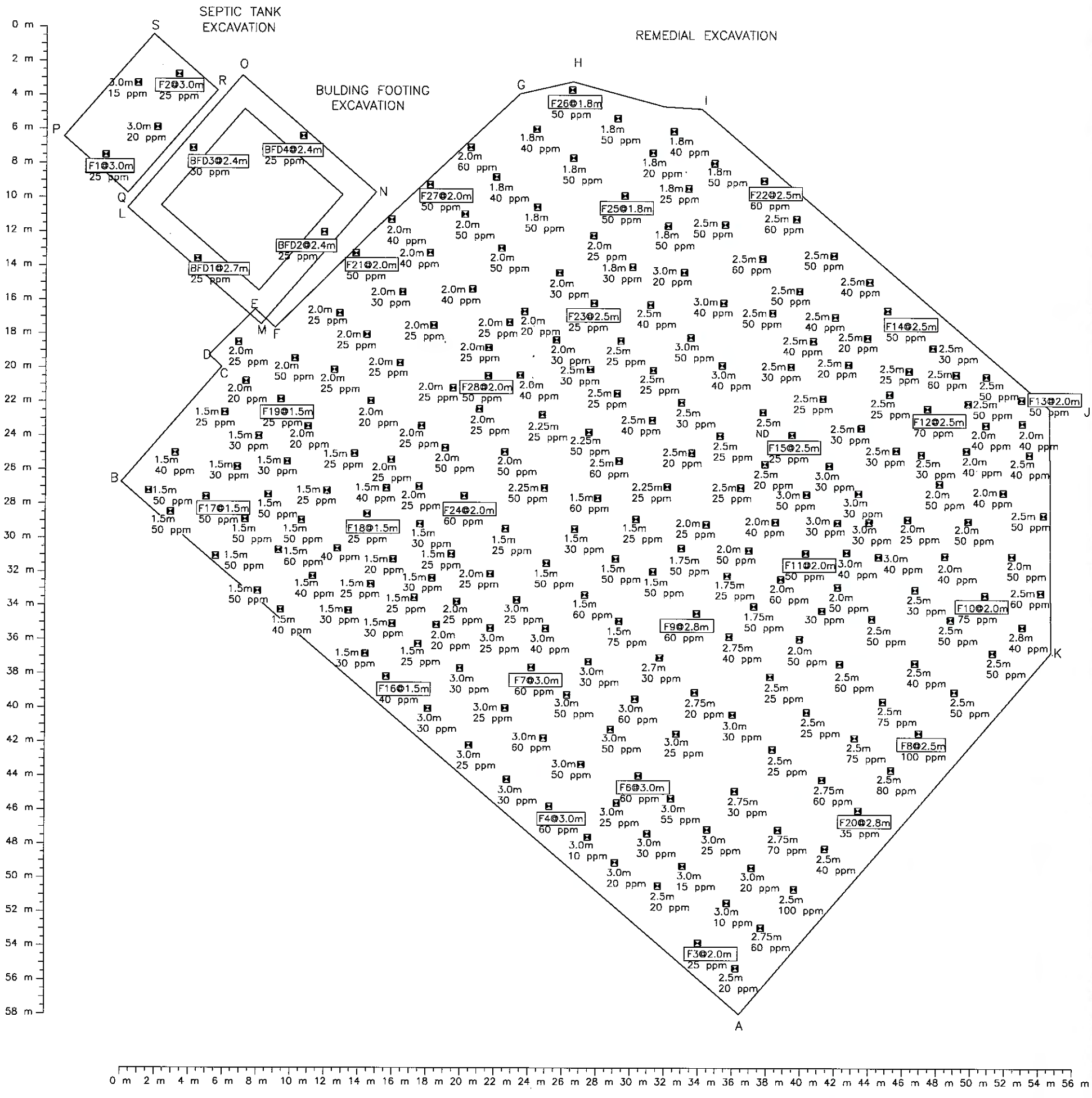
WARDROP Engineering Inc.

CLIENT: SHELL CANADA PRODUCTS

DWG DESCRIPTION

SITE PLAN SHOWING EXCAVATIONS AND TEST PIT LOCATIONS
ENVIRONMENTAL REMEDIATION DURING SITE DECOMMISSIONING
SHELL LOCATION C05875 - OAKVILLE, ON

DRAWN BY:	HR	DATE:	09.03.18	FIGURE 4 REV. 01
REVISED BY:	IN	DATE:	09.06.01	
DESIGNED BY:	JG	CHECKED BY:	JG	DWG NO. 0813480103-SKT-V0010



LEGEND

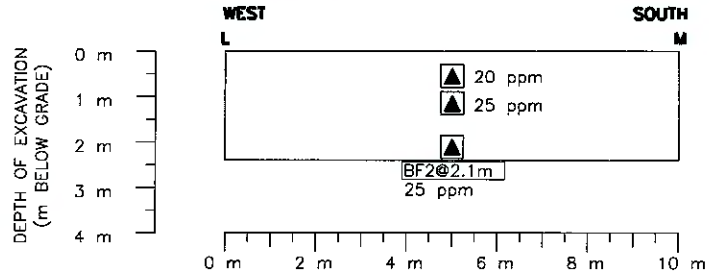
▭	EXCAVATION EXTENTS
⊠	EXCAVATION BASE SAMPLE
F7@3.0m	SAMPLE SUBMITTED TO LAB DENOTED BY SAMPLE NAME (F7) AND DEPTH (3.0m)
2.0m	SOIL SAMPLE DEPTH
20 ppm	ORGANIC VAPOUR CONCENTRATION
ND	NOT DETECTED

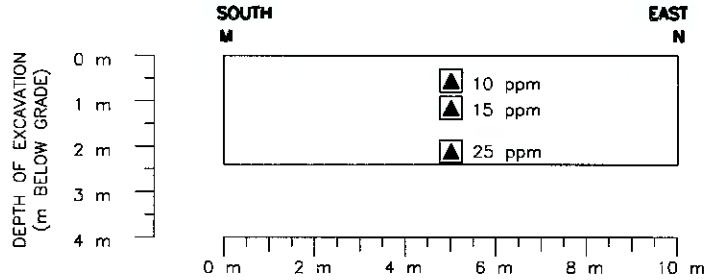
WARDROP | Engineering Inc.

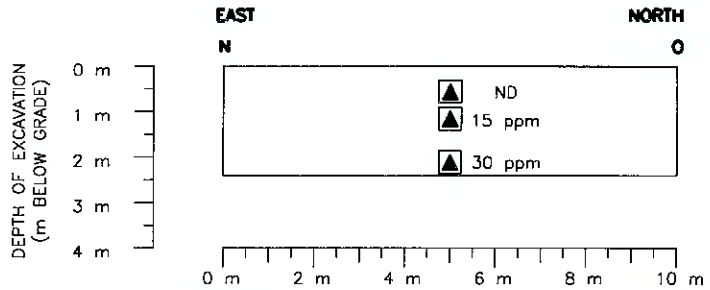
CLIENT: **Shell Canada Products**

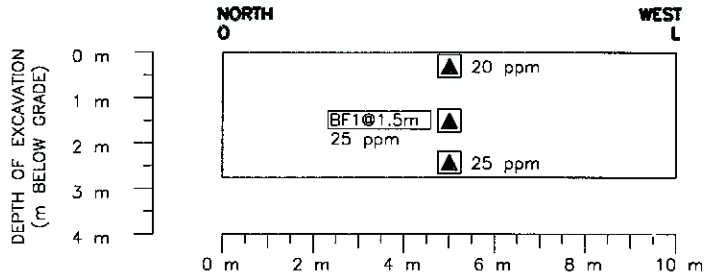
DWG DESCRIPTION:
SITE PLAN SHOWING EXCAVATION FLOORS
ENVIRONMENTAL REMEDIATION DURING SITE DECOMMISSIONING
SHELL LOCATION No. C05875 - OAKVILLE, ON

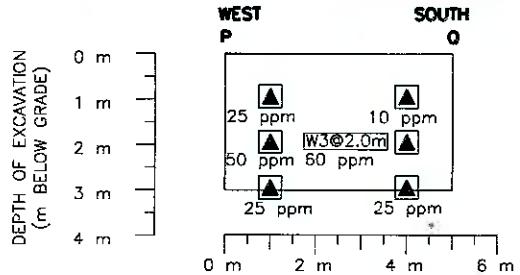
DRAWN BY:	HR	DATE: 09.04.07	FIGURE 5 REV. 00
REVISED BY:	JG	DATE: 09.04.09	
DESIGNED BY:	JG	CHECKED BY: JG	DWG NO. 0813480103-SKT-V0011

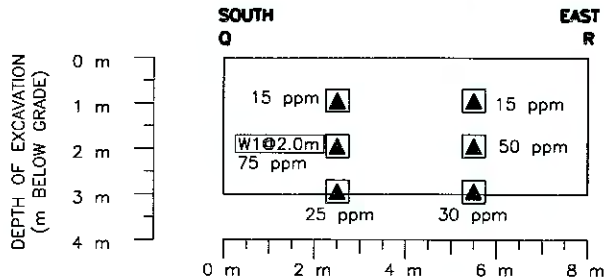


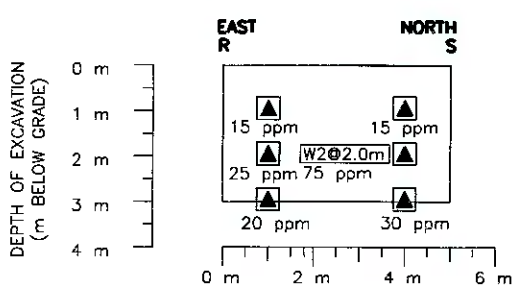


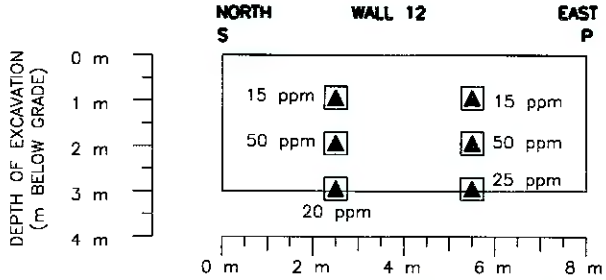












LEGEND

- EXCAVATION EXTENT
- EXCAVATION WALL SAMPLE
- W1@2.0m — SAMPLE SUBMITTED TO LAB DENOTED BY SAMPLE NAME (W4) AND DEPTH (2.0m)
- 2.0m — SOIL SAMPLE DEPTH
- 20 ppm — ORGANIC VAPOUR CONCENTRATION
- ND — NOT DETECTED

WARDROP | Engineering Inc.

CLIENT: **Shell Canada Products**

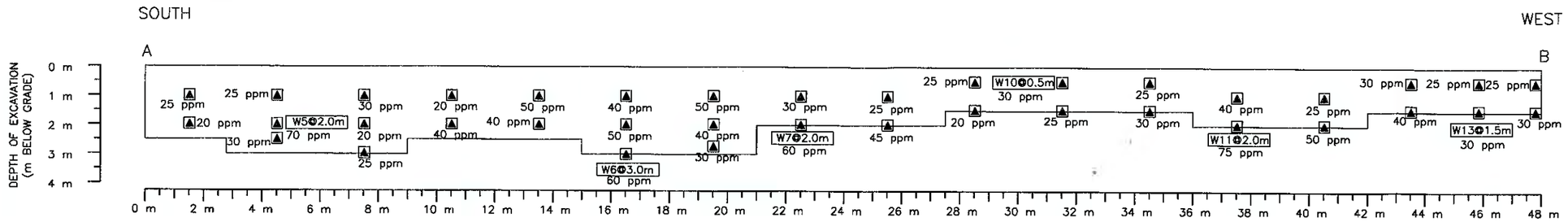
DWG DESCRIPTION:

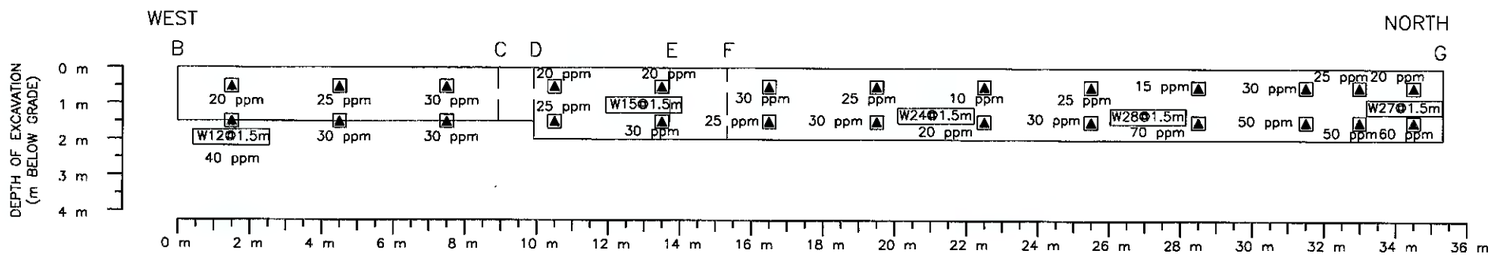
WALL PROFILES OF SEPTIC TANK AND BUILDING FOOTING EXCAVATIONS
SHELL SITE LOCATION No. C05875 - OAKVILLE, ON

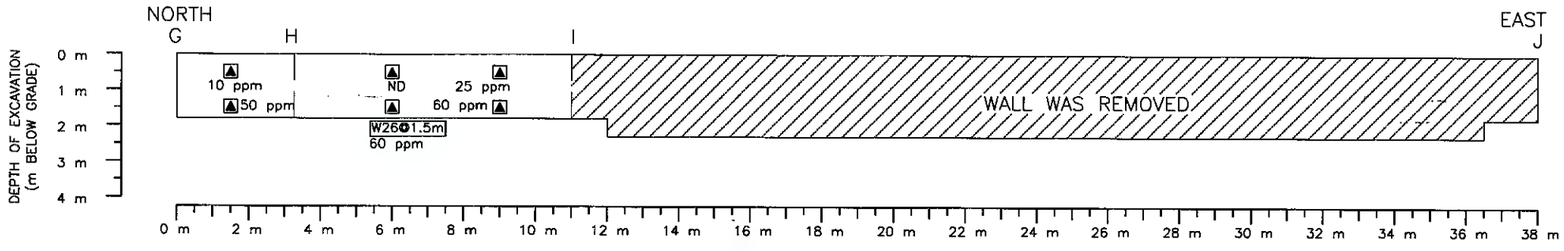
DRAWN BY:	HR	DATE:	09.04.17
REVISED BY:	JG	DATE:	09.04.13
DESIGNED BY:	JG	CHECKED BY:	JG

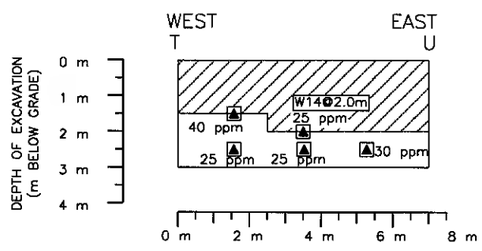
FIGURE 6 REV. 00

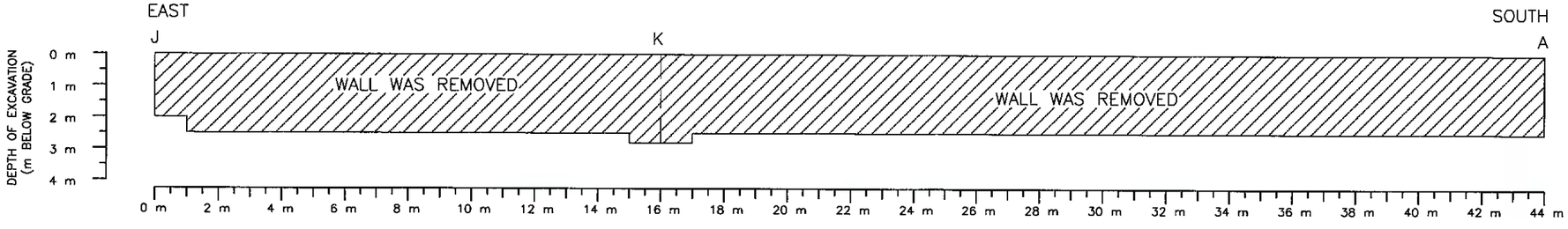
DWG NO. 0813480103-SKT-V0013











LEGEND

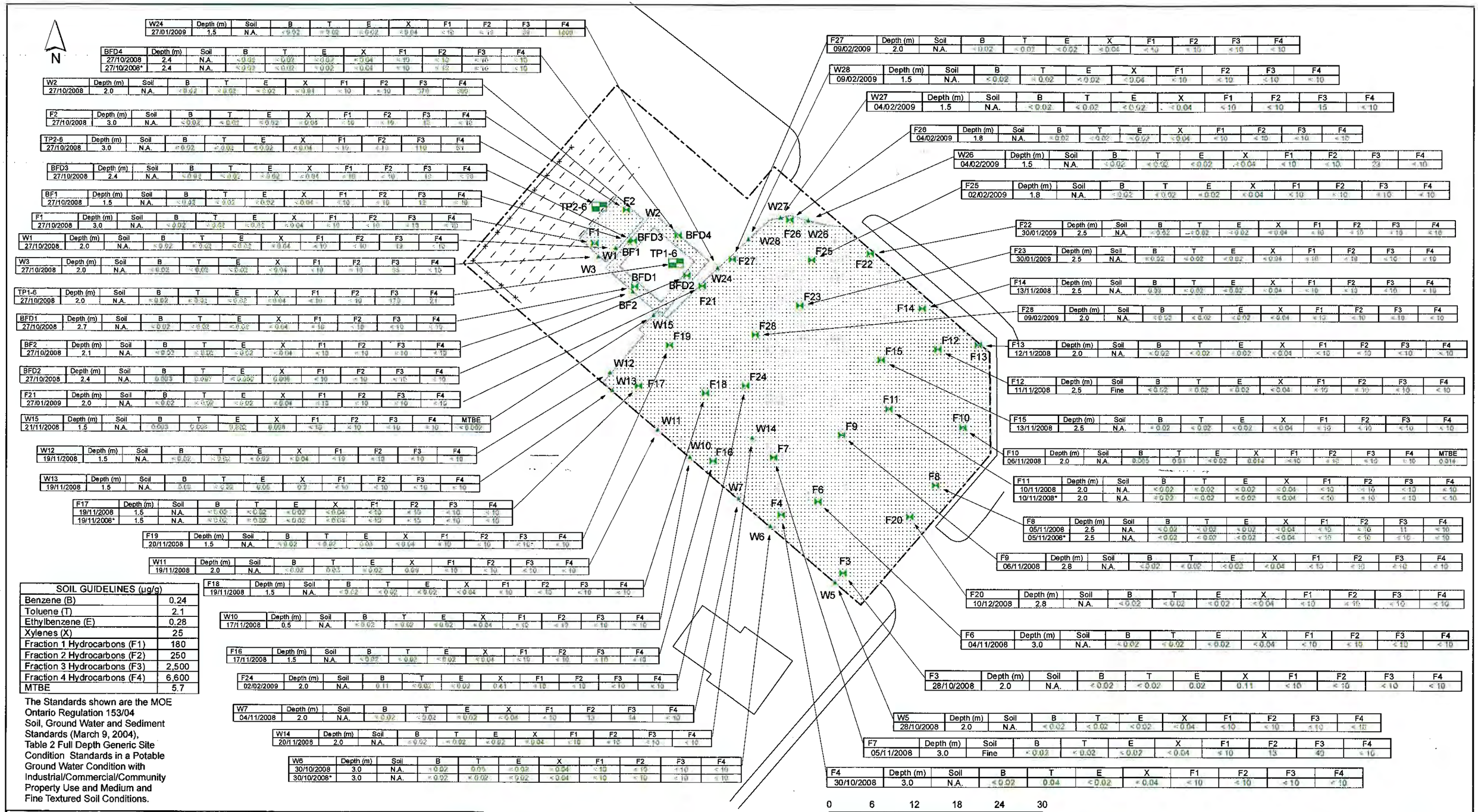
- EXCAVATION EXTENTS
- EXCAVATION WALL WAS REMOVED
- EXCAVATION WALL SAMPLE
- W5@2.0m — SAMPLE SUBMITTED TO LAB DENOTED BY SAMPLE NAME (W4) AND DEPTH (2.0m)
- 2.0m — SOIL SAMPLE DEPTH
- 20 ppm — ORGANIC VAPOUR CONCENTRATION
- ND — NOT DETECTED

WARDROP | Engineering Inc.

CLIENT: **Shell Canada Products**

DWG DESCRIPTION: WALL PROFILES OF REMEDIAL EXCAVATION
ENVIRONMENTAL REMEDIATION DURING SITE DECOMMISSIONING
SHELL LOCATION C05875-OAKVILLE, ONTARIO

DRAWN BY:	HR	DATE: 09.04.14	FIGURE 7 REV. 00
REVISED BY:	JG	DATE: 09.04.17	
DESIGNED BY:	JG	CHECKED BY: JG	DWG NO. 0813480103-SKT-V0012



W24	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
27/01/2009	1.5	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	1400

BFD4	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
27/10/2008	2.4	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10
27/10/2008*	2.4	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

W2	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
27/10/2008	2.0	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	370	360

F2	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
27/10/2008	3.0	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	16	< 10

TP2-6	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
27/10/2008	3.0	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	110	61

BFD3	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
27/10/2008	2.4	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	15	< 10

BF1	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
27/10/2008	1.5	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	12	< 10

F1	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
27/10/2008	3.0	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

W1	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
27/10/2008	2.0	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

W3	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
27/10/2008	2.0	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	33	< 10

TP1-6	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
27/10/2008	2.0	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	170	21

BFD1	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
27/10/2008	2.7	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

BF2	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
27/10/2008	2.1	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

BFD2	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
27/10/2008	2.4	N.A.	0.003	0.007	< 0.002	0.006	< 10	< 10	< 10	< 10

F21	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
27/01/2009	2.0	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

W15	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4	MTBE
21/11/2008	1.5	N.A.	0.003	0.005	0.002	0.005	< 10	< 10	< 10	< 10	< 0.002

W12	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
19/11/2008	1.5	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

W13	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
19/11/2008	1.5	N.A.	0.03	< 0.02	0.05	0.2	< 10	< 10	< 10	< 10

F17	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
19/11/2008	1.5	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10
19/11/2008*	1.5	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

F19	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
20/11/2008	1.5	N.A.	< 0.02	< 0.02	0.03	< 0.04	< 10	< 10	< 10	< 10

W11	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
19/11/2008	2.0	N.A.	< 0.02	0.03	< 0.02	0.09	< 10	< 10	< 10	< 10

F18	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
19/11/2008	1.5	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

W10	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
17/11/2008	0.5	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

F16	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
17/11/2008	1.5	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

F24	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
02/02/2009	2.0	N.A.	0.11	< 0.02	< 0.02	0.41	< 10	< 10	< 10	< 10

W7	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
04/11/2008	2.0	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	13	14	< 10

W14	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
20/11/2008	2.0	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

W6	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
30/10/2008	3.0	N.A.	< 0.02	0.05	< 0.02	< 0.04	< 10	< 10	< 10	< 10
30/10/2008*	3.0	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

F27	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
09/02/2009	2.0	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

W28	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
09/02/2009	1.5	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

W27	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
04/02/2009	1.5	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	15	< 10

F26	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
04/02/2009	1.8	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

W26	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
04/02/2009	1.5	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	24	< 10

F25	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
02/02/2009	1.8	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

F22	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
30/01/2009	2.5	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

F23	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
30/01/2009	2.5	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

F14	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
13/11/2008	2.5	N.A.	0.03	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

F28	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
09/02/2009	2.0	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

F13	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
12/11/2008	2.0	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

F12	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
11/11/2008	2.5	Fine	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

F15	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
13/11/2008	2.5	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

F10	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4	MTBE
06/11/2008	2.0	N.A.	0.003	0.01	< 0.02	0.014	< 10	< 10	< 10	< 10	0.014

F11	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
10/11/2008	2.0	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10
10/11/2008*	2.0	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

F8	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
05/11/2008	2.5	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	11	< 10	< 10
05/11/2008*	2.5	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

F9	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
06/11/2008	2.8	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

F20	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
10/12/2008	2.8	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

F6	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
04/11/2008	3.0	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

F3	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
28/10/2008	2.0	N.A.	< 0.02	< 0.02	0.02	0.11	< 10	< 10	< 10	< 10

W5	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
28/10/2008	2.0	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

F7	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
05/11/2008	3.0	Fine	< 0.02	< 0.02	< 0.02	< 0.04	< 10	13	40	< 10

F4	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
30/10/2008	3.0	N.A.	< 0.02	0.04	< 0.02	< 0.04	< 10	< 10	< 10	< 10

SOIL GUIDELINES (µg/g)	
Benzene (B)	0.24
Toluene (T)	2.1
Ethylbenzene (E)	0.28
Xylenes (X)	25
Fraction 1 Hydrocarbons (F1)	180
Fraction 2 Hydrocarbons (F2)	250
Fraction 3 Hydrocarbons (F3)	2,500
Fraction 4 Hydrocarbons (F4)	6,600
MTBE	5.7

The Standards shown are the MOE Ontario Regulation 153/04 Soil, Ground Water and Sediment Standards (March 9, 2004), Table 2 Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.

LEGEND

PROPERTY LINE	* FIELD DUPLICATE SAMPLE
FENCE LINE	27/10/2008 SOIL SAMPLING DATE (DD/MM/YYYY)
EXCAVATION BASE SAMPLE	0.05 SOIL SAMPLE CONCENTRATION (µg/g)
EXCAVATION WALL SAMPLE	GREEN SOIL ANALYTICAL < STANDARDS
TEST PIT	RED SOIL ANALYTICAL >STANDARDS
(m) METRES	EXCAVATION LIMITS
N.A. NOT ANALYZED	

No.	DESCRIPTION	DATE	ISSUED BY
00	ISSUED TO CLIENT	09.04.27	JG

REVISIONS/ISSUE

WARDROP Engineering Inc.

CLIENT: SHELL CANADA PRODUCTS

DWG DESCRIPTION: SITE PLAN SHOWING SOIL ANALYTICAL RESULTS
ENVIRONMENTAL REMEDIATION DURING SITE DECOMMISSIONING
SHELL LOCATION No. C05875 - OAKVILLE, ON

DRAWN BY:	HR	DATE:	09.04.15
REVISED BY:	HR	DATE:	09.04.17
DESIGNED BY:	JG	CHECKED BY:	JG

FIGURE 8 REV. 00

DWG NO. 0813480103-SKT-V0014

TABLE 1 pH and GRAIN SIZE ANALYSES					
Sample ID	**Depth (mbg)**	**pH**	**Percent (by Mass) of Particles Finer than 75 µm in Mean Diameter**	**Soil Texture[1]**	**Soil Type**
F7	3.0	7.86	86	Medium and Fine	Silty Clay[2]
F12	2.5	-	82	Medium and Fine	Silty Clay[2]
W9	1.0	7.58	-	-	Silty Clay[2]

Notes:

1. Soil texture is defined in the MOE Soil, Ground Water and Sediment Standards (March 9, 2004) as the following: If it is determined that at least 1/3 of the soil at the property measured by volume consists of "coarse textured soil" (means soil that contains more than 50 per cent by mass of particles that are 75 micrometres or larger in mean diameter) the standard for coarse textured soil shall be applied; or in any other case, the standard for "medium and fine" (means soil that contains 50 percent or more by mass of particles that are smaller than 75 micrometres in mean diameter) textured soil shall be applied.
2. Soil type description for this sample is based on field observations only.

Table Abbreviations: (mbg) = metres below grade; (µm) = micrometres.

TABLE 2
SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS
TEST PITS

Sample ID Laboratory ID	RDL	UNITS	TP1-6 AX2700	TP2-6 AX2706	*MOE Reg 153/04 Table 2 Standard* [1]
OVM Reading	-	ppm/% LEL	20 ppm	60 ppm	-
Sample Depth	-	mbg	2.0	3.0	-
Sampling Date	-	-	27-Oct-08	27-Oct-08	-
Benzene	0.02	µg/g	<	<	0.24
Toluene	0.02	µg/g	<	<	2.1
Ethylbenzene	0.02	µg/g	<	<	0.28
Total Xylenes	0.04	µg/g	<	<	25
F1 (C6-C10; excluding BTEX)	10	µg/g	<	<	180
F2 (>C10-C16)	10	µg/g	<	<	250
F3 (>C16-C34)	10	µg/g	170	110	2,500
F4 (>C34-C50)	10	µg/g	21	51	6,600

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), Table 2 Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL];
(µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit;
(OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (mbg) = meters below grade

TABLE 3
SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS AND MTBE
SERVICE BUILDING FOOTING EXCAVATION SAMPLES

Sample ID Laboratory ID	RDL	UNITS	BF1 AX2693	BF2 AX2696	BFD1 AX2694	BFD2 AX2695	BFD3 AX2697	*MOE Reg 153/04 Table 2 Standard* [1]
OVM Reading	-	ppm/% LEL	25 ppm	25 ppm	25 ppm	25 ppm	30 ppm	-
Sample Depth	-	mbg	1.5	2.1	2.7	2.4	2.4	-
Sampling Date	-	-	27-Oct-08	27-Oct-08	27-Oct-08	27-Oct-08	27-Oct-08	-
Benzene	0.02	µg/g	<	<	<	0.003	<	0.24
Toluene	0.02	µg/g	<	<	<	0.007	<	2.1
Ethylbenzene	0.02	µg/g	<	<	<	<0.002	<	0.28
Total Xylenes	0.04	µg/g	<	<	<	0.006	<	25
F1 (C6-C10; excluding BTEX)	10	µg/g	<	<	<	<	<	180
F2 (>C10-C16)	10	µg/g	<	<	<	<	<	250
F3 (>C16-C34)	10	µg/g	12	<	<	<	10	2,500
F4 (>C34-C50)	10	µg/g	<	<	<	<	<	6,600
MTBE	0.002	µg/g	NA	NA	NA	<	NA	5.7

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), Table 2 Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NA) = not analysed; (mbg) = meters below grade.

TABLE 3 Continued
SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS AND MTBE
SERVICE BUILDING FOOTING EXCAVATION SAMPLES

Sample ID Laboratory ID	RDL	UNITS	BFD4 AX2698	DUP1 AX2699 Field Duplicate of BFD4	*MOE Reg 153/04 Table 2 Standard* [1]
OVM Reading	-	ppm/% LEL	25 ppm	25 ppm	-
Sample Depth	-	mbg	2.4	2.4	-
Sampling Date	-	-	27-Oct-08	27-Oct-08	-
Benzene	0.02	µg/g	<	<	0.24
Toluene	0.02	µg/g	<	<	2.1
Ethylbenzene	0.02	µg/g	<	<	0.28
Total Xylenes	0.04	µg/g	<	<	25
F1 (C6-C10; excluding BTEX)	10	µg/g	<	<	180
F2 (>C10-C16)	10	µg/g	<	<	250
F3 (>C16-C34)	10	µg/g	<	<	2,500
F4 (>C34-C50)	10	µg/g	<	<	6,600
MTBE	0.002	µg/g	NA	NA	5.7

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), Table 2 Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL];
(µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit;
(OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NA) = not analysed; (mbg) = meters below grade.

TABLE 4
SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS
SEPTIC TANK EXCAVATION - CONFIRMATORY WALL SAMPLES

Sample ID Laboratory ID	RDL	UNITS	W1 AX2701	W2 AX2702	W3 AX2703	*MOE Reg 153/04 Table 2 Standard* [1]
OVM Reading	-	ppm/% LEL	75 ppm	75 ppm	60 ppm	-
Sample Depth	-	mbg	2.0	2.0	2.0	-
Sampling Date	-	-	27-Oct-08	27-Oct-08	27-Oct-08	-
Benzene	0.02	µg/g	<	<	<	0.24
Toluene	0.02	µg/g	<	<	<	2.1
Ethylbenzene	0.02	µg/g	<	<	<	0.28
Total Xylenes	0.04	µg/g	<	<	<	25
F1 (C6-C10; excluding BTEX)	10	µg/g	<	<	<	180
F2 (>C10-C16)	10	µg/g	<	<	<	250
F3 (>C16-C34)	10	µg/g	19	370	38	2,500
F4 (>C34-C50)	10	µg/g	<	**880**[2]	<	6,600

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), Table 2 Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. F4 did not reach baseline at C50 and F4 gravimetric (F4g) analysis was performed. F4g result, which is the greater of F4 and F4g, is reported.
3. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (mbg) = meters below grade

TABLE 5
SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS
SEPTIC TANK EXCAVATION - CONFIRMATORY FLOOR SAMPLES

Sample ID Laboratory ID	RDL	UNITS	F1 AX2704	F2 AX2705	*MOE Reg 153/04 Table 2 Standard* [1]
OVM Reading	-	ppm/% LEL	25 ppm	25 ppm	-
Sample Depth	-	mbg	3.0	3.0	-
Sampling Date	-	-	27-Oct-08	27-Oct-08	-
Benzene	0.02	µg/g	<	<	0.24
Toluene	0.02	µg/g	<	<	2.1
Ethylbenzene	0.02	µg/g	<	<	0.28
Total Xylenes	0.04	µg/g	<	<	25
F1 (C6-C10; excluding BTEX)	10	µg/g	<	<	180
F2 (>C10-C16)	10	µg/g	<	<	250
F3 (>C16-C34)	10	µg/g	<	13	2,500
F4 (>C34-C50)	10	µg/g	<	<	6,600

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), Table 2 Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (mbg) = meters below grade

TABLE 6
SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS AND MTBE
REMEDIAL EXCAVATION - CONFIRMATORY WALL SAMPLES

Sample ID Laboratory ID	RDL	UNITS	W5 AX9270	W6 AY2613	DUP2 AY2614 Field Duplicate of W6	W7 AZ7054	W10 BC3214	*MOE Reg 153/04 Table 2 Standard* [1]
OVM Reading	-	ppm/% LEL	70 ppm	60 ppm	60 ppm	60 ppm	30 ppm	-
Sample Depth	-	mbg	2.0	3.0	3.0	2.0	0.5	-
Sampling Date	-	-	28-Oct-08	30-Oct-08	30-Oct-08	4-Nov-08	17-Nov-08	-
Benzene	0.02	µg/g	<	<	<	<	<	0.24
Toluene	0.02	µg/g	<	0.05	<	<	<	2.1
Ethylbenzene	0.02	µg/g	<	<	<	<	<	0.28
Total Xylenes	0.04	µg/g	<	<	<	<	<	25
F1 (C6-C10; excluding BTEX)	10	µg/g	<	<	<	<	<	180
F2 (>C10-C16)	10	µg/g	<	<	<	13	<	250
F3 (>C16-C34)	10	µg/g	<	<	<	14	<	2,500
F4 (>C34-C50)	10	µg/g	<	<	<	<	<	6,600
MTBE	0.002	µg/g	NA	NA	NA	NA	NA	5.7

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. F4 did not reach baseline at C50 and F4 gravimetric (F4g) analysis was performed. F4g result, which is the greater of F4 and F4g, is reported.
3. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (mbg) = meters below grade; (NA) = not analyzed

TABLE 6 Continued
SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS AND MTBE
REMEDIAL EXCAVATION - CONFIRMATORY WALL SAMPLES

Sample ID Laboratory ID	RDL	UNITS	W11 BC6803	W12 BC6804	W13 BC6808	W14 BD0495	W15 BD3032	*MOE Reg 153/04 Table 2 Standard* [1]
OVM Reading	-	ppm/% LEL	75 ppm	60 ppm	30 ppm	25 ppm	30 ppm	-
Sample Depth	-	mbg	2.0	1.5	1.5	2.0	1.5	-
Sampling Date	-	-	19-Nov-08	19-Nov-08	19-Nov-08	20-Nov-08	21-Nov-08	-
Benzene	0.02	µg/g	<	<	0.03	<	0.003	0.24
Toluene	0.02	µg/g	0.03	<	<	<	0.008	2.1
Ethylbenzene	0.02	µg/g	<	<	0.05	<	<0.002	0.28
Total Xylenes	0.04	µg/g	0.09	<	0.20	<	0.008	25
F1 (C6-C10; excluding BTEX)	10	µg/g	<	<	<	<	<	180
F2 (>C10-C16)	10	µg/g	<	<	<	<	<	250
F3 (>C16-C34)	10	µg/g	<	<	<	<	<	2,500
F4 (>C34-C50)	10	µg/g	<	<	<	<	<	6,600
MTBE	0.002	µg/g	NA	NA	NA	NA	<	5.7

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. F4 did not reach baseline at C50 and F4 gravimetric (F4g) analysis was performed. F4g result, which is the greater of F4 and F4g, is reported.
3. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (mbg) = meters below grade; (NA) = not analyzed

TABLE 6 Continued
SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS AND MTBE
REMEDIAL EXCAVATION - CONFIRMATORY WALL SAMPLES

Sample ID Laboratory ID	RDL	UNITS	W24 BP6323	W26 BR0442	W27 BR0443	W28 BR7697	*MOE Reg 153/04 Table 2 Standard* [1]
OVM Reading	-	ppm/% LEL	20 ppm	60 ppm	60 ppm	70 ppm	-
Sample Depth	-	mbg	1.5	1.5	1.5	1.5	-
Sampling Date	-	-	27-Jan-09	4-Feb-09	4-Feb-09	9-Feb-09	-
Benzene	0.02	µg/g	<	<	<	<	0.24
Toluene	0.02	µg/g	<	<	<	<	2.1
Ethylbenzene	0.02	µg/g	<	<	<	<	0.28
Total Xylenes	0.04	µg/g	<	<	<	<	25
F1 (C6-C10; excluding BTEX)	10	µg/g	<	<	<	<	180
F2 (>C10-C16)	10	µg/g	<	<	<	<	250
F3 (>C16-C34)	10	µg/g	89	23	15	<	2,500
F4 (>C34-C50)	10	µg/g	1800[2]	<	<	<	6,600
MTBE	0.002	µg/g	NA	NA	NA	NA	5.7

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. F4 did not reach baseline at C50 and F4 gravimetric (F4g) analysis was performed. F4g result, which is the greater of F4 and F4g, is reported.
3. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (mbg) = meters below grade; (NA) = not analyzed

TABLE 7
SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS AND MTBE
REMEDIAL EXCAVATION - CONFIRMATORY FLOOR SAMPLES

Sample ID Laboratory ID	RDL	UNITS	F3 AX9269	F4 AY2615	F6 AZ7053	F7 AZ7056	F8 AZ7057	*MOE Reg 153/04 Table 2 Standard* [1]
OVM Reading	-	ppm/% LEL	25 ppm	60 ppm	60 ppm	60 ppm	100 ppm	-
Sample Depth	-	mbg	2.0	3.0	3.0	3.0	2.5	-
Sampling Date	-	-	28-Oct-08	30-Oct-08	4-Nov-08	5-Nov-08	5-Nov-08	-
Benzene	0.02	µg/g	<	<	<	<	<	0.24
Toluene	0.02	µg/g	<	0.04	<	<	<	2.1
Ethylbenzene	0.02	µg/g	0.02	<	<	<	<	0.28
Total Xylenes	0.04	µg/g	0.11	<	<	<	<	25
F1 (C6-C10; excluding BTEX)	10	µg/g	<	<	<	<	<	180
F2 (>C10-C16)	10	µg/g	<	<	<	13	<	250
F3 (>C16-C34)	10	µg/g	<	<	<	40	11	2,500
F4 (>C34-C50)	10	µg/g	<	<	<	<	<	6,600
MTBE	0.002	µg/g	NA	NA	NA	NA	NA	5.7

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (mbg) = meters below grade; (NA) = not analyzed

TABLE 7 Continued
SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS AND MTBE
REMEDIAL EXCAVATION - CONFIRMATORY FLOOR SAMPLES

Sample ID Laboratory ID	RDL	UNITS	DUP3 AZ7058 Field Duplicate of F8	F9 BA0503	F10 BA0504	F11 BA9490	DUP4 BA9491 Field Duplicate of F11	*MOE Reg 153/04 Table 2 Standard* [1]
OVM Reading	-	ppm/% LEL	100 ppm	60 ppm	75 ppm	50 ppm	50 ppm	-
Sample Depth	-	mbg	2.5	2.8	2.0	2.0	2.0	-
Sampling Date	-	-	5-Nov-08	6-Nov-08	6-Nov-08	10-Nov-08	10-Nov-08	-
Benzene	0.02	µg/g	<	<	0.005	<	<	0.24
Toluene	0.02	µg/g	<	<	0.010	<	<	2.1
Ethylbenzene	0.02	µg/g	<	<	<	<	<	0.28
Total Xylenes	0.04	µg/g	<	<	0.014	<	<	25
F1 (C6-C10; excluding BTEX)	10	µg/g	<	<	<	<	<	180
F2 (>C10-C16)	10	µg/g	<	<	<	<	<	250
F3 (>C16-C34)	10	µg/g	<	<	<	<	<	2,500
F4 (>C34-C50)	10	µg/g	<	<	<	<	<	6,600
MTBE	0.002	µg/g	NA	NA	0.014	NA	NA	5.7

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (mbg) = meters below grade; (NA) = not analyzed

TABLE 7 Continued
SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS AND MTBE
REMEDIAL EXCAVATION - CONFIRMATORY FLOOR SAMPLES

Sample ID Laboratory ID	RDL	UNITS	F12 BA9494	F13 BB6749	F14 BB6751	F15 BB6752	F16 BC3215	*MOE Reg 153/04 Table 2 Standard* [1]
OVM Reading	-	ppm/% LEL	70 ppm	50 ppm	50 ppm	50 ppm	50 ppm	-
Sample Depth	-	mbg	2.5	2.0	2.5	2.5	1.5	-
Sampling Date	-	-	11-Nov-08	12-Nov-08	13-Nov-08	13-Nov-08	17-Nov-08	-
Benzene	0.02	µg/g	<	<	0.03	<	<	0.24
Toluene	0.02	µg/g	<	<	<	<	<	2.1
Ethylbenzene	0.02	µg/g	<	<	<	<	<	0.28
Total Xylenes	0.04	µg/g	<	<	<	<	<	25
F1 (C6-C10; excluding BTEX)	10	µg/g	<	<	<	<	<	180
F2 (>C10-C16)	10	µg/g	<	<	<	<	<	250
F3 (>C16-C34)	10	µg/g	<	<	<	<	<	2,500
F4 (>C34-C50)	10	µg/g	<	<	<	<	<	6,600
MTBE	0.002	µg/g	NA	NA	NA	NA	NA	5.7

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (mbg) = meters below grade; (NA) = not analyzed

TABLE 7 Continued
SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS AND MTBE
REMEDIAL EXCAVATION - CONFIRMATORY FLOOR SAMPLES

Sample ID Laboratory ID	RDL	UNITS	F17 BC6805	DUP5 BC6806 Field Duplicate of F17	F18 BC6807	F19 BD0496	F20 BI1218	*MOE Reg 153/04 Table 2 Standard* [1]
OVM Reading	-	ppm/% LEL	50 ppm	50 ppm	25 ppm	25 ppm	35 ppm	-
Sample Depth	-	mbg	1.5	1.5	1.5	1.5	2.8	-
Sampling Date	-	-	11/19/2008	11/19/2008	11/19/2008	11/20/2008	10-Dec-08	-
Benzene	0.02	µg/g	<	<	<	<	<	0.24
Toluene	0.02	µg/g	<	<	<	<	<	2.1
Ethylbenzene	0.02	µg/g	<	<	<	0.03	<	0.28
Total Xylenes	0.04	µg/g	<	<	<	<	<	25
F1 (C6-C10; excluding BTEX)	10	µg/g	<	<	<	<	<	180
F2 (>C10-C16)	10	µg/g	<	<	<	<	<	250
F3 (>C16-C34)	10	µg/g	<	<	<	<	<	2,500
F4 (>C34-C50)	10	µg/g	<	<	<	<	<	6,600
MTBE	0.002	µg/g	NA	NA	NA	NA	NA	5.7

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (mbg) = meters below grade; (NA) = not analyzed

TABLE 7 Continued
SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS AND MTBE
REMEDIAL EXCAVATION - CONFIRMATORY FLOOR SAMPLES

Sample ID Laboratory ID	RDL	UNITS	F21 BP6324	F22 BP9381	F23 BP9382	F24 BQ5368	F25 BQ5369	*MOE Reg 153/04 Table 2 Standard* [1]
OVM Reading	-	ppm/% LEL	50 ppm	60 ppm	25 ppm	60 ppm	50 ppm	-
Sample Depth	-	mbg	2.0	2.5	2.5	2.0	1.8	-
Sampling Date	-	-	27-Jan-09	30-Jan-09	30-Jan-09	2-Feb-09	2-Feb-09	-
Benzene	0.02	µg/g	<	<	<	0.11	<	0.24
Toluene	0.02	µg/g	<	<	<	<	<	2.1
Ethylbenzene	0.02	µg/g	<	<	<	<	<	0.28
Total Xylenes	0.04	µg/g	<	<	<	0.41	<	25
F1 (C6-C10; excluding BTEX)	10	µg/g	<	<	<	<	<	180
F2 (>C10-C16)	10	µg/g	<	<	<	<	<	250
F3 (>C16-C34)	10	µg/g	<	<	<	<	<	2,500
F4 (>C34-C50)	10	µg/g	<	<	<	<	<	6,600
MTBE	0.002	µg/g	NA	NA	NA	NA	NA	5.7

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (mbg) = meters below grade; (NA) = not analyzed

TABLE 7 Continued
SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS AND MTBE
REMEDIAL EXCAVATION - CONFIRMATORY FLOOR SAMPLES

Sample ID Laboratory ID	RDL	UNITS	F26 BR0441	F27 BR7696	F28 BR7699	*MOE Reg 153/04 Table 2 Standard* [1]
OVM Reading	-	ppm/% LEL	50 ppm	50 ppm	50 ppm	-
Sample Depth	-	mbg	1.8	2.0	2.0	-
Sampling Date	-	-	4-Feb-09	9-Feb-09	9-Feb-09	-
Benzene	0.02	µg/g	<	<	<	0.24
Toluene	0.02	µg/g	<	<	<	2.1
Ethylbenzene	0.02	µg/g	<	<	<	0.28
Total Xylenes	0.04	µg/g	<	<	<	25
F1 (C6-C10; excluding BTEX)	10	µg/g	<	<	<	180
F2 (>C10-C16)	10	µg/g	<	<	<	250
F3 (>C16-C34)	10	µg/g	<	<	<	2,500
F4 (>C34-C50)	10	µg/g	<	<	<	6,600
MTBE	0.002	µg/g	NA	NA	NA	5.7

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), Table 2 Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (mbg) = meters below grade; (NA) = not analyzed

TABLE 8
SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS AND MTBE
REUSABLE BACKFILL SAMPLES

Sample ID Laboratory ID	RDL	UNITS	BF10 BG1988	BF11 BG1989	BF12 BG1989	BF13 BH4912	BF14 BH4913	*MOE Reg 153/04 Table 2 Standard*[1]
OVM Reading	-	ppm/% LEL	50 ppm	20 ppm	75 ppm	80 ppm	30 ppm	-
Sampling Date	-	-	4-Dec-08	4-Dec-08	4-Dec-08	9-Dec-08	9-Dec-08	-
Benzene	0.02	µg/g	<	<	<	<	<	0.24
Toluene	0.02	µg/g	0.12	0.07	0.12	0.09	0.03	2.1
Ethylbenzene	0.02	µg/g	0.21	0.13	0.27	0.20	0.16	0.28
Total Xylenes	0.04	µg/g	2.0	0.78	2.7	1.6	1.2	25
F1 (C6-C10; excluding BTEX)	10	µg/g	52	27	43	35	34	180
F2 (>C10-C16)	10	µg/g	39	16	53	19	26	250
F3 (>C16-C34)	10	µg/g	110	56	64	<	12	2,500
F4 (>C34-C50)	10	µg/g	510[2]	79	83	<	<	6,600
MTBE	0.002	µg/g	NA	NA	NA	NA	NA	5.7

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. F4 did not reach baseline at C50 and F4 gravimetric (F4g) analysis was performed. F4g result, which is the greater of F4 and F4g, is reported.
3. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NA) = not analyzed

TABLE 8 Continued
SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS AND MTBE
REUSABLE BACKFILL SAMPLES

Sample ID Laboratory ID	RDL	UNITS	BF15 BI7736	BF16 BI7737	BF19 BJ4497	BF20 BK2918	*MOE Reg 153/04 Table 2 Standard* [1]
OVM Reading	-	ppm/% LEL	50 ppm	50 ppm	75 ppm	80 ppm	-
Sampling Date	-	-	16-Dec-08	16-Dec-08	18-Dec-08	22-Dec-08	-
Benzene	0.02	µg/g	<	<	<	<	0.24
Toluene	0.02	µg/g	0.07	<	0.11	0.1	2.1
Ethylbenzene	0.02	µg/g	0.14	<	0.11	0.2	0.28
Total Xylenes	0.04	µg/g	1.6	0.32	1.4	4.2	25
F1 (C6-C10; excluding BTEX)	10	µg/g	29	20	60	93	180
F2 (>C10-C16)	10	µg/g	17	13	29	30	250
F3 (>C16-C34)	10	µg/g	35	22	82	19	2,500
F4 (>C34-C50)	10	µg/g	39	29	57	<	6,600
MTBE	0.002	µg/g	NA	NA	NA	<0.1	5.7

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditio
2. F4 did not reach baseline at C50 and F4 gravimetric (F4g) analysis was performed. F4g result, which is the greater of F4 and F4g, is reported.
3. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NA) = not analyzed

TABLE 8 Continued
SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS AND MTBE
REUSABLE BACKFILL SAMPLES

Sample ID Laboratory ID		UNITS	BF21 BL3685	BF22 BL3686	DUP8 BL3687 Field Duplicate of BF22	BF23 BM0217	BF24 BM0218	*MOE Reg 153/04 Table 2 Standard* [1]
OVM Reading	-	ppm/% LEL	25 ppm	25 ppm	25 ppm	75 ppm	80 ppm	-
Sampling Date	-	-	6-Jan-09	6-Jan-09	6-Jan-09	9-Jan-09	9-Jan-09	-
Benzene	0.02	µg/g	<	<	0.08	0.06	0.04	0.24
Toluene	0.02	µg/g	0.16	0.06	0.28	0.19	0.10	2.1
Ethylbenzene	0.02	µg/g	0.17	0.08	0.12	0.20	0.11	0.28
Total Xylenes	0.04	µg/g	1.3	0.78	0.65	3.8	1.4	25
F1 (C6-C10; excluding BTEX)	10	µg/g	49	34	25	43	18	180
F2 (>C10-C16)	10	µg/g	32	<	52	49	20	250
F3 (>C16-C34)	10	µg/g	38	<	41	23	<	2,500
F4 (>C34-C50)	10	µg/g	<	<	<	<	<	6,600
MTBE	0.002	µg/g	NA	NA	NA	NA	NA	5.7

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. F4 did not reach baseline at C50 and F4 gravimetric (F4g) analysis was performed. F4g result, which is the greater of F4 and F4g, is reported.
3. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NA) = not analyzed

TABLE 8 Continued
SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS AND MTBE
REUSABLE BACKFILL SAMPLES

Sample ID Laboratory ID	RDL	UNITS	BF25 BP6325	BF27 BR0440	BF36 BT4626	BF37 BU1449	BF38 BU1450	*MOE Reg 153/04 Table 2 Standard* [1]
OVM Reading	-	ppm/% LEL	25 ppm	60 ppm	50 ppm	75 ppm	40 ppm	-
Sampling Date	-	-	29-Jan-09	4-Feb-09	18-Feb-09	20-Feb-09	20-Feb-09	-
Benzene	0.02	µg/g	<	<	<	0.04	<	0.24
Toluene	0.02	µg/g	<	<	<	<	0.04	2.1
Ethylbenzene	0.02	µg/g	0.07	<	0.15	0.05	0.08	0.28
Total Xylenes	0.04	µg/g	0.18	<	0.40	0.47	0.63	25
F1 (C6-C10; excluding BTEX)	10	µg/g	<	<	24	21	29	180
F2 (>C10-C16)	10	µg/g	20	<	14	13	27	250
F3 (>C16-C34)	10	µg/g	36	<	37	45	54	2,500
F4 (>C34-C50)	10	µg/g	77	<	28	230[2]	200[2]	6,600
MTBE	0.002	µg/g	NA	NA	NA	NA	NA	5.7

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. F4 did not reach baseline at C50 and F4 gravimetric (F4g) analysis was performed. F4g result, which is the greater of F4 and F4g, is reported.
3. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NA) = not analyzed

TABLE 8 Continued
SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS AND MTBE
REUSABLE BACKFILL SAMPLES

Sample ID Laboratory ID	RDL	UNITS	DUP 11 Field Duplicate of BF38 BU1451	BF39 BU6089	BF40 BU6090	BF41 BU7335	*MOE Reg 153/04 Table 2 Standard* [1]
OVM Reading	-	ppm/% LEL	40 ppm	40 ppm	30 ppm	90 ppm	-
Sampling Date	-	-	20-Feb-09	23-Feb-09	23-Feb-09	24-Feb-09	-
Benzene	0.02	µg/g	<	<	<	0.02	0.24
Toluene	0.02	µg/g	0.03	<	<	0.03	2.1
Ethylbenzene	0.02	µg/g	0.05	0.13	0.13	0.10	0.28
Total Xylenes	0.04	µg/g	0.45	0.39	0.33	0.97	25
F1 (C6-C10; excluding BTEX)	10	µg/g	24	49	21	34	180
F2 (>C10-C16)	10	µg/g	16	<	<	23	250
F3 (>C16-C34)	10	µg/g	42	64	40	50	2,500
F4 (>C34-C50)	10	µg/g	130[2]	410[2]	100[2]	26	6,600
MTBE	0.002	µg/g	NA	NA	NA	NA	5.7

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. F4 did not reach baseline at C50 and F4 gravimetric (F4g) analysis was performed. F4g result, which is the greater of F4 and F4g, is reported.
3. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NA) = not analyzed

TABLE 9
SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS
IMPORTED BACKFILL SAMPLE

Sample ID Laboratory ID	RDL	UNITS	IMPBF-2 BD7141	IMPBF-3 BW4399	*MOE Reg 153/04 Table 2 Standard* [1]
OVM Reading	-	ppm/% LEL	-	-	-
Sampling Date	-	-	24-Nov-08	4-Mar-09	-
Benzene	0.02	µg/g	<	<	0.24
Toluene	0.02	µg/g	<	<	2.1
Ethylbenzene	0.02	µg/g	<	<	0.28
Total Xylenes	0.04	µg/g	<	<	25
F1 (C6-C10; excluding BTEX)	10	µg/g	<	<	180
F2 (>C10-C16)	10	µg/g	<	<	250
F3 (>C16-C34)	10	µg/g	<	<	2,500
F4 (>C34-C50)	10	µg/g	<	<	6,600

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), Table 2 Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NA) = not analyzed

TABLE 10
SUMMARY OF SOIL LABORATORY ANALYSES
METALS
IMPORTED BACKFILL SAMPLE

Sample ID Laboratory ID	RDL	UNITS	IMPBF-2 BD7141	IMPBF-3 BW4399	*MOE Reg 153/04 Table 2 Standard* [1]
OVM Reading	-	ppm/% LEL	-	-	-
Sampling Date	-	-	24-Nov-08	4-Mar-09	-
Antimony	0.2	µg/g	<	<	44
Arsenic	1	µg/g	4	3	50
Barium	0.5	µg/g	34	13	2,000
Beryllium	0.2	µg/g	<	<	1.2
Cadmium	0.1	µg/g	0.3	1.1	12
Chromium (VI)	0.2	µg/g	NA	<	10
Chromium	1	µg/g	5	5	1,000
Cobalt	0.1	µg/g	3.7	2.8	100
Copper	0.5	µg/g	32	34	300
Lead	1	µg/g	16	80	1,000
Molybdenum	0.5	µg/g	<	<	40
Nickel	0.5	µg/g	5.7	5.4	200
Selenium	0.5	µg/g	<	<	10
Silver	0.2	µg/g	<	<	50
Thallium	0.05	µg/g	0.08	0.05	32
Vanadium	5	µg/g	9	10	250
Zinc	5	µg/g	110	470	800

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), Table 2 Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NA) = not analyzed

TABLE 11
SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS
INTERIM SOIL PILE SAMPLES TREATED BY ALLU BUCKET

Sample ID Laboratory ID	RDL	UNITS	W4 AX9268	F5 AY2616	W8 BA9489	W9 BB6750	BF3 AZ7055	*MOE Reg 153/04 Table 2 Standard* [1]
OVM Reading	-	ppm/% LEL	100% LEL	100 ppm	50	60 ppm	80 ppm	-
Sample Depth	-	mbg	2.0	2.5	1.5	1.0	-	-
Sampling Date	-	-	28-Oct-08	31-Oct-08	10-Nov-08	13-Nov-08	4-Nov-08	-
Benzene	0.02	µg/g	0.18	**0.72**	**0.25**	<	<	0.24
Toluene	0.02	µg/g	0.14	<	0.08	<	0.14	2.1
Ethylbenzene	0.02	µg/g	**4.3**	<	<	<	**0.36**	0.28
Total Xylenes	0.04	µg/g	19	<	0.06	<	2.4	25
F1 (C6-C10; excluding BTEX)	10	µg/g	120	<	<	<	<	180
F2 (>C10-C16)	10	µg/g	<	<	<	<	18	250
F3 (>C16-C34)	10	µg/g	<	<	<	<	19	2,500
F4 (>C34-C50)	10	µg/g	<	<	<	<	<	6,600

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.
3. F4 did not reach baseline at C50.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (mbg) = meters below grade; (NA) = not analyzed

TABLE 11 Continued
SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS
INTERIM SOIL PILE SAMPLES TREATED BY ALLU BUCKET

Sample ID Laboratory ID	RDL	UNITS	BF4-W01 BA9492	BF5-W02 BA9493	BF6-AB BA9495	BF7-AB BA9496	CFD-1 AX9271	*MOE Reg 153/04 Table 2 Standard*[1]
OVM Reading	-	ppm/% LEL	10% LEL	15% LEL	60 ppm	80 ppm	25 ppm	-
Sample Depth	-	mbg	-	-	-	-	1.8	-
Sampling Date	-	-	11-Nov-08	11-Nov-08	11-Nov-08	11-Nov-08	28-Oct-08	-
Benzene	0.02	µg/g	<	**1.4**	<	<	<	0.24
Toluene	0.02	µg/g	<	1.3	0.05	0.07	<	2.1
Ethylbenzene	0.02	µg/g	**0.61**	**17**	0.24	**0.29**	<	0.28
Total Xylenes	0.04	µg/g	1.3	**68**	1.5	1.5	0.06	25
F1 (C6-C10; excluding BTEX)	10	µg/g	**200**	**800**	31	28	<	180
F2 (>C10-C16)	10	µg/g	44	150	<	<	<	250
F3 (>C16-C34)	10	µg/g	<	<	<	<	<	2,500
F4 (>C34-C50)	10	µg/g	<	<	<	<	<	6,600

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.
3. F4 did not reach baseline at C50.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (mbg) = meters below grade; (NA) = not analyzed

TABLE 11 Continued
SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS
INTERIM SOIL PILE SAMPLES TREATED BY ALLU BUCKET

Sample ID Laboratory ID	RDL	UNITS	CFD-2 AX9272	BF17 BJ4494	DUP 7 BJ4495 Field Duplicate of BF17	BF18 BJ4496	BF26 BR0439	*MOE Reg 153/04 Table 2 Standard*[1]
OVM Reading	-	ppm/% LEL	100 ppm	60 ppm	60 ppm	60 ppm	50 ppm	-
Sample Depth	-	mbg	1.8	-	-	-	-	-
Sampling Date	-	-	28-Oct-08	17-Dec-08	17-Dec-08	18-Dec-08	4-Feb-09	-
Benzene	0.02	µg/g	0.03	<	<	<	<	0.24
Toluene	0.02	µg/g	<	<	0.10	0.13	<	2.1
Ethylbenzene	0.02	µg/g	0.09	0.06	**7.0**	**0.33**	**0.35**	0.28
Total Xylenes	0.04	µg/g	0.38	0.30	12	2.6	0.49	25
F1 (C6-C10; excluding BTEX)	10	µg/g	<	<	160	60	45	180
F2 (>C10-C16)	10	µg/g	<	<	11	19	45	250
F3 (>C16-C34)	10	µg/g	<	35	79	98	150	2,500
F4 (>C34-C50)	10	µg/g	<	<	32	42	110[3]	6,600

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.
3. F4 did not reach baseline at C50.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (mbg) = meters below grade; (NA) = not analyzed

TABLE 11 Continued
SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS
INTERIM SOIL PILE SAMPLES TREATED BY ALLU BUCKET

Sample ID Laboratory ID	RDL	UNITS	BF30 BS9210	BF31 BS9211	DUP10 BS9212 Field Duplicate of BF31	BF32 BT1666	BF33 BT1666	*MOE Reg 153/04 Table 2 Standard*[1]
OVM Reading	-	ppm/% LEL	50 ppm	50 ppm	50 ppm	400 ppm	200 ppm	-
Sample Depth	-	mbg	-	-	-	-	-	-
Sampling Date	-	-	13-Feb-09	13-Feb-09	13-Feb-09	16-Feb-09	16-Feb-09	-
Benzene	0.02	µg/g	0.04	<	<	0.07	<	0.24
Toluene	0.02	µg/g	<	0.03	0.02	0.88	0.17	2.1
Ethylbenzene	0.02	µg/g	**0.30**	0.12	0.11	**0.83**	**0.29**	0.28
Total Xylenes	0.04	µg/g	0.50	0.33	0.31	7.8	2.4	25
F1 (C6-C10; excluding BTEX)	10	µg/g	34	13	12	74	42	180
F2 (>C10-C16)	10	µg/g	11	29	32	28	<	250
F3 (>C16-C34)	10	µg/g	36	36	120	240	88	2,500
F4 (>C34-C50)	10	µg/g	59[3]	59[3]	120[3]	120	71	6,600

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions
2. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.
3. F4 did not reach baseline at C50.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (NV) = no value derived; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NM) = not measured; (mbg) = meters below grade; (NA) = not applicable

TABLE 12
SUMMARY OF SOIL LABORATORY ANALYSES
REGULATION 558/00 TCLP LEACHATE ANALYSIS

Sample ID / Laboratory ID	RDL	UNITS	REG W50404	MOE Schedule 4 [1] Leachate Quality Criteria
Sampling Date	-	-	17-Dec-07	-
Benzene	0.01	mg/L	0.06	0.5
Leachable Total PCBs	3	mg/L	<	0.3
Leachable Benzo(a)pyrene	0.1	mg/L	<	0.001
Leachable Nitrate + Nitrite	1	mg/L	43	1000
Leachable Free Cyanide	0.002	mg/L	<	20
Leachable Fluoride	0.1	mg/L	1.7	150
Leachable Mercury	0.001	mg/L	<	0.1
Leachable Arsenic	0.2	mg/L	<	2.5
Leachable Barium	0.2	mg/L	0.6	100
Leachable Boron	0.1	mg/L	4.3	500
Leachable Cadmium	0.05	mg/L	<	0.5
Leachable Chromium	0.1	mg/L	<	5.0
Leachable Lead	0.1	mg/L	<	5.0
Leachable Selenium	0.2	mg/L	<	1.0
Leachable Silver	0.01	mg/L	<	5
Leachable Uranium	0.01	mg/L	<	10
Ignitability	1	mm/min	NI	NV

Notes: 1. Criteria shown are for contaminants listed in *Schedule 4* of Ontario *Regulation 558/00* derived from the document titled Registration Guidance Manual For Generators of Liquid Industrial and Hazardous Waste, dated October 2000.

2. **Bold** - Parameter exceeded the MOE *Schedule 4* Leachate Quality Criteria.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (NV) = no value derived; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment.

TABLE 13
SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS
INTERIM SAMPLES REMOVED FOR OFF-SITE DISPOSAL

Sample ID Laboratory ID	RDL	UNITS	BF8 BF2479	BF9 BF2480	BF28 BR7695	BF29 BR7698	BF34 BT4624	*MOE Reg 153/04 Table 2 Standard* [1]
OVM Reading	-	ppm/% LEL	50 ppm	35 ppm	50 ppm	75 ppm	275 ppm	-
Sample Depth	-	mbg	-	-			-	-
Sampling Date	-	-	1-Dec-08	1-Dec-08	9-Feb-09	9-Feb-09	17-Feb-09	-
Benzene	0.02	µg/g	<	<	<	<	<	0.24
Toluene	0.02	µg/g	0.12	0.08	<	<	<	2.1
Ethylbenzene	0.02	µg/g	**0.63**	**0.31**	<	<	**0.56**	0.28
Total Xylenes	0.04	µg/g	6.9	3.8	<	<	4.7	25
F1 (C6-C10; excluding BTEX)	10	µg/g	120	72	<	<	73	180
F2 (>C10-C16)	10	µg/g	60	48	26	<	58	250
F3 (>C16-C34)	10	µg/g	53	25	49	11	40	2,500
F4 (>C34-C50)	10	µg/g	<	<	130[2]	<	11	6,600

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. F4 did not reach baseline at C50.
3. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (mbg) = meters below grade

TABLE 13 (Continued)
SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS
INTERIM SAMPLES REMOVED FOR OFF-SITE DISPOSAL

Sample ID Laboratory ID	RDL	UNITS	BF35 BT4625	IMPBF1 BC7137	*MOE Reg 153/04 Table 2 Standard* [1]
OVM Reading	-	ppm/% LEL	250 ppm	-	-
Sample Depth	-	mbg	-	-	-
Sampling Date	-	-	17-Feb-09	18-Nov-08	-
Benzene	0.02	µg/g	<	<	0.24
Toluene	0.02	µg/g	0.03	<	2.1
Ethylbenzene	0.02	µg/g	**0.96**	<	0.28
Total Xylenes	0.04	µg/g	8.7	<	25
F1 (C6-C10; excluding BTEX)	10	µg/g	110	<	180
F2 (>C10-C16)	10	µg/g	76	<	250
F3 (>C16-C34)	10	µg/g	39	<	2,500
F4 (>C34-C50)	10	µg/g	13	<	6,600

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), Table 2 Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. F4 did not reach baseline at C50.
3. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (mbg) = meters below grade

TABLE 14
SUMMARY OF SOIL LABORATORY ANALYSES
METALS
INTERIM SAMPLES REMOVED FOR OFF-SITE DISPOSAL

Sample ID Laboratory ID	RDL	UNITS	IMPBF1 BC7137	*MOE Reg 153/04 Table 2 Standard* [1]
OVM Reading	-	ppm/% LEL	-	-
Sampling Date	-	-	18-Nov-08	-
Boron	0.01	µg/g	0.09	2.0
Antimony	0.2	µg/g	<	44
Arsenic	1	µg/g	3	50
Barium	0.5	µg/g	8.7	2,000
Beryllium	0.2	µg/g	<	1.2
Cadmium	0.1	µg/g	2.8	12
Chromium (VI)	0	µg/g	<	10
Chromium	1	µg/g	3	1,000
Cobalt	0.1	µg/g	0.6	100
Copper	0.5	µg/g	3.1	300
Lead	1	µg/g	400	1,000
Molybdenum	0.5	µg/g	6.0	40
Nickel	0.5	µg/g	2.9	200
Selenium	0.5	µg/g	<	10
Silver	0.2	µg/g	<	50
Thallium	0.05	µg/g	0.09	32
Vanadium	5	µg/g	<	250
Zinc	5	µg/g	**1300**	800

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), Table 2 Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment

TABLE 15
SUMMARY OF EXCAVATION WATER LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS AND MTBE

Sample ID Laboratory ID	RDL	UNITS	WW1 BI0979	WW2 BL1041	WW3 BT1651	*MOE Reg 153/04 Table 2* [1]
OVM Reading	-	ppm/% LEL	-	-	-	-
Sampling Date	-	-	12-Dec-08	5-Jan-09	16-Feb-09	-
Benzene	10	µg/L	**130**	**19**	3.9	5.0
Toluene	20	µg/L	**140**	**42**	3.4	24
Ethylbenzene	10	µg/L	**15**	0.6	<	2.4
Total Xylenes	10	µg/L	**1000**	120	38	300
F1 + F2 (C6-C16; excluding BTEX)	100	µg/L	**3500**	370	470	1000
F3 + F4 (>C16-C50)	100	µg/L	<	<	<	1000
MTBE	20	µg/L	56	NA	NA	700

Notes:

1. The Standards shown are the MOE Ontario Regulation 153/04 Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for All Types of Property Use and Medium and FineTextured Soil Conditions

2. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (µg/L) = micrograms per liter; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NA) = not analysed.

Project:	Shell Canada products	**Test Pit No:**	TP1
Location:	3005 Dundas Street West, Oakville, Ontario	**Method:**	Excavator
Project No:	0813480103	**Date:**	27-Oct-08
Logged By:	H. Saeed	**Contractor:**	Claybar
Gas Detector:	Gastech Model 1238 with methane elimination		

Depth (m)	OVM	Comments	Lab Sample No.	Stratigraphy	
				Depth (m)	Material Description
0.5	15	No odour, No staining	-	0 - 0.15	Top Soil
			-	0.15 - 0.5	Brown silty sand fill
1.0	20	No odour, No staining	-	0.5-1.0	
1.5	20	No odour, No staining	-	1.0-1.5	
2.0	20	No odour, No staining	-	1.5-2.0	
2.5	20	No odour, No staining	TP1-6	2.0-2.5	
3.0	15	No odour, No staining	-	2.5-3.0	

Note: OVM concentrations expressed in parts per million (ppm)

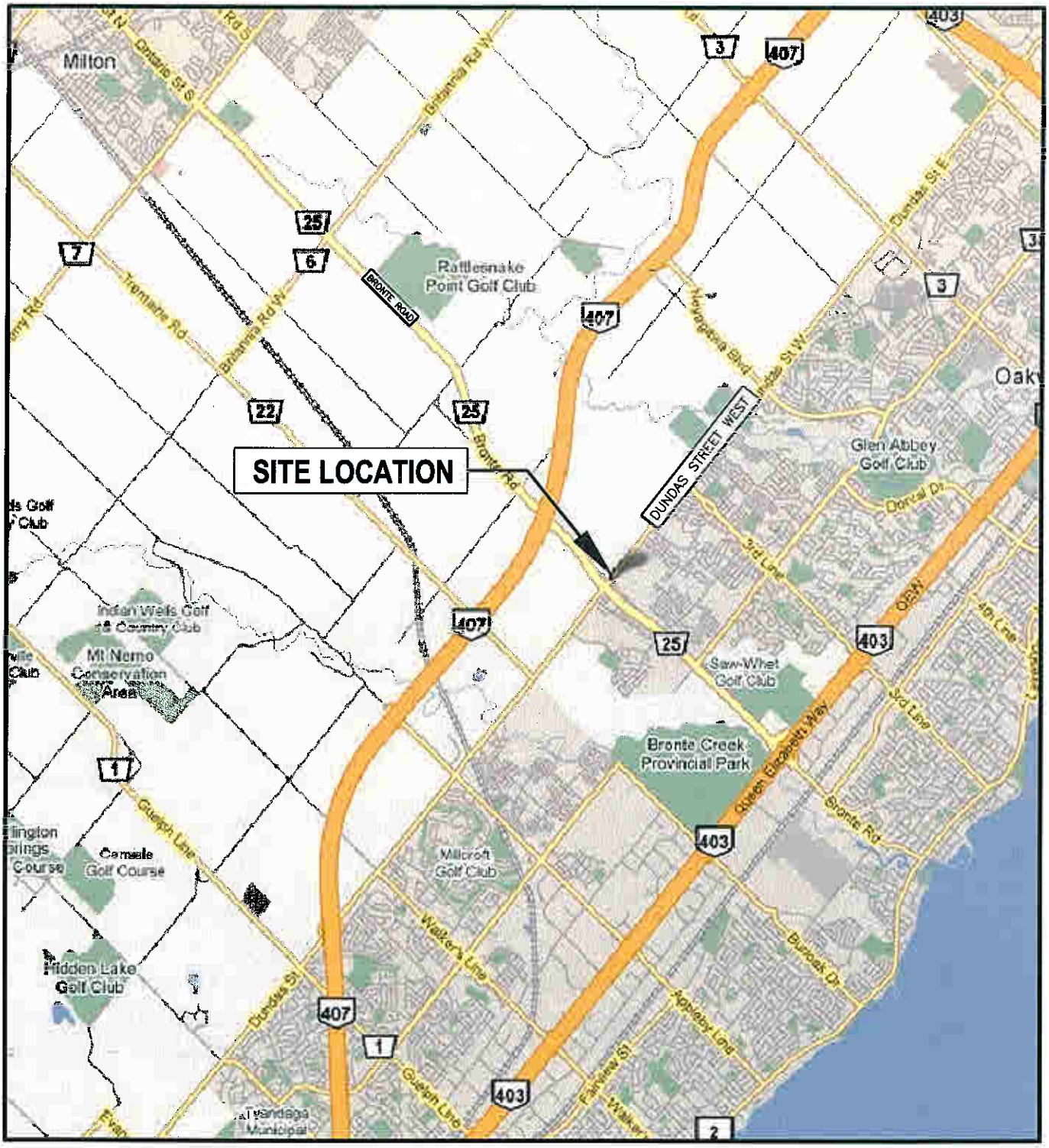
Project:	Shell Canada products	**Test Pit No:**	TP2
Location:	3005 Dundas Street West, Oakville, Ontario	**Method:**	Excavator
Project No:	0813480103	**Date:**	27-Oct-08
Logged By:	H. Saeed	**Contractor:**	Claybar
Gas Detector:	Gastech Model 1238 with methane elimination		

Depth (m)	OVM	Comments	Lab Sample No.	Stratigraphy	
				Depth (m)	Material Description
0.5	15	No odour, No staining	-	0-0.15	Top Soil
				0.15-0.3	Brown silty sand fill
				0.3-0.5	Grey clayey silt with some sand
1.0	10	No odour, No staining	-	0.5-1.0	
1.5	25	No odour, No staining	-	1.0-1.5	become grey to black
2.0	50	No odour, No staining	-	1.5-2.0	
2.5	60	No odour, No staining	-	2.0-2.5	Wet
3.0	60	No odour, No staining	TP2-6	2.5-3.0	
3.5	40	No odour, No staining	-	3.0-3.5	

Note: OVM concentrations expressed in parts per million (ppm)

APPENDIX D3

ENVIRONMENTAL ASSESSMENT AND REMEDIATION OF RIGHT-OF-WAY PROPERTIES (WARDROP, 2009b)



WARDROP | Engineering Inc.

CLIENT: **Shell Canada Products**

DWG DESCRIPTION:

SITE LOCATION MAP
INTERSECTION OF DUNDAS STREET WEST AND OLD BRONTE ROAD
SHELL LOCATION C05875- OAKVILLE, ON

DRAWN BY:	HR	DATE:	09.04.17	FIGURE 1 REV. 00
REVISED BY:	JC	DATE:	09.04.17	
DESIGNED BY:	JG	CHECKED BY:	JG	DWG NO. 0813480103-SKT-V0016

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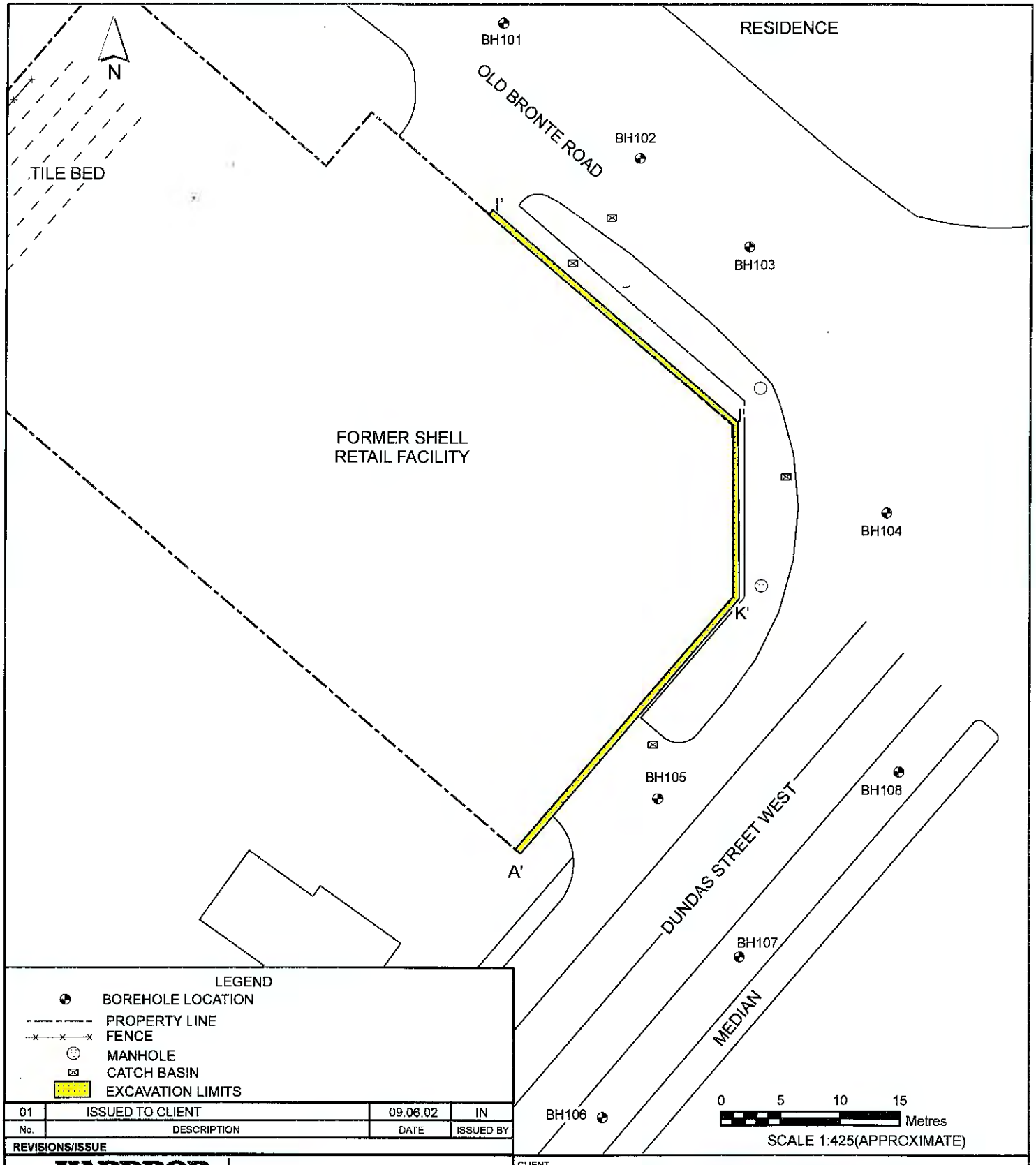


LEGEND

- BOREHOLE LOCATION
- PROPERTY LINE
- FENCE
- MANHOLE
- CATCH BASIN
- EXCAVATION LIMITS

No.	DESCRIPTION	DATE	ISSUED BY
01	ISSUED TO CLIENT	09.06.02	IN

REVISIONS/ISSUE

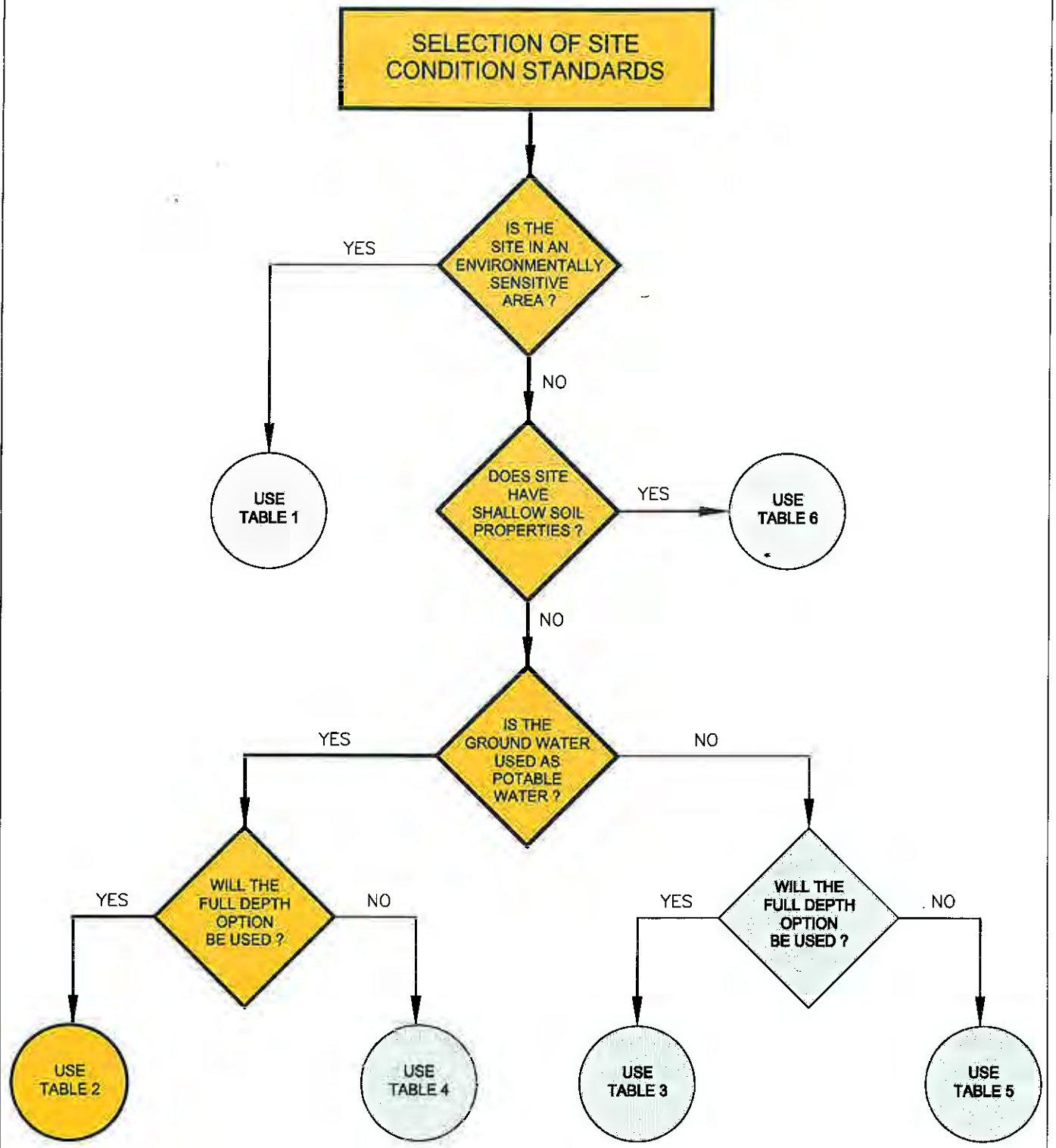
WARDROP Engineering Inc.

CLIENT: SHELL CANADA PRODUCTS

DWG DESCRIPTION

SITE PLAN SHOWING EXCAVATION AREAS AND BOREHOLE LOCATIONS
INTERSECTION OF DUNDAS STREET WEST AND OLD BRONTE ROAD
SHELL LOCATION C05875 - OAKVILLE, ON

DRAWN BY:	HR	DATE: 09.04.17	FIGURE 2 REV. 01
REVISED BY:	IN	DATE: 09.06.02	
DESIGNED BY:	JG	CHECKED BY: JG	DWG NO. 0813480103-SKT-V0017



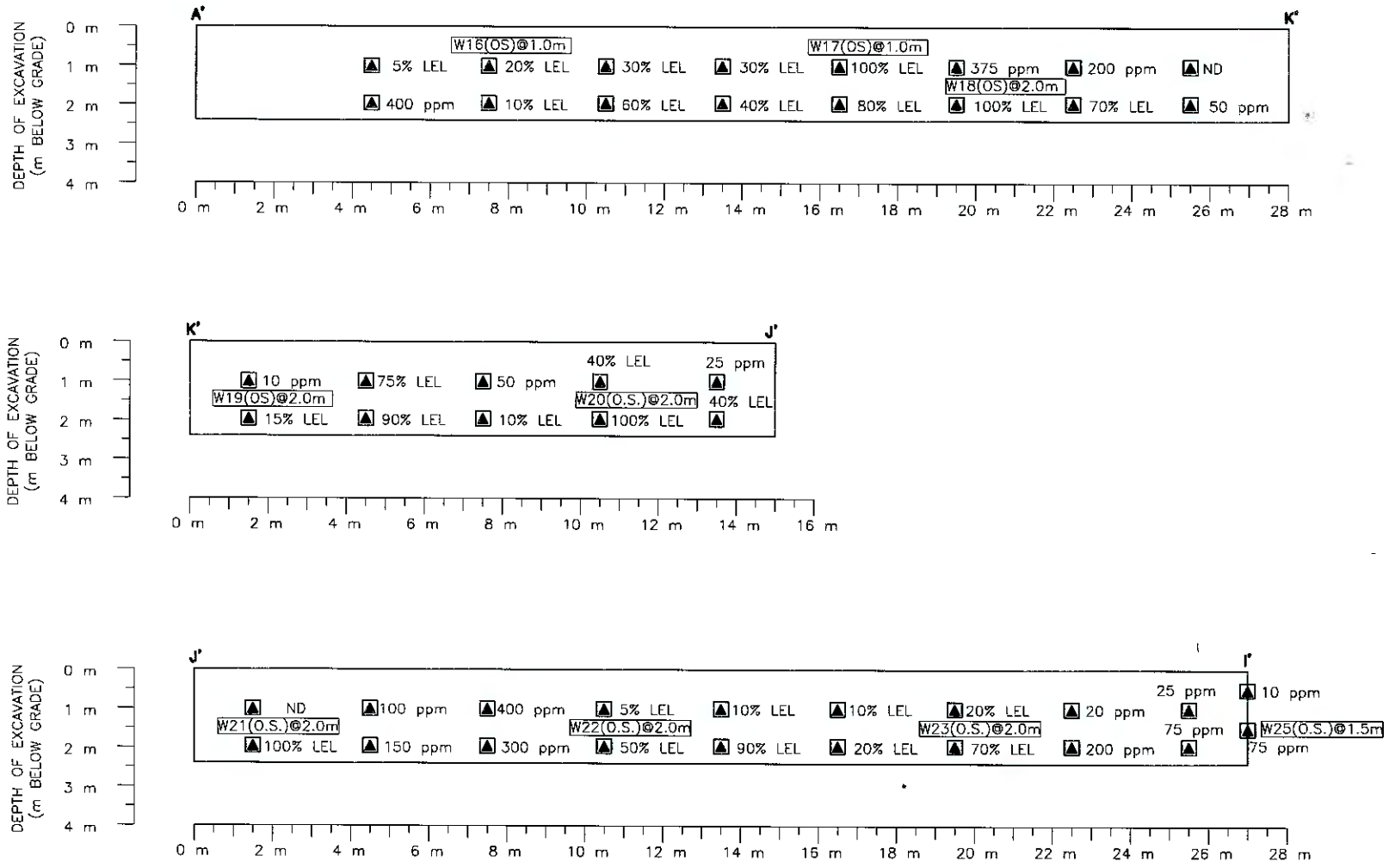
WARDROP | Engineering Inc.

CLIENT: **Shell Canada Products**

DWG DESCRIPTION:
SITE CONDITION STANDARDS FLOWCHART
INTERSECTION OF DUNDAS STREET WEST AND OLD BRONTE ROAD
SHELL LOCATION C05875- OAKVILLE, ON

DRAWN BY:	HR	DATE:	09.04.16	FIGURE 3	REV. 00
REVISED BY:	JG	DATE:	09.04.17		
DESIGNED BY:	JG	CHECKED BY:	JG	DWG NO.	0813480103-SKT-V0018

X:\N-S\SHELL - 1348\08134801.03 - OAKVILLE ON SHELL C05875 IDLE RETAIL SITE REMEDIATION\CAD_SUBMITTED\ENV\09.06.02-FINAL 2(OFF-SITE)\0813480103-SKT-V0015-00-FIG04.DWG 09.06.02 13:46



LEGEND

- EXCAVATION EXTENTS
- EXCAVATION WALL SAMPLE
- W16(OS)@1.0m — SAMPLE SUBMITTED TO LAB DENOTED BY SAMPLE NAME [W16(OS)] AND DEPTH (1.0m)
- 20% LEL — ORGANIC VAPOUR CONCENTRATION
- ND — NOT DETECTED

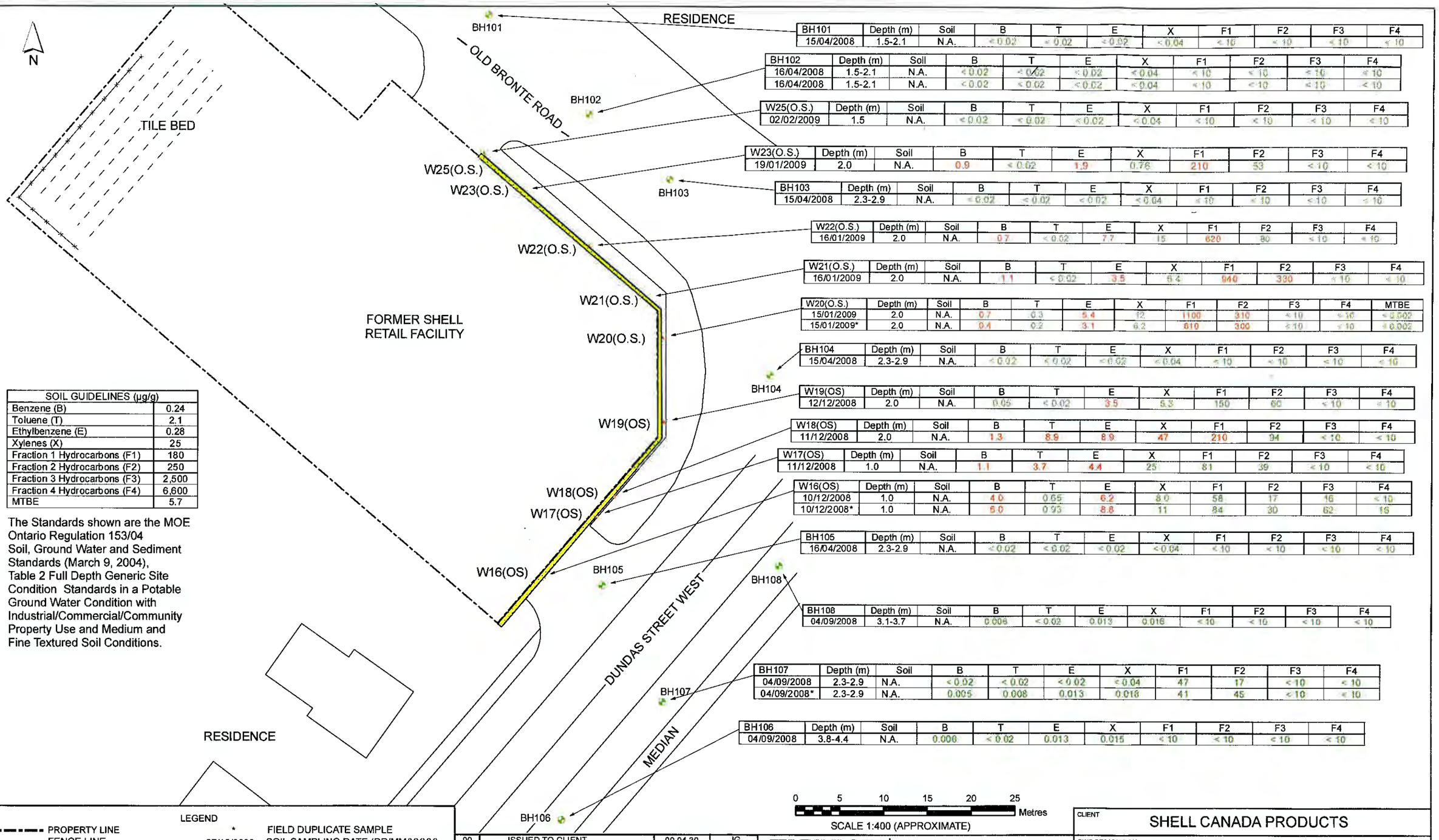
WARDROP | Engineering Inc.

CLIENT: **Shell Canada Products**

DWG DESCRIPTION:

EXCAVATION WALL PROFILES
INTERSECTION OF DUNDAS STREET WEST AND OLD BRONTE ROAD
SHELL SITE LOCATION No. C05875 - OAKVILLE, ON

DRAWN BY:	HR	DATE:	09.04.14	FIGURE 4	REV. 00
REVISED BY:	JG	DATE:	09.04.30		
DESIGNED BY:	JG	CHECKED BY:	JG	DWG NO.	0813480103-SKT-V0015



BH101	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
15/04/2008	1.5-2.1	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

BH102	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
16/04/2008	1.5-2.1	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10
16/04/2008	1.5-2.1	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

W25(O.S.)	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
02/02/2009	1.5	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

W23(O.S.)	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
19/01/2009	2.0	N.A.	0.9	< 0.02	1.9	0.76	210	53	< 10	< 10

BH103	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
15/04/2008	2.3-2.9	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

W22(O.S.)	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
16/01/2009	2.0	N.A.	0.7	< 0.02	7.7	15	620	80	< 10	< 10

W21(O.S.)	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
16/01/2009	2.0	N.A.	1.1	< 0.02	3.5	6.4	940	330	< 10	< 10

W20(O.S.)	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4	MTBE
15/01/2009	2.0	N.A.	0.7	0.3	5.4	12	1100	310	< 10	< 10	< 0.002
15/01/2009*	2.0	N.A.	0.4	0.2	3.1	6.2	610	300	< 10	< 10	< 0.002

BH104	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
15/04/2008	2.3-2.9	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

W19(OS)	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
12/12/2008	2.0	N.A.	0.05	< 0.02	3.5	5.3	150	60	< 10	< 10

W18(OS)	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
11/12/2008	2.0	N.A.	1.3	8.9	8.9	47	210	94	< 10	< 10

W17(OS)	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
11/12/2008	1.0	N.A.	1.1	3.7	4.4	25	81	39	< 10	< 10

W16(OS)	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
10/12/2008	1.0	N.A.	4.0	0.65	6.2	8.0	58	17	16	< 10
10/12/2008*	1.0	N.A.	5.0	0.93	8.8	11	84	30	62	16

BH105	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
16/04/2008	2.3-2.9	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	< 10	< 10	< 10	< 10

BH108	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
04/09/2008	3.1-3.7	N.A.	0.006	< 0.02	0.013	0.016	< 10	< 10	< 10	< 10

BH107	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
04/09/2008	2.3-2.9	N.A.	< 0.02	< 0.02	< 0.02	< 0.04	47	17	< 10	< 10
04/09/2008*	2.3-2.9	N.A.	0.005	0.008	0.013	0.016	41	45	< 10	< 10

BH106	Depth (m)	Soil	B	T	E	X	F1	F2	F3	F4
04/09/2008	3.8-4.4	N.A.	0.006	< 0.02	0.013	0.015	< 10	< 10	< 10	< 10

SOIL GUIDELINES (µg/g)	
Benzene (B)	0.24
Toluene (T)	2.1
Ethylbenzene (E)	0.28
Xylenes (X)	25
Fraction 1 Hydrocarbons (F1)	180
Fraction 2 Hydrocarbons (F2)	250
Fraction 3 Hydrocarbons (F3)	2,500
Fraction 4 Hydrocarbons (F4)	6,600
MTBE	5.7

The Standards shown are the MOE Ontario Regulation 153/04 Soil, Ground Water and Sediment Standards (March 9, 2004), Table 2 Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.

LEGEND

- PROPERTY LINE
- FENCE LINE
- BOREHOLE LOCATION
- EXCAVATION WALL SAMPLE
- (m) METRES
- N.A. NOT ANALYZED
- * FIELD DUPLICATE SAMPLE
- 27/10/2008 SOIL SAMPLING DATE (DD/MM/YYYY)
- 0.05 SOIL SAMPLE CONCENTRATION (µg/g)
- GREEN SOIL ANALYTICAL < STANDARDS
- RED SOIL ANALYTICAL >STANDARDS
- EXCAVATION LIMITS

No.	DESCRIPTION	DATE	ISSUED BY
00	ISSUED TO CLIENT	09.04.30	JG

REVISIONS/ISSUE

WARDROP | Engineering Inc.

CLIENT: SHELL CANADA PRODUCTS

DWG DESCRIPTION: SITE PLAN SHOWING SOIL ANALYTICAL RESULTS
INTERSECTION OF DUNDAS STREET WEST AND OLD BRONTE ROAD
SHELL LOCATION No. C05875 - OAKVILLE, ON

DRAWN BY:	HR	DATE:	09.04.16
REVISED BY:	HR	DATE:	09.04.17
DESIGNED BY:	JG	CHECKED BY:	JG

FIGURE 5 REV. 01

DWG NO. 0813480103-SKT-V0019

TABLE 1
SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS AND MTBE
REMEDIAL EXCAVATION - CONFIRMATORY WALL SAMPLES

Sample ID Laboratory ID	RDL	UNITS	W16(OS) BI1468	DUP6 BI1469 Field Duplicate of W16(OS)	W17(OS) BI1470	W18(OS) BI1471	W19(OS) BI1179	*MOE Reg 153/04 Table 2 Standard* [1]
OVM Reading	-	ppm/% LEL	20% LEL	20% LEL	100% LEL	100% LEL	15% LEL	-
Sample Depth	-	mbg	1.0	1.0	1.0	2.0	2.0	-
Sampling Date	-	-	10-Dec-08	10-Dec-08	11-Dec-08	11-Dec-08	12-Dec-08	-
Benzene	0.02	µg/g	**4.0**	**6.0**	**1.1**	**1.3**	0.05	0.24
Toluene	0.02	µg/g	0.65	0.93	**3.7**	**8.9**	<	2.1
Ethylbenzene	0.02	µg/g	**6.2**	**8.8**	**4.4**	**8.9**	**3.5**	0.28
Total Xylenes	0.04	µg/g	8.0	11	25	**47**	5.3	25
F1 (C6-C10; excluding BTEX)	10	µg/g	58	84	81	**210**	150	180
F2 (>C10-C16)	10	µg/g	17	30	39	94	60	250
F3 (>C16-C34)	10	µg/g	16	62	<	<	<	2,500
F4 (>C34-C50)	10	µg/g	<	16	<	<	<	6,600
MTBE	0.002	µg/g	NA	NA	NA	NA	NA	5.7

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions
2. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (mbg) = meters below grade; (NA) = not analyzed

TABLE 1 Continued
SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS AND MTBE
REMEDIAL EXCAVATION - CONFIRMATORY WALL SAMPLES

Sample ID Laboratory ID	RDL	UNITS	W20(O.S.) BN2864	DUP9 BN2865 Field Duplicate of W20(O.S.)	W21(O.S.) BN2866	W22(O.S.) BN2867	W23(O.S.) BN2867	W25(O.S.) BQ5382	*MOE Reg 153/04 Table 2 Standard* [1]
OVM Reading	-	ppm/% LEL	100% LEL	100% LEL	100% LEL	50% LEL	70% LEL	75 ppm	-
Sample Depth	-	mbg	2.0	2.0	2.0	2.0	2.0	1.5	-
Sampling Date	-	-	15-Jan-09	15-Jan-09	16-Jan-09	16-Jan-09	19-Jan-09	2-Feb-09	-
Benzene	0.02	µg/g	**0.7**	**0.4**	**1.1**	**0.7**	**0.9**	<	0.24
Toluene	0.02	µg/g	0.3	0.2	<	<	<	<	2.1
Ethylbenzene	0.02	µg/g	**5.4**	**3.1**	**3.5**	**7.7**	**1.9**	<	0.28
Total Xylenes	0.04	µg/g	12	6.2	6.4	15	0.76	<	25
F1 (C6-C10; excluding BTEX)	10	µg/g	**1100**	**610**	**940**	**620**	**210**	<	180
F2 (>C10-C16)	10	µg/g	**310**	**300**	**330**	80	53	<	250
F3 (>C16-C34)	10	µg/g	<	<	<	<	<	<	2,500
F4 (>C34-C50)	10	µg/g	<	<	<	<	<	<	6,600
MTBE	0.002	µg/g	<	<	NA	NA	NA	NA	5.7

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions
2. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (mbg) = meters below grade; (NA) = not analyzed

TABLE 2
SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS
REUSABLE BACKFILL SAMPLES

Sample ID Laboratory ID		UNITS	BF23 BM0217	BF24 BM0218	*MOE Reg 153/04 Table 2 Standard* [1]
OVM Reading	-	ppm/% LEL	75 ppm	80 ppm	-
Sampling Date	-	-	9-Jan-09	9-Jan-09	-
Benzene	0.02	µg/g	0.06	0.04	0.24
Toluene	0.02	µg/g	0.19	0.10	2.1
Ethylbenzene	0.02	µg/g	0.20	0.11	0.28
Total Xylenes	0.04	µg/g	3.8	1.4	25
F1 (C6-C10; excluding BTEX)	10	µg/g	43	18	180
F2 (>C10-C16)	10	µg/g	49	20	250
F3 (>C16-C34)	10	µg/g	23	<	2,500
F4 (>C34-C50)	10	µg/g	<	<	6,600

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), Table 2 Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (µg/g) = mircograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter, (MOE) = Ministry of the Environment

TABLE 3
SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS
IMPORTED BACKFILL SAMPLE

Sample ID Laboratory ID	RDL	UNITS	IMPBF-2 BD7141	IMPBF-3 BW4399	*MOE Reg 153/04 Table 2 Standard* [1]
OVM Reading	-	ppm/% LEL	-	-	-
Sampling Date	-	-	24-Nov-08	4-Mar-09	-
Benzene	0.02	µg/g	<	<	0.24
Toluene	0.02	µg/g	<	<	2.1
Ethylbenzene	0.02	µg/g	<	<	0.28
Total Xylenes	0.04	µg/g	<	<	25
F1 (C6-C10; excluding BTEX)	10	µg/g	<	<	180
F2 (>C10-C16)	10	µg/g	<	<	250
F3 (>C16-C34)	10	µg/g	<	<	2,500
F4 (>C34-C50)	10	µg/g	<	<	6,600

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), Table 2 Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment

TABLE 4
SUMMARY OF SOIL LABORATORY ANALYSES
METALS
IMPORTED BACKFILL SAMPLE

Sample ID Laboratory ID	RDL	UNITS	IMPBF-2 BD7141	IMPBF-3 BW4399	*MOE Reg 153/04 Table 2 Standard* [1]
OVM Reading	-	ppm/% LEL	-	-	-
Sampling Date	-	-	24-Nov-08	4-Mar-09	-
Antimony	0.2	µg/g	<	<	44
Arsenic	1	µg/g	4	3	50
Barium	0.5	µg/g	34	13	2,000
Beryllium	0.2	µg/g	<	<	1.2
Cadmium	0.1	µg/g	0.3	1.1	12
Chromium	1	µg/g	5	5	1,000
Cobalt	0.1	µg/g	3.7	2.8	100
Copper	0.5	µg/g	32	34	300
Lead	1	µg/g	16	80	1,000
Molybdenum	0.5	µg/g	<	<	40
Nickel	0.5	µg/g	5.7	5.4	200
Selenium	0.5	µg/g	<	<	10
Silver	0.2	µg/g	<	<	50
Thallium	0.05	µg/g	0.08	0.05	32
Vanadium	5	µg/g	9	10	250
Zinc	5	µg/g	110	470	800

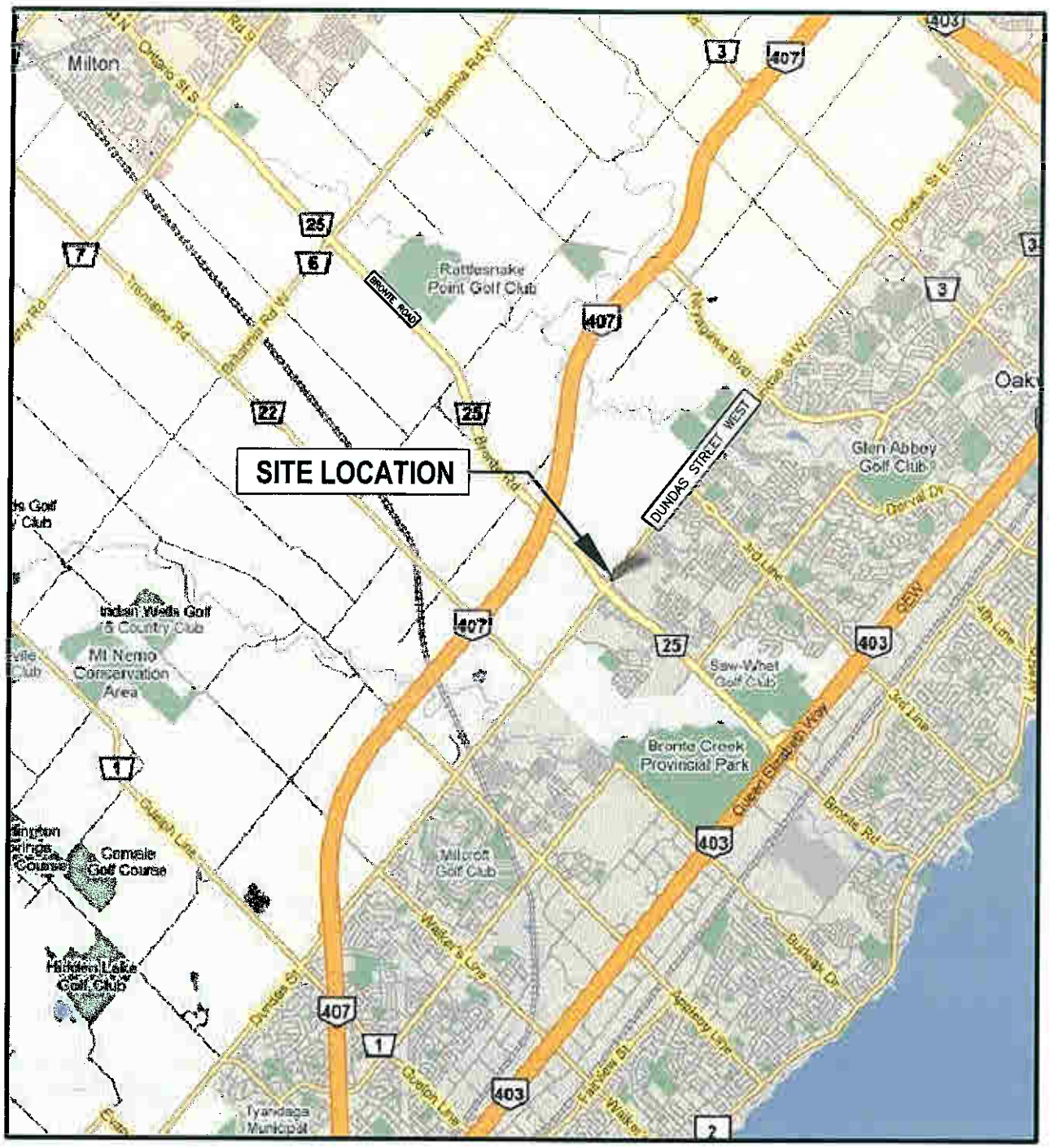
Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), Table 2 Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment

APPENDIX D4

POST REMEDIATION ASSESSMENT (WARDROP, 2009c)



WARDROP | Engineering Inc.

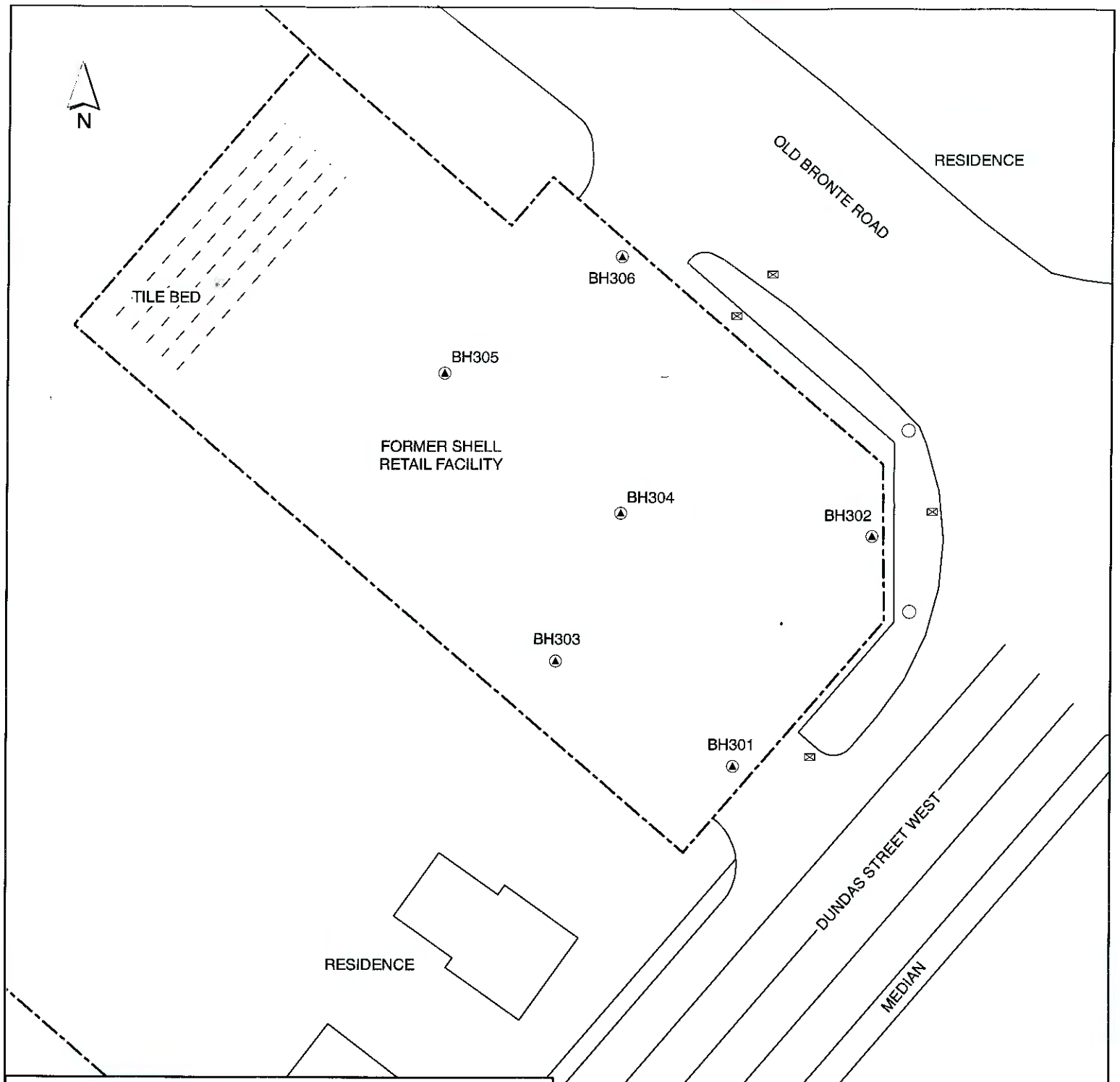
CLIENT: **Shell Canada Products**

DWG DESCRIPTION:

SITE LOCATION MAP
POST REMEDIATION ASSESSMENT 3005 DUNDAS STREET WEST
SHELL LOCATION C05875- OAKVILLE, ON

DRAWN BY:	HR	DATE:	09.04.23	FIGURE 1	REV. 00
REVISED BY:	JG	DATE:	09.06.02		
DESIGNED BY:	JG	CHECKED BY:	JG	DWG NO.	0813480104-SKT-V0002

X:\N-S\SHELL - 1348\0813480104 - OAKVILLE ON SHELL C05875 RETAIL-POST REMEDIATION INV\CAD_SUBMITTED\ENV\09.06.02-FINAL\0813480104-SKT-V0002-00-FIG01.DWG 09.06.02 15:34



LEGEND

- EXISTING MONITORING WELL
- PROPERTY LINE
- MANHOLE
- CATCH BASIN

No.	DESCRIPTION	DATE	ISSUED BY
00	ISSUED TO CLIENT	09.06.02	JG

REVISIONS/ISSUE

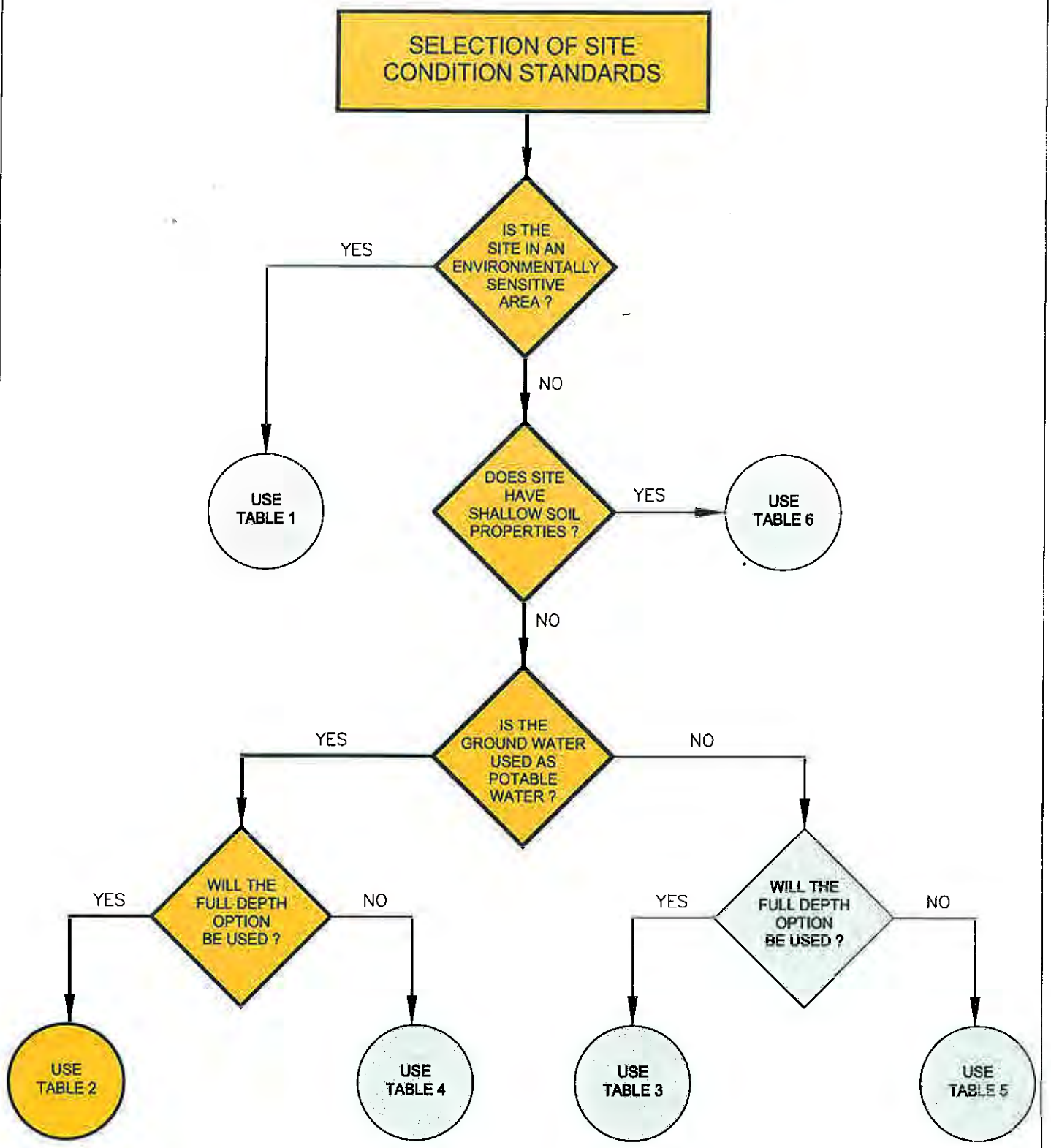
WARDROP Engineering Inc.

CLIENT: SHELL CANADA PRODUCTS

DWG DESCRIPTION

SITE PLAN
POST REMEDIATION INVESTIGATION 3005 DUNDAS STREET WEST
SHELL LOCATION C05875 - OAKVILLE, ON

DRAWN BY:	HR	DATE: 09.04.23	FIGURE 2 REV. 00
REVISED BY:	JG	DATE: 09.04.24	
DESIGNED BY:	JG	CHECKED BY: JG	DWG NO. 0813480104-SKT-V0001

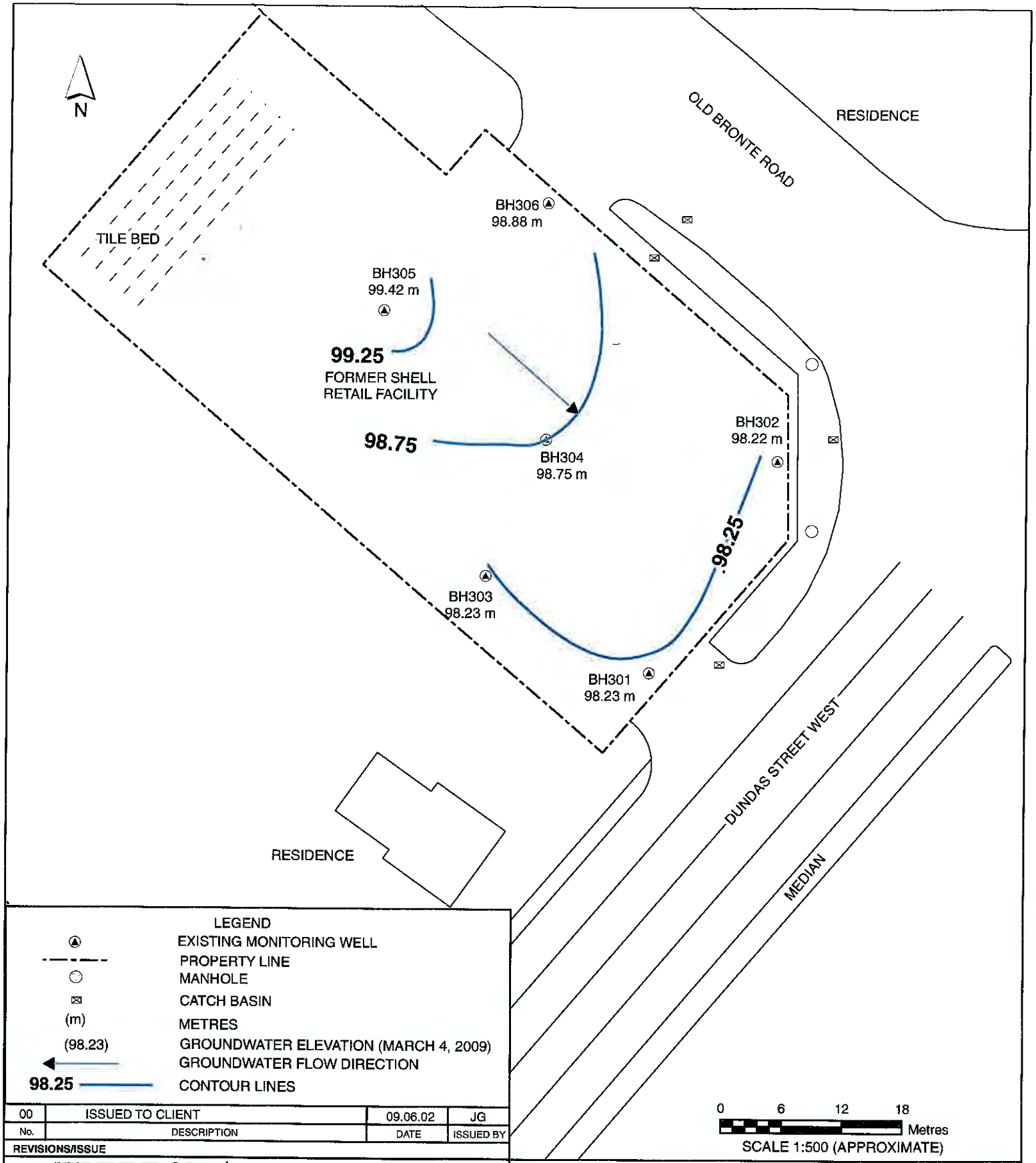


WARDROP | Engineering Inc.

CLIENT: **Shell Canada Products**

DWG DESCRIPTION:
SITE CONDITION STANDARDS FLOWCHART
POST REMEDIATION ASSESSMENT 3005 DUNDAS STREET WEST
SHELL LOCATION C05875- OAKVILLE, ON

DRAWN BY:	HR	DATE:	09.04.23	FIGURE 3	REV. 00
REVISED BY:	JG	DATE:	09.04.24		
DESIGNED BY:	JG	CHECKED BY:	JG	DWG NO.	0813480104-SKT-V0003



LEGEND

▲	EXISTING MONITORING WELL
---·---	PROPERTY LINE
○	MANHOLE
⊠	CATCH BASIN
(m)	METRES
(98.23)	GROUNDWATER ELEVATION (MARCH 4, 2009)
←	GROUNDWATER FLOW DIRECTION
98.25	CONTOUR LINES

No.	DESCRIPTION	DATE	ISSUED BY
00	ISSUED TO CLIENT	09.06.02	JG

REVISIONS/ISSUE

0 6 12 18 Metres

SCALE 1:500 (APPROXIMATE)

WARDROP Engineering Inc.

CLIENT: SHELL CANADA PRODUCTS

DWG DESCRIPTION

SITE PLAN SHOWING SHALLOW GROUNDWATER FLOW DIRECTIONS
POST REMEDIATION INVESTIGATION 3005 DUNDAS STREET WEST
SHELL LOCATION C05875 - OAKVILLE, ON

DRAWN BY:	HR	DATE:	09.04.23	FIGURE 4	REV. 00
REVISED BY:	HR	DATE:	09.04.24		
DESIGNED BY:	JG	CHECKED BY:	JG	DWG NO.	0813480104-SKT-V0004

TABLE 1

MONITORING AND SURVEY DATA
March 24, 2009

Monitoring Point	Free Product (cm)	OVM Reading Well Headspace (ppm or % LEL)	Top of Pipe Elevation[1] (m)	Grade Elevation[1] (m)	Water Level (mbtop)	Water Level (mbgs)	Ground Water Elevation (m)
BH301	0	20 ppm	101.03	100.00	2.80	1.77	98.23
BH302	0	25 ppm	100.84	99.86	2.62	1.64	98.22
BH303	0	20 ppm	101.10	100.07	2.87	1.84	98.23
BH304	0	40 ppm	101.12	99.99	2.37	1.25	98.75
BH305	0	25 ppm	101.25	100.25	1.83	0.83	99.42
BH306	0	50 ppm	100.98	99.92	2.10	1.04	98.88

Notes: 1. Top of pipe and grade elevations are shown in metres and were surveyed to a benchmark (top centre of manhole located in the grass boulevard in the southeast corner of the Site) with an assigned datum of 100.00 metres.

Table Abbreviations: (cm) = centimetres; (OVM) = organic vapour meter; (ppm) = parts per million; (% LEL) = percentage of the lower explosive limit; (m) = metres; (mbtop) = metres below top of pipe; (m) = metres; (mbgs) = metres below ground surface.

TABLE 2
SUMMARY OF GROUND WATER LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS and MTBE

Sample ID Laboratory ID	RDL	UNITS	BH301 CA8261	BH302 CA8262	BH303 CA8263	BH304 CA8264	BH305 CA8265	*MOE Reg 153/04 Table 2* [1]
OVM Reading	-	ppm/% LEL	20 ppm	25 ppm	20 ppm	40 ppm	25 ppm	-
Sampling Date	-	-	24-Mar-09	24-Mar-09	24-Mar-09	24-Mar-09	24-Mar-09	-
Benzene	0.1	µg/L	0.7	**11**	<	3	1.9	5.0
Toluene	0.2	µg/L	0.3	<2	<	<4	2.6	24
Ethylbenzene	0.1	µg/L	0.2	**4**	<	**9**	1.7	2.4
Total Xylenes	0.1	µg/L	1.9	21	<	52	20	300
F1 + F2 (C6-C16; excluding BTEX)	100	µg/L	<	310	<	420	130	1000
F3 + F4 (>C16-C50)	100	µg/L	<	<	<	<	<	1000
MTBE	0.2	µg/L	1.4	<2	0.7	36	1.7	700

Notes:

1. The Standards shown are the MOE Ontario Regulation 153/04 Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for All Types of Property Use and Medium and FineTextured Soil Conditions
2. <2 Refer to laboratory certificate of analysis for any RDL adjustments.
3. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (µg/L) = micrograms per litre; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment.

TABLE 2 (Continued)
SUMMARY OF GROUND WATER LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS and MTBE

Sample ID Laboratory ID	RDL	UNITS	BH306 CA8266	DUP-SITE (Field duplicate of BH306) CA8267	FB (Field Blank) CA8281	Trip Blank CA8282	*MOE Reg 153/04 Table 2* [1]
OVM Reading	-	ppm/% LEL	50 ppm	50 ppm	-	-	-
Sampling Date	-	-	24-Mar-09	24-Mar-09	24-Mar-09	9-Mar-09	-
Benzene	0.1	µg/L	<	<	<	<0.2	5.0
Toluene	0.2	µg/L	<	<	<	<	24
Ethylbenzene	0.1	µg/L	<	<	<	<0.2	2.4
Total Xylenes	0.1	µg/L	<	<	<	<0.4	300
F1 + F2 (C6-C16; excluding BTEX)	100	µg/L	<	<	<	-	1000
F3 + F4 (>C16-C50)	100	µg/L	<	<	<	-	1000
MTBE	0.2	µg/L	19	19	<	-	700

Notes:

1. The Standards shown are the MOE Ontario Regulation 153/04 Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for All Types of Property Use and Medium and FineTextured Soil Conditions
2. <2 Refer to laboratory certificate of analysis for any RDL adjustments.
3. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (µg/L) = micrograms per litre; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment.

WARDROP

RECORD OF BOREHOLE

BH301

Sheet 1 of 1

0813480104

CLIENT Shell Canada Products
PROJECT Post Remediation Assessment
DRILLED March 18, 2009
SITE 3005 Dundas Street West, Oakville, Ontario
LOCATION
DATUM Assumed
NORTHING
EASTING

BORING METHOD	DEPTH SCALE m / ft	ELEV DEPTH (m)	DESCRIPTION	SYMBOLS	SAMPLES: NUMBER	TYPE	SPT(N)/RQD(%)	RECOVERY(%)	LAB TESTING	MONITORING WELL
STRATA SOIL DRILLING,GEO-PROBE DIRECT PUSH 76 MM	0 / 0	100.00	Ground Surface							101.03
			No Soil Samples Collected as per Scope of Work							31 mm Sch. 40 PVC
	1 / 5									100.00 Bentonite
										99.40
	2 /									99.10 31 mm Sch. 40 PVC 0.10 Slot
										Silica Sand
										98.23 March 24, 2009
		97.40								97.60
	3 / 10	2.60	***Bottom of Borehole at 2.60m***							97.40
	4 /									
	/ 15									
	5 /									

SCALE 1:5 Borehole Log LOGGED CF CHECKED JG

LOG 1/25 0813480104-BHLOGS.GPJ WARDROP.GDT 5/1/09

WARDROP | **RECORD OF BOREHOLE** | **BH302**

Sheet 1 of 1

0813480104

CLIENT Shell Canada Products | DRILLED March 18, 2009 | DATUM Assumed

PROJECT Post Remediation Assessment | SITE 3005 Dundas Street West, Oakville, Ontario | NORTHING

LOCATION | EASTING

BORING METHOD	DEPTH SCALE m ft	ELEV DEPTH (m)	DESCRIPTION	SYMBOLS	SAMPLES: NUMBER	TYPE	SPT(N)/RQD(%)	RECOVERY(%)	LAB TESTING	MONITORING WELL
		0.00 99.86	Ground Surface							100.84
			No Soil Samples Collected as per Scope of Work							31 mm Sch. 40 PVC
										99.86 Bentonite
										99.26
										98.96 31 mm Sch. 40 PVC 0.10 Slot
										Silica Sand
										98.22 March 24, 2009
										97.46
		97.26 2.60	***Bottom of Borehole at 2.60m***							97.26

STRATA SOIL DRILLING,GEO-PROBE DIRECT PUSH 76 MM

LOG 1/25 0813480104-BHLOGS.GPJ WARDROP.GDT 5/1/09

SCALE 1:5 | Borehole Log | LOGGED CF | CHECKED JG

WARDROP

RECORD OF BOREHOLE

BH303

Sheet 1 of 1

0813480104

CLIENT Shell Canada Products
PROJECT Post Remediation Assessment
DRILLED March 18, 2009
SITE 3005 Dundas Street West, Oakville, Ontario
LOCATION
DATUM Assumed
NORTHING
EASTING

BORING METHOD	DEPTH SCALE m / ft	ELEV DEPTH (m)	DESCRIPTION	SYMBOLS	SAMPLES: NUMBER	TYPE	SPT(N)/RQD(%)	RECOVERY(%)	LAB TESTING	MONITORING WELL
STRATA SOIL DRILLING,GEO-PROBE DIRECT PUSH 76 MM	0 / 0	100.07	Ground Surface							101.10
			No Soil Samples Collected as per Scope of Work							31 mm Sch. 40 PVC
	1 / 5									100.07 Bentonite
										99.47
	2 /									99.17 31 mm Sch. 40 PVC 0.10 Slot
										Silica Sand
										98.23 March 24, 2009
		97.47								97.67
		2.60	***Bottom of Borehole at 2.60m***							97.47
	3 / 10									
	4 /									
	/ 15									
	5 /									

SCALE 1:5 Borehole Log LOGGED CF CHECKED JG

LOG 1/25 0813480104-BHLOGS.GPJ WARDROP.GDT 5/1/09

WARDROP

RECORD OF BOREHOLE

BH304

Sheet 1 of 1

0813480104

CLIENT Shell Canada Products
PROJECT Post Remediation Assessment
DRILLED March 18, 2009
SITE 3005 Dundas Street West, Oakville, Ontario
LOCATION
DATUM Assumed
NORTHING
EASTING

BORING METHOD	DEPTH SCALE m / ft	ELEV DEPTH (m)	DESCRIPTION	SYMBOLS	SAMPLES: NUMBER	TYPE	SPT(N)/RQD(%)	RECOVERY(%)	LAB TESTING	MONITORING WELL
STRATA SOIL DRILLING,GEO-PROBE DIRECT PUSH 76 MM	1 5 2 3 10 4 15 5	0.00 99.99 Ground Surface	No Soil Samples were Collected as per Scope of Work							101.12 31 mm Sch. 40 PVC; 99.99 Bentonite; 99.39; 99.09; 98.75 March 24, 2009; Silica Sand; 31 mm Sch. 40 PVC 0.10 Slot; 97.59; 97.39
		97.39 2.60	***Bottom of Borehole at 2.60m***							

SCALE 1:5 Borehole Log LOGGED CF CHECKED JG

LOG 1/25 0813480104-BHLOGS.GPJ WARDROP.GDT 5/1/09

WARDROP

RECORD OF BOREHOLE

BH305

Sheet 1 of 1

0813480104

CLIENT Shell Canada Products
PROJECT Post Remediation Assessment
DRILLED March 18, 2009
SITE 3005 Dundas Street West, Oakville, Ontario
LOCATION
DATUM Assumed
NORTHING
EASTING

BORING METHOD	DEPTH SCALE m / ft	SUBSURFACE PROFILE: ELEV DEPTH (m)	DESCRIPTION	SYMBOLS	SAMPLES: NUMBER	TYPE	SPT(N)/RQD(%)	RECOVERY(%)	LAB TESTING	MONITORING WELL
STRATA SOIL DRILLING GEO-PROBE DIRECT PUSH 76 MM	0 / 0	0.00 100.25	Ground Surface							101.25
			No Soil Samples Collected as per Scope of Work							31 mm Sch. 40 PVC
	1 / 5									100.25 Bentonite
										99.65
										99.35 Silica Sand
	2 / 10									99.42 March 24, 2009
		97.65 2.60	***Bottom of Borehole at 2.60m***							31 mm Sch. 40 PVC 0.10 Slot
	3 / 15									97.85
	4 /									97.65
	5 /									

SCALE 1:5 Borehole Log LOGGED CF CHECKED JG

LOG 1/25 0813480104-BHLOGS.GPJ WARDROP.GDT 5/1/09

WARDROP

RECORD OF BOREHOLE

BH306

Sheet 1 of 1

0813480104

CLIENT Shell Canada Products
PROJECT Post Remediation Assessment
DRILLED March 18, 2009
SITE 3005 Dundas Street West, Oakville, Ontario
LOCATION
DATUM Assumed
NORTHING
EASTING

BORING METHOD	DEPTH SCALE m ft	ELEV DEPTH (m)	SUBSURFACE PROFILE DESCRIPTION	SYMBOLS	SAMPLES NUMBER	TYPE	SPT(N)/RQD(%)	RECOVERY(%)	LAB TESTING	MONITORING WELL
STRATA SOIL DRILLING,GEO-PROBE DIRECT PUSH 76 MM	1 5 2 3 10 4 15 5	0.00 99.92	Ground Surface							100.98
			No Soil Samples Collected as per Scope of Work							31 mm Sch. 40 PVC
		97.32 2.60	***Bottom of Borehole at 2.60m***							99.92 Bentonite 99.32 99.02 98.88 March 24, 2009 Silica Sand 31 mm Sch. 40 PVC 0.10 Slot 97.52 97.32

SCALE 1:5 Borehole Log LOGGED CF CHECKED JG

LOG 1/25 0813480104-BHLOGS.GPJ WARDROP.GDT 5/1/09

APPENDIX D5

ON- AND OFF-SITE GROUNDWATER SAMPLING (AQUA TERRE, 2009)

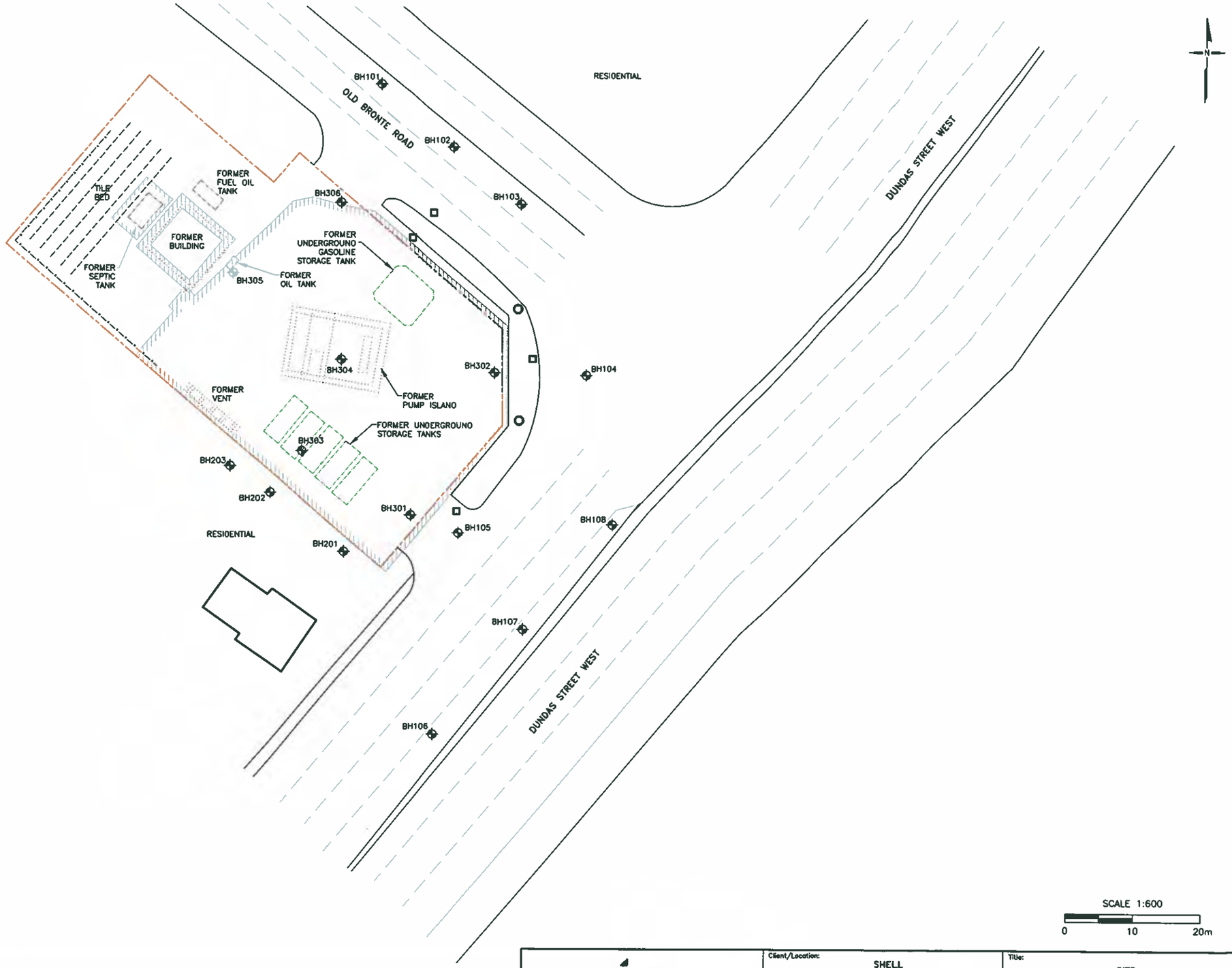
SOURCE: SCHWERDT GRAPHIC ARTS LTD., (MapArt), 2007 EDITION

SCALE 1:25,000

0 0.5 1km

AQUA TERRE

Client/Location: SHELL 3005 DUNDAS STREET WEST OAKVILLE, ON		Title: SITE LOCATION PLAN	
Project No: S09125	Filename: 03F01_S09125	Date: DECEMBER 2009	Dwg No: FIGURE 1
Drawn: FD	Verified:	Project Manager:	



LEGEND

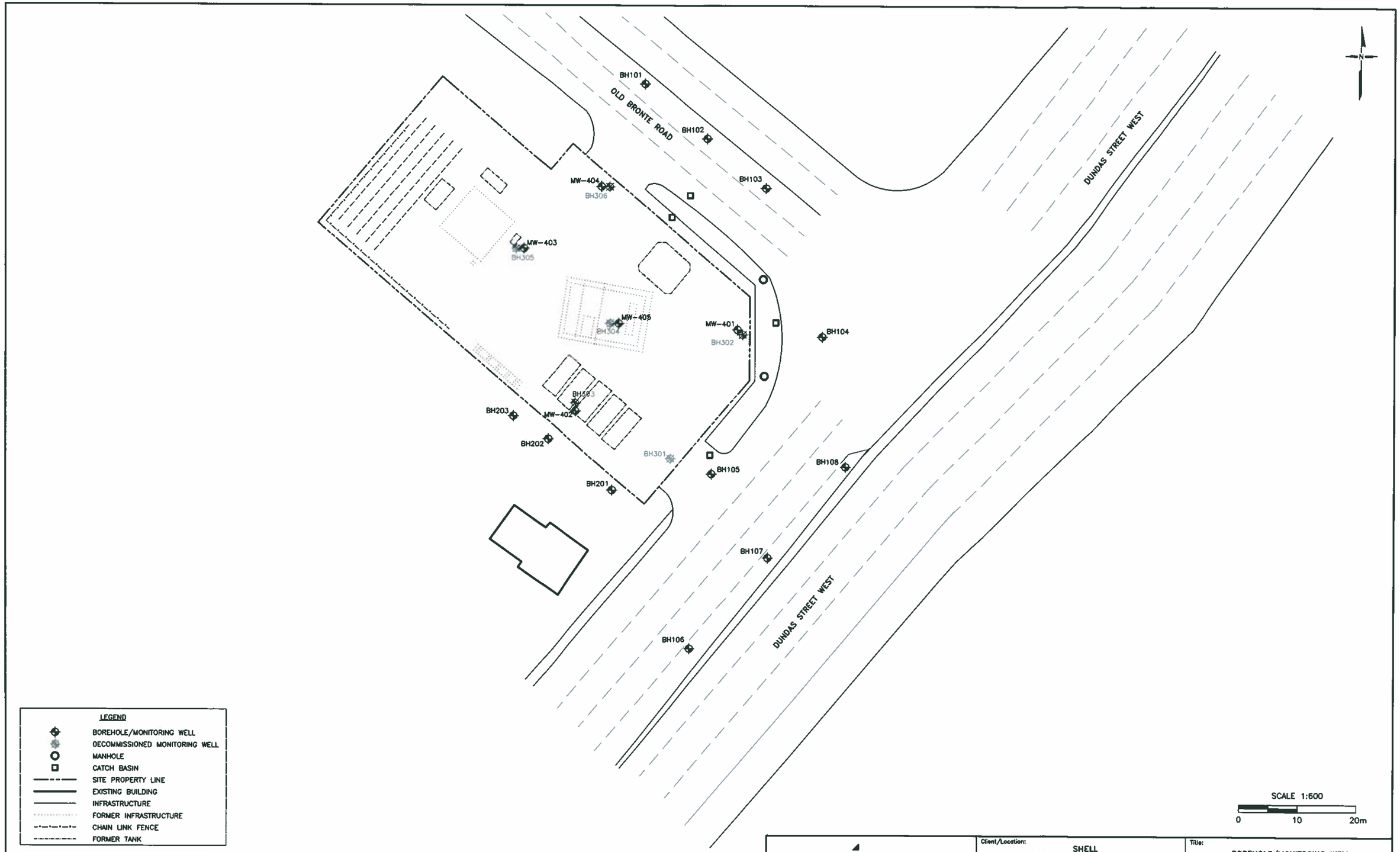
- MONITORING WELL
- MANHOLE
- CATCH BASIN
- EXCAVATED AREA
- SITE PROPERTY LINE
- EXISTING BUILDING
- INFRASTRUCTURE
- FORMER INFRASTRUCTURE
- CHAIN LINK FENCE
- FORMER TANK

NOTE(S):
1. SCALE AND SITE INFRASTRUCTURE LOCATIONS ARE APPROXIMATE
2. INFORMATION ON THIS FIGURE MAY BE LOST IF IT IS PHOTOCOPIED OR FAXED
3. "m" : METRES

SOURCE(S):
1. WARDROP ENGINEERING INC., SITE PLAN, FIGURE 1, DWG#0813480104-SKT-V0001, APRIL 23, 2009
2. WARDROP ENGINEERING INC., SITE PLAN, FIGURE 4, DWG#0813480103-SKT-V0010, MARCH 18, 2009

AQUA TERRE

Client/Location: SHELL 3005 DUNDAS STREET WEST OAKVILLE, ON		Title: SITE PLAN	
Project No: S09125	Filename: 03F02_SD9125	Date: DECEMBER 2009	Dwg No: FIGURE 2
Drawn: FD	Verified:	Project Manager:	



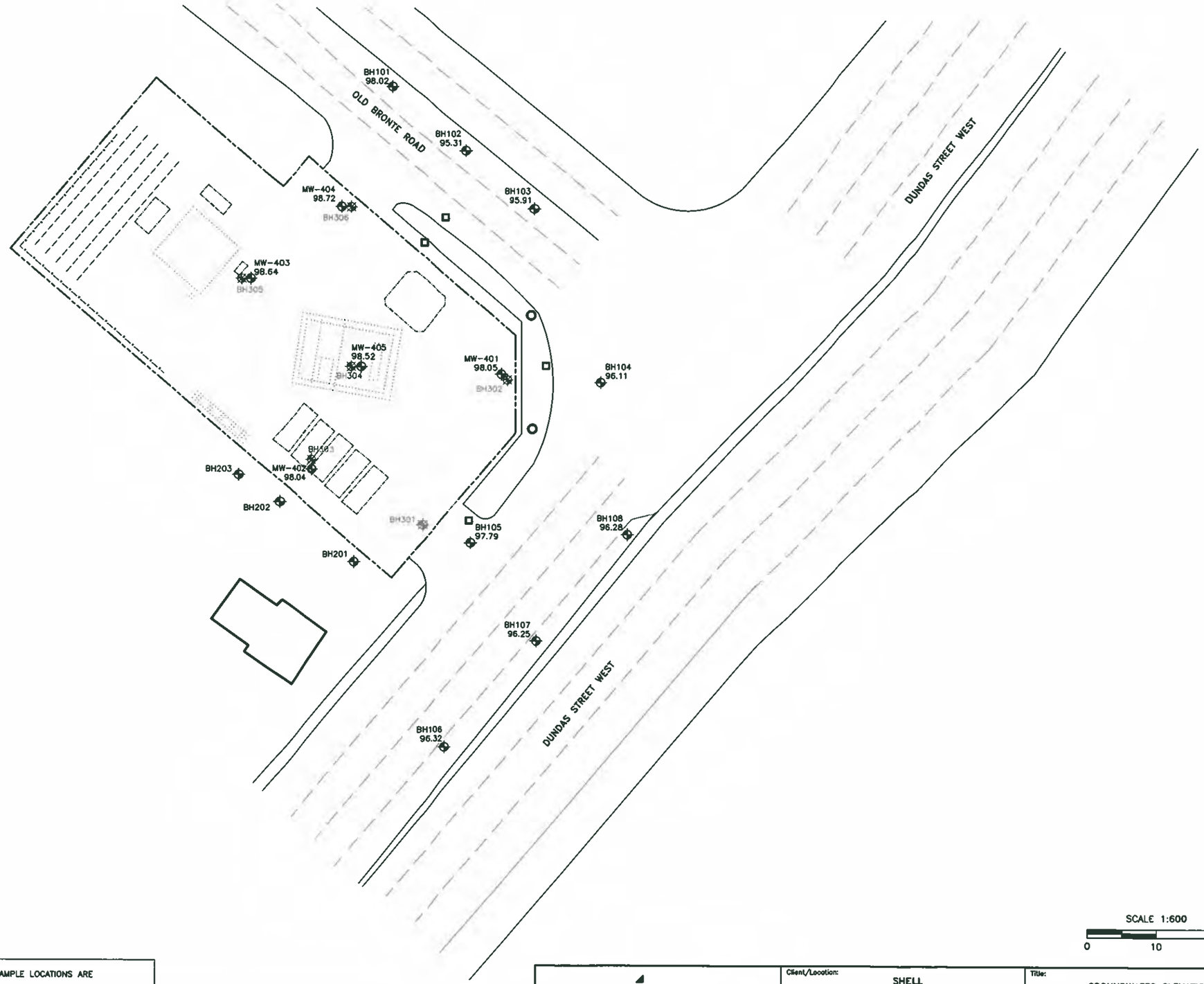
LEGEND

- BOREHOLE/MONITORING WELL
- DECOMMISSIONED MONITORING WELL
- MANHOLE
- CATCH BASIN
- SITE PROPERTY LINE
- EXISTING BUILDING
- INFRASTRUCTURE
- FORMER INFRASTRUCTURE
- CHAIN LINK FENCE
- FORMER TANK

NOTE(S):
1. SCALE AND SITE INFRASTRUCTURE LOCATIONS ARE APPROXIMATE
2. "m" : METRES

AQUA TERRE

Client/Location: SHELL 3005 DUNDAS STREET WEST OAKVILLE, ON			Title: BOREHOLE/MONITORING WELL LOCATIONS
Project No: S09125	Filename: 03F03_S09125	Date: DECEMBER 2009	Dwg No: FIGURE 3
Drawn: FD	Verified:	Project Manager:	



LEGEND

- MONITORING WELL
- DECOMMISSIONED MONITORING WELL
- MANHOLE
- CATCH BASIN
- SITE PROPERTY LINE
- EXISTING BUILDING
- INFRASTRUCTURE
- FORMER INFRASTRUCTURE
- CHAIN LINK FENCE
- FORMER TANK

MW-401 98.05 — IDENTIFICATION, WATER LEVEL ELEVATION (m a\d) (OCTOBER 8&9, 2009)

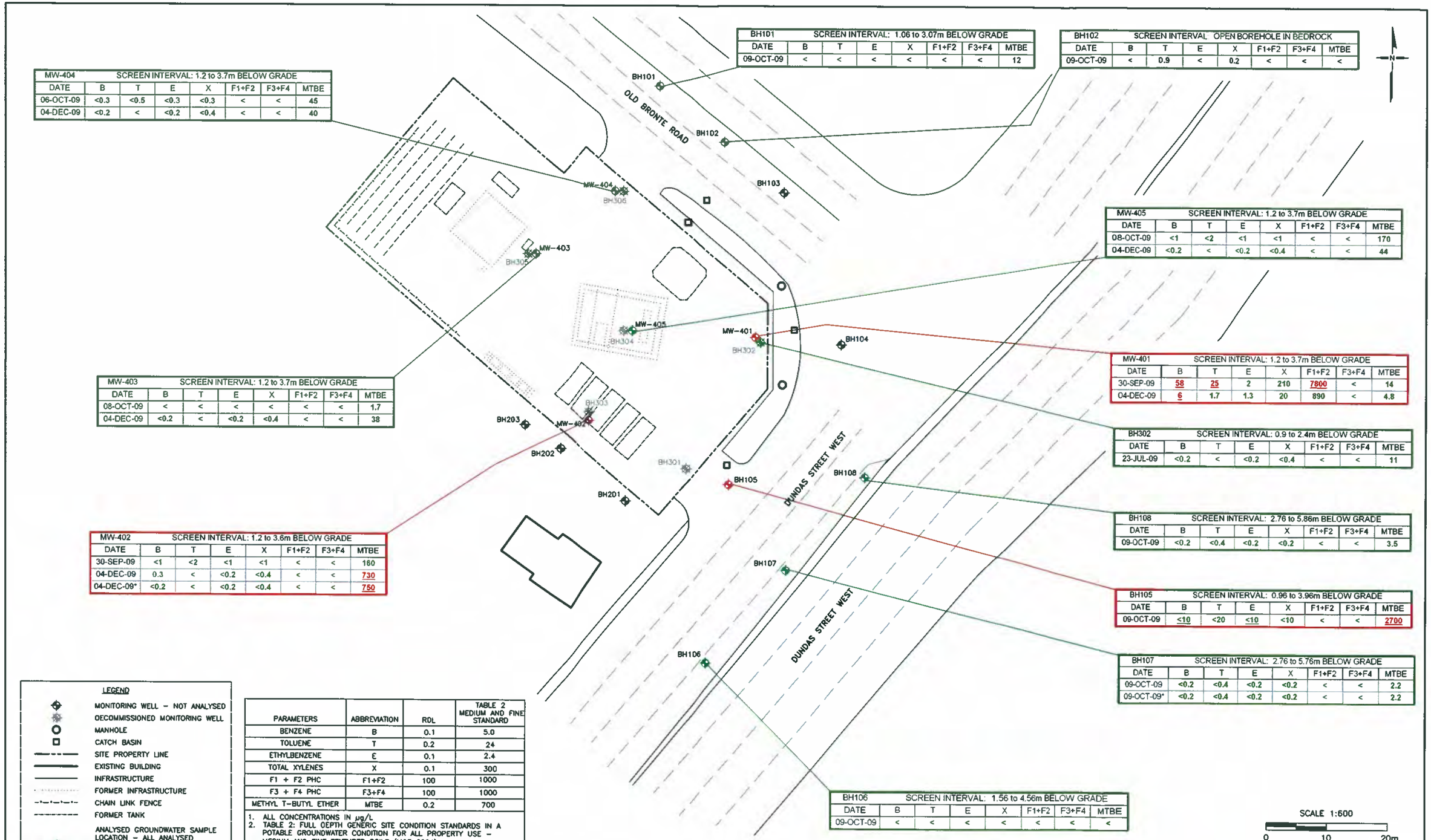
NOTE(S):
1. SCALE AND SAMPLE LOCATIONS ARE APPROXIMATE
2. "m a\d" : METRES ABOVE LOCAL DATUM
3. BENCHMARK: CENTRE OF SANITARY SEWER MANHOLE COVER IN SOUTHEAST CORNER OF SITE, REFERENCE ELEVATION=100.00m a\d

SCALE 1:600

0 10 20m

AQUA TERRE

Client/Location: SHELL 3005 DUNDAS STREET WEST OAKVILLE, ON			Title: GROUNDWATER ELEVATION (OCTOBER 2009)
Project No: S09125	Filename: 03F04_S09125	Date: DECEMBER 2009	Dwg No: FIGURE 4
Drawn: FD	Verified:	Project Manager:	



MW-404	SCREEN INTERVAL: 1.2 to 3.7m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
06-OCT-09	<0.3	<0.5	<0.3	<0.3	<	<	45
04-DEC-09	<0.2	<	<0.2	<0.4	<	<	40

BH101	SCREEN INTERVAL: 1.06 to 3.07m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
09-OCT-09	<	<	<	<	<	<	12

BH102	SCREEN INTERVAL OPEN BOREHOLE IN BEDROCK						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
09-OCT-09	<	0.9	<	0.2	<	<	<

MW-405	SCREEN INTERVAL: 1.2 to 3.7m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
08-OCT-09	<1	<2	<1	<1	<	<	170
04-DEC-09	<0.2	<	<0.2	<0.4	<	<	44

MW-401	SCREEN INTERVAL: 1.2 to 3.7m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
30-SEP-09	58	25	2	210	7800	<	14
04-DEC-09	6	1.7	1.3	20	890	<	4.8

BH302	SCREEN INTERVAL: 0.9 to 2.4m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
23-JUL-09	<0.2	<	<0.2	<0.4	<	<	11

MW-403	SCREEN INTERVAL: 1.2 to 3.7m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
08-OCT-09	<	<	<	<	<	<	1.7
04-DEC-09	<0.2	<	<0.2	<0.4	<	<	38

BH108	SCREEN INTERVAL: 2.76 to 5.86m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
09-OCT-09	<0.2	<0.4	<0.2	<0.2	<	<	3.5

MW-402	SCREEN INTERVAL: 1.2 to 3.6m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
30-SEP-09	<1	<2	<1	<1	<	<	160
04-DEC-09	0.3	<	<0.2	<0.4	<	<	730
04-DEC-09*	<0.2	<	<0.2	<0.4	<	<	750

BH105	SCREEN INTERVAL: 0.96 to 3.96m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
09-OCT-09	<10	<20	<10	<10	<	<	2700

BH107	SCREEN INTERVAL: 2.76 to 5.76m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
09-OCT-09	<0.2	<0.4	<0.2	<0.2	<	<	2.2
09-OCT-09*	<0.2	<0.4	<0.2	<0.2	<	<	2.2

BH106	SCREEN INTERVAL: 1.56 to 4.56m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
09-OCT-09	<	<	<	<	<	<	<

LEGEND

- MONITORING WELL – NOT ANALYSED
- DECOMMISSIONED MONITORING WELL
- MANHOLE
- CATCH BASIN
- SITE PROPERTY LINE
- EXISTING BUILDING
- INFRASTRUCTURE
- FORMER INFRASTRUCTURE
- CHAIN LINK FENCE
- FORMER TANK
- ANALYSED GROUNDWATER SAMPLE LOCATION – ALL ANALYSED PARAMETERS SATISFY THE SELECTED STANDARDS IN THE MOST RECENT SAMPLING EVENT
- ANALYSED GROUNDWATER SAMPLE LOCATION – AT LEAST ONE ANALYSED PARAMETER EXCEEDS THE SELECTED STANDARD IN THE MOST RECENT SAMPLING EVENT

PARAMETERS	ABBREVIATION	RDL	TABLE 2 MEDIUM AND FINE STANDARD
BENZENE	B	0.1	5.0
TOLUENE	T	0.2	24
ETHYLBENZENE	E	0.1	2.4
TOTAL XYLENES	X	0.1	300
F1 + F2 PHC	F1+F2	100	1000
F3 + F4 PHC	F3+F4	100	1000
METHYL T-BUTYL ETHER	MTBE	0.2	700

1. ALL CONCENTRATIONS IN µg/L
2. TABLE 2: FULL DEPTH GENERIC SITE CONDITION STANDARDS IN A POTABLE GROUNDWATER CONDITION FOR ALL PROPERTY USE – MEDIUM AND FINE TEXTURED SOILS (MOE 2004)
3. 'GREEN' : GREEN COLOURED CONCENTRATION SATISFIES THE MOE STANDARD
4. 'RED' : RED COLOURED & UNDERLINED CONCENTRATION EXCEEDS THE MOE STANDARD
5. 'RDL' : REPORTABLE DETECTION LIMIT
6. '<' : LESS THAN RDL (UNLESS NOTED)
7. '(###)' : ADJUSTED RDL (###) EXCEEDS GROUNDWATER SITE CONDITION STANDARD

NOTE(S):
1. SCALE, SITE INFRASTRUCTURE AND SAMPLE LOCATIONS ARE APPROXIMATE
2. INFORMATION ON THIS FIGURE MAY BE LOST IF IT IS PHOTOCOPIED OR FAXED
3. "m" : METRES

SCALE 1:600
0 10 20m

AQUA TERRE

Client/Location: SHELL 3005 DUNDAS STREET WEST OAKVILLE, ON		Title: GROUNDWATER ANALYTICAL RESULTS	
Project No: S09125	Filename: D3F05_S09125	Date: DECEMBER 2009	Dwg No: FIGURE 5
Drawn: FD	Verified:	Project Manager:	

TABLE 1 MONITORING RESULTS
3005 Dundas Street West, Oakville, ON
(see notes at end of table, check LNAPL occurrence in following table)

Location	Ground Elev (m)	Screen Top Elev (m)	Bottom of Well Elev (m)	Monitoring Date	OVM Reading	LNAPL Present In Well Or Skimmer	Depth to Water (m bgs)	Water Elevation (m)
SubArea - Shell Property								
MW-401	99.74	98.56	96.12	30-Sep-09	500	nd	1.78	97.97
				09-Oct-09	170	nd	1.70	98.05
				04-Dec-09	<25	nd	1.40	98.34
MW-402	100.06	98.90	96.46	30-Sep-09	50	nd	2.11	97.95
				09-Oct-09	170	nd	2.02	98.04
				04-Dec-09	25	nd	1.72	98.34
MW-403	100.20	99.02	96.58	30-Sep-09	75	nd	dry	dry
				09-Oct-09	170	nd	1.56	98.64
				04-Dec-09	25	nd	0.61	99.59 *
MW-404	99.93	98.70	96.26	30-Sep-09	50	nd	dry	dry
				09-Oct-09	160	nd	1.21	98.72 *
				04-Dec-09	75	nd	1.02	98.91 *
MW-405	99.96	98.72	96.28	30-Sep-09	25	nd	dry	dry
				09-Oct-09	160	nd	1.44	98.52
				04-Dec-09	<25	nd	1.24	98.72 *
MW-301	100.00	99.10	97.60	22-Jul-09	100	nd	2.04	97.96
				23-Jul-09	50	nd	1.99	98.01
MW-302	99.86	98.96	97.46	22-Jul-09	75	nd	1.91	97.95
				23-Jul-09	200	nd	1.91	97.95
MW-303	100.07	99.17	97.67	22-Jul-09	75	nd	2.12	97.95
				23-Jul-09	75	nd	2.11	97.96
MW-304	99.99	99.09	97.59	22-Jul-09	75	nd	1.32	98.67
				23-Jul-09	425	nd	1.87	98.12
MW-305	100.25	99.35	97.85	22-Jul-09	200	nd	1.26	98.99
				23-Jul-09	125	nd	2.19	98.06
MW-306	99.92	99.02	97.52	22-Jul-09	250	nd	1.50	98.42
				23-Jul-09	200	nd	1.89	98.03
SubArea - Old Bronte Road, Oakville, ON								

TABLE 1 MONITORING RESULTS
3005 Dundas Street West, Oakville, ON
(see notes at end of table, check LNAPL occurrence in following table)

Location	Ground Elev (m)	Screen Top Elev (m)	Bottom of Well Elev (m)	Monitoring Date	OVM Reading	LNAPL Present In Well Or Skimmer	Depth to Water (m bgs)	Water Elevation (m)
BH101	99.94	98.74	95.64	08-Oct-09	190	nd	3.92	96.02
BH102	99.94	nm	nm	08-Oct-09	290	nd	3.63	96.31
BH103	99.94	99.18	96.18	08-Oct-09	120	nd	3.75	96.19
SubArea - Dundas Street West, Oakville, ON								
BH104	100.19	98.99	95.99	08-Oct-09	150	nd	4.08	96.11
BH105	100.09	98.99	95.99	08-Oct-09	35	nd	2.30	97.79
BH106	100.18	98.48	95.48	08-Oct-09	130	nd	3.86	96.32
BH107	100.36	97.46	94.36	08-Oct-09	110	nd	4.11	96.25
BH108	100.49	97.59	94.49	08-Oct-09	95	nd	4.21	96.28

Explanatory Notes:
- o Elevations reported according to benchmark.
- o Water elevations NOT corrected for LNAPL, if present.
- o Water depths reported below ground surface (bgs).
- o Water depths measured using Heron Instruments interface probe (or equivalent) after removal of skimmer (if present).
- o Organic vapour meter (OVM) reading measured using Gastech 1238 ME (or equivalent) and reported in ppmv (parts per million by volume) unless noted as %LEL (lower explosive limit of hexane)
- o See previous reports for historic monitoring data

(s) indicates skimmer present in well.
(*) indicates water level higher than top of well screen.
(s*) indicates skimmer present and water level higher than well screen.
(nm) indicates well not monitored, (na) well not accessible, (nd) not detected.

Benchmark:
local (m ald), Reference Elevation (m) - 100
Reference Point - Centre of sanitary sewer manhole cover in south-east corner of site.

Area 2 and 3 surveyed by Wardrop on May 6, 2008. Area 1 surveyed by SNC-Lavalin Environment on December 4, 2009

TABLE 2 **GROUNDWATER ANALYTICAL RESULTS**
PETROLEUM HYDROCARBONS
3005 Dundas Street West, Oakville, Ontario

Sampling Location	Laboratory Sample ID	Date	Benzene	Toluene	Ethylbenzene	Xylenes	Methyl t-butyl ether (MTBE)	F1 (C6-C10) - BTEX	F2 (C10-C16 Hydrocarbons)	PHC F1+F2	F3 (C16-C34 Hydrocarbons)	F4 (C34-C50 Hydrocarbons)	PHC F3+F4
		RDL	0.1	0.2	0.1	0.1	0.2	100	100	100	100	100	100
		MOE Table 2 Standards	5	24	2.4	300	700	ns	ns	<1,000	ns	ns	<1,000
BH101	BH101	9-Oct-09	<	<	<	<	12	<	<	<	<	<	<
BH102	BH102	9-Oct-09	<	0.9	<	0.2	<	<	<	<	<	<	<
BH105	BH105	9-Oct-09	*<10*	<20	*<10*	<10	**2700**	<	<	<	<	<	<
BH106	BH106	9-Oct-09	<	<	<	<	<	<	<	<	<	<	<
BH107	BH107	9-Oct-09	<0.2	<0.4	<0.2	<0.2	2.2	<	<	<	<	<	<
	BH1077	Field Duplicate	<0.2	<0.4	<0.2	<0.2	2.2	<	<	<	<	<	<
	BH1077 Lab-Dup	Laboratory Duplicate	-	-	-	-	-	-	<	-	<	<	-
BH108	BH108	9-Oct-09	<0.2	<0.4	<0.2	<0.2	3.5	<	<	<	<	<	<
BH302	BH302	23-Jul-09	<0.2	<	<0.2	<0.4	11	<	<	<	<	<	<
	Decommissioned in September 2009												
MW-401	MW-401	30-Sep-09	**58**	**25**	2	210	14	7000	820	**7800**	<	<	<
	MW-401	4-Dec-09	**6**	1.7	1.3	20	4.8	890	<	890	<	<	<
MW-402	MW-402	30-Sep-09	<1	<2	<1	<1	160	<	<	<	<	<	<
	MW-402	4-Dec-09	0.3	<	<0.2	<0.4	**730**	<	<	<	<	<	<
	BH-98	Field Duplicate	<0.2	<	<0.2	<0.4	**750**	<	<	<	<	<	<
MW-403	MW-403	8-Oct-09	<	<	<	<	1.7	<	<	<	<	<	<
	MW-403	4-Dec-09	<0.2	<	<0.2	<0.4	38	<	<	<	<	<	<
MW-404	MW-404	6-Oct-09	<0.3	<0.5	<0.3	<0.3	45	<	<	<	<	<	<
	MW-404	4-Dec-09	<0.2	<	<0.2	<0.4	40	<	<	<	<	<	<
MW-405	MW-405	8-Oct-09	<1	<2	<1	<1	170	<	<	<	<	<	<
	MW-405	Laboratory Duplicate	<1	<2	<1	<1	170	-	-	-	-	-	-
	MW-405	4-Dec-09	<0.2	<	<0.2	<0.4	44	<	<	<	<	<	<
Field Blank	MW-99	9-Oct-09	<	<	<	<	<	<	<	<	<	<	<
	BH-99	4-Dec-09	<	<	<	<	<	<	<	<	<	<	<
Trip Blank	TRIP BLANK	9-Oct-09	<0.2	<	<0.2	<0.4	-	<	-	-	-	-	-
	TRIP BLANK	23-Nov-09	<0.2	<	<0.2	<0.4	-	<	-	-	-	-	-

Note: Concentrations in µg/L (unless noted)

RDL	reportable detection limit
<	not detected above RDL provided
<##	RDL adjusted to ## due to dilution
ns	no standard
-	not analyzed
2	Table 2 full depth generic site condition standards in a potable groundwater condition for all types of property uses (MOE, 2004).
500	exceeds groundwater standard
<##	adjusted detection limit (##) exceeds standard

Borehole/Monitoring Well ID: MW-401

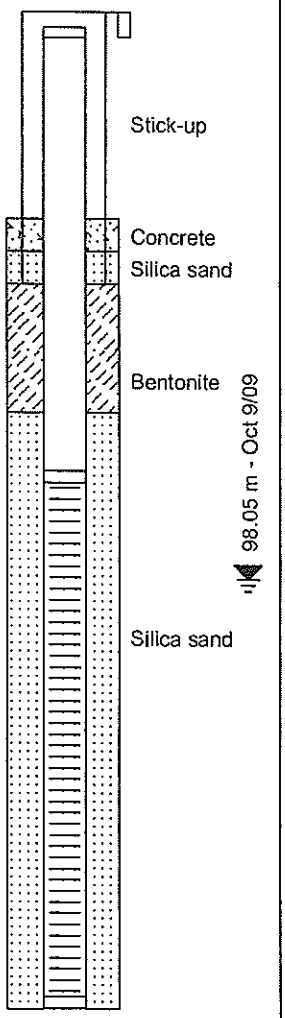
Project No.: S09125
Client: Shell
Location: 3005 Dundas St. W., Oakville
Date Completed: September 28, 2009

ATSI Supervisor: R. Finkbeiner
Drilling Method: Hollow Stem
Borehole Diameter: 21.0 cm
Monitoring Well Diameter: 5.1 cm

Drilling Company: Geo-Environmental
Drilling Equipment: CME-75
Well Casing: Stick-Up
Well Screen: 5.1 cm PVC size 10 slot

Site Datum: Centre of sanitary sewer manhole cover in south-east corner of site (100.00 m).

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0							Ground Surface	100.00 / 99.74
							SAND and GRAVEL fill (previously excavated area)	
6.5 / 2							silty CLAY till grey, some sand	98.00
12.5 / 3.7							End of borehole at 3.7 m bgs	96.00



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)

The data represented in this borehole log requires interpretation by Aqua Terre personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

No soil samples were collected during well installation.

Soil description based on information provided "On-Site Environmental Remediation Report" by Wardrop Engineering Inc. dated June 2, 2009.

Borehole/Monitoring Well ID: MW-402

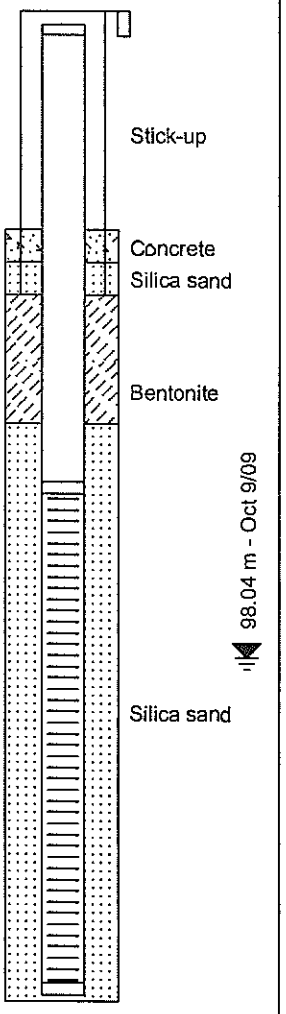
Project No.: S09125
Client: Shell
Location: 3005 Dundas St. W., Oakville
Date Completed: September 28, 2009

ATSI Supervisor: R. Finkbeiner
Drilling Method: Hollow Stem
Borehole Diameter: 21.0 cm
Monitoring Well Diameter: 5.1 cm

Drilling Company: Geo-Environmental
Drilling Equipment: CME-75
Well Casing: Stick-Up
Well Screen: 5.1 cm PVC size 10 slot

Site Datum: Centre of sanitary sewer manhole cover in south-east corner of site (100.00 m).

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0							Ground Surface	100.06
							SAND and GRAVEL fill (previously excavated area)	100.00
7 / 2							silty CLAY till grey, some sand	98.00
10 / 3								97.00
12							End of borehole at 3.7 m bgs	



(1) Blow count per 0.t5 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)

The data represented in this borehole log requires interpretation by Aqua Terre personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

No soil samples were collected during well installation.

Soil description ~~based on~~ and contacts interpreted from information provided "On-Site Environmental Remediation Report" by Wardrop Engineering Inc. dated June 2, 2009.

Borehole/Monitoring Well ID: MW-403

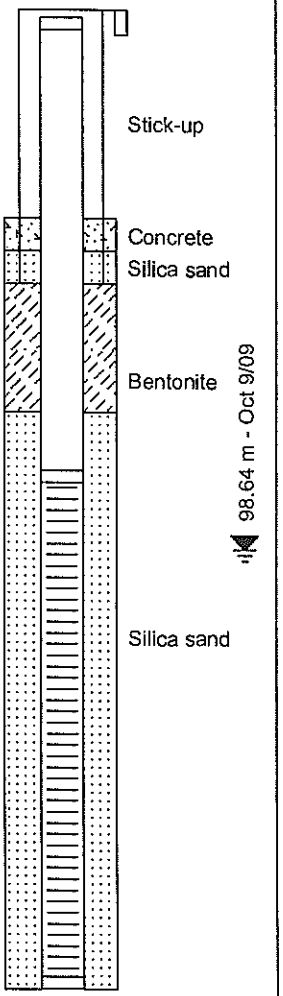
Project No.: S09125
Client: Shell
Location: 3005 Dundas St. W., Oakville
Date Completed: September 28, 2009

ATSI Supervisor: R. Finkbeiner
Drilling Method: Hollow Stem
Borehole Diameter: 21.0 cm
Monitoring Well Diameter: 5.1 cm

Drilling Company: Geo-Environmental
Drilling Equipment: CME-75
Well Casing: Stick-Up
Well Screen: 5.1 cm PVC size 10 slot

Site Datum: Centre of sanitary sewer manhole cover in south-east corner of site (100.00 m).

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0							Ground Surface	100.20
							SAND and GRAVEL fill (previously excavated area)	100.00
3 / 1								99.00
6 / 2								98.00
9 / 3							silty CLAY till grey, some sand	97.00
12 / 3.7							End of borehole at 3.7 m bgs	



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)

The data represented in this borehole log requires interpretation by Aqua Terre personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

No soil samples were collected during well installation.

Soil description based on information provided "On-Site Environmental Remediation Report" by Wardrop Engineering Inc. dated June 2, 2009.

Borehole/Monitoring Well ID: MW-404

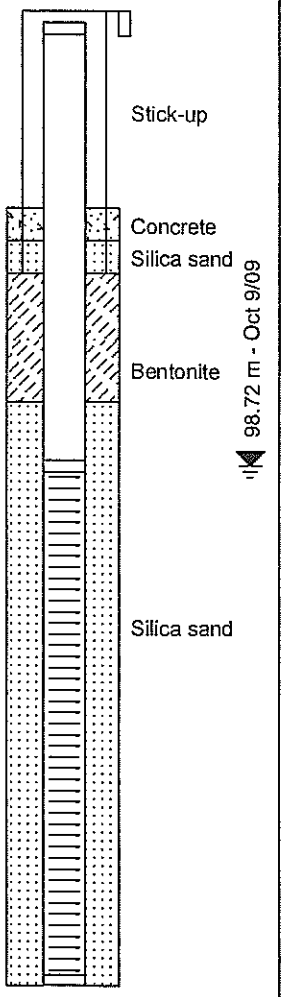
Project No.: S09125
Client: Shell
Location: 3005 Dundas St. W., Oakville
Date Completed: September 28, 2009

ATSI Supervisor: R. Finkbeiner
Drilling Method: Hollow Stem
Borehole Diameter: 21.0 cm
Monitoring Well Diameter: 5.1 cm

Drilling Company: Geo-Environmental
Drilling Equipment: CME-75
Well Casing: Stick-Up
Well Screen: 5.1 cm PVC size 10 slot

Site Datum: Centre of sanitary sewer manhole cover in south-east corner of site (100.00 m).

DEPTH	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
ft / m							Ground Surface	99.93
0 / 0							SAND and GRAVEL fill (previously excavated area)	
10 / 3							silty CLAY till grey, some sand	
12							End of borehole at 3.7 m bgs	



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)

The data represented in this borehole log requires interpretation by Aqua Terre personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

No soil samples were collected during well installation.

Soil description based on information provided "On-Site Environmental Remediation Report" by Wardrop Engineering Inc. dated June 2, 2009.

Borehole/Monitoring Well ID: MW-405

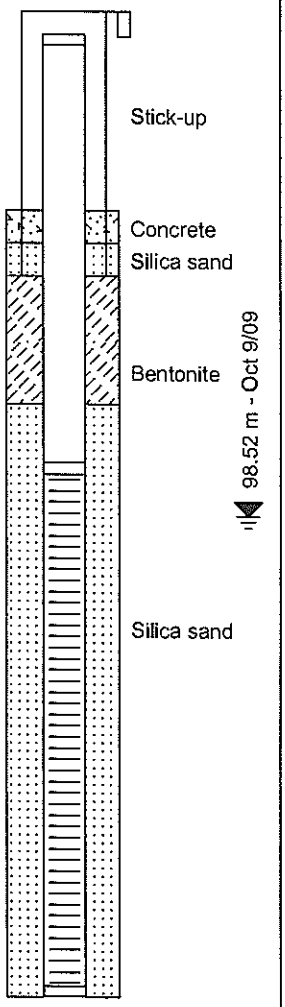
Project No.: S09125
Client: Shell
Location: 3005 Dundas St. W., Oakville
Date Completed: September 28, 2009

ATSI Supervisor: R. Finkbeiner
Drilling Method: Hollow Stem
Borehole Diameter: 21.0 cm
Monitoring Well Diameter: 5.1 cm

Drilling Company: Geo-Environmental
Drilling Equipment: CME-75
Well Casing: Stick-Up
Well Screen: 5.1 cm PVC size 10 slot

Site Datum: Centre of sanitary sewer manhole cover in south-east corner of site (100.00 m).

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0							Ground Surface	99.96
0 – 10 / 0 – 3							SAND and GRAVEL fill (previously excavated area)	
10 – 12 / 3 – 3.7							silty CLAY till grey, some sand	
12 / 3.7							End of borehole at 3.7 m bgs	



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)

The data represented in this borehole log requires interpretation by Aqua Terre personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

No soil samples were collected during well installation.

Soil description based on information provided "On-Site Environmental Remediation Report" by Wardrop Engineering Inc. dated June 2, 2009.

APPENDIX D6

EVALUATION OF POTENTIAL GROUNDWATER REMEDIAL APPOACHES (SLE, JULY 2010)

SNC•LAVALIN
Environment

Division of
SNC-LAVALIN Inc.
20 DeBoers Drive
Suite 200
Toronto, Ontario
Canada M3K 2B4

Tel.: 416-635-5882
Fax: 416-635-5353

July 15, 2010 Project S09125

Shell Canada Products
90 Sheppard Avenue East, Suite 600
Toronto, Ontario
M2N 6Y2

ATTENTION: Mr. Lee Howell, P.Geo.

REFERENCE: **Evaluation of Potential Groundwater Remedial Approaches**
Former Shell Retail Fuel Outlet – 3005 Dundas St. West, Oakville, Ontario (C05875)

At the request of Shell Canada Products (Shell), SNC-Lavalin Environment (SLE) has completed evaluation of potential remedial approaches to address residual groundwater impacts at the above referenced site. The evaluation included both technical and economic considerations. The purpose of this letter is to suggest a preliminary plan for a remedial technology for further consideration. Our understanding is that it is Shell's intent to sell this site for potential non-petroleum use, and Shell would prefer to have the site in compliance with regulatory standards to support such sale.

Background

The above referenced site is located at the northwest corner of Old Bronte Road and Dundas Street in the town of Oakville, Ontario and was a former Shell service station prior to its closure in 2007 (Figure 1). Between October 2008 and March, 2009 Wardrop Engineering Inc (Wardrop) completed a remedial excavation program at the site that included the excavation of approximately 9,000 tonnes of soil. Approximately 6,000 tonnes of the excavated soil was disposed of off-site. The remaining 3,000 tonnes of soil was treated with an Allu bucket, sampled and re-used on site. Verification samples from the walls, floors and from re-used soil satisfied the selected 2004 MOE Table 2 standards. As part of post remediation testing, Wardrop installed six (6) monitoring wells (BH301 to BH306) on-site to investigate groundwater quality (Wardrop, June 2, 2009). Groundwater samples were collected and submitted for benzene, toluene, ethyl benzene and xylenes (BTEX), petroleum hydrocarbons fractions (PHC) F1 to F4 and methyl-tert-butyl-ether (MTBE). Laboratory results for groundwater samples collected from BH302 and BH304 indicated that concentrations of one or more of benzene and ethyl benzene exceeded the selected MOE Table 2 standards.

In September 2009, SLE installed five (5) monitoring wells (MW-401 to MW-405) at the site and decommissioned six (6) (BH-301 to BH-306) monitoring wells previously installed by Wardrop. Groundwater monitoring and sampling was completed by SLE on four (4) occasions between July 2009 and June 2010. A summary of groundwater analytical results for BTEX, PHC F1 to F4 and MTBE is provided in Figure 2.

Remedial Objective

The remedial objective for this site is to reduce low-level groundwater impacts on-site to concentrations below the 2004 MOE Table 2 standards to allow for the filing of a Record of Site Condition (RSC) prior to December 31, 2012. Extensive soil remediation has already been completed at this site, but results would not meet the new Table 2 standards to be implemented in 2011. In order to use the transition period allowed in the new regulation, the groundwater impacts must meet the 2004 standards well before December 31, 2012, to allow for several successive rounds of groundwater results below the 2004 standards, to support filing of a RSC and avoid the need to meet the 2011 standards.

Remedial Options

Since July 2009, concentrations of BTEX, MTBE, PHC F1+F2 and PHC F3+F4 in samples collected from monitoring wells MW-403 through MW-405 have been below the selected 2004 MOE Table 2 standards. However, concentrations of one or more analysed parameters have exceeded the selected standards at monitoring wells MW-401 and MW-402 during one or more sampling event. There is insufficient data to establish a trend in groundwater concentrations. Groundwater impacts are believed to be localized around monitoring wells MW-401 and MW-402 and thus, remediation is proposed to target these areas. However, this assumption of localized impacts should be confirmed prior to implementation.

SLE considered several remedial options to address residual groundwater impacts including:

- Monitored natural attenuation;
- Enhanced bioremediation using oxygen;
- Vacuum truck to remove local groundwater impacts;
- Air sparging/soil vapour extraction;
- Pump and treat;
- Risk assessment; and,
- In-situ chemical oxidation

Based on the site conditions, time frame constraints and remedial objective, all options described above, except monitored natural attenuation and in-situ chemical oxidation were eliminated from consideration as being too costly, unable to meet the required timeline, or not technically appropriate.

Monitored natural attenuation was considered to be technically appropriate and a low cost solution. However, the time required to meet the meet the standards by natural attenuation cannot be reliably estimated. In-situ chemical oxidation increases the likelihood of groundwater meeting standards in time to allow the filing of a record of site condition and is therefore the recommended approach.

In-Situ Chemical Oxidation

Chemical oxidation involves injecting an oxidant to destroy Contaminants of Concern (COC). Chemical oxidation will be delivered to the subsurface via direct injection into temporary points.

The selected chemical oxidant is base-activated persulphate. SLE has successfully used this approach for localized groundwater polishing in the past.

Assuming impacts are localized around MW-401 and MW-402 as discussed above, it is proposed that up to four (4) injection points be advanced around these two monitoring wells using direct push technology. During chemical oxidation injections monitoring wells MW-401 and MW-402 will be monitored for geochemical and hydrogeologic response. Four (4) to six (6) weeks after injections, monitoring wells MW-401 and MW-402 will be monitored and sampled for laboratory analysis of BTEX, MTBE and PHC F1-F4. Successive quarterly sampling would be required to document that groundwater concentrations remain below Table 2 standards.

Based on the recent groundwater analytical results and the assumption that impacts are confined to the general vicinity of monitoring wells MW-401 and MW-402, one (1) injection of chemical oxidation may be sufficient to reduce groundwater impacts to concentrations below the selected MOE Table 2 standards within the required time frame. The estimated cost for in-situ chemical oxidation for one (1) injection as described is approximately $16,200. The breakdown of this estimate is presented in Table 1. The costs to complete quarterly groundwater sampling are not included in this estimate.

Injection could be completed within approximately three to four weeks of acceptance of the proposal.

Additional Data Required

To validate the assumption of localized impacts around MW-401 and MW-402, better estimate oxidant requirements and to validate the number and spacing of required injection points, SLE recommends that a pre-remediation sampling program be conducted prior to implementing injections.

In total SLE recommends the completion of approximately four (4) boreholes for the collection of soil samples, with each to be completed as a well. The preliminary cost estimate to complete the additional investigation is approximately $14,600. This work could be initiated within approximately three (3) weeks of acceptance of this proposal.

References

Ministry of the Environment (MOE), 2004. “Soil, Ground Water, and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act.” March 9, 2004.

Wardrop Engineering Inc (Wardrop), 2009a. “Post Remediation Assessment, Former Shell Retail Station (C05875) 3005 Dundas Street West, Oakville, Ontario”. Report to Shell Canada Products dated June 02, 2009.

SNC-Lavalin Environment (SLE), 2009. “On- and Off-site Groundwater Sampling – Former Shell Retail Fuel Outlet, 3005 Dundas Street West, Oakville, Ontario (C05875).” December 30, 2009.

Disclaimer

The statements made in this report are based solely on the information obtained to date as part of the above referenced study. SNC-Lavalin Environment (SLE), Division of SNC-Lavalin Inc., has used its professional judgement in assessing this information and formulating its opinion and recommendations. New information may result in a change in this opinion. The mandate at SLE is to perform the tasks prescribed by the Client with the due diligence of the profession. No other warranty or representation, expressed or implied, as to the accuracy of the information or recommendations is included or intended in this report. The results of this study should in no way be construed as a warranty that the subject property is free from any and all contamination.

SLE disclaims any liability or responsibility to any person or party, other than the party to whom this report is addressed, for any loss, damage, expense, fine, or penalty which may arise or result from the use of any information or recommendations contained in this report. Any use which a third party makes of this report, or any reliance on or decisions made based on it, are the sole responsibility of the third party.

Should you have any questions or require further information, please do not hesitate to contact me directly. Please note that if you are in general agreement with this approach, a peer review with CoE should be conducted prior to proceeding further.

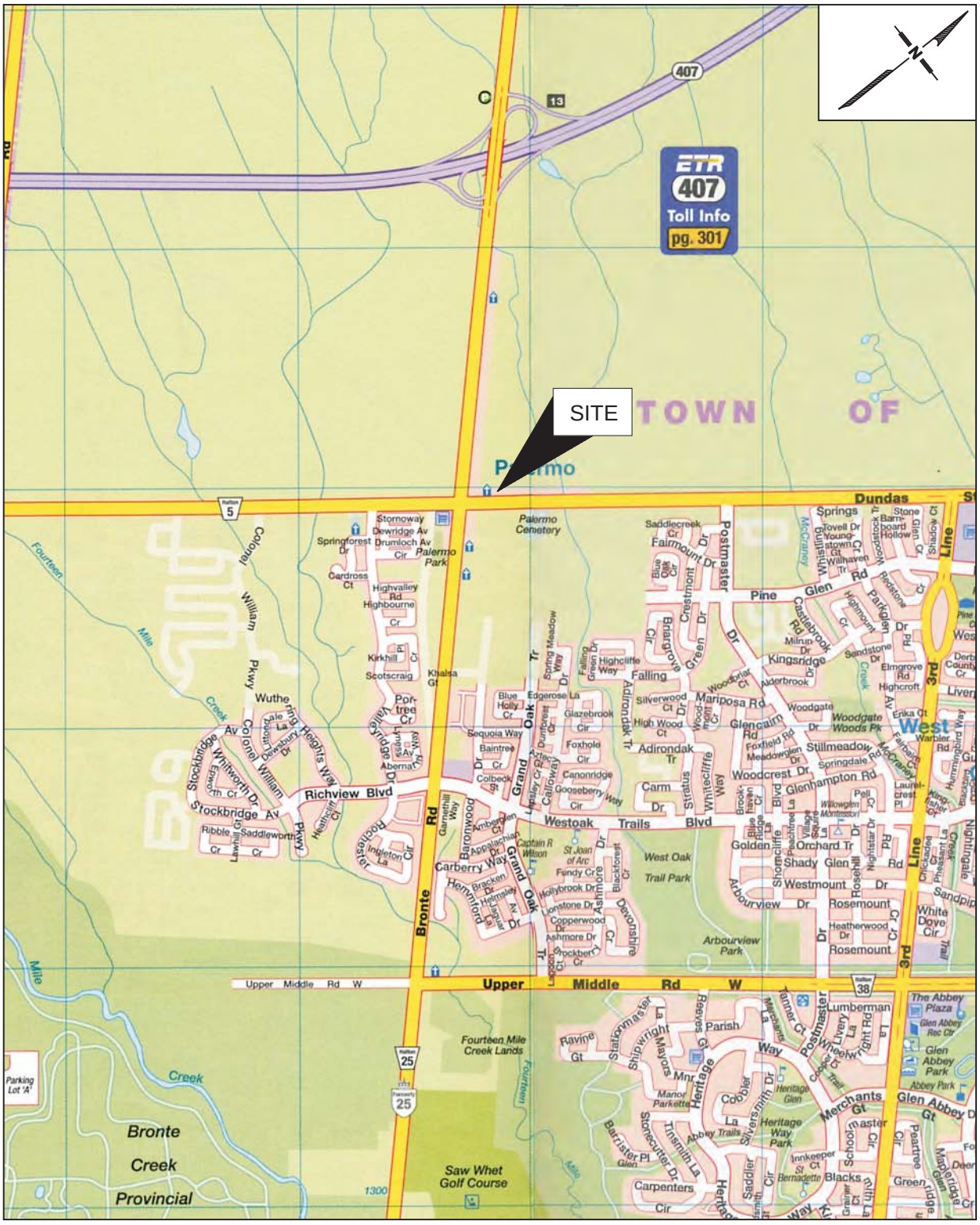
Respectfully:

SNC-LAVALIN ENVIRONMENT
DIVISION OF SNC-LAVALIN INC.

DRAFT

_____
Meghan Fitz-James, P.Eng.
Senior Engineer

FIGURES



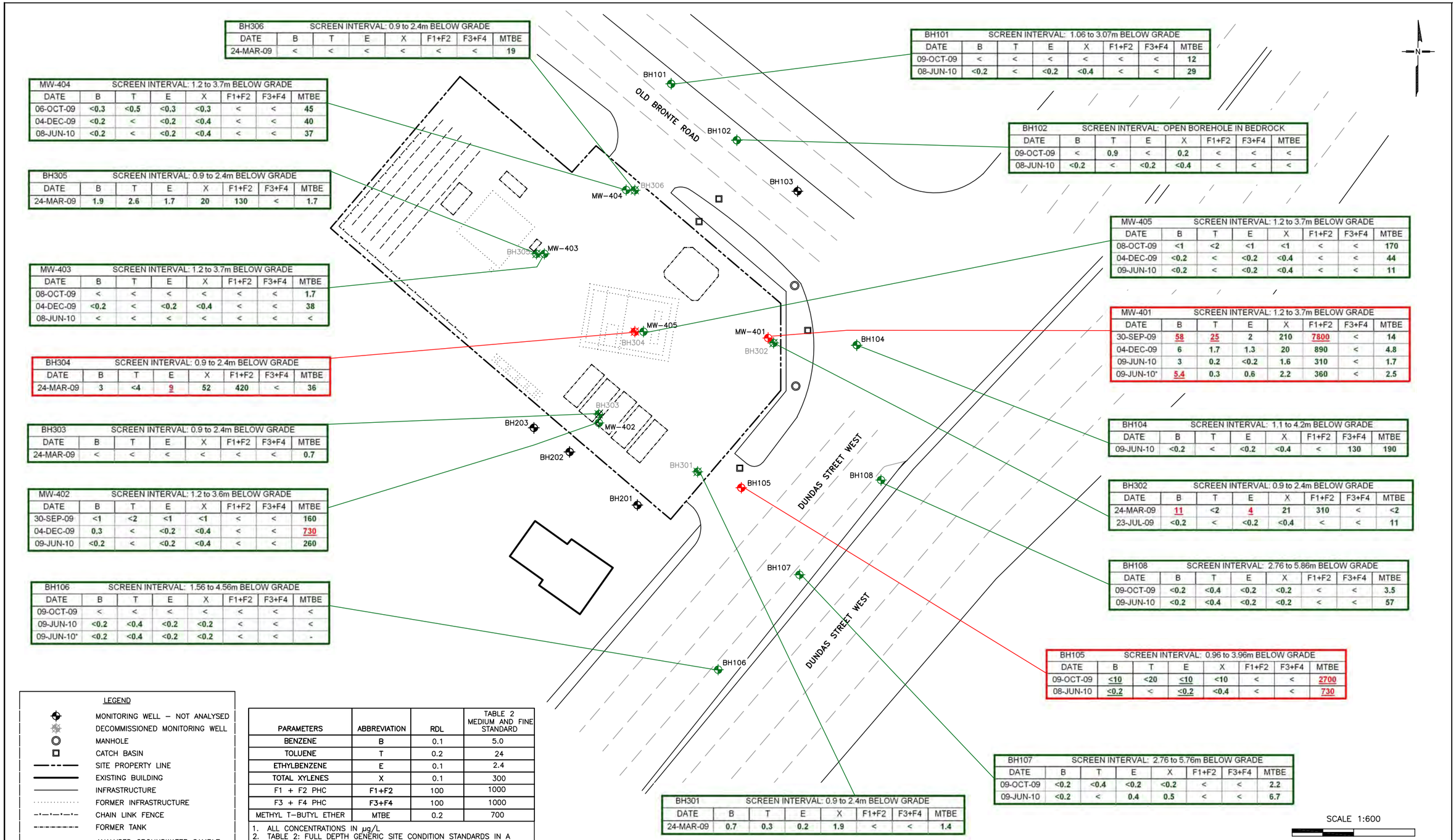
SOURCE: SCHWERDT GRAPHIC ARTS LTD., (MapArt), 2007 EDITION

SCALE 1:25,000

0 0.5 1km

SNC·LAVALIN Environment

Client/Location: SHELL 3005 DUNDAS STREET WEST OAKVILLE, ON		Title: SITE LOCATION PLAN	
Project No: S09125	Filename: 07F01_S09125	Date: JULY 2010	Dwg No: FIGURE 1
Drawn: FD	Verified:	Project Manager:	



BH306	SCREEN INTERVAL: 0.9 to 2.4m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
24-MAR-09	<	<	<	<	<	<	19

MW-404	SCREEN INTERVAL: 1.2 to 3.7m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
06-OCT-09	<0.3	<0.5	<0.3	<0.3	<	<	45
04-DEC-09	<0.2	<	<0.2	<0.4	<	<	40
08-JUN-10	<0.2	<	<0.2	<0.4	<	<	37

BH305	SCREEN INTERVAL: 0.9 to 2.4m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
24-MAR-09	1.9	2.6	1.7	20	130	<	1.7

MW-403	SCREEN INTERVAL: 1.2 to 3.7m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
08-OCT-09	<	<	<	<	<	<	1.7
04-DEC-09	<0.2	<	<0.2	<0.4	<	<	38
08-JUN-10	<	<	<	<	<	<	<

BH304	SCREEN INTERVAL: 0.9 to 2.4m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
24-MAR-09	3	<4	9	52	420	<	36

BH303	SCREEN INTERVAL: 0.9 to 2.4m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
24-MAR-09	<	<	<	<	<	<	0.7

MW-402	SCREEN INTERVAL: 1.2 to 3.6m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
30-SEP-09	<1	<2	<1	<1	<	<	160
04-DEC-09	0.3	<	<0.2	<0.4	<	<	730
09-JUN-10	<0.2	<	<0.2	<0.4	<	<	260

BH106	SCREEN INTERVAL: 1.56 to 4.56m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
09-OCT-09	<	<	<	<	<	<	<
09-JUN-10	<0.2	<0.4	<0.2	<0.2	<	<	<
09-JUN-10*	<0.2	<0.4	<0.2	<0.2	<	<	-

BH101	SCREEN INTERVAL: 1.06 to 3.07m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
09-OCT-09	<	<	<	<	<	<	12
08-JUN-10	<0.2	<	<0.2	<0.4	<	<	29

BH102	SCREEN INTERVAL: OPEN BOREHOLE IN BEDROCK							
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
09-OCT-09	<	0.9	<	0.2	<	<	<
08-JUN-10	<0.2	<	<0.2	<0.4	<	<	<

MW-405	SCREEN INTERVAL: 1.2 to 3.7m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
08-OCT-09	<1	<2	<1	<1	<	<	170
04-DEC-09	<0.2	<	<0.2	<0.4	<	<	44
09-JUN-10	<0.2	<	<0.2	<0.4	<	<	11

MW-401	SCREEN INTERVAL: 1.2 to 3.7m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
30-SEP-09	58	25	2	210	7800	<	14
04-DEC-09	6	1.7	1.3	20	890	<	4.8
09-JUN-10	3	0.2	<0.2	1.6	310	<	1.7
09-JUN-10*	5.4	0.3	0.6	2.2	360	<	2.5

BH104	SCREEN INTERVAL: 1.1 to 4.2m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
09-JUN-10	<0.2	<	<0.2	<0.4	<	130	190

BH302	SCREEN INTERVAL: 0.9 to 2.4m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
24-MAR-09	11	<2	4	21	310	<	<2
23-JUL-09	<0.2	<	<0.2	<0.4	<	<	11

BH108	SCREEN INTERVAL: 2.76 to 5.86m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
09-OCT-09	<0.2	<0.4	<0.2	<0.2	<	<	3.5
09-JUN-10	<0.2	<0.4	<0.2	<0.2	<	<	57

BH105	SCREEN INTERVAL: 0.96 to 3.96m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
09-OCT-09	<10	<20	<10	<10	<	<	2700
08-JUN-10	<0.2	<	<0.2	<0.4	<	<	730

BH107	SCREEN INTERVAL: 2.76 to 5.76m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
09-OCT-09	<0.2	<0.4	<0.2	<0.2	<	<	2.2
09-JUN-10	<0.2	<	0.4	0.5	<	<	6.7

BH301	SCREEN INTERVAL: 0.9 to 2.4m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
24-MAR-09	0.7	0.3	0.2	1.9	<	<	1.4

LEGEND

- MONITORING WELL – NOT ANALYSED
- DECOMMISSIONED MONITORING WELL
- MANHOLE
- CATCH BASIN
- SITE PROPERTY LINE
- EXISTING BUILDING
- INFRASTRUCTURE
- FORMER INFRASTRUCTURE
- CHAIN LINK FENCE
- FORMER TANK
- ANALYSED GROUNDWATER SAMPLE LOCATION – ALL ANALYSED PARAMETERS SATISFY THE SELECTED STANDARDS IN THE MOST RECENT SAMPLING EVENT
- ANALYSED GROUNDWATER SAMPLE LOCATION – AT LEAST ONE ANALYSED PARAMETER EXCEEDS THE SELECTED STANDARD IN THE MOST RECENT SAMPLING EVENT

PARAMETERS	ABBREVIATION	RDL	TABLE 2 MEDIUM AND FINE STANDARD
BENZENE	B	0.1	5.0
TOLUENE	T	0.2	24
ETHYLBENZENE	E	0.1	2.4
TOTAL XYLENES	X	0.1	300
F1 + F2 PHC	F1+F2	100	1000
F3 + F4 PHC	F3+F4	100	1000
METHYL T-BUTYL ETHER	MTBE	0.2	700

1. ALL CONCENTRATIONS IN µg/L
2. TABLE 2: FULL DEPTH GENERIC SITE CONDITION STANDARDS IN A POTABLE GROUNDWATER CONDITION FOR ALL PROPERTY USE – MEDIUM AND FINE TEXTURED SOILS (MOE 2004)
3. 'GREEN' : GREEN COLOURED CONCENTRATION SATISFIES THE MOE STANDARD
4. 'RED' : RED COLOURED & UNDERLINED CONCENTRATION EXCEEDS THE MOE STANDARD
5. 'RDL' : REPORTABLE DETECTION LIMIT
6. '<' : LESS THAN RDL (UNLESS NOTED)
7. '<###' : ADJUSTED RDL (###) EXCEEDS GROUNDWATER SITE CONDITION STANDARD

NOTE(S):
1. SCALE, SITE INFRASTRUCTURE AND SAMPLE LOCATIONS ARE APPROXIMATE
2. INFORMATION ON THIS FIGURE MAY BE LOST IF IT IS PHOTOCOPIED OR FAXED
3. "m" : METRES

SCALE 1:600

0 10 20m

SNC·LAVALIN Environment

Client/Location: SHELL 3005 DUNDAS STREET WEST OAKVILLE, ON		Title: GROUNDWATER ANALYTICAL RESULTS	
Project No: S09125	Filename: 07F02_S09125	Date: JULY 2010	Dwg No: FIGURE 2
Drawn: FD/AG	Verified:	Project Manager:	

TABLES

Table 1 Summary of Estimated Project Costs
Shell Former Gasoline Retail Facility
3005 Dundas Street West, Oakville, Ontario

in-Situ Chemical Oxidation

Task Description	SLE Staff	SLE Subcontractor	Laboratory	Total Cost
Pre-Injection Monitoring and Sampling	2,000	800	800	3,600
Chemical Oxidation Injection	1,500	7,500	nil	9,000
Post-Injection Monitoring and Sampling	2,000	800	800	3,600
Total Project Costs	5,500	9,100	1,600	16,200

Table 2 Estimated Cost to Obtain Additional Data
Shell Former Gasoline Retail Facility
3005 Dundas Street West, Oakville, Ontario

Additional Data Requirements

Task Description	SLE Staff	SLE Subcontractor	Laboratory	Total Cost
Borehole Drilling / Monitoring Well Installation	3,000	8,000	1,000	11,000
Pre-Injection Monitoring and Sampling	2,000	800	800	3,600
Total Project Costs	5,000	8,800	1,800	14,600

APPENDIX D7

TRASITION NOTICE
(SLE, DECEMBER 2010)

Ontario
Ministry of the Environment

Notice under Section 21.1 of Ontario Regulation 153/04

Ce formulaire est disponible en français

Personal information requested on this form is collected under the authority of Ontario Regulation 153/04. Information will be used to document this notice under section 21.1 of Ontario Regulation 153/04, which permits an owner of property to submit a Record of Site Condition (RSC) for filing for all or part of the property described in this notice using the "March 9, 2004 Soil, Ground Water and Sediment Standards" after July 1, 2011 and before January 1, 2013. Questions about this collection should be directed to the Information Unit Supervisor, Environmental Assessment and Approvals Branch, by e-mail at EAABGen@ontario.ca or by telephone at 1-800-461-6290 (or in Toronto at 416-314-8001).

This form is used to provide notice to the Director under section 21.1 of Ontario Regulation 153/04 that an owner of property wishes to submit a RSC for filing using the "March 9, 2004 Soil, Ground Water and Sediment Standards" after July 1, 2011 and before January 1, 2013. This form must be submitted via email to the Ministry of the Environment (the Ministry) between July 1, 2010 and December 31, 2010 in order for an owner to be eligible to submit a RSC for filing using the "March 9, 2004 Soil, Ground Water and Sediment Standards" after July 1, 2011 and before January 1, 2013. The Ministry will send an acknowledgement that this notice has been received to the owner.

When submitting a RSC for filing after July 1, 2011 but before January 1, 2013 using the "March 9, 2004 Soil, Ground Water and Sediment Standards," a copy of this completed notice form and a copy of the acknowledgement sent by the Ministry must be attached.

Information about the Property

Address *(Street Number and Name – if available)*	City or Town
3005 Dundas Street West	Oakville

UTM Coordinates of the centroid of the RSC property, measured using a Global Positioning System

	Zone	Northing	Easting
NAD83	17	N4809921.53	E598972.72

☑ A copy of the deed(s), transfer(s) or other document(s) by which the property was acquired by the owner is attached.

☑ A plan of survey of the property, prepared, signed and sealed by a surveyor, is attached.

Information about the Owner *(please print)*

Owner's Name, where owner is an individual

First Name	Middle Name / Initial	Last Name

Firm, Company or Partnership Name, where the owner is not an individual

Shell Canada Products

Name of person who is authorized to sign for the owner, where the owner is not an individual

First Name	Middle Name / Initial	Last Name
Lee		Howell

Owner's Address

Street Number and Name	City or Town	Province	Postal Code
90 Sheppard Ave East	Toronto	ON	M2N6Y2

Telephone Number *(including area code)*	Fax Number *(if any)*	Email Address *(if any)*
416-5985563 *ext.*		lee.howell@shell.com

Owner's Certifications

☐ I am the owner of this property, or

☑ I am authorized to sign for the owner of this property.

(select one or both of the following, as applicable)

☐ A risk assessment with respect to a contaminant at the property has been submitted to the Ministry.

Risk Assessment Number: Date of Submission *(yyyy/mm/dd)*:

☑ Action to reduce the concentration of a contaminant on, in or under the property in order to meet a standard specified in a risk assessment accepted by the Director for the contaminant with respect to the property or, where none exists, the applicable site condition standard for the contaminant, has begun.

I certify that the information provided in this form is true and accurate.

Signature: per Shell Canada Products | Date *(yyyy/mm/dd)*: 2010/12/21

Qualified Person's Information *(must be a 'Qualified Person' as defined in s. 5 of O. Reg. 153/04)*

First Name	Middle Name / Initial	Last Name
Meghan	C	Fitz-James

Company Name *(if any)*: SNC-Lavalin Environment

Professional Affiliation(s) *(i.e. PEO and/or APGO)*: PEO | Membership Number: 90554049

Qualified Person's Certifications

☑ A phase one environmental site assessment of the property, which includes the evaluation of the information gathered from a records review, site visit and interviews, has been conducted in accordance with the regulation by or under the supervision of a qualified person as required by the regulation.

Phase One Environmental Site Assessment Details

Title of Phase One Environmental Site Assessment Report: Shell Canada Products 3005 Dundas Street West, Oakville, ON (C05875) Phase I Environmental Site Assessment

Report Date: December 2010

I certify that the information provided in this form is true and accurate.

Signature | Date *(yyyy/mm/dd)*: 2010/12/21

Instructions for preparing your electronic submission:

1. Complete and print this form;
2. Sign the form;
3. Scan and produce a PDF copy of:
   a. The signed form;
   b. A copy of the deed(s), transfer(s), or other document(s) by which the property was acquired by the owner; and,
   c. A copy of a plan of survey showing the property, prepared, signed and sealed by a surveyor.
4. Submit your signed form and all other supporting information by email to: Reg153Notice@ontario.ca.

Please ensure that all submitted documents are legible and in PDF format, readable by Adobe Acrobat Reader® or other similar software. Questions about this form should be directed to Brownfields Filing and Review, Environmental Assessment and Approvals Branch by email to EAABGen@ontario.ca or by telephone, outside Toronto 1-800-461-6290 or in Toronto 416-314-8001.

Information on Submitting a Notice under Section 21.1 of O. Reg. 153/04

Section 21.1 of the amended Regulation 153/04 takes effect on July 1, 2010. This section sets out requirements to allow an owner of property to use the "March 9, 2004 Soil, Ground Water and Sediment Standards" ("2004 standards") and associated provisions of the current regulation in certain circumstances after July 1, 2011.

If the owner meets the requirements of section 21.1, and the owner wishes to use the 2004 standards and is submitting a record of site condition for filing after July 1, 2011 but before January 1, 2013, the section allows the continued use of the 2004 standards and the associated provisions referenced in section 21.1.

In order for an owner to be eligible to do this, **a *Notice*** (see the form "Notice under Section 21.1 of Ontario Regulation 153/04) **must be completed and submitted** via email to the Ministry of Environment (the Ministry) **between July 1, 2010 and December 31, 2010** along with the necessary supporting documents.

Notices are to be emailed to: Reg153Notice@ontario.ca

The Ministry will send an acknowledgement that the *Notice* has been received to the owner.

In the *Notice*, the owner of the property must, among other things:

- certify that remediation has begun, or
- certify that a risk assessment, which has received a risk assessment number, has been submitted to the ministry, or
- certify both, and
- ensure a Qualified Person certifies that a Phase One ESA has been completed.

When submitting the *Notice* to the Ministry, the following supporting documents are to be attached to the email as PDF files:

1. a copy of the deed(s), transfer(s) or other document(s) by which the property was acquired by the owner and;
2. a copy of a plan of survey prepared, signed and sealed by a surveyor showing the property.

Section 21.1 permits only the use of the 2004 standards and the associated provisions referred to in the section. In all other respects, a record of site condition submitted after July 1, 2011 must meet the requirements of O. Reg. 153/04, as amended by O. Reg. 511/09, including the requirements which come into effect on July 1, 2011, such as new requirements for environmental site assessments.

Section 21.1 requires that when you are submitting a record of site condition for filing after July 1, 2011 and before January 1, 2013, and wish to use the 2004 standards, a copy of the completed *Notice* and of the acknowledgement sent by the Ministry must be attached.

Important Reminder: If an owner of property wishes to take advantage of Section 21.1, the completed *Notice* must be sent to the Ministry between July 1, 2010 and December 31, 2010.

The regulation O. Reg.153/04 (Records of Site Condition - Part XV.1 of the Act), made under the Environmental Protection Act, is available at www.e-laws.gov.on.ca.

Additional information is also available on the Brownfields Ontario website: www.ontario.ca/brownfields.

NOTE: This information note contains general information only and should not be relied on as advice of any kind. Readers are advised to review the regulation and obtain legal advice.

Province of Ontario

Transfer/Deed of Land

Form 1 — Land Registration Reform Act

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A

FOR OFFICE USE ONLY

736340

CERTIFICATE OF RECEIPT
HALTON (20) MILTON

'98 MAY 21 PM 1 11

New Property Identifiers — LAND REGISTRAR — Additional: See Schedule ☐

Executions — Additional: See Schedule ☐

(1) Registry ☐ Land Titles ☒ (2) Page 1 of 4 pages

(3) Property Identifier(s): Block 24927 Property 0085(LT) Additional: See Schedule ☐

(4) Consideration: ONE HUNDRED AND FORTY-ONE THOUSAND ———— 00/100 Dollars $141,000.00

(5) Description — This is a: Property Division ☐ Property Consolidation ☐

Part Lot 31, Concession 1, North of Dundas Street, ~~City~~ Town of Oakville, Regional Municipality of Halton.

As described in Instrument No. TW29654.

SAVE AND EXCEPT Part 1, Plan 20R-187 and Expropriation Plan 856.

Being the whole of the PIN.

(6) This Document Contains: (a) Redescription New Easement Plan/Sketch ☐ (b) Schedule for: Description ☐ Additional Parties ☐ Other ☒

(7) Interest/Estate Transferred: Fee Simple

(8) Transferor(s) The transferor hereby transfers the land to the transferee ~~and certifies that the transferor is at least eighteen years old and that~~

Name(s)	Signature(s)	Date of Signature Y M D
CONFEDERATION LIFE INSURANCE COMPANY, by its Liquidator, KPMG INC.	By: [signature] Name: Kerryn Downey Title: A.S.O.	1998 5 19
	I have authority to bind the Corporation	

(9) Spouse(s) of Transferor(s) I hereby consent to this transaction

Name(s)	Signature(s)	Date of Signature Y M D

(10) Transferor(s) Address for Service: 500 - 4101 Yonge Street, Toronto, Ontario, M2P 1N6

(11) Transferee(s)

	Date of Birth Y M D
SHELL CANADA PRODUCTS LIMITED	

(12) Transferee(s) Address for Service: 700 - 45 Vogell Road, Richmond Hill, Ontario, L4B 3Y6
Attn: Real Estate and Development Manager

Planning Act — OPTIONAL

(13) Transferor(s) The transferor verifies that to the best of the transferor's knowledge and belief, this transfer does not contravene section 50 of the Planning Act.

Signature [signature] Date of Signature Y M D 1998 5 19

Signature ____ Date of Signature Y M D ____

Solicitor for Transferor(s) I have explained the effect of section 50 of the Planning Act to the transferor and I have made inquiries of the transferor to determine that this transfer does not contravene that section and based on the information supplied by the transferor, to the best of my knowledge and belief, this transfer does not contravene that section. I am an Ontario solicitor in good standing.

Name and Address of Solicitor: Joseph Pasquariello, Goodman, Phillips & Vineberg, Suite 2400, 250 Yonge Street, Toronto, Ont. M5B 2M6 Signature [signature] Date of Signature Y M D 1998 05 19

Affix Statement by Solicitor for Transferee(s)

(14) **Solicitor for Transferee(s)** I have investigated the transferor(s) title to this land and to abutting land where relevant and I am satisfied that the title records reveal no contravention as set out in subclause 50 (22) (c) (ii) of the Planning Act and that to the best of my knowledge and belief this transfer does not contravene section 50 of the Planning Act. I act independently of the solicitor for the transferor(s) and I am an Ontario solicitor in good standing.

PIN: 24927 0085(LT) Con't. on Schedule ☐

Name of Transferee(s): SHELL CANADA PRODUCTS LIMITED Con't. on Schedule ☐

Name and Address of Solicitor: G.M.R. Beelen, Law Dept. 45 Vogell Rd., Suite 700 Richmond Hill, L4B 3Y6

Date of Signature Y M D 1998 05 21

Signature [signature]

(15) Assessment Roll Number of Property

Cty.	Mun.	Map	Sub.	Par.
24	01	010	050	03700

(16) Municipal Address of Property
3005 Dundas Street West
Oakville, Ontario

x:\styleus\docs\980777F.ded

(17) Document Prepared by: wpeac/98-0777
Joseph Pasquariello
GOODMAN PHILLIPS & VINEBERG
Suite 2400
250 Yonge Street
Toronto, Ontario, Canada
M5B 2M6

FOR OFFICE USE ONLY

Fees and Tax	
Registration Fee	
Land Transfer Tax	
Total	

styleus corporation SoftDocs® 3.11 / TORONTO · CANADA

SC102H 11/1992

Additional Property Identifier(s) and/or Other Information

The covenants deemed to be included in this Transfer/Deed of Land under Section 5(1) of the *Land Registration Reform Act* are hereby excluded.

x:\styleus\docs\980777.sch

SCHEDULE

Winding-Up Order of **CONFEDERATION LIFE INSURANCE COMPANY** of the Honourable Mr. Justice Houlden dated the 15th day of August, 1994 was registered the 19th day of October, 1994 as Instrument No. 590214.

Court Order of the Honourable Mr. Justice Houlden appointing **THE SUPERINTENDENT OF FINANCIAL INSTITUTIONS** as the Provisional Liquidator of **CONFEDERATION LIFE INSURANCE COMPANY** dated August 15, 1994 was registered the 19th day of October, 1994 as Instrument No. 590214.

Court Order appointing **KPMG INC.** as the Liquidator of **CONFEDERATION LIFE INSURANCE COMPANY** of the Honourable Mr. Justice Houlden dated the 10th day of September, 1997 and registered the 28th day of November, 1997 as Instrument No. 712142.

Each of the aforesaid court orders is still in full force and effect and has not been stayed.

G22\KATZP\1232480.1
File No.: 98-0777
3005 Dundas Street West, Oakville, Ontario

5-Oakvil

Affidavit of Residence and of Value of the Consideration
Form 1 – Land Transfer Tax Act

Refer to all instructions on reverse side.

IN THE MATTER OF THE CONVEYANCE OF *(insert brief description of land)* Part of Lot 31, Concession 1, North of Dundas Street, City of Oakville, Regional Municipality of Halton, save and except Part 1, Plan 20R-187 and Expropriation Plan 856.

BY *(print names of all transferors in full)* CONFEDERATION LIFE INSURANCE COMPANY, BY ITS LIQUIDATOR KPMG INC.

TO *(see instruction 1 and print names of all transferees in full)* SHELL CANADA PRODUCTS LIMITED

I, *(see instruction 2 and print name(s) in full)* GERRY MICHAEL RICHARD BEELEN

MAKE OATH AND SAY THAT:

1. I am *(place a clear mark within the square opposite that one of the following paragraphs that describes the capacity of the deponent(s)): (see instruction 2)*
   - ☐ (a) A person in trust for whom the land conveyed in the above-described conveyance is being conveyed;
   - ☐ (b) A trustee named in the above-described conveyance to whom the land is being conveyed;
   - ☐ (c) A transferee named in the above-described conveyance;
   - ☒ (d) The authorized agent or solicitor acting in this transaction for *(insert name(s) of principal(s))* SHELL CANADA PRODUCTS LIMITED described in paragraph(s) (X). (X). (c) above; *(strike out references to inapplicable paragraphs)*
   - ☐ (e) The President, Vice-President, Manager, Secretary, Director, or Treasurer authorized to act for *(insert name(s) of corporation(s))* _____ described in paragraph(s) (a), (b), (c) above; *(strike out references to inapplicable paragraphs)*
   - ☐ (f) A transferee described in paragraph ( ) *(insert only one of paragraph (a), (b) or (c) above, as applicable)* and am making this affidavit on my own behalf and on behalf of *(insert name of spouse)* _____ who is my spouse described in paragraph ( ) *(insert only one of paragraph (a), (b) or (c) above, as applicable)* and as such, I have personal knowledge of the facts herein deposed to.
2. ***(To be completed where the value of the consideration for the conveyance exceeds $400,000).***
   I have read and considered the definition of "single family residence" set out in clause 1(1)(ja) of the Act. The land conveyed in the above-described conveyance
   - ☐ contains at least one and not more than two single family residences.
   - ☐ does not contain a single family residence.
   - ☐ contains more than two single family residences. *(see instruction 3)*

   Note: Clause 2(1)(d) imposes an additional tax at the rate of one-half of one per cent upon the value of consideration in excess of $400,000 where the conveyance contains at least one and not more than two single family residences.
3. I have read and considered the definitions of "non-resident corporation" and "non-resident person" set out respectively in clauses 1(1)(f) and (g) of the Act and each of the following persons to whom or in trust for whom the land is being conveyed in the above-described conveyance is a "non-resident corporation" or a "non-resident person" as set out in the Act. *(see instructions 4 and 5)* SHELL CANADA PRODUCTS LIMITED
4. **THE TOTAL CONSIDERATION FOR THIS TRANSACTION IS ALLOCATED AS FOLLOWS:**

(a) Monies paid or to be paid in cash	$ 141,000.00	
(b) Mortgages (i) Assumed *(show principal and interest to be credited against purchase price)*	$ Nil	
(ii) Given back to vendor	$ Nil	
(c) Property transferred in exchange *(detail below)*	$ Nil	
(d) Securities transferred to the value of *(detail below)*	$ Nil	
(e) Liens, legacies, annuities and maintenance charges to which transfer is subject	$ Nil	
(f) Other valuable consideration subject to land transfer tax *(detail below)*	$ Nil	
(g) VALUE OF LAND, BUILDING, FIXTURES AND GOODWILL SUBJECT TO LAND TRANSFER TAX *(Total of (a) to (f))*	$ 141,000.00	$ 141,000.00
(h) VALUE OF ALL CHATTELS – items of tangible personal property *(Retail Sales Tax is payable on the value of all chattels unless exempt under the provisions of the "Retail Sales Tax Act", R.S.O. 1980, c.454, as amended)*		$ Nil
(i) Other consideration for transaction not included in (g) or (h) above		$ Nil
(j) TOTAL CONSIDERATION		$ 141,000.00

All Blanks Must Be Filled In. Insert "Nil" Where Applicable

5. If consideration is nominal, describe relationship between transferor and transferee and state purpose of conveyance. *(see instruction 6)* Not applicable
6. If the consideration is nominal, is the land subject to any encumbrance? Not applicable
7. Other remarks and explanations, if necessary. None

Sworn before me at the Town of Richmond Hill
in the Regional Municipality of York
this 20th day of May 19 98

A Commissioner for taking Affidavits, etc.

MONICA DEORSIE MCLEAN, Notary Public, Regional Municipality of York, limited to the attestation of instruments and the taking of affidavits, for Shell Canada Products Limited, its subsidiaries, associates and affiliates. Expires November 6, 1998.

signature(s)

Property Information Record

A. Describe nature of instrument: Transfer/Deed of Land

B. (i) Address of property being conveyed *(if available)* 3005 Dundas Street West, Oakville, Ontario

(ii) Assessment Roll No. *(if available)* _____

C. Mailing address(es) for future Notices of Assessment under the Assessment Act for property being conveyed *(see instruction 7)* P.O. Box 100, Station M, Calgary, Alberta, T2P 2H5, Att: Property Tax Clerk

D. (i) Registration number for last conveyance of property being conveyed *(if available)* TW29654

(ii) Legal description of property conveyed: Same as in D.(i) above. Yes ☐ No ☒ Not known ☐

E. Name(s) and address(es) of each transferee's solicitor
G.M.R. Beelen, Shell Canada Products Limited, Law Department, 45 Vogell Road, Suite 700, Richmond Hill, Ontario, L4B 3Y6

For Land Registry Office Use Only	
Registration No.	
Registration Date	Land Registry Office No.

School Tax Support (Voluntary Election) See reverse for explanation

(a) Are all individual transferees Roman Catholic ? Yes ☐ No ☐
(b) If Yes, do all individual transferees wish to be Roman Catholic Separate School Supporters ? Yes ☐ No ☐
(c) Do all individual transferees have French Language Education Rights ? Yes ☐ No ☐
(d) If Yes, do all individual transferees wish to support the French Language School Board (where established) ? Yes ☐ No ☐

NOTE: As to (c) and (d) the land being transferred will be assigned to the French Public School Board or Sector unless otherwise directed in (a) and (b).

Ontario ServiceOntario

LAND REGISTRY OFFICE #20

PARCEL REGISTER (ABBREVIATED) FOR PROPERTY IDENTIFIER

24927-0085 (LT)

PREPARED FOR DIANE
ON 2010/08/03 AT 15

* CERTIFIED BY LAND REGISTRAR IN ACCORDANCE WITH LAND TITLES ACT * SUBJECT TO RESERVATIONS IN CROWN GRANT *

PROPERTY DESCRIPTION: PT LT 31, CON 1 TRAFALGAR, NORTH OF DUNDAS STREET , AS IN TW29654, EXCEPT PT 1, 20R187 & PM856 ; OAKVILLE/TRAFALGAR

PROPERTY REMARKS:

ESTATE/QUALIFIER:
FEE SIMPLE
LT CONVERSION QUALIFIED

RECENTLY:
FIRST CONVERSION FROM BOOK

PIN CREATION DATE:
1996/03/25

OWNERS' NAMES
SHELL CANADA LIMITED

CAPACITY SHARE
BENO

REG. NUM.	DATE	INSTRUMENT TYPE	AMOUNT	PARTIES FROM	PARTIES TO
EFFECTIVE 2000/07/29 THE NOTATION OF THE "BLOCK IMPLEMENTATION DATE" OF 1996/03/25 ON THIS PIN					
WAS REPLACED WITH THE "PIN CREATION DATE" OF 1996/03/25					
** PRINTOUT INCLUDES ALL DOCUMENT TYPES AND DELETED INSTRUMENTS SINCE: 1996/03/22 **					
**SUBJECT, ON FIRST REGISTRATION UNDER THE LAND TITLES ACT, TO:					
** SUBSECTION 44(1) OF THE LAND TITLES ACT, EXCEPT PARAGRAPH 11, PARAGRAPH 14, PROVINCIAL SUCCESSION DUTIES *					
** AND ESCHEATS OR FORFEITURE TO THE CROWN.					
** THE RIGHTS OF ANY PERSON WHO WOULD, BUT FOR THE LAND TITLES ACT, BE ENTITLED TO THE LAND OR ANY PART OF					
** IT THROUGH LENGTH OF ADVERSE POSSESSION, PRESCRIPTION, MISDESCRIPTION OR BOUNDARIES SETTLED BY					
** CONVENTION.					
** ANY LEASE TO WHICH THE SUBSECTION 70(2) OF THE REGISTRY ACT APPLIES.					
**DATE OF CONVERSION TO LAND TITLES: 1996/03/25 **					
TW29654	1954/04/30	TRANSFER		*** COMPLETELY DELETED ***	CONFEDERATION LIFE ASSOCIATION
224701	1967/06/05	LEASE		*** COMPLETELY DELETED ***	
493575	1978/12/05	AGREEMENT			THE CORPORATION OF THE TOWN OF OAKVILLE
H736339	1998/05/21	APL CH NAME OWNER		*** COMPLETELY DELETED *** CONFEDERATION LIFE ASSOCIATION	CONFEDERATION LIFE INSURANCE COMPANY
H736340	1998/05/21	TRANSFER	$141,000	CONFEDERATION LIFE INSURANCE COMPANY	SHELL CANADA PRODUCTS LIMITED
REMARKS: PLANNING ACT STATEMENTS					
H756963	1998/09/25	NOTICE		SHELL CANADA PRODUCTS LIMITED	

NOTE: ADJOINING PROPERTIES SHOULD BE INVESTIGATED TO ASCERTAIN DESCRIPTIVE INCONSISTENCIES, IF ANY, WITH DESCRIPTION REPRESENTED FOR THIS PROPERTY.
NOTE: ENSURE THAT YOUR PRINTOUT STATES THE TOTAL NUMBER OF PAGES AND THAT YOU HAVE PICKED THEM ALL UP.

REG. NUM.	DATE	INSTRUMENT TYPE	AMOUNT	PARTIES FROM	PARTIES TO
	REMARKS: ENVIRONMENTAL PROTECTION ACT				
H766969	1998/11/30	APL CH NAME OWNER		THE HESPER OIL COMPANY LIMITED CANADIAN OIL COMPANIES LIMITED	CANADIAN OIL COMPANY LIMITED
H766970	1998/11/30	NO DET/SURR LEASE		*** COMPLETELY DELETED ***	CANADIAN OIL COMPANY LIMITED
	REMARKS: RE: 224701				
HR797328	2009/11/04	APL CH NAME OWNER		SHELL CANADA PRODUCTS LIMITED	SHELL CANADA LIMITED

NOTE: ADJOINING PROPERTIES SHOULD BE INVESTIGATED TO ASCERTAIN DESCRIPTIVE INCONSISTENCIES, IF ANY, WITH DESCRIPTION REPRESENTED FOR THIS PROPERTY.
NOTE: ENSURE THAT YOUR PRINTOUT STATES THE TOTAL NUMBER OF PAGES AND THAT YOU HAVE PICKED THEM ALL UP.

SURVEYOR'S REAL PROPERTY REPORT
PART 1) PLAN OF

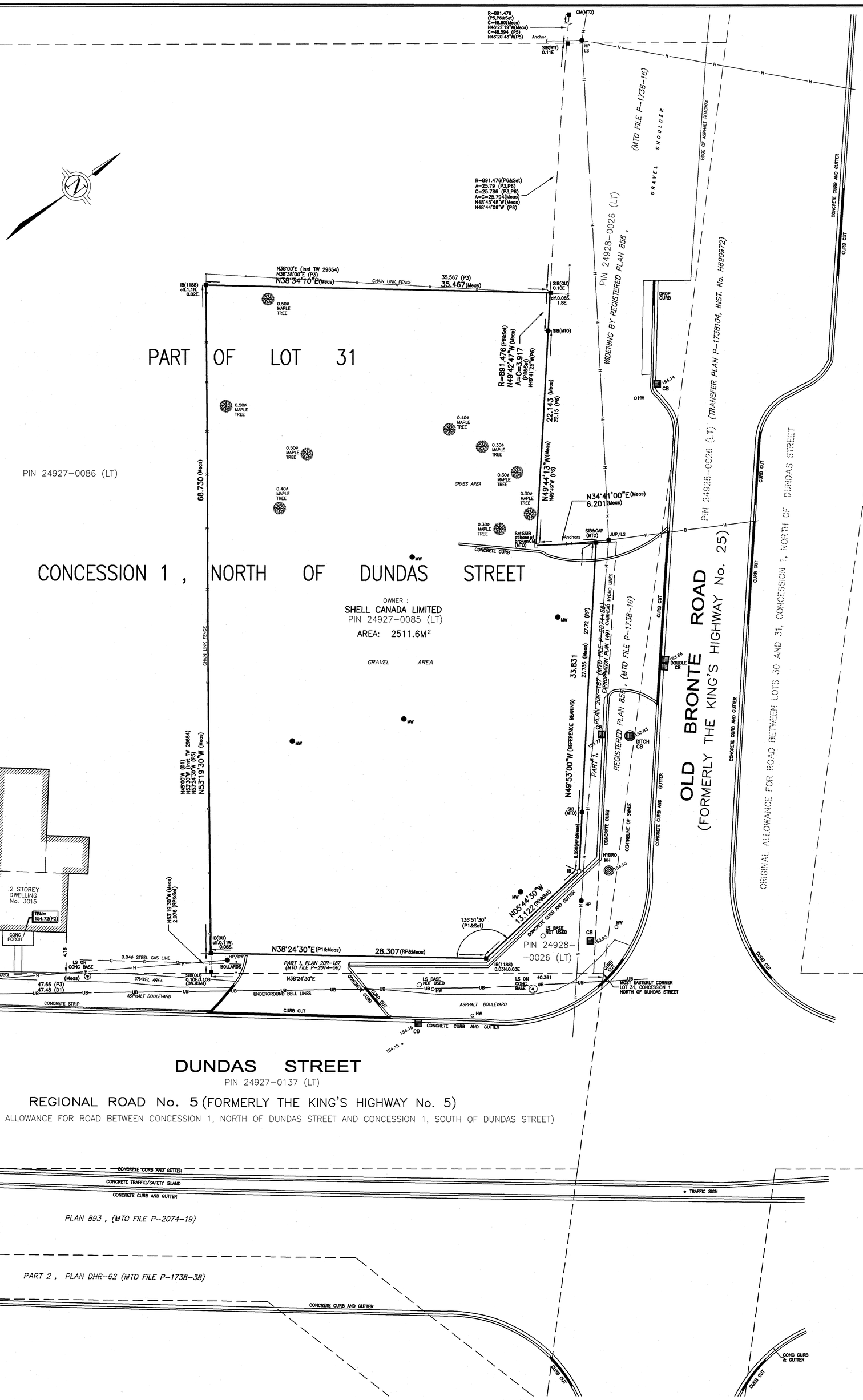
PART OF LOT 31, CONCESSION 1
NORTH OF DUNDAS STREET
(GEOGRAPHIC TOWNSHIP OF TRAFALGAR)

TOWN OF OAKVILLE
REGIONAL MUNICIPALITY OF HALTON

SEXTON McKAY LIMITED
ONTARIO LAND SURVEYORS
CANADA LANDS SURVEYOR

Scale 1:200

0 10 metres



PART 2) Report Summary

DESCRIPTION OF LAND:

BEING PART OF LOT 31, CONCESSION 1, NORTH OF DUNDAS STREET (GEOGRAPHIC TOWNSHIP OF TRAFALGAR) NOW IN THE TOWN OF OAKVILLE, MUNICIPAL No. 3005 DUNDAS STREET PIN 24927-0085(LT) AS IN INST. NO. TW29654, EXCEPT PART 1, PLAN 20R-187 AND PM856.

REGISTERED EASEMENTS and/or RIGHTS-OF-WAY:

NONE

ENCROACHMENTS:

NONE

COMPLIANCE WITH MUNICIPAL ZONING BY-LAWS:

NOT CERTIFIED BY THIS REPORT

ADDITIONAL REMARKS:

NONE

METRIC

DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

LEGEND

■	DENOTES SURVEY MONUMENT FOUND
□	DENOTES SURVEY MONUMENT SET
SIB	DENOTES STANDARD IRON BAR
IB	DENOTES IRON BAR
SSIB	DENOTES SHORT STANDARD IRON BAR
CC	DENOTES CUT CROSS
ø	DENOTES ROUND
WIT	DENOTES WITNESS
RP	DENOTES REGISTERED PLAN 1491
P2	DENOTES SURVEY PLAN BY C.A. SEXTON, OLS DATED MAY 16th., 1974
P3	DENOTES PLAN 20R-11003
P4	DENOTES PLAN 20R-16040
P5	DENOTES DEPOSITED PLAN 834
P6	DENOTES DEPOSITED PLAN 856
D1	DENOTES INSTRUMENT No. 67448
MTO	DENOTES MINISTRY OF TRANSPORTATION ONTARIO
CM	DENOTES CONCRETE MONUMENT
MH	DENOTES MANHOLE
CB	DENOTES CATCH BASIN
B	DENOTES BOLLARD
LS	DENOTES LIGHT STANDARD
MW	DENOTES MONITORING WELL
WV	DENOTES WATER VALVE
HP	DENOTES HYDRO POLE
DW	DENOTES DOWN WIRE
TLS	DENOTES TRAFFIC LIGHT SIGNAL
TS	DENOTES TRAFFIC SIGN
HW	DENOTES HAND WELL
-H-	DENOTES OVERHEAD HYDRO
-H-	DENOTES OVERHEAD HYDRO
-G-	DENOTES GASMAIN
-W-	DENOTES WATERMAIN
-S-	DENOTES SANITARY SEWER
-ST-	DENOTES STORM SEWER
-UB-	DENOTES UNDERGROUND BELL LINES
ON	DENOTES SURVEY PLAN BY SEXTON McKAY, O.L.S., DATED APRIL 5TH., 2007

NOTE

BEARINGS SHOWN HEREON ARE ASTRONOMIC AND ARE REFERRED TO THE SOUTHWESTERLY LIMIT OF PART 1, AS SHOWN ON REGISTERED PLAN 1491, (MTO FILE P-2074-67) HAVING A BEARING OF N49°53'00"W.

TEMPORARY BENCH MARK

TOP OF CONCRETE PORCH IN FRONT OF HOUSE No. 3015 DUNDAS STREET AND SHOWN ON FACE OF PLAN

ELEVATION = 154.72

THIS REPORT WAS PREPARED FOR SHELL CANADA LIMITED AND THE UNDERSIGNED ACCEPTS NO RESPONSIBILITY FOR USE BY OTHER PARTIES.

SURVEYOR'S CERTIFICATE

I CERTIFY THAT

1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT AND THE LAND TITLES ACT AND THE REGULATIONS MADE UNDER THEM,
2. THE SURVEY WAS COMPLETED ON THE 12TH. DAY OF AUGUST 2010,

August 12 2010
DATE

C.A. SEXTON
ONTARIO LAND SURVEYOR

CAUTION

LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE. OTHER BURIED UTILITIES MAY EXIST WHICH ARE NOT SHOWN BECAUSE OF INSUFFICIENT INFORMATION. CONTACT ALL POTENTIAL OWNERS OF UNDERGROUND UTILITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION

ASSOCIATION OF ONTARIO LAND SURVEYORS
PLAN SUBMISSION FORM
1773643

THIS PLAN IS NOT VALID UNLESS IT IS AN EMBOSSED ORIGINAL COPY ISSUED BY THE SURVEYOR In accordance with Regulation 1026, Section 29(3)

SHELL CANADA PRODUCTS

DRAWN BY: JD/ml		JOB No. 20384-1
CHECKED BY: C.A. SEXTON, OLS		

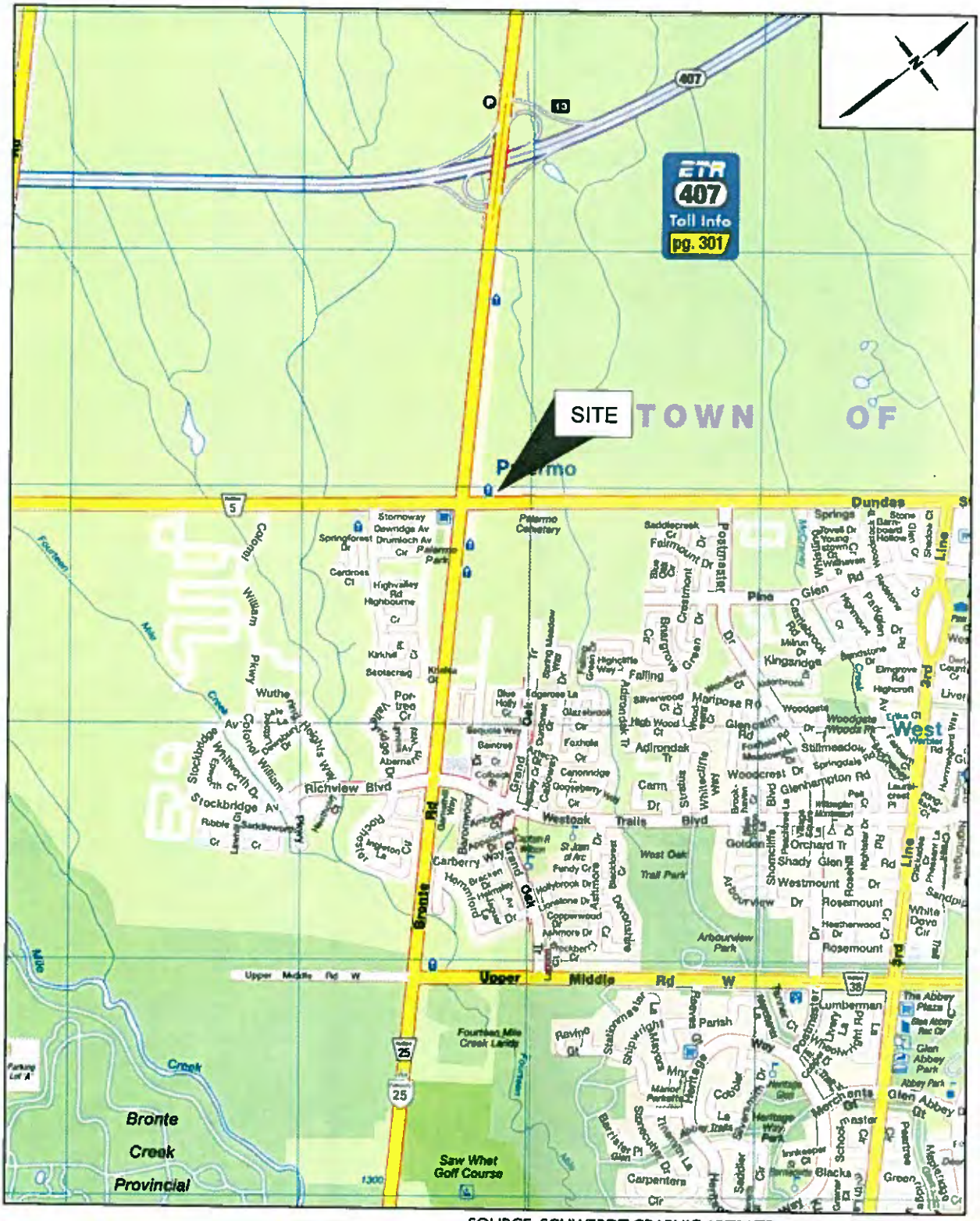
SEXTON McKAY LIMITED - ONTARIO LAND SURVEYORS - CANADA LANDS SURVEYOR
70 EAST BEAVER CREEK ROAD, UNIT 44 & 45, RICHMOND HILL, ONTARIO L4B 3B2
Tel:(905)889-9103 Fax:(905)889-8941

PLOT DATE : AUGUST 13, 2010

APPENDIX D8

ON-SITE GROUNDWATER MONITORING AND SAMPLING (JANUARY TO DECEMBER 2010)

(SLE, JUNE 29, 2011)



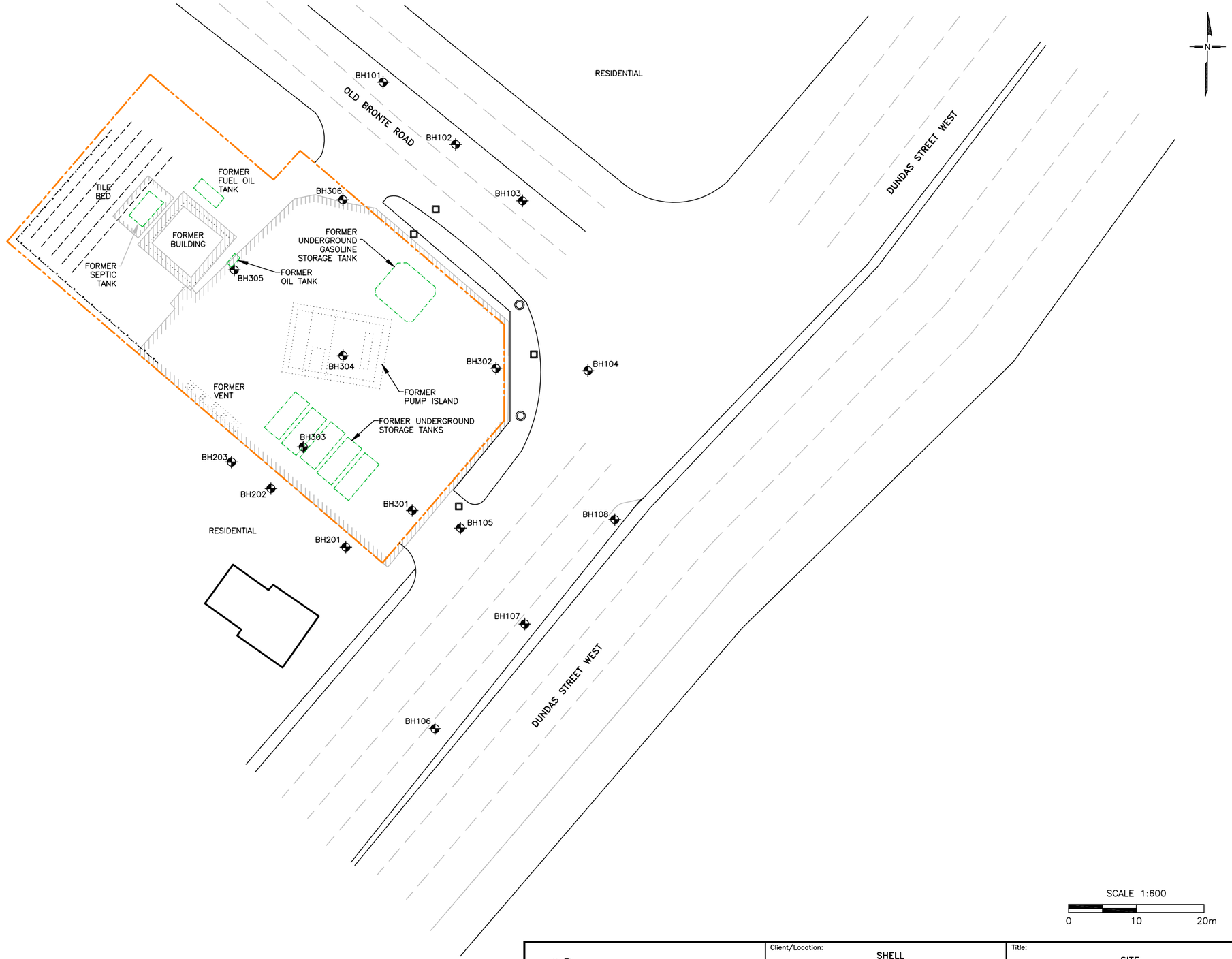
SOURCE: SCHWERDT GRAPHIC ARTS LTD., (MapArt), 2007 EDITION

SCALE 1:25,000

0 0.5 1km

SNC·LAVALIN Environment

Client/Location: SHELL 3005 DUNDAS STREET WEST OAKVILLE, ON		Title: SITE LOCATION PLAN	
Project No: S09125	Filename: 07F01_S09125	Date: FEBRUARY 2011	Dwg No: FIGURE 1
Drawn: AG	Verified: AM	Project Manager:	



LEGEND

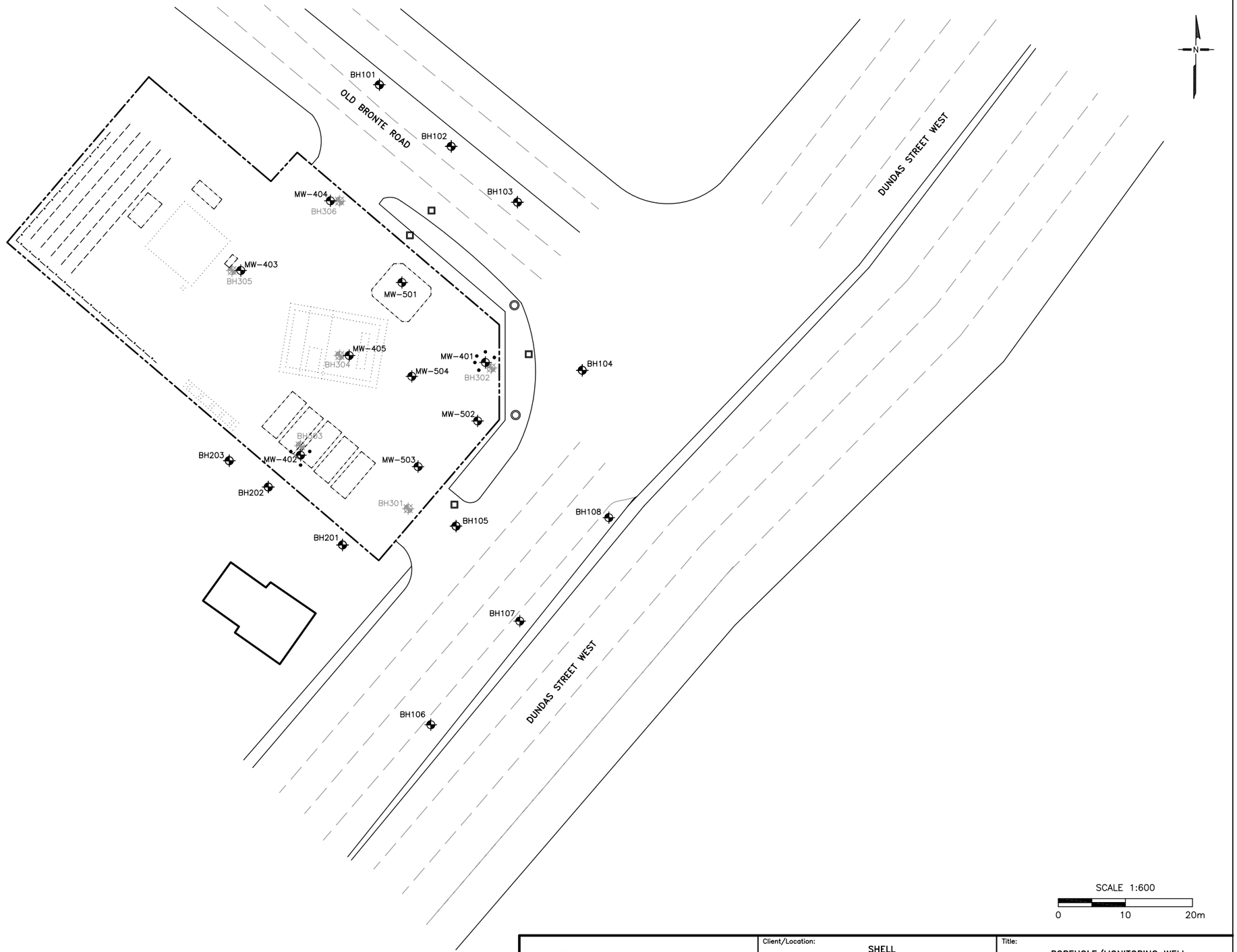
- MONITORING WELL
- MANHOLE
- CATCH BASIN
- EXCAVATED AREA
- SITE PROPERTY LINE
- EXISTING BUILDING
- INFRASTRUCTURE
- FORMER INFRASTRUCTURE
- CHAIN LINK FENCE
- FORMER TANK

NOTE(S):
1. SCALE AND SITE INFRASTRUCTURE LOCATIONS ARE APPROXIMATE
2. INFORMATION ON THIS FIGURE MAY BE LOST IF IT IS PHOTOCOPIED OR FAXED
3. "m" : METRES

SOURCE(S):
1. WARDROP ENGINEERING INC., SITE PLAN, FIGURE 1, DWG#0813480104–SKT–V0001, APRIL 23, 2009
2. WARDROP ENGINEERING INC., SITE PLAN, FIGURE 4, DWG#0813480103–SKT–V0010, MARCH 18, 2009

SNC·LAVALIN Environment

Client/Location: SHELL 3005 DUNDAS STREET WEST OAKVILLE, ON		Title: SITE PLAN	
Project No: S09125	Filename: 10F02_S09125	Date: FEBRUARY 2011	Dwg No: FIGURE 2
Drawn: AG	Verified:	Project Manager:	



LEGEND

- INJECTION POINT
- BOREHOLE/MONITORING WELL
- DECOMMISSIONED MONITORING WELL
- MANHOLE
- CATCH BASIN
- SITE PROPERTY LINE
- EXISTING BUILDING
- INFRASTRUCTURE
- FORMER INFRASTRUCTURE
- CHAIN LINK FENCE
- FORMER TANK

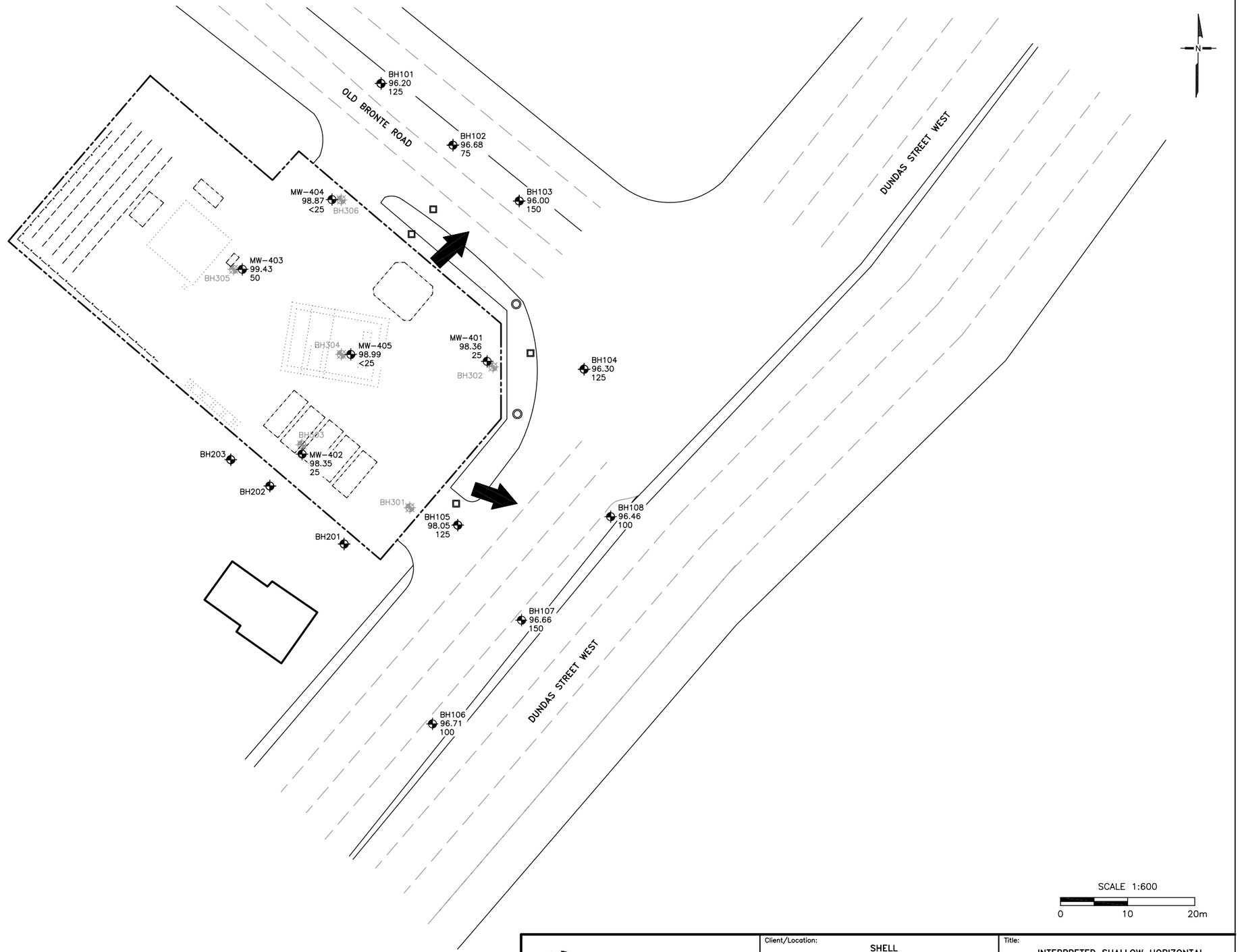
NOTE(S):
1. SCALE AND SITE INFRASTRUCTURE LOCATIONS ARE APPROXIMATE
2. "m" : METRES

SCALE 1:600

0 10 20m

SNC·LAVALIN Environment

Client/Location: SHELL 3005 DUNDAS STREET WEST OAKVILLE, ON		Title: BOREHOLE/MONITORING WELL AND INJECTION POINT LOCATIONS	
Project No: S09125	Filename: 10F03_S09125	Date: FEBRUARY 2011	Dwg No: FIGURE 3
Drawn: AG	Verified:	Project Manager:	



LEGEND

- MONITORING WELL
- DECOMMISSIONED MONITORING WELL
- MANHOLE
- CATCH BASIN
- SITE PROPERTY LINE
- EXISTING BUILDING
- INFRASTRUCTURE
- FORMER INFRASTRUCTURE
- CHAIN LINK FENCE
- FORMER TANK
- INTERPRETED SHALLOW HORIZONTAL GROUNDWATER FLOW DIRECTION

MW-402	IDENTIFICATION
98.22	WATER LEVEL ELEVATION (m)
25	OVM READING

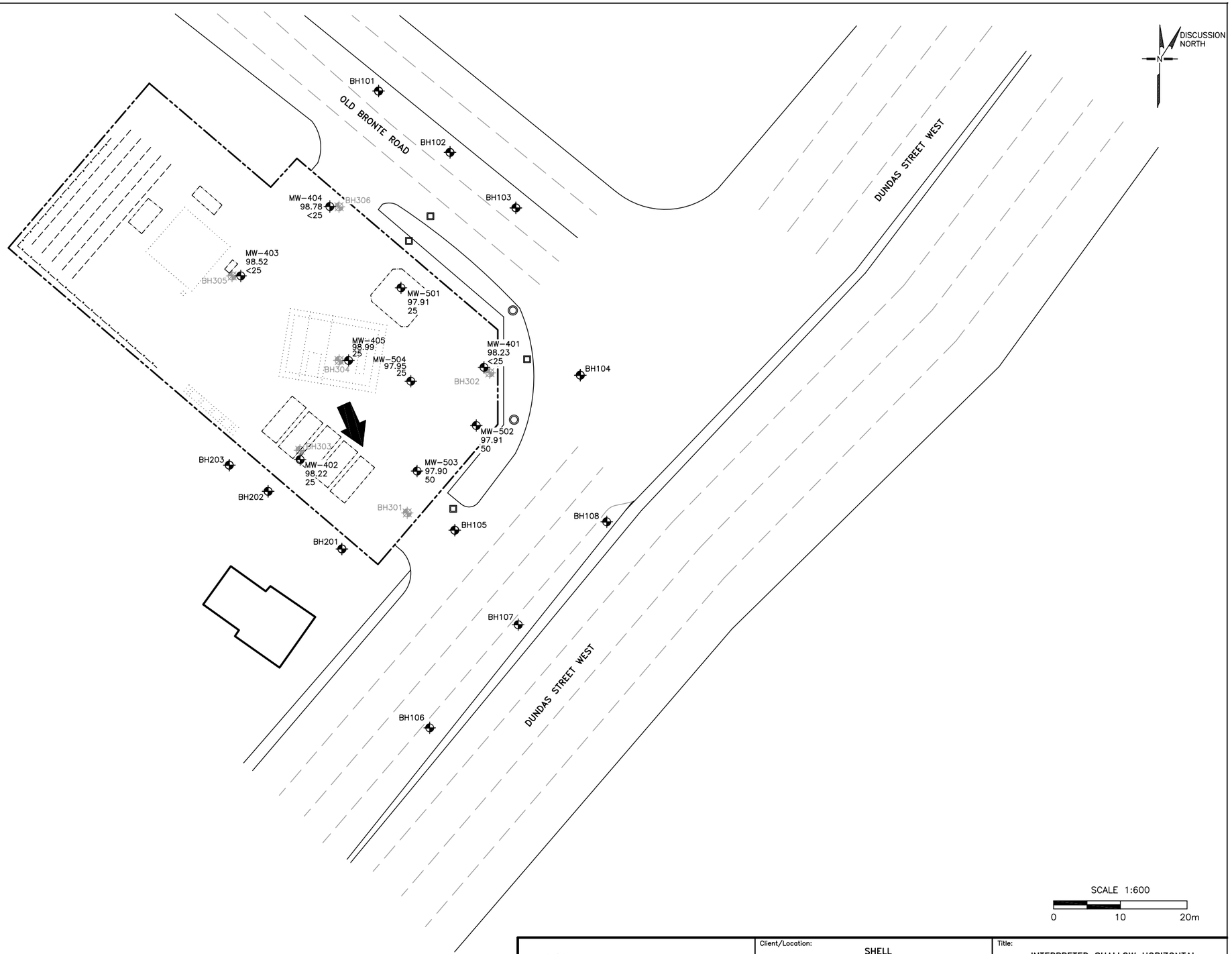
NOTE(S):
1. SCALE, SITE INFRASTRUCTURE AND SAMPLE LOCATIONS ARE APPROXIMATE
2. INFORMATION ON THIS FIGURE MAY BE LOST IF IT IS PHOTOCOPIED OR FAXED
3. "m" : METRES
4. SITE MONITORED JUNE 2010

SCALE 1:600

0 10 20m

SNC·LAVALIN Environment

Client/Location: SHELL 3005 DUNDAS STREET WEST OAKVILLE, ON		Title: INTERPRETED SHALLOW HORIZONTAL GROUNDWATER FLOW AND HEADSPACE VAPOUR READINGS	
Project No: S09125	Filename: 10F4A_S09125	Date: FEBRUARY 2011	Dwg No: FIGURE 4A
Drawn: AG	Verified:	Project Manager:	



LEGEND

	MONITORING WELL
	DECOMMISSIONED MONITORING WELL
	MANHOLE
	CATCH BASIN
	SITE PROPERTY LINE
	EXISTING BUILDING
	INFRASTRUCTURE
	FORMER INFRASTRUCTURE
	CHAIN LINK FENCE
	FORMER TANK
	INTERPRETED SHALLOW HORIZONTAL GROUNDWATER FLOW DIRECTION

MW-402	IDENTIFICATION
98.22	WATER LEVEL ELEVATION (m)
25	OVM READING

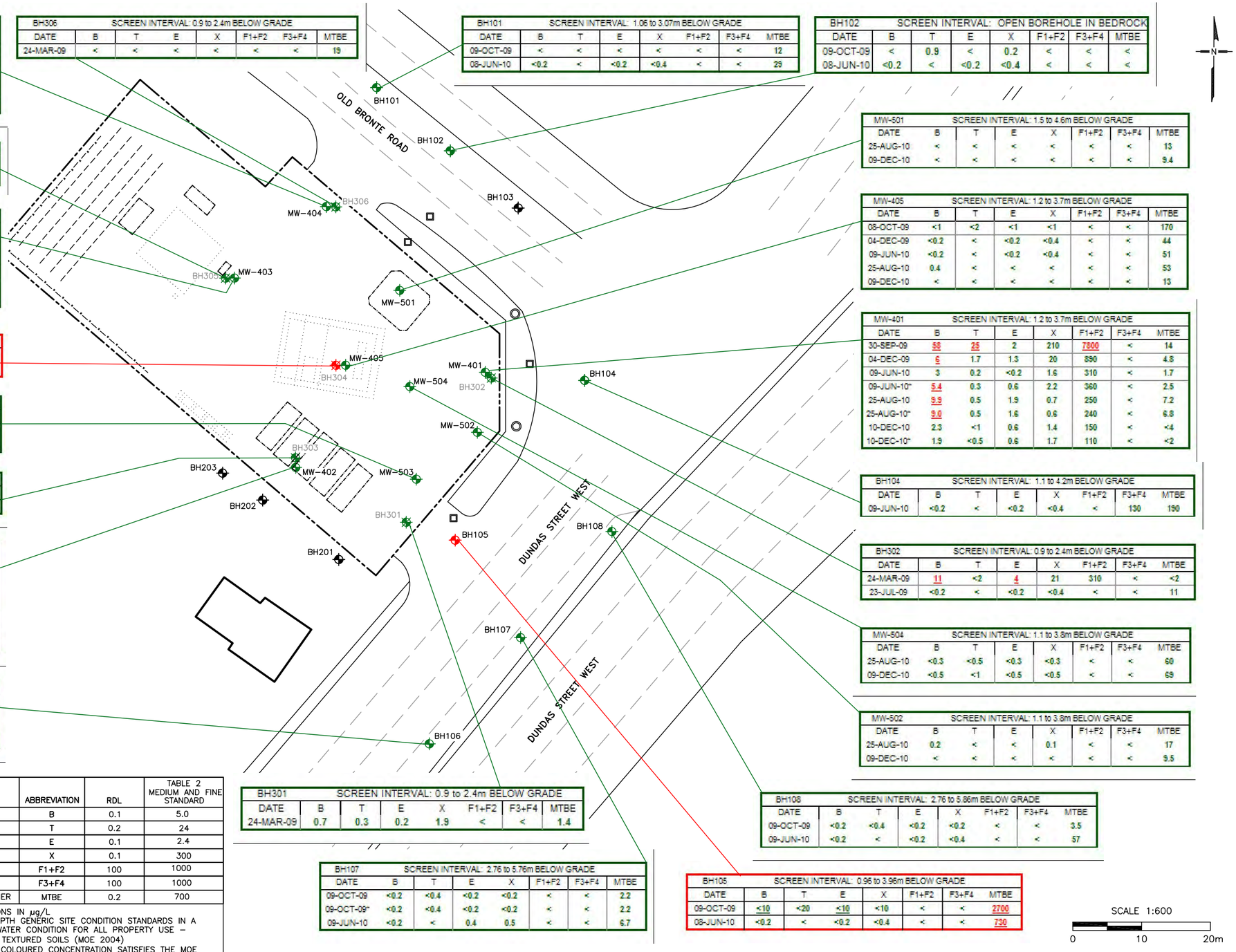
NOTE(S):
1. SCALE, SITE INFRASTRUCTURE AND SAMPLE LOCATIONS ARE APPROXIMATE
2. INFORMATION ON THIS FIGURE MAY BE LOST IF IT IS PHOTOCOPIED OR FAXED
3. "m" : METRES
4. SITE MONITORED DECEMBER 2010

SCALE 1:600

0 10 20m

SNC·LAVALIN Environment

Client/Location: SHELL 3005 DUNDAS STREET WEST OAKVILLE, ON		Title: INTERPRETED SHALLOW HORIZONTAL GROUNDWATER FLOW AND HEADSPACE VAPOUR READING	
Project No: S09125	Filename: 10F4B_S09125	Date: FEBRUARY 2011	Dwg No: FIGURE 4B
Drawn: AG	Verified:	Project Manager:	



MW-404	SCREEN INTERVAL: 1.2 to 3.7m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
08-OCT-09	<0.3	<0.5	<0.3	<0.3	<	<	45
04-DEC-09	<0.2	<	<0.2	<0.4	<	<	40
08-JUN-10	<0.2	<	<0.2	<0.4	<	<	37
25-AUG-10	<	<	<	<	<	<	44
09-DEC-10	<0.5	<1	<0.5	<0.5	<	<	53

BH306	SCREEN INTERVAL: 0.9 to 2.4m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
24-MAR-09	<	<	<	<	<	<	19

BH101	SCREEN INTERVAL: 1.06 to 3.07m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
09-OCT-09	<	<	<	<	<	<	12
08-JUN-10	<0.2	<	<0.2	<0.4	<	<	29

BH102	SCREEN INTERVAL: OPEN BOREHOLE IN BEDROCK						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
09-OCT-09	<	0.9	<	0.2	<	<	<
08-JUN-10	<0.2	<	<0.2	<0.4	<	<	<

MW-501	SCREEN INTERVAL: 1.5 to 4.6m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
25-AUG-10	<	<	<	<	<	<	13
09-DEC-10	<	<	<	<	<	<	9.4

BH305	SCREEN INTERVAL: 0.9 to 2.4m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
24-MAR-09	1.9	2.6	1.7	20	130	<	1.7

MW-405	SCREEN INTERVAL: 1.2 to 3.7m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
08-OCT-09	<1	<2	<1	<1	<	<	170
04-DEC-09	<0.2	<	<0.2	<0.4	<	<	44
09-JUN-10	<0.2	<	<0.2	<0.4	<	<	51
25-AUG-10	0.4	<	<	<	<	<	53
09-DEC-10	<	<	<	<	<	<	13

MW-403	SCREEN INTERVAL: 1.2 to 3.7m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
08-OCT-09	<	<	<	<	<	<	1.7
04-DEC-09	<0.2	<	<0.2	<0.4	<	<	38
08-JUN-10	<0.2	<	<0.2	<0.4	<	<	<
25-AUG-10	<	<	<	<	<	<	11
09-DEC-10	<	<	<	<	<	<	4.6

MW-401	SCREEN INTERVAL: 1.2 to 3.7m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
30-SEP-09	58	25	2	210	7800	<	14
04-DEC-09	6	1.7	1.3	20	890	<	4.8
09-JUN-10	3	0.2	<0.2	1.6	310	<	1.7
09-JUN-10*	5.4	0.3	0.6	2.2	360	<	2.5
25-AUG-10	9.9	0.5	1.9	0.7	250	<	7.2
25-AUG-10*	9.0	0.5	1.6	0.6	240	<	6.8
10-DEC-10	2.3	<1	0.6	1.4	150	<	<4
10-DEC-10*	1.9	<0.5	0.6	1.7	110	<	<2

BH304	SCREEN INTERVAL: 0.9 to 2.4m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
24-MAR-09	3	<4	9	52	420	<	36

MW-503	SCREEN INTERVAL: 1.1 to 3.8m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
25-AUG-10	<1	<2	<1	<1	<	<	160
09-DEC-10	<	<	<	<	<	<	39

BH303	SCREEN INTERVAL: 0.9 to 2.4m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
24-MAR-09	<	<	<	<	<	<	0.7

MW-504	SCREEN INTERVAL: 1.1 to 3.8m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
25-AUG-10	<0.3	<0.5	<0.3	<0.3	<	<	60
09-DEC-10	<0.5	<1	<0.5	<0.5	<	<	69

MW-402	SCREEN INTERVAL: 1.2 to 3.6m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
30-SEP-09	<1	<2	<1	<1	<	<	160
04-DEC-09	0.3	<	<0.2	<0.4	<	<	730
04-DEC-10*	<0.2	<	<0.2	<0.4	<	<	750
09-JUN-10	<0.2	<	<0.2	<0.4	<	<	260
25-AUG-10	<	<	<	<	<	<	26
09-DEC-10	<2	<4	<2	<2	<	<	390

MW-502	SCREEN INTERVAL: 1.1 to 3.8m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
25-AUG-10	0.2	<	<	0.1	<	<	17
09-DEC-10	<	<	<	<	<	<	9.5

BH106	SCREEN INTERVAL: 1.56 to 4.56m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
09-OCT-09	<	<	<	<	<	<	<
09-JUN-10	<0.2	<	<0.2	<0.4	<	<	<
09-JUN-10*	<0.2	<	<0.2	<0.4	<	<	-

BH301	SCREEN INTERVAL: 0.9 to 2.4m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
24-MAR-09	0.7	0.3	0.2	1.9	<	<	1.4

BH108	SCREEN INTERVAL: 2.76 to 5.86m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
09-OCT-09	<0.2	<0.4	<0.2	<0.2	<	<	3.5
09-JUN-10	<0.2	<	<0.2	<0.4	<	<	57

BH107	SCREEN INTERVAL: 2.76 to 5.76m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
09-OCT-09	<0.2	<0.4	<0.2	<0.2	<	<	2.2
09-OCT-09*	<0.2	<0.4	<0.2	<0.2	<	<	2.2
09-JUN-10	<0.2	<	0.4	0.5	<	<	6.7

BH105	SCREEN INTERVAL: 0.96 to 3.96m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
09-OCT-09	<10	<20	<10	<10	<	<	2700
08-JUN-10	<0.2	<	<0.2	<0.4	<	<	730

BH104	SCREEN INTERVAL: 1.1 to 4.2m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
09-JUN-10	<0.2	<	<0.2	<0.4	<	130	150

BH302	SCREEN INTERVAL: 0.9 to 2.4m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
24-MAR-09	11	<2	4	21	310	<	<2
23-JUL-09	<0.2	<	<0.2	<0.4	<	<	11

LEGEND

- MONITORING WELL – NOT ANALYSED
- DECOMMISSIONED MONITORING WELL
- MANHOLE
- CATCH BASIN
- SITE PROPERTY LINE
- EXISTING BUILDING
- INFRASTRUCTURE
- FORMER INFRASTRUCTURE
- CHAIN LINK FENCE
- FORMER TANK
- ANALYSED GROUNDWATER SAMPLE LOCATION – ALL ANALYSED PARAMETERS SATISFY THE SELECTED STANDARDS IN THE MOST RECENT SAMPLING EVENT
- ANALYSED GROUNDWATER SAMPLE LOCATION – AT LEAST ONE ANALYSED PARAMETER EXCEEDS THE SELECTED STANDARD IN THE MOST RECENT SAMPLING EVENT

PARAMETERS	ABBREVIATION	RDL	TABLE 2 MEDIUM AND FINE STANDARD
BENZENE	B	0.1	5.0
TOLUENE	T	0.2	24
ETHYLBENZENE	E	0.1	2.4
TOTAL XYLENES	X	0.1	300
F1 + F2 PHC	F1+F2	100	1000
F3 + F4 PHC	F3+F4	100	1000
METHYL T-BUTYL ETHER	MTBE	0.2	700

1. ALL CONCENTRATIONS IN µg/L
2. TABLE 2: FULL DEPTH GENERIC SITE CONDITION STANDARDS IN A POTABLE GROUNDWATER CONDITION FOR ALL PROPERTY USE – MEDIUM AND FINE TEXTURED SOILS (MOE 2004)
3. 'GREEN' : GREEN COLOURED CONCENTRATION SATISFIES THE MOE STANDARD
4. 'RED' : RED COLOURED & UNDERLINED CONCENTRATION EXCEEDS THE MOE STANDARD
5. 'RDL' : REPORTABLE DETECTION LIMIT
6. '<' : LESS THAN RDL (UNLESS NOTED)
7. '<###' : ADJUSTED RDL (###) EXCEEDS GROUNDWATER SITE CONDITION STANDARD
8. '*' : FIELD DUPLICATE OF PREVIOUSLY LISTED SAMPLE

NOTE(S):
1. SCALE, SITE INFRASTRUCTURE AND SAMPLE LOCATIONS ARE APPROXIMATE
2. INFORMATION ON THIS FIGURE MAY BE LOST IF IT IS PHOTOCOPIED OR FAXED
3. "m" : METRES

SCALE 1:600
0 10 20m

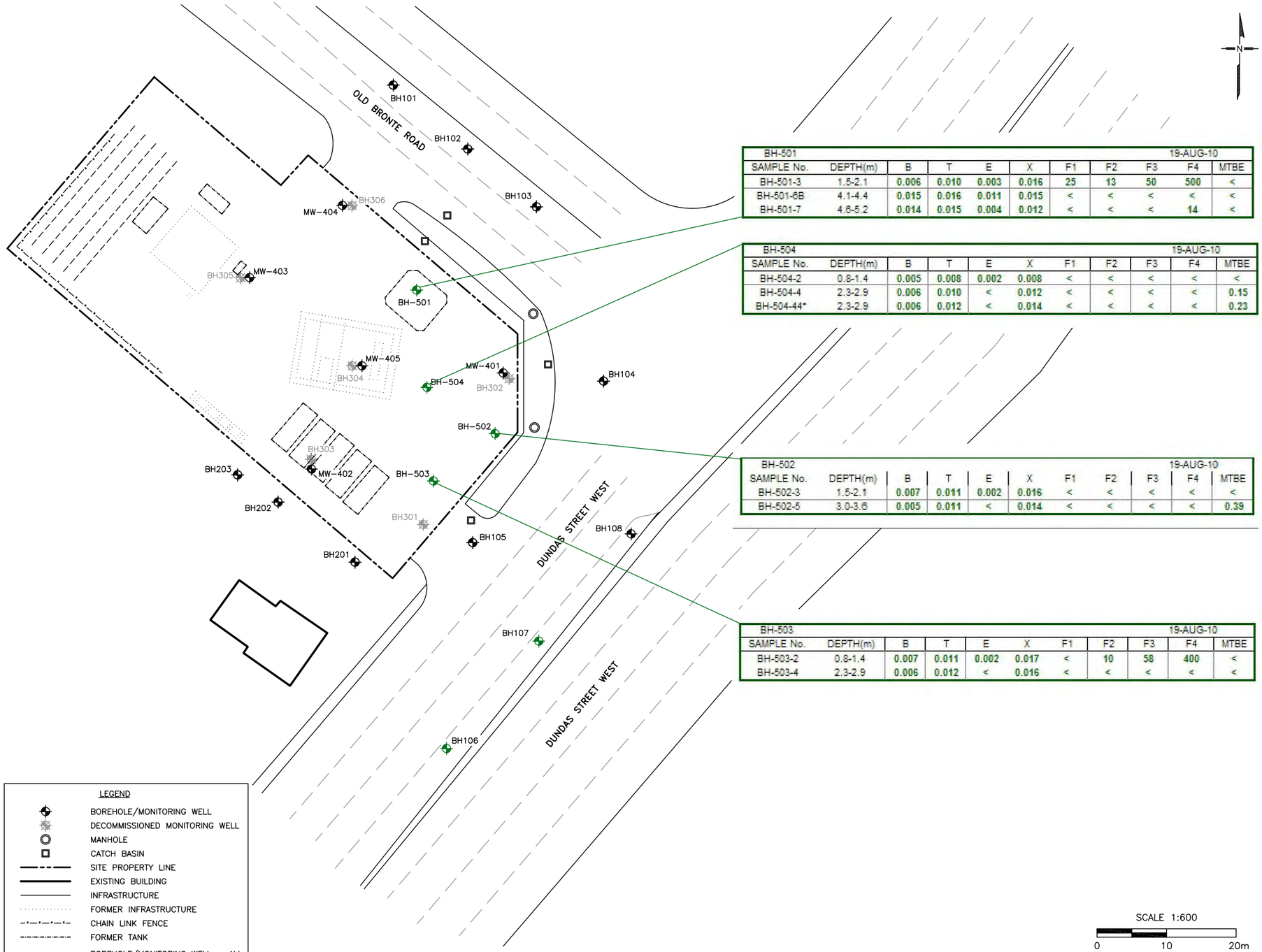
SNC·LAVALIN Environment

Client/Location: SHELL, 3005 DUNDAS STREET WEST, OAKVILLE, ON

Title: GROUNDWATER ANALYTICAL RESULTS

Project No: S09125 | Filename: 10F05_S09125 | Date: FEBRUARY 2011 | Dwg No: FIGURE 5

Drawn: FD/AG | Verified: | Project Manager:



BH-501									19-AUG-10	
SAMPLE No.	DEPTH(m)	B	T	E	X	F1	F2	F3	F4	MTBE
BH-501-3	1.5-2.1	0.006	0.010	0.003	0.016	25	13	50	500	<
BH-501-6B	4.1-4.4	0.015	0.016	0.011	0.015	<	<	<	<	<
BH-501-7	4.6-5.2	0.014	0.015	0.004	0.012	<	<	<	14	<

BH-504									19-AUG-10	
SAMPLE No.	DEPTH(m)	B	T	E	X	F1	F2	F3	F4	MTBE
BH-504-2	0.8-1.4	0.005	0.008	0.002	0.008	<	<	<	<	<
BH-504-4	2.3-2.9	0.006	0.010	<	0.012	<	<	<	<	0.15
BH-504-44*	2.3-2.9	0.006	0.012	<	0.014	<	<	<	<	0.23

BH-502									19-AUG-10	
SAMPLE No.	DEPTH(m)	B	T	E	X	F1	F2	F3	F4	MTBE
BH-502-3	1.5-2.1	0.007	0.011	0.002	0.016	<	<	<	<	<
BH-502-5	3.0-3.6	0.005	0.011	<	0.014	<	<	<	<	0.39

BH-503									19-AUG-10	
SAMPLE No.	DEPTH(m)	B	T	E	X	F1	F2	F3	F4	MTBE
BH-503-2	0.8-1.4	0.007	0.011	0.002	0.017	<	10	58	400	<
BH-503-4	2.3-2.9	0.006	0.012	<	0.016	<	<	<	<	<

PARAMETERS	ABBREVIATION	RDL	TABLE 2 MEDIUM AND FINE IND./COM./COMM.
BENZENE	B	0.02	0.24
TOLUENE	T	0.02	2.1
ETHYLBENZENE	E	0.02	0.28
XYLENES	X	0.04	25
PHC F1	F1	10	180
PHC F2	F2	10	250
PHC F3	F3	10	2500
PHC F4	F4	10	6600
METHYL T–BUTYL ETHER	MTBE	0.002	5.7

1. ALL CONCENTRATIONS IN µg/g
2. TABLE 2: FULL DEPTH GENERIC SITE CONDITION STANDARDS IN A POTABLE GROUNDWATER CONDITION FOR INDUSTRIAL/ COMMERCIAL/COMMUNITY PROPERTY USE – MEDIUM AND FINE TEXTURED SOILS (MOE, 2004)
3. 'GREEN' : GREEN COLOURED CONCENTRATION SATISFIES THE MOE STANDARD
4. 'RED' : RED COLOURED & UNDERLINED CONCENTRATION EXCEEDS THE MOE STANDARD
5. 'RDL' : REPORTABLE DETECTION LIMIT
6. '<' : LESS THAN RDL (UNLESS NOTED)
7. '*' : FIELD DUPLICATE OF PREVIOUSLY LISTED SAMPLE

LEGEND

- BOREHOLE/MONITORING WELL
- DECOMMISSIONED MONITORING WELL
- MANHOLE
- CATCH BASIN
- SITE PROPERTY LINE
- EXISTING BUILDING
- INFRASTRUCTURE
- FORMER INFRASTRUCTURE
- CHAIN LINK FENCE
- FORMER TANK
- BOREHOLE/MONITORING WELL – ALL ANALYSED PARAMETERS SATISFY THE SELECTED STANDARDS IN ALL ANALYSED SAMPLES
- BOREHOLE/MONITORING WELL – AT LEAST ONE ANALYSED PARAMETER EXCEEDS THE SELECTED STANDARD IN AT LEAST ONE ANALYSED SAMPLE

NOTE(S):
1. SCALE, SITE INFRASTRUCTURE AND SAMPLE LOCATIONS ARE APPROXIMATE
2. INFORMATION ON THIS FIGURE MAY BE LOST IF IT IS PHOTOCOPIED OR FAXED
3. "m" : METRES

SCALE 1:600

0 10 20m

SNC·LAVALIN Environment

Client/Location: SHELL, 3005 DUNDAS STREET WEST, OAKVILLE, ON

Title: SOIL ANALYTICAL RESULTS

Project No: S09125 | Filename: 10F06_S09125 | Date: FEBRUARY 2011 | Dwg No: FIGURE 6

Drawn: AG/FD | Verified: | Project Manager:

TABLE 1 **SOIL ANALYTICAL RESULTS**
Petroleum Parameters
3005 Dundas Street West, Oakville, ON

SLE Sample No.	RDL	Units	MOE Standard Table 2 [1]	BH-501-3	BH-501-3 Laboratory Duplicate of BH-501-3	BH-501-6B	BH-501-7	BH-502-3	BH-502-5	BH-503-2
Laboratory Sample No.	na	na	na	*GW6731*	*GW6731*	*GW6732*	*GW6733*	*GW6734*	*GW6735*	*GW6736*
Sampling Date	na	na	na	*19-Aug-10*	*19-Aug-10*	*19-Aug-10*	*19-Aug-10*	*19-Aug-10*	*19-Aug-10*	*19-Aug-10*
Borehole No.	na	na	na	*BH-501*	*BH-501*	*BH-501*	*BH-501*	*BH-502*	*BH-502*	*BH-503*
Sample Depth	na	m bgs	na	*1.0 - 1.5*	*na*	*4.1-4.4*	*4.6-5.2*	*1.5-2.1*	*3.0-3.6*	*0.8-1.4*
OVM Reading	na	see note	na	*50*	*na*	*75*	*225*	*<25*	*<25*	*<25*
Benzene	0.002	µg/g	0.24	0.006	-	0.015	0.014	0.007	0.005	0.007
Toluene	0.002	µg/g	2.1	0.010	-	0.016	0.015	0.011	0.011	0.011
Ethylbenzene	0.002	µg/g	0.28	0.003	-	0.011	0.004	0.002	<	0.002
Xylenes	0.002	µg/g	25	0.016	-	0.015	0.012	0.016	0.014	0.017
Methyl t-butyl ether (MTBE)	0.002	na	5.7	<	-	<	<	<	0.39	<
PHC F1	10	µg/g	180	25	-	<	<	<	<	<
PHC F2	10	µg/g	250	13	-	<	<	<	<	10
PHC F3	10	µg/g	800	50	-	<	<	<	<	58
PHC F4	10	µg/g	5600	500	400	<	14	<	<	400
Moisture	1	%	na	**15**	**-**	**8**	**10**	**15**	**10**	**14**

µg/g	micrograms per gram
RDL	reportable detection limit unless noted
m bgs	metres below ground surface
OVM Reading	organic vapour meter reading (in ppmv unless noted)
ppmv	parts per million by volume
% LEL	percent of the lower explosive limit of hexane
na	not applicable
ns	no standard
<	less than RDL
<###	less than adjusted RDL (###)
-	not analysed
*	acceptable pH range for applying generic standards (O. Reg. 153/04, as amended): 5 to 9 for surface soil (0-1.5 m bgs); 5 to 11 for subsurface soil (>1.5 m bgs)
[1]	Table 2 full depth generic site condition standards in a potable groundwater condition for residential/parkland/institutional property use, medium and fine textured soils (MOE, 2004).
<###	adjusted RDL (###) exceeds soil site condition standard
BOLD	exceeds selected Table 2 standard

TABLE 1 **SOIL ANALYTICAL RESULTS**
Petroleum Parameters
3005 Dundas Street West, Oakville, ON

SLE Sample No.	RDL	Units	MOE Standard Table 2 [1]	BH-503-4	BH-504-2	BH-504-4	BH-504-44
							Field Duplicate of BH-504-4
Laboratory Sample No.	na	na	na	*GW6737*	*GW6738*	*GW6739*	*GW6740*
Sampling Date	na	na	na	*19-Aug-10*	*19-Aug-10*	*19-Aug-10*	*19-Aug-10*
Borehole No.	na	na	na	*BH-503*	*BH-504*	*BH-504*	*BH-504*
Sample Depth	na	m bgs	na	*2.3-2.9*	*0.8-1.4*	*2.3-2.9*	*2.3-2.9*
OVM Reading	na	see note	na	*<25*	*<25*	*<25*	*<25*
Benzene	0.002	µg/g	0.24	0.006	0.005	0.006	0.006
Toluene	0.002	µg/g	2.1	0.012	0.008	0.010	0.012
Ethylbenzene	0.002	µg/g	0.28	<	0.002	<	<
Xylenes	0.002	µg/g	25	0.016	0.008	0.012	0.014
Methyl t-butyl ether (MTBE)	0.002	na	5.7	<	<	0.15	0.23
PHC F1	10	µg/g	180	<	<	<	<
PHC F2	10	µg/g	250	<	<	<	<
PHC F3	10	µg/g	800	<	<	<	<
PHC F4	10	µg/g	5600	<	<	<	<
Moisture	1	%	na	**10**	**4**	**11**	**12**

µg/g	micrograms per gram
RDL	reportable detection limit unless noted
m bgs	metres below ground surface
OVM Reading	organic vapour meter reading (in ppmv unless noted)
ppmv	parts per million by volume
% LEL	percent of the lower explosive limit of hexane
na	not applicable
ns	no standard
<	less than RDL
<###	less than adjusted RDL (###)
-	not analysed
*	acceptable pH range for applying generic standards (O. Reg. 153/04, as amended): 5 to 9 for surface soil (0-1.5 m bgs); 5 to 11 for subsurface soil (>1.5 m bgs)
[1]	Table 2 full depth generic site condition standards in a potable groundwater condition for residential/parkland/institutional property use, medium and fine textured soils (MOE, 2004).
<###	adjusted RDL (###) exceeds soil site condition standard
BOLD	exceeds selected Table 2 standard

TABLE 2 MONITORING RESULTS
3005 Dundas Street West, Oakville, ON
(see notes at end of table, check LNAPL occurrence in following table)

Location	Ground Elev (m)	Screen Top Elev (m)	Bottom of Well Elev (m)	Monitoring Date	OVM Reading	LNAPL Present In Well Or Skimmer	Depth to Water (m bgs)	Water Elevation (m)
SubArea - Shell Property								
MW-401	99.74	98.56	96.12	30-Sep-09	500	nd	1.78	97.97
				09-Oct-09	170	nd	1.70	98.05
				04-Dec-09	<25	nd	1.40	98.34
				08-Jun-10	25	nd	1.38	98.36
				25-Aug-10	25	nd	1.56	98.18
				15-Oct-10	25	nd	1.32	98.42
				15-Oct-10	nm	nd	1.21	98.54
				15-Oct-10	nm	nd	0.85	98.90 *
				29-Oct-10	150	nd	1.50	98.25
				12-Nov-10	50	nd	1.70	98.04
				09-Dec-10	<25	nd	1.51	98.23
MW-402	100.06	98.90	96.46	30-Sep-09	50	nd	2.11	97.95
				09-Oct-09	170	nd	2.02	98.04
				04-Dec-09	25	nd	1.72	98.34
				08-Jun-10	25	nd	1.71	98.35
				25-Aug-10	75	nd	1.95	98.11
				15-Oct-10	75	nd	1.65	98.41
				15-Oct-10	nm	nd	1.55	98.51
				15-Oct-10	nm	nd	1.51	98.55
				29-Oct-10	100	nd	1.83	98.23
				12-Nov-10	50	nd	2.03	98.03
				09-Dec-10	25	nd	1.84	98.22
MW-403	100.20	99.02	96.58	30-Sep-09	75	nd	dry	dry
				09-Oct-09	170	nd	1.56	98.64
				04-Dec-09	25	nd	0.61	99.59 *
				08-Jun-10	50	nd	0.77	99.43 *
				25-Aug-10	<25	nd	1.39	98.82
				09-Dec-10	<25	nd	1.68	98.52
MW-404	99.93	98.70	96.26	30-Sep-09	50	nd	dry	dry
				09-Oct-09	160	nd	1.21	98.72 *
				04-Dec-09	75	nd	1.02	98.91 *
				08-Jun-10	<25	nd	1.06	98.87 *
				25-Aug-10	<25	nd	1.18	98.75 *

TABLE 2 MONITORING RESULTS
3005 Dundas Street West, Oakville, ON
(see notes at end of table, check LNAPL occurrence in following table)

Location	Ground Elev (m)	Screen Top Elev (m)	Bottom of Well Elev (m)	Monitoring Date	OVM Reading	LNAPL Present In Well Or Skimmer	Depth to Water (m bgs)	Water Elevation (m)
MW-404	99.93	98.70	96.26	09-Dec-10	<25	nd	1.15	98.78 *
MW-405	99.96	98.72	96.28	30-Sep-09	25	nd	dry	dry
				09-Oct-09	160	nd	1.44	98.52
				04-Dec-09	<25	nd	1.24	98.72 *
				08-Jun-10	<25	nd	0.97	98.99 *
				25-Aug-10	75	nd	1.37	98.59
				09-Dec-10	25	nd	1.13	98.83 *
MW-501	99.34	97.82	94.78	23-Aug-10	100	nd	1.54	97.81
				25-Aug-10	<25	nd	1.55	97.79
				09-Dec-10	25	nd	1.43	97.91 *
MW-502	99.45	98.39	95.65	23-Aug-10	75	nd	1.64	97.81
				25-Aug-10	50	nd	1.65	97.80
				15-Oct-10	50	nd	1.35	98.10
				15-Oct-10	nm	nd	1.27	98.19
				15-Oct-10	nm	nd	1.26	98.19
				29-Oct-10	75	nd	1.53	97.93
				12-Nov-10	50	nd	1.73	97.72
				09-Dec-10	50	nd	1.54	97.91
MW-503	99.48	98.41	95.68	23-Aug-10	75	nd	1.67	97.81
				25-Aug-10	50	nd	1.68	97.80
				15-Oct-10	nm	nd	1.23	98.24
				15-Oct-10	50	nd	1.38	98.10
				15-Oct-10	nm	nd	1.28	98.20
				29-Oct-10	75	nd	1.55	97.92
				12-Nov-10	50	nd	1.76	97.72
				09-Dec-10	50	nd	1.57	97.90
MW-504	99.56	98.46	95.76	23-Aug-10	75	nd	1.74	97.82
				25-Aug-10	75	nd	1.70	97.86
				15-Oct-10	100	nd	1.43	98.12
				15-Oct-10	nm	nd	1.38	98.18
				15-Oct-10	nm	nd	1.43	98.13
				29-Oct-10	50	nd	1.57	97.98
				12-Nov-10	75	nd	1.74	97.82
				09-Dec-10	25	nd	1.61	97.95

TABLE 2 MONITORING RESULTS
3005 Dundas Street West, Oakville, ON
(see notes at end of table, check LNAPL occurrence in following table)

Location	Ground Elev (m)	Screen Top Elev (m)	Bottom of Well Elev (m)	Monitoring Date	OVM Reading	LNAPL Present In Well Or Skimmer	Depth to Water (m bgs)	Water Elevation (m)
MH-1	nm	nm	nm	09-Dec-10	<25	nd	nm	nm
MH-2	nm	nm	nm	09-Dec-10	<25	nd	nm	nm
MH-3	nm	nm	nm	09-Dec-10	<25	nd	nm	nm
MH-4	nm	nm	nm	09-Dec-10	<25	nd	nm	nm
CB-1	nm	nm	nm	09-Dec-10	<25	nd	nm	nm
CB-2	nm	nm	nm	09-Dec-10	<25	nd	nm	nm
SubArea - Old Bronte Road, Oakville, ON								
BH101	99.94	98.74	95.64	08-Oct-09	190	nd	3.92	96.02
				08-Jun-10	125	nd	3.74	96.20
BH102	99.94	nm	nm	08-Oct-09	290	nd	3.63	96.31
				08-Jun-10	75	nd	3.26	96.68
BH103	99.94	99.18	96.18	08-Oct-09	120	nd	3.75	96.19
				08-Jun-10	150	nd	3.94	96.00 ?
SubArea - Dundas Street West, Oakville, ON								
BH104	100.19	98.99	95.99	08-Oct-09	150	nd	4.08	96.11
				08-Jun-10	125	nd	3.89	96.30
BH105	100.09	98.99	95.99	08-Oct-09	35	nd	2.30	97.79
				08-Jun-10	125	nd	2.04	98.05
BH106	100.18	98.48	95.48	08-Oct-09	130	nd	3.86	96.32
				08-Jun-10	100	nd	3.47	96.71
BH107	100.36	97.46	94.36	08-Oct-09	110	nd	4.11	96.25
				08-Jun-10	150	nd	3.70	96.66
BH108	100.49	97.59	94.49	08-Oct-09	95	nd	4.21	96.28
				08-Jun-10	100	nd	4.03	96.46

TABLE 2 MONITORING RESULTS
3005 Dundas Street West, Oakville, ON

(see notes at end of table, check LNAPL occurrence in following table)

Location	Ground Elev (m)	Screen Top Elev (m)	Bottom of Well Elev (m)	Monitoring Date	OVM Reading	LNAPL Present In Well Or Skimmer	Depth to Water (m bgs)	Water Elevation (m)

Explanatory Notes:
- o Elevations reported according to benchmark.
- o Water elevations NOT corrected for LNAPL, if present.
- o Water depths reported below ground surface (bgs).
- o Water depths measured using Heron Instruments interface probe (or equivalent) after removal of skimmer (if present).
- o Organic vapour meter (OVM) reading measured using Gastech 1238 ME (or equivalent) and reported in ppmv (parts per million by volume) unless noted as %LEL (lower explosive limit of hexane)
- o See previous reports for historic monitoring data

(s) indicates skimmer present in well.
(*) indicates water level higher than top of well screen.
(s*) indicates skimmer present and water level higher than well screen.
(nm) indicates well not monitored, (na) well not accessible, (nd) not detected.

Benchmark:
local (m ald), Reference Elevation (m) - 100
Reference Point - Centre of sanitary sewer manhole cover in south-east corner of site.

Old Bronte Road and Dundas St. wells were surveyed by Wardrop on May 6, 2008.

Area 1 surveyed by SLEt on December 4, 2009

MW-501 to MW-504 surveyed by SLE on August 19, 2010

TABLE 3 GEOCHEMICAL FIELD MEASUREMENTS
3005 Dundas Street West, Oakville, Ontario

Sampling Location	Date	Dissolved Oxygen	Temperature	pH	Persulphate	Conductivity @ 25°C	Oxidation Reduction Potential
	RDL	na	na	na		na	na
	Units	mg/L	°C	pH units	mg/L	mS/cm	mV
MW-401	25-Aug-10	5.6	19.9	7.28	0.0	0.44	47
	15-Oct-2010 (Pre Inj)	6.7	14.5	7.96	0.0	0.39	198
	15-Oct-10 (Dur Inj)	11.2	14.7	13.12	>70	32.32	252
	15-Oct-2010 (Post Inj)	11.1	14.3	10.05	5.6	0.45	422
	29-Oct-10	6.7	13.1	7.50	>70	0.82	213
	12-Nov-10	4.0	12.2	7.80	14.0	0.80	178
	9-Dec-10	8.2	6.9	7.57	0.0	0.40	207
MW-402	25-Aug-10	0.7	20.0	7.02	0.07	1.83	24
	15-Oct-2010 (Pre Inj)	3.8	16.1	6.72	0.0	1.48	112
	15-Oct-10 (Dur Inj)	1.8	16.4	10.02	nm	1.65	471
	15-Oct-2010 (Post Inj)	1.3	16.1	8.45	>70	1.49	467
	29-Oct-10	5.5	14.3	7.07	>70	1.98	295
	12-Nov-10	1.4	13.0	7.30	>70	1.85	282
	9-Dec-10	4.5	7.7	7.18	>70	1.86	238
MW-403	25-Aug-10	0.5	20.6	6.92	0.0	1.53	27
	9-Dec-10	2.2	7.2	6.94	0.0	1.41	280
MW-404	25-Aug-10	1.8	21.4	6.63	0.0	3.48	52
	9-Dec-10	1.1	7.6	6.59	0.0	3.54	294
MW-405	25-Aug-10	0.4	21.0	6.65	0.0	3.73	58
	9-Dec-10	0.9	7.5	6.70	0.0	3.62	354
MW-501	25-Aug-10	1.6	19.6	7.12	0.0	0.73	55
	9-Dec-10	1.5	8.6	7.18	0.0	1.00	201
MW-502	25-Aug-10	3.4	19.5	6.93	0.07	1.32	64
	15-Oct-2010 (Pre Inj)	3.3	16.0	7.29	0.0	0.79	188
	15-Oct-2010 (Dur Inj)	4.7	15.7	7.58	nm	0.78	236
	15-Oct-2010 (Post Inj)	5.7	15.6	8.95	70	0.93	401
	29-Oct-10	6.4	13.6	7.10	>70	1.65	309
	12-Nov-10	3.6	12.7	7.25	>70	2.09	221
	9-Dec-10	6.3	8.5	7.09	21	1.75	252
MW-503	25-Aug-10	1.1	19.3	6.84	0.0	1.66	63
	15-Oct-2010 (Pre Inj)	5.8	15.4	7.11	0.0	0.91	174
	15-Oct-2010 (Dur Inj)	6.8	15.5	9.11	nm	0.89	436
	15-Oct-2010 (Post Inj)	7.2	14.9	8.40	7.0	0.89	425
	29-Oct-10	8.1	13.8	6.99	1.4	1.39	316
	12-Nov-10	3.3	13.1	7.32	0.0	1.59	259
	9-Dec-10	3.5	10.1	6.98	0.0	1.79	234
MW-504	25-Aug-10	4.2	20.6	6.89	0.0	1.30	54
	15-Oct-2010 (Pre Inj)	0.9	15.8	6.77	0.0	1.16	162
	15-Oct-10 (Dur Inj)	0.5	16.0	7.14	nm	1.16	244
	15-Oct-2010 (Post Inj)	0.7	15.8	8.34	21	1.17	424
	29-Oct-10	1.0	14.0	6.98	0.0	1.17	286
	12-Nov-10	0.6	12.5	7.27	0.0	1.40	242
	9-Dec-10	1.0	8.7	6.93	0.0	1.27	232

Note: - DO, pH, ORP and conductivity measurements taken with YSI-556 down hole probe
RDL reportable detection limit
< less than RDL
na not applicable
nm not monitored
mV millivolts
mS milliSiemens

TABLE 4 **GROUNDWATER ANALYTICAL RESULTS**
PETROLEUM HYDROCARBONS
3005 Dundas Street West, Oakville, Ontario

Sampling Location	Laboratory Sample ID	Date	Benzene	Toluene	Ethylbenzene	Xylenes	Methyl t-butyl ether (MTBE)	PHC F1+F2	PHC F3+F4
		RDL	0.2	0.2	0.2	0.4	0.2	100	100
		MOE Table 2 Standards[2]	5	24	2.4	300	700	<1,000	<1,000
BH101	BH101	9-Oct-09	<0.1	<	<0.1	<0.1	12	<	<
	BH101	8-Jun-10	<	<	<	<	29	<	<
BH102	BH102	9-Oct-09	<0.1	0.9	<0.1	0.2	<	<	<
	BH102	8-Jun-10	<	<	<	<	<	<	<
BH104	BH104	9-Jun-10	<	<	<	<	190	<	130
BH105	BH105	9-Oct-09	*<10*	<20	*<10*	<10	**2700**	<	<
	BH105	8-Jun-10	<	<	<	<	**730**	<	<
BH106	BH106	9-Oct-09	<0.1	<	<0.1	<0.1	<	<	<
	BH106	9-Jun-10	<	<	<	<	<	<	<
	BH106	Laboratory Duplicate	<	<	<	<	-	-	-
BH107	BH107	9-Oct-09	<	<0.4	<	<0.2	2.2	<	<
	BH1077	Field Duplicate	<	<0.4	<	<0.2	2.2	<	<
	BH1077 Lab-Dup	Laboratory Duplicate	-	-	-	-	-	-	-
	BH107	9-Jun-10	<	<	0.4	0.5	6.7	<	<
	BH107	Laboratory Duplicate	-	-	-	-	-	-	-
BH108	BH108	9-Oct-09	<	<0.4	<	<0.2	3.5	<	<
	BH108	9-Jun-10	<	<	<	<	57	<	<
BH302	BH302	23-Jul-09	<	<	<	<	11	<	<
	Decommissioned in September 2009								
MW-401	MW-401	30-Sep-09	**58**	**25**	2	210	14	**7800**	<
	MW-401	4-Dec-09	**6**	1.7	1.3	20	4.8	890	<
	MW-401	9-Jun-10	3	0.2	<	1.6	1.7	310	<
	BH98	Field Duplicate	**5.4**	0.3	0.6	2.2	2.5	360	<
	MW-401	25-Aug-10	**9.9**	0.5	1.9	0.7	7.2	250	<
	BH-98	Field Duplicate	**9.0**	0.5	1.6	0.6	6.8	240	<
	MW-401	10-Dec-10	2.3	<1	0.6	1.4	<4	150	<
	BH-98	Field Duplicate	1.9	<0.5	0.6	1.7	<2	110	<
MW-402	MW-402	30-Sep-09	<1	<2	<1	<1	160	<	<
	MW-402	4-Dec-09	0.3	<	<	<	**730**	<	<
	BH-98	Field Duplicate	<	<	<	<	**750**	<	<
	MW-402	9-Jun-10	<	<	<	<	260	<	<
	MW-402	25-Aug-10	<0.1	<	<0.1	<0.1	26	<	<
	MW-402	9-Dec-10	<2	<4	<2	<2	390	<	<

TABLE 4 **GROUNDWATER ANALYTICAL RESULTS**
PETROLEUM HYDROCARBONS
3005 Dundas Street West, Oakville, Ontario

Sampling Location	Laboratory Sample ID	Date	Benzene	Toluene	Ethylbenzene	Xylenes	Methyl t-butyl ether (MTBE)	PHC F1+F2	PHC F3+F4
		RDL	0.2	0.2	0.2	0.4	0.2	100	100
		MOE Table 2 Standards[2]	5	24	2.4	300	700	<1,000	<1,000
MW-403	MW-403	8-Oct-09	<0.1	<	<0.1	<0.1	1.7	<	<
	MW-403	4-Dec-09	<	<	<	<	38	<	<
	MW-403	8-Jun-10	<	<	<	<	<	<	<
	MW-403	25-Aug-10	<0.1	<	<0.1	<0.1	11	<	<
	MW-403	Laboratory Duplicate	-	-	-	-	-	-	-
	MW-403	9-Dec-10	<0.1	<0.2	<0.1	<0.1	4.6	<	<
MW-404	MW-404	6-Oct-09	<0.3	<0.5	<0.3	<0.3	45	<	<
	MW-404	4-Dec-09	<	<	<	<	40	<	<
	MW-404	8-Jun-10	<	<	<	<	37	<	<
	MW-404	25-Aug-10	<0.1	<	<0.1	<0.1	44	<	<
	MW-404	Laboratory Duplicate	-	-	-	-	-	-	-
	MW-404	9-Dec-10	<0.5	<1	<0.5	<0.5	53	<	<
MW-405	MW-405	8-Oct-09	<1	<2	<1	<1	170	<	<
	MW-405	Laboratory Duplicate	<1	<2	<1	<1	170	-	-
	MW-405	4-Dec-09	<	<	<	<	44	<	<
	MW-405	9-Jun-10	<	<	<	<	51	<	<
	MW-405	Laboratory Duplicate	<	<	<	<	-	-	-
	MW-405	25-Aug-10	0.4	<	<0.1	<0.1	53	<	<
	MW-405	9-Dec-10	<0.1	<	<0.1	<0.1	13	<	<
MW-501	MW-501	25-Aug-10	<0.1	<	<0.1	<0.1	13	<	<
	MW-501	Laboratory Duplicate	<0.1	<	<0.1	<0.1	14	-	-
	MW-501	9-Dec-10	<0.1	<	<0.1	<0.1	9.4	<	<
	MW-501	Laboratory Duplicate	<0.1	<	<0.1	<0.1	8.9	<	<
MW-502	MW-502	25-Aug-10	0.2	<	<0.1	0.1	17	<	<
	MW-502	9-Dec-10	<0.1	<	<0.1	<0.1	9.5	<	<
MW-503	MW-503	25-Aug-10	<1	<2	<1	<1	160	<	<
	MW-503	9-Dec-10	<0.1	<	<0.1	<0.1	39	<	<
MW-504	MW-504	25-Aug-10	<0.3	<0.5	<0.3	<0.3	60	<	<
	MW-504	9-Dec-10	<0.5	<1	<0.5	<0.5	69	<	<
Field Blank	MW-99	9-Oct-09	<0.1	<	<0.1	<0.1	<	<	<
	BH-99	4-Dec-09	<0.1	<	<0.1	<0.1	<	<	<
	BH-99	8-Jun-10	<	<	<	<	<	<	<
	BH-99	25-Aug-10	<	<	<	<	-	<	<
	BH-99	9-Dec-10	<0.1	<	<0.1	<0.1	<	<	<

TABLE 4 **GROUNDWATER ANALYTICAL RESULTS**
PETROLEUM HYDROCARBONS
3005 Dundas Street West, Oakville, Ontario

Sampling Location	Laboratory Sample ID	Date	Benzene	Toluene	Ethylbenzene	Xylenes	Methyl t-butyl ether (MTBE)	PHC F1+F2	PHC F3+F4
		RDL	0.2	0.2	0.2	0.4	0.2	100	100
		MOE Table 2 Standards[2]	5	24	2.4	300	700	<1,000	<1,000
Trip Blank	TRIP BLANK	9-Oct-09	<	<	<	<	-	-	-
	TRIP BLANK	23-Nov-09	<	<	<	<	-	-	-
	TRIP BLANK	8-Jun-10	<	<	<	<	-	-	-
	TRIP BLANK	25-Aug-10	<	<	<	<	-	-	-
	TRIP BLANK	9-Dec-10	<	<	<	<	-	-	-

Note: Concentrations in µg/L (unless noted)

RDL	reportable detection limit
<	not detected above RDL provided
<##	RDL adjusted to ## due to dilution
ns	no standard
-	not analyzed
[2]	Table 2 full depth generic site condition standards in a potable groundwater condition for all types of property uses (MOE, 2004).
[3]	Table 2 full depth generic site condition standards in a potable groundwater condition for all types of property uses (MOE, 2009).
500	exceeds groundwater standard
<##	adjusted detection limit (##) exceeds standard

SNC•LAVALIN Environment

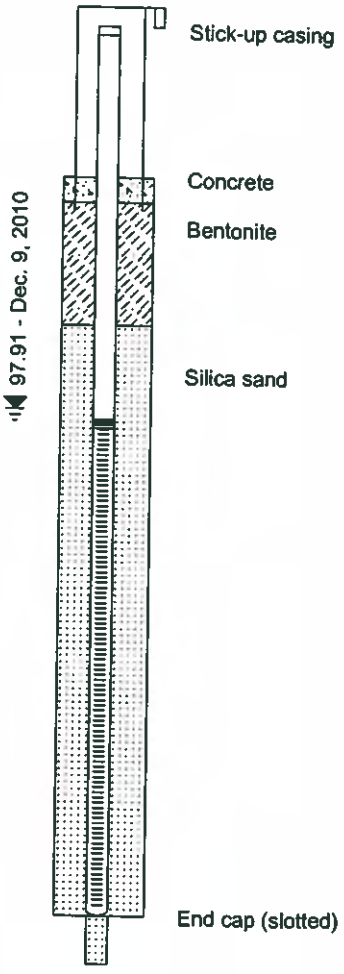
Borehole/Monitoring Well ID: BH-501 (MW-501)

Project No.: S09125
Client: Shell Canada Products
Location: 3005 Dundas St. W., Oakville
Date Completed: August 19, 2010
Site Datum: Sanitary sewer MH cover in SE corner of site (assigned elev. 100.0 m)

SLE Supervisor: L. Arnold
Drilling Method: Hollow Stem Auger
Borehole Diameter: 21 cm
Monitoring Well Diameter: 5.1 cm

Drilling Company: Geo-Environmental
Drilling Equipment: CME-75
Well Casing: Stick-up
Well Screen: 5.1 cm PVC Size 10 Slot
OVM: Gastech 1238 ME

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
							Ground Surface	100.00 / 99.34
0 – 1	6-9-6-6	BH-501-1		<25	46		SAND and GRAVEL FILL moist, brown, medium dense, medium	99.00
2 – 3	2 for 24"	BH-501-2		-	0		No Sample	
4 – 5	2-6-8-8	BH-501-3	◆	<25	38		silty CLAY moist to wet, brown, trace sand, stiff	98.00
6 – 7	5-10-11-15	BH-501-4		<25	67		SILT moist, brown/grey, trace sand and gravel, very stiff	97.00
8 – 9 – 10	7-14-21-32	BH-501-5		<25	92		hard	96.00
11 – 12 – 13	30-50 for 6"	BH-501-6A		25	50		wet	
13 – 14	30-50 for 6"	BH-501-6B	◆	75	50		SHALE trace sand, hard	95.00
15 – 16	19-50 for 5"	BH-501-7	◆	225	91		sandy SILT wet, brown, hard	
17 – 18							End of borehole at 4.8 m bgs.	94.00



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

NA = Not Applicable

SNC • LAVALIN Environment

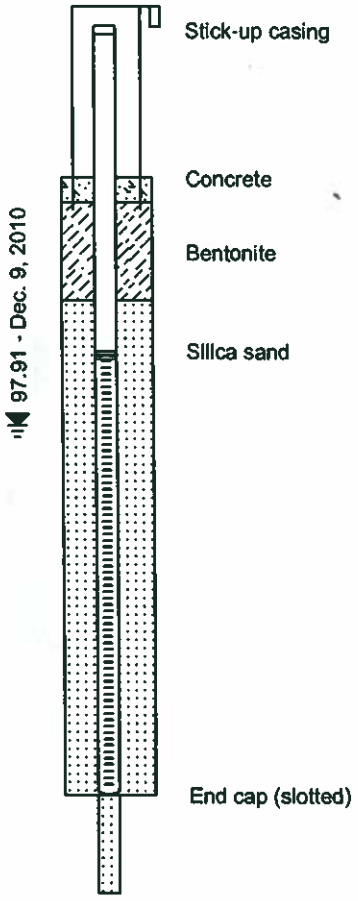
Borehole/Monitoring Well ID: BH-502 (MW-502)

Project No.: S09125
Client: Shell Canada Products
Location: 3005 Dundas St. W., Oakville
Date Completed: August 19, 2010
Site Datum: Sanitary sewer MH cover in SE corner of site (assigned elev. 100.0 m)

SLE Supervisor: L. Arnold
Drilling Method: Hollow Stem Auger
Borehole Diameter: 21 cm
Monitoring Well Diameter: 5.1 cm

Drilling Company: Geo-Environmental
Drilling Equipment: CME-75
Well Casing: Stick-up
Well Screen: 5.1 cm PVC Size 10 Slot
OVM: Gastech 1238 ME

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
							Ground Surface	100.00 / 99.45
0	8-9-7-7	BH-502-1		<25	42		SAND and GRAVEL FILL moist, brown, medium dense, medium	
1	1-1-1-1	BH-502-2		<25	25		sandy CLAY moist, brown, very soft	99.00
2	1-0-2-2	BH-502-3	◆	<25	50		CLAY moist to wet, brown, trace sand, debris, very soft	98.00
3	6-10-13-19	BH-502-4		<25	79		SILT moist, brown, trace sand and gravel, very stiff	97.00
4	16-17-25-50 for 5"	BH-502-5	◆	<25	96		hard	96.00
5	16-24-25-27	BH-502-6		<25	46		SHALE hard sandy SILT moist, brown, trace gravel, hard	95.00
							End of borehole at 4.4 m bgs.	94.00



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

NA = Not Applicable

SNC•LAVALIN Environment

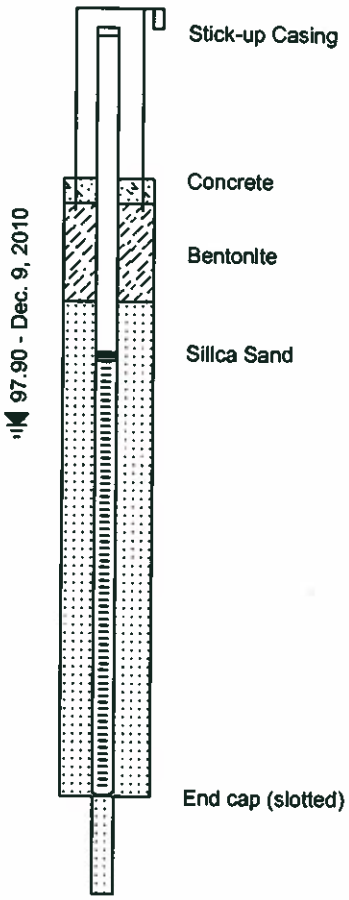
Borehole/Monitoring Well ID: BH-503 (MW-503)

Project No.: S09125
Client: Shell Canada Products
Location: 3005 Dundas St. W., Oakville
Date Completed: August 19, 2010
Site Datum: Sanitary sewer MH cover in SE corner of site (assigned elev. 100.0 m)

SLE Supervisor: L. Arnold
Drilling Method: Hollow Stem Auger
Borehole Diameter: 21 cm
Monitoring Well Diameter: 5.1 cm

Drilling Company: Geo-Environmental
Drilling Equipment: CME-75
Well Casing: Stick-up
Well Screen: 5.1 cm PVC Size 10 Slot
OVM: Gastech 1238 ME

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
							Ground Surface	100.00 / 99.47
0–2 / 0–1	10-13-10-6	BH-503-1		<25	8		SAND and GRAVEL FILL moist, brown, medium dense, medium	99.00
2–4 / 1	1-1-1-1	BH-503-2	◆	<25	25		CLAY moist, brown, some sand, very soft	
4–6 / 2	3-6-7-9	BH-503-3		NA	0		No Sample	98.00
6–8 / 2	4-8-12-20	BH-503-4	◆	<25	83		SILT wet, brown, trace sand and gravel, very stiff	97.00
8–10 / 3	9-16-26-37	BH-503-5		25	100		hard	96.00
10–12 / 4	9-11-13-18	BH-503-6		<25	96		grey, very stiff	
12–14 / 4							End of borehole at 4.4 m bgs.	95.00
14–16 / 5								94.00



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

NA = Not Applicable

SNC • LAVALIN Environment

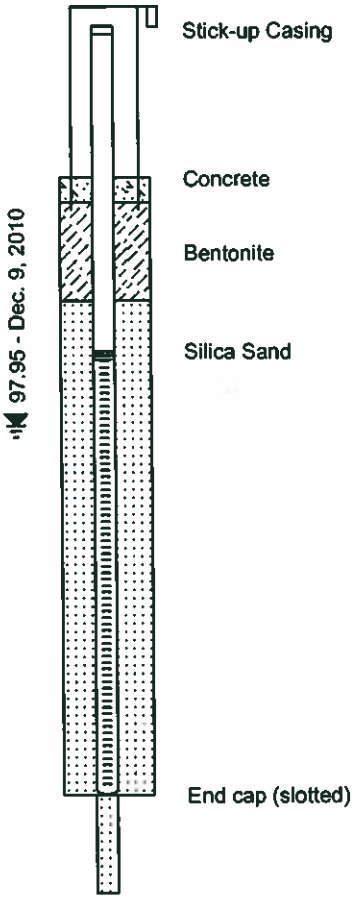
Borehole/Monitoring Well ID: BH-504 (MW-504)

Project No.: S09125
Client: Shell Canada Products
Location: 3005 Dundas St. W., Oakville
Date Completed: August 19, 2010
Site Datum: Sanitary sewer MH cover in SE corner of site (assigned elev. 100.0 m)

SLE Supervisor: L. Arnold
Drilling Method: Hollow Stem Auger
Borehole Diameter: 21 cm
Monitoring Well Diameter: 5.1 cm

Drilling Company: Geo-Environmental
Drilling Equipment: CME-75
Well Casing: Stick-up
Well Screen: 5.1 cm PVC Size 10 Slot
OVM: Gastech 1238 ME

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
							Ground Surface	100.00 / 99.56
0–1	9-12-8-5	BH-504-1		<25	17		SAND and GRAVEL FILL moist, brown, medium dense, medium	99.00
2–3	12-19-22-22	BH-504-2	◆	<25	50		dense	
4–6	7-8-8-10	BH-504-3		<25	33		medium dense	98.00
7–8	5-9-14-19	BH-504-4	◆	<25	100		SILT wet, brown, trace sand and gravel, very stiff	97.00
9–11	9-13-32-40	BH-504-5		<25	63		hard	96.00
12–13	-	BH-504-6		<25	100		1" shale layer	
14–18							End of borehole at 4.4 m bgs.	95.00 / 94.00



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

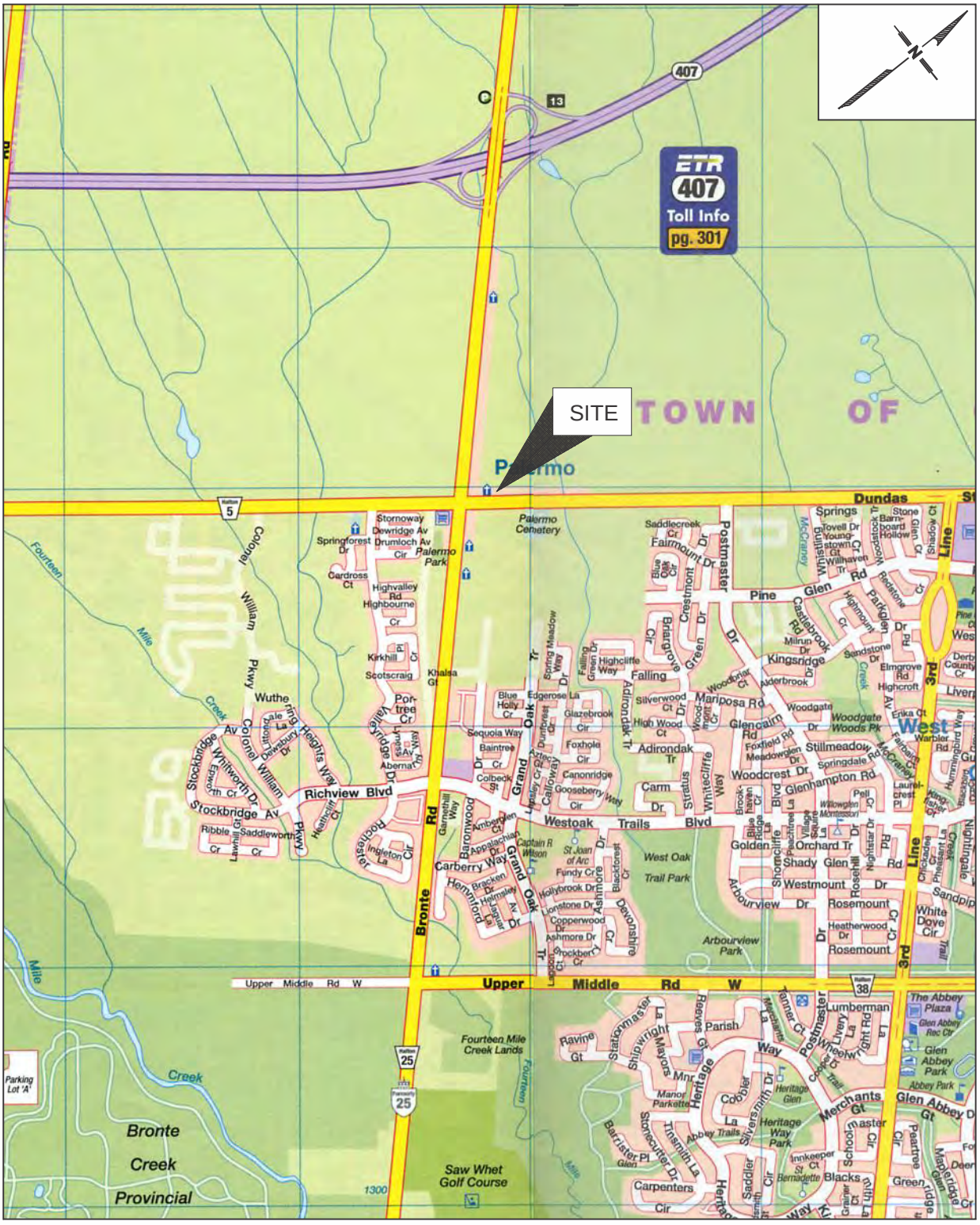
◆ = Sample submitted for laboratory analysis

NA = Not Applicable

APPENDIX D9

ON-SITE GROUNDWATER MONITORING AND SAMPLING (2011)

(SLE, APRIL 23, 2012)



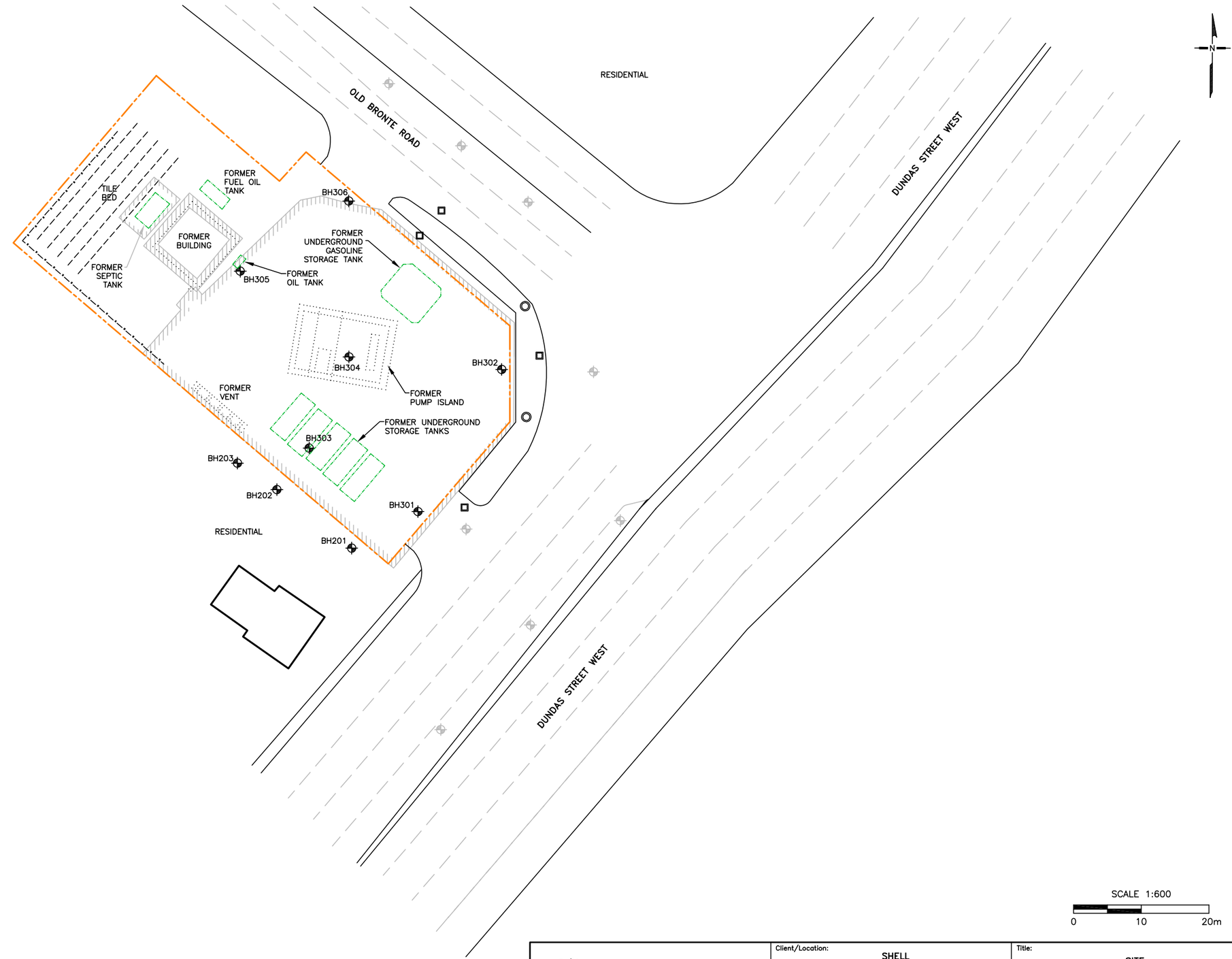
SOURCE: SCHWERDT GRAPHIC ARTS LTD., (MapArt), 2007 EDITION

SCALE 1:25,000

0 0.5 1km

SNC·LAVALIN Environment

Client/Location: SHELL 3005 DUNDAS STREET WEST OAKVILLE, ON		Title: SITE LOCATION PLAN	
Project No: S09125	Filename: 15F01_S09125	Date: FEBRUARY 2012	Dwg No: FIGURE 1
Drawn: AG	Verified:	Project Manager:	



LEGEND

- MONITORING WELL
- MANHOLE
- CATCH BASIN
- EXCAVATED AREA
- SITE PROPERTY LINE
- EXISTING BUILDING
- INFRASTRUCTURE
- FORMER INFRASTRUCTURE
- CHAIN LINK FENCE
- FORMER TANK

NOTE(S):
1. SCALE AND SITE INFRASTRUCTURE LOCATIONS ARE APPROXIMATE
2. INFORMATION ON THIS FIGURE MAY BE LOST IF IT IS PHOTOCOPIED OR FAXED
3. "m" : METRES

SOURCE(S):
1. WARDROP ENGINEERING INC., SITE PLAN, FIGURE 1, DWG#0813480104-SKT-V0001, APRIL 23, 2009
2. WARDROP ENGINEERING INC., SITE PLAN, FIGURE 4, DWG#0813480103-SKT-V0010, MARCH 18, 2009

SNC·LAVALIN Environment

Client/Location: SHELL 3005 DUNDAS STREET WEST OAKVILLE, ON		Title: SITE PLAN	
Project No: S09125	Filename: 15F02_S09125	Date: FEBRUARY 2012	Dwg No: FIGURE 2
Drawn: AG	Verified:	Project Manager:	

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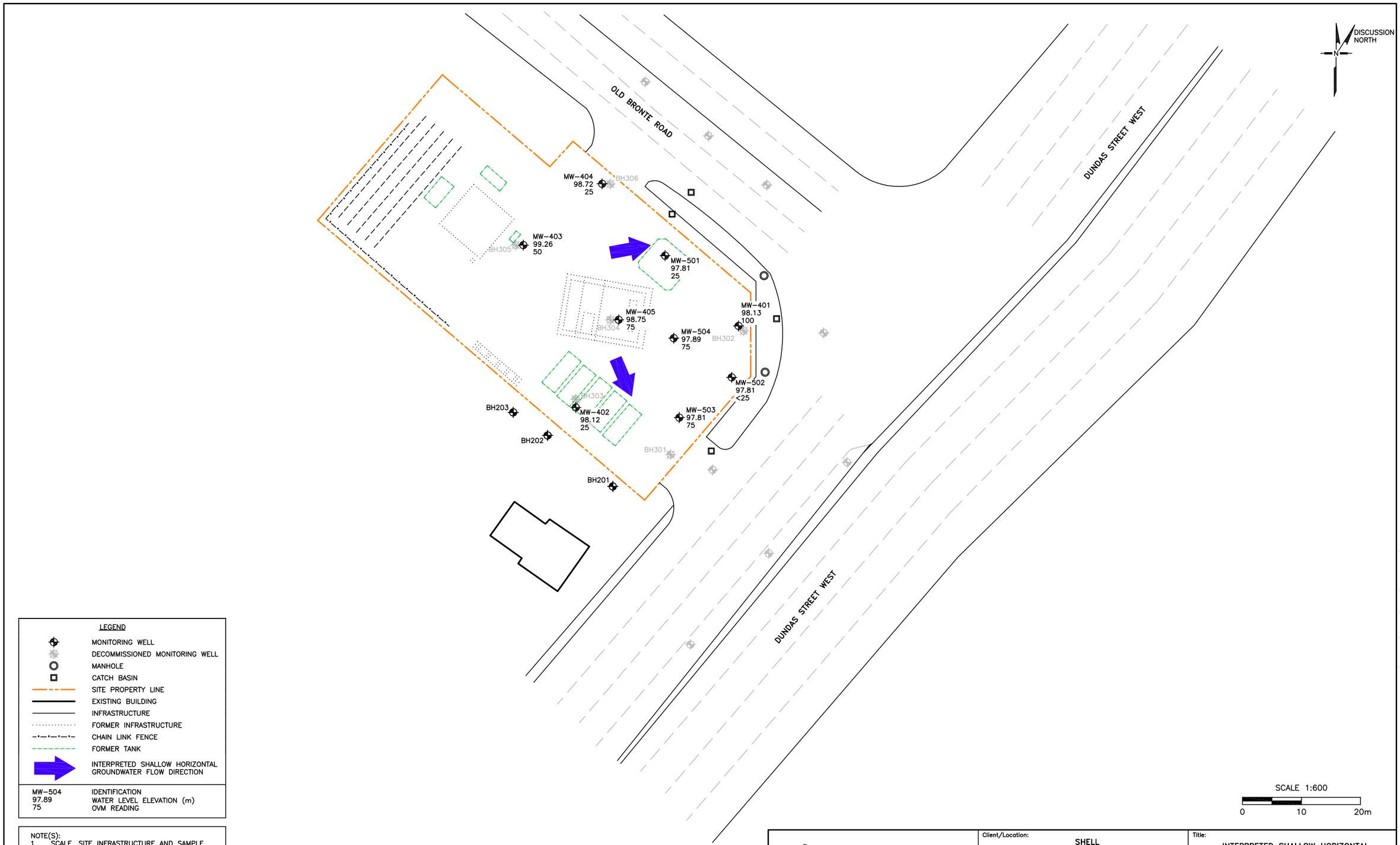

LEGEND

- MONITORING WELL
- DECOMMISSIONED MONITORING WELL
- MANHOLE
- CATCH BASIN
- SITE PROPERTY LINE
- EXISTING BUILDING
- INFRASTRUCTURE
- FORMER INFRASTRUCTURE
- CHAIN LINK FENCE
- FORMER TANK
- INTERPRETED SHALLOW HORIZONTAL GROUNDWATER FLOW DIRECTION

MW-504 97.89 75	IDENTIFICATION WATER LEVEL ELEVATION (m) OVM READING

NOTE(S):
1. SCALE, SITE INFRASTRUCTURE AND SAMPLE LOCATIONS ARE APPROXIMATE
2. INFORMATION ON THIS FIGURE MAY BE LOST IF IT IS PHOTOCOPIED OR FAXED
3. "m" : METRES
4. SITE MONITORED JUNE 2011

SNC·LAVALIN Environment

Client/Location: SHELL 3005 DUNDAS STREET WEST OAKVILLE, ON		Title: INTERPRETED SHALLOW HORIZONTAL GROUNDWATER FLOW AND HEADSPACE VAPOUR READING (JUNE 2011)	
Project No: S09125	Filename: 15F3A_S09125	Date: FEBRUARY 2012	Dwg No: FIGURE 3A
Drawn: DM	Verified:	Project Manager:	

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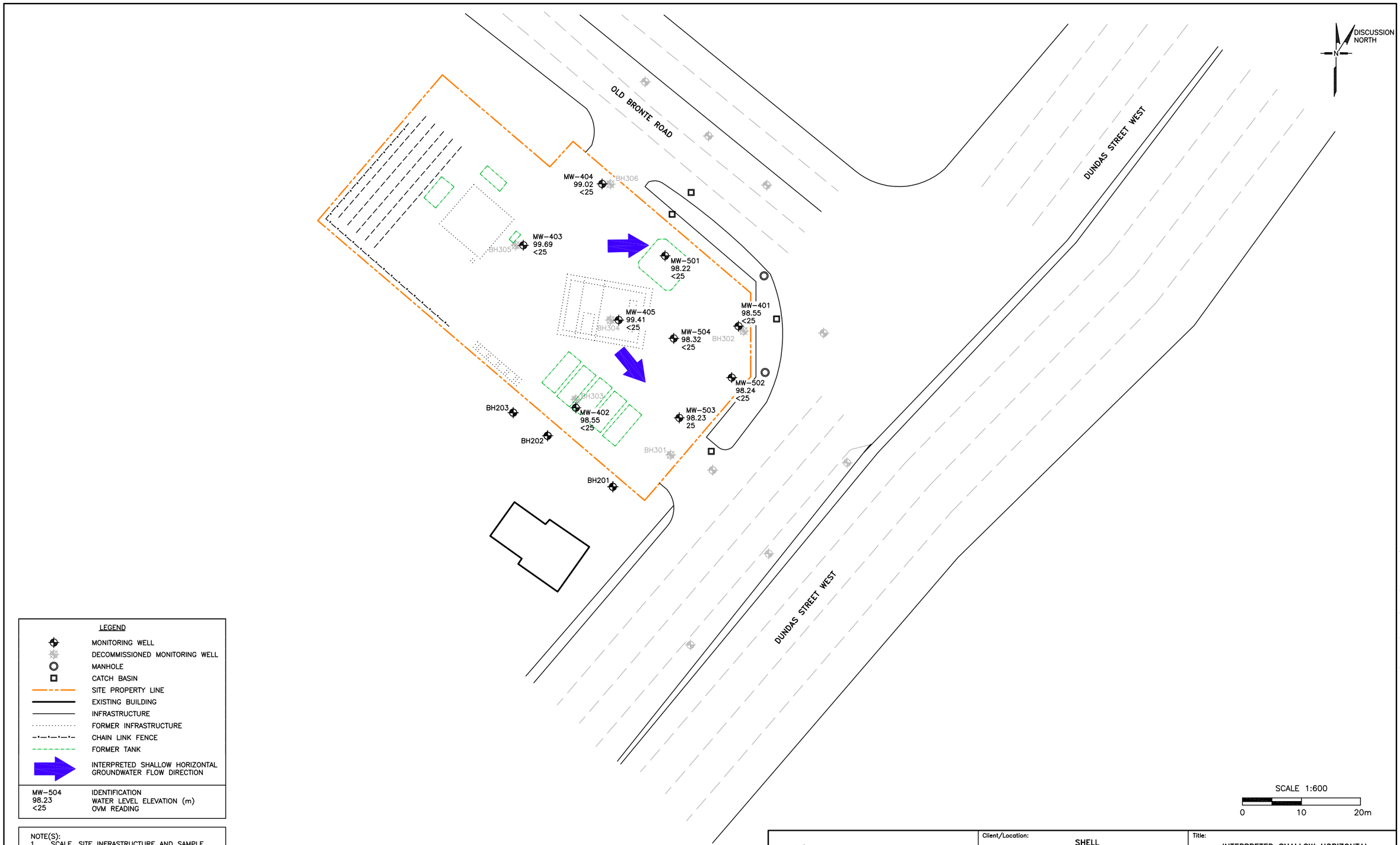

LEGEND

- MONITORING WELL
- DECOMMISSIONED MONITORING WELL
- MANHOLE
- CATCH BASIN
- SITE PROPERTY LINE
- EXISTING BUILDING
- INFRASTRUCTURE
- FORMER INFRASTRUCTURE
- CHAIN LINK FENCE
- FORMER TANK
- INTERPRETED SHALLOW HORIZONTAL GROUNDWATER FLOW DIRECTION

MW-504	IDENTIFICATION
98.23	WATER LEVEL ELEVATION (m)
<25	OVM READING

NOTE(S):
1. SCALE, SITE INFRASTRUCTURE AND SAMPLE LOCATIONS ARE APPROXIMATE
2. INFORMATION ON THIS FIGURE MAY BE LOST IF IT IS PHOTOCOPIED OR FAXED
3. "m" : METRES
4. SITE MONITORED DECEMBER 2011

SNC·LAVALIN Environment

Client/Location: SHELL 3005 DUNDAS STREET WEST OAKVILLE, ON		Title: INTERPRETED SHALLOW HORIZONTAL GROUNDWATER FLOW AND HEADSPACE VAPOUR READING (DECEMBER 2011)	
Project No: S09125	Filename: 15F3B_S09125	Date: FEBRUARY 2012	Dwg No: FIGURE 3B
Drawn: DM	Verified:	Project Manager:	

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MW-404	SCREEN INTERVAL: 1.2 to 3.7m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
06-Oct-09	<0.3	<0.5	<0.3	<0.3	<	<	45
04-Dec-09	<0.2	<	<0.2	<0.4	<	<	40
08-Jun-10	<0.2	<	<0.2	<0.4	<	<	37
25-Aug-10	<	<	<	<	<	<	44
09-Dec-10	<0.5	<1	<0.5	<0.5	<	<	53
25-Feb-11	<	<	<	<	<	<	36
29-Jun-11	<	<0.4	<	<	<	<	43
09-Sep-11	<0.2	<0.4	<0.2	<0.2	<	<	11
07-Dec-11	<	<	<	<	<	<	21

BH305	SCREEN INTERVAL: 0.9 to 2.4m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
24-Mar-09	1.9	2.6	1.7	20	130	<	1.7

MW-403	SCREEN INTERVAL: 1.2 to 3.7m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
08-Oct-09	<	<	<	<	<	<	1.7
04-Dec-09	<0.2	<	<0.2	<0.4	<	<	38
08-Jun-10	<0.2	<	<0.2	<0.4	<	<	<
25-Aug-10	<	<	<	<	<	<	11
09-Dec-10	<	<	<	<	<	<	4.6
25-Feb-11	<	<	<	<	<	<	0.8
29-Jun-11	<	<	<	<	<	<	0.2
09-Sep-11	<	<	<	<	<	<	6.5
07-Dec-11	<	<	<	<	<	<	0.31

BH304	SCREEN INTERVAL: 0.9 to 2.4m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
24-Mar-09	3	<4	9	52	420	<	36

MW-503	SCREEN INTERVAL: 1.1 to 3.8m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
25-Aug-10	<1	<2	<1	<1	<	<	160
09-Dec-10	<	<	<	<	<	<	39
25-Feb-11	<0.1	<	<0.1	<0.1	<	<	19
29-Jun-11	<0.5	<1	<0.5	<0.5	<	<	89
09-Sep-11	<5	<10	<5	<5	<	<	620
07-Dec-11	<1	<2	<1	<1	<	<	160

BH303	SCREEN INTERVAL: 0.9 to 2.4m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
24-Mar-09	<	<	<	<	<	<	0.7

BH306	SCREEN INTERVAL: 0.9 to 2.4m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
24-Mar-09	<	<	<	<	<	<	19

MW-501	SCREEN INTERVAL: 1.5 to 4.6m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
25-Aug-10	<	<	<	<	<	<	13
09-Dec-10	<	<	<	<	<	<	9.4
25-Feb-11	<	<	<	<	<	<	1.1
29-Jun-11	<	<	<	<	<	<	1.2
09-Sep-11	<	<	<	<	<	<	0.7
07-Dec-11	<	<	<	<	<	<	3.3

MW-405	SCREEN INTERVAL: 1.2 to 3.7m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
08-Oct-09	<1	<2	<1	<1	<	<	170
04-Dec-09	<0.2	<	<0.2	<0.4	<	<	44
09-Jun-10	<0.2	<	<0.2	<0.4	<	<	51
25-Aug-10	0.4	<	<	<	<	<	53
09-Dec-10	<	<	<	<	<	<	13
25-Feb-11	<	<	<	<	<	<	4.9
29-Jun-11	<	<	<	<	<	<	7.1
09-Sep-11	<	<	<	<	<	<	4.4
07-Dec-11	<	<	<	<	<	<	1.8

MW-401	SCREEN INTERVAL: 1.2 to 3.7m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
30-Sep-09	58	25	2	210	7800	<	14
04-Dec-09	6	1.7	1.3	20	890	<	4.8
09-Jun-10	3	0.2	<0.2	1.6	310	<	1.7
09-Jun-10*	5.4	0.3	0.6	2.2	360	<	2.5
25-Aug-10	9.9	0.5	1.9	0.7	250	<	7.2
25-Aug-10*	9.0	0.5	1.6	0.6	240	<	6.8
10-Dec-10	2.3	<1	0.6	1.4	150	<	<4
10-Dec-10*	1.9	<0.5	0.6	1.7	110	<	<2
25-Feb-11	<	<	<	0.9	980	<	<0.4
25-Feb-11*	0.5	<	<	1.7	790	<	<0.4
29-Jun-11	9.0	<	0.2	0.4	<	<	4.4
29-Jun-11*	9.9	<	0.2	0.9	<	<	4.8
15-Jul-11	35.0	<1	0.7	1.8	<	<	11
15-Jul-11*	32.0	<1	<0.5	0.6	120	<	10
09-Sep-11	0.4	0.2	0.1	0.8	35	<	<2
09-Sep-11*	0.4	<	0.1	0.8	<	<	<2
07-Dec-11	<	<	<	<	<	<	<0.2
07-Dec-11*	<	<	<	<	<	<	<0.2

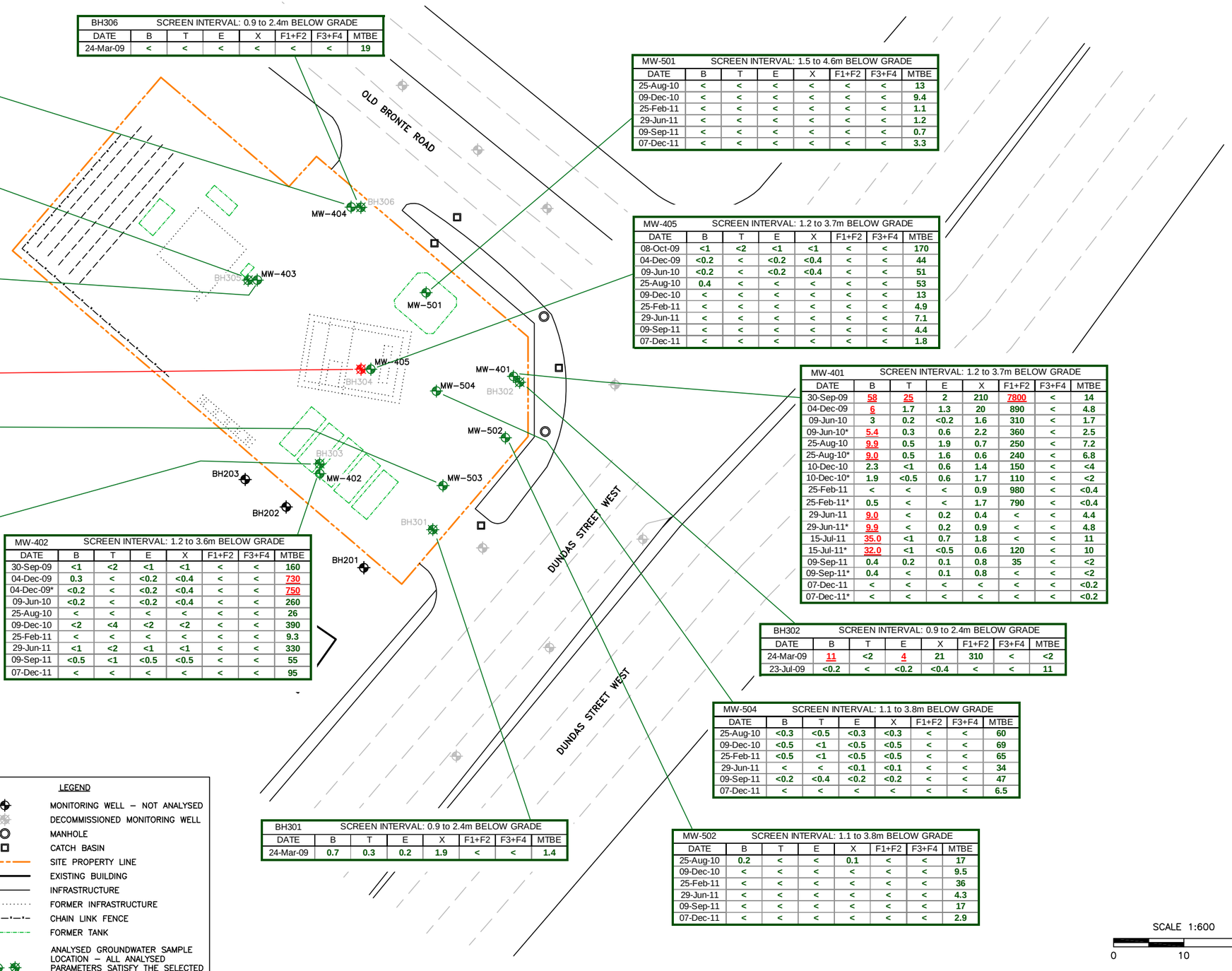
MW-402	SCREEN INTERVAL: 1.2 to 3.6m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
30-Sep-09	<1	<2	<1	<1	<	<	160
04-Dec-09	0.3	<	<0.2	<0.4	<	<	730
04-Dec-09*	<0.2	<	<0.2	<0.4	<	<	750
09-Jun-10	<0.2	<	<0.2	<0.4	<	<	260
25-Aug-10	<	<	<	<	<	<	26
09-Dec-10	<2	<4	<2	<2	<	<	390
25-Feb-11	<	<	<	<	<	<	9.3
29-Jun-11	<1	<2	<1	<1	<	<	330
09-Sep-11	<0.5	<1	<0.5	<0.5	<	<	55
07-Dec-11	<	<	<	<	<	<	95

BH302	SCREEN INTERVAL: 0.9 to 2.4m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
24-Mar-09	11	<2	4	21	310	<	<2
23-Jul-09	<0.2	<	<0.2	<0.4	<	<	11

MW-504	SCREEN INTERVAL: 1.1 to 3.8m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
25-Aug-10	<0.3	<0.5	<0.3	<0.3	<	<	60
09-Dec-10	<0.5	<1	<0.5	<0.5	<	<	69
25-Feb-11	<0.5	<1	<0.5	<0.5	<	<	65
29-Jun-11	<	<	<0.1	<0.1	<	<	34
09-Sep-11	<0.2	<0.4	<0.2	<0.2	<	<	47
07-Dec-11	<	<	<	<	<	<	6.5

BH301	SCREEN INTERVAL: 0.9 to 2.4m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
24-Mar-09	0.7	0.3	0.2	1.9	<	<	1.4

MW-502	SCREEN INTERVAL: 1.1 to 3.8m BELOW GRADE						
DATE	B	T	E	X	F1+F2	F3+F4	MTBE
25-Aug-10	0.2	<	<	0.1	<	<	17
09-Dec-10	<	<	<	<	<	<	9.5
25-Feb-11	<	<	<	<	<	<	36
29-Jun-11	<	<	<	<	<	<	4.3
09-Sep-11	<	<	<	<	<	<	17
07-Dec-11	<	<	<	<	<	<	2.9



		STANDARDS
PARAMETERS	ABBREVIATION	TABLE 2 (2004) MED. & FINE STANDARD
BENZENE	B	5.0
TOLUENE	T	24
ETHYLBENZENE	E	2.4
TOTAL XYLENES	X	300
PHC F1 + F2	F1+F2	1000
PHC F3 + F4	F3+F4	1000
METHYL T-BUTYL ETHER	MTBE	700

STANDARDS/CRITERIA:
- TABLE 2 (2004): FULL DEPTH GENERIC SITE CONDITION STANDARDS IN A POTABLE GROUNDWATER CONDITION FOR ALL TYPES OF PROPERTY USE, MEDIUM AND FINE TEXTURED SOILS (MOE, 2004)
- 'GREEN' : GREEN COLOURED CONCENTRATION SATISFIES THE MOE STANDARD APPLICABLE AT THE TIME OF SAMPLING
- 'RED' : RED COLOURED & UNDERLINED CONCENTRATION EXCEEDS THE MOE STANDARD APPLICABLE AT THE TIME OF SAMPLING

GENERAL NOTES:
1. ALL CONCENTRATIONS IN MICROGRAMS/LITRE (µg/L)
2. 'NS' : NO STANDARD
3. '<' : LESS THAN REPORTABLE DETECTION LIMIT APPLICABLE AT THE TIME OF REPORTING
4. '<###' : LESS THAN ADJUSTED REPORTABLE DETECTION LIMIT
5. '-' : NOT ANALYSED
6. '*' : FIELD DUPLICATE OF PREVIOUSLY LISTED SAMPLE
7. 'PHC' : PETROLEUM HYDROCARBON
8. 'm' : METRES

LEGEND
- MONITORING WELL – NOT ANALYSED
- DECOMMISSIONED MONITORING WELL
- MANHOLE
- CATCH BASIN
- SITE PROPERTY LINE
- EXISTING BUILDING
- INFRASTRUCTURE
- FORMER INFRASTRUCTURE
- CHAIN LINK FENCE
- FORMER TANK
- ANALYSED GROUNDWATER SAMPLE LOCATION – ALL ANALYSED PARAMETERS SATISFY THE SELECTED STANDARDS IN THE MOST RECENT SAMPLING EVENT
- ANALYSED GROUNDWATER SAMPLE LOCATION – AT LEAST ONE ANALYSED PARAMETER EXCEEDS THE SELECTED STANDARD IN THE MOST RECENT SAMPLING EVENT

NOTE(S):
1. SCALE, SITE INFRASTRUCTURE AND SAMPLE LOCATIONS ARE APPROXIMATE
2. INFORMATION ON THIS FIGURE MAY BE LOST IF IT IS PHOTOCOPIED OR FAXED

SCALE 1:600
0 10 20m

SNC·LAVALIN Environment

Client/Location: SHELL 3005 DUNDAS STREET WEST OAKVILLE, ON		Title: GROUNDWATER ANALYTICAL RESULTS	
Project No: S09125	Filename: 15F04_S09125	Date: FEBRUARY 2012	Dwg No: FIGURE 4
Drawn: DM	Verified:	Project Manager:	

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TABLE 1 MONITORING RESULTS
3005 Dundas Street West, Oakville, ON (On-site)
(see notes at end of table)

Location	Ground Elev (m)	Screen Top Elev (m)	Bottom of Well Elev (m)	Monitoring Date	OVM Reading	Depth to Water (m bgs)	Water Elevation (m)	
MW-401	99.74	98.56	96.12	30-Sep-09	500	1.78	97.97	
				09-Oct-09	170	1.70	98.05	
				04-Dec-09	<25	1.40	98.34	
				08-Jun-10	25	1.38	98.36	
				25-Aug-10	25	1.56	98.18	
				15-Oct-10	25	1.32	98.42	
				15-Oct-10	nm	0.85	98.90	*
				15-Oct-10	nm	1.21	98.54	
				29-Oct-10	150	1.50	98.25	
				12-Nov-10	50	1.70	98.04	
				09-Dec-10	<25	1.51	98.23	
				22-Feb-11	25	1.50	98.24	
				28-Jun-11	100	1.61	98.13	
				15-Jul-11	25	1.76	97.98	
				09-Sep-11	25	1.71	98.04	
				06-Dec-11	<25	1.20	98.55	
MW-402	100.06	98.90	96.46	30-Sep-09	50	2.11	97.95	
				09-Oct-09	170	2.02	98.04	
				04-Dec-09	25	1.72	98.34	
				08-Jun-10	25	1.71	98.35	
				25-Aug-10	75	1.95	98.11	
				15-Oct-10	nm	1.55	98.51	
				15-Oct-10	nm	1.51	98.55	
				15-Oct-10	75	1.65	98.41	
				29-Oct-10	100	1.83	98.23	
				12-Nov-10	50	2.03	98.03	
				09-Dec-10	25	1.84	98.22	
				22-Feb-11	<25	1.83	98.23	
				28-Jun-11	25	1.94	98.12	
				09-Sep-11	75	2.03	98.03	
				06-Dec-11	<25	1.51	98.55	
MW-403	100.20	99.02	96.58	30-Sep-09	75	dry	dry	
				09-Oct-09	170	1.56	98.64	
				04-Dec-09	25	0.61	99.59	*
				08-Jun-10	50	0.77	99.43	*

TABLE 1 MONITORING RESULTS
3005 Dundas Street West, Oakville, ON (On-site)
(see notes at end of table)

Location	Ground Elev (m)	Screen Top Elev (m)	Bottom of Well Elev (m)	Monitoring Date	OVM Reading	Depth to Water (m bgs)	Water Elevation (m)
MW-502	99.45	98.39	95.65	15-Oct-10	50	1.35	98.10
				15-Oct-10	nm	1.26	98.19
				15-Oct-10	nm	1.27	98.19
				29-Oct-10	75	1.53	97.93
				12-Nov-10	50	1.73	97.72
				09-Dec-10	50	1.54	97.91
				22-Feb-11	50	1.53	97.92
				28-Jun-11	<25	1.64	97.81
				09-Sep-11	25	1.74	97.71
				07-Dec-11	<25	1.22	98.24
MW-503	99.48	98.41	95.68	23-Aug-10	75	1.67	97.81
				25-Aug-10	50	1.68	97.80
				15-Oct-10	nm	1.28	98.20
				15-Oct-10	50	1.38	98.10
				15-Oct-10	nm	1.23	98.24
				29-Oct-10	75	1.55	97.92
				12-Nov-10	50	1.76	97.72
				09-Dec-10	50	1.57	97.90
				22-Feb-11	75	1.55	97.92
				28-Jun-11	75	1.66	97.81
				09-Sep-11	75	1.76	97.72
				07-Dec-11	25	1.25	98.23
MW-504	99.56	98.46	95.76	23-Aug-10	75	1.74	97.82
				25-Aug-10	75	1.70	97.86
				15-Oct-10	nm	1.43	98.13
				15-Oct-10	100	1.43	98.12
				15-Oct-10	nm	1.38	98.18
				29-Oct-10	50	1.57	97.98
				12-Nov-10	75	1.74	97.82
				09-Dec-10	25	1.61	97.95
				22-Feb-11	50	1.60	97.95
				28-Jun-11	75	1.66	97.89
				09-Sep-11	75	1.67	97.88
				07-Dec-11	<25	1.24	98.32
MH-1	nm	nm	nm	09-Dec-10	<25	nm	nm

TABLE 2 **GEOCHEMICAL FIELD MEASUREMENTS**
3005 Dundas Street West, Oakville, Ontario

Sampling Location	Date	Temperature	pH	Persulphate	Conductivity @ 25°C
	RDL	na	na		na
	Units	°C	pH units	mg/L	mS/cm
MW-401	25-Aug-10	19.9	7.28	0.0	0.44
	15-Oct-2010 (Pre Inj)	14.5	7.96	0.0	0.39
	15-Oct-10 (Dur Inj)	14.7	13.12	>70	32.32
	15-Oct-2010 (Post Inj)	14.3	10.05	5.6	0.45
	29-Oct-10	13.1	7.50	>70	0.82
	12-Nov-10	12.2	7.80	14.0	0.80
	9-Dec-10	6.9	7.57	0.0	0.40
	22-Feb-11	3.2	7.93	0.0	0.48
	28-Jun-11	13.2	7.31	0.0	-
	9-Sep-11	20.7	7.42	0.0	0.44
	7-Dec-11	8.4	7.77	0.0	0.22
MW-402	25-Aug-10	20.0	7.02	0.07	1.83
	15-Oct-2010 (Pre Inj)	16.1	6.72	0.0	1.48
	15-Oct-10 (Dur Inj)	16.4	10.02	nm	1.65
	15-Oct-2010 (Post Inj)	16.1	8.45	>70	1.49
	29-Oct-10	14.3	7.07	>70	1.98
	12-Nov-10	13.0	7.30	>70	1.85
	9-Dec-10	7.7	7.18	>70	1.86
	25-Feb-11	3.1	7.44	70	1.34
	28-Jun-11	16.4	6.94	56	-
	9-Sep-11	20.3	7.07	0.0	1.38
	7-Dec-11	9.0	7.47	0.0	1.62
MW-403	25-Aug-10	20.6	6.92	0.0	1.53
	9-Dec-10	7.2	6.94	0.0	1.41
	25-Feb-11	3.2	7.21	-	1.32
	28-Jun-11	17.8	6.72	-	-
	9-Sep-11	20.1	7.04	-	1.34
	7-Dec-11	9.7	7.17	-	0.80
MW-404	25-Aug-10	21.4	6.63	0.0	3.48
	9-Dec-10	7.6	6.59	0.0	3.54
	25-Feb-11	4.0	5.55	-	3.05
	28-Jun-11	14.8	6.68	-	-
	9-Sep-11	21.3	6.79	-	2.95
	7-Dec-11	10.3	6.81	-	2.19
MW-405	25-Aug-10	21.0	6.65	0.0	3.73
	9-Dec-10	7.5	6.70	0.0	3.62
	25-Feb-11	4.4	6.66	-	3.21
	28-Jun-11	15.1	6.48	-	-
	9-Sep-11	21.2	6.76	-	3.18
	7-Dec-11	9.1	6.83	-	2.49

TABLE 3 **GROUNDWATER ANALYTICAL RESULTS**
PETROLEUM HYDROCARBONS
3005 Dundas Street West, Oakville, Ontario

Sampling Location	Laboratory Sample ID	Date	Benzene	Toluene	Ethylbenzene	Xylenes	Methyl t-butyl ether (MTBE)	PHC F1+F2	PHC F3+F4
		RDL	0.2	0.2	0.2	0.4	0.2	100	100
		MOE Table 2 Standards[2]	5	24	2.4	300	700	<1,000	<1,000
MW-401	MW-401	25-Feb-11	<	<	<	0.9	<0.4	980	<
	BH-98	Field Duplicate	0.5	<	<	1.7	<0.4	790	<
	MW-401	29-Jun-11	**9.0**	<	0.2	0.9	4.4	<	<
	BH-98	Field Duplicate	**9.9**	<	0.2	0.9	4.8	<	<
	MW-401	15-Jul-11	**35.0**	<1	0.7	1.8	11	<	<
	MW-401(Low Flow)	15-Jul-11	**32.0**	<1	<0.5	0.6	10	120	<
	MW-401	9-Sep-11	0.4	0.2	0.1	0.8	<2	35	<
	BH-98	Field Duplicate	0.4	<	0.1	0.8	<2	<	<
	MW-401	7-Dec-11	<0.1	<	<0.1	<0.1	<0.2	<	<
	MW-401	Laboratory Duplicate	-	-	-	-	-	-	-
	BH-98	Field Duplicate	<0.1	<	<0.1	<0.1	<0.2	<	<
	BH-98	Field Duplicate	0.1	<	<0.1	<0.1	<0.2	<	<
MW-402	MW-402	25-Feb-11	<	<	<	<	9.3	<	<
	MW-402	29-Jun-11	<1	<2	<1	<1	330	<	<
	MW-402	9-Sep-11	<0.5	<1	<0.5	<0.5	55	<	<
	MW-402	7-Dec-11	<0.1	<	<0.1	<0.1	95	<	<
MW-403	MW-403	25-Feb-11	<	<	<	<	0.8	<	<
	MW-403	29-Jun-11	<0.1	<	<0.1	<0.1	0.2	<	<
	MW-403	9-Sep-11	<0.1	<	<0.1	<0.1	6.5	<	<
	MW-403	7-Dec-11	<0.1	<	<0.1	<0.1	0.31	<	<
MW-404	MW-404	25-Feb-11	<	<	<	<	36	<	<
	MW-404	29-Jun-11	<	<0.4	<	<	43	<	<
	MW-404	9-Sep-11	<0.2	<0.4	<0.2	<0.2	11	<	<
	MW-404	7-Dec-11	<0.1	<	<0.1	<0.1	21	<	<
MW-405	MW-405	25-Feb-11	<	<	<	<	4.9	<	<
	MW-405	29-Jun-11	<0.1	<	<0.1	<0.1	7.1	<	<
MW-405	MW-405	9-Sep-11	<0.1	<	<0.1	<0.1	4.4	<	<
	MW-405	7-Dec-11	<0.1	<	<0.1	<0.1	1.8	<	<
MW-501	MW-501	25-Feb-11	<0.1	<	<0.1	<0.1	1.1	<	<
	MW-501	29-Jun-11	<0.1	<	<0.1	<0.1	1.2	<	<
	MW-501	9-Sep-11	<0.1	<	<0.1	<0.1	0.7	<	<
	MW-501	7-Dec-11	<0.1	<	<0.1	<0.1	3.3	<	<
MW-502	MW-502	25-Feb-11	<0.1	<	<0.1	<0.1	36	<	<
	MW-502	29-Jun-11	<0.1	<	<0.1	<0.1	4.3	<	<
	MW-502	Laboratory Duplicate	<0.1	<	<0.1	<0.1	4.4	<	<
	MW-502	9-Sep-11	<0.1	<	<0.1	<0.1	17	<	<
	MW-502	7-Dec-11	<0.1	<	<0.1	<0.1	2.9	<	<
MW-503	MW-503	25-Feb-11	<0.1	<	<0.1	<0.1	19	<	<
	MW-503	29-Jun-11	<0.5	<1	<0.5	<0.5	89	<	<
	MW-503	9-Sep-11	<5	<10	<5	<5	620	<	<
	MW-503	7-Dec-11	<1	<2	<1	<1	160	<	<
MW-504	MW-504	25-Feb-11	<0.5	<1	<0.5	<0.5	65	<	<
	MW-504	29-Jun-11	<0.1	<	<0.1	<0.1	34	<	<
	MW-504	9-Sep-11	<0.2	<0.4	<0.2	<0.2	47	<	<
	MW-504	7-Dec-11	<0.1	<	<0.1	<0.1	6.5	<	<
Field Blank	BH-99	8-Jun-10	<	<	<	<	<	<	<
	BH-99	25-Aug-10	<	<	<	<	-	<	<

APPENDIX E

ECOLOG REPORT

Canada's Primary Environmental Risk Information Service

Project Site: **S09125/Oakville**
3005 Dundas Street West
Oakville, ON

Client: **Reshma Fazlullah**
SNC-Lavalin Environment Inc.
1100 Sheppard Ave.W., Ste.200
Toronto, ON M3K2B4

ERIS Project No: **20100803020**

Report Type: **Standard Report - .25km Search Radius**

Prepared By: **Rafal Wojtasik**
rwojtasik@eris.ca

Date: **August 11, 2010**

Table of Contents

Order Number: 20100803020
Site Name: S09125/Oakville
Site Address: 3005 Dundas Street West Oakville, ON
Report Type: Standard Report, 0.25 km Search Radius

	Section
Report Summary *This outlines the number of records from each database that fall on the site, and within various distances from the site.*	i
Site Diagram *The records that were found within a specified distance from the project property (the primary search radius) have been plotted on a diagram to provide you with a visual representation of the information available. Sites will be plotted on the diagram if there is sufficient information from the database source to determine accurate geographic coordinates. Each plotted site is marked with an acronym identifying the database in which the record was found (i.e., WDS for Waste Disposal Sites). These are referred to as "Map Keys". A variety of problems are inherent when attempting to associate various government or private source records with locations. EcoLog ERIS has attempted to make the best fit possible between the available data and their positions on the site diagram.*	ii
Site Profile *This table describes the records that relate directly to the property that is being researched.*	iii
Detail Report *This section represents information, by database, for the records found within the primary search radius. Listed at the end of each database are the sites that could not be plotted on the locator diagram because of insufficient address information. These records will not have map keys. They have been included because they may be found to be relevant during a more detailed investigation.*	iv

	Page
Certificates of Approval	1
ERIS Historical Searches	2
Fuel Storage Tank	3
Ontario Regulation 347 Waste Generators Summary	4
Private and Retail Fuel Storage Tanks	5
Ontario Spills	6
Water Well Information System	7

Appendix: Database Descriptions

Report Summary

Order Number: 20100803020
Site Name: S09125/Oakville
Site Address: 3005 Dundas Street West Oakville, ON
Report Type: Standard Report, 0.25 km Search Radius

Number of Mappable Records Surrounding the Site

Database		Selected	On-site	Within 0.25	0.25km to 2.00km	Total
AAGR	Abandoned Aggregate Inventory	Y	0	0	0	0
AGR	Aggregate Inventory	Y	0	0	0	0
AMIS	Abandoned Mine Information System	Y	0	0	0	0
ANDR	Anderson's Waste Disposal Sites	Y	0	0	0	0
AUWR	Automobile Wrecking & Supplies	Y	0	0	0	0
BORE	Borehole	Y	0	0	3	3
CA	Certificates of Approval	Y	1	1	1	2
CFOT	Commercial Fuel Oil Tanks	Y	0	0	0	0
CHEM	Chemical Register	Y	0	0	0	0
COAL	Coal Gasification Plants	Y	0	0	0	0
CONV	Compliance and Convictions	Y	0	0	0	0
DRL	Drill Hole Database	Y	0	0	0	0
EBR	Environmental Registry	Y	0	0	5	5
EEM	Environmental Effects Monitoring	Y	0	0	0	0
EHS	ERIS Historical Searches	Y	0	5	15	20
EIIS	Environmental Issues Information System	Y	0	0	0	0
FCON	Federal Convictions	Y	0	0	0	0
FCS	Contaminated Sites on Federal Land	Y	0	0	0	0
FOFT	Fisheries & Oceans Fuel Storage Tanks	Y	0	0	0	0
FST	Fuel Storage Tank	Y	0	0	4	4
GEN	Ontario Regulation 347 Waste Generators Summary	Y	2	3	11	14
IAFT	Indian & Northern Affairs Fuel Tanks	Y	0	0	0	0
MINE	Canadian Mine Locations	Y	0	0	0	0
MNR	Mineral Occurrences	Y	0	0	0	0
NATE	National Analysis of Trends in Emergencies System (NATES)	Y	0	0	0	0
NCPL	Non-Compliance Reports	Y	0	0	1	1
NDFT	National Defence & Canadian Forces Fuel Storage Tanks	Y	0	0	0	0
NDSP	National Defence & Canadian Forces Spills	Y	0	0	0	0
NDWD	National Defence & Canadian Forces Waste Disposal Sites	Y	0	0	0	0
NEES	National Environmental Emergencies System (NEES)	Y	0	0	0	0
NPCB	National PCB Inventory	Y	0	0	0	0
NPRI	National Pollutant Release Inventory	Y	0	0	0	0
OGW	Oil and Gas Wells	Y	0	0	0	0
OOGW	Ontario Oil and Gas Wells	Y	0	0	0	0
OPCB	Inventory of PCB Storage Sites	Y	0	0	0	0
PAP	Canadian Pulp and Paper	Y	0	0	0	0
PCFT	Parks Canada Fuel Storage Tanks	Y	0	0	0	0
PES	Pesticide Register	Y	0	0	2	2
PRT	Private and Retail Fuel Storage Tanks	Y	1	1	1	2
REC	Ontario Regulation 347 Waste Receivers Summary	Y	0	0	0	0
RSC	Record of Site Condition	Y	0	0	1	1
RST	Retail Fuel Storage Tanks	Y	0	0	0	0

Report Summary

Order Number: 20100803020
Site Name: S09125/Oakville
Site Address: 3005 Dundas Street West Oakville, ON
Report Type: Standard Report, 0.25 km Search Radius

Database		Selected	On-site	Within 0.25	0.25km to 2.00km	Total
SCT	Scott's Manufacturing Directory	Y	0	0	3	3
SPL	Ontario Spills	Y	3	4	2	6
SRDS	Wastewater Discharger Registration Database	Y	0	0	0	0
TANK	Anderson's Storage Tanks	Y	0	0	0	0
TCFT	Transport Canada Fuel Storage Tanks	Y	0	0	0	0
WDS	Waste Disposal Sites - MOE CA Inventory	Y	0	0	0	0
WDSH	Waste Disposal Sites - MOE 1991 Historical Approval Inventory	Y	0	0	0	0
WWIS	Water Well Information System	Y	9	44	99	143
		TOTAL	16	58	148	206

The databases chosen by the client as per the submitted order form are denoted in the 'Selected' column in the above table. Counts have been provided outside the primary buffer area for cursory examination only. These records have not been examined or verified, therefore, they are subject to change.

SITE DIAGRAM

ECOLOG ERIS
Pinpointing Your Environmental Risks
12 Concorde Pl, Suite 800 North York, ON M3C 4J2
416-510-5204

Project Property: S09125/Oakville
3005 Dundas Street West
Oakville, ON

ERIS Project #: 20100803020

Date: AUG-11-2010

LEGEND

- Project Property
- Database Location

Points of Interest
- Chimney
- Silo

Pipe & Transmission Lines
- Pipeline
- Transmission Line
- Transmission Tower
- Transformer Station

Rail
- Railway - Main
- Railway - Sidetrack
- Railway - Abandoned
- Bridge
- Tunnel

Transportation - Other
- Embankment
- Trail
- Runway

Hydrographic Features
- Permanent Waterway
- Intermittent Waterway
- Open Reservoir
- Dyke/Levee
- Dam
- Breakwall
- Wetland

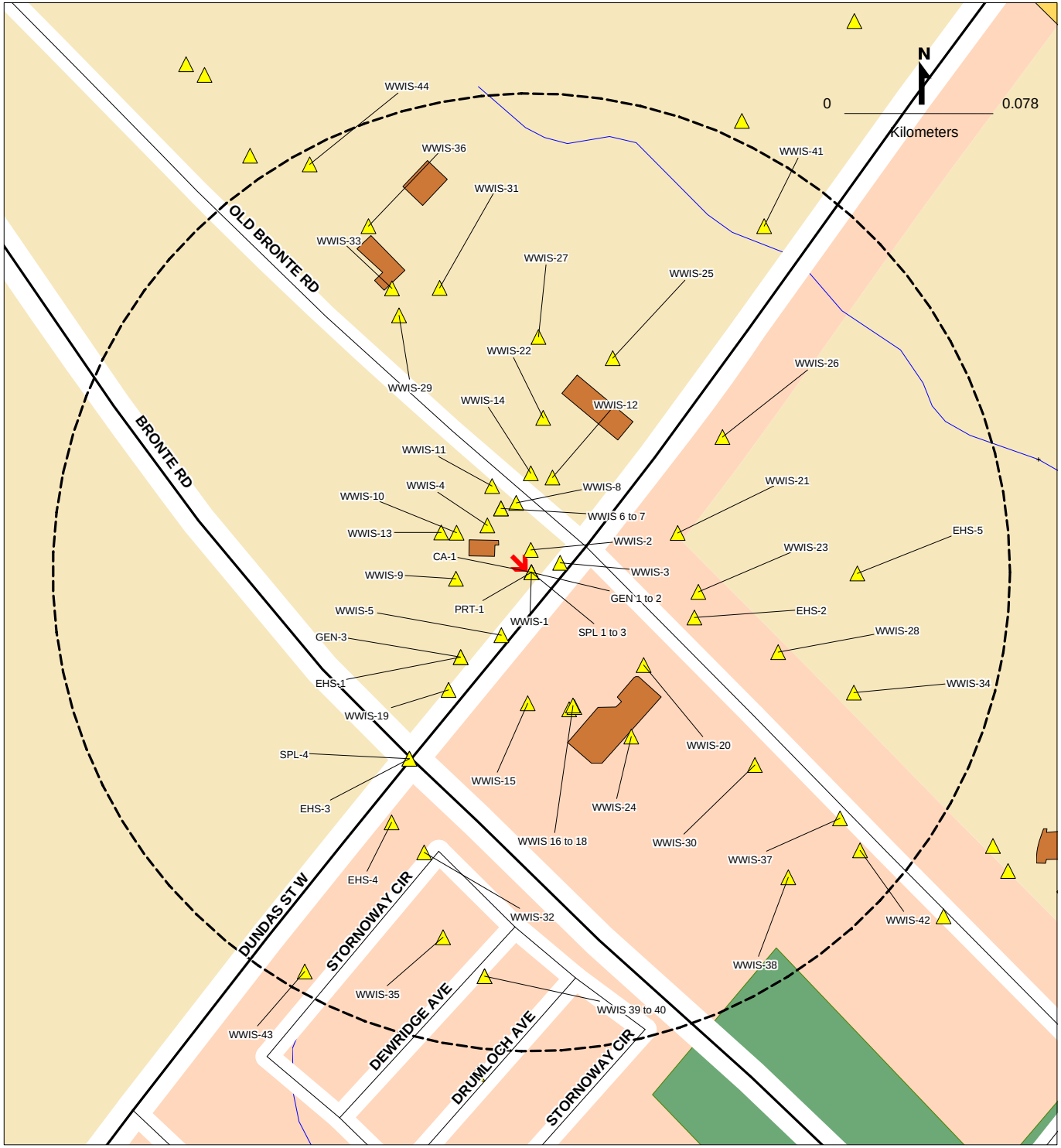
Landuse Classifications
- Open Area
- Residential
- Commercial
- Resource and Industrial
- Government and Institutional
- Parks and Recreational
- Waterbody

Recreation
- Golf Course/Driving Range
- Park/Sports Field
- Other Recreation Area
- Sports/Race Track
- Cemetery
- Campground

Vegetation
- Wooded Area
- Orchard
- Vineyard

Industrial Resources
- Conveyor
- Crane: Moveable
- Crane: Stationary
- Tank
- Rock Cut
- Auto Wrecker
- Lumber Yard
- Pit

This diagram is to be used solely for relative street location purposes. It may not accurately portray street or site positions.



Site Report

Order Number: 20100803020
Site Name: S09125/Oakville
Site Address: 3005 Dundas Street West Oakville, ON
Report Type: Standard Report, 0.25 km Search Radius

FOR COMPLETE INFORMATION, REFER TO DETAIL REPORT

Certificates of Approval

Map Key	Company Name	Address	City	Postal Code
CA-1	BARENCO INC. - LOT 31, CONC. 2	3005 DUNDAS ST. W., SHELL STA.	OAKVILLE TOWN	L6M 4J4

Ontario Spills

Map Key	Company Name	Address	City	Postal Code
SPL-1	SHELL CANADA PRODUCTS LTD.	HWY 5 AND 25 SERVICE STATION	OAKVILLE TOWN	
SPL-2	SHELL CANADA PRODUCTS LTD.	3005 DUNDAS WEST SERVICE STATION	OAKVILLE TOWN	L6M 4J4
SPL-3	HARMAC TRANSPORTATION	3005 DUNDAS ST WEST. TANK TRUCK (CARGO)	OAKVILLE TOWN	L6M 4J4

Ontario Regulation 347 Waste Generators Summary

Map Key	Company Name	Address	City	Postal Code
GEN-1	Shell Canada Products	3005 Dundas Street West	Oakville	L6M 4J4
GEN-2	Shell Canada Products	3005 Dundas Street West	Oakville	L6M 4J4

Water Well Information System

Map Key	Company Name	Address	City	Postal Code
WWIS-1		3005 DUNDAS ST. WEST	Oakville	L6M 4J4
WWIS-2		lot 31 con 1	OAKVILLE TOWN	
WWIS-4			OAKVILLE TOWN	
WWIS-6			Oakville	
WWIS-7			OAKVILLE TOWN	
WWIS-8			OAKVILLE TOWN	
WWIS-9			OAKVILLE TOWN	
WWIS-10			OAKVILLE TOWN	
WWIS-11		lot 31 con 1	OAKVILLE TOWN	

Private and Retail Fuel Storage Tanks

Site Report

Order Number: 20100803020
Site Name: S09125/Oakville
Site Address: 3005 Dundas Street West Oakville, ON
Report Type: Standard Report, 0.25 km Search Radius

FOR COMPLETE INFORMATION, REFER TO DETAIL REPORT

Map Key	Company Name	Address	City	Postal Code
PRT-1	PALERNO SHELL	3005 DUNDAS W HWYS 5 & 25	OAKVILLE	

Detail Report

Order Number: 20100803020
Site Name: S09125/Oakville
Site Address: 3005 Dundas Street West Oakville ON
Report Type: Standard Report, 0.25 km Search Radius

If information is required for sites located beyond the selected address, please contact your ERIS representative.

Certificates of Approval

ERIS Historical Searches

Fuel Storage Tank

Ontario Regulation 347 Waste Generators Summary

Private and Retail Fuel Storage Tanks

Ontario Spills

Water Well Information System

Certificates of Approval

Map Key	Company	Address	Certificate #	Application Year	Issue Date	Approval Type	Status	Application Type
CA-1	BARENCO INC. - LOT 31, CONC. 2	3005 DUNDAS ST. W., SHELL STA. OAKVILLE TOWN L6M 4J4	4-0059-92-	92	10/20/1992	Industrial wastewater	Cancelled	
			Client Name:					
			Client Address:					
			Client City:					
			Client Postal Code:					
			Project Description:	CLEAN-UP EXIST.SUB-SURFACE GASOLINE LEAK				
			Contaminants:					
			Emission Control:					
n/a	Upper Glen Abbey West Ph 1	Part of Lot 30, Concession 1 SDS Oakville	4956-534MBQ	01	10/9/01	Municipal & Private sewage	Approved	New Certificate of Approval
			Client Name:	Bronte Community Developments Corporation				
			Client Address:	161 Rebecca Street				
			Client City:	Hamilton				
			Client Postal Code:	L8R 1B9				
			Project Description:	Storm and sanitary sewer construction in the Town of Oakville.				
			Contaminants:					
			Emission Control:					
n/a	Upper Glen Abbey West Ph 1	Part of Lot 30, Concession 1 SDS Oakville	3914-534MFZ	01	10/9/01	Municipal & Private water	Approved	New Certificate of Approval
			Client Name:	Bronte Community Developments Corporation				
			Client Address:	161 Rebecca Street				
			Client City:	Hamilton				
			Client Postal Code:	L8R 1B9				
			Project Description:	Watermain construction in the Town of Oakville.				
			Contaminants:					
			Emission Control:					

ERIS Historical Searches

Map Key	Company	Address	Order No.	Report Date	Report Type	Search Radius (km)
EHS-1		3015 Dundas street west Oakville L6M 4J4	20091119022	11/23/2009	Standard Report	0.25
			Addit. Info Ordered:	Fire Insur. Maps and/or Site Plans; Aerial Photos; City Directory		
EHS-2		2495 Bronte Rd. Oakville L6M 4J2	20030814003	8/22/03	Basic Report	0.35
			Addit. Info Ordered:			
EHS-3		Bronte Rd && Dundas St W Oakville	20070919014	9/27/2007	CAN - Custom Report	0.25
			Addit. Info Ordered:			
EHS-4		3044 & 3054 Dundas St. W Oakville	20030828005	9/8/03	Basic Report	0.30
			Addit. Info Ordered:	Fire Insur. Maps and/or Site Plans and/or Inspection Reports		
EHS-5		2514, 2494 DUNDAS ST.W & 2495 OLD BRONTE RD. OAKVILLE	20091208005	12/16/2009	Standard Report	0.25
			Addit. Info Ordered:	Aerial Photos;		

Fuel Storage Tank

Map Key	Company	Address	License Issue Date	Tank Status	Tank Status As Of	Operation Type	Facility Type
n/a	MINISTRY OF TRANSPORTATION	WEST SIDE OF HWY 25 2KM N OF H GENERAL (D) PALERMO	10/22/1990	Licensed	August 2007	Private Fuel Outlet	Gasoline Station - Self Serve

Status	Capacity (L)	Year of Installation	Corrosion Protection	Tank Fuel Type
Active	9000	1987		Liquid Fuel Single Wall UST - Gasoline
Active	9000	1987		Liquid Fuel Single Wall UST - Diesel

Map Key	Company	Address	License Issue Date	Tank Status	Tank Status As Of	Operation Type	Facility Type
n/a	MINISTRY OF TRANSPORTATION	WEST SIDE OF HWY 25 2KM N OF H GENERAL (D) PALERMO	10/22/1990	Licensed	December 2008	Private Fuel Outlet	Gasoline Station - Self Serve

Status	Capacity (L)	Year of Installation	Corrosion Protection	Tank Fuel Type
Active	9000	1987		Liquid Fuel Single Wall UST - Gasoline
Active	9000	1987		Liquid Fuel Single Wall UST - Diesel

Map Key	Company	Address	License Issue Date	Tank Status	Tank Status As Of	Operation Type	Facility Type
n/a	MINISTRY OF TRANSPORTATION	WEST SIDE OF HWY 25 2KM N OF H GENERAL (D) PALERMO L0P 1L0			January 2010	Private Fuel Outlet	FS PRIVATE FUEL OUTLET - SELF SERVE

Status	Capacity (L)	Year of Installation	Corrosion Protection	Tank Fuel Type
Active	9000	1987	Fiberglass	Liquid Fuel Single Wall UST - Diesel
Active	9000	1987	Fiberglass	Liquid Fuel Single Wall UST - Gasoline

Map Key	Company	Address	License Issue Date	Tank Status	Tank Status As Of	Operation Type	Facility Type
n/a	MINISTRY OF TRANSPORTATION	WEST SIDE OF HWY 25 2KM N OF H GENERAL (D) PALERMO L0P 1L0			June 2010	Private Fuel Outlet	FS PRIVATE FUEL OUTLET - SELF SERVE

Status	Capacity (L)	Year of Installation	Corrosion Protection	Tank Fuel Type
Active	9000	1987	Fiberglass	Liquid Fuel Single Wall UST - Diesel
Active	9000	1987	Fiberglass	Liquid Fuel Single Wall UST - Gasoline

Ontario Regulation 347 Waste Generators Summary

Map Key	Company	Address	SIC Code	SIC Description	Waste Code	Waste Description
GEN-1	Shell Canada Products	3005 Dundas Street West Oakville L6M 4J4	447190	Other Gasoline Stations	221 251	LIGHT FUELS OIL SKIMMINGS & SLUDGES
			Generator #:	ON9096008		
			Approval Yrs:	07,08		
GEN-2	Shell Canada Products	3005 Dundas Street West Oakville L6M 4J4			221 251	Light fuels Waste oils/sludges (petroleum based)
			Generator #:	ON9096008		
			Approval Yrs:	As of Jan 2010		
GEN-3	P.G. Noble Enterprises	3015 Dundas St W Oakville L6M 4J4			252	Waste crankcase oils and lubricants
			Generator #:	ON7234681		
			Approval Yrs:	As of Jan 2010		
n/a	Hamilton Construction Ltd.	Part Lot 31, 32 & 33 Concession 1 Oakville L6H7G1			251	OIL SKIMMINGS & SLUDGES
			Generator #:	ON3770469		
			Approval Yrs:	07,08		

Private and Retail Fuel Storage Tanks

Map Key	Company	Address	Location ID	Type	Expiry Date	Capacity (L)	Licence #	Facility Description
PRT-1	PALERNO SHELL	3005 DUNDAS W HWYS 5 & 25 OAKVILLE	11265	retail	1996-02-28	0	0012903001	GASOLINE STATION - SS

Ontario Spills

Map Key	Company	Address	Ref No.	Incident Dt	MOE Reported Dt	Contaminant Name	Contaminant Quantity
SPL-1	SHELL CANADA PRODUCTS LTD.	HWY 5 AND 25 SERVICE STATION OAKVILLE TOWN	83111	3/25/1993	3/25/1993		
			Incident Summary:	SHELL-UNKN QTY GASOLINE TO GRND & STORM SEWER, CLEANED-UP.			
			Incident Cause:	PIPE/HOSE LEAK			
			Incident Reason:	UNKNOWN			
			Nature of Impact:	Soil contamination			
			Receiving Medium:	LAND			
			Environmental Impact:	POSSIBLE			
SPL-2	SHELL CANADA PRODUCTS LTD.	3005 DUNDAS WEST SERVICE STATION OAKVILLE TOWN L6M 4J4	54897	7/30/1991	7/30/1991		
			Incident Summary:	SHELL SERVICE STATION- GASOLINE TO GROUND AND WATER TABLE.			
			Incident Cause:	UNDERGROUND TANK LEAK			
			Incident Reason:	CORROSION			
			Nature of Impact:	Soil contamination			
			Receiving Medium:	LAND / WATER			
			Environmental Impact:	CONFIRMED			
SPL-3	HARMAC TRANSPORTATION	3005 DUNDAS ST WEST. TANK TRUCK (CARGO) OAKVILLE TOWN L6M 4J4	216139	11/14/2001	11/14/2001		
			Incident Summary:	HARMAC-100 L GASOLINE TO STATION LOT,CONTAINED, CLEANED-UP.			
			Incident Cause:	PIPE/HOSE LEAK			
			Incident Reason:	EQUIPMENT FAILURE			
			Nature of Impact:	Soil contamination			
			Receiving Medium:	Land			
			Environmental Impact:	Possible			
SPL-4	TRANSPORT TRUCK	INTERSECTION HWY 5 AND HWY 25 TRANSPORT TRUCK (CARGO) OAKVILLE TOWN	167162	4/30/1999	4/30/1999		
			Incident Summary:	TORONTO TRUCK LINES-9.1L SODIUM DICHROMATE TO ROAD-CLEANING.NO C/B'S.FD,OPP			
			Incident Cause:	UNKNOWN			
			Incident Reason:	ERROR			
			Nature of Impact:				
			Receiving Medium:	LAND			
			Environmental Impact:	NOT ANTICIPATED			

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-1		3005 DUNDAS ST. WEST Oakville L6M 4J4	7122832				HALTON	OAKVILLE TOWN

Easting Nad83: 999999
Northing Nad83: 9999999
Zone: 99
Utm Reliability: margin of error : 10 - 30 m
Construction Date: 4/3/2009
Primary Water Use: Other
Secondary Water Use:
Well Depth (ft): 8
Pump Rate (gpm):
Static Water Level (ft):
Flow Rate (gpm):
Clear/Cloudy:
Specific Capacity:
Final Well Status: Test Hole
Construction Method: Direct Push
Flowing (y/n):
Elevation (ft):
Elevation Reliability:
Depth to Bedrock (ft):
Overburden/Bedrock:
Water Type:
Casing Material: PLASTIC, PLASTIC, PLASTIC, PLASTIC, PLASTIC, PLASTIC

Thickness (ft)	Original Depth (ft)	Material Colour	Material
8	8	BROWN	FILL

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-2		lot 31 con 1 OAKVILLE TOWN	2805217	031	01	DS N	HALTON	OAKVILLE TOWN

Easting Nad83: 598994.6
Northing Nad83: 4809923
Zone: 17
Utm Reliability: margin of error : 30 m - 100 m
Construction Date: 5/30/1978
Primary Water Use:
Secondary Water Use:
Well Depth (ft): 50
Pump Rate (gpm):
Static Water Level (ft):
Flow Rate (gpm):
Clear/Cloudy:
Specific Capacity:
Final Well Status: Test Hole
Construction Method: Cable Tool
Flowing (y/n):
Elevation (ft): 505
Elevation Reliability: Read from topographic map, contour interval - 10 f
Depth to Bedrock (ft): 18
Overburden/Bedrock: Bedrock
Water Type:
Casing Material: OPEN HOLE

Thickness (ft)	Original Depth (ft)	Material Colour	Material
18	18		PREV. DRILLED
32	50	RED	SHALE, HARD

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-3		lot 31 con 1 OAKVILLE TOWN	2804851	031	01	DS N	HALTON	OAKVILLE TOWN

Easting Nad83: 599010.6
Northing Nad83: 4809916
Zone: 17
Utm Reliability: margin of error : 30 m - 100 m
Construction Date: 3/31/1976
Primary Water Use: Public
Secondary Water Use:
Well Depth (ft): 20
Pump Rate (gpm): 3
Static Water Level (ft): 12
Flow Rate (gpm):
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Boring
Flowing (y/n): N
Elevation (ft): 506
Elevation Reliability: 10 ft - Surveyed in field from known Bench Mark
Depth to Bedrock (ft): 14
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL

Thickness (ft)	Original Depth (ft)	Material Colour	Material
3	3		FILL
11	14	BROWN	CLAY
6	20	RED	SHALE, CLAY

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-4		OAKVILLE TOWN	7120486				HALTON	OAKVILLE TOWN

Easting Nad83: 598972
Northing Nad83: 4809935
Zone: 17
Utm Reliability: margin of error : 10 - 30 m
Construction Date: 12/15/2008
Primary Water Use:
Secondary Water Use:
Well Depth (ft):
Pump Rate (gpm):
Static Water Level (ft):
Flow Rate (gpm):
Clear/Cloudy:
Specific Capacity:
Final Well Status: Abandoned-Other
Construction Method:
Flowing (y/n):
Elevation (ft):
Elevation Reliability:
Depth to Bedrock (ft):
Overburden/Bedrock:
Water Type:
Casing Material:

Thickness (ft)	Original Depth (ft)	Material Colour	Material

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-5		lot 31 con 1 OAKVILLE TOWN	2802173	031	01	DS N	HALTON	OAKVILLE TOWN

Easting Nad83: 598980.6
Northing Nad83: 4809878
Zone: 17
Utm Reliability: margin of error : 100 m - 300 m
Construction Date: 5/22/1959
Primary Water Use: Domestic
Secondary Water Use:
Well Depth (ft): 50
Pump Rate (gpm): 11
Static Water Level (ft): 12
Flow Rate (gpm):
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (ft): 501
Elevation Reliability: Read from topographic map, contour interval - 10 f
Depth to Bedrock (ft): 16
Overburden/Bedrock: Mixed in a Layer
Water Type: FRESH
Casing Material: STEEL, OPEN HOLE

Thickness (ft)	Original Depth (ft)	Material Colour	Material
1	1	BROWN	TOPSOIL
15	16	BROWN	CLAY
4	20	RED	CLAY, SHALE
30	50	RED	SHALE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-6		Oakville	7128691				HALTON	OAKVILLE TOWN

Easting Nad83: 598979
Northing Nad83: 4809944
Zone: 17
Utm Reliability: margin of error : 10 - 30 m
Construction Date: 1/25/2008
Primary Water Use: Monitoring
Secondary Water Use:
Well Depth (ft): 12.467192
Pump Rate (gpm):
Static Water Level (ft):
Flow Rate (gpm):
Clear/Cloudy:
Specific Capacity:
Final Well Status: Test Hole
Construction Method: Boring
Flowing (y/n):
Elevation (ft):
Elevation Reliability:
Depth to Bedrock (ft):
Overburden/Bedrock:
Water Type:
Casing Material: PLASTIC, PLASTIC, PLASTIC, PLASTIC, PLASTIC, PLASTIC

Thickness (ft)	Original Depth (ft)	Material Colour	Material
2.4934384	2.4934384	BROWN	SAND, GRAVEL
2.4934384	4.9868768	BLACK	CLAY, SILTY
7.4803152	12.467192	BROWN	CLAY, SILTY

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-7		OAKVILLE TOWN	7113891				HALTON	OAKVILLE TOWN

Easting Nad83: 598979
Northing Nad83: 4809944
Zone: 17
Utm Reliability: margin of error : 10 - 30 m
Construction Date: 9/17/2008
Primary Water Use:
Secondary Water Use:
Well Depth (ft):
Pump Rate (gpm):
Static Water Level (ft): 6.56168
Flow Rate (gpm):
Clear/Cloudy:
Specific Capacity:
Final Well Status: Other Status
Construction Method:
Flowing (y/n):
Elevation (ft):
Elevation Reliability:
Depth to Bedrock (ft):
Overburden/Bedrock:
Water Type:
Casing Material:

Thickness (ft)	Original Depth (ft)	Material Colour	Material

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-8		OAKVILLE TOWN	7107062				HALTON	OAKVILLE TOWN

Easting Nad83: 598987
Northing Nad83: 4809947
Zone: 17
Utm Reliability: margin of error : 10 - 30 m
Construction Date: 4/17/2008
Primary Water Use: Monitoring
Secondary Water Use:
Well Depth (ft): 37.401576
Pump Rate (gpm):
Static Water Level (ft):
Flow Rate (gpm):
Clear/Cloudy:
Specific Capacity:
Final Well Status: Test Hole
Construction Method: Rotary (Air)
Flowing (y/n):
Elevation (ft):
Elevation Reliability:
Depth to Bedrock (ft):
Overburden/Bedrock:
Water Type: FRESH
Casing Material: PLASTIC, PLASTIC, PLASTIC, PLASTIC, STEEL

Thickness (ft)	Original Depth (ft)	Material Colour	Material
3.937008	3.937008	BROWN	SAND, GRAVEL, FILL
9.84252	13.779528	BROWN	SILT, CLAY, SAND
5.905512	19.68504	RED	SHALE, WEATHERED
17.716536	37.401576	RED	SHALE, LIMESTONE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-9		OAKVILLE TOWN	7105546				HALTON	OAKVILLE TOWN

Easting Nad83: 598956
Northing Nad83: 4809907
Zone: 17
Utm Reliability: margin of error : 10 - 30 m
Construction Date: 4/3/2008
Primary Water Use: Monitoring
Secondary Water Use: Test Hole
Well Depth (ft): 17.060368
Pump Rate (gpm):
Static Water Level (ft):
Flow Rate (gpm):
Clear/Cloudy:
Specific Capacity:
Final Well Status: Test Hole
Construction Method: Boring
Flowing (y/n):
Elevation (ft):
Elevation Reliability:
Depth to Bedrock (ft):
Overburden/Bedrock:
Water Type:
Casing Material: PLASTIC, PLASTIC, PLASTIC

Thickness (ft)	Original Depth (ft)	Material Colour	Material
4.593176	4.593176	BROWN	SILT, SAND, LOOSE
4.593176	9.186352	GREY	SILT, CLAY, SOFT
2.624672	11.811024	BROWN	SILT, CLAY, STONES
5.249344	17.060368	BROWN	SILT, CLAY, SHALE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-10		OAKVILLE TOWN	7105545				HALTON	OAKVILLE TOWN

Easting Nad83: 598956
Northing Nad83: 4809931
Zone: 17
Utm Reliability: margin of error : 10 - 30 m
Construction Date: 4/3/2008
Primary Water Use: Monitoring
Secondary Water Use:
Well Depth (ft): 14.435696
Pump Rate (gpm):
Static Water Level (ft):
Flow Rate (gpm):
Clear/Cloudy:
Specific Capacity:
Final Well Status: Test Hole
Construction Method: Boring
Flowing (y/n):
Elevation (ft):
Elevation Reliability:
Depth to Bedrock (ft):
Overburden/Bedrock:
Water Type:
Casing Material: PLASTIC, PLASTIC

Thickness (ft)	Original Depth (ft)	Material Colour	Material
0.984252	0.984252	BROWN	TOPSOIL, LOOSE
4.92126	5.905512	BROWN	CLAY, SILT, GRAVEL
8.530184	14.435696	BROWN	CLAY, SILT, GRAVEL

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-11		lot 31 con 1 OAKVILLE TOWN	2802174	031	01	DS N	HALTON	OAKVILLE TOWN

Easting Nad83: 598974.6
Northing Nad83: 4809956
Zone: 17
Utm Reliability: unknown UTM
Construction Date: 10/6/1953
Primary Water Use: Commerical
Secondary Water Use:
Well Depth (ft): 51
Pump Rate (gpm): 6
Static Water Level (ft): 11
Flow Rate (gpm):
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (ft): 502
Elevation Reliability: Unknown elevation
Depth to Bedrock (ft): 9
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL, OPEN HOLE

Thickness (ft)	Original Depth (ft)	Material Colour	Material
9	9		CLAY
42	51		SHALE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-12		lot 30 con 1 OAKVILLE TOWN	2806373	030	01	DS N	HALTON	OAKVILLE TOWN

Easting Nad83: 599005.6
Northing Nad83: 4809961
Zone: 17
Utm Reliability: margin of error : 100 m - 300 m
Construction Date: 11/27/1985
Primary Water Use: Domestic
Secondary Water Use:
Well Depth (ft): 51
Pump Rate (gpm): 4
Static Water Level (ft): 6
Flow Rate (gpm):
Clear/Cloudy: CLOUDY
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (ft): 612
Elevation Reliability: Read from topographic map, contour interval - 25 f
Depth to Bedrock (ft): 20
Overburden/Bedrock: Bedrock
Water Type: Not stated
Casing Material: STEEL, OPEN HOLE

Thickness (ft)	Original Depth (ft)	Material Colour	Material
20	20	BROWN	CLAY, SANDY, GRAVEL
31	51	RED	SHALE, HARD

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-13		OAKVILLE TOWN	7113897				HALTON	OAKVILLE TOWN

Easting Nad83: 598948
Northing Nad83: 4809931
Zone: 17
Utm Reliability: margin of error : 10 - 30 m
Construction Date: 9/17/2008
Primary Water Use:
Secondary Water Use:
Well Depth (ft):
Pump Rate (gpm):
Static Water Level (ft): 3.28084
Flow Rate (gpm):
Clear/Cloudy:
Specific Capacity:
Final Well Status: Other Status
Construction Method:
Flowing (y/n):
Elevation (ft):
Elevation Reliability:
Depth to Bedrock (ft):
Overburden/Bedrock:
Water Type:
Casing Material:

Thickness (ft)	Original Depth (ft)	Material Colour	Material

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-14		lot 31 con 1 OAKVILLE TOWN	2805218	031	01	DS N	HALTON	OAKVILLE TOWN

Easting Nad83: 598994.6
Northing Nad83: 4809963
Zone: 17
Utm Reliability: margin of error : 30 m - 100 m
Construction Date: 5/31/1978
Primary Water Use: Commerical
Secondary Water Use:
Well Depth (ft): 40
Pump Rate (gpm): 5
Static Water Level (ft): 9
Flow Rate (gpm):
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (ft): 505
Elevation Reliability: Read from topographic map, contour interval - 10 f
Depth to Bedrock (ft): 20
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL, OPEN HOLE

Thickness (ft)	Original Depth (ft)	Material Colour	Material
15	15	BROWN	CLAY, SANDY, LOOSE
5	20	BROWN	CLAY, GRAVEL, SANDY
20	40	RED	SHALE, HARD

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-15		lot 31 con 1 OAKVILLE TOWN	2803928	031	01	DS S	HALTON	OAKVILLE TOWN

Easting Nad83: 598994.6
Northing Nad83: 4809843
Zone: 17
Utm Reliability: margin of error : 30 m - 100 m
Construction Date: 5/28/1972
Primary Water Use: Domestic
Secondary Water Use:
Well Depth (ft): 34
Pump Rate (gpm): 20
Static Water Level (ft): 7
Flow Rate (gpm):
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (ft): 505
Elevation Reliability: Read from topographic map, contour interval - 25 f
Depth to Bedrock (ft): 15
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL, OPEN HOLE

Thickness (ft)	Original Depth (ft)	Material Colour	Material
15	15	RED	CLAY
19	34	RED	SHALE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-16		lot 31 con 1 OAKVILLE TOWN	2807863	031	01	DS S	HALTON	OAKVILLE TOWN

Easting Nad83: 599018.3
Northing Nad83: 4809842
Zone: 17
Utm Reliability: margin of error : 10 - 30 m
Construction Date: 9/24/1991
Primary Water Use: Commerical
Secondary Water Use:
Well Depth (ft): 36
Pump Rate (gpm): 6
Static Water Level (ft): 20
Flow Rate (gpm):
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (ft): 511.81
Elevation Reliability: Read from topographic map, contour interval - 25 f
Depth to Bedrock (ft): 18
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL

Thickness (ft)	Original Depth (ft)	Material Colour	Material
3	3	WHITE	FILL, LOOSE
15	18	BLUE-GREY	CLAY, DENSE
18	36	RED	SHALE, LIMESTONE, HARD

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-17		lot 31 con 1 Oakville	7129278	031	01	NDS	HALTON	OAKVILLE TOWN

Easting Nad83: 599019
Northing Nad83: 4809841
Zone: 17
Utm Reliability: margin of error : 10 - 30 m
Construction Date: 1/1/2009
Primary Water Use: Domestic
Secondary Water Use:
Well Depth (ft):
Pump Rate (gpm):
Static Water Level (ft):
Flow Rate (gpm):
Clear/Cloudy:
Specific Capacity:
Final Well Status: Abandoned-Other
Construction Method:
Flowing (y/n):
Elevation (ft):
Elevation Reliability:
Depth to Bedrock (ft):
Overburden/Bedrock:
Water Type:
Casing Material:

Thickness (ft)	Original Depth (ft)	Material Colour	Material

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-18		lot 31 con 1 OAKVILLE TOWN	2807864	031	01	DS S	HALTON	OAKVILLE TOWN

Easting Nad83: 599016.3
Northing Nad83: 4809840
Zone: 17
Utm Reliability: margin of error : 10 - 30 m
Construction Date:
Primary Water Use:
Secondary Water Use:
Well Depth (ft):
Pump Rate (gpm):
Static Water Level (ft):
Flow Rate (gpm):
Clear/Cloudy:
Specific Capacity:
Final Well Status: Abandoned-Supply
Construction Method: Not Known
Flowing (y/n):
Elevation (ft): 511.81
Elevation Reliability: Read from topographic map, contour interval - 25 f
Depth to Bedrock (ft):
Overburden/Bedrock: No formation data
Water Type:
Casing Material:

Thickness (ft)	Original Depth (ft)	Material Colour	Material

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-19		lot 31 con 1 Oakville	7129277	031	01	NDS	HALTON	OAKVILLE TOWN

Easting Nad83: 598953
Northing Nad83: 4809849
Zone: 17
Utm Reliability: margin of error : 10 - 30 m
Construction Date: 6/10/2009
Primary Water Use:
Secondary Water Use:
Well Depth (ft):
Pump Rate (gpm):
Static Water Level (ft):
Flow Rate (gpm):
Clear/Cloudy:
Specific Capacity:
Final Well Status: Abandoned-Other
Construction Method:
Flowing (y/n):
Elevation (ft):
Elevation Reliability:
Depth to Bedrock (ft):
Overburden/Bedrock:
Water Type:
Casing Material:

Thickness (ft)	Original Depth (ft)	Material Colour	Material

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-20		lot 31 con 1 OAKVILLE TOWN	2805219	031	01	DS S	HALTON	OAKVILLE TOWN

Easting Nad83: 599054.6
Northing Nad83: 4809863
Zone: 17
Utm Reliability: margin of error : 30 m - 100 m
Construction Date: 5/31/1978
Primary Water Use: Commerical
Secondary Water Use:
Well Depth (ft): 38
Pump Rate (gpm): 3
Static Water Level (ft): 6
Flow Rate (gpm):
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (ft): 505
Elevation Reliability: Read from topographic map, contour interval - 10 f
Depth to Bedrock (ft): 18
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: OPEN HOLE, STEEL

Thickness (ft)	Original Depth (ft)	Material Colour	Material
18	18	BROWN	CLAY, LOOSE
20	38	RED	SHALE, HARD

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-21		lot 30 con 1 OAKVILLE TOWN	2802329	030	01	DS S	HALTON	OAKVILLE TOWN

Easting Nad83: 599071.6
Northing Nad83: 4809932
Zone: 17
Utm Reliability: unknown UTM
Construction Date: 3/7/1955
Primary Water Use: Commerical
Secondary Water Use:
Well Depth (ft): 64
Pump Rate (gpm): 14
Static Water Level (ft): 9
Flow Rate (gpm):
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (ft): 503
Elevation Reliability: Unknown elevation
Depth to Bedrock (ft): 17
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL, OPEN HOLE

Thickness (ft)	Original Depth (ft)	Material Colour	Material
5	5		FILL
12	17	BROWN	CLAY, STONES
47	64	RED	SHALE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-22		lot 30 con 1 OAKVILLE TOWN	2802160	030	01	DS N	HALTON	OAKVILLE TOWN

Easting Nad83: 599000.6
Northing Nad83: 4809991
Zone: 17
Utm Reliability: unknown UTM
Construction Date: 9/6/1955
Primary Water Use: Domestic
Secondary Water Use:
Well Depth (ft): 44
Pump Rate (gpm): 8
Static Water Level (ft): 10
Flow Rate (gpm):
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (ft): 506
Elevation Reliability: Unknown elevation
Depth to Bedrock (ft): 16
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL, OPEN HOLE

Thickness (ft)	Original Depth (ft)	Material Colour	Material
16	16		CLAY
28	44	RED	SHALE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-23		OAKVILLE TOWN	7135552				HALTON	OAKVILLE TOWN

Easting Nad83: 599083
Northing Nad83: 4809902
Zone: 17
Utm Reliability: margin of error : 10 - 30 m
Construction Date: 10/21/2009
Primary Water Use:
Secondary Water Use:
Well Depth (ft):
Pump Rate (gpm):
Static Water Level (ft):
Flow Rate (gpm):
Clear/Cloudy:
Specific Capacity:
Final Well Status:
Construction Method:
Flowing (y/n):
Elevation (ft):
Elevation Reliability:
Depth to Bedrock (ft):
Overburden/Bedrock:
Water Type:
Casing Material:

Thickness (ft)	Original Depth (ft)	Material Colour	Material

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-24		lot 31 con 1 OAKVILLE TOWN	2810673	031	01		HALTON	OAKVILLE TOWN

Easting Nad83: 599049
Northing Nad83: 4809826
Zone: 17
Utm Reliability: margin of error : 10 - 30 m
Construction Date: 10/23/2006
Primary Water Use: Not Used
Secondary Water Use:
Well Depth (ft):
Pump Rate (gpm):
Static Water Level (ft):
Flow Rate (gpm):
Clear/Cloudy:
Specific Capacity:
Final Well Status: Abandoned-Other
Construction Method:
Flowing (y/n):
Elevation (ft):
Elevation Reliability:
Depth to Bedrock (ft):
Overburden/Bedrock: No formation data
Water Type:
Casing Material:

Thickness (ft)	Original Depth (ft)	Material Colour	Material

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-25		lot 30 con 1 OAKVILLE TOWN	2805737	030	01	DS N	HALTON	OAKVILLE TOWN

Easting Nad83: 599036.6
Northing Nad83: 4810023
Zone: 17
Utm Reliability: margin of error : 30 m - 100 m
Construction Date: 5/26/1981
Primary Water Use: Domestic
Secondary Water Use:
Well Depth (ft): 48
Pump Rate (gpm): 6
Static Water Level (ft): 12
Flow Rate (gpm):
Clear/Cloudy: CLOUDY
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (ft): 500
Elevation Reliability: Read from topographic map, contour interval - 10 f
Depth to Bedrock (ft): 17
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL, OPEN HOLE

Thickness (ft)	Original Depth (ft)	Material Colour	Material
10	10	BROWN	CLAY
7	17	GREY	CLAY
31	48	RED	SHALE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-26		lot 30 con 1 OAKVILLE TOWN	2803929	030	01	DS S	HALTON	OAKVILLE TOWN

Easting Nad83: 599094.6
Northing Nad83: 4809983
Zone: 17
Utm Reliability: margin of error : 30 m - 100 m
Construction Date: 3/15/1972
Primary Water Use: Domestic
Secondary Water Use:
Well Depth (ft): 43
Pump Rate (gpm): 3
Static Water Level (ft): 5
Flow Rate (gpm):
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (ft): 505
Elevation Reliability: Read from topographic map, contour interval - 25 f
Depth to Bedrock (ft): 13
Overburden/Bedrock: Mixed Layer below top of bedrcok
Water Type: FRESH
Casing Material: OPEN HOLE, STEEL

Thickness (ft)	Original Depth (ft)	Material Colour	Material
4	4		TOPSOIL
9	13	RED	CLAY
27	40	RED	SHALE, CLAY
3	43	RED	CLAY, SHALE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-27		lot 30 con 1 OAKVILLE TOWN	2802156	030	01	DS N	HALTON	OAKVILLE TOWN

Easting Nad83: 598997.6
Northing Nad83: 4810034
Zone: 17
Utm Reliability: unknown UTM
Construction Date: 6/15/1951
Primary Water Use: Domestic
Secondary Water Use:
Well Depth (ft): 46
Pump Rate (gpm): 1
Static Water Level (ft): 12
Flow Rate (gpm):
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (ft): 506
Elevation Reliability: Unknown elevation
Depth to Bedrock (ft): 17
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL, OPEN HOLE

Thickness (ft)	Original Depth (ft)	Material Colour	Material
17	17		CLAY
29	46	RED	SHALE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-28		lot 30 con 1 OAKVILLE TOWN	2802330	030	01	DS S	HALTON	OAKVILLE TOWN

Easting Nad83: 599125.6
Northing Nad83: 4809871
Zone: 17
Utm Reliability: unknown UTM
Construction Date: 9/28/1955
Primary Water Use: Industrial
Secondary Water Use:
Well Depth (ft): 53
Pump Rate (gpm): 4
Static Water Level (ft): 16
Flow Rate (gpm):
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (ft): 502
Elevation Reliability: Unknown elevation
Depth to Bedrock (ft): 16
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL, OPEN HOLE

Thickness (ft)	Original Depth (ft)	Material Colour	Material
16	16		CLAY
37	53	RED	SHALE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-29		lot 30 con 1 OAKVILLE TOWN	2806344	030	01	DS N	HALTON	OAKVILLE TOWN

Easting Nad83: 598924.3
Northing Nad83: 4810044
Zone: 17
Utm Reliability: margin of error : 10 - 30 m
Construction Date: 9/25/1985
Primary Water Use: Domestic
Secondary Water Use:
Well Depth (ft): 53
Pump Rate (gpm): 10
Static Water Level (ft): 11
Flow Rate (gpm):
Clear/Cloudy: CLOUDY
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (ft): 511.81
Elevation Reliability: Read from topographic map, contour interval - 25 f
Depth to Bedrock (ft): 23
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL, OPEN HOLE

Thickness (ft)	Original Depth (ft)	Material Colour	Material
5	5	BROWN	CLAY, LOOSE
13	18	BROWN	CLAY, SAND, GRAVEL
5	23	RED	CLAY, LOOSE
30	53	RED	SHALE, HARD

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-30		lot 31 con 1 OAKVILLE TOWN	2802346	031	01	DS S	HALTON	OAKVILLE TOWN

Easting Nad83: 599113.6
Northing Nad83: 4809813
Zone: 17
Utm Reliability: margin of error : 100 m - 300 m
Construction Date: 7/11/1960
Primary Water Use: Domestic
Secondary Water Use:
Well Depth (ft): 52
Pump Rate (gpm): 2
Static Water Level (ft): 12
Flow Rate (gpm):
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (ft): 502
Elevation Reliability: Read from topographic map, contour interval - 10 f
Depth to Bedrock (ft): 29
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: OPEN HOLE

Thickness (ft)	Original Depth (ft)	Material Colour	Material
29	29		PREV. DRILLED
23	52	RED	SHALE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-31		lot 30 con 1 OAKVILLE TOWN	2802171	030	01	DS N	HALTON	OAKVILLE TOWN

Easting Nad83: 598945.6
Northing Nad83: 4810058
Zone: 17
Utm Reliability: margin of error : 100 m - 300 m
Construction Date: 3/10/1966
Primary Water Use: Domestic
Secondary Water Use:
Well Depth (ft): 46
Pump Rate (gpm): 6
Static Water Level (ft): 6
Flow Rate (gpm):
Clear/Cloudy: CLOUDY
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (ft): 508
Elevation Reliability: Read from topographic map, contour interval - 10 f
Depth to Bedrock (ft): 16
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL, OPEN HOLE

Thickness (ft)	Original Depth (ft)	Material Colour	Material
16	16	GREY	CLAY
30	46	RED	SHALE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-32		lot 31 con 1 OAKVILLE TOWN	2802341	031	01	DS S	HALTON	OAKVILLE TOWN

Easting Nad83: 598941.6
Northing Nad83: 4809765
Zone: 17
Utm Reliability: unknown UTM
Construction Date: 6/13/1955
Primary Water Use: Domestic
Secondary Water Use:
Well Depth (ft): 37
Pump Rate (gpm): 4
Static Water Level (ft): 7
Flow Rate (gpm):
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (ft): 499
Elevation Reliability: Unknown elevation
Depth to Bedrock (ft): 21
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL, OPEN HOLE

Thickness (ft)	Original Depth (ft)	Material Colour	Material
8	8		CLAY, MEDIUM SAND
13	21		CLAY, GRAVEL
16	37	RED	SHALE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-33		lot 30 con 1 OAKVILLE TOWN	2806416	030	01	DS N	HALTON	OAKVILLE TOWN

Easting Nad83: 598920.3
Northing Nad83: 4810058
Zone: 17
Utm Reliability: margin of error : 10 - 30 m
Construction Date: 1/25/1986
Primary Water Use: Domestic
Secondary Water Use:
Well Depth (ft): 54
Pump Rate (gpm): 24
Static Water Level (ft): 9
Flow Rate (gpm):
Clear/Cloudy: CLOUDY
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (ft): 511.81
Elevation Reliability: Read from topographic map, contour interval - 25 f
Depth to Bedrock (ft): 20
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL, OPEN HOLE

Thickness (ft)	Original Depth (ft)	Material Colour	Material
12	12	BROWN	CLAY, SANDY, LOOSE
8	20	RED	CLAY, LOOSE
34	54	RED	SHALE, HARD

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-34		lot 30 con 1 OAKVILLE TOWN	2802331	030	01	DS S	HALTON	OAKVILLE TOWN

Easting Nad83: 599165.6
Northing Nad83: 4809851
Zone: 17
Utm Reliability: unknown UTM
Construction Date: 10/12/1955
Primary Water Use: Commerical
Secondary Water Use: Domestic
Well Depth (ft): 39
Pump Rate (gpm): 20
Static Water Level (ft): 10
Flow Rate (gpm):
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (ft): 501
Elevation Reliability: Unknown elevation
Depth to Bedrock (ft): 33
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: OPEN HOLE

Thickness (ft)	Original Depth (ft)	Material Colour	Material
16	16		PREVIOUSLY DUG
17	33		PREV. DRILLED
6	39		SHALE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-35		OAKVILLE TOWN	7113789				HALTON	OAKVILLE TOWN

Easting Nad83: 598952
Northing Nad83: 4809720
Zone: 17
Utm Reliability: margin of error : 10 - 30 m
Construction Date: 9/5/2008
Primary Water Use:
Secondary Water Use:
Well Depth (ft):
Pump Rate (gpm):
Static Water Level (ft):
Flow Rate (gpm):
Clear/Cloudy:
Specific Capacity:
Final Well Status: Abandoned-Other
Construction Method:
Flowing (y/n):
Elevation (ft):
Elevation Reliability:
Depth to Bedrock (ft):
Overburden/Bedrock:
Water Type:
Casing Material: STEEL

Thickness (ft)	Original Depth (ft)	Material Colour	Material

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-36		lot 30 con 1 OAKVILLE TOWN	2802161	030	01	DS N	HALTON	OAKVILLE TOWN

Easting Nad83: 598907.6
Northing Nad83: 4810090
Zone: 17
Utm Reliability: unknown UTM
Construction Date: 9/7/1955
Primary Water Use: Domestic
Secondary Water Use:
Well Depth (ft): 55
Pump Rate (gpm): 1
Static Water Level (ft): 15
Flow Rate (gpm):
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (ft): 510
Elevation Reliability: Unknown elevation
Depth to Bedrock (ft): 13
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL, OPEN HOLE

Thickness (ft)	Original Depth (ft)	Material Colour	Material
13	13		CLAY
42	55	RED	SHALE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-37		lot 31 con 1 OAKVILLE TOWN	2802340	031	01	DS S	HALTON	OAKVILLE TOWN

Easting Nad83: 599158.6
Northing Nad83: 4809786
Zone: 17
Utm Reliability: unknown UTM
Construction Date: 11/1/1953
Primary Water Use: Domestic
Secondary Water Use:
Well Depth (ft): 40
Pump Rate (gpm): 2
Static Water Level (ft): 4
Flow Rate (gpm):
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (ft): 502
Elevation Reliability: Unknown elevation
Depth to Bedrock (ft): 6
Overburden/Bedrock: Bedrock
Water Type: SULPHUR
Casing Material: OPEN HOLE, STEEL

Thickness (ft)	Original Depth (ft)	Material Colour	Material
6	6		CLAY
34	40		SHALE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-38		lot 31 con 1 OAKVILLE TOWN	2807805	031	01	DS S	HALTON	OAKVILLE TOWN

Easting Nad83: 599132.3
Northing Nad83: 4809754
Zone: 17
Utm Reliability: margin of error : 10 - 30 m
Construction Date: 3/28/1990
Primary Water Use: Domestic
Secondary Water Use:
Well Depth (ft): 73
Pump Rate (gpm): 3
Static Water Level (ft): 11
Flow Rate (gpm):
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (ft): 511.81
Elevation Reliability: Read from topographic map, contour interval - 25 f
Depth to Bedrock (ft): 23
Overburden/Bedrock: Bedrock
Water Type: SALTY
Casing Material: STEEL, OPEN HOLE

Thickness (ft)	Original Depth (ft)	Material Colour	Material
1	1	BROWN	TOPSOIL
22	23	BROWN	CLAY
50	73	RED	SHALE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-39		OAKVILLE TOWN	7132472				HALTON	OAKVILLE TOWN

Easting Nad83: 598974
Northing Nad83: 4809700
Zone: 17
Utm Reliability: margin of error : 10 - 30 m
Construction Date: 9/28/2009
Primary Water Use:
Secondary Water Use:
Well Depth (ft):
Pump Rate (gpm):
Static Water Level (ft):
Flow Rate (gpm):
Clear/Cloudy:
Specific Capacity:
Final Well Status:
Construction Method:
Flowing (y/n):
Elevation (ft):
Elevation Reliability:
Depth to Bedrock (ft):
Overburden/Bedrock:
Water Type:
Casing Material:

Thickness (ft)	Original Depth (ft)	Material Colour	Material

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-40		OAKVILLE TOWN	7136481				HALTON	OAKVILLE TOWN

Easting Nad83: 598974
Northing Nad83: 4809700
Zone: 17
Utm Reliability: margin of error : 10 - 30 m
Construction Date: 9/28/2009
Primary Water Use:
Secondary Water Use:
Well Depth (ft):
Pump Rate (gpm):
Static Water Level (ft):
Flow Rate (gpm):
Clear/Cloudy:
Specific Capacity:
Final Well Status:
Construction Method:
Flowing (y/n):
Elevation (ft):
Elevation Reliability:
Depth to Bedrock (ft):
Overburden/Bedrock:
Water Type:
Casing Material:

Thickness (ft)	Original Depth (ft)	Material Colour	Material

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-41		lot 30 con 1 OAKVILLE TOWN	2802165	030	01	DS N	HALTON	OAKVILLE TOWN

Easting Nad83: 599114.6
Northing Nad83: 4810093
Zone: 17
Utm Reliability: margin of error : 100 m - 300 m
Construction Date: 7/17/1960
Primary Water Use: Domestic
Secondary Water Use:
Well Depth (ft): 36
Pump Rate (gpm): 2
Static Water Level (ft): 10
Flow Rate (gpm):
Clear/Cloudy: CLOUDY
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (ft): 507
Elevation Reliability: Read from topographic map, contour interval - 10 f
Depth to Bedrock (ft): 16
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: OPEN HOLE, STEEL

Thickness (ft)	Original Depth (ft)	Material Colour	Material
16	16	BROWN	CLAY
20	36	RED	SHALE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-42		lot 31 con 1 OAKVILLE TOWN	2802342	031	01	DS S	HALTON	OAKVILLE TOWN

Easting Nad83: 599169.6
Northing Nad83: 4809769
Zone: 17
Utm Reliability: unknown UTM
Construction Date: 7/11/1956
Primary Water Use: Domestic
Secondary Water Use:
Well Depth (ft): 29
Pump Rate (gpm): 2
Static Water Level (ft): 12
Flow Rate (gpm):
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (ft): 501
Elevation Reliability: Unknown elevation
Depth to Bedrock (ft): 20
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL, OPEN HOLE

Thickness (ft)	Original Depth (ft)	Material Colour	Material
20	20		CLAY
9	29	RED	SHALE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-43		lot 31 con 1 OAKVILLE TOWN	2809880	031	01	DS S	HALTON	OAKVILLE TOWN

Easting Nad83: 598880
Northing Nad83: 4809701
Zone: 17
Utm Reliability: margin of error : 100 m - 300 m
Construction Date: 3/17/2004
Primary Water Use: Domestic
Secondary Water Use:
Well Depth (ft):
Pump Rate (gpm):
Static Water Level (ft):
Flow Rate (gpm):
Clear/Cloudy:
Specific Capacity:
Final Well Status: Abandoned-Other
Construction Method: Digging
Flowing (y/n):
Elevation (ft):
Elevation Reliability:
Depth to Bedrock (ft):
Overburden/Bedrock: No formation data
Water Type:
Casing Material:

Thickness (ft)	Original Depth (ft)	Material Colour	Material

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-44		lot 30 con 1 OAKVILLE TOWN	2802159	030	01	DS N	HALTON	OAKVILLE TOWN

Easting Nad83: 598876.6
Northing Nad83: 4810122
Zone: 17
Utm Reliability: unknown UTM
Construction Date: 10/8/1954
Primary Water Use: Domestic
Secondary Water Use:
Well Depth (ft): 50
Pump Rate (gpm): 3
Static Water Level (ft): 20
Flow Rate (gpm):
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (ft): 510
Elevation Reliability: Unknown elevation
Depth to Bedrock (ft): 19
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: OPEN HOLE, STEEL

Thickness (ft)	Original Depth (ft)	Material Colour	Material
19	19		CLAY
31	50	RED	SHALE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 30 con 1 Oakville L6M 4J2	7122505	030	01	NDS	HALTON	OAKVILLE TOWN

Easting Nad83: 481095
Northing Nad83: 598770
Zone: 17
Utm Reliability: margin of error : 10 - 30 m
Construction Date: 3/21/2009
Primary Water Use:
Secondary Water Use:
Well Depth (ft):
Pump Rate (gpm):
Static Water Level (ft):
Flow Rate (gpm):
Clear/Cloudy:
Specific Capacity:
Final Well Status: Abandoned-Other
Construction Method:
Flowing (y/n):
Elevation (ft):
Elevation Reliability:
Depth to Bedrock (ft):
Overburden/Bedrock:
Water Type:
Casing Material:

Thickness (ft)	Original Depth (ft)	Material Colour	Material

Appendix: Ontario Database Descriptions

EcoLog Environmental Risk Information Services Ltd can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to EcoLog ERIS at the time of update. **Note:** Databases denoted with "*" indicates that the database will no longer be updated. See the individual database descriptions for more information.

Provincial Government Source Databases:

Abandoned Aggregate Inventory Up to Sept 2002 **AAGR**

The MAAP Program maintains a database of all abandoned pits and quarries. Please note that the database is only referenced by lot and concession and city/town location. The database provides information regarding the location, type, size, land use, status and general comments.

Aggregate Inventory Up to Jan 2010 **AGR**

The Ontario Ministry of Natural Resources maintains a database of all active pits and quarries. Please note that the database is only referenced by lot\concession and city/town location. The database provides information regarding the registered owner/operator, location, status, licence type, and maximum tonnage.

Abandoned Mines Information System 1800-2005 **AMIS**

The Abandoned Mines Information System contains data on known abandoned and inactive mines located on both Crown and privately held lands. The information was provided by the Ministry of Northern Development and Mines (MNDM), with the following disclaimer: "the database provided has been compiled from various sources, and the Ministry of Northern Development and Mines makes no representation and takes no responsibility that such information is accurate, current or complete". Reported information includes official mine name, status, background information, mine start/end date, primary commodity, mine features, hazards and remediation.

Borehole 1875-Jul 2009 **BORE**

A borehole is the generalized term for any narrow shaft drilled in the ground, either vertically or horizontally. The information here includes geotechnical investigations or environmental site assessments, mineral exploration, or as a pilot hole for installing piers or underground utilities. Information is from many sources such as the Ministry of Transportation (MTO) boreholes from engineering reports and projects from the 1950 to 1990's in Southern Ontario. Boreholes from the Ontario Geological Survey (OGS) including The Urban Geology Analysis Information System (UGAIS) and the York Peel Durham Toronto (YPDT) database of the Conservation Authority Moraine Coalition. This database will include fields such as location, stratigraphy, depth, elevation, year drilled, etc.
For all water well data or oil and gas well data for Ontario please refer to WWIS and OOGW.

Certificates of Approval 1985-Sept 2002* (for current CofA info please check the EBR Database) **CA**

This database contains the following types of approvals: Certificates of Approval (Air) issued under Section 9 of the Ontario EPA; Certificates of Approval (Industrial Wastewater) issued under Section 53 of the Ontario Water Resources Act ("OWRA"); and Certificates of Approval (Municipal/Provincial Sewage and Waterworks) issued under Sections 52 and 53 of the OWRA. For more current Certificate of Approval information please see the EBR database, which will include information such as 'Approval for discharge into the natural environment other than water (i.e. Air) (EPA s.9)', and Approval for sewage works (OWRA s.53(1)).

TSSA Commercial Fuel Oil Tanks 1948-Jan 2010 **CFOT**

Since May 2002, Ontario developed a new act where it became mandatory for fuel oil tanks to be registered with Technical Standards & Safety Authority (TSSA). This data would include all commercial underground fuel oil tanks in Ontario with fields such as location, registration number, tank material, age of tank and tank size.

Coal Gasification Plants **1987, 1988*** **COAL**

This inventory of all known and historical coal gasification plants was collected by the Ministry of Environment. It identifies industrial sites that produced and continue to produce or use coal tar and other related tars. Detailed information is available and includes: facility type, size, landuse, soil condition, site operators/occupants, site description, and potential environmental impacts. This information is effective to 1988, but the program has since been discontinued.

Compliance and Convictions **1989-Jun 2010** **CONV**

This database summarizes the fines and convictions handed down by the Ontario courts beginning in 1989. Companies and individuals named here have been found guilty of environmental offenses in Ontario courts of law.

Drill Holes **1886-2005** **DRL**

The Ontario Drill Hole Database contains information on more than 113,000 percussion, overburden, sonic and diamond drill holes from assessment files on record with the department of Mines and Minerals. Please note that limited data is available for southern Ontario, as it was the last area to be completed. The database was created when surveys submitted to the Ministry were converted in the Assessment File Research Image Database (AFRI) project. However, the degree of accuracy (coordinates) as to the exact location of drill holes is dependent upon the source document submitted to the MNDM. Levels of accuracy used to locate holes are: centering on the mining claim; a sketch of the mining claim; a 1:50,000 map; a detailed company map; or from submitted a "Report of Work".

Environmental Registry **1994-Jun 2010** **EBR**

The Environmental Registry lists proposals, decisions and exceptions regarding policies, Acts, instruments, or regulations that could significantly affect the environment. Through the Registry, thirteen provincial ministries notify the public of upcoming proposals and invite their comments. For example, if a local business is requesting a permit, licence, or certificate of approval to release substances into the air or water; these are notified on the registry. Data includes things like; Approval for discharge into the natural environment other than water (i.e. Air), Permit to Take Water (PTTW), Certificate of Property Use (CPU), Approval for a waste disposal site, Order for preventative measures.(EPA s. 18), Order for conformity with Act for waste disposal sites.(EPA s. 44), Order for remedial work.(EPA s. 17) and many more.

TSSA Fuel Storage Tanks **Current to Jun 2010** **FST**

The Technical Standards & Safety Authority (TSSA), under the *Technical Standards & Safety Act* of 2000 maintains a database of registered private and retail fuel storage tanks in Ontario with fields such as location, tank status, license date, tank type, tank capacity, fuel type, installation year and facility type.

Ontario Regulation 347 Waste Generators Summary **1986-Jan 2010** **GEN**

Regulation 347 of the Ontario EPA defines a waste generation site as any site, equipment and/or operation involved in the production, collection, handling and/or storage of regulated wastes. A generator of regulated waste is required to register the waste generation site and each waste produced, collected, handled, or stored at the site. This database contains the registration number, company name and address of registered generators including the types of hazardous wastes generated. It includes data on waste generating facilities such as: drycleaners, waste treatment and disposal facilities, machine shops, electric power distribution etc. This information is a summary of all years from 1986 including the most currently available data. Some records may contain, within the company name, the phrase "See & Use…" followed by a series of letters and numbers. This occurs when one company is amalgamated with or taken over by another registered company. The number listed as "See & Use", refers to the new ownership and the other identification number refers to the original ownership. This phrase serves as a link between the 2 companies until operations have been fully transferred.

Mineral Occurrences **1846-Oct 2009** **MNR**

In the early 70's, the Ministry of Northern Development and Mines created an inventory of approximately 19,000 mineral occurrences in Ontario, in regard to metallic and industrial minerals, as well as some information on building stones and aggregate deposits. Please note that the "Horizontal Positional Accuracy" is approximately +/- 200 m. Many reference elements for each record were derived from field sketches using pace or chain/tape measurements against claim posts or topographic features in the area. The primary limiting factor for the level of positional accuracy is the scale of the source material. The testing of horizontal accuracy of the source materials was accomplished by comparing the planimetric (X and Y) coordinates of that point with the coordinates of the same point as defined from a source of higher accuracy.

Non-Compliance Reports **1992(water only), 1994-2008** **NCPL**

The Ministry of the Environment provides information about non-compliant discharges of contaminants to air and water that exceed legal allowable limits, from regulated industrial and municipal facilities. A reported non-compliance failure may be in regard to a Control Order, Certificate of Approval, Sectoral Regulation or specific regulation/act.

Ontario Oil and Gas Wells **1800-Feb 2010** **OOGW**

In 1998, the MNR handed over to the Ontario Oil, Gas and Salt Resources Corporation, the responsibility of maintaining a database of oil and gas wells drilled in Ontario. The OGSR Library has over 20,000+ wells in their database. Information available for all wells in the ERIS database include well owner/operator, location, permit issue date, well cap date, licence no., status, depth and the primary target (rock unit) of the well being drilled. All geology/stratigraphy table information, plus all water table information is also provide for each well record.

Ontario Inventory of PCB Storage Sites **1987-Oct 2004** **OPCB**

The Ontario Ministry of Environment, Waste Management Branch, maintains an inventory of PCB storage sites within the province. Ontario Regulation 11/82 (Waste Management - PCB) and Regulation 347 (Generator Waste Management) under the Ontario EPA requires the registration of inactive PCB storage equipment and/or disposal sites of PCB waste with the Ontario Ministry of Environment. This database contains information on: 1) waste quantities; 2) major and minor sites storing liquid or solid waste; and 3) a waste storage inventory.

Pesticide Register **1988-Jan 2010** **PES**

The Ontario Ministry of Environment maintains a database of all manufacturers and vendors of registered pesticides.

Private and Retail Fuel Storage Tanks **1989-1996*** **PRT**

The Fuels Safety Branch of the Ontario Ministry of Consumer and Commercial Relations maintained a database of all registered private fuel storage tanks and licensed retail fuel outlets. This database includes an inventory of locations that have gasoline, oil, waste oil, natural gas and/or propane storage tanks on their property. The MCCR no longer collects this information. This information is now collected by the Technical Standards and Safety Authority (TSSA).

Ontario Regulation 347 Waste Receivers Summary **1986-2008** **REC**

Part V of the Ontario Environmental Protection Act ("EPA") regulates the disposal of regulated waste through an operating waste management system or a waste disposal site operated or used pursuant to the terms and conditions of a Certificate of Approval or a Provisional Certificate of Approval. Regulation 347 of the Ontario EPA defines a waste receiving site as any site or facility to which waste is transferred by a waste carrier. A receiver of regulated waste is required to register the waste receiving facility. This database represents registered receivers of regulated wastes, identified by registration number, company name and address, and includes receivers of waste such as: landfills, incinerators, transfer stations, PCB storage sites, sludge farms and water pollution control plants. This information is a summary of all years from 1986 including the most currently available data.

Record of Site Condition **1997-Sept 2001, Oct 2004-Jun 2010** **RSC**

The Record of Site Condition (RSC) is part of the Ministry of the Environment's Brownfields Environmental Site Registry. Protection from environmental cleanup orders for property owners is contingent upon documentation known as a record of site condition (RSC) being filed in the Environmental Site Registry. In order to file an RSC, the property must have been properly assessed and shown to meet the soil, sediment and groundwater standards appropriate for the use, such as residential, proposed to take place on the property. The Record of Site Condition Regulation (O. Reg. 153/04) details requirements related to site assessment and clean up. Information available includes Registration Number, Filing Owner, Property Address, Filing Date and Municipality.

Ontario Spills **1988-Jan 2010** **SPL**

This database identifies information such as location (approximate), type and quantity of contaminant, date of spill, environmental impact, cause, nature of impact, etc. Information from 1988-2002 was part of the ORIS (Occurrence Reporting Information System). The SAC (Spills Action Centre) handles all spills reported in Ontario. Regulations for spills in Ontario are part of the MOE's Environmental Protection Act, Part X.

Wastewater Discharger Registration Database **1990-2008** **SRDS**

Information under this heading is combination of the following 2 programs. The Municipal/Industrial Strategy for Abatement (MISA) division of the Ontario Ministry of Environment maintained a database of all direct dischargers of toxic pollutants within nine sectors including: Electric Power Generation; Mining; Petroleum Refining; Organic Chemicals; Inorganic Chemicals; Pulp & Paper; Metal Casting; Iron & Steel; and Quarries. All sampling information is now collected and stored within the Sample Result Data Store (SRDS).

Waste Disposal Sites - MOE CA Inventory **1970-Sept 2002** **WDS**

The Ontario Ministry of Environment, Waste Management Branch, maintains an inventory of known open (active or inactive) and closed disposal sites in the Province of Ontario. Active sites maintain a Certificate of Approval, are approved to receive and are receiving waste. Inactive sites maintain Certificate(s) of Approval but are not receiving waste. Closed sites are not receiving waste. The data contained within this database was compiled from the MOE's Certificate of Approval database. Locations of these sites may be cross-referenced to the Anderson database described under ERIS's Private Source Database section, by the CA number. For more current information for Waste Disposal Sites please see the EBR database, which will include information such as 'Approval for a waste disposal site (EPA s.27)' and 'Approval for use of a former waste disposal site (EPA s.46)'.

Waste Disposal Sites - MOE 1991 Historical Approval Inventory **Up to Oct 1990*** **WDSH**

In June 1991, the Ontario Ministry of Environment, Waste Management Branch, published the "June 1991 Waste Disposal Site Inventory", of all known active and closed waste disposal sites as of October 30st, 1990. For each "active" site as of October 31st 1990, information is provided on site location, site/CA number, waste type, site status and site classification. For each "closed" site as of October 31st 1990, information is provided on site location, site/CA number, closure date and site classification. Locations of these sites may be cross-referenced to the Anderson database described under ERIS's Private Source Database section, by the CA number.

Water Well Information System **1955-Jan 2010** **WWIS**

This database describes locations and characteristics of water wells found within Ontario in accordance with Regulation 903. It includes such information as coordinates, construction date, well depth, primary and secondary use, pump rate, static water level, well status, etc. Also included are detailed stratigraphy information, approximate depth to bedrock and the approximate depth to the water table.

Federal Government Source Databases: Diagram Identifier:

Environmental Effects Monitoring **1992-2007*** **EEM**

The Environmental Effects Monitoring program assesses the effects of effluent from industrial or other sources on fish, fish habitat and human usage of fisheries resources. Since 1992, pulp and paper mills have been required to conduct EEM studies under the Pulp and Paper Effluent Regulations. This database provides information on the mill name, geographical location and sub-lethal toxicity data.

Environmental Issues Inventory System **1992-2001*** **EIIS**

The Environmental Issues Inventory System was developed through the implementation of the Environmental Issues and Remediation Plan. This plan was established to determine the location and severity of contaminated sites on inhabited First Nation reserves, and where necessary, to remediate those that posed a risk to health and safety; and to prevent future environmental problems. The EIIS provides information on the reserve under investigation, inventory number, name of site, environmental issue, site action (Remediation, Site Assessment), and date investigation completed.

Federal Convictions **1988-Jun 2007** **FCON**

Environment Canada maintains a database referred to as the "Environmental Registry" that details prosecutions under the Canadian Environmental Protection Act (CEPA) and the Fisheries Act (FA). Information is provided on the company name, location, charge date, offence and penalty.

Contaminated Sites on Federal Land **June 2000-May 2010** **FCS**

The Treasury Board of Canada Secretariat maintains an inventory of all known contaminated sites held by various Federal departments and agencies. This inventory does not include properties owned by Crown corporations, but does contain non-federal sites for which the Government of Canada has accepted some or all financial responsibility. All sites have been classified through a system developed by the Canadian Council of Ministers of the Environment. The database provides information on company name, location, site ID #, property use, classification, current status, contaminant type and plan of action for site remediation.

Fisheries & Oceans Fuel Tanks **1964-Sept 2003** **FOFT**

Fisheries & Oceans Canada maintains an inventory of all aboveground & underground fuel storage tanks located on Fisheries & Oceans property or controlled by DFO. Our inventory provides information on the site name, location, tank owner, tank operator, facility type, storage tank location, tank contents & capacity, and date of tank installation.

Indian & Northern Affairs Fuel Tanks **1950-Aug 2003** **IAFT**

The Department of Indian & Northern Affairs Canada (INAC) maintains an inventory of all aboveground & underground fuel storage tanks located on both federal and crown land. Our inventory provides information on the reserve name, location, facility type, site/facility name, tank type, material & ID number, tank contents & capacity, and date of tank installation.

National Analysis of Trends in Emergencies System (NATES) **1974-1994*** **NATE**

In 1974 Environment Canada established the National Analysis of Trends in Emergencies System (NATES) database, for the voluntary reporting of significant spill incidents. The data was to be used to assist in directing the work of the emergencies program. NATES ran from 1974 to 1994. Extensive information is available within this database including company names, place where the spill occurred, date of spill, cause, reason and source of spill, damage incurred, and amount, concentration, and volume of materials released.

National Defence & Canadian Forces Fuel Tanks **Up to May 2001*** **NDFT**

The Department of National Defence and the Canadian Forces maintains an inventory of all aboveground & underground fuel storage tanks located on DND lands. Our inventory provides information on the base name, location, tank type & capacity, tank contents, tank class, date of tank installation, date tank last used, and status of tank as of May 2001. This database will no longer be updated due to the new National Security protocols which have prohibited any release of this database.

National Defence & Canadian Forces Spills **Mar 1999-Jul 2009** **NDSP**

The Department of National Defence and the Canadian Forces maintains an inventory of spills to land and water. All spill sites have been classified under the "Transportation of Dangerous Goods Act - 1992". Our inventory provides information on the facility name, location, spill ID #, spill date, type of spill, as well as the quantity of substance spilled & recovered.

National Defence & Canadian Forces Waste Disposal Sites **2001-April 2007** **NDWD**

The Department of National Defence and the Canadian Forces maintains an inventory of waste disposal sites located on DND lands. Where available, our inventory provides information on the base name, location, type of waste received, area of site, depth of site, year site opened/closed and status.

National Environmental Emergencies System (NEES) 1974-2003 **NEES**

In 2000, the Emergencies program implemented NEES, a reporting system for spills of hazardous substances. For the most part, this system only captured data from the Atlantic Provinces, some from Quebec and Ontario and a portion from British Columbia. Data for Alberta, Saskatchewan, Manitoba and the Territories was not captured. However, NEES is also a repository for all previous Environment Canada spill datasets. NEES is composed of the historic datasets – or Trends – which dates from approximately 1974 to present. **NEES Trends** is a compilation of historic databases, which were merged and includes data from NATES (National Analysis of Trends in Emergencies System), ARTS (Atlantic Regional Trends System), and NEES. In 2001, the Emergencies Program determined that variations in reporting regimes and requirements between federal and provincial agencies made national spill reporting and trend analysis difficult to achieve. As a consequence, the department has focused efforts on capturing data on spills of substances which fall under its legislative authority only (CEPA and FA). As such, the NEES database will be decommissioned in December 2004.

National PCB Inventory 1988-2008 **NPCB**

Environment Canada's National PCB inventory includes information on in-use PCB containing equipment in Canada including federal, provincial and private facilities. All federal out-of-service PCB containing equipment and all PCB waste owned by the federal government or by federally regulated industries such as airlines, railway companies, broadcasting companies, telephone and telecommunications companies, pipeline companies, etc. are also listed. Although it is not Environment Canada's mandate to collect data on non-federal PCB waste, the National PCB inventory includes some information on provincial and private PCB waste and storage sites.

National Pollutant Release Inventory 1993-2008 **NPRI**

Environment Canada has defined the National Pollutant Release Inventory ("NPRI") as a federal government initiative designed to collect comprehensive national data regarding releases to air, water, or land, and waste transfers for recycling for more than 300 listed substances.

Parks Canada Fuel Storage Tanks 1920-Jan 2005 **PCFT**

Canadian Heritage maintains an inventory of all known fuel storage tanks operated by Parks Canada, in both National Parks and at National Historic Sites. The database details information on site name, location, tank install/removal date, capacity, fuel type, facility type, tank design and owner/operator.

Transport Canada Fuel Storage Tanks 1970-March 2007 **TCFT**

With the provinces of BC, MB, NB, NF, ON, PE, and QC; Transport Canada currently owns and operates 90 fuel storage tanks. This inventory will also include The Pickering Lands, which refers to the 7,530 hectares (18,600 acres) of land in Pickering, Markham and Uxbridge - owned by the Government of Canada since 1972. Properties on this land has been leased by the government since 1975, falls under the Site Management Policy of Transport Canada, but administered by Public Works and Government Services Canada. Our inventory provides information on the site name, location, tank age, capacity and fuel type.

Private Source Databases:

Anderson's Waste Disposal Sites 1860s-Present **ANDR**

The information provided in this database was collected by examining various historical documents which aimed to characterize the likely position of former waste disposal sites from 1860 to present. The research initiative behind the creation of this database was to identify those sites that are missing from the *Ontario MOE Waste Disposal Site Inventory*, as well as to provide revisions and corrections to the positions and descriptions of sites currently listed in the MOE inventory. In addition to historic waste disposal facilities, the database also identifies certain auto wreckers and scrap yards that have been extrapolated from documentary sources. *Please note that the data is not warranted to be complete, exhaustive or authoritive. The information was collected for research purposes only.*

Automobile Wrecking & Supplies 2001-Feb 2009 **AUWR**

This database provides an inventory of all known locations that are involved in the scrap metal, automobile wrecking/recycling, and automobile parts & supplies industry. Information is provided on the company name, location and business type.

Chemical Register 1992, 1999-Feb 2009 **CHEM**

This database includes information from both a one time study conducted in 1992 and private source and is a listing of facilities that manufacture or distribute chemicals. The production of these chemical substances may involve one or more chemical reactions and/or chemical separation processes (i.e. fractionation, solvent extraction, crystallization, etc.).

ERIS Historical Searches 1999-Apr 2010 **EHS**

EcoLog ERIS has compiled a database of all environmental risk reports completed since March 1999. Available fields for this database include: site location, date of report, type of report, and search radius. As per all other databases, the ERIS database can be referenced on both the map and "Statistical Profile" page.

Canadian Mine Locations 1998-2009 **MINE**

This information is collected from the Canadian & American Mines Handbook. The Mines database is a national database that provides over 290 listings on mines (listed as public companies) dealing primarily with precious metals and hard rocks. Listed are mines that are currently in operation, closed, suspended, or are still being developed (advanced projects). Their locations are provided as geographic coordinates (x, y and/or longitude, latitude). As of 2002, data pertaining to Canadian smelters and refineries has been appended to this database.

Oil and Gas Wells Oct 2001-Jun 2010 **OGW**

The Nickle's Energy Group (publisher of the Daily Oil Bulletin) collects information on drilling activity including operator and well statistics. The well information database includes name, location, class, status and depth. The main Nickles' database is updated on a daily basis, however, this database is updated on a monthly basis. More information is available at www.nickles.com.

Canadian Pulp and Paper 1999, 2002, 2004, 2005, 2009 **PAP**

This information is part of the Pulp and Paper Canada Directory. The Directory provides a comprehensive listing of the locations of pulp and paper mills and the products that they produce.

Retail Fuel Storage Tanks 2000-Feb 2009 **RST**

This database includes an inventory of retail fuel outlet locations (including marinas) that have on their property gasoline, oil, waste oil, natural gas and / or propane storage tanks. Information is provided on company name, location and type of business.

Scott's Manufacturing Directory 1992-Sept 2009 **SCT**

Scott's Directories is a data bank containing information on over 70,000 manufacturers in Ontario. Even though Scott's listings are voluntary, it is the most comprehensive database of Ontario manufacturers available. Information concerning a company's address, plant size, and main products are included in this database. This database begins with 1992 information and is updated annually.

Anderson's Storage Tanks 1915-1953* **TANK**

The information provided in this database was collected by examining various historical documents, which identified the location of former storage tanks, containing substances such as fuel, water, gas, oil, and other various types of miscellaneous products. Information is available in regard to business operating at tank site, tank location, permit year, permit & installation type, no. of tanks installed & configuration and tank capacity. *Data contained within this database pertains only to the city of Toronto and is not warranted to be complete, exhaustive or authoritative. The information was collected for research purposes only.*

APPENDIX F

MINISTRY OF THE ENVIRONMENT – FREEDOM OF INFORMATION SEARCH

Ministry of the Environment

Freedom of Information and Protection of Privacy Office

12th Floor
40 St. Clair Avenue West
Toronto ON M4V 1M2
Tel: (416) 314-4075
Fax: (416) 314-4285

Ministère de l'Environnement

Bureau de l'accès à l'information et de la protection de la vie privée

12e étage
40, avenue St. Clair ouest
Toronto ON M4V 1M2
Tél. : (416) 314-4075
Téléc. : (416) 314-4285

Ontario

September 29, 2010

Reshma Fazlullah
SNC Lavalin Environment
200 - 20 DeBoers Dr
Toronto, ON M3K 2B4

Dear Reshma Fazlullah:

RE: *Freedom of Information and Protection of Privacy Act* Request
Our File #: A-2010-03367, Your Reference #: S09125

This letter is further to your request made pursuant to the *Freedom of Information and Protection of Privacy Act relating to* 3005 Dundas Street West, Oakville.

After a review of the records received from the Ministry's Halton Peel District Office and the Environmental Monitoring and Reporting Branch, the final decision has been made to provide partial access to the attached information as the identity of neighbours has been removed to protect privacy (Section 21(1)(f) of the Act); the witness statements of employees regarding a spill has been removed to protect their privacy (section 21(3)(b)); and portions of the records not related to the request have been removed and marked as N/R.

If you object to any decision I have made, you may request a review by contacting the Information and Privacy Commissioner/Ontario, 2 Bloor Street East, Suite 1400, Toronto, ON M4W 1A8 (800-387-0073 or 416-326-3333). Please note that there is a $25.00 fee and you only have 30 days from receipt of this letter to request a review.

If you have any questions regarding this matter, please contact Melina Purificato at (416) 212-0561.

Yours truly,

Donna Currie
FOI Coordinator
Freedom of Information and Protection of Privacy Office

Attachment

Ontario

Ministry of the Environment

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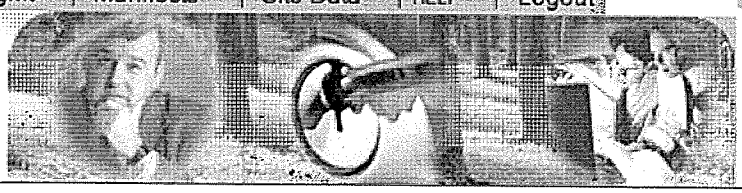
User Management | Company Mgmt | Manifests | Site Data | HELP | Logout

hwin Administration



Search Go

Generator Details

Registration/Notification Number

ON9096008

Legal Company Name

Primary Name:	Shell Canada Products	Division Name:	NA

Company Operating Name

Primary Name:	Shell Canada Products	Division Name:	NA

Mailing Address

Division Building:	NA	Post Box Number:	NA
Address Line 1:	90 Sheppard Avenue East	Address Line 2:	Suite 600
Town/City:	Toronto	Postal Code / Zip Code:	M2N 6Y2
County: (if inside Ontario)	METROPOLITAN TORONTO	Province/State (If inside Canada/US)	ONTARIO
County: (if outside Ontario)	NA	Province / State (If outside Canada / US)	NA
Country:	Canada		

Site Location

This should be the street address of the site that is being registered. You are required to register each site that generates hazardous waste separately.

Division Building:	NA	Post Box Number:	NA
Address Line 1:	3005 Dundas Street West		
Address Line 2:	NA		
Town/City:	Oakville	Postal Code / Zip Code:	L6M.4J4
County: (if inside Ontario)	HALTON (R. M.)	Province / State (If inside Canada / US)	ONTARIO
County: (if outside Ontario)	NA	Province / State (If outside Canada / US)	NA
Country:	Canada		

Company Official

The Company Official is the individual within your organization who is responsible for managing hazardous and liquid industrial waste. The Company Official will also serve as an HWIN Administrator for the organization. The Company Official may also delegate HWIN responsibilities to other individuals. You may designate this responsibility in the Additional HWIN Administrator section below.

Name : Mr Lee Howell

Designation:	P.Geo	Business Phone:	4165985563 Ext : NA
Mobile:	NA	Fax Number:	NA Ext : NA
Email Address:	hwin_Toronto@aquaterre.ca	User Name:	CPG10A

Additional HWIN Administrator

The HWIN Company Official may delegate HWIN Administrator responsibility to other individuals. One additional administrator may be defined below and / more administrators may be registered by an HWIN Administrator after initial registration.

Name: Ms Kristin Hanson

Designation:	P.Geo	Business Phone:	416-635-5882 Ext : 121
Mobile:	NA	Fax Number:	416-635-5353 Ext : NA

Ontario

Ministry of the
Environment

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hwin
Administration

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Go

Company Name: **Shell Canada Products**
Company Number: **ON9096008 (Generator)**

Active Waste Classes

Active Waste Class Listing

Add New Waste Class Inactive waste classes

Active Off-site Waste Classes

Waste Class	View Details	Hazardous Waste Number (per waste stream)	Reg. 347 Schedules	Disposal Method	Part 2B required	Part 2B complete	Physical State	Off-Site	Status	UnRegister Waste Class
221 - I	View Details	D001	5, 13	Land Disposal	Y	Y	Liquid	Off-Site	Active	
221 - L	View Details	N/A					Liquid	Off-Site	Active	
251 - L	View Details	N/A					Liquid	Off-Site	Active	

Back

Ontario

Ministry of the Environment
Ministère de l'Environnement

INCIDENT REPORT

Reference Number:	3763-7MLMGV	**File Storage Number:**	SI HP OA DU 100
Module:	Incident Reporting	**Module Type:**	Condition of Operation
Cross Reference:	(doc link)	**Task Link:**	6305-7MLMKW
Originating Document:		**Created by:**	Shirley Temple
Incident Report Reference Number:		3763-7MLMGV	
Date Created:	2008/12/23	**Date Completed:**	2009/01/08
Bring Forward Date:		**Bring Forward Reason:**	
Status:	Closed		
Program	Brownfields - Contaminated Sites	**Activity:**	Notifications under Part XV.2

Is this an **air emission** (measured or modelled) or **wastewater** (sewage) **discharge exceedance** that will become part of the Environmental Compliance Report?

(legislation, certificate of approval, order, or guideline)

○ Yes ● No ○ To be determined *Click here for Guidance*

Caller or PO Information

Reported By:		**Name of Company:**
First Name	**Last Name**	Strata Soil Sampling Inc.
Johan	Fenelius	

Contact Mailing Address

Civic Address:			**Unit Identifier:**
Delivery Designator:			**Delivery Identifier:**
Municipality:	**Postal Station:**	**Province/State:**	**Postal Code:**
Richmond Hill		Ontario	
Telephone Number:	**Extension:**	**Other Number:**	**Email Address:**

Reported By:	

MOE Information

Date & Time Reported to MOE:	2008/12/23 11:35		
Office Receiving Incident Report:	Halton-Peel District Office		
Incident Info Received By:	Shirley Temple		
MOE Response:	No Field Response	**Site Region:**	Central
Date & Time of MOE Arrival at Scene:			

Master Incident Report Number:	
SAC Action Class:	
Non-Standard Procedure:	No
ERP Call-out Initiated:	

Client(s)

Information
Show Map

Site(s)

Information
Show Map

Remediation
Address: 3005 Dundas St W, Oakville, Town, Regional Municipality of Halton
District Office: Halton-Peel
GeoReference: ,

Incident Information

Incident Summary:	remediation process *cannot be longer than 60 characters*
Incident Description:	Notification of soil/groundwater remediation process at 3005 Dundas Street West, Oakville, on or about Jan 5, 2009 for 3 days. Notification verified, company was required/told to wait 10 working days from date of submission (December 23rd) as per condition 6 of C of A. Company will begin operation on January 9th, 2008 No further action at this time.

Links & Comments:	
Attachments Names:	

Date & Time of Incident	**Incident Date Confirmation ?** Estimated 2009/01/09 **Is this a notification of a future event?** Yes		
Source Type:		**Sector Type:**	
Nearest Watercourse:		**Watershed Category Code:**	
Environmental Impact:			
Nature of Impact:			
Incident Cause:		**Incident Reason:**	
Damaged Party:	No		

Contaminants Table

	Contaminant	Code	UN#	Limit	Quantity	[units]	[freq]

Controller of Material:		Owner of Material:	
Estimated Clean Up Cost:		Who Cleaned Up:	
% Clean Up:	%	Agencies Involved:	

Voluntary / Mandatory Abatement

Is there Voluntary Abatement Activity?	○ Yes	● No	○ To be determined

Voluntary / Mandatory Compliance Items

Type	Parent RefNo	Work Summary (may be truncated)	Date	AttainList

Offence(s)

Suspected Violation(s)/Offence(s):	
Act - Regulation - Section, Description {General Offence}	

Provincial Officer:

Name: Tracy Hart
Badge No: 1045

Work Unit:
District/Area Office: Halton-Peel District Office
Date: 2009/01/08

Signature: Tracy Hart

Investigator:

Name: Carl Pinto

Work Unit:
District/Area Office: Halton-Peel District Office
Date: 2009/01/08

Signature:

Ontario

Ministry of the Environment
Ministère de l'Environnement

Task

Reminder Section

Description:	Incident Reporting (3763-7MLMGV)		
Details:			
Cross Reference Number:			
Task Reference No:	6305-7MLMKW		
Module Document:	3763-7MLMGV		
Module:	Incident Reporting	**Module Type:**	
Priority:	○ High ● Medium ○ Low	**Due Date:**	
Program:	Brownfields - Contaminated Sites	**Activity:**	Notifications under Part XV.2
Completion Date:	2009/01/08		
Status:	Completed	**Region Branch:**	Central Region

To Be Done By:	Done?	Office(s):
Carl Pinto	No	Halton-Peel District Office
Shirley Temple	No	Halton-Peel District Office
Tracy Hart	No	Halton-Peel District Office

Charged Time

Total Time:	0.00 hours	**Total Other Time:**	0.00 hours

Name
Date - Time - Other Time - Comments

< no time entries to display >

Client(s)

Information
Show Map

Site(s)

Information
Show Map

Remediation
Address: 3005 Dundas St W, Oakville, Town, Regional Municipality of Halton
District Office: Halton-Peel
GeoReference: ,

Ontario

Ministry of the Environment

COMMENT / MEMORANDUM TO FILE

Memo Details

Date:	2004/03/05
Module	Incident Reporting Main Document Reference Number: 7404-5WR5VJ
Client:	
Site(s):	
Subject:	Update
Created by:	Paul Webb
File Storage Number:	

Document Links and Comments:	13:47 Martin reports they found a hole in the vent line and it has been repaired.They will monitor site over weekend.
Attachment Names:	

Ontario

Ministry of the Environment

COMMENT / MEMORANDUM TO FILE

Memo Details

Date:	2004/03/11
Module	Incident Reporting Main Document Reference Number: 7404-5WR5VJ
Client:	Shell Canada Limited Client Number: 0288-5SUMJG
Site(s):	Shell Canada<UNOFFICIAL> Site Number: NA
Subject:	Update
Created by:	Valerie Bowering
File Storage Number:	SI HP OA DU 100

Document Links and Comments:	15:10 Martin Deblois from Shell to SAC (vb) - Still getting water in Gold Tank. May have to pressurize tank to locate leak. Faxing memo to TSSA fsb.
Attachment Names:	

Ontario

Ministry of the Environment

Task

Reminder Section

Description:	Incident Reporting (7404-5WR5VJ)		
Details:			
Cross Reference Number:			
Task Reference No:	7521-5WR6C6		
Module Document:	7404-5WR5VJ		
Module:	Incident Reporting	**Module Type:**	
Priority:	○ High ● Medium ○ Low	**Due Date:**	
Program:	Waste - Hazardous & Liquid industrial	**Activity:**	Notifications (ORIS)
Completion Date:	2004/03/19		
Status:	Completed	**Region Branch:**	Operations Division

To Be Done By:	Done?	Office(s):
Bob Adcock	No	Halton-Peel District Office
Nicole Corley	No	Spills Action Centre
Halton-Peel District Office_Halton-Peel District Tasks	N.A.	<Not Available>
Dorienne Cushman	No	Halton-Peel District Office

Charged Time

Total Time:	0.00 hours	**Total Other Time:**	0.00 hours

Name
Date - Time - Other Time - Comments

< no time entries to display >

Client(s)

Information
Show Map

Site(s)

Information
Show Map

Shell Canada<UNOFFICIAL>
Address: Lot: , Part: , 3005 Dundas West, Oakville, Town, Regional Municipality of Halton
District Office: Halton-Peel
GeoReference: Map Datum: , Accuracy Estimate: , UTM Easting: , UTM Location Description: ,

Ontario

Ministry of the Environment

INCIDENT REPORT

Reference Number:	7404-5WR5VJ	**File Storage Number:**	SI HP OA DU 100
Module:	Incident Reporting	**Module Type:**	Other
Cross Reference:	(doc link)	**Task Link:**	7521-5WR6C6
Originating Document:		**Created by:**	Nicole Corley
Date Created:	2004/03/03	**Date Completed:**	2004/03/19
Bring Forward Date:		**Bring Forward Reason:**	
Status:	Closed		
Program	Waste - Hazardous & Liquid industrial	**Activity:**	Notifications (ORIS)

Is this an **air emission** (measured or modelled) or **wastewater** (sewage) **discharge exceedance** that will become part of the Environmental Compliance Report?

(legislation, certificate of approval, order, or guideline)

○ Yes ● No ○ To be determined *Click here for Guidance*

Caller or PO Information

Reported By:		**Name of Company:**
First Name	**Last Name**	Shell Canada
Martin	Deblois	

Contact Mailing Address

Civic Address:			**Unit Identifier:**
Delivery Designator:			**Delivery Identifier:**
Municipality:	**Postal Station:**	**Province/State:**	**Postal Code:**
Oakville		Ontario	
Telephone Number:	**Extension:**	**Other Number:**	**Email Address:**
(416)227-7247			

Reported By:	

MOE Information

Date & Time Reported to MOE:	2004/03/03 18:00		
Office Receiving Incident Report:	Spills Action Centre		
Incident Info Received By:	Nicole Corley		
MOE Response:	Referral to others	**Site Region:**	Central
Date & Time of MOE Arrival at Scene:			
Master Incident Report Number:			
SAC Action Class:			

Non-Standard Procedure:	No		
ERP Call-out Initiated:			

Client(s)

Information
Show Map

Shell Canada Limited
Mailing Address: PO Box 100 Stn M, Calgary, Alberta, Canada, T2P 2H5
Physical Address: Lot: , Concession: , Part: , Plan: , 400 4 Avenue Southwest, Calgary, Alberta, Canada, T2P 0J4
Telephone: (999)999-9999
Client #: 0288-5SUMJG, Client Type: Corporation

Site(s)

Information
Show Map

Shell Canada<UNOFFICIAL>
Address: Lot: , Part: , 3005 Dundas West, Oakville, Town, Regional Municipality of Halton
District Office: Halton-Peel
GeoReference: Map Datum: , Accuracy Estimate: , UTM Easting: , UTM Location Description: ,

Incident Information

Incident Summary:	Shell Canada: Ingress water detected in tank. *cannot be longer than 60 characters*
Incident Description:	Caller reports ingress water in gold tank. It is suspected that there is a hole in the top of tank and water from the vapour cross is leaking in. The exact cause is under investigation. Contractors will dig around vapour cross to determine cause of leak. The plant has shutdown tanks and connecting dispensers. This occurrence has not caused any adverse effects. Report copied to TSSA. TSSA, FSB inspector Debbie Danyk responding. Will notify MOE if required per MOU. March19, DD to DC: Two causes of water leaking into tank: leak in vapour recovery fitting and small puncture in fiberglass vent line from corrosion testing done in Dec. Both now fixed and no more water getting in. never any evidence of gas out of the tank. NTF.

Links & Comments:	
Attachments Names:	

Date & Time of Incident	2004/03/03 16:00		
Source Type:	Service Station	**Sector Type:**	
Nearest Watercourse:		**Watershed Category Code:**	
Environmental Impact: Not Anticipated			
Nature of Impact:			
Incident Cause:	Container Leak (Fuel Tank Barrels)	**Incident Reason:**	Unknown - Reason not determined
Damaged Party:	No		

Contaminants Table							
	Contaminant	Code	UN#	Limit	Quantity	[units]	[freq]

Controller of Material:		Owner of Material:	
Estimated Clean Up Cost:		Who Cleaned Up:	
% Clean Up:	%	Agencies Involved:	

Voluntary / Mandatory Abatement

Is there Voluntary Abatement Activity?	○ Yes	○ No	○ To be determined

Voluntary / Mandatory Compliance Items

Type	Parent RefNo	Work Summary (may be truncated)	Date	AttainList

Offence(s)

Suspected Violation(s)/Offence(s):
Act - Regulation - Section, Description {General Offence}

Provincial Officer:

Name: Dorienne Cushman
Badge No: 252

Work Unit:
District/Area Office: Halton-Peel District Office
Date: 2004/03/10

Signature:

Area Supervisor:

Name: Bob Adcock

Work Unit:
District/Area Office: Halton-Peel District Office
Date: 2004/03/19

Signature:

Ministry of Environment and Energy

OCCURRENCE REPORT
PAGE: 1

Entere 2001/11/14 21:10
Batch : 2001/11/15
Abstracts[01] Diaries[00]

Received By
PAUL M WEBB

TSSA-FSB UPDATED

ORIS No.
9900051673

I.E.B. No

Occurrence Type: SPILL
Subtype: LAND

Work Plan [CS]

Date Occurrence: 2001/11/14

Time 20:30

Reported by (Name/Organization)
FIDAL
SHELL SERVICE STN.
Telephone No. 905-847-8610 X
Alternate No. X
Address:
3005 DUNDAS ST WEST.
OAKVILLE
Postal Code:

Report to MOE: 2001/11/14 20:39
MOE at Scene:

Assigned To: Darlene

ERP Contacted:
Callout: [ ] NSP: [ ]
ERP Name:

Location of Occurrence:
OAKVILLE TOWN
3005 DUNDAS ST WEST.

NTRAL
g.[3] Dist.[HP] HALTON-PEEL DISTRICT Municipality[14403]

Source:
HARMAC TRANSPORTATION
TANK TRUCK (CARGO)

Sector: [TA] Source: [TT] SIC: [4561]
UTM:
N: [ ] E: [ ] Zone: [ ]

Syn:HARMAC-100 L GASOLINE TO STATION LOT,CONTAINED, CLEANED-UP.

Brief Summary:
CALLER REPORTS A SPILL OF 300 TO 400 L OF GASOLINE TO THE LOT FROM A HARMAC TRUCK.CALLER IS STATION OWNER BUT HE IS NOT ONSITE.S.A.C. ASKED TO HAVE HARMAC DRIVER OR SOMEONE AT THE STATION CALL WITH MORE DETAILS.
20:45 ATTENDANT TO S.A.C.,200 TO 300 L SPILLED FROM HOSE,FD WERE CALLED, HARMAC HAVE EMERGENCY TRUCK ONSITE.
20:54 KURT ROUSCH (HARMAC) TO S.A.C.,REPORTS 80 TO 100 L SPILLED WHEN CLAMP ON TRUCK FAILED,DRIVER SHUT VALVE,ONLY MATERIAL IN HOSE WAS SPILT.HARMAC HAVE 2 TEAMS ONSITE CLEANING UP THE LOT,NO SEWERS OR DRAINS INVOLVED.KURT WILL UPDATE WHEN CLEANUP COMPLETED.
21:21 OAKVILLE FD TO S.A.C. WITH SAME INFO,FD ARE ONSITE.....CON'T
If there are related reports, record initial/master ORIS No. here>>

Follow-up Action: [ ] Abatement [X] IEB [ ] Other_____ BF Date:
False Info. provided to SAC?

File Closed:
[X] Abatement [ ] IEB [ ] OTHER

Complainant Contact Code [| |]

Date

Suspected [|] Violation

Report Prepared by: Date
Dec 21/01

IEB Investigator

IEB BF Date

Approving Officer
2001/12/21

Date

Reviewing Officer

Date

Specify number(s) for routing original [2] [5] [ ] [ ] Continued [ ] Yes
Specify number(s) for copy distribution [ ] [ ] [ ] [ ] [ ]
1. Investigator/E.O. 2. D.O./File 3. SAC (initial spills)
4. Reg.Dir./_____Mgr. 5. IEB Reg.Spv 6. IEB H.O./file 7. Other _____

SAC Action Class: 1:[25] 2:[16]

OCCURRENCE REPORT CONT'D

ORIS No.: 9900051673 IEB No.:

Material 1: GASOLINE — Code..: 12
Amount: 100 L — UN No.: 1203
Material 2: — Code..:
Amount: — UN No.:

Cause.....: PIPE/HOSE LEAK — Code..: 10
Reason.....: EQUIPMENT FAILURE — Code..: 10

Person in Control: HARMAC — Waste GenNum:
Owner .....: HARMAC — Waste GenNum:
Agencies Involved.....:

Clean up and Restoration Carried out by:
[Y] Controller [N] Owner [N] Other

% Cleaned up: 99.00 Estimated Cost: $
Were Directions or Approval Given Under
A Part X [N] Regulation 362 [N] | Manifest No. 21009-4

Waste Class: LIGHT FUELS — Code..: 221
Hauler: ESCHDLON REASONCE & TRAINING INC. — Code..: 821289
Disposal Site: RPR ENVIRONMENTAL — Code..: 5328-4X

Environmental Impact: | Nature of Impact:
POSSIBLE | Soil contamination — Code..: 07

People/Business Damaged
(Other than to Owner/Controller)

Nature of Damage: — Code..:

OCCURRENCE REPORT CONT'D

ORIS No.: 9900051673 IEB No.:

ABSTRACT ENTRIES HP

2001/11/14 21:25 webbpa
1 ST ABSTRACT (PW) 2001/11/14
FD HAVE HELPED SPREAD SORBANTS,NO GASOLINE REACHED ANY SEWERS.
2001/11/15 (DH)
00:40 MARK ESCHDLON RESPONSE & TRAINING INC. - SAC (DH) REQUEST FOR EWGN. 150 KG 221I GASOLINE AND CLAY FLAMMABLE SOILD NOS. ISSUED ONS0305 REF # 99000051673 FOR HARMAC TRANSPORTATION INC. MARK WILL FAX COPY OF MANIFEST.
00:57 KURT R. HARMAC - SAC (DH) APPROX. 20 MINS MORE AND THE SITE WILL BE COMPLETELY CLEANED UP. CONFIRMS TWO DRUMS OF WASTE APPROX. 150 KG.
01:40 HALTON POLICE CRYSTAL KELLY BADGE 5182 - SAC (DH) REPORTS THAT THIS SPILL OCCURRED AT APPOX. 20:00 AND THAT THE DRIVER AND THE ATTENDANT HAVE PROVIDED CONFLICTING STORIES TO THE OFFICERS. REQUESTED INFORMATION FROM THE OCCURRENCE REPORT. THE POLICE HAVE SEIZED THE FITTING THAT FAILED AND ARE FORWARDING COPIES OF THE POLICE REPORT.

OCCURRENCE REPORT CONT'D

ORIS No.: 9900051673 IEB No.:

ABSTRACT ENTRIES HP

2001/11/14 21:25 webbpa
1 ST ABSTRACT (PW) 2001/11/14
FD HAVE HELPED SPREAD SORBANTS,NO GASOLINE REACHED ANY SEWERS.
2001/11/15 (DH)
00:40 MARK ESCHDLON RESPONSE & TRAINING INC. - SAC (DH) REQUEST FOR EWGN. 150 KG 2211 GASOLINE AND CLAY FLAMMABLE SOILD NOS. ISSUED ONS0305 REF # 99000051673 FOR HARMAC TRANSPORTATION INC. MARK WILL FAX COPY OF MANIFEST.
00:57 KURT R. HARMAC - SAC (DH) APPROX. 20 MINS MORE AND THE SITE WILL BE COMPLETELY CLEANED UP. CONFIRMS TWO DRUMS OF WASTE APPROX. 150 KG.
01:40 HALTON POLICE CRYSTAL KELLY BADGE 5182 - SAC (DH) REPORTS THAT THIS SPILL OCCURRED AT APPOX. 20:00 AND THAT THE DRIVER AND THE ATTENDANT HAVE PROVIDED CONFLICTING STORIES TO THE OFFICERS. REQUESTED INFORMATION FROM THE SAC OCCURRENCE REPORT. THE POLICE HAVE SEIZED THE FITTING THAT FAILED AND ARE FORWARDING COPIES OF THE POLICE REPORT.
05:13 HALTON POLICE FAX - SAC - POLICE OCCURRENCE REPORT 20 PAGES. CALLERS MAY HAVE PROVIDE FALSE INFO TO SAC.

Ministry of the Environment
Ontario

Emergency Waste Shipment Authorization

Emergency Generator Number (Use on Manifest): ONS0305
MOE Reference Number: 9900051673

Generator

Company Name: MARMAC Transportation Inc.
MOE Generator Number (if registered):
Head Office Address: 500 Credit St.
City: Concord. Province: Ont. Postal Code: L4K 3Z3
Site Address: 2005 Dundas St. W.
City: Oakville Province: Ont. Postal Code:
Contact Name: Kurtis Roush Tel. No. (905) 761-2504

Manifest No. PP-21009-4 Date of Removal: Nov 14/01

Carrier

Certificate of Approval No.: A-821289
Company Name: Eschelon Response & Training Inc.
Address: 16 Harlowe Rd.
City: Hamilton Province: ON Postal Code: L8W 3R6

Receiver

Certificate of Approval No.: S328-4XUNBE
Company Name: BPR Environmental
Address: 164-166 South Service Rd.
City: Stoney Creek Province: ON Postal Code: L8E 3M6

Waste Class	Waste Description	Quantity	Units	Physical State
212117	Gasoline + Cleanup material	150	kg	S

Reason
☑ Spill
☑ One Time Disposal
Explain Reason: Spill of Gasoline Hose failure

Signatures

Company Official (Print)	Signature	Date
Kurtis Roush		Nov 14/01
MOE Authorizing Officer (Print) Don Hayes	Signature	Date Nov 15/01

0880 (01/98)

REGIONAL / DISTRICT OFFICE

9900051673

Halton Regional Police Service

To: MOE.

Fax: 9 416-325-3011

Pages: 20, including this cover sheet.

From: CST. CRYSTAL KELLY 5182.
HALTON REGIONAL POLICE SERVICE

Telephone: 825-4747 Ext: (905) X2205.

Date: 15NOV01.

Comments:

From:	Fax number:
☐ HQ Front Desk	(905) 825-8416
☐ Records	(905) 825-3481
☐ Chief's Office	(905) 825-4854
☐ Public Affairs	(905) 825-8420
☐ Communications	(905) 825-5184
☐ Major Crime Bureau	(905) 825-8410
☐ Professional Standards	(905) 825-8447
☐ Purchasing/Stores	(905) 825-8021
☐ Crime Stoppers	(905) 825-6899
☐ Police Services Board	(905) 825-8417
☐ Association Office	(905) 825-4826
☐ Milton District	(905) 878-7084
☐ Georgetown District	(905) 873-0823
☒ Oakville District	(905) 845-0391
☐ Burlington District	(905) 639-8192

Phone Numbers:	
Toronto	(905) 825-4777
Milton	(905) 878-5511
Burlington	(905) 634-1831
Oakville	(905) 825-4777
Georgetown	(905) 873-0377

ATTENTION

This facsimile contains privileged information that is intended for the listed recipient only. If you are not that person, you are hereby notified that the dissemination or copying of this information is absolutely prohibited. Contact this agency immediately if this transmission has been received in error. Thank you.

fax TRANSMISSION

ADM-003A Effective 02/2000 Replaces 07/99

NOV-15-2001 05:13 P.01

Ministry of Environment and Energy

OCCURRENCE REPORT
PAGE: 1

Entered: 2001/11/14 21:10
Batch : 2001/11/15
Abstracts[01] Diaries[00]

TSSA-FSB UPDATED

Received By: PAUL M WEBB

ORIS No.: 9900051673

I.E.B. No.:

Occurrence Type: SPILL
Subtype: LAND

Work Plan [CS]

Occurrence: Date 2001/11/14 Time 20:30

Reported by (Name/Organization)
FIDAL
SHELL SERVICE STN.
Telephone No. 905-847-8610 X
Alternate No. X
Address:
3005 DUNDAS ST WEST.
OAKVILLE
Postal Code:

Report to MOE: 2001/11/14 20:39
MOE at Scene:

Assigned To: Dorienne

ERP Contacted:
Callout: [ ] NSP: [ ]
ERP Name:

Location of Occurrence:
OAKVILLE TOWN
3005 DUNDAS ST WEST.

CENTRAL eg.[3] HALTON-PEEL DISTRICT Dist.[HP] Municipality[14403]

Source:
HARMAC TRANSPORTATION
TANK TRUCK (CARGO)

Sector: [TA] Source: [TT] SIC: [4561]
UTM:
N: [ ] E: [ ] Zone: [ ]

Syn:HARMAC-100 L GASOLINE TO STATION LOT,CONTAINED, CLEANED-UP.

Brief Summary:
CALLER REPORTS A SPILL OF 300 TO 400 L OF GASOLINE TO THE LOT FROM A HARMAC TRUCK.CALLER IS STATION OWNER BUT HE IS NOT ONSITE.S.A.C. ASKED TO HAVE HARMAC DRIVER OR SOMEONE AT THE STATION CALL WITH MORE DETAILS.
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20:54 KURT ROUSCH (HARMAC) TO S.A.C.,REPORTS 80 TO 100 L SPILLED WHEN CLAMP ON TRUCK FAILED,DRIVER SHUT VALVE,ONLY MATERIAL IN HOSE WAS SPILT.HARMAC HAVE 2 TEAMS ONSITE CLEANING UP THE LOT,NO SEWERS OR DRAINS INVOLVED.KURT WILL UPDATE WHEN CLEANUP COMPLETED.
21:21 OAKVILLE FD TO S.A.C. WITH SAME INFO,FD ARE ONSITE.....CON'T
If there are related reports, record initial/master ORIS No. here>>

Follow-up Action: [ ] Abatement [ ] IEB [ ] Other_____ BF Date:

File Closed:
[ ] Abatement [ ] IEB [ ] OTHER

Complainant Code [| |]

Contact Date

[ ] Suspected Violation

Report Prepared by: Date

IEB Investigator IEB BF Date

Approving Officer Date

Reviewing Officer Date

Specify number(s) for routing original [ ] [ ] [ ] [ ] Continued [ ] Yes
Specify number(s) for copy distribution [ ] [ ] [ ] [ ] [ ]
1. Investigator/E.O. 2. D.O./File 3. SAC (initial spills)
4. Reg.Dir./_____Mgr. 5. IEB Reg.Spv 6. IEB H.O./file 7. Other _____

SAC Action Class: 1:[25] 2:[16]

OCCURRENCE REPORT CONT'D

ORIS No.: 9900051673 IEB No.:

Material 1: GASOLINE — Code..: 12
Amount: 100 L — UN No.: 1203
Material 2: — Code..:
Amount: — UN No.:

Cause.....: PIPE/HOSE LEAK — Code..: 10
Reason.....: EQUIPMENT FAILURE — Code..: 10

Person in Control: HARMAC — Waste GenNum:
Owner .....: HARMAC — Waste GenNum:
Agencies Involved.....:

Clean up and Restoration Carried out by:
[Y] Controller [N] Owner [N] Other

% Cleaned up: 99.00 Estimated Cost: $
Were Directions or Approval Given Under
EPA Part X [N] Regulation 362 [N] | Manifest No. 21009-4

Waste Class: LIGHT FUELS — Code..: 221
Hauler: ESCHDLON REASONCE & TRAINING INC. — Code..: 821289
Disposal Site: RPR ENVIRONMENTAL — Code..: 5328-4X

Environmental Impact: POSSIBLE | Nature of Impact: Soil contamination — Code..: 07

People/Business Damaged
(Other than to Owner/Controller)

Nature of Damage: — Code..:

OCCURRENCE REPORT CONT'D

ORIS No.: 9900051673 IEB No.:

ABSTRACT ENTRIES HP

2001/11/14 21:25 webbpa
1 ST ABSTRACT (PW) 2001/11/14
FD HAVE HELPED SPREAD SORBANTS,NO GASOLINE REACHED ANY SEWERS.
2001/11/15 (DH)
00:40 MARK ESCHDLON RESPONSE & TRAINING INC. - SAC (DH) REQUEST FOR EWGN. 150 KG 221I GASOLINE AND CLAY FLAMMABLE SOILD NOS. ISSUED ONS0305 REF # 99000051673 FOR HARMAC TRANSPORTATION INC. MARK WILL FAX COPY OF MANIFEST.
00:57 KURT R. HARMAC - SAC (DH) APPROX. 20 MINS MORE AND THE SITE WILL BE COMPLETELY CLEANED UP. CONFIRMS TWO DRUMS OF WASTE APPROX. 150 KG.
01:40 HALTON POLICE CRYSTAL KELLY BADGE 5182 - SAC (DH) REPORTS THAT THIS SPILL OCCURRED AT APPOX. 20:00 AND THAT THE DRIVER AND THE ATTENDANT HAVE PROVIDED CONFLICTING STORIES TO THE OFFICERS. REQUESTED INFORMATION FROM THE OCCURRENCE REPORT. THE POLICE HAVE SEIZED THE FITTING THAT FAILED AND ARE FORWARDING COPIES OF THE POLICE REPORT.

NOV-15-2001 05:14 P.04

Ministry of the Environment
Ontario

Emergency Waste Shipment Authorization

Emergency Generator Number (Use on Manifest)	MOE Reference Number
ON50305	9900051673

Generator

Company Name: HARMAC Transportation Inc.		MOE Generator Number (If registered):
Head Office Address: 500 Credit Stn.		
City: Concord	Province: Ont	Postal Code: L4K 3Z3
Site Address: 2005 Dundas St. W.		
City: Oakville	Province: Ont.	Postal Code:
Contact Name: Kurtis Roush		Tel No.: (905) 761-2504

Manifest No. PP-21009-4 | Date of Removal: Nov 14/01

Carrier

Certificate of Approval No.: A-821259		
Company Name: Eschelon Response & Training Inc.		
Address: 16 Martlowe Rd.		
City: Hamilton	Province: ON	Postal Code: L8W 3R6

Receiver

Certificate of Approval No.: 5328-4XUNBE		
Company Name: BPR Environmental		
Address: 164-166 South Service Rd.		
City: Stoney Creek	Province: ON	Postal Code: L8E 3M6

Waste Class	Waste Description	Quantity	Units	Physical State
212 11	Gasoline & Cleanup material	150	kg	S

Reason
- [x] Spill
- [x] One Time Disposal

Explain Reason: Spill of Gasoline Hose failure

Signatures

Company Official (Print): Kurtis Roush	Signature:	Date: Nov. 14/01
MOE Authorized Officer (Print): Dan Hayes	Signature:	Date: Nov 15/01

0880 (01/98)

REGIONAL / DISTRICT OFFICE

TOTAL P.04

Ministry of Environment and Energy

TSSA-ESB

OCCURRENCE REPORT

PAGE: 1

Entered: 2001/11/14 21:10
Batch : 2001/11/14
Abstracts[01] Diaries[00]

Received By
PAUL M WEBB

ORIS No.
9900051673

I.E.B. No.

Occurrence Type: SPILL
Subtype: LAND

Work Plan [CS]

Occurrence: Date 2001/11/14 Time 20:30

Reported by (Name/Organization)
FIDAL
SHELL SERVICE STN.
Telephone No. Alternate No.
905-847-8610 X X
Address:
3005 DUNDAS ST WEST.
OAKVILLE
Postal Code:

Report to MOE: 2001/11/14 20:39
MOE at Scene:

Assigned To: Dorienne

ERP Contacted:
Callout: [ ] NSP: [ ]
ERP Name:

Location of Occurrence:
OAKVILLE TOWN
3005 DUNDAS ST WEST.

CENTRAL HALTON-PEEL DISTRICT
Reg.[3] Dist.[HP] Municipality[14403]

Source:
HARMAC TRANSPORTATION
TANK TRUCK (CARGO)

Sector: [TA] Source: [TT] SIC: [4561]
UTM:
N: [ ] E: [ ] Zone: [ ]

Syn:HARMAC-100 L GASOLINE TO STATION LOT,CONTAINED, CLEANED-UP.

Brief Summary:
CALLER REPORTS A SPILL OF 300 TO 400 L OF GASOLINE TO THE LOT FROM A HARMAC TRUCK.CALLER IS STATION OWNER BUT HE IS NOT ONSITE.S.A.C. ASKED TO HAVE HARMAC DRIVER OR SOMEONE AT THE STATION CALL WITH MORE DETAILS.
20:45 ATTENDANT TO S.A.C.,200 TO 300 L SPILLED FROM HOSE,FD WERE CALLED, HARMAC HAVE EMERGENCY TRUCK ONSITE.
20:54 KURT ROUSCH (HARMAC) TO S.A.C.,REPORTS 80 TO 100 L SPILLED WHEN CLAMP ON TRUCK FAILED,DRIVER SHUT VALVE,ONLY MATERIAL IN HOSE WAS SPILT.HARMAC HAVE 2 TEAMS ONSITE CLEANING UP THE LOT,NO SEWERS OR DRAINS INVOLVED.KURT WILL UPDATE WHEN CLEANUP COMPLETED.
21:21 OAKVILLE FD TO S.A.C. WITH SAME INFO,FD ARE ONSITE.....CON'T
If there are related reports, record initial/master ORIS No. here>>

Follow-up Action: [ ] Abatement [ ] IEB [ ] Other_____ BF Date:

File Closed:
[ ] Abatement [ ] IEB [ ] OTHER

Complainant Code [| |] Contact Date

[ ] Suspected Violation

Report Prepared by: Date

IEB Investigator IEB BF Date

Approving Officer Date

Reviewing Officer Date

Specify number(s) for routing original [ ] [ ] [ ] [ ] Continued [ ] Yes
Specify number(s) for copy distribution [ ] [ ] [ ] [ ] [ ]
1. Investigator/E.O. 2. D.O./File 3. SAC (initial spills)
4. Reg.Dir./_____Mgr. 5. IEB Reg.Spv 6. IEB H.O./file 7. Other _____

SAC Action Class: 1:[25] 2:[16]

OCCURRENCE REPORT CONT'D

ORIS No.: 9900051673 IEB No.:

Material 1: GASOLINE — Code..: 12
Amount: 100 L — UN No.: 1203
Material 2: — Code..:
Amount: — UN No.:

Cause.....: PIPE/HOSE LEAK — Code..: 10
Reason.....: EQUIPMENT FAILURE — Code..: 10

Person in Control: HARMAC — Waste GenNum:
Owner .....: HARMAC — Waste GenNum:
Agencies Involved.....:

Clean up and Restoration Carried out by:
[Y] Controller [N] Owner [N] Other

% Cleaned up: 99.00 Estimated Cost: $
Were Directions or Approval Given Under
EPA Part X [N] Regulation 362 [N] | Manifest No.

Waste Class: NOT APPLICABLE — Code..: 000
Hauler: — Code..:
Disposal Site: — Code..:

Environmental Impact: NOT ANTICIPATED | Nature of Impact: — Code..:

People/Business Damaged
(Other than to Owner/Controller)

Nature of Damage: — Code..:

OCCURRENCE REPORT CONT'D

ORIS No.: 9900051673 IEB No.:

ABSTRACT ENTRIES HP

2001/11/14 21:25 webbpa
1 ST ABSTRACT (PW) 2001/11/14
FD HAVE HELPED SPREAD SORBANTS,NO GASOLINE REACHED ANY SEWERS.

Ministry of Environment and Energy

OCCURRENCE REPORT

PAGE: 1

Entered: 98/04/18 12:53
Batch : 98/11/04
Abstracts[00] Diaries[00]

Received By	ORIS No.	I.E.B. No.
MICHEL CATTAN	9800003665	

Occurrence Type: SPILL	Work Plan	Date	Time
Subtype: LAND	[CS]	Occurrence: 98/04/18	12:48

Reported by (Name/Organization)	Report to MOE: 98/04/18	12:53
KARTHIGISU VAKEESAN	MOE at Scene:	
SHELL SERVICE STN.		
Telephone No. Alternate No.	Assigned To:	
905-847-8610 X X	DICK WORTHINGTON	
Address:		
3005 DUNDAS ST WEST.	ERP Contacted:	
OAKVILLE	Callout: [ ] NSP: [ ]	
Postal Code:	ERP Name:	

Location of Occurrence:	Source:
OAKVILLE TOWN	SHELL CANADA PRODUCTS LTD.
3005 DUNDAS ST WEST.	SERVICE STATION
S1-HP-OA-DV-100	
	Sector: [PE] Source: [SS] SIC: [6331]
CENTRAL OAKVILLE	UTM:
Reg.[3] Dist.[OA] Municipality[14403]	N: [4813000] E: [604000] Zone: [17]

Syn:SHELL SERVICE STN-2 L GA-SOLINE TO GRND WHEN CUS- TOMER OVERFILLED HIS CAR.

Brief Summary:

CALLER REPORTS A SPILL OF 2 L GASOLINE ONTO CONCRETE GROUND, WHEN A CUSTOMER OVERFILLED HIS CAR. NO GAS WENT TO ANY DRAIN/DITCH/SEWERS. SPILL WAS COVERED WITH ABSORBANT MAT'L WHICH WILL BE CLEANED UP.
FAXED TO TSSA.

If there are related reports, record initial/master ORIS No. here>>

Follow-up Action: [ ] Abatement [ ] IEB [ ] Other_____ | BF Date:
BASED ON INFORMATION SUPPLIED NO FURTHER ACTION WARRANTED AT THIS TIME

File Closed:	Complainant Contact Code [| |]	Date	Suspected [ ]Violation
[X] Abatement [ ] IEB [ ] OTHER			

Report Prepared by:	Date	IEB Investigator	IEB BF Date
DICK WORTHINGTON	98/11/04		

Approving Officer	Date	Reviewing Officer	Date
DON BECKETT	98/11/04		

Specify number(s) for routing original [ ] [ ] [ ] [ ] Continued [ ] Yes
Specify number(s) for copy distribution [ ] [ ] [ ] [ ] [ ]
1. Investigator/E.O. 2. D.O./File 3. SAC (all spills)
4. Reg.Dir./_____Mgr. 5. IEB Reg.Spv 6. IEB H.O./file 7. Other _____

SAC Action Class: 1:[25] 2:[16]

OCCURRENCE REPORT CONT'D

ORIS No.: 9800003665 IEB No.:

Material 1: GASOLINE — Code..: 12
Amount: 2 L — UN No.: 1203
Material 2: — Code..:
Amount: — UN No.:

Cause.....: OTHER CONTAINER LEAK — Code..: 14
Reason.....: ERROR — Code..: 02

Person in Control: SHELL CANADA PRODUCTS LTD. — Waste GenNum:
Owner .....: SHELL CANADA PRODUCTS LTD. — Waste GenNum:
Agencies Involved.....:

Clean up and Restoration Carried out by:
[Y] Controller [Y] Owner [N] Other

% Cleaned up: 70.00 Estimated Cost: $
Were Directions or Approval Given Under
EPA Part X [N] Regulation 362 [N] | Manifest No.

Waste Class: NOT APPLICABLE — Code..: 000
Hauler: — Code..:
Disposal Site: — Code..:

Environmental Impact: | Nature of Impact:
NOT ANTICIPATED | — Code..:

People/Business Damaged
(Other than to Owner/Controller)

Nature of Damage: — Code..:

MCCR ✓

Ministry of Environment and Energy

OCCURRENCE REPORT

PAGE: 1

Entered: 94/09/15 16:35
Batch : 94/09/15
Abstracts[00] Diaries[00]

Received By: BRIAN PARK B.P.

ORIS No. 9400010186 ✓

I.E.B. No.

Occurrence Type: OTHER
Subtype: OTHER

Work Plan [ ]

	Date	Time
Occurrence:	94/09/15	14:00
Report to MOE:	94/09/15	16:35
MOE at Scene:		

Reported by (Name/Organization)

SHELL CANADA
Telephone No. 416-441-3947 X
Alternate No. X
Address:
75 WYNFORD DRIVE
DON MILLS
Postal Code:

Assigned To: C. Michean

ERP Contacted: -
Callout: [ ] NSP: [ ]
ERP Name:

Location of Occurrence:
OAKVILLE TOWN
SHELL STATION AT 3005 DUNDAS ST. W.

CENTRAL HALTON-PEEL
Reg.[3] Dist.[OA] Municipality[14403]

Source:
SHELL
SERVICE STATION

Sector: [PE] Source: [SS] SIC: [6331]
UTM:
N: [4813000] E: [604000] Zone: [17]

Syn: SHELL CANADA- 2 PRODUCT LINES FAILED PRESSURE TEST AT STATION.

Brief Summary:
CALLER REPORTED THAT 2 PRODUCT LINES AT A SHELL STATION IN OAKVILLE FAILED A PRESSURE TEST TODAY THAT WAS DONE AT 14:00 HRS. THE LINES WERE TURNED OFF AND SHELL WILL BE INVESTIGATING FURTHER TOMORROW.

Notification per E.P.A.

If there are related reports, record initial/master ORIS No. here>>

Follow-up Action: [ ] Abatement [ ] IEB [ ] Other ______ | BF Date:

File Closed:
[✓] Abatement [ ] IEB [ ] OTHER

Complainant Contact Code [ ] [ ]

Date

[ ] Suspected Violation

Report Prepared by: C Michean Date: Sept 16/94

IEB Investigator

IEB BF Date

Approving Officer: Robert Adlock Date: 94/09/29

Reviewing Officer

Date

Specify number(s) for routing original [2] [ ] [ ] [ ] [ ] Continued [ ] Yes
Specify number(s) for copy distribution [ ] [ ] [ ] [ ] [ ]
1. Investigator/E.O. 2. D.O./File 3. SAC (all spills)
4. Reg.Dir./______Mgr. 5. IEB Reg.Spv 6. IEB H.O./file 7. Other ______

SAC Action Class: 1:[16] 2:[ ]

SPICC
930000
2637

Hwy #5
and #25

000047

MINISTRY OF THE ENVIRONMENT
OCCURRENCE REPORT INFORMATION SYSTEM

Spill #56

Mar. 25,1993
PAGE: 1

MCCR

OCCURRENCE REPORT

Update KK

Received By	Region No.	S.A.C. No.	I.E.B. No.
PAUL M WEBB	9300002637	-	

Occurrence Type: SPILL
Subtype: LAND
Action Class: 1:[25] 2:[16] 3:[ ]

	Date	Time (24 hr)
Occurrence:	93/03/25	12:20
Report to SAC:	93/03/25	12:45
Report to MOE:	93/03/25	12:45
MOE at Scene:	93/03/25	16:25

Environmental Officer Assigned:
DENIS GUIMOND [ERP] / C.R. MICHEAU

Location of Occurrence:
Region..: 3 CENTRAL
District: OA OAKVILLE
Municipality: 14403
OAKVILLE TOWN
HWY 5 AND 25

Source:
SHELL
SERVICE STATION

Source: [SS] Sector: [PE] SIC: [6331]
UTM:
N: [ ] E: [ ] Zone: [ ]

Syn:SHELL-UNKN QTY FUEL PRO- DUCT MIGRATION ON LAND: RELATED TO PREVIOUS SPILL

Brief Summary: Gasoline
CALLER REPORTS ~~DIESEL~~ FUEL FROM AN ABOVEGROUND STORAGE TANK POOLING ON THE GROUND AND GOING TO THE STORM SEWER.
13:03 S.A.C. TO OAKVILLE WORKS,THEY SAY THE SEWER IS MTO'S.
13:15 S.A.C. TO MTO,SPOKE TO DOUG CROUTER,THEY WILL INVESTIGATE.
13:36 DOUG (MTO) TO S.A.C.CREW IS ONSITE,DIESEL GOING TO SEWER,WORKERS AT SHELL STATION SAY CREW CLEANUP CREW IS ENROUTE.MTO REQUEST MOE.
13:48 S.A.C. TO ANDY NEMET,BRIEFED,REQUESTS FAX IF OCCURRENCE A.S.A.P.
14:25 DOUG(MTO)STATES MTO CREW HAS PLACED SAND BERM AROUND STORM SEWER. CHUCK MICHEAU (OA MOEE)HAS ARRIVED ON SITE.DOUG HAVING TROUBLE REACHING HALTON REG SPILLS TEAM,WILL TRY AGAIN AS CREEK.....CON'T....
If there are related reports, list them in the summary preceeded by 'RELATED'.

Follow-up Action: [ ] Abatement [ ] IEB [ ] OTHER

Suspected Violation Code: [ ]

File Closed: [✓] Abatement [ ] IEB [ ] OTHER

IEB Investigator Assigned

Report Prepared by:	Date	BF Date	Person-Days	MBR	Function
C.R. Micheau	May 5/93				

Approving Officer	Date	Reviewing Officer	Date
Robert Adcock	93/05/05		

List numbers showing: A - routing of the original, B - distribution of copies.
A: [2] [ ] [ ] [ ] [ ]
B: [3 2nd] [ ] [ ] [ ] [ ] [ ]

1. Investigator/ERP
2. Distr.officer/file
3. SAC
4. Reg.Dir or Mgr
5. IEB Reg. Super.
6. IEB H.O./file
7. Other _____

P.05/07 ...07 SPILLS ACTION CENTRE ...

000048

Region No.: 9300002637- S.A.C. No.: - IEB No.:

Material 1: OILY WATER (N.O.S.) Code..: 41
Amount: UN No.:
Material 2: Code..:
Amount: UN No.:
Material 3: Code..:
Amount: UN No.:

Cause.....: PIPE/HOSE LEAK Code..: 10
Reason.....: UNKNOWN Code..: 98

Contact: [Y] ERP Name: DENIS GUIMOND Date: 93/03/25
Callout: [Y] SAC Operator: Time: 16:30

Controller of Material: SHELL Code..:
Owner of Material.....: SHELL Code..:
Agencies Involved.....: MTO,MOEE.

Clean up and Restoration Carried out by:
[Y] Controller [Y] Owner [N] Other

% Cleaned up: 0.00 Estimated Cost: $ 0.00
Were Directions or Approval Given Under | Emergency
EPA Part IX [N] Regulation 11/82 [N] | Generator No. ONS0305

Waste Class: NOT APPLICABLE Code..: 000
Hauler: S.A.W. OIL LTD. Code..: A820342
Disposal Site: S.A.W. OIL LTD. Code..: A110313

Environmental Impact: | Nature of Impact:
POSSIBLE | Soil contamination Code..: 07

People/Business Damaged
(Other than to Owner/Controller)

Nature of Damage: Code..:

Region No.: 9300002637- S.A.C. No.: - IEB No.:

ABSTRACT ENTRIES

ABSTRACT #1 (PW) 93/03/25
IS GOING TO BE IMPACTED AND HALTON REG WILL HAVE BOOMS.
16:18 DENIS GUIMOND TO SAC (KK): IS ON ERP DUTY TONIGHT & EXPECTED TO ARRIVE AT SCENE IN 5 MINUTES TO TAKE OVER EMERGENCY RESPONSE.
18:18 DENIS GUIMOND TO SAC (KK): SERV'A'STATION IS DOING CLEAN-UP. GENERATOR #ONS 0305 ISSUED. S.A.W. OIL LIMITED (A820342) IS CARRIER & RECEIVER (A110313). ALL CONTAMINATED SNOW HAS BEEN PUT INTO BINS WITH PLASTIC LINERS. PUMPER TRUCK JUST LEFT SITE & SECOND PUMPER TRUCK IS PUMPING MATERIAL. RECOVERY WELL ON SITE - PREVIOUS PROBLEM OCCURRED AT THIS SITE. FIRST TRUCK MAY NEED TO RETURN TO SITE TO PUMP ANOTHER LOAD FROM THE RECOVERY WELL. ERP IS LEAVING SITE NOW, BUT WILL RETURN AT 21:00 TO DETERMINE WHETHER FURTHER CLEAN-UP IS REQUIRED TO CLEAR RECOVERY WELL.
21:41 ERP TO SAC: HAVE BEEN BACK ON SITE FOR 1 HOUR NOW. ANOTHER RECOVERY WELL WAS LOCATED, CONTAINING FUEL/WATER MIXTURE. 5,000 GALLONS .....

STRACT 2 - 93/03/25
HAS BEEN PUMPED OUT SO FAR. SERV'A'STATION TO REMAIN ON-SITE ALL NIGHT TO ENSURE 2 RECOVERY WELLS DO NOT OVERFLOW & TO KEEP COLLECTING MIXTURE. NOT SURE WHETHER MATERIAL IS [redacted] OR GASOLINE AT THIS POINT. ERP WILL BE LEAVING SITE IN 30 MINUTES.
22:08 SAC TO ERP. SAC ASKED STATUS OF CREEK WHICH MAY HAVE BEEN AFFECTED. CITY OF OAKVILLE BERMED SITE WITH SAND - NO MATERIAL REACHED CREEK. THIS INCIDENT IS RELATED TO CLEAN-UP WHICH WAS THOUGHT TO BE COMPLETE 3 MONTHS AGO. A RAISE IN THE WATER TABLE IS SUSPECTED TO HAVE CAUSED THE OILY MATERIAL TO RESURFACE.

Site cleaned up. Emergency issued
Can

Yohan cell 416 998-9866

SI HPOADUN 1110
3763-7MLMGV

SCHEDULE "A"

Form 1

SOIL/GROUNDWATER REMEDIATION PROCESS

NOTICE OF INTENDED LOCATION

1. Owner/Operator:

Strata Soil Sampling Inc.

2. Contact person and telephone number:

Johan Fenelius 905-764-9304 ext. 241

3. Certificate of Approval (Air) Number and Date of Issuance:

8815-6BGH9H

4. Proposed location of the remediation process:
(street address and municipality or lot and concession number)

3005 DUNDAS STREET WEST, OAKVILLE, ONT.

[illegible]

5. Land use in the immediate vicinity:

SHELL CANADA SERVICE CENTER

6. **Operating Schedule:**

Date of commencement: JAN 5, 2009

Estimated duration: 3 DAYS

7. Please attach the following:
(a) ✓ A copy of the Certificate of Approval (Air).
(b) ✓ A site plan of the intended location.
(c) ✓ A copy of the material safety data sheet (MSDS) of the Biostimulation Compounds provided by material supplier.
(d) ✓ A copy of the Remedial Work Plan for the Site.

Ontario

Ministry of the Environment | Ministère de l'Environnement

CERTIFICATE OF APPROVAL
AIR
NUMBER 8815-6BGH9H

Strata Soil Sampling Inc.
147 West Beaver Creek Road, Unit 2
Richmond Hill, Ontario
L4B 1C6

Site Location: Mobile

You have applied in accordance with Section 9 of the Environmental Protection Act for approval of:

- one (1) in-situ remediation process to treat soil/groundwater contaminated with petroleum hydrocarbons and/or chlorinated solvents by the injection of non-hazardous Biostimulation Compound(s) into the contaminated soil/groundwater,

all in accordance with the Application for Approval (Air) and the supporting documentation submitted by Strata Soil Sampling Inc., signed by Johan Fenelius, dated March 22, 2004 and the additional information provided by Strata Soil Sampling Inc.

For the purpose of this Certificate of Approval and the terms and conditions specified below, the following definitions apply:

(1) "Act" means the *Environmental Protection Act.*

(2) "Biostimulation Compound" means any chemical amendment, nutrient amendment or pH adjustment chemical used in the Process to enhance remediation. In this Certificate, it means the oxygen releasing compounds and the hydrogen releasing compounds as described in the Company's application, this Certificate and in the supporting documentation submitted with the application, to the extent approved by this Certificate.

(3) "Certificate" means this Certificate of Approval, including Schedule "A", issued in accordance with Section 9 of the Act.

(4) "Company" means Strata Soil Sampling Inc.

(5) "District Manager" means the District Manager of the District Office of the Ministry, responsible for the geographic area in which the Process is to be operated.

(b) procedures to prevent any upset conditions;

(c) procedures to minimize all fugitive emissions;

(d) procedures to prevent and/or minimize odorous emissions;

(e) procedures to prevent and/or minimize the build up of vinyl chloride;

(f) procedures to record the amount of Biostimulation Compound(s) each time material is injected by the Process;

(g) procedures to record and respond to environmental complaints.

Monitoring Plan

4. The Company shall, before commencement of operation of the Process at the Site, design and implement a Monitoring Plan, in accordance with the Supporting Documents, for the soil, soil vapour and groundwater at the site to document that the Performance Requirements outlined above are not exceeded and that the Remedial Work Plan objectives are met. The Monitoring Plan shall specify, as a minimum:

(a) Monitoring Plan objectives;

(b) list of analytical parameters;

(c) monitoring locations and frequency;

(d) sampling methodology and QA/QC procedures;

(e) a soil vapour monitoring program to assess the levels of vinyl chloride at the Site in comparison to the appropriate worker health and safety criteria for the site;

(f) Remedial Work Plan objectives for discontinuation of the Process.

Notification Requirements

5. The Company shall notify the District Manager in writing, if the Process is not operated in accordance with the Performance Requirements or the Operating Procedures and Maintenance Manual or the Monitoring Plan outlined above.

6. The Company shall notify the District Manager at least ten (10) working days before commencement of operation of the Process at a new Site by submitting a completed Form 1, set out in Schedule "A" of this Certificate, with attachments, to the District Manager.

Record Keeping Requirements

7. The Company shall, for each Site, retain for a minimum of two (2) years from the date of their creation, all reports, records and information described in this Certificate, related to or resulting from the operation of the Process and shall include, but not be limited to:

   (a) the Remedial Work Plan;

   (b) records on the type, frequency and quantity of Biostimulation Compound(s) used in the Process;

   (c) records on the inspection, maintenance and repair of the equipment related to the Process;

   (d) all monitoring results including the verification sampling to demonstrate that the Remedial Work Plan objectives are met;

   (e) records on the environmental complaints; including:

      (1) a description, time and date of the incident,

      (2) wind direction at the time of the incident,

      (3) a description of the measure taken to address the cause of the incident.

   These records shall be made available, upon request, to Ministry personnel, or Ministry authorized representative(s), upon presentation of credentials.

(b) procedures to prevent any upset conditions;

(c) procedures to minimize all fugitive emissions;

(d) procedures to prevent and/or minimize odorous emissions;

(e) procedures to prevent and/or minimize the build up of vinyl chloride;

(f) procedures to record the amount of Biostimulation Compound(s) each time material is injected by the Process;

(g) procedures to record and respond to environmental complaints.

Monitoring Plan

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(a) Monitoring Plan objectives;

(b) list of analytical parameters;

(c) monitoring locations and frequency;

(d) sampling methodology and QA/QC procedures;

(e) a soil vapour monitoring program to assess the levels of vinyl chloride at the Site in comparison to the appropriate worker health and safety criteria for the site;

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6. The Company shall notify the District Manager at least ten (10) working days before commencement of operation of the Process at a new Site by submitting a completed Form 1, set out in Schedule "A" of this Certificate, with attachments, to the District Manager.

December 12, 2008 0813480103-LTR-V0008-00

Mr. Johan Fenelius
Strata Soil Sampling Inc.
147 West Beaver Creek Road, #2
Richmond Hill, ON L4B 1C6

Dear Mr. Fenelius:

Subject **Remedial Work Plan**
Former Shell Service Station (CO5875)
3005 Dundas Street West, Oakville, Ontario

Per your requests, Wardrop is pleased to provide you the Remedial Work Plan to conduct a site remediation program at the above mentioned site. It is understood that the remedial Work Plan is required for the application of a mobile certificate of approval of the use of oxygen released compound (ORC) at the above mentioned site.

This plan has been prepared following the completion of a Phase II Environmental Site Assessment at the site that provided a preliminary assessment of the subsurface petroleum impact and the applicability of clean-up standards. For the purpose of this remedial work plan the generic Ontario 153/04 Table 2 clean-up standards for medium/fine textured soils have been selected as a remediation benchmark.

BACKGROUND

The Site is located on the southwest corner of Old Bronte Road and Dundas Street West, in the Town of Oakville, Ontario. The topography of the Site is relatively flat. The nearest water body is a tributary of 14th Mile Creek, located approximately 200 m east of the Site and it drains into Lake Ontario, located approximately 7.5 km south of the Site.

The Site is legally described in the Parcel Register for PIN 24927-0085 as Part of Lot 31, Concession 1, North of Dundas Street, as described in Instrument Number TW29654 save and except for Part 1, Deposited Plan 20R-187 and a portion of Deposited Plan 856. The save and except land Part 1 Deposited Plan 856 was expropriated as Part 1 by Deposited Plan 1491. The registered owner of the Site is Shell Canada Products.

15-250 Shields Court
Markham, Ontario L3R 9W7
Canada
Phone: 905-470-6570
Fax: 905-470-0958
E-mail: markham@wardrop.com
Internet: www.wardrop.com

...2

A Phase II Environmental Site Assessment (ESA) was conducted by Wardrop between December 17, 2007 and May 6, 2008. The results are presented in the report titled, *"Phase II Environmental Site Assessment, Shell Retail No. C05875, Oakville, Ontario"*, dated May 2008. During this assessment, eight (8) boreholes were advanced (BH1 to BH8) and all of them were instrumented as monitoring wells.

Relevant findings from this Phase II ESA were as follows:

- The Site was assessed in accordance with the requirements of Ontario Regulation 153/04 made under Part XV.1 of the *Environmental Protection Act*. The assessment standards selected for the Site were the Table 2 Full Depth Generic Site Condition Standards in a potable ground water condition with industrial / commercial / community property use and medium and fine textured soil conditions.
- The laboratory analysis results of the soil samples collected from boreholes BH2 to BH6 indicate that concentrations of one or more of benzene, toluene, ethylbenzene, xylene, PHC F1, PHC F2 and PHC F3 exceeded the applicable Table 2 standards. All other concentrations, where detected, were below the applicable Table 2 standards. The laboratory analysis results of the remaining borehole soil samples indicate that, where detected, concentrations were below the applicable Table 2 standards for all parameters analysed.
- The results of the MOE Ontario Regulation 558/00 leachate analysis indicate that the sampled soil would be classified as a non-hazardous material if managed as waste.
- The laboratory analysis results of groundwater samples collected from monitoring wells BH2 to BH7 indicated that concentrations of one or more of benzene, toluene, ethylbenzene, xylene, methyl tert butyl ether (MTBE) and PHC F1 + F2 exceeded the applicable Table 2 standards. The concentrations of other analyzed parameters, where detected, were below the applicable Table 2 standards. The laboratory analysis results of the remaining groundwater samples indicate that, where detected, concentrations were below the applicable Table 2 standards for all parameters analysed.

SCOPE OF WORK

The proposed scope of work will include the following activities:

- Temporary security fencing will be erected in the excavation areas to limit access to open excavations.
- Decommission the eight on site wells shown on Figure 1. The decommissioning will be in accordance with the requirements of Ontario Regulation 903 (as amended by Ontario Regulation 128/03).

- Complete an excavation of the areas considered to have petroleum hydrocarbon impact potentially exceeding the Table 2 standards. Excavation areas are shown in Figure 1.
- Complete a soil segregation program. Excavated soil will be segregated for off-site disposal or reuse on site after allu bucket treatment. This segregation program would include the testing of temporarily stockpiled soils on site. Period air monitoring for dust and hydrocarbon odour nuisance to neighbouring property owners is recommended.
- Coordinate the removal and disposal of impacted soil to an appropriate MOE-approved waste disposal facility.
- Coordinate the removal and disposal of water (if any) that collects in the excavation during soil removal.
- Coordinate the purchase, import and compaction of clean granular A, B, and sand material to backfill the excavation.
- Use ORC to mix with backfill material to promote the natural attenuation of any hydrocarbon impacted groundwater.
- Field screen all excavated soil samples from the excavation for the presence of environmental impact (such as staining and odours) including the measurement of organic vapours in the headspace of collected samples using a portable vapour meter (Gas Tech 1238ME). The field screening will be conducted in a 3 x 3 m grid pattern.
- Submit confirmatory "clean" floor and wall samples to verify horizontal and vertical clean-up results. Soil samples, including QA/QC, will be submitted for laboratory analysis for relevant petroleum hydrocarbon contaminants of concern: benzene, toluene, ethylbenzene, xylene (BTEX) petroleum hydrocarbon fractions F1 to F4, and/or MTBE.
- The number of samples proposed to be submitted will be in accordance with the *Ministry of the Environment, Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario, Table 4.1A Minimum Verification Sampling Requirements For Excavation of Underground Storage Tanks used for Gasoline or Diesel Fuels.*
- Stockpiling and segregations: Segregated compliant soils would be tested for BTEX and PHC fractions F1 to F4 in batches at an approximate frequency of 1 sample per 50 to 100 m^3 with all chemically-verified compliant batches re-used as backfill. Soils deemed non-compliant would be transported to the proposed landfill site.
- Conduct standard proctor density tests on the compacted backfill to document compaction data.
- All proposed field project work is to be conducted in accordance with the most recent Ontario Ministry of the Environment (MOE)'s Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario. In addition, and as appropriate, Shell Canada Products' Health and Safety Practices and preferred

operating practices associated with the scope of work will be followed. All laboratory work is to be completed by Maxxam Analytics Inc.

APPLICATION OF ORC AND CONTINGENCY PLAN

The ORC will be used during the backfilling of excavation. ORC is the original, controlled-release, magnesium-based peroxygen product designed to deliver pure oxygen into the subsurface for the purpose of stimulating the aerobic degradation of petroleum hydrocarbons. ORC has been used for groundwater remediation since 1995. A copy of material safety data sheet (MSDS) will be kept on the site and the storage and handling ORC will be in accordance with MSDS. Applicable protective personal equipment will be used during the application of ORC powder to prevent any contact of ORC with the workers. In addition, ORC will not be used during the windy weather conditions when ORC powder may be blown off site.

The nearest water body is a tributary of 14th Mile Creek, located approximately 200 m east of the Site. It is not anticipated that ORC powder will migrate to the 14th Mile Creek.

We trust this remedial work plan meets with your current requirements. Should you have any questions or concerns please do not hesitate to contact the undersigned.

Sincerely,

Prepared by

Wardrop Engineering Inc.

John Guan, M.Eng., P.Eng.
Project Engineer

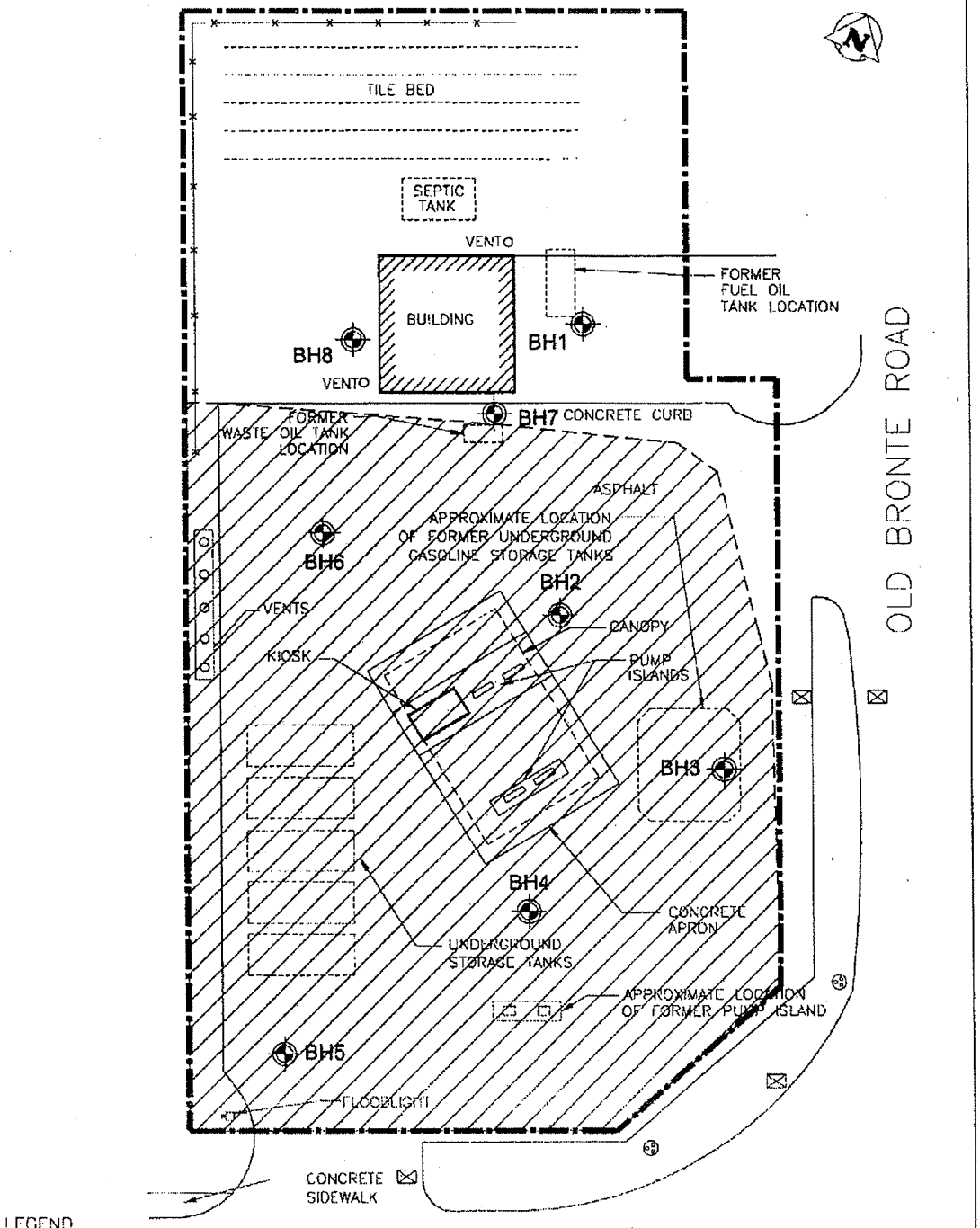
Approved by

Wardrop Engineering Inc.

René de Vries, B.Sc., P.Geo.
Sr. Earth Scientist

Attachments: Figure 1

X:\W-S\S-SELL - 1340\08134801.03 - OAKVILLE ON SHELL C05875 - SITE REMEDIATION\CAD\ENG\08134801.03-SKT-V0003-A1.DWG 08.10.16 16:50



LEGEND

PROPERTY LINE

WOODEN FENCE

AREA TO BE EXCAVATED

1:250 5 0 5 10m

WARDROP | Engineering Inc.	CLIENT: Shell Canada Products
THE CONTENT OF THIS DOCUMENT IS NOT INTENDED FOR THE USE OF, NOR IS IT INTENDED TO BE RELIED UPON BY ANY PERSON, FIRM OR CORPORATION, OTHER THAN THE CLIENT AND WARDROP ENGINEERING INC. WARDROP ENGINEERING DENIES ANY LIABILITY WHATSOEVER TO OTHER PARTIES FOR DAMAGES OR INJURY SUFFERED BY SUCH THIRD PARTY ARISING FROM USE OF THIS DOCUMENT BY THEM, WITHOUT THE EXPRESS PRIOR WRITTEN AUTHORITY OF WARDROP ENGINEERING AND OUR CLIENT. THIS DOCUMENT IS SUBJECT TO FURTHER RESTRICTIONS IMPOSED BY THE CONTRACT BETWEEN THE CLIENT AND WARDROP ENGINEERING INC. AND THESE PARTIES. PERMISSION MUST BE SOUGHT REGARDING THIS DOCUMENT IN ALL OTHER CIRCUMSTANCES.	DWG DESCRIPTION: SHELL RETAIL No. C05875 3005 DUNDAS STREET WEST OAKVILLE, ONTARIO EXCAVATION AREA WITH 1m GRID FOR REFERENCE
DRAWN BY: AJR DATE: 08.10.16	FIGURE X
REVISED BY: JC DATE:	REV. 1
DESIGNED BY: JC CHECKED BY:	DWG NO. 08134801.03 - SKT-V0003

Oxygen Release Compound (ORC®)
MATERIAL SAFETY DATA SHEET (MSDS)

Last Revised: February 10, 2004

Section 1 - Material Identification

Supplier:

REGENESIS

1011 Calle Sombra
San Clemente, CA 92673
Phone: 949.366.8000
Fax: 949.366.8090
E-mail: info@regenesis.com

Chemical Description:	**A mixture of Magnesium Peroxide (MgO_2), Magnesium Oxide (MgO), and Magnesium Hydroxide [$Mg(OH)_2$]**
Chemical Family:	**Inorganic Chemical**
Trade Name:	**Oxygen Release Compound (ORC®)**
Product Use:	**Used to remediate contaminated soil and groundwater (environmental applications)**

Section 2 – Chemical Identification

CAS#	Chemical
14452-57-4	**Magnesium Peroxide (MgO_2)**
1309-48-4	**Magnesium Oxide (MgO)**
1309-42-8	**Magnesium Hydroxide [$Mg(OH)_2$]**
Assay:	**25-35% Magnesium Peroxide (MgO_2)**

Section 3 - Physical Data

Melting Point:	**Not Determined (ND)**
Boiling Point:	**ND**
Flash Point:	**Not Applicable (NA)**
Self-Ignition Temperature:	**NA**
Thermal Decomposition:	**Spontaneous Combustion possible at ~ 150°C**
Density:	**0.6 – 0.8 g/cc**
Solubility:	**Reacts with Water**
pH:	**Approximately 10 in saturated solution**
Appearance:	**White Powder**
Odor:	**None**
Vapor Pressure:	**None**
Hazardous Decomposition Products:	**Not Known**
Hazardous Reactions:	**Hazardous Polymerization will not occur**
Further Information:	**Non-combustible, but will support combustion**

Section 4 – Reactivity Data

Stability:	**Product is stable unless heated above 150 °C. Magnesium Peroxide reacts with water to slowly release oxygen. Reaction by product is Magnesium Hydroxide**
Conditions to Avoid:	**Heat above 150 °C. Open Flames.**
Incompatibility:	**Strong Acids. Strong Chemical Agents.**
Hazardous Polymerization:	**None known.**

Section 5 - Regulations

Permissible Exposure Limits in Air	**Not Established. Should be treated as a nuisance dust.**

Section 6 – Protective Measures, Storage and Handling

Technical Protective Measures

Storage:	**Keep in tightly closed container. Keep away from combustible material.**
Handling:	**Use only in well ventilated areas.**

Personal Protective Equipment (PPE)

Respiratory Protection:	**Recommended (HEPA Filters)**
Hand Protection:	**Wear suitable gloves.**
Eye Protection:	**Use chemical safety goggles.**
Other:	**NA**
Industrial Hygiene:	**Avoid contact with skin and eyes**
Protection Against Fire & Explosion:	**NA**
Disposal:	**Dispose via sanitary landfill per state/local authority**
Further Information:	**Not flammable, but may intensify a fire**
After Spillage/Leakage/Gas Leakage:	**Collect in suitable containers. Wash remainder with copious quantities of water.**
Extinguishing Media:	**NA**
Suitable:	**Carbon Dioxide, dry chemicals, foam**
Further Information:	**Self contained breathing apparatus or approved gas mask should be worn due to small particle size. Use extinguishing media appropriate for surrounding fire.**
First Aid:	**After contact with skin, wash immediately with plenty of water and soap. In case of contact with eyes, rinse immediately with plenty of water and seek medical attention.**

Section 7 – Information on Toxicology

Toxicity Data:	**Not Available**

Section 8 – Information on Ecology

Water Pollution Hazard Raging (WGK):	**0**

Section 9 – Further Information

After the reaction of magnesium peroxide with water to form oxygen, the resulting material, magnesium hydroxide, is mildly basic. The amounts of magnesium oxide (magnesia) and magnesium hydroxide in the initial product have an effect similar to lime, but with lower alkalinity.

The information contained in this document is the best available to the supplier at the time of writing, but is provided without warranty of any kind. Some possible hazards have been determined by analogy to similar classes of material. The items in this document are subject to change and clarification as more information become available.

JUN 4 '93 15:51 FROM SHELL REAL ESTATE PAGE.001

File

SHELL CANADA LIMITED
FACSIMILE COVERSHEET

PAGE 1 OF 5 INCLUDES COVERSHEET

☑ DOMESTIC ☐ INTERNATIONAL*

SEND TO

MOE Oakville
Chuck Micheau
842-1750

Lynn Calder
Advisor, Hydrogeology & Soils
Safety & Environmental Affairs
Products Ontario

Shell Canada Products Limited
1500 Don Mills Road
Don Mills, Ontario M3B 3K4

Business (416) 441-3938
Fax (416) 443-0616

SUBJECT: 5/25 Off-Site Drilling

DESCRIPTION / REMARKS

Any questions, please call Jim Phimister.

Regards,
Lynn

THIS SECTION TO BE COMPLETED BY OPERATOR

VERIFICATION PHONE NO:	DATE SENT	TIME SENT	OPERATOR'S NAME
416-443-0616	June 4/93	3 55 ☐ AM ☑ PM	LC

Environmental Engineers and Contractors
11 Cardico Drive, Unit #8, P.O. Box 296, Gormley, Ontario L0H 1G0, (416) 222-7232 Fax. (416) 888-9188

June 4, 1993

Ministry of Transportation
P.O. Box 5020
Burlington, Ontario
L7R 3Z9

Attention: Mr. Peter Kuypties, C.E.T.

Dear Sir:

Re: Test Drilling on Highway 5 at Highway 25

Following our application for an encroachment permit, we have obtained clearances from the various utilities in the area of proposed test drilling. Figure 1 shows the general area where the test drilling is proposed and Figure 2 shows in more detail the locations of the proposed test holes.

The entire area between the south property boundary to the concrete gutter along the north edge of the roadway is occupied by Bell Canada telephone cables and fibre optic lines. This area has been placed off-limits for test drilling. Thus, the first set of test holes would have to be in the travelled portion of the roadway. As discussed with you the following conditions will apply in our encroachment permit:

1. test holes must be placed in the centre of the lanes and not in the normal path of tires

2. no monitors are to be left in the travelled portion of the roadway past the duration of the test drilling

3. the existing pavement structure must be matched upon completion of the test drilling

..... 2

4. only hot mix asphalt is to be used for repair and a tacker emulsion compound must be used to seal the repair material to the existing pavement

5. stone must be used to backfill the test holes and the stone must be compacted into place

6. the asphalt repair will be of the same thickness as the original pavement structure and the asphalt must be compacted into place

We have requested that traffic control be provided by the Ministry of Transportation. A purchase order has been issued to the Ministry to provide this service.

We are currently scheduled to do the test drilling on June 13, 1993. Although none are anticipated, you will be notified of any changes to this scheduled date.

If you have any questions, please give me a call.

Yours very truly,
BARENCO INC.

Jim Phimister, P.Eng.

cc: Ms. Lynn Calder, Shell Canada Products Limited

enc.

[redacted]

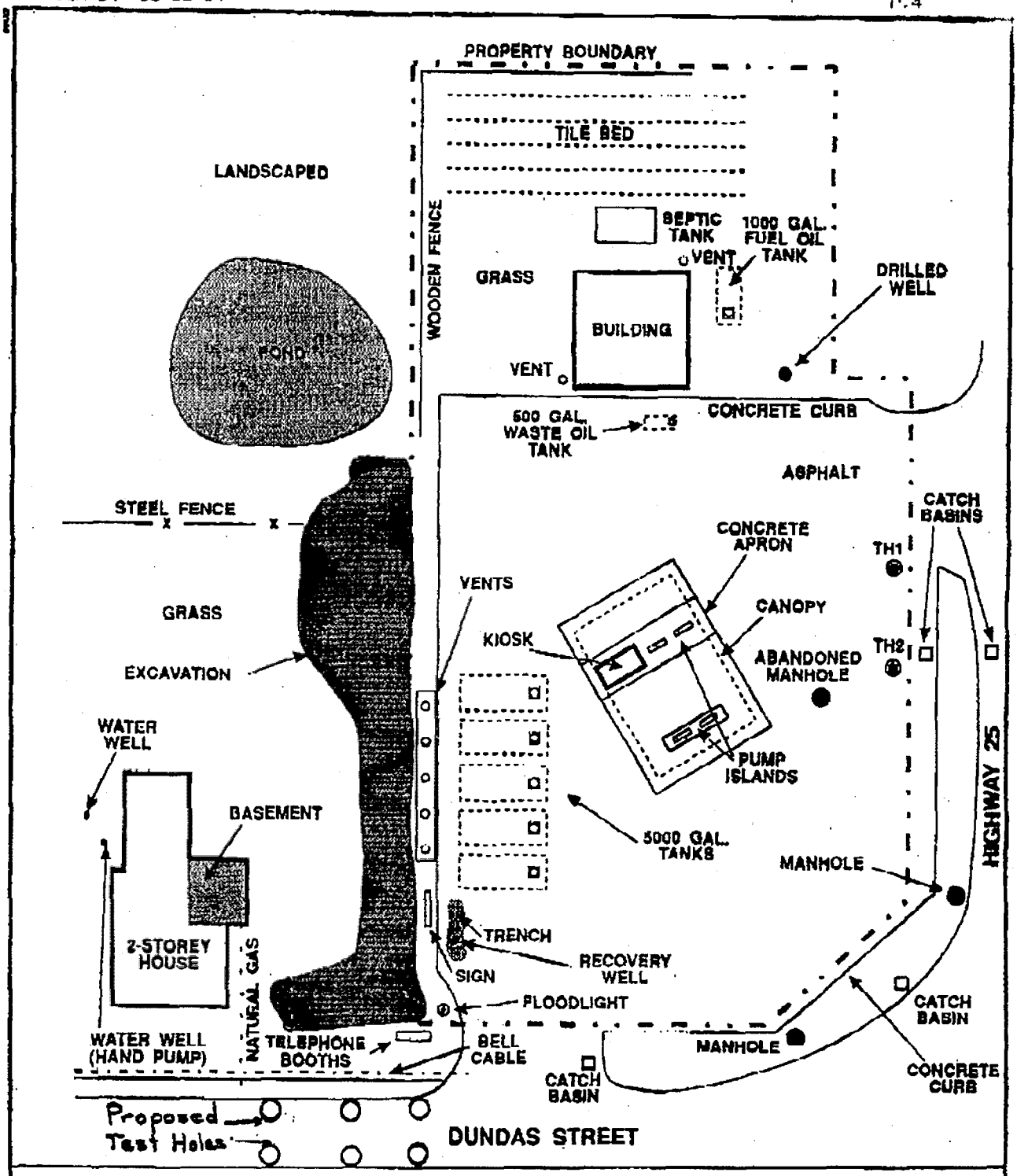


FIGURE 1
SITE PLAN
SHELL STATION
3005 DUNDAS STREET WEST
OAKVILLE, ONTARIO

BARENCO INC.

Figure 2
3005 Dundas St. W.
Oakville, Ontario

File - Shell Hwy 25 Palermo

SHELL CANADA LIMITED
FACSIMILE COVERSHEET

☐ DOMESTIC ☐ INTERNATIONAL*

PAGE 1 OF 1 INCLUDES COVERSHEET

SEND TO

MOE Oakville
Att: Chuck Micheau

416-842-1750

Lynn Calder
Advisor, Hydrogeology & Soils
Safety & Environmental Affairs
Products Ontario

Shell Canada Products Limited
1500 Don Mills Road
Don Mills, Ontario M3B 3K4

Business (416) 441-3938
Fax (416) 443-0616

SUBJECT: 5/25 Oakville Shell site —

DESCRIPTION / REMARKS

You were out when I called. Confirming that we reinstalled pumps Monday. Pumps couldn't keep up with rains today so we brought in pumper truck to keep water level down below surface — will continue to pump via trucks or pumps as needed. Our contractor observed that there might be a valve on the gold tank which seems to be not holding so we'll dig around there tomorrow to see if there's a problem. I'll let you know.

Lynn

THIS SECTION TO BE COMPLETED BY OPERATOR

VERIFICATION PHONE NO:	DATE SENT	TIME SENT	OPERATOR'S NAME
416-443-0616	April 1/93	4:45 ☐ AM ☒ PM	LC

14088 R 3/90

Public Works Department
INTER-OFFICE MEMORANDUM
Waste Management Division

ONTARIO MINISTRY
OF THE ENVIRONMENT
APR - 6 1993
CENTRAL REGION
OAKVILLE OFFICE

TO: File

FROM: V. Vathy, Industrial Waste Abatement Inspector

DATE: April 2, 1993

RE: Gasoline - Highway 25 and Highway 5, Oakville

Date	:	1993 03 25
Time	:	2:30 p.m.
Material	:	Gasoline
Location	:	Highway 25 and Highway 5, Oakville
Response	:	V. Vathy

At approximately 2:30 p.m. on March 25, 1993, I was informed by Jaci Gauthier, Public Works to contact the Ministry of Transportation regarding a spill. Doug Robb from the MTO indicated there was a gasoline spill at the Shell station located at Highway 25 and Highway 5 in Oakville and requested we inspect the receiving storm sewer. At the scene I met with Chuck Micheau from the Ministry of Environment and Energy. According to Mr. Micheau, the inlet hose from the groundwater recovery tank had detached and subsequently spilled the gasoline water mixture on to the surrounding tarmac and snow. The MTO contained the product using sand berms. I proceeded to inspect the storm sewer system and receiving stream and no gasoline was present. I relayed my findings to the Town of Oakville and MOEE and no further action was required by Halton.

VV:jk

cc V. Lesnicki, C.E.T., Manager of Industrial Waste and Sludge
G. Woodburn, P.Eng., Director of Waste Management
J. Budz., P.Eng., District Officer, Halton-Peel, Ministry of Environment & Energy
R. Wanamaker, Asst. Supdt., Public Works, Town of Oakville

SHELL CANADA - FACSIMILE COVERSHEET
SHELL CANADA - FORMULE D'ENVOI PAR TÉLÉCOPIEUR

RW
Peter
FYI

ORIGINATOR
FORWARD FORM INTACT TO TELECOMMUNICATION TELEX CENTRE
COPY WILL BE RETURNED AS CONFIRMATION
TYPEWRITTEN PREFERRED, OTHERWISE USE FELT PEN

PÉDITEUR
ENVOYER LA FORMULE INTACTE AU CENTRE DES TÉLÉCOMMUNICATIONS.
LA COPIE SERA RETOURNÉE À TITRE DE CONFIRMATION.
DACTYLOGRAPHIER DE PRÉFÉRENCE LES DONNÉES.
SINON UTILISER UN CRAYON-FEUTRE.

COVERSHEET FOR / FORMULE D'ENVOI: ☐ DOMESTIC / AU PAYS ☐ FOREIGN / * INTERNATIONAL / À L'ÉTRANGER *

PAGE 1 OF / DE 1
INCL. COVERSHEET / FORM. D'ENVOI COMPRI

ADDRESSEE / DESTINATAIRE

COMPANY / SOCIÉTÉ: MINISTRY OF THE ENVIRONMENT

ATTENTION / À L'ATTENTION DE: CHUCK MICHEAU

ADDRESSEE'S LOCATION / ENDROIT:

FACSIMILE PHONE NO: TÉL. - TÉLÉCOPIEUR: 842-1750

CONFIRMATION PHONE NO: N° DE TÉL. - CONFIRMATION:

FROM: ORIGINATOR / EXPÉDITEUR

PAUL D. NIELSEN, P.Eng.
Senior Project Engineer
Retail Network Development

SHELL CANADA PRODUCTS LIMITED
1500 Don Mills Road
Don Mills, Ontario M3B 3K4
Bus: (416) 441-3868
Fax: (416) 443-0616

REMARKS / OBSERVATIONS

CHUCK

WITH REGARD TO THE SHELL STATION AT HWYS 5 & 25 IN OAKVILLE, THE SURFACE CONTAMINATION WAS CAUSED BY A RISE IN WATER TABLE IN THE TANK FARM DUE TO SPRING THAW WHICH CAUSED SOME RESIDUAL GASOLINE TO FLOW OVER THE SURFACE. THIS CONTAMINATION HAS BEEN REMOVED AND THE MONITORING WELL PUMPED DOWN. IT IS OUR INTENT TO REINSTALL A SKIMMING SYSTEM AND STORAGE TANK TO REMOVE THE REST OF THE GASOLINE CONTAMINATION FLOATING ON THE WATER AND TO MONITOR THE SITE CLOSELY UNTIL THIS IS COMPLETE.

cc LYNN CAISER

THIS SECTION TO BE COMPLETED BY OPERATOR / CETTE SECTION DOIT ÊTRE REMPLIE PAR LE PRÉPOSÉ AU TÉLÉCOPIEUR

TELEPHONE NO: TÉL. - VÉRIFICATION	DATE SENT / DATE D'ENVOI	TIME SENT / HEURE D'ENVOI (DE 0 À 24 H) ☐ AM ☐ PM	OPERATOR'S NAME / PRÉPOSÉ AU TÉLÉCOPIEUR

000072

Ontario

Ministry of the Environment
Ministère de l'Environnement

Central Region
Région du Centre

Suite 401
1235 Trafalgar Road
Oakville, Ontario
L6H 3P1
416/844-5747
416/822-2566

Bureau 401
1235, chemin Trafalgar
Oakville (Ontario)
L6H 3P1
416/844-5747
416/822-2566

1993 02 04

Shell Canada Products Limited
Eastern Complex - Ontario Markets
1500 Don Mills Road
North York, Ontario
M3B 3K4

Attention: Lynn Calder

Dear Ms Calder:

Re: **Off-Site Drilling - Hwy. 5/25, Palermo, Ontario**

This letter is in response to your proposal dated January 12, 1993. We agree with the proposal, however suggest addition of the following:

1) Further test holes to the east on Hwy. 5 may be necessary as migration of contaminants may have occurred south of the tanks.

2) Groundwater samples should be taken and analyzed for BTEX compounds.

If you have any questions or concerns, please contact me at 844-5747.

Yours truly,

C. Micheau
Sr. Environmental Officer
Halton-Peel District

CM:mb

Shell Canada Products Limited

Eastern Complex - Ontario Markets
1500 Don Mills Road
North York, Ontario M3B 3K4
Telephone (416) 441-3800

January 12, 1993

Ministry of the Environment
Attention: Chuck Micheau
1235 Trafalgar Road
Suite 401
Oakville, Ontario
L6H 3P1

Dear Mr. Micheau

RE: OFF-SITE DISTRICT DRILLING - HWY 5/25, PALERMO, ONTARIO

Further to Anne Kim's November 24 letter, please find attached our proposal for drilling at the above location. The purpose of this work is to determine the level of contamination beneath Hwy 5 and whether any remediation is necessary in that area. If this proposal is acceptable to you and the Ministry of Transportation, please advise me verbally or in writing and we will proceed with obtaining an encroachment permit and carrying out the work at the earliest opportunity.

Yours truly

Lynn Calder

Lynn Calder
Advisor, Hydrogeology/Soils
Safety & Environmental Affairs

Attachment

c.c. D. Ivanouskas, MOT

5&25

BARENCO INC.
Environmental Engineers and Contractors
10 Kodiak Crescent, Downsview, Ontario M3J 3G5 • (416) 222-7232 Fax (416) 888-9188

December 22, 1992

Shell Canada Limited
1500 Don Mills Road
Don Mills, Ontario
M3B 3K4

Attention: Ms. Lynn Calder, Advisor, Hydrogeology and Soils

Dear Ms. Calder:

Re: Test Drilling Investigation, Highway 5
Palermo, Ontario

We have prepared the following proposed work plan for the above site.

Objectives and Scope

During the clean-up activities on the Shell site and the adjacent private property, gasoline vapours and liquid were found in the excavated soil near the south property boundary. The objective of this test drilling investigation is to determine the subsurface soil conditions related to petroleum products south of the south property boundaries on the Highway 5 (Dundas Street) right of way. The extent of the excavation on private property is shown on Figure 1.

This test drilling investigation will provide information regarding shallow subsurface conditions, namely soil stratigraphy and gasoline concentrations, to a depth of about 5 metres below grade. Once the field data is collected, a report assessing the subsurface conditions and making recommendations for any further action will be prepared.

Test Drilling

The precise test hole locations will be selected where access permits. Clearance on the subsurface utilities is a prime factor.

South of the property boundaries, on the right of way, there are several buried utilities, including telephone cables, electrical lines and storm sewer piping. It is believed that the natural gas piping is on the south side of the Highway 5 right of way.

The intent is to locate the first test hole as close as possible to the south end of the clean-up excavation, just south of the buried utilities. This will likely be just north of the first lane of Highway 5. Adjacent test holes will be placed a few metres away to the east and west of the first hole. Tentative test hole locations are shown on Figure 1.

Depending on what is found in these first three test holes, a second row of test holes will be drilled either in the northern lane or the second lane from the north on Highway 5. The need for additional test holes and the exact placement of such holes will be made in the field following a review of the current information. A minimum of three test holes will be drilled and it is unlikely more than six test holes will be required to fulfill the objectives.

A truck mounted mobile auger drilling rig will be used at this site. This rig will be capable of hollow stem and solid stem drilling. Split spoon and auger flight soil samples will be taken at appropriate intervals in each test hole. Because the water table is expected to be only about one to two metres below ground surface, the maximum hole depth is expected to be about 5 metres.

A continuous log of the geologic material encountered during drilling will be kept. Soil samples will be collected and gasoline vapour concentrations will be measured on-site using a Gastec Model 800 Precision Gas Detection System. This method is specific to the aromatic components of gasoline, benzene, ethylbenzene, toluene and xylene (BTEX), and can determine gasoline vapour concentrations from 5 to 12,000 ppm (1,000 ppm = 7.7% of the lower explosive limit of gasoline).

Selected soil samples will be placed into 40 ml vials and labelled for submission to EPL Environment Protection Laboratories Inc. for analysis of BTEX and total petroleum hydrocarbons.

Upon completion, each test hole will be backfilled with compacted drill cuttings and a concrete plug will be formed in the top 0.6 metre.

Safety

While working on the right of way, safety is of utmost concern. Test drilling will be carried out during daylight hours at times when the traffic count is low, likely Sunday morning. All workers on the site will wear reflective safety vests, in addition to the normal safety gear for a construction site. Traffic barricades and delineators will be placed to divert traffic away from the lane or shoulder where drilling is occurring.

The drilling rig will likely only be on any individual hole for a maximum of one hour. The drilling rig will be moved out of the right of way as soon as possible after completion of the test drilling.

An Application for Encroachment Permit will be filed as soon as the test drilling program is approved. The appropriate parties at the Ministry of Transportation will be notified prior to any work on the right of way.

Reporting

All information collected during this test drilling investigation, together with test hole logs, a site drawing, laboratory results, conclusions and recommendations will be included in a report. The report should be available in draft form about two weeks after the laboratory results are obtained.

If there are any questions, please give me a call.

Yours very truly,
BARENCO INC.

Jim Phimister, P.Eng.

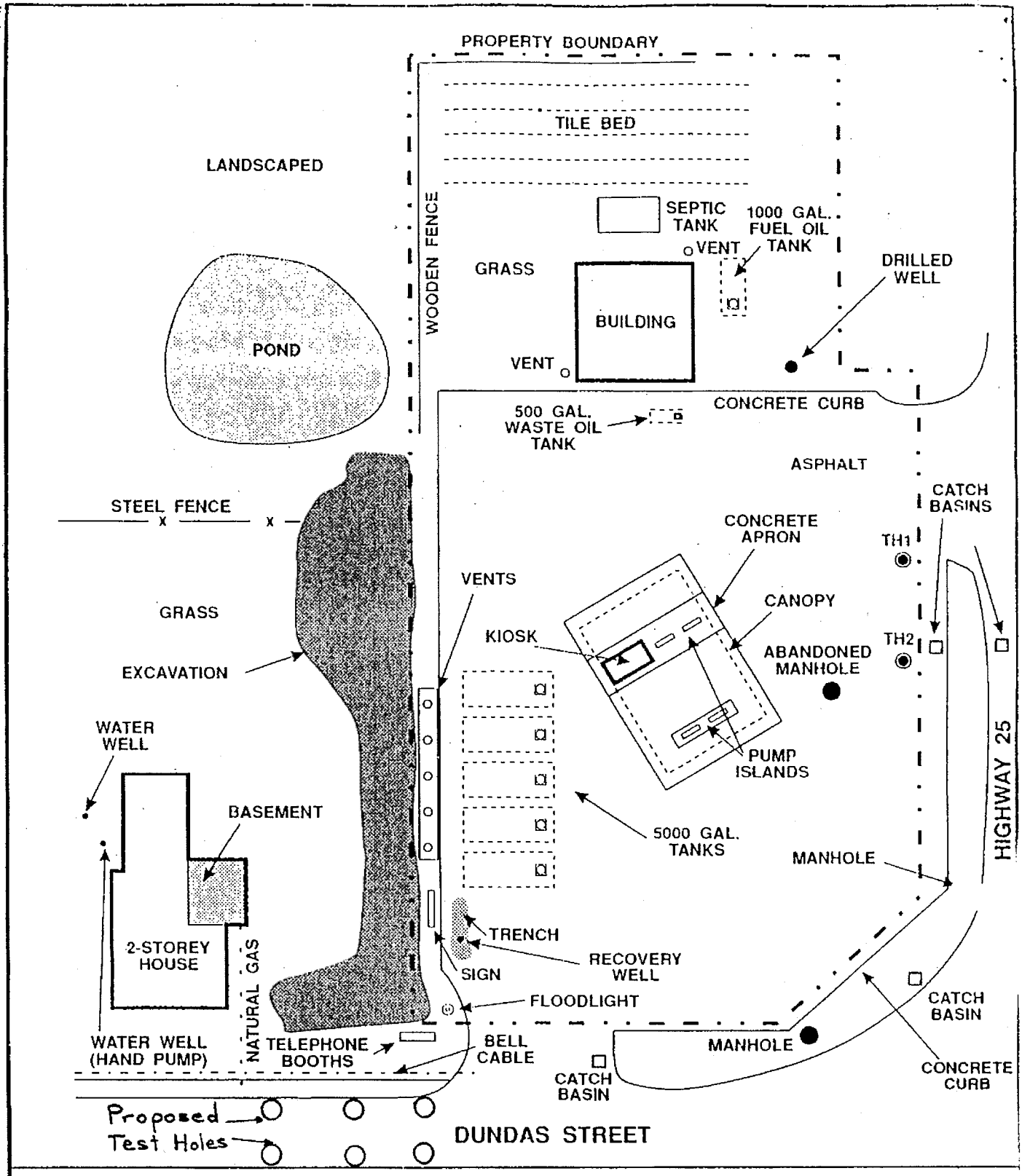


FIGURE 1

SITE PLAN

SHELL STATION

3005 DUNDAS STREET WEST

OAKVILLE, ONTARIO

BARENCO INC.

000078

Shell Canada Products Limited

Eastern Complex - Ontario Markets
1500 Don Mills Road
North York, Ontario M3B 3K4
Telephone (416) 441-3800

November 24, 1992

Ministry of the Environment
Attention: Mr. Chuck Micheau
1235 Trafalgar Road, Suite 401
Oakville, Ontario
L6P 3P1

Dear Sir

RE: SHELL SERVICE STATION - HWY 5 & 25, PALERMO

In response to your letter dated October 22, 1992, the following outlines Shell's plan of action at the above location:

- Obtain an encroachment permit from MTO to perform work on Hwy 5
- Perform an environmental assessment to delineate area of contamination under the Hwy 5 R.O.W.
- Devise a plan of action appropriate to the results of the assessment

If you have any questions or concerns, please contact Lynn Calder at (416) 441-3938, as she will be handling any matters regarding the above location, effective immediately.

Yours truly

Anne Kim
Environmental Engineer
(416) 441-3854
(416) 443-0616 FAX

c.c. Diane Ivanauskas, MTO

Ontario

Ministry of the Environment

Ministère de l'Environnement

Central Region

Suite 401
1235 Trafalgar Road
Oakville, Ontario
L6H 3P1
416/844-5747
416/822-2566

Région du Centre

Bureau 401
1235, chemin Trafalgar
Oakville (Ontario)
L6H 3P1
416/844-5747
416/822-2566

1992 10 22

Shell Canada
1500 Don Mills Road
Suite 600
North York, Ontario
M3B 3K4

Attention: A. Kim

Dear Sir:

Re: **Shell Service Station - Northwest Corner, Hwy 5 & 25, Palermo**

Recently we received a reply from the Ministry of Transportation with respect to the above which we understand you received a copy of.

In response to Ministry of Transportation's request, we recommend that the area of contamination under the Highway 5 R.O.W. be delineated. Please submit a plan of action prior to November 30, 1992, for our review.

Particular attention should be made to determining and delineating BTEX levels in the soil as well as an assessment of volatile organic vapour concentration.

Please respond with your intentions in this regard and ensure the appropriate contacts at the Ministry of Transportation are made.

If you have any questions or concerns, please contact me at 844-5747.

Yours truly,

C. Micheau
Sr. Environmental Officer
Halton-Peel District

CM:mb

Ministry of Transportation
Ontario

Ministère des Transports

Planning and Design
Environmental Unit
Central Region
5th Floor, Atrium Tower
1202 Wilson Avenue
Downsview, Ontario
M3M 1J8
Tel.# (416) 235-5544

September 8, 1992

Ministry of the Environment
Halton-Peel District Office
Suite 401, 1235 Trafalgar Road
Oakville, Ontario
L6H 3P1

FYI

Attention: C. Micheau
Sr. Environmental Officer

Dear Mr. Micheau:

RE: CLEANUP OF GASOLINE CONTAMINATED LANDS RESULTING FROM A GASOLINE PIPELINE LEAK AT THE SHELL CANADA SERVICE STATION - NORTHWEST CORNER OF HIGHWAY 5 AND 25 POTENTIAL GASOLINE CONTAMINATION OF MTO R.O.W.
HIGHWAY 5 AT HIGHWAY 25, PALERMO

In response to your 92 07 14 letter to D. Ivanauskas identifying the potential for gasoline contamination originating from the noted gasoline pipeline leak to be present within the Ministry of Transportation's (MTO'S) Highway 5 R.O.W., the Ministry wishes to proceed with Option #2 stated in your letter as follows:

> "Ministry of Transportation requires Shell to remove contaminated lands and restore the R.O.W. Ministry of the Environment will ensure this takes place."

Option #1 would not be acceptable to the Ministry. This option stated: "Leave the contaminated lands **'as is'** provided further environmental impact is unlikely... These lands would then be contaminated and recorded as such in our (MOE) files."

The Ministry as property owner of the R-O-W upon which this gasoline "spill" has potentially occurred would require that any adverse effects of the contamination be identified and remediated and the natural environmental restored as soon as feasible.

Since it is our understanding that no investigation has occurred on the MTO R-O-W, it will be necessary for Shell Canada to either ascertain that the R-O-W has not been impacted by the gasoline pipeline leak or identify the degree and extent of the contamination present in the R.O.W. to determine cleanup requirements. MTO requires assurance that the R.O.W. has not been contaminated above MOE industrial/commercial guidelines. If the R.O.W. has been contaminated above these recommended guidelines, MTO would require that Shell Canada effect the necessary remediation to restore the R-O-W to acceptable levels according to MOE's direction.

Any testing conducted by Shell or their agent should be of a "restricted nature" to minimize the impact on the road operation. Entry onto the MTO R.O.W. for any purpose, (eg. testing) requires prior MTO Burlington District approval. Mr. Ernie Dufresne, Head, Engineering Services at (416) 637-5625 Ext.228 must be contacted to obtain an encroachment permit and Mr. Doug Robb, Maintenance Supervisor - West at (416) 637-5625 Ext.274 must be notified of the intended work and his approval obtained before any work is conducted within the MTO Highway R.O.W..

You have identified that Highway 5 is potentially contaminated and Barenco's Report states that the groundwater flow direction in the bedrock aquifer appears to be to the southwest. Has the MOE concluded that there is no potential impact to Highway 25? If not then the preceding statements would also apply to Highway 25.

Thank you for your assistance in this matter and please keep the undersigned and Mr. D. Robb informed of the status of the work and of Shell Canada's plan-of-action. If the Ministry can provide additional information, please contact the undersigned at (416) 235-5544.

Yours truly,

D. Olender
for

Diane Ivanauskas
Regional Environmental Planner -
Waste Management

DNI/

c.c. A. Kim, Shell Canada Products Ltd.
E. Dufresne D. Robb

FYA

File

Shell Canada Products Limited

75 Wynford Drive,
North York, Ontario M3C 2Z4
Telephone (416) 443-7111

August 23, 1994.

Chuck Micheau
Ministry of Environment and Energy
1235 Trafalgar Road, Suite 401
Oakville, Ontario
L6H 3P1

Dear Chuck:

RE: SHELL SERVICE STATION @ HWY 5 & 25, PALERMO, ONTARIO

I am enclosing a copy of the report titled "Update Report, Shell Gas Bar, Highway 5 at Highway 25", prepared by Barenco dated October 22, 1993. I regret that this report was not sent in a timely manner. As the report states, the recovery equipment has been removed; however, the monitoring at this site has continued.

Recently, we discovered a small product thickness in our recovery well. In response, we have checked our dip records which do not indicate an on-going problem, and we have pumped down the wells with a vacuum truck. We will continue to monitor the wells and recover any product as needed.

I hope you find this satisfactory. Please contact me should any questions or concerns arise.

Yours truly,

Anne Kim
Environmental Engineer
(416) 441-3854
(416) 443-0616 FAX

Enclosure

barenco inc.
Environmental Engineers and Contractors
11 Cardico Drive, Unit #8, P.O. Box 295, Gormley, Ontario L0H 1G0, (416) 222-7232 Fax. (416) 888-9188

October 22, 1993

Shell Canada Products Limited
75 Wynford Drive
Don Mills, Ontario
M3C 2Z4

Attention: Ms. Anne Y.H. Kim, P.Eng.

Dear Ms. Kim:

Re: Update Report, Shell Gas Bar
Highway 5 at Highway 25

Following the discovery of a piping leak at the above gas bar location in July 1991, a clean-up involving the removal and disposal of over 1,300 tonnes of soil was completed in 1992.

The gasoline tanks and the soil around the tanks were not excavated during the clean-up. A small amount of liquid gasoline remained floating on the water table in the tank excavation backfill. Recovery operations using both membrane skimmers and automatic skimmer pumping systems have been used to remove this thin layer of product. By November 1992, there was no measurable thickness of petroleum floating on the water in the recovery well and the pumping systems were removed.

In late March 1993, a thin layer (less than two millimetres) of gasoline had risen to the surface of the ground when the water table was at its highest. Philip Environmental used a vacuum truck to remove the layer of gasoline and several thousand litres of water from a recovery well located south of the underground storage tanks (Figure 1).

In April 1993, an automatic skimmer pump was again installed in the south recovery well to remove as much floating product as possible. The product is black, tarry and sticky, likely from the coating on the tanks. All product and water that has been pumped has been collected in an above ground skid tank.

Absorbent pads placed into the recovery well were not effective at removing the tarry substance and were removed.

Over the period of seven months since April 1993, only about 15 litres of gasoline has been recovered. Product thickness in the southern recovery well have been less than one millimetre since June 1993. The depth to the water surface has been about 0.3 metres below ground surface over the same time period.

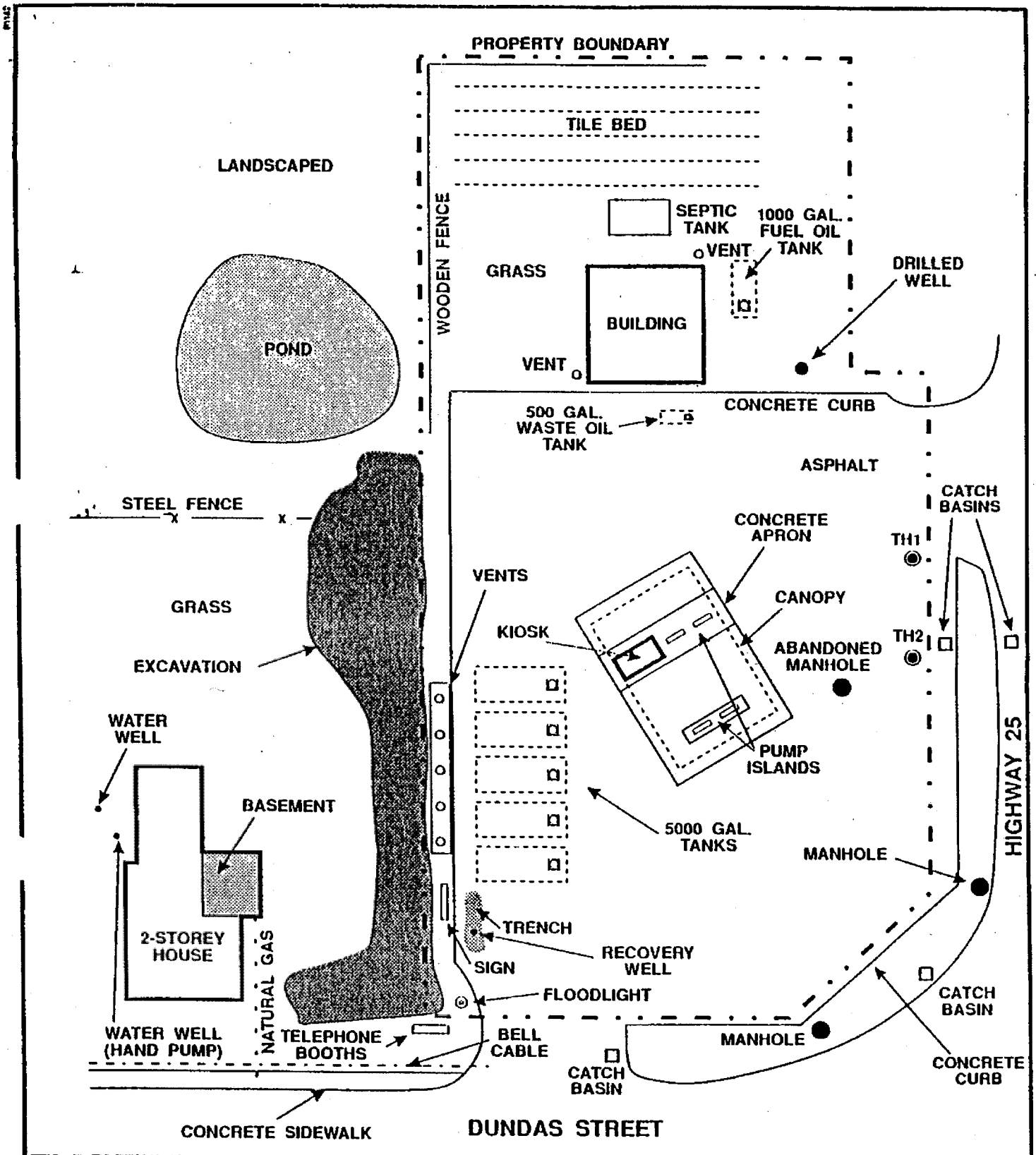
The product in the recovery well has not appeared to contain gasoline for several months. Rather it appears to be residual tar from the tank coating that was dissolved by the gasoline. The tarry product can be pushed to one side of the recovery well without any thickness of floating product remaining on the water.

It does not appear that there is any further liquid gasoline floating on the surface of the water table in the tank excavation area. The automatic skimmer pump equipment has now been removed and it is recommended that the skid tank be pumped out and removed from the site.

If you have any questions, please give me a call.

Yours very truly,
BARENCO INC.

Jim Phimister, P.Eng.



LEGEND

◉ TH1 TEST HOLE

SCALE 0 10 METRES

FIGURE 1

SITE PLAN

SHELL STATION

3005 DUNDAS STREET WEST

OAKVILLE, ONTARIO

BARENCO INC.

000086

Table 1

MONITORING DETAILS

Site: Shell Gas Bar
Highway 5 and 25, Oakville, Ontario

Date	Depth to Product (cm)	Thickness of Product (cm)
29-Mar-93	27	4
31-Mar-93	22	1
01-Apr-93	46	1
03-Apr-93	26	1.2
04-Apr-93	na	na
05-Apr-93	23	1.5
07-Apr-93	29	0.2
09-Apr-93	22	0.3
12-Apr-93	19.5	0.2
14-Apr-93	21	0.5
18-Apr-93	24	0.5
20-Apr-93	11	tr
25-Apr-93	14	0.6
28-Apr-93	24	1
30-Apr-93	24	0.4
13-Jun-93	30	tr
31-Jul-93	30	tr
30-Aug-93	35	tr
25-Sep-93	30	tr
21-Oct-93	30	tr

na means not accessible. tr means trace.
Depth to product is below grade.
Automatic skim pumping was occuring from March to June.

BARENCO INC. 91142

Shell Canada Products Limited

Eastern Complex - Ontario Markets
1500 Don Mills Road
North York, Ontario M3B 3K4
Telephone (416) 441-3800

August 16, 1993

Ministry of Environment & Energy
Attention: Mr. C. Micheau
1235 Trafalgar Road, Suite 401
Oakville, Ontario
L6H 3P1

Dear Mr. Micheau

RE: UPDATE REPORT / OFF-SITE DRILLING SHELL SERVICE STATION HWY 5 & HWY 25 PALERMO (OAKVILLE) ONTARIO: OUR REF. C05875

Please find attached a copy of Barenco's July 29, 1993 report regarding the above. As noted in the report, there is no evidence of off-site contamination under Highway 5 and we have removed all recoverable product from our recovery wells using our active system. As recommended in the report, we propose to continue monitory and passive product recovery using sorbent pads and plan to remove our on-site skimmer pump and skid tank in September. We will also carry out monitoring and pumping as needed, to try to keep the water level in the tank backfill below ground surface during exceptionally high water table periods, as long as there is residual petroleum in the ground which could be remobilized to the surface.

I trust this report and action plan is satisfactory. If you have any questions, please feel free to call me.

Yours truly

Lynn Calder

Lynn Calder
Advisor, Hydrogeology/Soils

Attachment

c.c. D. Ivanauskas, MTO
J. Phimister, Barenco

LC3-10

barenco inc.
Environmental Engineers and Contractors
11 Cardico Drive, Unit #8, P.O. Box 295, Gormley, Ontario L0H 1G0, (416) 222-7232 Fax. (416) 888-9188

July 29, 1993

Shell Canada Products Limited
1500 Don Mills Road
North York, Ontario
M3B 3K4

Attention: Ms. Lynn Calder

Dear Ms. Calder:

Re: Update Report, Shell Gas Bar
Highway 5 at Highway 25

In July 1991, a piping leak at the above gas bar location allowed an unknown quantity of gasoline to escape into the ground. A subsequent clean-up was completed in April 1992. Over 1300 tonnes of soil were removed from the area and disposed at licenced landfills.

Further excavation to the south was restricted due to buried services and the property boundary. Some gasoline vapours and benzene, toluene, ethylbenzene and xylene (BTEX) compounds remained in the soil in the south wall of the excavated area.

The gasoline tanks were not excavated during the clean-up. There was a small amount of liquid gasoline floating on the water table in the tank excavation backfill. Recovery operations in the form of membrane skimmers and automatic skimmer pumping systems have been used to remove this thin layer of product. By November 1992, there was no measurable thickness of petroleum floating on the water in the monitors.

In late March 1993, a thin layer (less than two millimetres) of gasoline had risen to the surface of the ground when the water table was at its highest. Philip Environmental used a vacuum truck to remove the layer of gasoline and several thousand litres of water from a recovery well located south of the underground storage tanks (Figure 1).

..... 2

During the months of April to June 1993, an automatic skimmer pump was again installed in the south recovery well to remove as much floating product as possible. The gasoline is black, tarry and sticky, likely from the coating on the tanks. All product and water that has been pumped has been collected in an above ground skid tank.

Over the period of almost three months, only about 10 to 15 litres of gasoline was recovered. This is due to the fact that the floating layer is very thin and sticky making it difficult to pump. Product thickness in the recovery well was less than one millimetre in June 1993.

At this time it is recommended that the skimmer pump and skid tank be removed. Since the floating layer is very thin, sorbent pads can be placed in the recovery well to absorb any gasoline that is present. These pads can be replaced on an as-needed basis, perhaps on a monthly frequency, while there is still product in the recovery well.

Next spring, when the water table rises to near the ground surface again, it might be advisable to have a load of water pumped from the recovery well using a vacuum truck. This will keep the level of the water below the ground surface and prevent any of the residual black petroleum from being pushed to ground surface.

Test Drilling Program

At the request of the Ministry of the Environment and Energy (MOEE), a test drilling program was undertaken on the road allowance on Highway 5.

Following application for an encroachment permit from the Ministry of Transport (MTO), clearances were obtained from the various utilities in the area of proposed test drilling.

The entire area between the Shell south property boundary to the concrete gutter along the north edge of the roadway is occupied by Bell Canada telephone cables and fibre optic lines. This area was placed off-limits for test drilling. Thus, the closest the test holes could be to the south property boundary was in the travelled portion of the roadway. The following conditions were applied by MTO in our encroachment permit:

1. test holes must be placed in the centre of the lane and not in the normal path of tires

2. no monitors are to be left in the travelled portion of the roadway past the duration of the test drilling

3. the existing pavement structure must be matched upon completion of the test drilling

4. only hot mix asphalt is to be used for repair and a tacker emulsion compound must be used to seal the repair material to the existing pavement

5. stone must be used to backfill the test holes and the stone must be compacted into place

6. the asphalt repair will be of the same thickness as the original pavement structure and the asphalt must be compacted into place

The MTO provided traffic control during the drilling program. Test drilling was completed early on Sunday, June 13, 1993 to minimize traffic disruptions. Figure 2 shows the locations of the test holes.

When excavation had been completed on the property north of the roadway in 1992, there was no evidence of any liquid gasoline in the wall of the excavation. However, some gasoline vapours were still present in the south excavation wall. Thus, it was expected that liquid gasoline would not be found in the test holes. It was not known if any gasoline vapours would be detected.

Three test holes were drilled using a truck mounted CME 75 hollow stem auger. All the test holes were drilled to a depth of about 6 meters. The water table was known to be within the top two meters of the ground surface.

Below the granular roadbed beneath the asphalt, the soil was a relatively uniform reddish brown silty clay till. There were random thin layers of gray stones dispersed in the till. The till was very dense and no liquid was found in any of the test holes.

Soil samples were taken continuously through the total depth of the test hole. Each soil sample was carefully examined for the presence of gasoline odour and a Gastec 800 Precision Detection System was used to determine the gasoline vapour content. This instrument measures the total benzene, toluene, ethylbenzene and xylene (BTEX) content in a range from 5 to 12,000 parts per million (ppm).

No gasoline odours nor gasoline vapours were detected in any soil sample from any of the three test holes. The record for each of the test holes is shown in the attached Test Hole Logs.

Laboratory Results

A soil sample from each of the test holes was selected for submission for laboratory analysis. The selected soil samples were from depths that were thought to be at or within about one meter below the water table surface. Ground water samples were not available from the test holes, since ground water did not accumulate fast enough and monitor installations were not permitted. However, the samples from below the water table contain not only the soil but the water that was within the soil. The laboratory analyses reflect the total petroleum content of the soil and the constituent ground water.

The selected samples were placed into 40 ml glass vials and preserved at 4^{o} C prior to submission to EPL Environment Protection Laboratories Inc. for analysis of BTEX and total purgeable hydrocarbons.

The results of the laboratory analysis are shown in Table 1. No quantifiable BTEX nor TPH was found in any of the samples. The laboratory results agree with the findings in the field.

Current Site Status

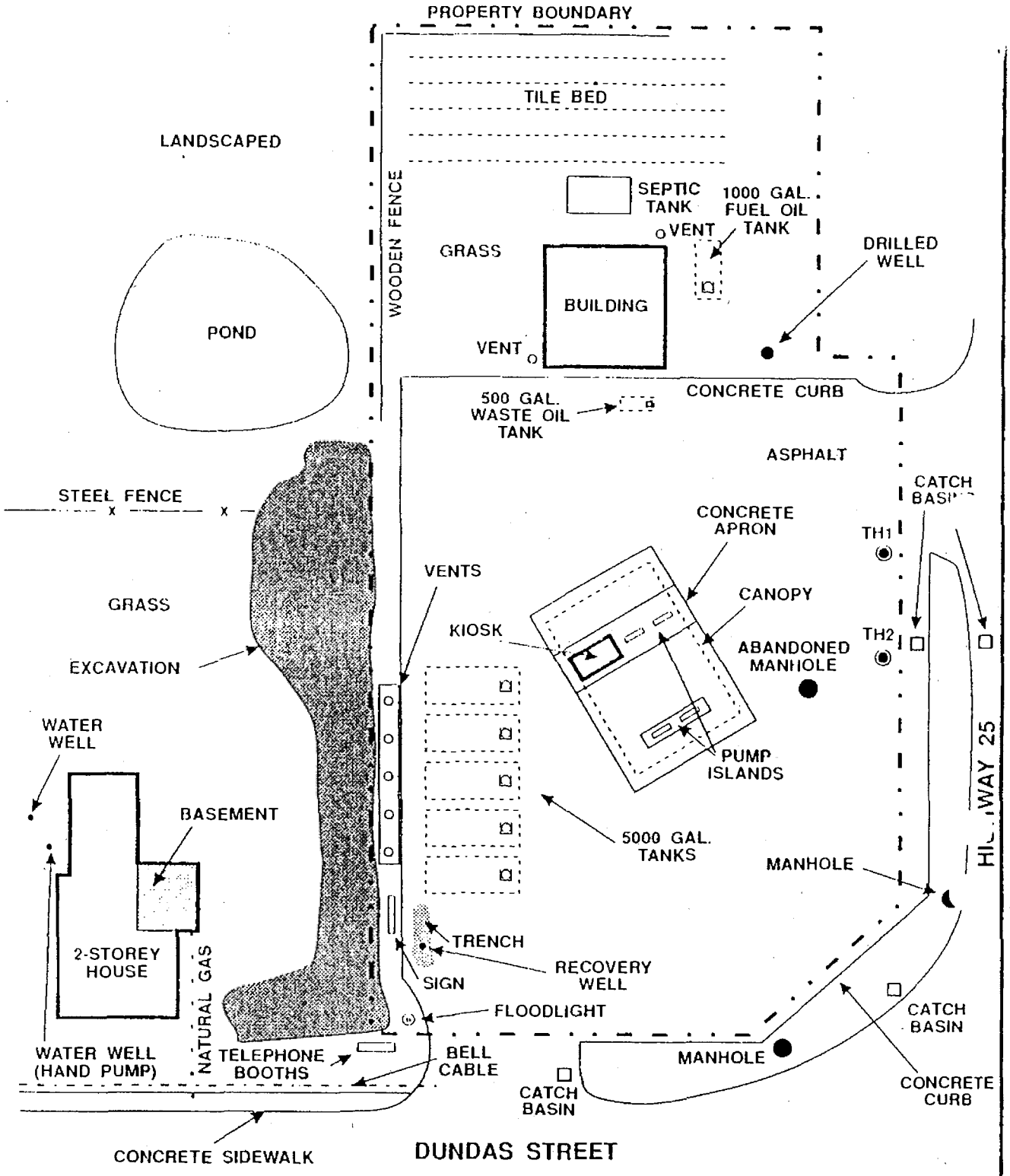
It appears that there has been no migration of any quantifiable petroleum product into the road allowance. Given the low permeability of the native soil and the flat gradient in the area, this is not an unexpected finding.

The small volume of residual gasoline that is in the soil above the water table cannot be effectively recovered with an automated pumping system. Sorbent pads, combined with a pump out in the spring, will provide a slow passive method of collecting any floating layer.

If you have any questions, please give me a call.

Yours very truly,
BARENCO INC.

Jim Phimister, P.Eng.



LEGEND

◉ TH1 TEST HOLE

SCALE 0 10 METRES

FIGURE 1

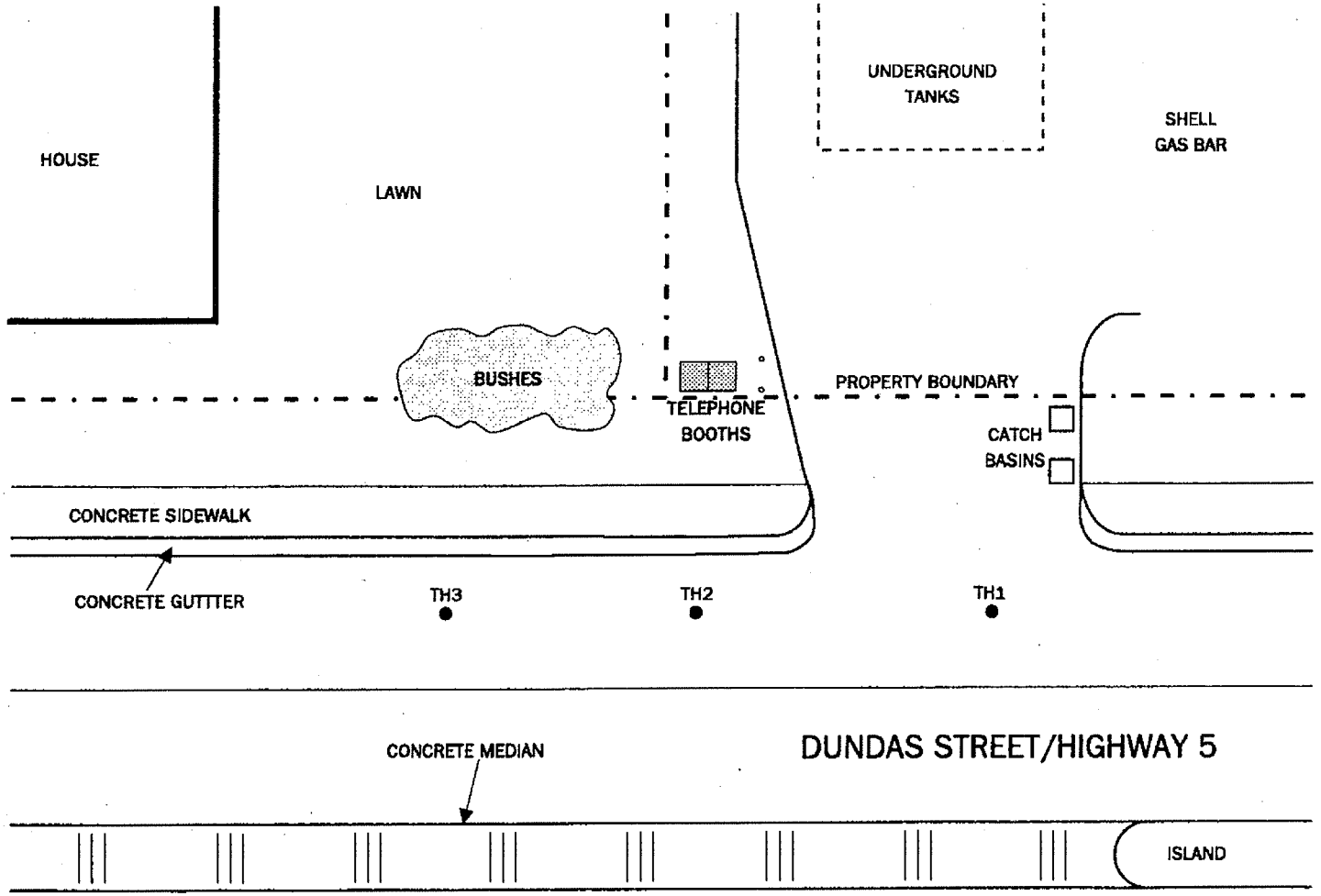
SITE PLAN

SHELL STATION

3005 DUNDAS STREET WEST

OAKVILLE, ONTARIO

BARENCO INC.



barenco inc.

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0 10M

APPROXIMATE SCALE

LEGEND

TH2 ● TEST HOLE LOCATION

FIGURE 2

SITE PLAN

3005 DUNDAS STREET WEST
OAKVILLE, ONTARIO

960095

Table 1

SOIL CHEMICAL ANALYSIS

Shell Gas Bar
Highway 5 and 25, Oakville, Ontario

Soil

Chemical Parameter	Test Hole 1 2.1 - 2.75 m	Test Hole 2 3.0 - 3.6 m	Test Hole 3 3.0 - 3.6 m
Benzene	nd	nd	nd
Toluene	TR	nd	TR
Ethylbenzene	nd	nd	nd
Xylene	TR	nd	TR
Total Purgeable Hydrocarbons	nd	nd	nd

Analysis by EPL Environmental Protection Laboratories Inc.
All results in mg/kg. nd means not detected. TR means trace.

BARENCO INC.

91142

TEST HOLE LOGS

Site: Shell Gas Bar
Highway 5 and 25, Oakville, Ontario

Date: June 13, 1993 Drill: Truck mounted CME 75 hollow stem auger
Engineer: JPP

Test Hole	Depth (m)	Log	Gastec (ppm)
1	0 - 0.1	Asphalt. No petroleum odour	0
	0.1 - 0.65	Brown gravel and sand. No petroleum odour	0
	0.65 - 6.1	Reddish brown silty clay till, odd layer gray stones.	
	(0.9 - 1.5)	Soil sample - no petroleum odour	0
	(1.5 - 2.1)	Soil sample - no petroleum odour	0
	(2.1 - 2.75)	Soil sample - no petroleum odour	0
	(2.75 - 3.0)	Soil sample - no petroleum odour	0
	(3.0 - 3.6)	Soil sample - no petroleum odour	0
	(3.6 - 4.3)	Soil sample - no petroleum odour	0
	(4.3 - 5.5)	Soil sample - no petroleum odour	0
	(5.5 - 6.1)	Soil sample - no petroleum odour	0
2	0 - 0.1	Asphalt. No petroleum odour	0
	0.1 - 0.65	Brown gravel and sand. No petroleum odour	0
	0.65 - 6.1	Reddish brown silty clay till, odd layer gray stones.	
	(0.9 - 1.5)	Soil sample - no petroleum odour	0
	(1.5 - 2.1)	Soil sample - no petroleum odour	0
	(2.1 - 3.0)	Soil sample - no petroleum odour	0
	(3.0 - 3.6)	Soil sample - no petroleum odour	0
	(3.6 - 4.6)	Soil sample - no petroleum odour	0
	(4.6 - 5.2)	Soil sample - no petroleum odour	0
	(5.2 - 6.1)	Soil sample - no petroleum odour	0

BARENCO INC.

91142

TEST HOLE LOGS

Site: Shell Gas Bar
Highway 5 and 25, Oakville, Ontario

Date: June 13, 1993 Drill: Truck mounted CME 75 hollow stem auger
Engineer: JPP

Test Hole	Depth (m)	Log	Gastec (ppm)
3	0 - 0.1	Asphalt. No petroleum odour	0
	0.1 - 0.65	Brown gravel and sand. No petroleum odour	0
	0.65 - 6.1	Reddish brown silty clay till, odd layer gray stones.	
	(0.9 - 1.5)	Soil sample - no petroleum odour	0
	(1.5 - 2.1)	Soil sample - no petroleum odour	0
	(2.1 - 3.0)	Soil sample - no petroleum odour	0
	(3.0 - 3.6)	Soil sample - no petroleum odour	0
	(3.6 - 4.6)	Soil sample - no petroleum odour	0
	(4.6 - 5.2)	Soil sample - no petroleum odour	0
	(5.2 - 6.1)	Soil sample - no petroleum odour	0

BARENCO INC.

91142

(RETAIN THIS COPY FOR FOLLOW-UP)

7540-1021

File

SEND TO: D. Smith, MOE
7 Overlea Blvd, T-O

FROM: C. Mickeam DEPT. MOE, Oakville DATE

SUBJECT: Shell gas station Hwy 5 & 25 Palermo. July 17/92

Attached find two reports regarding site cleanup and an investigation into well contamination at Mr Odenbach's. Please respond with comments / recommendations.

Should shell monitor down gradient groundwater as gasoline remains on the water table on site?

Considering the high levels of benzene in the TH2 probe hole, should shell do further investigation to prove this theory that the cause was surface infiltration?

REPLY

REPLY FROM

REPLY DATE

000099

Ontario
Ministry of the Environment
Ministère de l'Environnement
Central Region
Région du Centre

Suite 401
1235 Trafalgar Road
Oakville, Ontario
L6H 3P1
416/844-5747
416/822-2566

Bureau 401
1235, chemin Trafalgar
Oakville (Ontario)
L6H 3P1
416/844-5747
416/822-2566

1992 07 14

Ministry of Transportation
Central Region
Atrium Tower
1201 Wilson Avenue
Toronto, Ontario
M3M 1J8

Attention: D. Ivanauskas

Dear Ms Ivanauskas:

Our Ministry is involved with a clean-up of gasoline contaminated lands in Palermo (Highway 5 and 25).

The contamination is the result of a gasoline pipeline leak at the Shell Canada Service station on the northwest corner of Highway 5 and 25. The attached report indicates that gasoline contamination likely exists within the right-of-way of Highway 25. We suggest you contact Ann Kim, Shell Canada Products, 441-3800 to discuss options. The Ministry requires the following with respect to this problem:

1. Confirmation from Shell that no further migration of contaminants will occur.

2. Confirmation from Shell that the groundwater has not been impacted.

3. Given the above confirmation, the degree of contamination of the R.O.W.

If the lands are contaminated above industrial/commercial guidelines, MTO has two options:

1. Leave the contaminated lands "as is" provided further environmental impact is unlikely (Shell will confirm this). These lands would then be contaminated and recorded as such in our files.

... 2.

2. Ministry of Transportation requires Shell to remove contaminated lands and restore the R.O.W. Ministry of the Environment will ensure this takes place.

If you have any questions or concerns, please contact me at 844-5747.

Yours truly,

C. Micheau
Sr. Environmental Officer
Halton-Peel District

CM:mb

cc: A. Kim, Shell Canada Products Limited

SITE CLEAN UP
SHELL SERVICE STATION
HIGHWAY 5 AND 25, OAKVILLE

for

Shell Canada Products Limited
1500 Don Mills Road
Don Mills, Ontario
M3B 3K4

by

Barenco Inc.
Environmental Engineers and Contractors
10 Kodiak Crescent
Downsview, Ontario
M3J 3G5

June 1992

TABLE OF CONTENTS

	Page
1.0 BACKGROUND	1
1.1 Introduction	1
1.2 Prior Site Investigations	1
1.3 Surrounding Properties	2
2.0 SITE CLEAN UP	4
3.0 ENVIRONMENTAL SETTING AND CONDITIONS	6
4.0 CURRENT SITE STATUS	8
5.0 CONCLUSIONS	10
6.0 RECOMMENDATIONS	12

1.0 BACKGROUND

1.1 Introduction

Barenco Inc. was contracted by Shell Canada Products Limited to complete a clean up at the Shell service station property located at 3005 Dundas Street West in Oakville, Ontario. A product loss into the ground had occurred from an underground gasoline pipe and product had been found on the adjacent property to the west. Shell wished to have the adjacent property cleaned up and to prevent any further migration of product onto that property.

The Shell self-serve station operates with five 22,700 litre (5,000 gallon) underground storage tanks containing gasoline. Figure 1 shows the layout of the station and placement of the underground storage tanks. A steel 4,540 litre (1,000 gallon) underground storage tank and a steel 2,270 litre (500 gallon) waste oil underground storage tank are also located at the site. The waste oil tank has reportedly never been used. The furnace oil tank has not been used since February, 1991. The gasoline underground storage tanks are approximately 17 years old and have been equipped with spill containers since August, 1991.

In July, 1991, the site operator reported product losses as determined by inventory control. As a result, the piping and underground storage tanks were pressure tested on July 31, 1991. The Silver Grade piping for the south pump island failed and the defective pipe was uncovered and repaired.

No incidents of spillage, overtopping or losses were reported to have occurred prior to this incident. Similarly, there have been no reports of spillage, overtopping or losses since this incident occurred in 1991.

In May, 1992, petroleum product was reportedly found in a natural gas trench on the southeast corner of Highways 5 and 25. It was reported by the MOE that there was an odour of fuel oil but that no liquid product was observed. The source of this petroleum was unknown.

1.2 Prior Site Investigations

Two previous investigations have been performed at this site by Barenco Inc.

A report dated October 14, 1991 details the results of the initial site investigation. Excavation around the fill pipes of the north and south tanks for the installation of spill containers on the five underground storage tanks found liquid gasoline floating on the water. Between July 29, 1991 and August 5, 1991, the recovery well placed at the west end of the southerly storage tank was pumped to lower the water table and collect liquid gasoline. It is estimated that about 1,200 litres of liquid gasoline was recovered.

Between August 6, 1991 and August 14, 1991, an active gasoline skimmer pumping system was operating in the recovery well at the southwest corner of the tank excavation. After one week of operation, an insignificant amount of gasoline was pumped from the recovery well and the system was disconnected.

On July 31, 1991 and August 1, 1991, soil vapour test holes were drilled on the Shell property. Positive gasoline vapour readings of 12,000+ ppm were detected near the west property boundary at the site. Consequently, permission was obtained by Shell Canada from the property owner to drill soil vapour test holes on the property west of the site.

The soil vapour test holes were drilled on the adjacent property on November 28, 1991. The results of the environmental survey found positive gasoline vapour readings of as high as 6,200 ppm in the shallow subsurface. The water table was measured at 0.51 metres below ground surface on November 28th. In addition to the soil vapour test holes, two shallow soil samples and one water sample were collected from the adjacent property.

The laboratory analysis of the soil sample taken about 1 metre west of the property boundary found benzene, toluene, ethylbenzene and xylene (BTEX) levels of 52 ppm, 127 ppm, 29 ppm and 447 ppm, respectively. Total volatile hydrocarbon concentrations of 1,460 ppm were detected. The soil and water analyses of the samples taken from about 5 metres west of the property boundary found no detectable concentrations of any volatile hydrocarbons. The complete results of the site investigation are detailed in a December 15, 1991 report.

No other reports have been issued by Barenco Inc. for this site.

1.3 Surrounding Properties

The Shell station is located at the northwest corner of Highway 5 (Dundas Street) and Highway 25 (Bronte Road) in the Town of Oakville, Ontario. The property use in the vicinity of the site is a mix of residential, agricultural and commercial.

There are residences located to the west of the Shell property and at the northeast corner of the intersection of Highways 5 and 25. South of the Shell site, at the southwest corner of the intersection, is a strip plaza which was constructed within the past year. A donut shop and a convenience store are currently located at the plaza. The southeast corner of the intersection is currently vacant.

The only other current retail petroleum outlet in the vicinity is located approximately 500 metres east off the site on the north side of Highway 5. However, this Petro-Canada site, which was operating as of August, 1991, has apparently been closed.

2.0 SITE CLEAN UP

The site clean up occurred between April 6 and April 21, 1992.

A tracked excavator was used to remove the soil that contained gasoline in excess of acceptable levels on the adjacent property to the west of the Shell site. The walls and floor of the excavation were inspected for gasoline odour and petroleum staining throughout the site clean up by Mr. Chuck Micheau of the Ontario Ministry of the Environment (MOE). On one occasion, April 15th, Ms. Marion Gibson was on site representing the MOE.

The areas which were inspected by the MOE for gasoline odour and petroleum staining included all the walls and floor of the excavation beginning at the telephone booths and extending as far north as the pond (Figure 1).

Once each area had been approved for backfilling by the MOE, composite soil samples were removed from the walls as well as the floor of the excavation. The soil samples were submitted to Entech Laboratories for analysis of benzene, toluene, ethylbenzene, xylene (BTEX) and total petroleum hydrocarbons (TPH). The composite soil samples were taken from the areas on the floor of the excavation as indicated on Figure 2. The analytical results for the floor samples are presented in Table 1.

Field readings of gasoline vapour concentrations in the soil on the south excavation wall were recorded at specific points using a Gastec Model 800 Precision Gas Detection System. All readings were recorded in parts per million (ppm) and are shown on Figure 3. This method is specific to the aromatic components of gasoline (benzene, toluene, ethylbenzene and xylene) and can determine vapour concentrations from 5 to 12,000 ppm (1,000 ppm = 7.7% of the lower explosive limit of gasoline).

The highest gasoline vapour readings were detected at a depths ranging from 1.4 to 2.4 metres below ground surface.

Eight composite soil samples were removed from the south wall nearest Highway 5 as shown on Figure 3. The analytical results for the south wall are presented in Table 2.

Three discrete soil samples were submitted for laboratory analysis from the locations where three high recorded gasoline vapour readings of 7,100 ppm, 6,700 ppm and 5,900 ppm were found. The analytical results are presented in Table 3.

Nine composite soil samples were taken from the areas on the north and west walls as shown on Figure 4. These samples are labelled SW1 through SW16. The analytical results for these samples are presented in Table 4.

The excavation was stopped at the south property boundary. The proximity of a buried Bell fibre optic cable also impeded any further excavation in that direction.

A replacement recovery well was installed on April 15, 1991 to a depth of approximately 2.9 metres below ground surface at the southwest corner of the tank excavation, replacing the previous recovery well that was only 1.5 metres deep.

Upon completion of the excavation, a bentonite liner extending from ground surface to below the water table was installed along the east and south walls to prevent any further migration of gasoline into the clean backfill. During installation of the bentonite liner, the recovery well was pumped out on a daily basis using a licenced vacuum truck. A total of 39,937 litres of water with a small quantity of gasoline was pumped from the recovery well. A total of 13,620 litres was disposed by FAW Oil Ltd. on April 13th and 26,317 litres was disposed by Laidlaw Environmental Services between April 14th and April 22, 1992.

A total of 1350.15 metric tonnes of soil was disposed as solid non-hazardous industrial waste by Woodington Systems Inc. at the Thorold, Ontario licensed landfill site. Approximately 150 metric tonnes of soil was disposed by Philip Enterprises Ltd.

3.0 ENVIRONMENTAL SETTING AND CONDITIONS

This site is located in a physiographic region known as the South Slope. The soils associated with this region are primarily silt tills which are relatively impermeable. The permeability of the native soil at the site is estimated to be in the 10^{-5} cm/s range.

At the Shell site, the surficial materials are granular backfill placed to level the site for the construction of an asphalt surface. Below the granular backfill, which is about 0.3 metres in thickness, a layer of silt till extends to a depth of at least 2 metres below ground surface, as found in the test holes installed in July, 1991. Within the excavation during clean up, the silt till extended to 2.8 metres below ground surface, the maximum depth of the excavated area. A water well record for the Shell site indicates that the till extends to a depth of about 6 metres below grade. Shale bedrock of the Queenston Formation underlies the till.

The water table was measured in the excavation and the recovery well at between 0.58 and 0.68 metres on May 11, 1992. Because of the amount of rainfall that occurred in April, it is believed that this is at about the highest level that will occur at this site. A pond has been dug into the ground to a level below the water table on the neighboring property to the west.

There is no municipal water or sanitary sewer available in the area of the Shell site but there is storm sewer drainage along the north side of Highway 5 and the west side of Highway 25 that drains into the open ditch on the west side of Highway 25. The Shell site is serviced by telephone and hydro that enter via buried cables from Highway 25. An underground telephone fibre optic cable and hydro cable are located on the north side of Highway 5. Natural gas is not in use at the Shell site. However, the private residence to the west is connected to natural gas as indicated on Figure 1.

The Shell site and neighboring property to the west are connected to septic tanks and beds for sewage disposal. An 800 gallon, two chamber septic tank and 160 gallon pump out chamber are located on the Shell site north of the garage. The septic bed for the private residence is located north and east of the house and was repaired as a result of damage which occurred during the excavation. The public washrooms at the Shell site draw water from a drilled well located to the east of the garage. Most of the adjacent properties also draw water from wells drilled into the shale bedrock.

Risks to water wells are posed by the dissolved phase of petroleum. Some petroleum compounds, particularly the aromatics such as benzene, toluene, ethylbenzene and xylene (BTEX) are slightly soluble in water. The human senses of smell and taste are sensitive to these petroleum compounds and are aesthetically offended at concentrations well below the solubility limit.

Barenco Inc. carried out a water sampling program on the Shell site and at the residence located west of the site. This residence obtains water from a drilled well on the west side of the house. A water sample was obtained from the kitchen tap on April 9th. Water samples were also obtained from the water supply at the Shell site. All the water samples were analysed for benzene, toluene, ethylbenzene, xylene and no detectable levels of BTEX were found in either water supply.

The ground water flow direction in the bedrock aquifer appears to be to the southwest, based on water well data from the MOE. As well, there is artesian pressure from the bedrock up into the soil as shown on the Water Well Records for the local wells.

4.0 CURRENT SITE STATUS

The soil on the residential property west of the Shell site, which contained odours of gasoline, has been excavated and disposed. A bentonite liner has been installed on the east, north and south excavation walls and the excavation has been backfilled with clean soil to grade.

As of May 11, 1992, the recovery well at the southwest corner of the tank area still contains about 1.2 cm of liquid gasoline floating on the water surface. This gasoline is likely from the leak in the Silver piping which occurred in July, 1991. The records at the site, dating back to when the pipe was repaired, were inspected by Mr. Don Cox of the Fuels Safety Branch and no discrepancies were found to May 1992 which would indicate a possible current problem at the site.

Approval to recover liquid gasoline and to pump and treat the ground water within the tank excavation area has been obtained from the MOE. The system described below is presently operating.

1. Water is pumped from the recovery well located at the southwest corner of the tank excavation. A centrifugal pump withdraws water from this well from about 1 metre below the water table. Only water is pumped from the well with this system. Floating liquid gasoline is removed with a different system, collected and hauled from the site for disposal as a liquid industrial waste.

2. The water that is pumped from the well is directed to a 1,000 litre oil/water separator for gravity separation of any liquid gasoline that may accidentally enter the recovery well water pumping system.

3. Water is pumped from the second chamber of the oil/water separator using a centrifugal pump, through three one cubic foot activated carbon filters connected in series to remove any dissolved gasoline that may be present.

4. The water from the carbon filters is then discharged via a rubber hose into a recharge well placed on the north side of the tank excavation.

5. The pumping rate from the recovery well is less than 10,000 litres per day, likely averaging 5,000 litres or less per day. The pumping rate through the carbon is about the same.

This pumping system will operate until all the floating liquid gasoline has been removed.

The house located west of the Shell site does not have a full basement. Instead, on the east side of the house, an area has been dug approximately 1.2 metres below the ground surface. A crawl space open on the south wall of the

basement area was inspected for petroleum odour. No odours were detected and the tenants of the past 15 years reportedly have never experienced any petroleum odours in this basement area.

Utility trenches that contain the buried telephone or hydro cables were not encountered in the excavation although the south wall was within a few metres of the cables. However, there was no evidence of any liquid gasoline in the wall nor near the buried cables and there were no gasoline vapours detected in the various manholes along the roadsides. It does not appear that there is any gasoline from the Shell site in or near the utility trenches.

The occurrence of petroleum on the southeast corner of the intersection does not appear to be related to the Shell site. The product that was lost at the Shell site is gasoline, not fuel oil, as was reportedly found in the natural gas trench. Also, the natural gas pipes are on the south side of Highway 5, many meters away from the Shell site.

A Water Well Record from 1955 indicates that there was a Petrofina service station located on the southeast corner at that time. Perhaps the product found in the natural gas trench is related to that station.

5.0 CONCLUSIONS

The north and west walls and floor of the excavation contained no detectable BTEX upon completion of the excavation, based on odours and the laboratory analyses of soil from these areas.

No gasoline vapours were detected in soil any closer than about 2 meters from the basement on the east side of the house. The soil that contained gasoline odour on the residential property has now been disposed from the site.

However, BTEX compounds were found in the soil samples from the south wall of the excavation. Further excavation to the south was limited due to the location of the property boundary and proximity of an underground Bell fibre optic cable.

The concentrations of gasoline compounds found on the south wall indicate that the gasoline in the soil is below the level of residual saturation. That is, the gasoline is bound to the soil and cannot move any further. The lack of visual evidence of any liquid gasoline on the south wall supports this conclusion.

The potential for chemical attack of the organic components of subsurface utilities occurs when liquid gasoline contacts the utility. Therefore, there do not appear to be any risks of chemical degradation of buried utilities since there is no liquid gasoline present in the soil.

Soil samples taken from the south excavation wall exceed the Ontario Interim Level III Guideline for Operating Retail Fuel Outlets only for benzene. The toluene, ethylbenzene and xylene and total petroleum hydrocarbons values were all less than the level III guideline values. Since the permeability of the soils is low, it is unlikely that the gasoline in the soil extends far beyond the south wall of the excavation. In addition, the concentration of the gasoline compounds in the soil probably decline to nonexistent within a few metres.

The placement of a bentonite liner along both the east, north and the south walls should prevent the migration of any gasoline vapours into the clean backfill. The residual gasoline levels remaining in the south and east walls of the excavation pose no identifiable risks to the house or its occupants.

The land south of the site is a roadway. Any residual or vapour phase gasoline which exists in the soil under the roadway poses a minimal risk since there are no buildings that may be affected. The potential for human exposure to any gasoline vapours in the soil beneath the roadway is almost negligible. If an excavation were dug on the roadway, for example to install or repair a buried utility, soil containing gasoline might be encountered near the north edge of the road allowance. If this occurred, the soil could be disposed as a solid non-hazardous industrial waste and clean backfill brought to the site.

At this site, the overall risks associated with blocking a major roadway, Highway 5, for the purpose of soil testing or excavation, appear to exceed any risks posed by the possible presence of residual and vapour phase hydrocarbons in the soil.

The households in the vicinity of the site obtain water from domestic water wells. Therefore, there is a potential risk associated with dissolved hydrocarbons in the ground water in the area. Based on the water sampling results that have been received to date, there does not appear to be any detectable petroleum compound in the ground water in the bedrock aquifer around the Shell site. It also appears that the potential for this aquifer to be affected by the gasoline that currently exists in the ground is low due to the artesian condition in the bedrock and the low permeability soils.

6.0 RECOMMENDATIONS

1. The residential property west of the Shell site has been remediated such that there are no levels of gasoline remaining on the property. No further excavation of soil is required at this site.

2. Pumping of ground water and recovery of liquid gasoline should continue until all of the liquid gasoline within the tank excavation has been recovered.

3. Monitoring of the recovery well every two weeks for a period of two months after the liquid gasoline is removed is recommended to ensure that all liquid gasoline has been removed from the tank excavation area. After two months, the need for further monitoring should be assessed.

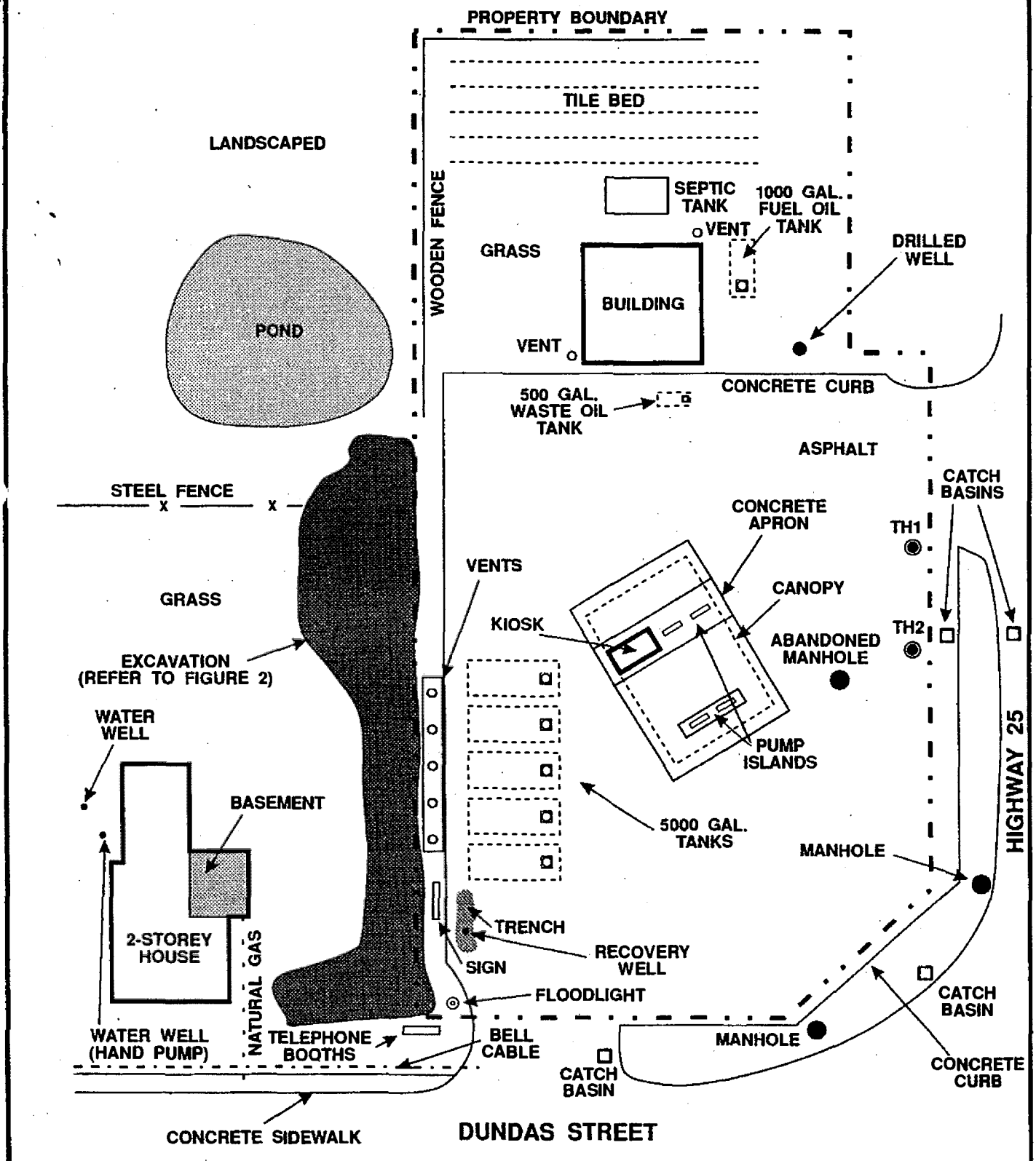
4. Another round of water quality samples should be obtained from the drilled wells at the Shell site and the residences to the west and on the northeast corner of the intersection. These samples should be analysed for BTEX. Sampling should be done in July and October, 1992, with the assistance of the MOE at the residences. Depending on the analytical results, the sampling program should be assessed to determine if additional sampling is required.

All of which is respectfully submitted.

BARENCO INC.

Paul Southard, B.Sc.Eng.

Jim Phimister, P.Eng.



LEGEND

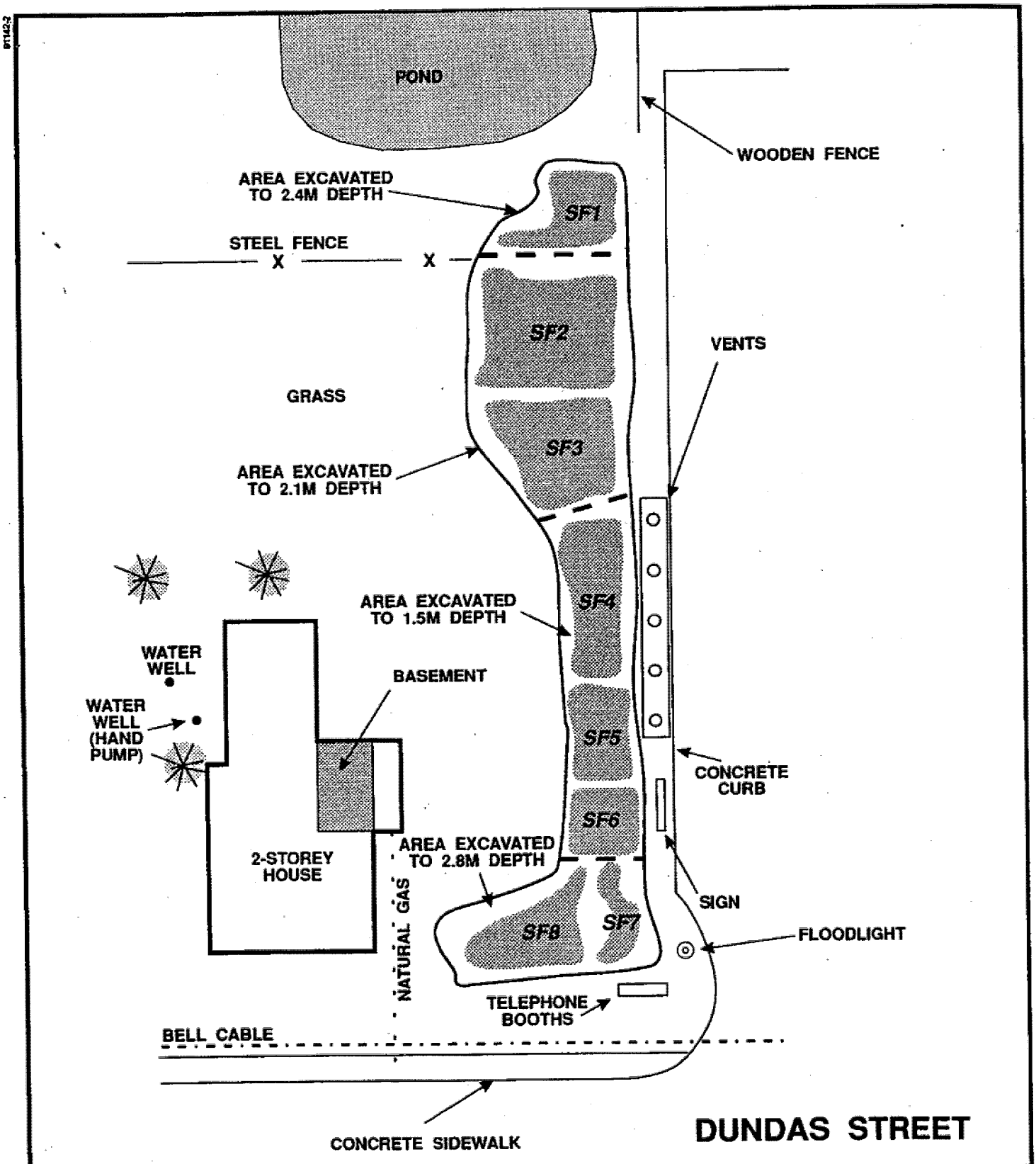
TH1 TEST HOLE

SCALE 0 10 METRES

FIGURE 1
SITE PLAN
SHELL STATION
3005 DUNDAS STREET WEST
OAKVILLE, ONTARIO

BARENCO INC.

000116



LEGEND

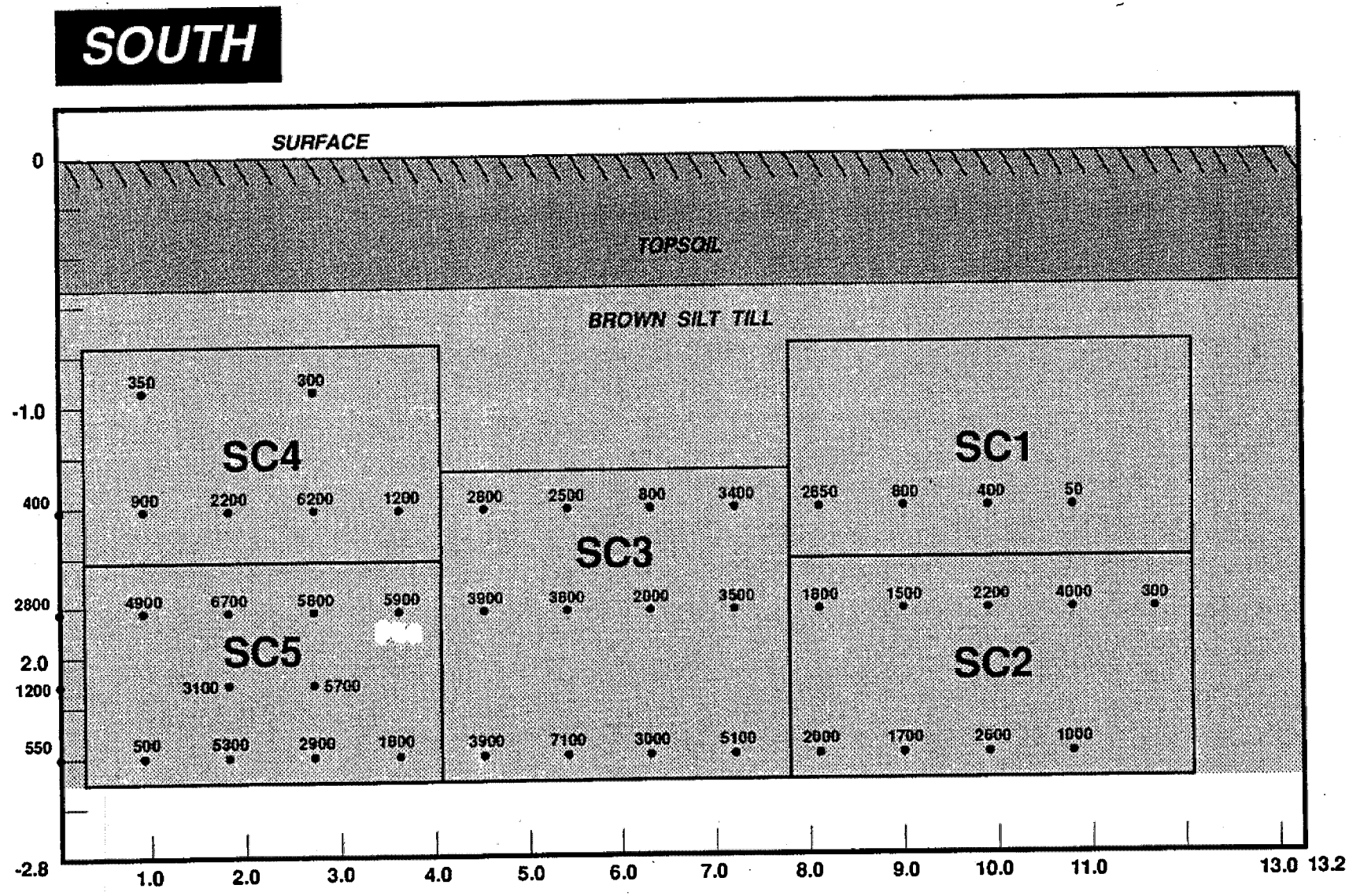
SF2 COMPOSITE SOIL SAMPLE OBTAINED FROM INDICATED AREA ON FLOOR OF EXCAVATION

SCALE 0 10 METRES

FIGURE 2
EXCAVATED AREA
SHELL STATION
3005 DUNDAS STREET WEST
OAKVILLE, ONTARIO

BARENCO INC.

000117



SCALE IN METRES

LEGEND

3800 GASOLINE VAPOUR READING (ppm)

FIGURE 3
CROSS-SECTION
EXCAVATION WALL

000118

BARENCO INC.

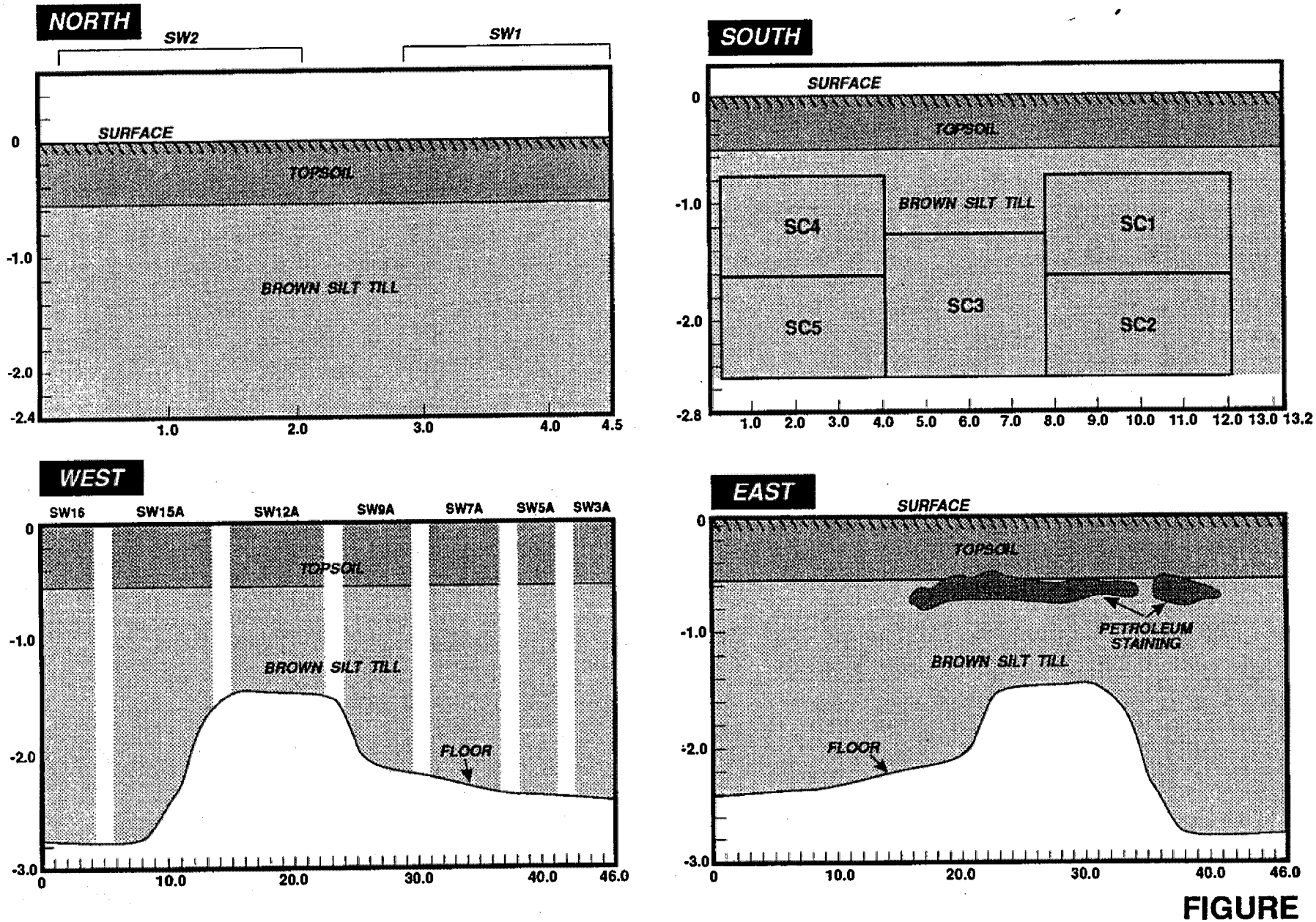


FIGURE 4
CROSS-SECTION
EXCAVATION WALL

BARENCO INC.

000119

Table 2

SOIL CHEMICAL ANALYSES

South Wall (Figure 3)

Composite Sample Area	Benzene	Toluene	Ethylbenzene	Xylene	Total Petroleum Hydrocarbons
SC1	4.2	6.5	4.6	7.6	630
SC2	ND	ND	ND	ND	ND
SC3	18	22	20	26	1400
SC4	ND	ND	ND	ND	ND
SC5	2.5	3.2	2.9	3.9	410
Ontario Interim Level III Guideline	2	100	100	50	5000

Analyses by Entech Laboratories.
All values in ppm.
ND indicates below laboratory detection limit.

Table 1

SOIL CHEMICAL ANALYSES

Excavation Floor (Figure 2)

Composite Sample Area	Benzene	Toluene	Ethylbenzene	Xylene	Total Petroleum Hydrocarbons
SF1	ND	ND	ND	ND	ND
SF2	ND	ND	ND	ND	ND
SF3	ND	ND	ND	ND	ND
SF4	ND	ND	ND	ND	ND
SF5	ND	ND	ND	ND	ND
SF6	ND	ND	ND	ND	ND
SF7	ND	ND	ND	ND	ND
SF8	ND	ND	ND	ND	ND

Analyses by Entech Laboratories.
All values in ppm.
ND indicates below laboratory detection limit.

Table 3

SOIL CHEMICAL ANALYSES

South Wall (Figure 3)

Discrete Soil Sample	Benzene	Toluene	Ethylbenzene	Xylene	Total Petroleum Hydrocarbons
At 7100 ppm Gasoline Vapour Reading	12	14	13	16	890
At 6700 ppm Gasoline Vapour Reading	16	19	17	21	1100
At 5900 ppm Gasoline Vapour Reading	2.3	3.1	2.6	3.5	320
Ontario Interim Level III Guideline	2	100	100	50	5000

Analyses by Entech Laboratories.
All values in ppm.
ND indicates below laboratory detection limit.

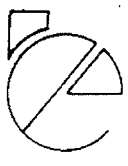
Table 4

SOIL CHEMICAL ANALYSES

West & North Walls (Figure 4)

Composite Sample Area	Benzene	Toluene	Ethylbenzene	Xylene	Total Petroleum Hydrocarbons
SW1	ND	ND	ND	ND	ND
SW2	ND	ND	ND	ND	ND
SW3A	ND	ND	ND	ND	ND
SW5A	ND	ND	ND	ND	ND
SW7A	ND	ND	ND	ND	ND
SW9A	ND	ND	ND	ND	ND
SW12A	ND	ND	ND	ND	ND
SW15A	ND	ND	ND	ND	ND
SW16	ND	ND	ND	ND	ND

Analyses by Entech Laboratories.
All values in ppm.
ND indicates below laboratory detection limit.



MINISTRY OF THE ENVIRONMENT
OCCURRENCE REPORT INFORMATION SYSTEM

Jul. 30,1991
PAGE: 1

OCCURRENCE REPORT

#267

Received By	Region No.	S.A.C. No.	I.E.B. No.
CHRIS HIND	91/305 2150	9109562-	

Occurrence Type: SPILL
Subtype: LAND & WATER
Action Class: 1:[25] 2:[16] 3:[10]

	Date	Time (24 hr)
Occurrence:	91/07/30	:
Report to SAC:	91/07/30	11:48
Report to MOE:	91/07/30	11:48
MOE at Scene:	91/08/02	14:50

Reported by (Name/Organization)

SHELL CANADA
Tel. No.: 416-441-3870 EXT.:
Alt. No.: - - EXT.:
Address:
1500 DON MILLS RD.
DON MILLS
Postal Code: M3B 3K4

Environmental Officer Assigned:
Chuck McKeown Alysia

Location of Occurrence:
Region..: 3 CENTRAL
District: OA OAKVILLE
Municipality: 14403
OAKVILLE TOWN
3005 DUNDAS WEST

Source:
SHELL
SERVICE STATION

Source: [SS] Sector: [PE] SIC: [6331]
UTM:
N: [ ] E: [ ] Zone: [ ]

Syn:SHELL SERVICE STATION- GASOLINE TO GROUND AND WATER TABLE.

Brief Summary:
LEAKING UNDERGROUND GASOLINE STORAGE TANK. SOIL CONTAMINATION AND GASOLINE VISIBLE ON WATER TABLE 21 " DOWN.
M.C.C.R. NOTIFIED AND WILL INVESTIGATE.
CONSULTANTS WILL BE TESTING TANKS 91/07/31.
REPORT WILL BE FAXED TO M.C.C.R.

11:45am Spoke with Mr. Toth. Gave me his consultants name & phone for more info - FALCO (BARENCO) 221-3420 Nick Caccavella. Spoke with Mr. Caccavella. He will fax results in next day or so. Dox for of Fuel Safety is
I. there are related reports, list them in the summary preceeded by 'RELATED'.

Follow-up Action: [ ] Abatement [ ] IEB [ ] OTHER CONT→

Suspected Violation Code: [ ]

File Closed: [ ] Abatement [ ] IEB [ ] OTHER

IEB Investigator Assigned

Report Prepared by:	Date	BF Date	Person-Days	MBR	Function
C Mckeown / A Rodrigues	Sept 9/92				

Approving Officer	Date	Reviewing Officer	Date

List numbers showing: A - routing of the original, B - distribution of copies.
A: [2] [ ] [ ] [ ] [ ]
B: [3] [ ] [ ] [ ] [ ] [ ]

1. Investigator/ERP
2. Distr.officer/file
3. SAC
4. Reg.Dir or Mgr
5. IEB Reg. Super.
6. IEB H.O./file
7. Other _____

Region No.: - S.A.C. No.: 9109562- IEB No.:

Material 1: GASOLINE — Code..: 12
Amount: — UN No.: 1203
Material 2: — Code..:
Amount: — UN No.:
Material 3: — Code..:
Amount: — UN No.:

Cause.....: TANK LEAK (UNDERGROUND) — Code..: 13
Reason.....: CORROSION — Code..: 13

Contact: [N] ERP Name: Date:
Callout: [ ] SAC Operator: Time: :

Controller of Material: SHELL — Code..:
Owner of Material.....: SHELL — Code..:
Agencies Involved.....:

Clean up and Restoration Carried out by:
[ ] Controller [ ] Owner [N] Other

% Cleaned up: Estimated Cost: $
Were Directions or Approval Given Under EPA Part IX [N] Regulation 11/82 [N] | Emergency Generator No.

Waste Class: NOT APPLICABLE — Code..: 000
Hauler: — Code..:
Disposal Site: — Code..:

Environmental Impact: CONFIRMED | Nature of Impact: Soil contamination — Code..: 07

People/Business Damaged
(Other than to Owner/Controller)

Nature of Damage: — Code..:

---

involved.

2AUG91 2:07am Don Cox called. The Gasoline has migrated off site onto neighbours property. Neighbour is on a well. High water table. Area around tanks contaminated.

2:50pm On site. Resident well ≃ 20-30m W of station. s.21

s.21 Resident already using bottled H_2O for drinking. Uses well water for showers/laundry. Had 4 filters and softener put in 4-5 years ago. Lynn Calder Stars of Shell 441-3938 also on site. They will do some more test holes to determine extent of migration. 8-9 years ago when resident moved in he saw oil film in well on S. end (~~also~~ 2 wells on property). Could smell sulphur

Ministry of the Environment
Ontario

This Continuation Page can be used for both INITIAL and SUPPLEMENTAL REPORTS and is for the continuation of Sections 5 and 12 which must be completed before using this page.

Occurrence Report Continuation Page

Complete appropriate boxes in this section if this page is used

Reg. No.	S.A.C. No.	I.E.B. No.	Page of
91/3/05-2150	9109562		

when obtaining N. well H_2O. (441-3840)
3:15pm 8AUG91 John Zoratto of Shell called. They are trying to get permission from homeowner to do some drilling on his property. They'll be doing some test holes and checking vapour readings (total organic volatiles). He'll get back to me when they start drilling.
10/9/91 1:40pm Left message for J. Zoratto to call me re Plan of Action
Contact
12/9/91 J. Zoratto called 10:30pm. s.21
s.21

Bernie Deare of Shell got this information verbally from tenants. J. Zoratto will try and contact owner and get back to me.
2/10/91 As I drove by, I noticed station back in operation. Left message for J. Zoratto to call me.
4/10/91 Spoke with John Zoratto. They're having problems contacting owner. He will send a registered letter to s.21 s.21 regarding clean-up. Will fax us a copy (see attached)
15/10/91 John Zoratto called. He has spoken to owner s.21 s.21 . John will be visiting him in the next few days and will get back to me s.21
Sept/92 Clean up complete, source removed. Remediation continues through on site recovery system.

Continued on CONTINUATION PAGE ☐ No ☐ Yes

SHELL CANADA PRODUCTS LIMITED
1500 Don Mills Road
Don Mills, Ontario M3B 3K4

File

TO: MINISTRY OF THE ENVIRONMENT
— CHUCK MICHEALI —

COPIES:

Date NOV 27/91 File

SUBJECT: SHELL FACILITY
HWY #5 & #25

CHUCK:

AS DISCUSSED, BARENCO INC. WILL BE ON SITE THURSDAY NOV 28/91 AT 10:00 am TO CONDUCT THE INVESTIGATION (NEIGHBOURING PROPERTY)

WE WILL BE CONDUCTING A MODIFIED SHALLOW VAPOUR SURVEY. THIS WILL COMPRISE OF NUMEROUS SHALLOW 1" ϕ HOLES COMBINED WITH APPROPRIATELY LOCATED DEEPER HOLES TO RETRIEVE SOIL & WATER SAMPLES.

I WILL FORWARD RESULTS ONCE THEY HAVE BEEN FORMALIZED.

REGARDS,

JOHN ZORATTO
Safety & Environmental Engineer
Products Ontario

Bus: 441-3840
Fax: 443-0616

CM FYA

File

SHELL CANADA LIMITED
FACSIMILE COVERSHEET

ONTARIO MINISTRY OF THE ENVIRONMENT
APR 23 1992
CENTRAL REGION
OAKVILLE OFFICE

☐ DOMESTIC ☐ INTERNATIONAL*

PAGE 1 OF 3 INCLUDES COVERSHEET

SEND TO		FROM	
COMPANY: MINISTRY OF THE ENVIRONMENT		COMPANY (*Cable Address / Reference Indicator): SHELL	
ATTENTION: CHUCK MICHEAU		SENT BY (*or Authorized Signature): ANNE KIM	
LOCATION:		LOCATION (Building and Room No.):	TELEPHONE: (416) 441-3854
FACSIMILE PHONE NO: (416) 842-1750	CONFIRMATION PHONE NO:	FACSIMILE PHONE NO: (416) 443-0616	DEPARTMENT CHARGE CODE:

*GROUP CORRESPONDENCE

If this communication to the Group is BOTH:
- related to the Group Service Agreement
AND
- the first message on the given subject
1) Check the applicable box. Fill in subject below.
(For definitions: See Group Correspondence Manual Electronic Communications)
2) Send a copy of this Coversheet to Technology Transfer RSTT/2

This communication is to REQUEST	This communication is to PROVIDE
☐ ADVICE (NON-CHARGEABLE)	☐ ADVICE (NON-CHARGEABLE)
☐ COMPUTER PROGRAM	☐ COMPUTER PROGRAM
☐ CONFERENCE / SEMINAR	☐ CONFERENCE / SEMINAR
☐ CONSULTANT / MISC	☐ CONSULTANT / MISC

SUBJECT: HWY 5 & 25, PALERMO

DESCRIPTION / REMARKS

Chuck,

Please find following a written action plan for the above location as per our on-site meeting on April 21/92.

Please contact me should any questions arise.

Yours truly,

A. RIM
ENVIRONMENTAL ENGINEER

THIS SECTION TO BE COMPLETED BY OPERATOR

VERIFICATION PHONE NO:	DATE SENT	TIME SENT ☐ AM ☐ PM	OPERATOR'S NAME

BARENCO INC.
Environmental Engineers and Contractors
10 Kodiak Crescent, Downsview, Ontario M3J 3G5 • (416) 222-7232 Fax (416) 888-9188

April 22, 1992

Shell Canada Products Limited
1500 Don Mills Road
North York, Ontario
M3B 3K4

Attention: Ms. Anne Y.H. Kim, P.Eng.

Dear Ms. Kim:

Re: Additional Investigation and Clean-up Work
Highway 5 and 25, Oakville, Ontario

As agreed with you in our meeting with Mr. Chuck Micheau of the MOE on April 21st, we will undertake the following work beginning this week.

Ground Water Sampling

A probe will be used to collect ground water samples from the area of the southwest property boundary. These water samples will be submitted to a laboratory for BTEX analysis.

A probe will also be used to collect ground water samples along the east property boundary. These samples will also be submitted to a laboratory for BTEX analysis.

Ground Water and Product Pumping

A pump will be installed in the recovery well at the southwest corner of the tank excavation and both product and water will be pumped to a storage tank. Any gasoline will be separated from the water by gravity and stored for removal. The water will be treated through a carbon filtration system to remove any dissolved petroleum and discharged onto the lawn behind the garage. The expected pumping rate will not exceed 20 litres per minute. Analysis of the water before and after carbon treatment will be obtained to

I sewer works application in city

confirm the removal of the petroleum product and to predict the life of the carbon.

This pumping will continue until there is no more floating liquid product found on the surface of the water in the recovery well.

A report will be prepared once the ground water sampling analyses are available. Update reports will be submitted as the pumping proceeds.

If there are any questions, please give me a call.

Yours very truly,
BARENCO INC.

Jim Phimister, P.Eng.

Peter

ENVIRONMENTAL LABORATORIES INC.
1301 Fewster Drive,
Mississauga, Ontario L4W 1A2
Tel: 416-625-1544 Fax: 416-625-8368

Site well
Shell GAS Station
Hwy 5+25, Palermo.

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Barenco Inc.
Attn: Paul Southard
10 Kodiak Crescent
Downsview, Ont
M3J 3G5

REPORT No. 27670

P. O. # 91142

SAMPLE(S) OF Water Invoice # 60812

Received: 06-MAY-1992

91142-SRS

Benzene mg/L	< 0.0022
Toluene mg/L	< 0.0019
Ethylbenzene mg/L	< 0.0017
Xylene mg/L	< 0.0039

07-MAY-1992

SIGNED

For enquires on this report, please contact our Customer Service Department.
Samples returned or discarded two months from the date of this report.

Filed

MAY 8/92 Doug Whitman Lab.

CL12219 — CE12267.

Sample 2 - shows chloroform 43ppm
only no gasoline
no bromoform

Shallow well CL12225 TCE from toilet bowl
cleaners in septic tank.

7540-1021

SEND TO C. Michaud

C Mich FYA File

ONTARIO MINISTRY OF THE ENVIRONMENT
MAY 28 1992
CENTRAL REGION OAKVILLE OFFICE

FROM D. Sui Hwy 5 T25 **DEPT.** **DATE** May 12/92

SUBJECT Palermo Shell

Chuck attached are 2 maps, one is bedrock contours the other potentiometric contours. These are idealized configurations over the regional area. There may be difference in local situations. Note that bedrock surface slopes steeply to the west into buried valley.

I spoke to Phimister on May 11/92. Sample directly from complainants drilled well is probably best approach.

I have also enclosed 4 well records for west side of road

REPLY

REPLY FROM | REPLY DATE

000134

2805219 28605 DS S 01

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC	LOT
HALTON	OAKVILLE	CON. 1 S.D.S	031

OWNER (SURNAME FIRST)	ADDRESS	DATE COMPLETED
PALERMO GEN [redacted] STORE	2506 HWY #25 OAKVILLE ONT.	DAY 31 MO 05 YR 78

(21) 17 599040 4809640 4 0505 4 24

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	TO
BROWN	CLAY		LOOSE	0	18
RED	SHALE		HARD	18	38

(31) 001860577 003871772

32

WATER RECORD (41)

WATER FOUND AT - FEET	KIND OF WATER
0025	*
32	*
0035	*

CASING & OPEN HOLE RECORD (51)

			DEPTH - FEET
*	.188	.188 +1	0018
		18	0038

SCREEN

PLUGGING & SEALING RECORD (61)

PUMPING TEST

*	0003	01	00

STATIC LEVEL		WATER LEVELS			
006	033	012	006	006	006

RECOMMENDED PUMP SETTING 035 FEET; RECOMMENDED PUMPING RATE 0003

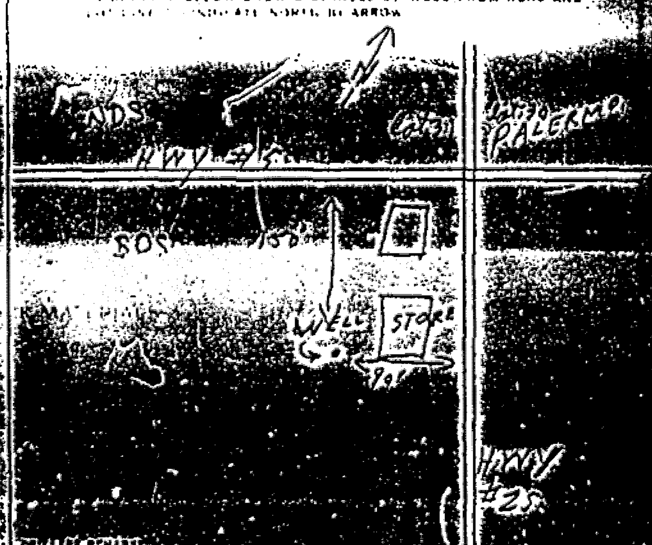
FINAL STATUS OF WELL 1
- 1 * WATER SUPPLY
- 2 ☐ OBSERVATION WELL
- 3 ☐ TEST HOLE
- 4 ☐ RECHARGE WELL
- 5 ☐ ABANDONED, INSUFFICIENT SUPPLY
- 6 ☐ ABANDONED, POOR QUALITY
- 7 ☐ UNFINISHED

WATER USE 05
- 1 ☐ DOMESTIC
- 2 ☐ STOCK
- 3 ☐ IRRIGATION
- 4 ☐ INDUSTRIAL
- 5 * COMMERCIAL
- 6 ☐ MUNICIPAL
- 7 ☐ PUBLIC SUPPLY
- 8 ☐ COOLING OR AIR CONDITIONING
- 9 ☐ NOT USED

METHOD OF DRILLING 1
- 1 * CABLE TOOL
- 2 ☐ ROTARY (CONVENTIONAL)
- 3 ☐ ROTARY (REVERSE)
- 4 ☐ ROTARY (AIR)
- 5 ☐ AIR PERCUSSION
- 6 ☐ BORING
- 7 ☐ DIAMOND
- 8 ☐ JETTING
- 9 ☐ DRIVING

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



NAME OF WELL CONTRACTOR: OCONNOR WELL DRILLING LTD. LICENCE NUMBER 4005

ADDRESS: RR # 1 MILLGROVE ONT. L0R 1V0

OFFICE USE ONLY: 4005 080678

000136

2111

County or Territorial District Halton — ~~Township, Village, Town or City~~ Palermo

Con. ..... Lot ..... Street and Number (if in Village, Town or City) Dundas st. &

Owner Canadian Oil Company Limited — Address 204 Richmond St. W. Toronto

Date completed 6th (day) October (month) 1953 (year)

Pipe and Casing Record

Casing diameter(s) 6¼ "

Length(s) 19' 7"

Type of screen None

Length of screen ---

Pumping Test

Static level ########## 11 feet

Pumping rate 6 G.P.M.

Pumping level 16'

Duration of test 2½ Hours

Well Log

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	No. of feet water rises	Kind of water (fresh, salty, or sulphur)
Clay	0	9			
Soft Shale	9	14' 6"			
Hard Shale	14' 6"	51	24	13	Fresh
			48	37	"

For what purpose(s) is the water to be used?
Service Station

Is water clear or cloudy? Clear

Is well on upland, in valley, or on hillside? upland

Drilling firm Brodie & Dennis

Address 11 Byron St.
Georgetown, Ont.

Name of Driller F. H. Dennis

Address 11 Byron St. Georgetown Ont.

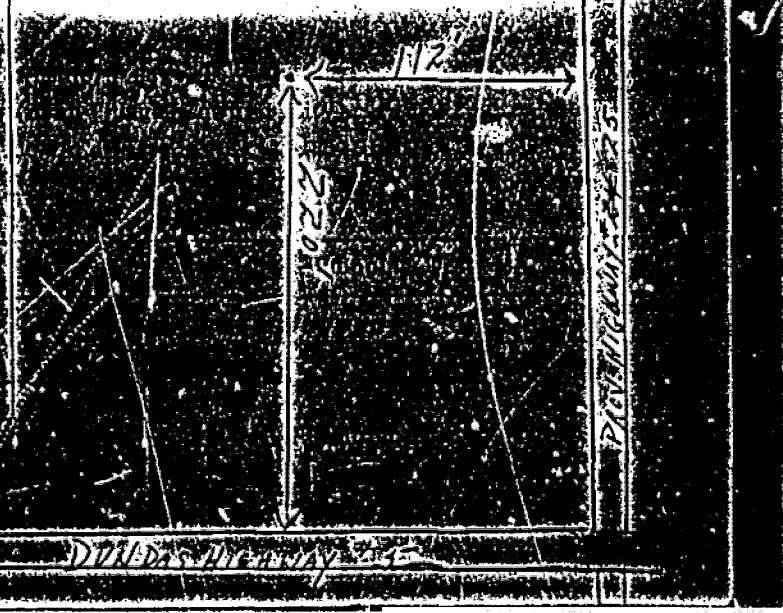
Licence Number 81

I certify that the foregoing statements of fact are true.

Date 11/11/54 — Signature of Licensee

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



Form 6

000137

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 | 2804851 | R8605 | DS N | 101

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON, BLOCK, TRACT, SURVEY, ETC.	LOT
Halton	Oakville	1 DSN	031

OWNER (SURNAME FIRST)	ADDRESS	DATE COMPLETED
R. & R. Constructinn	5 Penn Drive, Weston	DAY 31 MO. Mar. YR. 76 (03)

	ZONE	EASTING	NORTHING	RC	ELEVATION	RC	BASIN CODE		
2804851	17	598996	4809693	4	506	3	24	JUN 27, 1977	290

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	TO
	Rubble Fill			0	3
Brown	Clay			3	14
Red	Shale Clay			14	20

31 | 0003 101 | 0014605 | 0020717058

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
0018	☒ FRESH ☐ SULPHUR ☐ SALTY ☐ MINERAL
	☐ FRESH ☐ SULPHUR ☐ SALTY ☐ MINERAL
	☐ FRESH ☐ SULPHUR ☐ SALTY ☐ MINERAL
	☐ FRESH ☐ SULPHUR ☐ SALTY ☐ MINERAL
	☐ FRESH ☐ SULPHUR ☐ SALTY ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	TO
30	☒ STEEL ☐ GALVANIZED ☐ CONCRETE ☐ OPEN HOLE	.064	0	~~20~~ 0020
	☐ STEEL ☐ GALVANIZED ☐ CONCRETE ☐ OPEN HOLE			
	☐ STEEL ☐ GALVANIZED ☐ CONCRETE ☐ OPEN HOLE			

SCREEN: SIZE(S) OF OPENING (SLOT NO.) | DIAMETER INCHES | LENGTH FEET | MATERIAL AND TYPE | DEPTH TO TOP OF SCREEN FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)

71 PUMPING TEST

PUMPING TEST METHOD: ☐ PUMP ☐ BAILER — PUMPING RATE 0003 GPM — DURATION OF PUMPING 01 HOURS 00 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
012					5

IF FLOWING, GIVE RATE — GPM | PUMP INTAKE SET AT 18 FEET | WATER AT END OF TEST ☒ CLEAR ☐ CLOUDY

RECOMMENDED PUMP TYPE ☒ SHALLOW ☐ DEEP | RECOMMENDED PUMP SETTING 018 FEET | RECOMMENDED PUMPING RATE 0003 GPM

GPM./FT. SPECIFIC CAPACITY

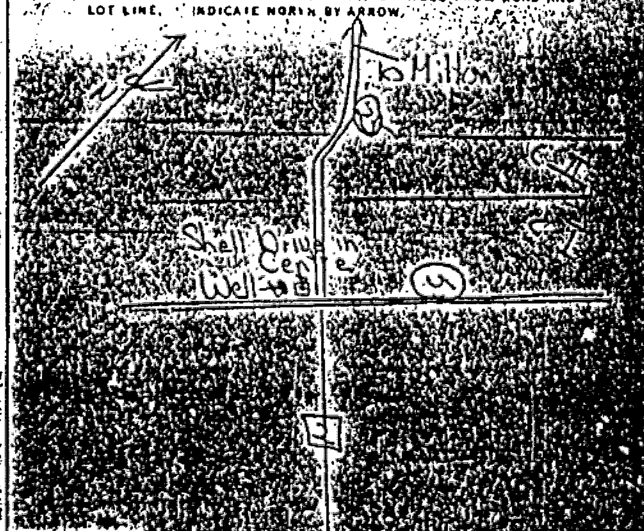
FINAL STATUS OF WELL: ☒ WATER SUPPLY ☐ OBSERVATION WELL ☐ TEST HOLE ☐ RECHARGE WELL ☐ ABANDONED, INSUFFICIENT SUPPLY ☐ ABANDONED, POOR QUALITY ☐ UNFINISHED

WATER USE 07: ☐ DOMESTIC ☐ STOCK ☐ IRRIGATION ☐ INDUSTRIAL ☐ OTHER ☐ COMMERCIAL ☐ MUNICIPAL ☒ PUBLIC SUPPLY ☐ COOLING OR AIR CONDITIONING ☐ NOT USED

METHOD OF DRILLING 6: ☐ CABLE TOOL ☐ ROTARY (CONVENTIONAL) ☐ ROTARY (REVERSE) ☐ ROTARY (AIR) ☐ AIR PERCUSSION ☐ BORING ☐ DIAMOND ☐ JETTING ☐ DRIVING

LOCATION OF WELL 9809

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS:

NAME OF WELL CONTRACTOR	LICENCE NUMBER
HADCO WELL DRILLING & DIGGING LTD.	2519

ADDRESS: Box 88, Elmira, Ontario

OFFICE USE ONLY: DATA SOURCE 1 | CONTRACTOR 2519 | DATE RECEIVED 23 04 76 | DATE OF INSPECTION July 20/76 | INSPECTOR

000138

Ontario

1 PRINT ONLY IN SPACES PROVIDED
2 CHECK ☒ CORRECT BOX WHERE APPLICABLE

(11) 2805218 28605 DS N 161

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC.	LOT
HALTON	OAKVILLE	CON. 1 N.D.S.	031

OWNER (SURNAME FIRST)	ADDRESS	DATE COMPLETED
SHELL CANADA LTD.	~~75 WINFORD DR.~~ DON MILLS ONT. M36 224	DAY 31 MO 05 YR 78

(21) 17 598980 4809740 4 0505 4 24

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	TO
BROWN	SANDY CLAY		LOOSE	0	15
BROWN	BROWN SANDY CLAY & GRAVEL		LOOSE	15	20
RED	SHALE		HARD	20	40

(31) 00156058177 002060511 81 004071773

(32)

(41) WATER RECORD

WATER FOUND AT - FEET

028 ✗

0037 ✗

(51) CASING & OPEN HOLE RECORD

✗

06 .188 +1 20

0020

20 0040

✗

SCREEN

PLUGGING & SEALING RECORD

(71) PUMPING TEST

✗ 0005 01 00

009 | 035 | 014 | 009 | 009 | 009

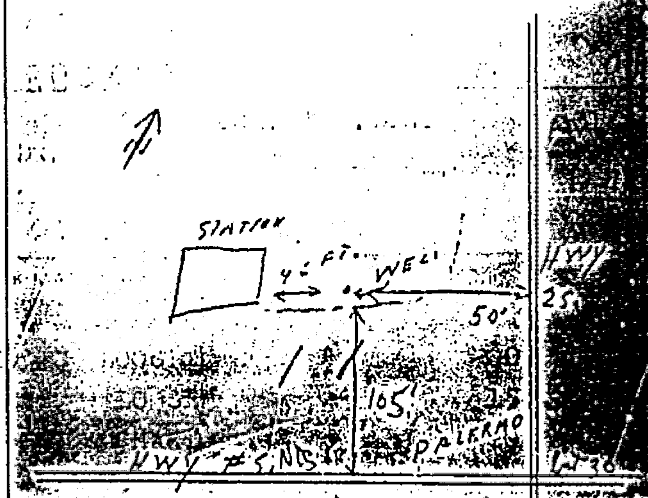
✗ CLEAR ☐ CLOUDY

RECOMMENDED PUMP TYPE ☐ SHALLOW ☒ DEEP

RECOMMENDED PUMP SETTING 031

RECOMMENDED PUMPING RATE 0004 GPM

LOCATION OF WELL



DRILLERS REMARKS: SDC

FINAL STATUS OF WELL 1

☒ WATER SUPPLY
☐ OBSERVATION WELL
☐ TEST HOLE
☐ RECHARGE WELL
☐ ABANDONED, INSUFFICIENT SUPPLY
☐ ABANDONED, POOR QUALITY
☐ UNFINISHED

WATER USE 05

☐ DOMESTIC
☐ STOCK
☐ IRRIGATION
☐ INDUSTRIAL
☐ OTHER
☒ COMMERCIAL
☐ MUNICIPAL
☐ PUBLIC SUPPLY
☐ COOLING OR AIR CONDITIONING
☐ NOT USED

METHOD OF DRILLING 1

☒ CABLE TOOL
☐ ROTARY (CONVENTIONAL)
☐ ROTARY (REVERSE)
☐ ROTARY (AIR)
☐ AIR PERCUSSION
☐ BORING
☐ DIAMOND
☐ JETTING
☐ DRIVING

NAME OF WELL CONTRACTOR	LICENCE NUMBER
OCONNOR WELL DRILLING LTD.	4005

DATA SOURCE 1 CONTRACTOR 4005 DATE RECEIVED 080678

000139

LEGEND

PALEOZOIC

UPPER ORDOVICIAN

Queenston Formation

Georgian Bay Formation

SYMBOLS

Geological boundary, approximate

350 Bedrock surface contour, interval 25 feet

Outcrop complex, rock outcrop or very thin overburden

600 Topographic contour, interval 25 feet

210 Water well ending in bedrock, bedrock elevation

<377 Water well ending in overburden, elevation of well bottom, bedrock elevation less than well bottom

5411 Dug well deepened by drilling, approximate bedrock elevation

SOURCES OF INFORMATION

Bedrock geology and topography by N.D. Warry and R.C. Ostry, 1974, on the basis of cited references and water-well records assembled by the Ontario Ministry of the Environment as of July 1971.

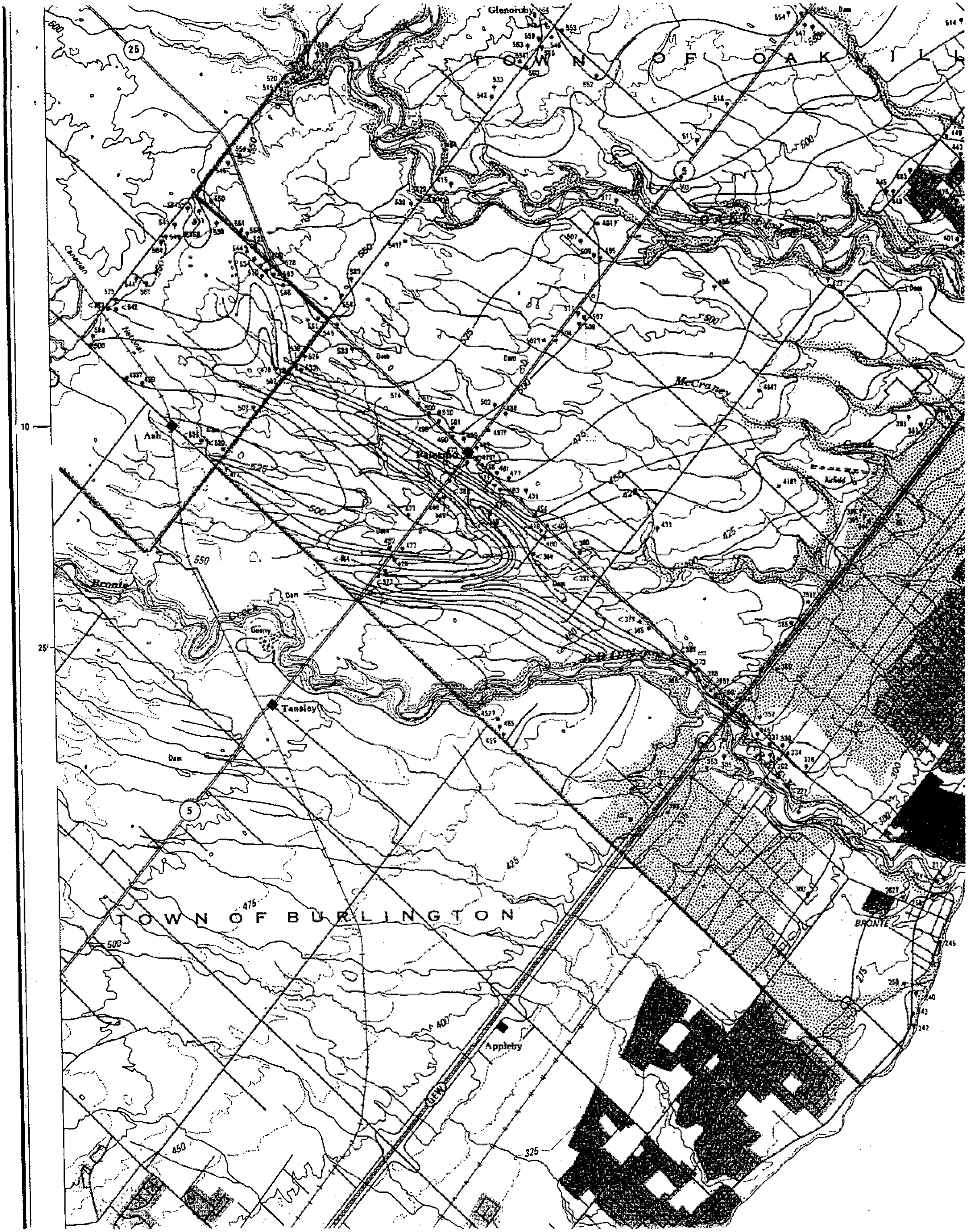
References:

Karrow, P.F., 1963; Pleistocene geology of the Hamilton-Galt area; Ontario Department of Mines, Geological Report No. 16.

Sanford, B.V., 1969; Geology of the Toronto-Windsor area, Ontario; Geological Survey of Canada, Map 1263A.

Cartography by C. Lochan and M. Lakin, 1976.

Base map derived from 1:50,000 and 1:25,000 map sheets of the National Topographic series.


Glenorchy
T O W N O F O A K V I L L
McCraney
Creek
Airfield
Ash
Palermo
Bronte
Creek
Quarry
Tansley
Dam
T O W N O F B U R L I N G T O N
Appleby
QEW
BRONTE
10
25'

LEGEND

Water-level contour, interval 20 feet

Water well ending in bedrock

Water well ending in overburden

Observation well

Water-level elevation


Niagara Escarpment

Line of cross-section

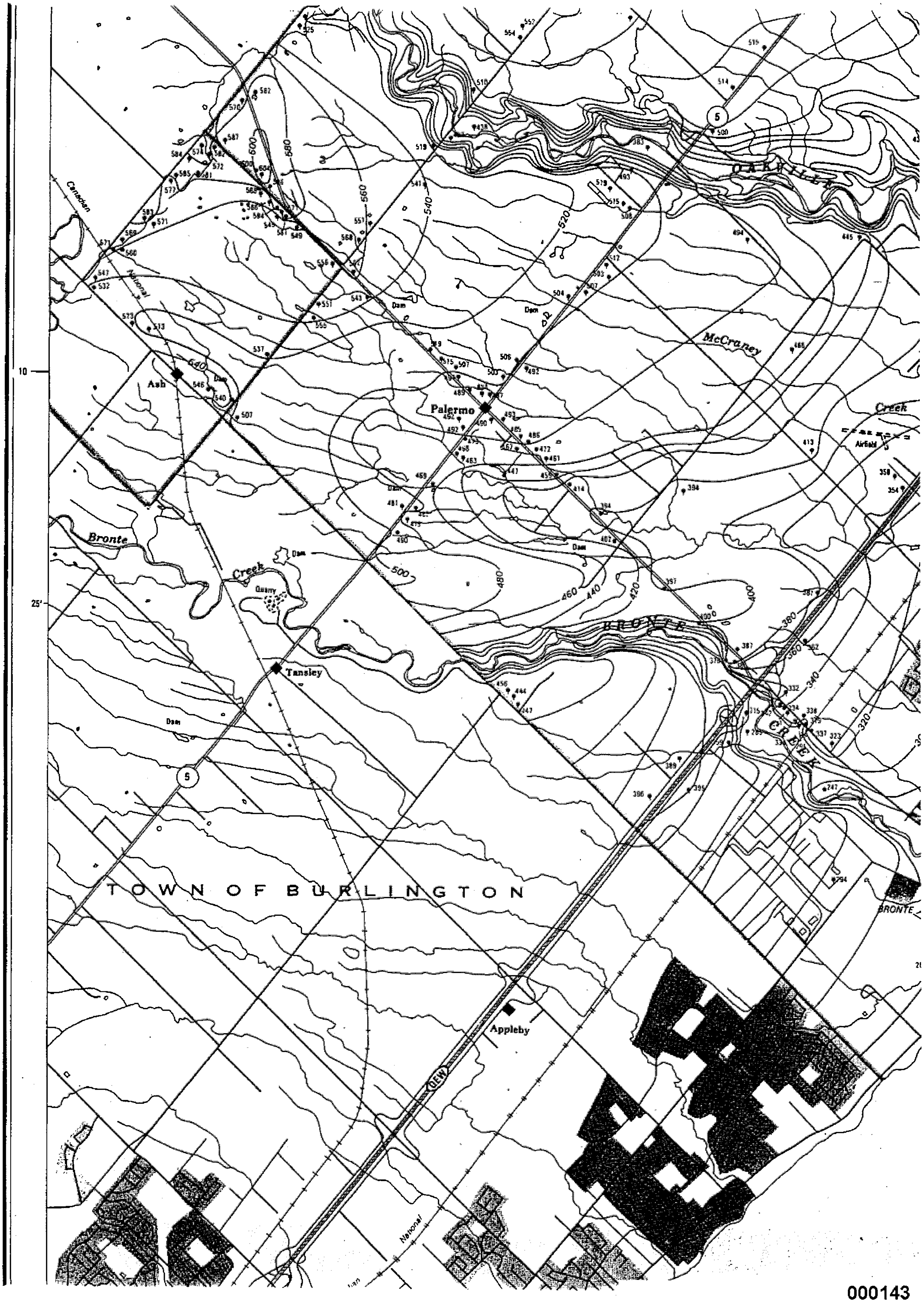
SOURCES OF INFORMATION

Generalized potentiometric surface compiled by N.D. Warry and R.C. Ostry, 1974, from water-well records assembled by the Ontario Ministry of the Environment as of July 1971.

Cartography by C. Lochan and M. Lakin, 1976.

Base map derived from 1:50,000 and 1:25,000 map sheets of the National Topographic series.

To accompany Water Resources Report 5b


Ash
Palermo
Tansley
Appleby
TOWN OF BURLINGTON
Bronte
Creek
McCraney
Creek
Airfield
Quarry
Dam
Canadian
National
BRONTE
QEW
10
25'

7540-1021

SEND TO: File

file

FROM: C Michaud — DEPT. — DATE

SUBJECT: Shell Station Hwy 5+25

I spoke with A. Malloy May 25/92 8:30 am. regarding the Shell Station at Hwy 5 & 25 Oakville. He indicated he has spoken with Jim Phimister representing shell at this clean up. Andy indicated he had no objections to Barencols proposal to treat gas contaminated groundwater by separation and carbon filtration and then discharging effluent into the tank backfill up gradient. With the pumping well he felt it would be a closed loop system.

REPLY

REPLY FROM | REPLY DATE

000144

C/M - FYI

BARENCO INC.
Environmental Engineers and Contractors
10 Kodiak Crescent, Downsview, Ontario M3J 3G5 • (416) 222-7232 Fax (416) 888-9188

FAX COVER PAGE

Date: May 26/92

TO: Mr. Chuck McLeau
MOE - Oakville

FAX NUMBER: 842-1750

FROM: Jim Phimister

RE: Copy of Letter to Andrew Mallary.

MESSAGE:

NUMBER OF PAGES (including this page) 5

BARENCO INC. FAX NUMBER (416) 888-9188

BARENCO INC.
Environmental Engineers and Contractors
10 Kodiak Crescent, Downsview, Ontario M3J 3G5 • (416) 222-7232 Fax (416) 888-91

May 25, 1992

Ministry of the Environment
Central Region
7 Overlea Boulevard
Toronto, Ontario
M4H 1A8

Attention: Mr. Andrew Mellary, P.Eng.

Dear Sir:

Re: Injection of Water Into the Ground

As we discussed on Friday May 22nd, we are completing a clean-up at a service station located at the northwest corner of Highway 5 and 25 in the Town of Oakville. As part of the clean-up, we propose to pump water from a recovery well located at one edge of the tank excavation area to create a drawdown cone. Gasoline will be skimmed from this recovery well for collection and disposal.

The system for which we propose to use is described below.

1. Water will be pumped from a recovery well located in a trench just south of the tanks, as shown on Figure 1. A centrifugal pump will withdraw water from this well from about 1 metre below a 1 centimetre floating gasoline layer. Only water will be pumped from the well with this system. Floating liquid gasoline will be removed with a different pumping system and hauled from the site for disposal as a liquid industrial waste.

2. The water that will be pumped from the well will be directed to a 1,000 litre oil/water separator for gravity separation of any liquid gasoline that enters the pumping system.

3. Water will be pumped from the second chamber of the oil/water separator, using a centrifugal pump, through three one cubic foot activated carbon filters connected in series to remove any dissolved gasoline that may be present.

4. The water from the carbon filters will then be discharged via piping into recharge well(s) that will be placed on the north side of the tank excavation.

5. The pumping rate from the recovery well will be less than 10,000 litres per day, likely averaging about 5,000 litres per day. The pumping rate through the carbon will be about the same.

6. Analysis of the water in the recovery well, and after passing through a carbon filter, is shown in the attached laboratory analysis. It can be seen that the gasoline hydrocarbon components are removed using the carbon. Based on the concentrations of hydrocarbon in the water, up to 75,000 litres of water can be pumped before the absorption capacity in three cubic feet of carbon would be used up. With flow rates of 10,000 and 5,000 litres per day, the carbon would last anywhere from seven to fifteen days of continuous pumping.

An application has also been submitted to the Approvals Branch for permission to discharge the water from the carbon filters onto the lawn.

Mr. Chuck Micheau of the Oakville District Office would like to discuss the recharge system with you. Could you please give him a call.

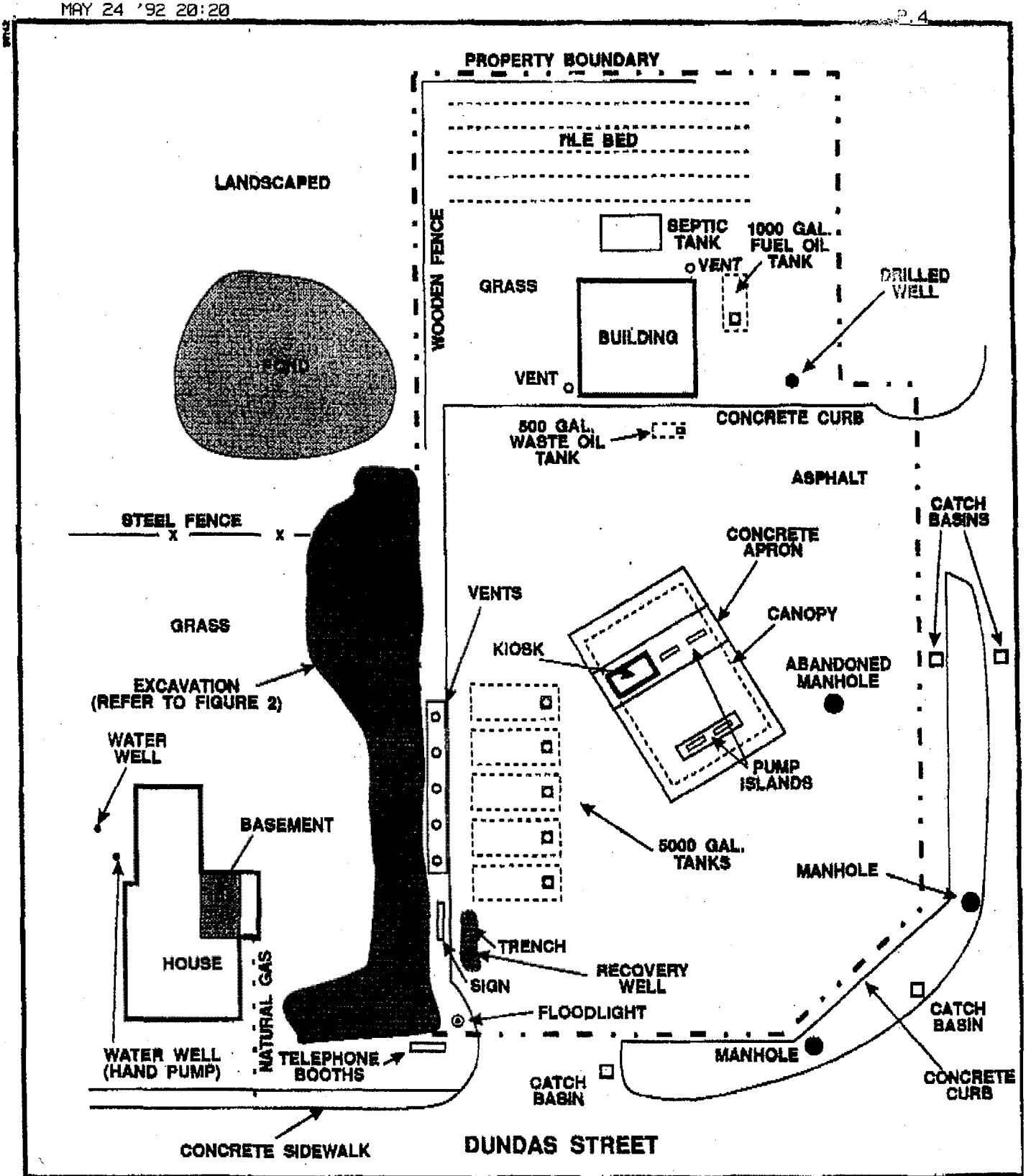
If there are any questions, please give me a call.

Yours very truly,
BARENCO INC.

Jim Phimister, P.Eng.

Attachments

cc: Mr. Chuck Micheau, MOE, Oakville
Ms. Anne Y.H. Kim, P.Eng., Shell



N

SCALE 0 10 METRES

FIGURE 1
SITE PLAN
SHELL STATION
3005 DUNDAS STREET WEST
OAKVILLE, ONTARIO

BARENCO INC.

000148

ENVIRONMENTAL LABORATORIES INC.
1301 Fewster Drive,
Mississauga, Ontario L4W 1A2
Tel: 416-625-1544 Fax: 416-625-8368

REPORT No. 27588

30-APR-1992

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Barenco Inc.
Attn: James P. Phimister
10 Kodiak Crescent
Downsview, Ont
M3J 3G5

PAGE: 1 of 1
Received: 28-APR-1992
Invoice # 60771
P. O. # 91142

SAMPLE(S) OF water

	After Carbon SDW1	Recovery melt water SRW1
Benzene mg/L	< 0.0022	19
Toluene mg/L	< 0.0019	29
Ethylbenzene mg/L	< 0.0017	21
O-Xylene mg/L	< 0.0039	11

SIGNED

For enquiries on this report, please contact our Customer Service Department.
Samples returned or discarded two months from the date of this report.

TREATMENT SYSTEM.
Shell Station
Hwy 5 & 25.

ENVIRONMENTAL LABORATORIES INC.
1301 Fewster Drive,
Mississauga, Ontario L4W 1A2
Tel: 416-625-1544 Fax: 416-625-8368

REPORT No. 27588

30-APR-1992

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Barenco Inc.
Attn: James P. Phimister
10 Kodiak Crescent
Downsview, Ont
M3J 3G5

PAGE: 1 of 1
Received: 28-APR-1992
Invoice # 60771
P. O. # 91142

SAMPLE(S) OF water

	After Carbon SDW1	Recovery well water SRW1
Benzen mg/L	< 0.0022	19
Toluene mg/L	< 0.0019	29
Ethylbenzene mg/L	< 0.0017	21
O-Xylene mg/L	< 0.0039	11

SIGNED _____

For enquires on this report, please contact our Customer Service Department.
Samples returned or discarded two months from the date of this report.

BARENCO INC.
Environmental Engineers and Contractors
10 Kodiak Crescent, Downsview, Ontario M3J 3G5 • (416) 222-7232 Fax (416) 888-9188

FAX COVER PAGE

Date: Oct. 13/92

TO: Mr. Chuck McLeay
MOE Oakville

FAX NUMBER: (416) 842-1750

FROM: Jim Phimister

RE: Sewage Works Application

MESSAGE: Hwy 5 & 25, Oakville
We are withdrawing our application to spray the treated water onto the lawn since winter is approaching. We will continue with the recharge system currently in place, until the liquid petroleum is completely removed.

NUMBER OF PAGES (including this page) 2

BARENCO INC. FAX NUMBER (416) 888-9188

BARENCO INC. COPY
Environmental Engineers and Contractors
10 Kodiak Crescent, Downsview, Ontario M3J 3G5 • (416) 222-7232 Fax (416) 888-9188

October 9, 1992

Ministry of the Environment
Director, Approvals Branch
250 Davisville Avenue
Toronto, Ontario
M4S 1H2

Attention: Mr. Pervez Sunderani, P.Eng.

Dear Sir:

Re: Application for the Approval of Sewage Works
Shell Service Station, Highway 5 & 25, Oakville, Ontario

At this time we wish to withdraw our application for approval of sewage works at the above site. Other provisions have been made for the treatment and disposal of water, as required by the Ministry of the Environment.

If there are any questions, please give me a call at the above telephone number.

Yours very truly,
BARENCO INC.

Jim Phimister, P.Eng.

Attachments

cc: Mr. Chuck Micheau, MOE, Oakville
Ms. Anne Y.H. Kim, P.Eng., Shell

(RETAIN THIS COPY FOR FOLLOW-UP)

File

7540-1021

SEND TO: I. Parrott, MOE Toronto 4th floor, T-O.

FROM: C. Michaud — DEPT.: MOE Oakville — DATE: Aug 18/92

SUBJECT: Sewage Works Application. - Shell Canada.

Attached for your review is the above mentioned application. I have discussed the matter with approvals (Perviz Sandrani) Please refer to his memo to me regarding compliance monitoring requirements and parameters.

REPLY

REPLY FROM

REPLY DATE

000153

BARENCO INC.
Environmental Engineers and Contractors
10 Kodiak Crescent, Downsview, Ontario M3J 3G5 • (416) 222-7232 Fax (416) 888-9188

August 8, 1992

Ministry of the Environment
Central Region
Suite 401, 1235 Trafalgar Road
Oakville, Ontario
L6H 3P1

Attention: Mr. C. Micheau, Sr. Environmental Officer

Dear Sir:

Re: Sewage Works Approval, Shell Service Station
Highways 5 and 25, Oakville

As requested in your letter of July 17, 1992, we have reviewed the application that we submitted for a sewage works approval in May and have prepared the following response to your questions.

Question 1. The estimated total area and volume of contaminated ground water and therefore, the estimated clean-up time required at the proposed treatment rate.

Response The objective of the proposed pumping and treatment system is to create a cone of depression in the water table to cause gasoline within the underground tank excavation to collect in a recovery well. The intent is not to remove any ground water that contains dissolved gasoline.

However, in the process of creating the cone of depression, some ground water containing dissolved petroleum components will be pumped. It is this water that must be treated and/or disposed.

The volume of water that must be pumped relates to the creation of a cone of depression (about 3 to 4 litres per minute) rather than to the total volume of water within the tank excavation area. Since the pumping will be complete when there is no further layer of floating gasoline, it is difficult to predict the duration of pumping. Given the fluctuations in the water table depth due to precipitation and the area of the tank excavation, two months of pumping are possible.

Question 2. The effect (if any) of the hydraulic flow, sprayed over the grassy area, on the adjacent tile bed/septic tank system, ie: the risk of the hydraulic flow conveying sewage laden ground water off-site, or to the nearby pond, drilled well or catch basins.

Response The rate of water discharge will be relatively low (about 3 to 4 litres per minute or 5,000 litres per day). The approximate area over which the water will be sprayed is 300 square metres. Thus, the rate of application of water to the ground surface will be about 16 millimetres per day.

Since the water will be sprayed into the atmosphere and then onto a grassy surface, a portion of the water will evaporate or evapotranspire prior to infiltration. Calculation of evaporation and evapotranspiration rates are complex and use many assumptions, but it can be stated that less than 16 milimetres of water will actually infiltrate each day.

If the septic tile bed has been built using accepted practices, an infiltration capacity of 25 millimetres per hour (600 millimetres per day) would be the lowest expected. Thus, if all the pumped water were to infiltrate, and the tile bed had the lowest expected infiltration capacity, the pumped water would account for only 2.7 % of the infiltration capacity. The impact of this amount of water should be negligible.

To assure that there is no surface flow of water that might convey sewage, visual inspections of the site can be made during operation. If there is a problem with surface flow, the spraying system over the tile bed can be modified or it can be shut off and alternate arrangements made.

If there are any questions, please give me a call.

Yours very truly,
BARENCO INC.

Jim Phimister, P.Eng.

cc: Pervez Sunderani, Approval Branch, MOE
Ms. Anne Y.H. Kim, P.Eng., Shell

Ministry of the Environment
Ministère de l'Environnement
Central Region
Région du Centre

Suite 401
1235 Trafalgar Road
Oakville, Ontario
L6H 3P1
416/844-5747
416/822-2566

Bureau 401
1235, chemin Trafalgar
Oakville (Ontario)
L6H 3P1
416/844-5747
416/822-2566

1992 07 17

Barenco Inc.
Environmental Engineers and Contractors
10 Kodiak Crescent
Downsview, Ontario
M3J 3G5

Attention: J. Phimister

Re: Sewage Works Approval, Shell Service Station, Hwy 5 & 25, Palermo

Your application for a sewage works at this location has been received by our Approvals Branch. This branch has requested the following information to assist in processing the application.

1. The estimated total area and volume of contaminated groundwater and therefore, the estimated clean up time required at the proposed treatment rate.

2. The effect (if any) of the hydraulic flow, sprayed over the grassy area, on the adjacent tile bed/ septic tank system, ie: the risk of the hydraulic flow conveying sewage laden groundwater offsite, or to the nearby pond, drilled well or catch basins.

Please forward the information to my attention with a copy to Pervez Sunderani, Approvals Branch, 250 Davisville Avenue, Toronto, Ontario, M4S 1H2.

Yours truly,

C. Micheau
Sr. Environmental Officer
Halton-Peel District

CM:smp

Ministry of the Environment
Ontario

PLEASE SEND AGAIN. THANKS
Copy to G.B.
~~Copy~~ F.Y.A.

Telecopier/Fax Cover Sheet

Date 92/06/17

To	Telecopier/Fax No. [illegible] 842-1750	City/Town OAKVILLE, ONTARIO
	Ministry/Company M.O.E.	Branch HALTON-PEEL DISTRICT OFFICE
	Name MR. CHUCK MICHEAU	

From	Telecopier/Fax No. (416) 440-6973	Telephone (416) 440-3543	No. of pages (including this sheet) 7
	Branch and location: Approvals Branch, 250 Davisville Ave., Toronto, Ontario M4S 1H2	Section INDUSTRIAL WASTEWATER & MISA	Name MR. PERVEZ SUNDERANI.

Message ENCLOSED.

Chuck,
I assume this is for Shell at 5425. Keep G.B. informed of what is happening.
MA

Ministry of the Environment
Ministère de l'Environnement

250 Davisville Avenue
Toronto, Ontario
M4S 1H2

250, avenue Davisville
Toronto (Ontario)
M4S 1H2

Tel: (416) 440-3543
Tel: (416) 440-6973

June 17th 1992

M E M O R A N D U M

TO: Mr. Chuck Micheau
Environmental Officer
MOE Central Region
Halton Peel District Office

FROM: Mr. Pervez Sunderani
Senior Engineer
Industrial Wastewater & MISA
Approvals Branch

RE: Application for C of A
File No. 4-0059-92

Dear Mr. Micheau:

This memo pertains to an application to treat gasoline contaminated groundwater. The proposed methodology includes treatment by activated carbon adsorption, followed by spray irrigation of the treated groundwater over a grassy area. Please find enclosed a two page description of the proposal along with a site plan, provided by the proponent.

There are a number of concerns here, to be addressed by the Regional and/or District offices of the MOE:

- The estimated total area and volume of contaminated groundwater, and therefore the estimated clean-up time required at their proposed treatment rate (circa 1100 to 2200 gallons per day).

- The compliance parameters required for their treated effluent discharge.

- The compliance monitoring program, including frequency and location(s).

- The effect (if any) of the hydraulic flow, sprayed over the grassy area, on their adjacent tile bed/ septic tank system ie. the risk of the hydraulic flow conveying sewage laden groundwater offsite, or to the nearby pond, drilled well or catch basins. (fig. 1)

They may already have performed a subsurface investigation, which

you may want to procure, in order to delineate some of the above information.

If you have any questions or concerns, please do not hesitate to call.

Yours Truly,

Perves Sunderani

Perves Sunderani, P.Eng.
encl.

BARENCO INC.
Environmental Engineers and Contractors
10 Kodiak Crescent, Downsview, Ontario M3J 3G5 • (416) 222-7232 Fax (416) 888-9183

4-00592

May 8, 1992

Ministry of the Environment
Director, Approvals Branch
2300 Dayisville Avenue
Toronto, Ontario
M4S 1H2

Dear Sir:

Re: Application for the Approval of Sewage Works

The MOE District Office has asked us to apply for approval of a sewage system for a site located at the northwest corner of Highway 5 and 25 in the Town of Oakville. Attached to this letter is an application form MOE 0730. Due to the fact that this system is to be used for the clean-up of an existing subsurface gasoline leak, we would appreciate as quick an approval process as possible.

This system will be used to provide a cone of depression in the water table to cause gasoline within an underground tank excavation to collect in a recovery well.

The system for which we require approval is described below.

1. Water will be pumped from a recovery well located in a trench just south of the tanks, as shown on Figure 1. A centrifugal pump will withdraw water from this well from about 1 metre below a 1 centimetre floating gasoline layer. Only water will be pumped from the well with this system. Floating liquid gasoline will be removed with a different pumping system and hauled from the site for disposal as a liquid industrial waste.

2. The water that will be pumped from the well will be directed to a 1,000 litre oil/water separator for gravity separation of any liquid gasoline that enters the pumping system.

3. Water will be pumped from the second chamber of the oil/water separator, using a centrifugal pump, through three one cubic foot activated carbon filters connected in series to remove any dissolved gasoline that may be present.

4. The water from the carbon filters will then be discharged via a garden hose through a lawn sprinkler onto the grass area west of the building.

5. The pumping rate from the recovery well will be less than 10,000 litres per day, likely averaging about 5,000 litres per day. The pumping rate through the carbon will be about the same.

6. Analysis of the water in the recovery well, and after passing through a carbon filter, is shown in the attached laboratory analysis. It can be seen that the gasoline hydrocarbon components are removed using the carbon. Based on the concentrations of hydrocarbon in the water, up to 75,000 litres of water can be pumped before the absorption capacity in three cubic feet of carbon would be used up. With flow rates of 10,000 and 5,000 litres per day, the carbon would last anywhere from seven to fifteen days of continuous pumping.

If there are any questions, please give me a call at the above telephone number.

Yours very truly,
BARENCO INC.

Jim Phimister, P.Eng.

Attachment

cc: Mr. Chuck Micheau, MOE, Oakville
Ms. Anne Y.H. Kim, P.Eng., Shell

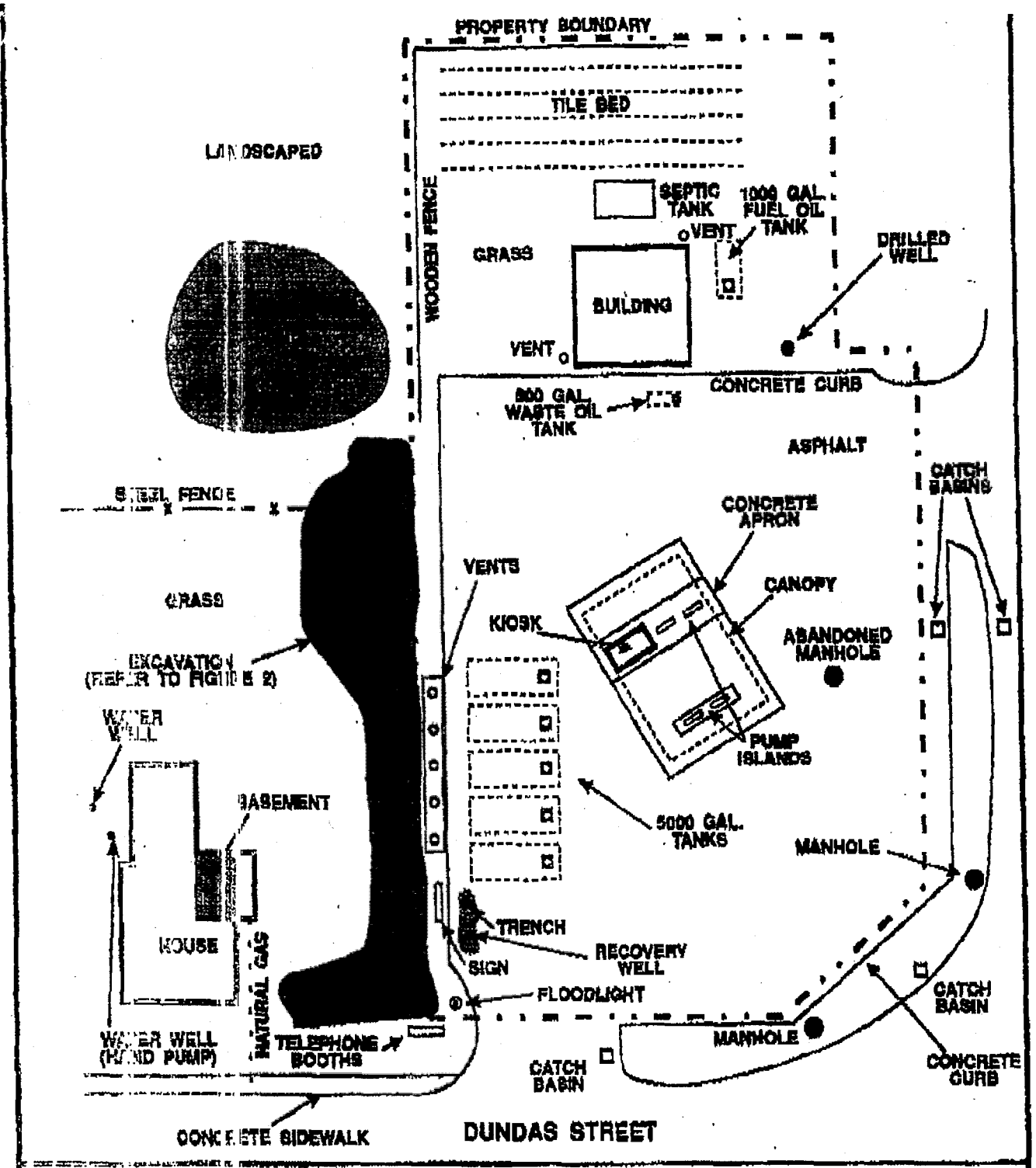


FIGURE 1
SITE PLAN
SHELL STATION
3005 DUNDAS STREET WEST
OAKVILLE, ONTARIO

BARRICO INC.

ENVIRONMENTAL LABORATORIES INC.
1901 Fewston Drive,
Mississauga, Ontario L4W 1A2
Tel: 416-625-1544 Fax: 416-625-8568

REPORT No. 27588

30-APR-1992

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM: Barenco Inc.
Attn: James F. Phimister
10 Vodiak Crescent
Downsview, Ont
M3J 3G5

PAGE: 1 of 1
Received: 28-APR-1992
Invoice # 60771
P. O. # 91142

SAMPLE(S) OF: water

	After Carbon SDW1	Recovery Well Water SRW1
Benzene mg/L	< 0.0022	19
Toluene mg/L	< 0.0019	29
Ethylbenzene mg/L	< 0.0017	21
O-Xylene mg/L	< 0.0039	11

SIGNED

For enquiries on this report, please contact our Customer Service Department.
Samples returned or discarded two months from the date of this report.

BARENCO INC.
Environmental Engineers and Contractors
10 Kodiak Crescent, Downsview, Ontario M3J 3G5 • (416) 222-7232 Fax (416) 888-9188

May 8, 1992

Ministry of the Environment
Director, Approvals Branch
250 Davisville Avenue
Toronto, Ontario
M4S 1H2

Dear Sir:

Re: Application for the Approval of Sewage Works

The MOE District Office has asked us to apply for approval of a sewage system for a site located at the northwest corner of Highway 5 and 25 in the Town of Oakville. Attached to this letter is an application form MOE 0730. Due to the fact that this system is to be used for the clean-up of an existing subsurface gasoline leak, we would appreciate as quick an approval process as possible.

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If there are any questions, please give me a call at the above telephone number.

Yours very truly,
BARENCO INC.

Jim Phimister, P.Eng.

Attachments

cc: Mr. Chuck Micheau, MOE, Oakville
Ms. Anne Y.H. Kim, P.Eng., Shell

Ministry of the Environment
Ontario

Ministère de l'Environnement

Application for the Approval of Sewage Works

Demande d'autorisation de construction d'ouvrages d'épuration des eaux usées

Ministry Use Only *Réservé au ministère*
Number *Numéro*
Municipality *Municipalité*

All information should be supplied in duplicate. One copy should be mailed to:

Ministry of the Environment
Director, Environmental Approvals and Project Engineering Branch
135 St. Clair Avenue West
Toronto, Ontario
M4V 1P5

and the second copy should be mailed to the local district office of the Ministry.

Présenter tous les documents en double exemplaire. Poster une copie au:

Ministère de l'Environnement
Directeur des approbations environnementales et des services d'ingénierie
135 ouest, avenue St. Clair
Toronto (Ontario)
M4V 1P5

et la seconde copie au bureau local de district du ministère.

Important

The installation of sewage works shall not be undertaken without the approval of the Director, Environmental Approvals and Project Engineering Branch, of the Ministry of the Environment. Such approval will be made through the issuance of a certificate upon satisfactory compliance by the applicant with the policies and requirements of the Ministry.
This form must be accompanied by the information requested in **A Guide on Applying for the Approval of Sewage Works.**

Important

Aucun ouvrage d'épuration des eaux usées ne peut commencer à être construit sans l'autorisation du directeur des approbations environnementales et des services d'ingénierie du ministère de l'Environnement. Le directeur donne son autorisation en délivrant un certificat après s'être assuré que le demandeur s'est conformé aux politiques et exigences du ministère.
La présente formule doit être accompagnée des renseignements demandés dans le ***Guide pour les demandes d'autorisation de construction d'ouvrages d'épuration des eaux usées.***

Description of Works
Description des ouvrages
Application is hereby made to the Director for
Le demandeur adresse au directeur par la présente une demande d'autorisation

Sewage treatment system as described in attached letter.

Approval to Construct (Describe type of sewers, pumping stations and miscellaneous structures.)
de construire (décrire le type d'égouts, de postes de pompage et d'ouvrages divers).

See attached letter

And Sewage Treatment Works (Describe type and capacity of major works.)
ainsi que les ouvrages d'épuration des eaux usées suivants (décrire le type et la capacité des principaux ouvrages).

See attached letter

Location of Proposed Sewage Works
Emplacement des ouvrages
Lot, Concession, Municipality & County, District or Region
Lot, concession, municipalité et comté, district ou région

Lot 31, Concession 2, Oakville
Region of Halton

Works will Outlet to (Sewer system, name of receiving stream or lake.)
Les eaux traitées se déverseront dans (réseau d'égouts ou nom du cours d'eau ou du lac récepteur).

Lawn - See attached letter

This application is made under the provisions of Section 24, Ontario Water Resources Act, R.S.O. 1980, and such other statutes as relate to sewage works.

The applicant agrees that no changes in or deviations from the approved plans and specifications will be made except with the consent and approval of the Director, and agrees, if requested, to submit as-built drawings and cost figures to the Director upon completion of the project.

La présente demande est faite aux termes des dispositions de l'article 24 de la Loi sur les ressources en eau de l'Ontario, L.R.O. de 1980, et des autres lois qui se rapportent aux ouvrages d'adduction et de purification de l'eau.

Le demander s'engage à n'apporter aucune modification aux plans et cahier des charges approuvés, sauf s'il obtient le consentement et l'autorisation du directeur, et s'engage, sur demande, à remettre les plans des ouvrages tels qu'ils ont été construits ainsi que la ventilation détaillée du coût de construction au directeur à la fin des travaux.

Signatures Required
Signatures requises

Applicant *Demandeur* Signature *Signature*	Name (Print or Type) *Nom (en lettres moulées)*	Date *Date*
J. Phimister	Jim Phimister	May 8/92
Mailing Address *Adresse*		**Telephone** *N° de téléphone*
10 Kodiak Cres., Downsview Ont. M3J3G5		(416) 222-7232

Municipality (if not applicant) *Municipalité (À remplir si le demandeur n'est pas la municipalité.)* Signature *Signature*	Name & Title of Municipal Authority *Nom et titre du responsable municipal*	Date *Date*
NA		
Mailing Address *Adresse*		**Telephone** *N° de téléphone*

Engineer *Ingénieur* Eng. Documents Sealed by (signature) *Presentation des documents d'ingénierie certifiés par (signature de l'ingénieur externe)*	Name of Engineer or Firm *Nom de l'ingénieur ou de la firme d'ingénierie*	Date *Date*
NA		
Mailing Address *Adresse*		**Telephone** *N° de téléphone*

Operating Authority (if not applicant) *Exploitant (À remplir si l'exploitant n'est pas le demandeur.)* Signature *Signature*	Name of Operating Authority *Nom de l'exploitant*	Date *Date*
NA		
Mailing Address *Adresse*		**Telephone** *N° de téléphone*

Cost Summary
Sommaire des coûts

Sewers and Appurtenances ***Égouts et accessoires***	$	NA
Building Sewer Connections ***Raccords de branchements d'égouts***	$	NA
Pumping Stations and Forcemains ***Postes de pompage et conduites de refoulement***	$	NA
Treatment Works and Outfalls ***Usines d'épuration et exutoires***	$	NA
Engineering and Contingencies ***Ingénierie et imprévus***	$	NA
Land Charges ***Frais fonciers***	$	NA
Total ***Total***	$	NA

Financing
Financement
Payment by (cash, debentures, loans, etc.)
Paiement (comptant, débentures, emprunts, etc.)

NA

Source of Financing (municipal, private, government)
Source de financement (municipal, privé, gouvernemental)

NA

Scheduling
Calendrier
Construction Start Date
Date de début des travaux

As soon as possible

Construction Period (years, months)
Durée des travaux (années, mois)

2 hours

File Number of Ministry of Municipal Affairs and Housing
Numéro de dossier du ministère des Affaires municipales et du Logement

NA

or Registered Plan Number (if applicable)
ou numéro de plan enregistré (s'il y a lieu)

NA

The certificate of approval will be issued to the applicant. Copies will be sent to the clerks of any affected municipalities which are not applicants. List names and addresses below for any other recipients.

Le certificat d'autorisation sera délivré au demandeur et une copie du certificat envoyée aux secrétaires de toutes les municipalités intéressées qui n'ont pas signé la demande. Indiquer ci-dessous les noms et adresses de tout autre destinataire.

Shell Canada Products Limited
1500 Don Mills Road
North York, M3B 3K4
Attn: Ms. Anne Y. H. Kim, P.Eng.

Ministry Use Only
Réservé au ministère
Application Checked by
Demande vérifiée par

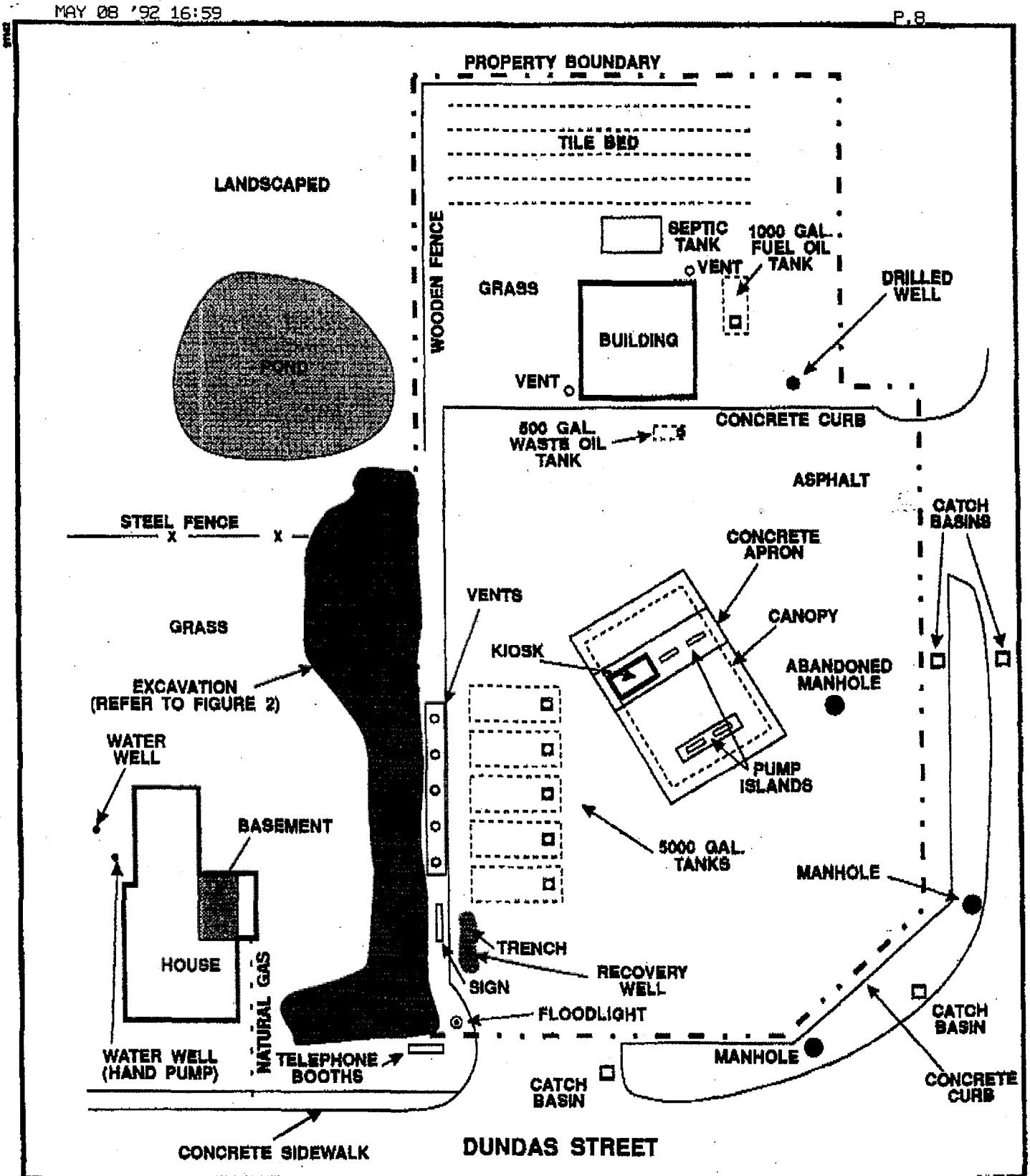
☐ **Application Recommended for Approval**
Autorisation de la demande recommandée

Supervisor, Environmental Approvals Section
Superviseur, Section des approbations environnementales

Date
Date

Sanitary and storm sewer location(s)
Emplacement des égouts séparatifs et pluviaux

Plan Number *Nº de plan*	Type of Sewer *Type d'égout*	Street or Easement on which Sewer is to be constructed *Rue ou servitude (dans laquelle l'égout doit être construit)*	From (location with respect to nearest intersecting street) *De (intersection la plus proche)*	To (location with respect to nearest intersecting street) *À (intersection la plus proche)*
NA	NA	NA	NA	NA



SCALE 0 10 METRES

FIGURE 1
SITE PLAN
SHELL STATION
3005 DUNDAS STREET WEST
OAKVILLE, ONTARIO

BARENCO INC.

TSL ENVIRONMENTAL LABORATORIES INC.
1301 Fewster Drive,
Mississauga, Ontario L4W 1A2
Tel: 416-625-1644 Fax: 416-625-8368

REPORT No. 27588

30-APR-1992

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Barenco Inc.
Attn: James P. Phimister
10 Kodiak Crescent
Downsview, Ont
M3J 3G5

PAGE: 1 of 1
Received: 28-APR-1992
Invoice # 60771
P. O. # 91142

SAMPLE(S) OF water

	After Carbon SDW1	Recovery Melt water SRW1
Benzene mg/L	< 0.0022	19
Toluene mg/L	< 0.0019	29
Ethylbenzene mg/L	< 0.0017	21
O-Xylene mg/L	< 0.0039	11

SIGNED

For enquires on this report, please contact our Customer Service Department.
Samples returned or discarded two months from the date of this report.

APPENDIX G

MUNICIPAL DIRECTORIES

City Directory Information Source
Polk Canada Ltd: Halton Peel Regions Ontario Criss Cross Directory

PROJECT NUMBER: 20100803020	
Site Address:	3005 Dundas Street West, Oakville, Ontario
Year: 2000	
Site Listing:	-Address Not Listed
Adjacent Properties:	
2512 Dundas Street West	-Tim Hortons Donuts
2521 Dundas Street West	-Halton Presbytery -Palermo United Church
2527 Dundas Street West	-Green Light Graphics Inc
3114 Old Bronte Road	-Address Not Listed
3118 Old Bronte Road	-Address Not Listed

PROJECT NUMBER: 20100803020	
Site Address:	3005 Dundas Street West, Oakville, Ontario
Year: 1994	
Site Listing:	-Palermo Shell
Adjacent Properties:	
2512 Dundas Street West	-Address Not Listed

2521 Dundas Street West	-Address Not Listed
2527 Dundas Street West	-Res (1 tenant)
3114 Old Bronte Road	-Address Not Listed
3118 Old Bronte Road	-Address Not Listed

PROJECT NUMBER: 20100803020	
Site Address:	3005 Dundas Street West, Oakville, Ontario
Year: 1989	
Site Listing:	-Palermo Shell -Bell Robert K -De Ore Bernard E
Adjacent Properties:	
2512 Dundas Street West	-Address Not Listed
2521 Dundas Street West	-Address Not Listed
2527 Dundas Street West	-Res (1 tenant)
3114 Old Bronte Road	-Address Not Listed
3118 Old Bronte Road	-Address Not Listed

PROJECT NUMBER: 20100803020	
Site Address:	3005 Dundas Street West, Oakville, Ontario
Year: 1984	
Site Listing:	-Palermo Shell -Hohs B

Adjacent Properties:	
2512 Dundas Street West	-Address Not Listed
2521 Dundas Street West	-Address Not Listed
2527 Dundas Street West	-Res (1 tenant)
3114 Old Bronte Road	-Address Not Listed
3118 Old Bronte Road	-Address Not Listed

PROJECT NUMBER: 20100803020	
Site Address:	3005 Dundas Street West, Oakville, Ontario
Year: 1979	
Site Listing:	-Palermo Shell
Adjacent Properties:	
2512 Dundas Street West	-Address Not Listed
2521 Dundas Street West	-Address Not Listed
2527 Dundas Street West	-Res (1 tenant)
3114 Old Bronte Road	-Address Not Listed
3118 Old Bronte Road	-Address Not Listed

PROJECT NUMBER: 20100803020	
Site Address:	3005 Dundas Street West, Oakville, Ontario

Year: 1974	
Site Listing:	-Palermo Shell Serv
Adjacent Properties:	
2512 Dundas Street West	-Address Not Listed
2521 Dundas Street West	-Address Not Listed
2527 Dundas Street West	-Res (1 tenant)
3114 Old Bronte Road	-Address Not Listed
3118 Old Bronte Road	-Address Not Listed

PROJECT NUMBER: 20100803020	
Site Address:	3005 Dundas Street West, Oakville, Ontario
Year: 1969	
Site Listing:	-Address Not Listed
Adjacent Properties:	
2512 Dundas Street West	-Address Not Listed
2521 Dundas Street West	-Address Not Listed
2527 Dundas Street West	-Address Not Listed
3114 Old Bronte Road	-Address Not Listed
3118 Old Bronte Road	-Address Not Listed

-All listings for businesses were listed as they are in the city directory.

-Listings that are residential are listed as “residential” with the number of tenants. The name of the residential tenant is not listed in the above city directory

APPENDIX H

TECHNICAL STANDARDS & SAFETY AUTHORITY – RECORDS SEARCH

14th Floor, Centre Tower
3300 Bloor Street West
Toronto, Ontario
Canada M8X 2X4
Tel.: 416.734.3300
Fax: 416.231.1626
Toll Free: 1.877.682.8772

www.tssa.org

Administration and
Customer Services

Tel: (416) 734-3402
Fax: (416) 231-1626

6 August 2010
File No: FS 32550

Reshma Fazlullah
SNC-LAVALIN INC.
20 DeBoers Drive
Suite 200
TORONTO ON M3K 2B4

Dear Madam:

RE: 3005 Dundas Street West, Oakville, Ontario – Your Project No: S09125

This is with reference to your request and fee of $50.00 + HST, for information on the above location.

Enclosed are computerised screen prints showing an expired self-serve gas station and an inactive cylinder exchange along with equipment details showing underground fuel storage tank details. Copies of the inspection reports and environmental consultant reports are also enclosed.

After a search of our files, TSSA has no record of any further outstanding instructions, incident reports, fuel oil spills, or contamination records respecting the above-mentioned property.

This is all the information the Fuels Safety Division has at this time regarding the above address.

It should be noted that the Fuels Safety Division did not register private fuel underground/aboveground storage tanks prior to January of 1990 or furnace oil tanks prior to May 1, 2002. Also note that the Fuels Safety Division does not register waste oil tanks in apartments, office buildings, residences etc. or ABOVEGROUND gas or diesel tanks.

Although TSSA believes the information provided pursuant to your request is accurate, please note that TSSA does not warrant this information in any way whatsoever.

Yours truly,

Prem Lal
Coordinator Public Information Services

ORACLE **Installed Base**

Item Instances

General
Additional Attributes
Assets
Party Relationships
Owner
Parties
Accounts
Contacts
Summary
Pricing
Counters
Contracts
Notes
Transactions
Service Requests
Repair Orders
History
Operating Units
Configuration

Quick Find Item Instance Go Advanced Search

Logged In As SPNG

Item Instance Details

Item Instance: 9472388
Item: FS GASOLINE STATION - SELF SERVE
Item Description: FS Gasoline Station - Self Serve

General Attributes

Organization Name TSSA Item Master
Instance Name
Last Version Label 1
Version Label Date 19-JUL-2000 20:15
Revision
New Version Label
System Go
External Reference
Item Instance Type
Accounting Classification Customer Product
Operational Status Not Used
Lot Number : not lot-controlled
Status EXPIRED
Condition
Quantity 1
UOM Each
Start Date 19-JUL-2000
Start Time 20:15
Shipped On Date
Shipped On Time
End Date 07-DEC-2009
End Time 16:10
Return By Date
Return By Time
Actual Return Date
Actual Return Time

* Indicates required field.
Time format is HH24:MM
Note: You do not have permission to make updates in this page.

☑ Creation Completed

Owner

Party Type Party
Party Name: 2149120 ONTARIO INC O/A GAS STN
Party Number: 22803
Account Number: 7594
Account Name 2149120 ONTARIO INC O/A GAS STN

Current Location

* Type Party Site Go
Party Name 2149120 ONTARIO Go
Party Number 22803 Go
*Line 1 3005 DUNDAS ST V Go
Site Number 19852 Go
Address 3005 DUNDAS ST W, HWYS 5 & 25
OAKVILLE, L6M 4J4, CA

Installed At

Installed Date 19-JUL-2000
Installed Time 20:15
Time format is HH24:MM
Change in installed date does not change contract date.
Type Go

Order

Sales Order Number | Sales Order Date

Sales Order Line

Purchase Order Number | Agreement Name

Item Flags

- [x] BOM Enabled
- [x] IB Trackable
- [ ] Inventory Trackable
- [x] Sellable
- [ ] Shippable

Item Views

- [ ] Merchant
- [x] Customer

Descriptive Flexfields

Context Value: FS Facility

Select Context Value and click 'Go' to show relevant fields.

Facility Type 2

Facility Type 3

Total Capacity - Liquid Fuel Tanks (L): 0

Total Capacity - Propane Tank s (USWG)

Installed Base

Close Window Preferences

Item Instance | **Counters** | **Mass Update**

Item Instances | Systems | Transactions

Item Instance: Item Instances > Item Instance Search >

View : Item Instance : 11300259

Item	**FS LIQUID FUEL TANK**	System	
Item Description	**FS Liquid Fuel Tank**	Owner	**ANTONY IBRAHIM**
		Account Number	**205000**

Other Item Instance Details

- Transaction History
- Item Instance History
- Operating Units
- Contracts Orders
- Service Requests
- Orders and Directives

General | **Location** | **Associations** | **Configuration** | **Counters** | **Notes**

External Reference		New Version Label	
Organization	**TSSA Item Master**	Last Version Label	**1**
Revision		Creation Date	**19-Jul-2000 20:15:15**
Instance Name		Status	**EXPIRED**
Quantity	**1**	Install Date	**01-Apr-2009 00:00:00**
UOM	**Each**	Expiration Date	**02-Apr-2009 00:00:00**
Item Instance Type		Shipped On Date	
Item Condition		Return By Date	
Accounting Classification	**Customer Product**	Actual Return Date	
Operational Status Code	**Not Used**		

⊟ Hide Instance Flex Fields

⊞ Show Additional Attributes

Fuel Type1	**Gasoline** Gasoline
Fuel Type2	
Fuel Type3	
Capacity (L)	**22700**
Tank Material	**Fiberglass (FRP)** Fiberglass (FRP)
Tank Type	**Liquid Fuel Single Wall UST** Liquid Fuel Single Wall UST
FS Corrosion Protection	**Fiberglass** Fiberglass
Overfill Protection Type	
Installation Year	**1984**
ULC Standard	
Manufacturer	
Model	
Serial Number	
Description	

Return to Instance Search

Item Instance Counters Mass Update Close Window Preferences

Privacy Statement

Installed Base

View : Item Instance : 11373702

Item	**FS LIQUID FUEL TANK**	System	
Item Description	**FS Liquid Fuel Tank**	Owner	**ANTONY IBRAHIM**
		Account Number	**205000**

Other Item Instance Details

- Transaction History
- Item Instance History
- Operating Units
- Contracts
- Orders
- Service Requests
- Orders and Directives

General | **Location** | **Associations** | **Configuration** | **Counters** | **Notes**

External Reference		New Version Label	
Organization	**TSSA Item Master**	Last Version Label	**1**
Revision		Creation Date	**19-Jul-2000 20:15:15**
Instance Name		Status	**EXPIRED**
Quantity	**1**	Install Date	**01-Apr-2009 00:00:00**
UOM	**Each**	Expiration Date	**02-Apr-2009 00:00:00**
Item Instance Type		Shipped On Date	
Item Condition		Return By Date	
Accounting Classification	**Customer Product**	Actual Return Date	
Operational Status Code	**Not Used**		

⊟ Hide Instance Flex Fields

Fuel Type1	**Gasoline** Gasoline
Fuel Type2	
Fuel Type3	
Capacity (L)	**22700**
Tank Material	**Fiberglass (FRP)** Fiberglass (FRP)
Tank Type	**Liquid Fuel Single Wall UST** Liquid Fuel Single Wall UST
FS Corrosion Protection	**Fiberglass** Fiberglass
Overfill Protection Type	
Installation Year	**1984**
ULC Standard	
Manufacturer	
Model	
Serial Number	
Description	

⊞ Show Additional Attributes

Return to Instance Search

Installed Base

View : Item Instance : 11373695

Item	**FS LIQUID FUEL TANK**	System	
Item Description	**FS Liquid Fuel Tank**	Owner	**ANTONY IBRAHIM**
		Account Number	**205000**

Other Item Instance Details

- Transaction History
- Item Instance History
- Operating Units
- Contracts
- Orders
- Service Requests
- Orders and Directives

General | **Location** | **Associations** | **Configuration** | **Counters** | **Notes**

External Reference		New Version Label	
Organization	**TSSA Item Master**	Last Version Label	**1**
Revision		Creation Date	**19-Jul-2000 20:15:15**
Instance Name		Status	**EXPIRED**
Quantity	**1**	Install Date	**01-Apr-2009 00:00:00**
UOM	**Each**	Expiration Date	**02-Apr-2009 00:00:00**
Item Instance Type		Shipped On Date	
Item Condition		Return By Date	
Accounting Classification	**Customer Product**	Actual Return Date	
Operational Status Code	**Not Used**		

⊟ Hide Instance Flex Fields

Fuel Type1	**Gasoline** Gasoline
Fuel Type2	
Fuel Type3	
Capacity (L)	**22700**
Tank Material	**Fiberglass (FRP)** Fiberglass (FRP)
Tank Type	**Liquid Fuel Single Wall UST** Liquid Fuel Single Wall UST
FS Corrosion Protection	**Fiberglass** Fiberglass
Overfill Protection Type	
Installation Year	**1984**
ULC Standard	
Manufacturer	
Model	
Serial Number	
Description	

⊞ Show Additional Attributes

Return to Instance Search

Item Instance Counters Mass Update Close Window Preferences

Privacy Statement

Installed Base

Close Window Preferences

Item Instance | **Counters** | **Mass Update**

Item Instances | Systems | Transactions

Item Instance: Item Instances >

View : Item Instance : 11373679

Item	**FS LIQUID FUEL TANK**	System	
Item Description	**FS Liquid Fuel Tank**	Owner	**ANTONY IBRAHIM**
		Account Number	**205000**

Other Item Instance Details
- Transaction History
- Item Instance History
- Operating Units
- Contracts
- Orders
- Service Requests
- Orders and Directives

General | **Location** | **Associations** | **Configuration** | **Counters** | **Notes**

External Reference		New Version Label	
Organization	**TSSA Item Master**	Last Version Label	**1**
Revision		Creation Date	**19-Jul-2000 20:15:15**
Instance Name		Status	**EXPIRED**
Quantity	**1**	Install Date	**01-Apr-2009 00:00:00**
UOM	**Each**	Expiration Date	**02-Apr-2009 00:00:00**
Item Instance Type		Shipped On Date	
Item Condition		Return By Date	
Accounting Classification	**Customer Product**	Actual Return Date	
Operational Status Code	**Not Used**		

⊟ Hide Instance Flex Fields

Fuel Type1	**Gasoline** Gasoline
Fuel Type2	
Fuel Type3	
Capacity (L)	**22700**
Tank Material	**Fiberglass (FRP)** Fiberglass (FRP)
Tank Type	**Liquid Fuel Single Wall UST** Liquid Fuel Single Wall UST
FS Corrosion Protection	**Fiberglass** Fiberglass
Overfill Protection Type	
Installation Year	**1984**
ULC Standard	
Manufacturer	
Model	
Serial Number	
Description	

⊞ Show Additional Attributes

Return to Instance Search

Item Instance Counters Mass Update Close Window Preferences

Privacy Statement

Installed Base

Close Window Preferences

Item Instance | **Counters** | **Mass Update**

Item Instances | Systems | Transactions

Item Instance: Item Instances >

View : Item Instance : 11373686

Item	**FS LIQUID FUEL TANK**	System	
Item Description	**FS Liquid Fuel Tank**	Owner	**ANTONY IBRAHIM**
		Account Number	**205000**

Other Item Instance Details
- Transaction History
- Item Instance History
- Operating Units
- Contracts
- Orders
- Service Requests
- Orders and Directives

General | **Location** | **Associations** | **Configuration** | **Counters** | **Notes**

External Reference		New Version Label	
Organization	**TSSA Item Master**	Last Version Label	**1**
Revision		Creation Date	**19-Jul-2000 20:15:15**
Instance Name		Status	**EXPIRED**
Quantity	**1**	Install Date	**01-Apr-2009 00:00:00**
UOM	**Each**	Expiration Date	**02-Apr-2009 00:00:00**
Item Instance Type		Shipped On Date	
Item Condition		Return By Date	
Accounting Classification	**Customer Product**	Actual Return Date	
Operational Status Code	**Not Used**		

⊟ Hide Instance Flex Fields

Fuel Type1	**Gasoline** Gasoline
Fuel Type2	
Fuel Type3	
Capacity (L)	**22700**
Tank Material	**Fiberglass (FRP)** Fiberglass (FRP)
Tank Type	**Liquid Fuel Single Wall UST** Liquid Fuel Single Wall UST
FS Corrosion Protection	**Fiberglass** Fiberglass
Overfill Protection Type	
Installation Year	**1984**
ULC Standard	
Manufacturer	
Model	
Serial Number	
Description	

⊞ Show Additional Attributes

Return to Instance Search

Perform Pre-License/Modification Inspection (FS) for Job 009472410-025 (000076647105)

Description: SHELL SELF SERVE

Assignments

Status: Complete by DANEKD

Assigned To: Debbie Danek

Outcome: Inspection Complete & Issue Temp License

Schedule

Scheduled Start:	Oct 11, 2007
Scheduled Complete:	mmm dd, yyyy
Actual Start:	mmm dd, yyyy hh:mm
Actual Complete:	Oct 16, 2007 14:58

Reports

Details | Deficiencies | Facility/Location | Time | Documents | Comments | O/S Orders | Resolved/Orders

Show Resolved?

Description	Found By	Date	Resolved By	Date

TECHNICAL STANDARDS and SAFETY AUTHORITY

www.tssa.org

14th Floor, Centre Tower
3300 Bloor Street West
Toronto, Ontario M8X 2X4
Ph - (416) 734-3300, Fax - (416) 231-1626
Toll - 1-877-682-8772

Fuel Safety Inspection Report

Technical Standards and Safety Act, 2000

1 *Report Number:* **FS-2007-0016268**

2 *File Number:* **000076647105**

3 *Location Address*	4 *License/Serial Number*	5 *Job Type*	6 *Inspection Date*
3005 DUNDAS ST W HWYS 5 & 25 OAKVILLE, ON L6M 4J4 CANADA	**000076647105**	**New License/Modification Job (FS)**	**Oct 16, 2007**
	7 *Facility Type*	**Gasoline Station - Self Serve**	

8 *Client*	
2149120 ONTARIO INC O/A GAS STN 3005 DUNDAS ST W OAKVILLE, ON L6J 4Z3 CA	**The Facility/Equipment is inspected in accordance with Ontario's Technical Standards & Safety Act and the appropriate regulations and codes. When an inspector's order is issued, time limits for compliance reflect the severity of the violation and serve to avoid disruption of service. In the interim period the recipient must ensure that additional precautions are taken for safe use.**

INSPECTION NOTE: PRE-LICENCE INSPECTION ON SELF SERVE STATION - NO INSTRUCTIONS ISSUED AT THIS TIME - VARIANCE ISSUED TO SHELL FOR VIDEO SURVEILLANCE. OK TO LICENCE

Inspection Activity - Time Allocation Detail

Date	Activity	Hours	Rate	Comments
Oct 16, 2007	Inspection-Billable	1.50	Straight	
Oct 16, 2007	Travel-Billable	0.50	Straight	

13 *Total Time*	14 *Travel Time*	15 *Billable Hours*	16 *Additional Charges*
2	**0.5**	**2**	

Voluntary Compliance Option* - Eligible? ☐ Yes ☒ No *Please, refer to guidelines

I hereby confirm that all the Inspector's orders, appearing on this inspection report have been completed.

Print Name Bouran Butris - Operator

Client Signature _____

Debbie Danek — *Inspector*

(905) 331-9921 — *Inspector Fax Number*

As a not-for-profit regulatory authority, TSSA operates on a cost recovery basis. An invoice will be issued for this activity.

Putting Public Safety First

(Note: This is not an invoice)

Perform Pre-License/Modification Inspection (FS) for Job 009472410-021 (000076645202)

Description: SHELL SELF SERVE

Assignments

Status: Complete by DANEKD

Assigned To: Debbie Danek

Outcome: Inspection Complete & Issue Temp License

Schedule

Scheduled Start:	Nov 27, 2006
Scheduled Complete:	mmm dd, yyyy
Actual Start:	mmm dd, yyyy hh:mm
Actual Complete:	Dec 06, 2006 16:50

Reports

Details | Deficiencies | Facility/Location | Time | Documents | Comments | O/S Orders | Resolved/Orders

Show Resolved?

Description	Found By	Date	Resolved By	Date

TECHNICAL STANDARDS and SAFETY AUTHORITY

www.tssa.org

14th Floor, Centre Tower
3300 Bloor Street West
Toronto, Ontario M8X 2X4
Ph - (416) 734-3300, Fax - (416) 231-1626
Toll - 1-877-682-8772

Fuel Safety Inspection Report

Technical Standards and Safety Act, 2000

1 *Report Number:* **FS-2006-0021004**
2 *File Number:* **000076645202**

3 *Location Address*	4 *License/Serial Number*	5 *Job Type*	6 *Inspection Date*
3005 DUNDAS ST W HWYS 5 & 25 OAKVILLE, ON L6M 4J4 CANADA	**000076645202**	**New License/Modification Job (FS)**	**Nov 08, 2006**
	7 *Facility Type*	**Gasoline Station - Self Serve**	

8 *Client*	
2112156 ONTARIO INC ATTN ANNA GEORGE 6249 PRAIRIE CIRCLE MISSISSAUGA, ONTARIO L5N 5Y9 CA	**The Facility/Equipment is inspected in accordance with Ontario's Technical Standards & Safety Act and the appropriate regulations and codes. When an inspector's order is issued, time limits for compliance reflect the severity of the violation and serve to avoid disruption of service. In the interim period the recipient must ensure that additional precautions are taken for safe use.**

INSPECTION NOTE: PRE-LICENCE INSPECTION ON SELF SERVE GASOLINE STATION - PROPANE CYLINDER EXCHANGE CAGE FACILITY - NO INSTRUCTIONS ISSUED - OK TO LICENCE

13 *Total Time*	14 *Travel Time*	15 *Billable Hours*	16 *Additional Charges*
2.5	**0.5**	**2.5**	

Voluntary Compliance Option* - Eligible? ☐ Yes ☒ No *Please, refer to guidelines

I hereby confirm that all the Inspector's orders, appearing on this inspection report have been completed.

Print Name Anna George - Retailer *Client Signature* _____

Debbie Danek *Inspector*

(905) 331-9921 *Inspector Fax Number*

As a not-for-profit regulatory authority, TSSA operates on a cost recovery basis. An invoice will be issued for this activity.

Putting Public Safety First

(Note: This is not an invoice)

Perform Pre-License/Modification Inspection (FS) for Job 009472410-018 (0000076643037)

Description: PLS REFER TO FS INS 2005-14525 NY

Assignments

Status: Complete by DANEKD

Assigned To: Debbie Danek

Outcome: Inspection Complete & Issue Temp License

Schedule

Scheduled Start:	Oct 19, 2005
Scheduled Complete:	mmm dd, yyyy
Actual Start:	mmm dd, yyyy hh:mm
Actual Complete:	Oct 24, 2005 10:07

Reports

Details | Deficiencies | Facility/Location | Time | Documents | Comments | O/S Orders | Resolved/Orders

Show Resolved?

Description	Found By	Date	Resolved By	Date

TECHNICAL STANDARDS and SAFETY AUTHORITY

www.tssa.org

14th Floor, Centre Tower
3300 Bloor Street West
Toronto, Ontario M8X 2X4
Ph - (416) 734-3300, Fax - (416) 231-1626
Toll - 1-877-682-8772

Fuel Safety Inspection Report

Technical Standards and Safety Act, 2000 000076643087

1 Report Number: FS-2005-0014867
2 File Number: FS INS 2005-14525

3 Location Address	4 License/Serial Number	5 Job Type	6 Inspection Date
3005 DUNDAS ST. W. OAKVILLE, ONTARIO L6M 4J4	ADHOC	Inspection (FS)	Sep 29, 2005

7 Operation Type: Retail Station (FS, SS, Multifunctional)

8 Client
VINAYAK KATNAWER
3005 DUNDAS ST W
OAKVILLE, ON L6M 4J4
CA

The Facility/Equipment is inspected in accordance with Ontario's Technical Standards & Safety Act and the appropriate regulations and codes. When an Inspector's order is issued, time limits for compliance reflect the severity of the violation and serve to avoid disruption of service. In the interim period the recipient must ensure that additional precautions are taken for safe use.

9 Order No.	10 Code Section	11 Order issued To Vinayak Katnawer - retailer	12 Compliance Date
1		Deficiency - **LFHC SECTION 6.6.1 All electrical equipment at a facility shall be in accordance with the requirements of the Electrical Safety Document. (Hydro junction box inside pump # 1 missing plug from underside to ensure vapour tight - replace)**	Oct 28, 2005
2		Deficiency - **LFHC SECTION 1.1.6 All Stage 1 Vapour Recovery systems shall be installed, operated and maintained according to the requirements of O.Reg. 455/94 under the Environmental Protection Act. (Poppet for Regular Tank #1 broken - repair or replace, Cap for Super tank # 4 broken - replace)**	Oct 28, 2005
3		Deficiency - **LFHC SECTION 1.1.8 Any defective equipment or component shall be repaired or replaced. (hose # 3 Bronze - hairy hose/cracks - replace)**	Oct 28, 2005

INSPECTION NOTE: PRE LICENCE INSPECTION ON SELF SERVE STATION. ATTACHED PLEASE FIND APPLICATION FORM AND CHEQUE # 018 IN THE AMOUNT OF $ 222.00. OK TO LICENCE. ONCE ALL ITEMS ARE COMPLETED, SIGN THE BOTTOM OF THIS DOCUMENT AND FAX TO THE NUMBER BELOW. ANY INQUIRIES, CALL 905-331-9917

*Note: This report is eligible for the Voluntary Compliance option. Should you choose to exercise it, please adhere to the following procedure:

1. All Inspectors orders appearing on the inspection report must be complied with.
2. The recipient must complete the Voluntary Compliance Option box. After complying with the above conditions, this inspection report must be returned directly to TSSA head office via fax or mail, by the last compliance date appearing on the inspection report.
3. Should TSSA fail to receive the Voluntary Compliance Form by the compliance date, an inspector will re-inspect and bill at double our normal rate.

For more information please contact TSSA at the number above or toll-free at 1-877-682-8772. It is an offence to knowingly make a false statement or to furnish false information under the Act, the Regulations or a Ministers order. (Technical Standards and Safety Act, 2000; Sect 37)

TECHNICAL STANDARDS & SAFETY AUTHORITY RECEIVED OCT 2 0 2005 FUELS SAFETY CORPORATE SERVICES DIVISION

FS-2005-0017300

OCT 2 4 2005

13 Total Time	14 Travel Time	15 Billable Hours	16 Additional Charges
2.5	1	2.5	

Voluntary Compliance Option* - Eligible? [X] Yes [ ] No *Please, refer to guidelines

I hereby confirm that all the Inspector's orders, appearing on this inspection report have been completed.

Print Name Vinayak Katnawer - retailer Client Signature _____

Debbie Danek — Inspector
(905) 331-9921 — Inspector Fax Number

As a not-for-profit regulatory authority, TSSA operates on a cost recovery basis. An invoice will be issued for this activity.

Putting Public Safety First

(Note: This is not an invoice)

Perform Inspection (FS) for Job 030150385-001 (FS INS 2004-08746)

Description: E-050655 CQ

Assignments

Status: Complete by DANEKD

Assigned To: Debbie Danek

Outcome: Minor Deficiencies - Must Reinspect

Schedule

Scheduled Start:	May 21, 2004
Scheduled Complete:	mmm dd, yyyy
Actual Start:	mmm dd, yyyy hh:mm
Actual Complete:	May 21, 2004 12:51

Reports

Details | Client | Ranger | Time | Documents | Comments | O/S Orders | Resolved/Orders

Note Type	Last Updated By	On	Locked Note

FS 2004-0008747 MOEE-SAC FS INS 2004-08746

Technical Standards and Safety Authority

Inspector's Report - Part A

Issued under Ontario's **Energy Act** and/or **Gasoline Handling Act**

Report No. **E- 050655**

PLEASE PRINT

Location Inspected: 1548654 Ontario Inc	Owner's Name: Shell Canada
Address: 3005 Dundas Street W.	Address:
City/town: Oakville Ontario	City/town:
Postal Code: Tel. No.:	Postal Code: Tel. No.:
Operator's Name:	Fuel Supplier: Shell (Harmac) City:
Licence No: 00766 37060 exp 14/01/05	
Contractor:	Registration No.:

OPERATION/SUB	LOC TYPE	POP DEN	FUEL	CLASS	REASON	TRIGGER	ACTION
11/01	02	01	GAS	03	04	04	01
ACT	**REG**	**DURATION**	**TRAVEL**	**BILLABLE**	**BILL**	**OCC RATE**	**CAUSE**
TSSA	217/01	1.5	1	25	(1) 2 3	3	—
CON FACT	**OCC DATE**	**OCC TIME**	**FIELD 1**	**SITE REM**	☐ Yes ☒ No	**COMPLETED?**	☒ Yes ☐ No
—	—	—	—				

Investigation/Audit/Occurrence Summary

report received through SAC MOEE regards excess water in gold product - attended site and met w/ Shell Engineer Martin Deblois, SAS (Claybar) contractor Dave Kitchen and CORRARO rep Jim Longworth

Equipment/Appliance/Component	**Equipment/Appliance/Component**
Type	Type
Description	Description
Manufacturer	Manufacturer
Model Serial No.	Model Serial No.
Material	Material
Fuel Input Rating	Fuel Input Rating
Date of Manufacture MAY 2 1 2004	Date of Manufacture
Installation Date	Installation Date
Supply Pressure Manifold Pressure	Supply Pressure Manifold Pressure

TECHNICAL STANDARDS & SAFETY AUTHORITY RECEIVED MAY 1 0 2004 FUELS SAFETY CORPORATE SERVICES DIVISION

As a not-for-profit regulatory authority, the Technical Standards and Safety Authority operates on a cost recovery basis. An invoice will be issued for this activity.

Client's Signature	Inspector's Name	Badge #	Date of Inspection
[signature]	[signature]	175	March 12/04

FS 09181 (12/99)

Les demandes d'une version française du présent document seront prises en considération.

Head Office

FS 2004-0005747 MOE-SAC FS INS 2004-08746

Technical Standards and Safety Authority

Inspector's Instructions/Orders Part B

Report No. E-050655

Issued under Ontario's **Energy Act** and **Gasoline Handling Act**

Date: 2004 03 12 (Y M D)

Location Address (No RR's)	3005 Dundas Street W. Oakville, Ont.		
Issued To	1598654 Ontario Inc.	Position	operator - Jimmy
Mailing Address	(Martin Dolan) Shell Canada		
Your attention is requested pursuant to:	Act: Technical Standards & Safety	Regulation: 217/01-LFHC.	
Licence # / Expiry	Registration # / Expiry	Certificate # / Expiry	

Order #	Section	You are hereby instructed to correct the following infraction(s)	Compliance Date
1	7.2.1	In the event of the suspicion of a leak or where required by the Director, the owner of a facility, the operator of a facility, the owner of the property in which the equipment is installed or the driver of the tank vehicle as the case may be, shall confirm whether a leak exists and determine the source of the leak	Apr 12/04
2	7.2.2(b)	In the event of a spill, or where a leak is confirmed, or where there is a discovery of a petroleum product that has escaped to the environment or inside a building, or where required by the Director the owner of a facility, the operator of a facility, the owner of the property in which the equipment is installed or the driver of the tank vehicle as the case may be, shall notify the Director as outlined in GAI/99-2 and provide all information to the Director or an inspector as required.	Apr 12/04

Received By: (print)	Inspector: (print) D Danek
Position:	Signature: D Danek
Signature:	Inspector's Badge #: 175

FS 09221(09/98)

Head Office

Technical Standards and Safety Authority

Inspector's Instructions/Orders Part B

Report No. E-050655

Date: 2004 03 12 (Y M D)

Issued under Ontario's **Energy Act** and **Gasoline Handling Act**

Location Address (No RR's)	3005 Dundas Street W., Oakville Ont		
Issued To	1548654 Ontario Inc	Position	Jimmy operator
Mailing Address	(Martin Deolos) Shell Canada		
Your attention is requested pursuant to:	Act: Technical Standards & Safety	Regulation: 217/01 - LFHC	
Licence # / Expiry	Registration # / Expiry	Certificate # / Expiry	

Order #	Section	You are hereby instructed to correct the following infraction(s)	Compliance Date
3	7.2.2(c)	cease the use of and empty product from any leaking part of the storage (tank system)	April 25/04
4	7.2.2(d)	repair replace or remove all defective equipment	April 25/04
5	7.2.2(e)	do everything practical to comply with GA 1/99	April 25/04
6	2.3.14	Where it is found that the cathodic protection system cannot be certified as required by section 2.3.13 the owner or operator shall bring the corrosion protection system to proper working order within 180 days or discontinue using the product handling for that system.	Aug. 31/04
		Provide a copy of this report when repairs done.	

Received By: (print)	Inspector: (print) D Drnek
Position:	Signature: D Drnek
Signature: Singh	Inspector's Badge #: 175

FS 09221(09/98)

Head Office

Perform Pre-License/Modification Inspection (FS) for Job 009472410-012 (000076637060)

Description: E068758 BY KY 14 JAN 2003 PRE-LICENCE INSPECTION

Assignments

Status: Complete by DANEKD

Assigned To: Debbie Danek

Outcome: Inspection Complete & Issue Temp License

Schedule

Scheduled Start:	Dec 06, 2002
Scheduled Complete:	mmm dd, yyyy
Actual Start:	mmm dd, yyyy hh:mm
Actual Complete:	Jan 14, 2003 19:01

Reports

Details | Deficiencies | Facility/Location | Time | Documents | Comments | O/S Orders | Resolved/Orders

Show Resolved?

Description	Found By	Date	Resolved By	Date

Job 0094724410 - 04/012 (0000766337060)

Technical Standards and Safety Authority

Inspector's Report - Part A

Issued under Ontario's Energy Act and/or Gasoline Handling Act

Report No. E-068758

PLEASE PRINT

Location Inspected	Owner's Name
1548634 Ontario Inc	Shell Canada
Address: 3005 Dundas Street W	Address:
City/town: Oakville Ontario	City/town:
Postal Code: L6M 4J4 Tel. No.	Postal Code: Tel. No.
Operator's Name: Inderjeet Singh Sidhu	Fuel Supplier: Harmac City
Licence No.: 0222766337060 exp 31/01/04	
Contractor	Registration No.

OPERATION/SUB	LOC TYPE	POP DEN	FUEL	CLASS	REASON	TRIGGER	ACTION
11/01	02	01	GAS	01	22	01	—

ACT	REG	DURATION	TRAVEL	BILLABLE	BILL	OCC RATE	CAUSE
TSSA	2/7/01	2	.5	2	1 2 3	—	—

CON FACT	OCC DATE	OCC TIME	FIELD 1	SITE REM	COMPLETED?
—	—	—	—	☐ Yes ☐ No	☒ Yes ☐ No

Investigation/Audit/Occurrence Summary

Pre licence inspection on self serve station

ok to licence

Equipment/Appliance/Component

Type	
Description	
Manufacturer	
Model	Serial No.
Material	
Fuel Input Rating	
Date of Manufacture	JAN 14 2003
Installation Date	
Supply Pressure	Manifold Pressure

Equipment/Appliance/Component

Type	
Description	
Manufacturer	
Model	Serial No.
Material	
Fuel Input Rating	
Date of Manufacture	
Installation Date	
Supply Pressure	Manifold Pressure

TECHNICAL STANDARDS & SAFETY AUTHORITY RECEIVED JAN 11 2003 FUELS SAFETY CORPORATE SERVICES DIVISION

As a not-for-profit regulatory authority, the Technical Standards and Safety Authority operates on a cost recovery basis. An invoice will be issued for this activity.

Client's Signature	Inspector's Name	Badge #	Date of Inspection
		175	Jan 2/03

FS 09181 (12/99)

Les demandes d'une version française du présent document seront prises en considération.

Head Office

Perform Pre-License/Modification Inspection (FS) for Job 009472410-005 (0076622265-C)

Description: E051084 Gasoline Statio Pre-license

Assignments

Status: Complete by DANEKD

Assigned To: Debbie Danek

Outcome: Inspection Complete & Issue Temp License

Schedule

Scheduled Start:	mmm dd, yyyy
Scheduled Complete:	mmm dd, yyyy
Actual Start:	Mar 22, 2002 00:00
Actual Complete:	Mar 22, 2002 00:00

Reports

Details | Deficiencies | Facility/Location | Time | Documents | Comments | O/S Orders | Resolved/Orders

Show Resolved?

Description	Found By	Date	Resolved By	Date

Technical Standards and Safety Authority

Inspector's Report - Part A

Issued under Ontario's **Energy Act** and/or **Gasoline Handling Act**

Report No. E-051084

PLEASE PRINT

Location Inspected	Owner's Name
Antony Ibrahim	Shell Canada
Address: 3005 Dundas St. W	Address
City/town: Oakville Ontario	City/town
Postal Code: L6M 4J4 Tel. No.	Postal Code Tel. No.
Operator's Name: Antony	Fuel Supplier City: Harmac
Licence No.: 6622265 exp 31/03/03	

RECEIVED APR 03 2002 TECHNICAL STANDARDS & SAFETY AUTHORITY FUELS SAFETY CORPORATE SERVICES DIVISION

Contractor	Registration No.

OPERATION/SUB	LOC TYPE	POP DEN	FUEL	CLASS	REASON	TRIGGER	ACTION
11/01	02	01	GAS	01	22	01	—

ACT	REG	DURATION	TRAVEL	BILLABLE	BILL	OCC RATE	CAUSE
TSSA	217/01	1.5	.5	1.5	(1) 2 3	0	—

CON FACT	OCC DATE	OCC TIME	FIELD 1	SITE REM	COMPLETED?
		—	—	☐ Yes ☐ No	☒ Yes ☐ No

Investigation/Audit/Occurrence Summary

pre-licence inspection on self serve station

ok to licence

Equipment/Appliance/Component

Type	U/G Tanks - Gasoline
Description	Single wall
Manufacturer	O'Connor Tank
Model / Serial No.	APR 05 2002
Material	Fibreglass
Fuel Input Rating	3 X 22700 Litres
Date of Manufacture	
Installation Date	1934
Supply Pressure / Manifold Pressure	

Equipment/Appliance/Component

Type	U/G. Piping - Gasoline
Description	Single wall
Manufacturer	
Model / Serial No.	red
Material	Fibreglass
Fuel Input Rating	
Date of Manufacture	
Installation Date	1934
Supply Pressure / Manifold Pressure	

As a not-for-profit regulatory authority, the Technical Standards and Safety Authority operates on a cost recovery basis. An invoice will be issued for this activity.

Client's Signature	Inspector's Name	Badge #	Date of Inspection
Antony Ibrahim	[signature]	175	Mar 22/02

FS 09181 (12/99)

Les demandes d'une version française du présent document seront prises en considération.

Head Office

Perform Pre-License/Modification Inspection (FS) for Job 009472410-004 (0076596980-P)

Description: E044670 Gasoline Statio Pre-license

Assignments

Status: Complete by DANEKD

Assigned To: Debbie Danek

Outcome: Inspection Complete & Issue Temp License

Schedule

Scheduled Start:	mmm dd, yyyy
Scheduled Complete:	mmm dd, yyyy
Actual Start:	Apr 25, 2001 00:00
Actual Complete:	Apr 25, 2001 00:00

Reports

Details | Deficiencies | Facility/Location | Time | Documents | Comments | O/S Orders | Resolved/Orders

Show Resolved?

Description	Found By	Date	Resolved By	Date

Technical Standards and Safety Authority

Inspector's Report - Part A

Issued under Ontario's **Energy Act** and/or **Gasoline Handling Act**

Report No. E-044670

PLEASE PRINT

Location Inspected: Fikri Fidal	Owner's Name: Shell Canada
Address: 3005 Dundas West	Address:
City/town: Oakville Ontario	City/town:
Postal Code: L6J 4Z3 Tel. No.: 905-847-8610	Postal Code: Tel. No.:
Operator's Name: Fikri	Fuel Supplier: Harmac City:
Licence No.: 007659 6980 exp: 30/04/02	
Contractor:	Registration No.:

OPERATION/SUB	LOC TYPE	POP DEN	FUEL	CLASS	REASON	TRIGGER	ACTION
11/01	02	01	GAS	01	22	01	—

ACT	REG	DURATION	TRAVEL	BILLABLE	BILL	OCC RATE	CAUSE
GHA	52/93	1.25	.5	/	(1) 2 3	—	—

CON FACT	OCC DATE	OCC TIME	FIELD 1	SITE REM	COMPLETED?
—	—	—	—	☐ Yes ☒ No	☒ Yes ☐ No

Investigation/Audit/Occurrence Summary

pre licence inspection on self serve station

ok to licence

Equipment/Appliance/Component

Type
Description
Manufacturer
Model Serial No.
Material
Fuel Input Rating
Date of Manufacture
Installation Date
Supply Pressure Manifold Pressure

MAY 08 2001

Equipment/Appliance/Component

Type
Description
Manufacturer
Model Serial No.
Material
Fuel Input Rating
Date of Manufacture
Installation Date
Supply Pressure Manifold Pressure

TECHNICAL STANDARDS & SAFETY AUTHORITY RECEIVED MAY 02 2001 FUELS SAFETY CORPORATE SERVICES DIVISION

As a not-for-profit regulatory authority, the Technical Standards and Safety Authority operates on a cost recovery basis. An invoice will be issued for this activity.

Client's Signature	Inspector's Name	Badge #	Date of Inspection
F. Adm	Danek	175	April 25/01

FS 09181 (12/99)

Les demandes d'une version française du présent document seront prises en considération.

Perform Pre-License/Modification Inspection (FS) for Job 009472410-003 (0076566074-P)

Description: E028254 Gasoline Statio Pre-license

Assignments

Status: Complete by DANEKD

Assigned To: Debbie Danek

Outcome: Inspection Complete & Issue Temp License

Schedule

Scheduled Start: mmm dd, yyyy

Scheduled Complete: mmm dd, yyyy

Actual Start: Jan 04, 2000 00:00

Actual Complete: Jan 04, 2000 00:00

Reports

Details | Deficiencies | Facility/Location | Time | Documents | Comments | O/S Orders | Resolved/Orders

Show Resolved?

Description	Found By	Date	Resolved By	Date

Technical Standards and Safety Authority

Inspector's Report / Rapport de l'inspecteur(trice) Part A/Partie A

Issued under **Ontario's Energy Act** and/or **Gasoline Handling Act**
Délivré en vertu de **Loi sur les hydrocarbures** ou de la **Loi sur la manutention de l'essence** de l'Ontario

Report No / N° de rapport: E- 028254

Location Inspected / Lieu inspecté	Owner's Name / Nom du/de la propriétaire
Jaroslaw Fedorchuk	Shell Canada
Address / Adresse: 3005 Dundas St W.	Address / Adresse
City/town / Ville: Oakville Ontario	City/town / Ville
Postal Code / Code postal: L6J 4Z3 Tel. No. / N° de tél.: 905-487-8610	Postal Code / Code postal — Tel. No. / N° de tél.
Operator's Name / Nom de la personne responsable: Jaroslaw	Fuel Supplier / Fournisseur de combustible: Shell / Harmac — City / Ville
Licence No / N° de permis: 0076516074 exp: 31/01/2001	

Contractor / Entrepreneur — Registration # / N° d'inscription

OPERATION/ACTIVITÉ	SUB TYPE/SOUS TYPE	LOC TYPE/ TYPE DE LIEU	POP DENS/ DENS. DE POP.	FUEL/COMBUSTIBLE	CLASS/CATÉGORIE	REASON/RAISON	TRIGGER/ MOTIVÉ PAR :
11	01	02	01	GAS	01	22	01

ACTION / MESURES PRISES	ACT/LOI	REG/RÈGLEMENT	DURATION/DURÉE	BILLABLE/ À FACTURER	TRAVEL/VOYAGE	BILL FACTURER Y/N O/N	
	GHA	521/93	1	Y	.5	Y	

DAMAGE /DOMMAGES	OCC RATE/ GRAV. DE L'ACC.	CAUSE/CAUSE	CON FACT/ FACT. CONTR.	OCC DATE/ DATE DE L'ACC.	OCC TIME/ HEURE DE L'ACC.	MANDATED Y/N MANDAT O/N	
–	–	–	–	–	–	Y	

FIELD 1/DOMAINE 1	CALL/INTERVENTION	CONSULT Y/N CONSULT. O/N	SITE REM Y/N REMÉDIER O/N				COMPLETED? Y/N TERMINÉE? O/N
–	01	–	–				Y

Comments/Commentaires

Pre licence inspection on self serve station
ok to licence

Equipment/Appliance/Component / Matériel/Appareil/Composant

Type/Type	Code/Code
Description/Description	
Manufacturer/Fabricant	
Model/Modèle	Serial No/ N° de serie
Material/Matériel	
Corrosion Protection/Protection contre la corrosion	
Fuel Input Rating/Débit de combustible	
Capacity/Capacité	
Installation Date/Date d'installation	
Manufacture Date/Date de fabrication	
Supply Pressure/ Pression d'alimentation	Manifold Pressure/ Pression d'admission

Equipment/Appliance/Component / Matériel/Appareil/Composant

Type/Type	Code/Code
Description/Description	
Manufacturer/Fabricant	
Model/Modèle	Serial No/ N° de serie
Material/Matériel	
Corrosion Protection/Protection contre la corrosion	
Fuel Input Rating/Débit de combustible	
Capacity/Capacité	
Installation Date/Date d'installation	
Manufacture Date/Date de fabrication	
Supply Pressure/ Pression d'alimentation	Manifold Pressure/ Pression d'admission

TECHNICAL STANDARDS & SAFETY AUTHORITY RECEIVED JAN 24 2000 FUELS SAFETY CORPORATE SERVICES DIVISION

Client's Signature/Signature du client/de la cliente	Inspector's Name/Nom de l'inspecteur(trice)	Badge No / N° d'insigne: 175
Kelly	Danek	Date of Inspection/ Date d'inspection: Y/A 2000 M/M 01 D/J 14

FS 09181 (05/97)

Head Office

Perform Pre-License/Modification Inspection (FS) for Job 009472410-002 (0076523216-P)

Description: E020571 Gasoline Statio Pre-license

Assignments

Status: Complete by DANEKD

Assigned To: Debbie Danek

Outcome: Inspection Complete & Issue Temp License

Schedule

Scheduled Start:	mmm dd, yyyy
Scheduled Complete:	mmm dd, yyyy
Actual Start:	Jun 24, 1998 00:00
Actual Complete:	Jun 24, 1998 00:00

Reports

Details | Deficiencies | Facility/Location | Time | Documents | Comments | O/S Orders | Resolved/Orders

Show Resolved?

Description	Found By	Date	Resolved By	Date

Technical Standards and Safety Authority

Inspector's Report/ Rapport de l'inspecteur(trice) Part A/Partie A

Issued under Ontario's Energy Act and/or Gasoline Handling Act
Délivré en vertu de Loi sur les hydrocarbures ou de la Loi sur la manutention de l'essence de l'Ontario

Report No / N° de rapport: E- 020571

Location Inspected / Lieu inspecté: Bill A. Tajeddine	Owner's Name / Nom du/de la propriétaire: Shell Canada
Address / Adresse: 3005 Dundas st. W.	Address / Adresse:
City/town / Ville: Oakville Ontario	City/town / Ville:
Postal Code / Code postal: L6J 4Z3 — Tel. No. / N° de tél.	Postal Code / Code postal — Tel. No. / N° de tél.
Operator's Name / Nom de la personne responsable: Bill	Fuel Supplier / Fournisseur de combustible: Shell — City / Ville
Licence No / N° de permis: 007652 3216 exp: 30/06/99	

Contractor / Entrepreneur — Registration # / N° d'inscription

OPERATION/ACTIVITÉ	SUB TYPE/SOUS TYPE	LOC TYPE/ TYPE DE LIEU	POP DENS/ DENS. DE POP.	FUEL/COMBUSTIBLE	CLASS/CATÉGORIE	REASON/RAISON	TRIGGER/ MOTIVÉ PAR :
11	01	02	01	GAS	03	22	01

ACTION / MESURES PRISES	ACT/LOI	REG/RÈGLEMENT	DURATION/DURÉE	BILLABLE/ À FACTURER	TRAVEL/VOYAGE	BILL FACTURER Y/N O/N	
	GTHA	52/93	1	Y	.5	Y	

DAMAGE /DOMMAGES	OCC RATE/ GRAV. DE L'ACC.	CAUSE/CAUSE	CON FACT/ FACT. CONTR.	OCC DATE/ DATE DE L'ACC.	OCC TIME/ HEURE DE L'ACC.	MANDATED Y/N MANDAT O/N	
						Y	

FIELD 1/DOMAINE 1	CALL/INTERVENTION	CONSULT Y/N CONSULT. O/N	SITE REM Y/N REMÉDIER O/N				COMPLETED? Y/N TERMINÉE? O/N
	01	Y	N				Y

Comments/Commentaires

pre-licence inspection on self serve station

ok to licence

Equipment/Appliance/Component / Matériel/Appareil/Composant

Type/Type	Code/Code
Description/Description	
Manufacturer/Fabricant	
Model/Modèle	Serial No/ N° de serie
Material/Matériel	
Corrosion Protection/Protection contre la corrosion	
Fuel Input Rating/Débit de combustible	
Capacity/Capacité	
Installation Date/Date d'installation	
Manufacture Date/Date de fabrication	
Supply Pressure/ Pression d'alimentation	Manifold Pressure/ Pression d'admission

Equipment/Appliance/Component / Matériel/Appareil/Composant

Type/Type	Code/Code
Description/Description	
Manufacturer/Fabricant	
Model/Modèle	Serial No/ N° de serie
Material/Matériel	
Corrosion Protection/Protection contre la corrosion	
Fuel Input Rating/Débit de combustible	
Capacity/Capacité	
Installation Date/Date d'installation	
Manufacture Date/Date de fabrication	
Supply Pressure/ Pression d'alimentation	Manifold Pressure/ Pression d'admission

Client's Signature/Signature du client/de la cliente	Inspector's Name/Nom de l'inspecteur(trice)	Badge No / N° d'insigne	Date of Inspection/ Date d'Inspection Y/A M/M D/J
Tajeddine	Marek	175	98 06 24

FS 09/81 (05/97)

Head Office

Perform Periodic Inspection (FS) for Job 009472410-008 (D017672)

Description: D017672 Gasoline Statio 26

Assignments

Status: Complete by DANEKD

Assigned To: Debbie Danek

Outcome: Inspection Complete

Schedule

Scheduled Start:	mmm dd, yyyy
Scheduled Complete:	mmm dd, yyyy
Actual Start:	Jul 12, 1995 00:00
Actual Complete:	Jul 12, 1995 00:00

Reports

Details | Deficiencies | Time | Documents | Comments | O/S Orders | Resolved/Orders | Create Def

Show Resolved?

Description	Found By	Date	Resolved By	Date

Ministry of Consumer and Commercial Relations
Ontario
Ministère de la Consommation et du Commerce

Technical Standards Division
Division des normes techniques

Inspection and Enforcement Branch
Direction de l'inspection et de l'application des mesures législatives

Inspector's Report/ Rapport de l'inspecteur/inspectrice
Part A/Partie A

Report #/N° de rapport : D- 17672

Location Inspected/Lieu inspecté	Owner's Name / Nom du/de la propriétaire
Palerno Shell	Shell
Address/Adresse: 3005 Dundas St W	Address/Adresse:
City/town/Ville: Oakville	City/town/Ville:
Postal Code/Code postal / Tel.No./N° de tél.	Postal Code/Code postal / Tel.No. /N° de tél.
Operator's Name/Nom de la personne responsable: Bernie Deore	Fuel Supplier/Fournisseur de combustible: Shell / City/Ville
Licence #/N° de permis: 0012903001	

Contractor/Entrepreneur: | Registration #/N° d'inscription:

OPERATION/ACTIVITÉ	SUB TYPE/ SOUS-TYPE	LOC TYPE/ TYPE DE LIEU	POP DENS/ DENS. DE POP.	FUEL/ COMBUSTIBLE	CLASS/ CATÉGORIE	REASON/ RAISON	TRIGGER/ MOTIVÉ PAR :
11	01	02	01	GAS	03	26	01

ACTION/ MESURES PRISES	ACT/LOI	REG/RÈGLEMENT	DURATION/ DURÉE	BILLABLE/ À FACTURER	TRAVEL/ DÉPLACEMENT	BILL FACTURER Y/N (O/N)	
	GHA	521/93	1	1	.5	Y-1	

DAMAGE/ DOMMAGES	OCC RATE/ GRAV. DE L'ACC.	CAUSE/CAUSE	CON FACT/ FACT. CONTR.	OCC DATE/ DATE DE L'ACC.	OCC TIME/ HEURE DE L'ACC.	MANDATED Y/N MANDAT (O/N)	

FIELD 1/ DOMAINE 1	CALL/ INTERVENTION	CONSULT Y/N CONSULT. (O/N)	SITE REM Y/N REMÉDIER (O/N)				F/U REQ'D? Y/N SUIVI REQUIS? (O/N)
	01						N

Comments/Remarques:

audit on self serve station

Equipment/Appliance/Component / Matériel/Appareil/Composant

Type/Type / Code/Code	Type/Type / Code/Code
Description/Description	Description/Description
Manufacturer/Fabricant	Manufacturer/Fabricant
Model/Modèle / Serial #/N° de série	Model/Modèle / Serial #/N° de série
Material/Matériel	Material/Matériel
Corrosion Protection/Protection contre la corrosion	Corrosion Protection/Protection contre la corrosion
Fuel Input Rating/Débit de combustible	Fuel Input Rating/Débit de combustible
Capacity/Capacité	Capacity/Capacité
Installation Date/Date d'installation	Installation Date/Date d'installation
Manufacture Date/Date de fabrication	Manufacture Date/Date de fabrication
Supply Pressure/ Pression d'alimentation / Manifold Pressure/ Pression d'admission	Supply Pressure/ Pression d'alimentation / Manifold Pressure/ Pression d'admission

RECEIVED
LICENSING & ADMIN
AUG 01 1995
TECHNICAL STANDARDS DIVISION

Client's Signature / Signature du client/de la cliente	Inspector's Name / Nom de l'inspecteur/inspectrice	Badge #/N° d'insigne: 159
B. Allen	D Danek	Date of Inspection/ Date de l'inspection Y/A M/M D/J: 95 07 12

09181(10/94)

Head Office

Perform Periodic Inspection (FS) for Job 009472410-007 (D004479)

Description: D004479 Gasoline Statio 09

Assignments

Status: Complete by DANEKD

Assigned To: Debbie Danek

Outcome: Inspection Complete

Schedule

Scheduled Start:	mmm dd, yyyy
Scheduled Complete:	mmm dd, yyyy
Actual Start:	Feb 27, 1995 00:00
Actual Complete:	Feb 27, 1995 00:00

Reports

Details | Deficiencies | Time | Documents | Comments | O/S Orders | Resolved/Orders | Create Def

Show Resolved?

Description	Found By	Date	Resolved By	Date

Ontario

Ministry of Consumer and Commercial Relations / Ministère de la Consommation et du Commerce

Technical Standards Division / Division des normes techniques

Inspection & Enforcement Branch / Direction de l'inspection et de l'application des mesures législatives

Inspector's Report / Rapport de l'inspecteur/inspectrice

Part A/Partie A

Report #/N° de rapport : D- 04479

Location Inspected/Lieu inspecté	Owner's Name / Nom du/de la propriétaire
Shell - Palerno Shell	
Address/Adresse: (Hwy 5+25) 3005 Dundas	Address/Adresse
City/town/Ville: Oakville	City/town/Ville
Postal Code/Code postal / Tel.No./N° de tél.	Postal Code/Code postal / Tel.No. /N° de tél.
Operator's Name/Nom de la personne responsable	Fuel Supplier/Fournisseur de combustible / City/Ville: Shell
Licence #/N° de permis: 0012903001	

Contractor/Entrepreneur — Registration #/N° d'inscription

OPERATION/ACTIVITÉ	SUB TYPE/ SOUS-TYPE	LOC TYPE/ TYPE DE LIEU	POP DENS/ DENS. DE POP.	FUEL/ COMBUSTIBLE	CLASS/ CATÉGORIE	REASON/ RAISON	TRIGGER/ MOTIVÉ PAR :
11	01	02	01	GAS	03	09	01

ACTION/ MESURES PRISES	ACT/LOI	REG/RÈGLEMENT	DURATION/ DURÉE	BILLABLE/ À FACTURER	TRAVEL/ DÉPLACEMENT	BILL Y/N FACTURER (O/N)	
	GHA	521/93	.5	~~O~~	.5	N	

DAMAGE/ DOMMAGES	OCC RATE/ GRAV. DE L'ACC.	CAUSE/CAUSE	CON FACT/ FACT. CONTR.	OCC DATE/ DATE DE L'ACC.	OCC TIME/ HEURE DE L'ACC.	MANDATED Y/N MANDAT (O/N)	
						Y	

FIELD 1/ DOMAINE 1	CALL/ INTERVENTION	CONSULT Y/N CONSULT. (O/N)	SITE REM Y/N REMÉDIER (O/N)				F/U REQ'D? Y/N SUIVI REQUIS? (O/N)
	01						N

Comments/Remarques

Complaint regarding diesel put into regular gasoline tank @ station @ Hwy 25 + 5 in Oakville

see Comments

Equipment/Appliance/Component / Matériel/Appareil/Composant

Type/Type	Code/Code
Description/Description	
Manufacturer/Fabricant	
Model/Modèle	Serial #/N° de série
Material/Matériel	
Corrosion Protection/Protection contre la corrosion	
Fuel Input Rating/Débit de combustible	
Capacity/Capacité	
Installation Date/Date d'installation	
Manufacture Date/Date de fabrication	
Supply Pressure/ Pression d'alimentation	Manifold Pressure/ Pression d'admission

Equipment/Appliance/Component / Matériel/Appareil/Composant

Type/Type	Code/Code
Description/Description	
Manufacturer/Fabricant	
Model/Modèle	Serial #/N° de série
Material/Matériel	
Corrosion Protection/Protection contre la corrosion	
Fuel Input Rating/Débit de combustible	
Capacity/Capacité	
Installation Date/Date d'installation	
Manufacture Date/Date de fabrication	
Supply Pressure/ Pression d'alimentation	Manifold Pressure/ Pression d'admission

Client's Signature / Signature du client/de la cliente	Inspector's Name / Nom de l'inspecteur/inspectrice	Badge #/N° d'insigne: 159
	Debbie Danek	Date of Inspection/ Date de l'inspection: Y/A 95 M/M 02 D/J 27

09181(10/94)

Head Office

Ontario Ministry of Consumer and Commercial Relations / Ministère de la Consommation et du Commerce
Technical Standards Division / Division des normes techniques
Inspection and Enforcement Branch / Direction de l'inspection et de l'application des mesures législatives

Inspector's Report
Rapport de l'inspecteur/inspectrice
Part C/Partie C

Report #/ N° de rapport : D-04479

Date : 95 (Y/A) 02 (M/M) 27 (D/J)

Location Address/Adresse du lieu inspecté
Shell Self Serve 3005 Dundas
cor: (Hwy 5 + 25) Oakville

Comments/Remarques

- as requested by regional manager I travelled to the above intersection to determine if diesel gasoline could have been dispensed into regular gasoline tank

- visited only site at corners of Hwy 5 + 25 which was a Shell station - no diesel pumps at station only unleaded gasoline

- travelled north to Burnham-thorpe - no gasoline stations - travelled south to Upper middle Rd - no gasoline stations

- to the west of Hwy 25 there is an XL station with diesel dispensers/pumps clearly marked with the correct size nozzles.

- to the east of Hwy 25 is a Pioneer also with diesel clearly marked with the correct size nozzles.

ACTION/ MESURES PRISES	DURATION/DURÉE	BILLABLE/ À FACTURER	CALL/ INTERVENTION	TRAVEL/ DÉPLACEMENT			F/U REQUIRED/ SUIVI REQUIS?
	.5	0	01	.5			N
DAMAGE/ DOMMAGES	OCC RATE/ GRAV. DE L'ACC.	CAUSE/CAUSE	CON FACT/ FACT. CONT.	OCC DATE/ DATE DE L'ACC.	OCC TIME/ HEURE DE L'ACC.	FIELD 1/ DOMAINE 1	MANDATED Y/N MANDAT (O/N)
							Y

Client's Signature/Signature du client/de la cliente

Inspector's Name/Nom de l'inspecteur/inspectrice
Debbie Danek

Badge#/N° d'insigne 159

09180 (10/94)

Page 1 of/de 1

Head Office

Ontario | Ministry of Consumer and Commercial Relations | Technical Standards Division | Fuels Safety Branch

Inspector's Instructions

To: Shell Can Petroleums (Name) — Aug 02 1991

3005 DUNDAS ST W (Address)

Hwy 25 And 5 OAKVILLE

Your attention is required pursuant to

Energy Act ☐ Gasoline Handling Act ☒

Propane ☐ Gasoline ☒ Fuel Oil ☐

Natural Gas Utilization ☐ Transmission and Distribution ☐

Regulation 439 AND AMENDMENTS

You are hereby instructed to correct the infractions noted

PURSUANT TO SECTION 10(7)

CEASE & DESIST OPERATION OF STATION UNTIL SECTION 8(35) IS COMPLIED WITH AND ALL MATTER IS MADE SAFE AND CONTAMINATION REMOVED.

EFFECTIVE 14:15 hrs Aug 02/91

Site Allowed to Re-open Aug 09/91 after witness of Air Test & Clean up. SKIMMER INSTALLATION.

OFFICE COPY

Received by	To be completed by	Inspector	Copy
[signature] Signature	Aug 02 1991	D. Cox [signature] Signature	2

09181 (02/85)

ORACLE **Installed Base**

Home Profile Sign Out Help

Item Instances

General
Additional Attributes
Assets
Party Relationships
Owner
Parties
Accounts
Contacts
Summary
Pricing
Counters
Contracts
Notes
Transactions
Service Requests
Repair Orders
History
Operating Units
Configuration

Quick Find Item Instance Go Advanced Search

Logged In As SPNG

Item Instance Details

Item Instance: 16377854
Item: FS CYLINDER EXCHANGE
Item Description: FS Cylinder Exchange

General Attributes

Organization Name	TSSA Item Master	Instance Name	
Last Version Label	1	Version Label Date	14-MAY-2003 16:21
Revision		New Version Label	
System	Go	External Reference	
Item Instance Type		Accounting Classification	Customer Product
Operational Status	Not Used	Lot Number	: not lot-controlled
Status	Inactive	Condition	
Quantity	1	UOM	Each
Start Date	14-MAY-2003	Start Time	16:21
Shipped On Date		Shipped On Time	
End Date		End Time	
Return By Date		Return By Time	
Actual Return Date		Actual Return Time	

* Indicates required field.
Time format is HH24:MM
Note: You do not have permission to make updates in this page.

☑ Creation Completed

Owner

Party Type Party
Party Name: 2149120 ONTARIO INC O/A GAS STN
Party Number: 22803
Account Number: 7594
Account Name 2149120 ONTARIO INC O/A GAS STN

Current Location

* Type Party Site Go
Party Name 2149120 ONTARIO Go
Party Number 22803 Go
*Line 1 3005 DUNDAS ST V Go
Site Number 19852 Go
Address 3005 DUNDAS ST W, HWYS 5 & 25
OAKVILLE, L6M 4J4, CA

Installed At

Installed Date 14-MAY-2003
Installed Time 16:21
Time format is HH24:MM
Change in installed date does not change contract date.
Type Go

Order

Sales Order Number
Sales Order Date

Sales Order Line
Purchase Order Number Agreement Name

Item Flags

- [x] BOM Enabled
- [x] IB Trackable
- [ ] Inventory Trackable
- [x] Sellable
- [ ] Shippable

Item Views

- [ ] Merchant
- [x] Customer

Descriptive Flexfields

Context Value: FS Facility

Select Context Value and click 'Go' to show relevant fields.

Facility Type 2

Facility Type 3

Total Capacity - Liquid Fuel Tanks (L)

Total Capacity - Propane Tank s (USWG)

14th Floor, Centre Tower
3300 Bloor Street West
Toronto, Ontario
Canada M8X 2X4
Tel.: 416.734.3300
Fax: 416.231.1626
Toll Free: 1.877.682.8772

www.tssa.org

May 20, 2010

Mr. Lee Howell, P. Geo., CCEP
Shell Canada Products
90 Sheppard Avenue East, Suite 600
Toronto, Ontario
M2N 6Y2

RECORDS
to be filed.

Former Shell Retail Station – 3005 Dundas Street West, Oakville, Ontario (C05875)
TSSA Service Request Number: 389076

Dear Mr. Howell,

We have received copies of the following documents prepared by Wardrop Engineering Inc. (Wardrop):

- "*Phase II Environmental Site Assessment, Shell Retail No. C05875, Oakville, Ontario*", September 2008;
- "*Environmental Site Assessment of Right-of-Way Property Southeast of Former Shell Canada Products Retail Fuel Outlet (C05875) in Oakville, Ontario – FINAL*", October 6, 2008;
- "*Site Monitoring Report*", March 23, 2009;
- "*Environmental Remediation During Site Decommissioning, Former Shell Station – C05878, 3005 Dundas Street West, Oakville, Ontario*", June 2, 2009;
- "*Environmental Assessment and Remediation of Right-of-Way Properties Adjacent to Former Shell Retail Station – C05875, Oakville, Ontario*", June 2, 2009; and,
- "*Post Remediation Assessment, Former Shell Retail Station (C05875), 3005 Dundas Street West, Oakville, Ontario*", June 2, 2009.

The reports provide details of environmental assessment and remediation work conducted at and adjacent to the site including environmental assessment work following the removal of underground storage tanks (USTs) and associated fuel handling equipment. We have reviewed the reports and note the following:

- Wardrop selected the Ministry of the Environment (MOE) Table 2 Site Condition Standards (SCS) as appropriate for use at this site.
- Wardrop notes that excavation work was conducted following equipment removal and approximately 5,981 tonnes of soil was removed and disposed offsite over the course of the work program.
- Wardrop reports that soil samples collected from the limits of the excavation were submitted for laboratory analysis of benzene, toluene, ethylbenzene, xylenes (BTEX) and petroleum hydrocarbon fractions F1 to F4 (PHC F1-F4).
- Laboratory results reported by Wardrop indicate that soil samples collected from the excavated area beyond the property limits along Dundas Street West and Old Bronte Road exceed the MOE Table 2 SCS for one or more of BTEX and PHC F1-F4.
- Wardrop reports that environmental assessment work was conducted following the remediation of the site, and included the advancement of six (6) boreholes on-site, each completed as monitoring wells (BH301 to BH306). Wardrop reports that groundwater samples were collected from each of the on-site monitoring wells and submitted for laboratory analysis of BTEX, PHC F1-F4 and methyl tertiary butyl ether (MTBE).

- Laboratory results for groundwater samples collected from two (2) on-site locations (BH302 and BH304) exceeded the MOE Table 2 SCS for one or more of benzene and ethylbenzene.
- Wardrop notes that environmental assessment work has been conducted in the right-of-way adjacent to the site, and included the installation of eight (8) monitoring wells (BH101 to BH108).
- Soil samples collected from the boreholes were less than the MOE Table 2 SCS for BTEX and PHC F1-F4.
- Groundwater samples from off-site monitoring wells BH101 t o BH1-8 were submitted for laboratory analysis of BTEX, PHC F1-F4 and MTBE in April, September and/or June 2008. The groundwater sample from monitoring well location BH105 exceeded the MOE Table 2 SCS for MTBE.

TSSA understands that all petroleum storage equipment has been removed from the property and hydrocarbon impacts to soil and groundwater remain on- and/or off-site. Therefore, under a Memorandum of Understanding with the MOE, regulatory jurisdiction for closed fuel handling sites transfers to the MOE. As such, the "lead" agency for this project is being transferred from the TSSA to the Ontario Ministry of the Environment Halton-Peel District Office. The contact for the file is Ms. Denise Plourde (905-319-7035). TSSA will provide Ms. Plourde with a copy of the above referenced reports.

If you require further information, please contact me directly. Please refer to the above noted Service Request number when contacting TSSA regarding this file.

Yours truly,

Lisa Howey

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c. Denise Plourde – Ministry of the Environment, Halton-Peel District Office
c. Sridhar Sangaraju, P.Geo. – SNC-Lavalin Environment

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Report to:

SHELL CANADA PRODUCTS

Phase II Environmental Site Assessment
Shell Retail No. C05875
Oakville, Ontario

Document No. 0813480101-REP-V0001-00

Report to:

SHELL CANADA PRODUCTS

PHASE II ENVIRONMENTAL SITE ASSESSMENT
SHELL RETAIL NO. C05875
OAKVILLE, ONTARIO

SEPTEMBER 2008

Prepared by _____ Date September 25, 2008
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REVISION HISTORY

REV. NO	ISSUE DATE	PREPARED BY AND DATE	REVIEWED BY AND DATE	APPROVED BY AND DATE	DESCRIPTION OF REVISION

PHASE II ESA SUMMARY SHEET

Type of Facility	Former Shell Canada Products Service Station
Date of Assessment Activities on Site	December 17 and 18, 2007 – Borehole Drilling and Monitor Installations (BH1-BH6). January 7 and 8, 2008 – Ground Water Purging and Ground Water Sampling (BH1 – BH6). April 3, 2008 – Borehole Drilling and Monitor Installations (BH7 – BH8). April 7, 2008 – Ground Water Purging and Ground Water Sampling (BH7 – BH8). May 6, 2008 – Ground Water Monitoring and Surveying (BH1 - BH8).
Number of Boreholes Drilled	Eight (8)
Number of Wells Installed in Boreholes	Eight (8)
Type of Organic Vapour Meter (OVM)	Gastechtor 1238 (methane elimination mode).
Aquifer Usage 100 m Radius	On and south of Site (currently not in use), north of the Site (private residences).

BOREHOLE	**BH1**	**BH2**	**BH3**	**BH4**
Well Installed	Yes	Yes	Yes	Yes
Depth Drilled (mbg)	4.9	5.0	4.3	4.3
Soil Type	Silty clay, shale	Clay, silt, sand/ shale	Clay, silt, sand/ shale	Clay, silt, sand/ shale
Depth of Shale Bedrock (mbg)	4.6	4.6	4.0	4.3
Dominant Fill Soil Type	Silty clay	Granular Base below asphalt	Granular Base below asphalt, silty clay	Granular Base below asphalt
Dominant Native Soil Type	Silty clay, shale	Silty clay, shale	Silty clay, shale	Silty clay, shale
Homogeneous	Yes	Yes	Yes	Yes
Depth to Water or Free Product (mbtop/mbg)	3.38/3.54	2.95/3.08	0.11/0.32	0.81/0.95
Screen Interval of Well (mbg)	1.3 – 4.3	1.3 – 4.4	0.8 – 3.8	0.6 – 3.6
Exceeds Selected Soil Standards **Table 2** **Table 3**	 No No	 Yes No	 Yes Yes	 Yes No
Exceeds Selected Water Standards **Table 2** **Table 3**	 No No	 Yes No	 Yes No	 Yes No
Free Product Thickness in Monitoring Well (cm)	0	0	0	0
Shown on Figure	3, 5, and 6	3, 5, and 6	3, 5, and 6	3, 5, and 6

BOREHOLE	BH5	BH6	BH7	BH8
Well Installed	Yes	Yes	Yes	Yes
Depth Drilled (mbg)	5.0	4.4	4.4	4.4
Soil Type	Clay, silt, sand/ shale	Clay, silt, sand/ shale	Clay, silt, sand/ shale	Clay, silt, sand/ shale
Depth of Shale Bedrock (mbg)	4.7	4.4	4.4	4.4
Dominant Fill Soil Type	Granular Base below asphalt, clay	Granular Base below asphalt	Granular Base below asphalt	Silty clay
Dominant Native Soil Type	Silty clay, shale	Silty clay, shale	Silty clay, shale	Silty Clay, shale
Homogeneous	Yes	Yes	Yes	Yes
Depth to Water or Free Product (mbtop/mbg)	2.74/2.85	0.29/0.41	0.95/1.11	0.96/1.06
Screen Interval of Well (mbg)	1.3 – 4.3	0.6 - 3.7	0.6 – 3.7	0.6- 3.7
Exceeds Selected Soil Standards Table 2 Table 3	 Yes No	 Yes Yes	 No No	 No No
Exceeds Selected Water Standards Table 2 Table 3	 Yes No	 Yes No	 Yes No	 No No
Free Product Thickness in Monitoring Well (cm)	0	0	0	0
Shown on Figure	3, 5, and 6	3, 5, and 6	3, 5, and 6	3, 5, and 6

Abbreviations: (mbg) = metre below grade; (mbtop) = metres below top of pipe; (cm) = centimetres.

EXECUTIVE SUMMARY

Under the authorization of Shell Canada Products (Shell), Wardrop Engineering Inc. conducted a Phase II Environmental Site Assessment at the former Shell retail gas bar located at 3005 Dundas Street West, in the Town of Oakville, Ontario (herein referred to as the "Site").

The assessment activities were conducted in two phases between December 17, 2007, and May 6, 2008.

The primary objective of the work was to provide an assessment of the Site conditions with respect to possible petroleum hydrocarbon impact at the Site by drilling eight boreholes and sampling soil and groundwater. The Site was assessed in accordance with the requirements of *Ontario Regulation 153/04*, Ministry of the Environment (MOE) Table 2 Full Depth Generic Site Condition Standards for commercial land use and medium and fine textured soils.

On December 17 and 18, 2008, six boreholes (BH1 – BH6) were drilled at the Site. On April 3, 2008, two additional boreholes (BH7 and BH8) were drilled to depths of 4.4 mbg. Groundwater monitoring wells were installed in all boreholes.

The site stratigraphy encountered in the eight boreholes predominantly consisted of a silty clay overburden in depths ranging from 4.0 to 4.7 metres below grade (mbg) overlying shale bedrock. All boreholes were terminated at refusal within competent shale bedrock as per the predetermined work scope.

Groundwater in the overburden was encountered at depths ranging from 0.11 to 3.85 mbg in the monitoring wells. There was evidence of perched water in areas where the fine-textured native soil was disturbed (i.e., related to site structures and equipment such as underground storage tanks) during both these monitoring events. Due to this, consistent groundwater flow direction could not be reliably interpreted. Based on local groundwater studies however, it is expected that groundwater flows to the south and east, towards tributaries of Fourteen Mile creek which are located at a distance greater than 100 m of the site. Groundwater is currently used in the area as a source of potable water by private well owners east of the Site.

Petroleum impact resulting in soil and groundwater exceedences, when compared to the MOE Table 2 Standards for potable groundwater conditions, were identified in five of the eight boreholes.

TABLE OF CONTENTS

1.0 INTRODUCTION AND OBJECTIVE 1

2.0 BACKGROUND INFORMATION 2

2.1 SITE SETTING 2
2.2 PREVIOUS ENVIRONMENTAL INVESTIGATIONS 2

3.0 SELECTION OF ASSESSMENT STANDARDS 5

3.1 ENVIRONMENTALLY SENSITIVE AREAS 5
3.2 LAND USE 6
3.3 GEOLOGY AND GROUNDWATER 6
3.4 FULL DEPTH VERSUS STRATIFIED CONDITION STANDARDS 7
3.5 SOIL DESCRIPTIONS 7

4.0 FIELD ACTIVITIES 8

4.1 BOREHOLE DRILLING AND SOIL SAMPLING 8
4.2 GROUNDWATER MONITORING AND SAMPLING 10
4.3 SURVEYING 11

5.0 RESULTS 12

5.1 SOIL LABORATORY RESULTS 12
5.2 GROUNDWATER MONITORING AND LABORATORY RESULTS 12

6.0 SUMMARY 14

7.0 LIMITATIONS 15

FIGURES

TABLES

APPENDIX A: SITE PHOTOGRAPHS

APPENDIX B: BOREHOLE LOGS

APPENDIX C: LABORATORY DATA PACKAGE

APPENDIX D: SAMPLING METHODOLOGY

APPENDIX E: WASTE MANFESTS

APPENDIX F: MOE WELL RECORDS

APPENDIX G: SOIL AND GROUNDWATER SAMPLE QUALITY ASSURANCE/QUALITY CONTROL

LIST OF FIGURES

Figure 1:	Site Plan Location – Oakville, Shell Retail No. C05875
Figure 2:	Local Land Use Plan - Shell Retail No. C05875
Figure 3:	Site Plan - Shell Retail No. C05875
Figure 4:	Soil Laboratory Data - Shell Retail No. C05875
Figure 5:	Groundwater Elevations and Laboratory Data - Shell Retail No. C05875
Figure 6:	Standard Selection Flow Chart - Shell Retail No. C05875

LIST OF TABLES

Table 1:	Historic Groundwater Laboratory Analysis (Drilled Water Well and Washroom Tap) – Petroleum Hydrocarbon Parameters
Table 2:	Grain Size and pH Analyses
Table 3:	Summary of Soil Laboratory Analyses, Petroleum Hydrocarbon Parameters
Table 4:	Summary of Soil Laboratory Analyses, Polycyclic Aromatic Hydrocarbons (PAHs)
Table 5:	Summary of Soil Laboratory Analyses, Volatile Organic Compounds (VOCs)
Table 6:	Summary of Soil Laboratory Analyses, Regulation 558/00 TCLP Leachate Analysis
Table 7:	Monitoring and Survey Data, January 8, 2008
Table 8:	Monitoring and Survey Data, May 6, 2008
Table 9:	Summary of Groundwater Laboratory Analyses, Petroleum Hydrocarbon Parameters
Table 10:	Summary of Groundwater Laboratory Analyses, Volatile Organic compounds (VOCs)

1.0 INTRODUCTION AND OBJECTIVE

Under the authorization of Shell, Wardrop conducted a Phase II Environmental Site Assessment at the former retail gas bar located at 3005 Dundas Street West, in the Town of Oakville, Ontario.

The objective of the work was to provide a preliminary assessment of the soil and groundwater conditions at the Site with respect to possible petroleum hydrocarbon impact by drilling eight boreholes to the top of the shale bedrock anticipated to be encountered at a depth of between 3 - 5 mbg.

The standards to assess the Site conditions are provided in the *Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act*, published by the Ministry of Environment (MOE), dated March 9, 2004. The standards were selected using *Ontario Regulation 153/04* made under the Environmental Protection Act.

The assessment activities were conducted in two phases between December 17, 2007, and May 6, 2008.

2.0 BACKGROUND INFORMATION

2.1 SITE SETTING

The Site is located on the northwest corner of Old Bronte Road and Dundas Street West, in the Town of Oakville, Ontario. The geographical location is shown on Figure 1. The Site is situated in an area of mixed, low-density, light-commercial and residential land use. A local land use plan showing Site setting and neighbouring land use has been included as Figure 2.

At the time of this Phase II Environmental Site Assessment (ESA), the Site had been closed since late 2007 and consisted of:

- A former service station building with storage area for waste disposal.
- Three product dispensers located on two concrete islands, all sheltered by an overhead canopy and associated kiosk.
- Five 22 730-L capacity steel underground storage tanks (USTs), reportedly installed in or around 1974 and only used for the storage of gasoline.
- A water well and septic system.

The remainder of the Site consisted of asphalt pavement and landscaped areas. The listed Site features are shown on Figure 3. Current Site photographs and an aerial photograph showing the site setting (prior to the reconstruction of the Bronte Road/Old Bronte Road and Dundas Street West intersection) are included as Appendix A.

Electricity and telephone utilities were supplied via underground services. Groundwater was used as a source of non-potable water for washroom facilities only, at the Site. A septic tank bed is located behind the former service station building at the north end of the Site. The area around the Site is serviced by a municipal storm sewer system.

2.2 PREVIOUS ENVIRONMENTAL INVESTIGATIONS

A Phase I ESA of the Site was conducted by Jacques Whitford Environment Limited, dated February 27, 1998. A summary of this report is given below:

- The Site was constructed in the mid-1960s prior to which the property was undeveloped.

- The Site had remained a Shell retail fuel outlet since it was built.
- A review of a 1974 site survey plan, a 1975 site plan and a 1967 Fire Insurance plan revealed that a significant modification was made to the Site in the mid-1970s. A review of these drawings also revealed the former presence of underground fuel storage tanks and associated distribution pumps and lines on the western portion of the Site and the former presence of a service station located in the current location of the pump islands and kiosk on the subject property.
- Shell records indicated the presence of underground waste oil and fuel oil storage tanks, the presence of which could not be confirmed at the Site.

A previous Environmental Site Assessment was conducted by Barenco Inc. in 1992 to evaluate the potential impact of product loss into the ground that occurred in 1991 from an underground gasoline pipe on the Site. During this assessment it was found that levels of benzene, toluene, ethylbenzene and total xylenes (BTEX) were detected in the groundwater around the Site.

A Site cleanup was conducted by Barenco Inc. in 1992, to mitigate the contamination caused by the 1991 product loss. The Barenco report stated that in 1991, liquid gasoline in the subsurface was identified in an excavation proximal to the fill pipes for the north and south tanks, during the installation of spill containers for the five underground storage tanks. A recovery well was placed at the west end of the southerly storage tank and was pumped to lower the water table and collect the liquid gasoline. It was estimated that about 1200 L of liquid gasoline was recovered. After this event, an active gasoline skimmer pumping system was operating in the recovery well. After one week of operation, an insignificant amount of gasoline was pumped from the recovery well and the system was disconnected. The location of the trench and recovery well are shown on Figures 3, 4, and 5.

The above mentioned reports summarize Site history, Site features, historical remedial work conducted on the Site and potential sources of concern. These reports provided a useful basis for the Phase II ESA. The information was used to position the eight boreholes planned as part of this Phase II ESA.

On October 12, 2007, as part of Wardrop's semiannual Water and Sewer Assessment Program for Shell's "off-highway" facilities, the drilled water well at the Site was assessed for BTEX and petroleum hydrocarbon fractions F1 to F4. Detectable concentrations of BTEX constituents and petroleum hydrocarbon fraction F1 were reported during this sampling event. All concentrations, except for ethylbenzene, were below the MOE Table 2 standards. A hydrocarbon odour was noted to be emanating from the tap water in the washroom facility during this sampling event. Previous sampling events did not detect any exceedences in water samples taken from the drilled well.

As a follow-up action, a confirmatory sampling program was undertaken on October 24, 2007. Three water samples were collected; one directly from the drilled well, one from the tap in the washroom before purging and one from the tap in the washroom after purging for approximately 45 minutes at approximately 20 Litres/minute. Water samples collected were analysed for BTEX and petroleum hydrocarbon fractions F1 to F4 concentrations. Analytical results from the confirmatory sampling indicated at least one or more concentrations of ethylbenzene, xylenes and petroleum hydrocarbon fractions F1+F2 exceeded the applicable MOE Table 2 standards in all three samples. The cause of the impact has not yet been confirmed.

No visible free product was present in the collected water samples. However, during purging, an apparent hydrocarbon odour was still emanating from the tap water. Historical data for this program from 2006 and 2007 is presented in Table 1 and shown on Figure 5.

As a result of this program Shell has undertaken a separate environmental site assessment program to study this facility in greater detail.

Based on the historical information mentioned above and supplemented with updated Site information supplied by Shell, it was determined that the potential contaminants of concern for this Phase II Environmental Site Assessment were BTEX and petroleum hydrocarbon fractions F1 to F4. In specific areas of the site additional testing was conducted to determine the concentrations of the following potential contaminants of concern: polyaromatic hydrocarbons (PAHs), volatile organic compounds (VOCs) (including Methyl tert-Butyl Ether (MTBE)) and lead.

3.0 SELECTION OF ASSESSMENT STANDARDS

A detailed assessment standards selection process was conducted in accordance with the requirements of *Ontario Regulation (O. Reg.) 153/04* made under the Environmental Protection Act. MOE Table 2 Full Depth Generic Site Condition Standards for commercial land use and medium and fine textured soils apply at the Site. The rationale to support this selection is based on the information provided in Sections 3.1 to 3.5. A standards selection flowchart is shown on Figure 6.

3.1 ENVIRONMENTALLY SENSITIVE AREAS

Potential environmentally sensitive areas are those which meet any of the following conditions and includes the subject Site and any affected site(s):

- The property is within an area of natural significance, or includes or is adjacent to such an area or part of such an area. Area of natural significance means any of the following:
  - A provincial park designated by a regulation under the Provincial Parks Act.
  - A conservation reserve established under the Public Lands Act.
  - An area of natural and scientific interest (life science) identified by the Ministry of Natural Resources as having provincial significance.
  - A wetland identified by the Ministry of Natural Resources as having provincial significance.
  - An area designated by a municipality in its official plan as environmentally significant; however expressed, including designations of areas as environmentally sensitive, as being of environmental concern and as being ecologically significant.
  - An area designated as an escarpment natural area or an escarpment protection area by the Niagara Escarpment Plan under the Niagara Escarpment Planning and Development Act.
  - A habitat of endangered or threatened species identified by the Ministry of Natural Resources.
  - Property within an area designated as a natural core area or natural linkage area within the area to which the Oak Ridges Moraine Conservation Plan under the Oak Ridges Moraine Conservation Act, 2001 applies.

The Site is not located in any of these areas.

- The property is a shallow soil property.

  There are more than 2 m of overburden soil in the study area. Therefore, the property is not a shallow soil property.

- The soil at the property has a pH less than five or greater than nine for surface soils and/or less than five or greater than 11 for subsurface soils.

  Soil pH from one surface (0.8 – 1.4 mbg) and one subsurface (2.3 – 2.9 mbg) soil samples were laboratory measured. The laboratory analysis results indicated that the pH concentrations for the two samples ranged from 7.33 to 7.78. Therefore, the surface soil at the Site has a pH greater than five and less than nine and the subsurface soil at the Site has a pH greater than five and less than 11. Soil pH analysis results are presented in Table 2.

- The property includes or is adjacent to a water body or includes land that is within 30 m of a water body.

  The nearest body of water is a tributary to Fourteen Mile creek located 200 m east of the Site.

Based on this data, the Site is not considered a sensitive site.

3.2 Land Use

The current land use is commercial and the future land use is expected to remain commercial.

3.3 Geology and Groundwater

Based on published geological information of the area (Quaternary Geology of Ontario, Southern Sheet, *Ontario Ministry of Northern Development and Mines*, Sheet No. 2556), the native stratigraphy consists of Halton Till; predominantly silt to silty clay matrix high in matrix carbonate content and clast poor. The topography of the Site is relatively flat. The nearest body of water is a tributary of Fourteen Mile Creek, located approximately 200 m east of the Site which drains south into Lake Ontario, located approximately 7.5 km south of the Site.

Groundwater is used as a source for potable water in the general area. Private wells on the Site and at adjacent and nearby residences were noted. The well on Site is currently not in use.

3.4 FULL DEPTH VERSUS STRATIFIED CONDITION STANDARDS

The full depth Site condition Standard was applied.

3.5 SOIL DESCRIPTIONS

The soil type in the area, beneath the existing surface cover, is comprised of a granular base with shallow fill layers of sand, gravel, and silty clay, overlying shale bedrock. Refer to the borehole logs in Appendix B.

One soil sample representing at least one-third of the Site's overburden was collected at a depth of 2.3 – 2.9 mbg and was submitted for grain size analysis. The soil descriptions were consistent throughout the Site. The results of the analysis indicated that greater than 50% by mass of particles were finer than 75 µm in mean diameter in the sample analyzed, indicating medium and fine textured soil conditions. The result of the grain size analysis is reported in Table 2 and a copy of the result is included as part of the Certificates of Analysis in Appendix C.

4.0 FIELD ACTIVITIES

Field methods were conducted in general accordance with the MOE *Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario*, dated December 1996. A detailed description of the sampling methodology used during these assessment activities is included in Appendix D.

Based on the history of the Site as well as information collected during the assessment process, selected soil and groundwater samples were submitted to Maxxam Analytics Inc. (Maxxam), Mississauga, Ontario, for laboratory analysis of BTEX and petroleum hydrocarbon fractions F1 to F4 and for one or more of PAHs, VOCs, and lead. Maxxam is accredited by the Standards Council of Canada (SCC) and the Canadian Association of Environmental Analytical Laboratories (CAEAL) for all analyses that were conducted.

4.1 BOREHOLE DRILLING AND SOIL SAMPLING

On December 17 and 18, 2008, six boreholes (BH1 – BH6) were drilled at the Site. The boreholes were drilled using a truck-mounted CME-75 drill rig supplied and operated by Geo-Environmental Drilling Inc. (GEDI) of Milton, Ontario.

On April 3, 2008, two additional boreholes (BH7 and BH8) were drilled using day lighting first via MOE licensed hydro vacuum trucks to a depth of 2.1 mbg. Soil sampling at these two sampling locations were completed with a stainless steel hand auger sampler. The hydro vacuum trucks were supplied and operated by Direct Line Environmental Services (Direct Line) of Pickering, Ontario. The two boreholes (BH7 and BH8) were then completed using a track-mounted CME-55 drill rig supplied and operated by GEDI. All boreholes were advanced to refusal at the surface of, or slightly into the shale bedrock.

Where possible, based on sample recoveries in the split spoons, organic vapour meter (OVM) readings were measured in the headspace of the bagged soil samples with a Gastech Model 1238 ME gas detector in parts per million (ppm) or as a percentage of the lower explosive limit (% LEL) of equivalent hexane vapour. The OVM was set to screen out a response to the presence of methane. The OVM was calibrated with hexane prior to use. OVM readings in BH1- BH8 ranging from nondetectable (ND) to 5% LEL were measured in the soil sample headspaces.

Eight "worst case" ("worst case" soil samples are based on OVM readings and visual and olfactory evidence of petroleum impact) soil samples were collected from the boreholes for laboratory analysis of BTEX and petroleum hydrocarbon fractions F1 to F4 from all boreholes. Where petroleum hydrocarbon impacted zones were identified in the boreholes (BH2, BH3, BH5, and BH6), based on elevated field organic vapour concentrations, "clean bottom" soil samples were also submitted. In the area of BH1, BH7 and BH8, near the site service station building and where a former furnace fuel tank was reported, soil analysis included one of more of PAHs, VOCs, and lead. The maximum soil sampling depth of the boreholes ranged between 4.0 and 4.7 mbg.

The borehole locations are shown on Figures 3, 4, and 5 as BH1 to BH8.

One selected soil sample from the petroleum-impacted soil cuttings was submitted for *Regulation 558/00* TCLP analyses for relevant parameters to facilitate the possible off-site disposal of this material at a later date. The drill cuttings were stored temporarily in a bin. Once the disposal approvals for this material were obtained, the cuttings were transported off-site for disposal at Newalta in Stoney Creek, Ontario, as a nonhazardous solid waste.

Groundwater monitoring wells were installed in all boreholes as shown on Figures 3, 4, and 5. The groundwater monitoring wells were installed to depths ranging between 3.6 to 4.4 mbg, and were constructed with 50 mm inside diameter polyvinyl chloride (PVC) slotted pipe connected to a solid PVC riser pipe. Where possible, a minimum of 0.3 m of clean silica sand pack (K&E #0) was placed at the bottom of the boreholes prior to installing the monitoring wells. A clean silica sand pack (K&E #0) was placed in the annulus of the boreholes surrounding the screened portion of the monitoring wells to a minimum of 0.3 m above the screened portion of the monitoring wells. The annulus above the filter pack was sealed with bentonite and the wells were protected at grade with a flush-mount cast iron casing. A detailed description of groundwater monitoring well installation methodology is described under Sampling Methodology in Appendix D.

The borehole logs, including soil descriptions, soil sampling depths and well construction information are presented in Appendix B.

Upon completion of the drilling program, as per the requirements of *Regulation 903* (as amended by *Ontario Reg. 128/03*), GEDI reported to Wardrop that they had sent the Water Well Records for the well clusters to the MOE. Borehole BH3 was tagged with Well Tag No. A062541 for the December 17 and 18, 2007 drilling event. Borehole BH7 was tagged with Well Tag No. A054647 for the April 7, 2008 drilling event. Copies of the MOE Water Well Records are included in Appendix F.

4.2 GROUNDWATER MONITORING AND SAMPLING

On January 8, 2008, the Site was visited to complete well monitoring activities. The Site activities included the measurement of well headspace OVM readings and fluid levels in the monitoring wells installed in BH1 – BH6. Seven water samples, including one field duplicate sample, were collected from the monitoring wells for laboratory analysis of BTEX, petroleum hydrocarbon fractions F1 to F4 , VOCs (BH3, BH4, and BH6 only) and lead (BH3, BH4, and BH6 only). Prior to sampling, three well volumes of groundwater were purged from each monitoring well. Groundwater was recovered using dedicated water sampling equipment consisting of 16 mm outside diameter polyethylene tubing attached to a ball-type check valve assembly. All lead samples were field filtered using an inline disposable 0.45 µm groundwater filter.

The groundwater samples were placed into sealed laboratory prepared bottles and vials, labelled, and stored in coolers, with ice, at temperatures less than 10°C. The laboratory prepared trip blank and trip spike samples for quality assurance and quality control (QA/QC) purposes and field-prepared field blank sample (FB), accompanied the groundwater sample sets.

Purge water was temporarily stored in barrels on site and subsequently removed under manifest (RT-19782-2) using waste generator number ON9096008 by Enviroway Waste Management of Maple Ontario, Ontario, to a licensed waste receiver (refer to Appendix E for a copy of the waste manifest).

On April 7, 2008, two water samples were collected from the newly installed monitoring wells BH7 and BH8 for laboratory analysis of BTEX, petroleum hydrocarbon fractions F1 to F4, MTBE and lead. Prior to sampling, three well volumes of groundwater were purged from each monitoring well. Groundwater was recovered using dedicated water sampling equipment consisting of 16 mm outside diameter polyethylene tubing attached to a ball-type check valve assembly. All lead samples were field filtered using an inline disposable 0.45 µm groundwater filter.

On May 6, 2008, the Site was visited to complete well monitoring activities. The Site activities included the measurement of well headspace OVM readings and fluid levels in the monitoring wells installed in BH1 – BH8.

4.3 SURVEYING

On January 8, 2008, horizontal and vertical surveys were completed for well locations BH1 to BH6. On May 6, 2008, the newly installed boreholes (BH7 and BH8) were surveyed along with BH1 to BH6, which were resurveyed during this event. The elevations of ground surface and top of the riser pipe of all monitoring wells were surveyed relative to an arbitrary datum (top center of man hole located in the grass boulevard at southeast corner of the Site) with an assumed elevation of 100.000 m.

5.0 RESULTS

5.1 SOIL LABORATORY RESULTS

Selected borehole soil samples were submitted to Maxxam for laboratory analysis of BTEX, petroleum hydrocarbon fractions F1 to F4, metals including lead, and semi-volatile organics, including PAH analyses. Furthermore, one (1) soil sample was collected from the soil cuttings, and submitted to Maxxam for laboratory analysis of the Toxicity Characteristic Leaching Procedure (TCLP) specified by the MOE under *Ontario Regulation 558/00.*

At least one soil sample collected from boreholes BH2, BH3, BH4, BH5 and BH6 showed exceedences for one or more of BTEX and petroleum hydrocarbon fractions F1 to F3, when compared to MOE Table 2 standards. No exceedences were detected in the soil samples collected from boreholes BH1, BH7 and BH8. The laboratory bulk analysis results are included in Tables 3 to 5 and shown on Figure 4. The laboratory Certificates of Analysis are included in Appendix C.

The laboratory analysis results for the MOE *Ontario Regulation 558/00* leachate analysis are included in Table 6 and the laboratory Certificate of Analysis is presented in Appendix C. The results of the sampled soil indicated that the soil would be classified as nonhazardous material if managed as waste.

No issues with laboratory analysis, sample shipping, sample preservation or field sampling techniques that should have a material effect on the interpretation of the reported soil sample results, were identified as part of the QA/QC program. Details of the QA/QC program are discussed in Appendix G.

5.2 GROUNDWATER MONITORING AND LABORATORY RESULTS

On January 8, 2008, the Site was visited to complete well monitoring activities. The Site activities included the measurement of well headspace OVM readings and fluid levels in the monitoring wells installed in BH1 – BH6. Groundwater levels in the monitoring wells were measured at depths ranging from 0.23 mbg in monitoring well BH3 to 3.85 mbg in monitoring well BH5. Free product was not detected using a hydrocarbon interface sensor in any of the wells. It should be noted that the measured water level in BH3 was above the well screen during this monitoring event which may prevent proper detection of free product. The monitoring data for this event is presented in Table 7.

On May 6, 2008, the Site was visited to complete well monitoring activities. The Site activities included the measurement of well headspace OVM readings and fluid levels in the monitoring wells installed in BH1 – BH8. Groundwater levels in the monitoring wells were measured at depths ranging from 0.11 mbg in monitoring well BH3 to 3.38 mbg in monitoring well BH1. Free product was not detected using a hydrocarbon interface sensor in any of the wells. It should be noted that the measured water levels in BH3 and BH6 were above the well screen during this monitoring event which may prevent proper detection of free product. The monitoring data for this event is presented in Table 8.

Due to the variability of groundwater elevations, likely caused by the disruption of native overburden (areas including underground tank nest and piping conduits, etc.), a reliable interpretation of groundwater flow direction could not be determined. The water level elevations in BH1, BH2, and BH5 appear more indicative of typical groundwater elevations in native overburden. The 'North Oakville East Subwatersheds Study' (Town of Oakville) notes that "regional groundwater flow is southeastwards towards Lake Ontario, although locally, the flow is influenced by local creek valleys." It is expected that local groundwater flow is generally to the south, towards the local tributaries of the Fourteen Mile creek.

Seven groundwater samples, including one field duplicate sample from the January 8, 2008, sampling event and two groundwater samples from the April 7, 2008, sampling event, were submitted to Maxxam for laboratory analysis of BTEX, petroleum hydrocarbon fractions F1 to F4, lead (BH3, BH4, BH6, BH7 and BH8 only), MTBE (BH7 and BH8 only) and VOCs (BH3, BH4, and BH6 only). In addition, field quality control samples (field blanks, trip blanks, and trip spikes) were submitted, as required.

Groundwater samples collected from monitoring wells BH2, BH3, BH4, BH5, BH6, and BH7 showed exceedences for one or more of BTEX, MTBE, and petroleum hydrocarbon fraction F1 + F2, when compared to MOE Table 2 standards. No exceedences were detected in any of the groundwater samples collected from monitoring wells BH1 and BH8. The laboratory analysis results are included in Tables 9 and 10 and shown on Figure 5. The laboratory Certificates of Analysis are included in Appendix C.

No issues with laboratory analysis, sample shipping, sample preservation or field sampling techniques that should have a material effect on the interpretation of the reported groundwater sample results, were identified as part of the QA/QC program. Details of the QA/QC program are discussed in Appendix G.

6.0 SUMMARY

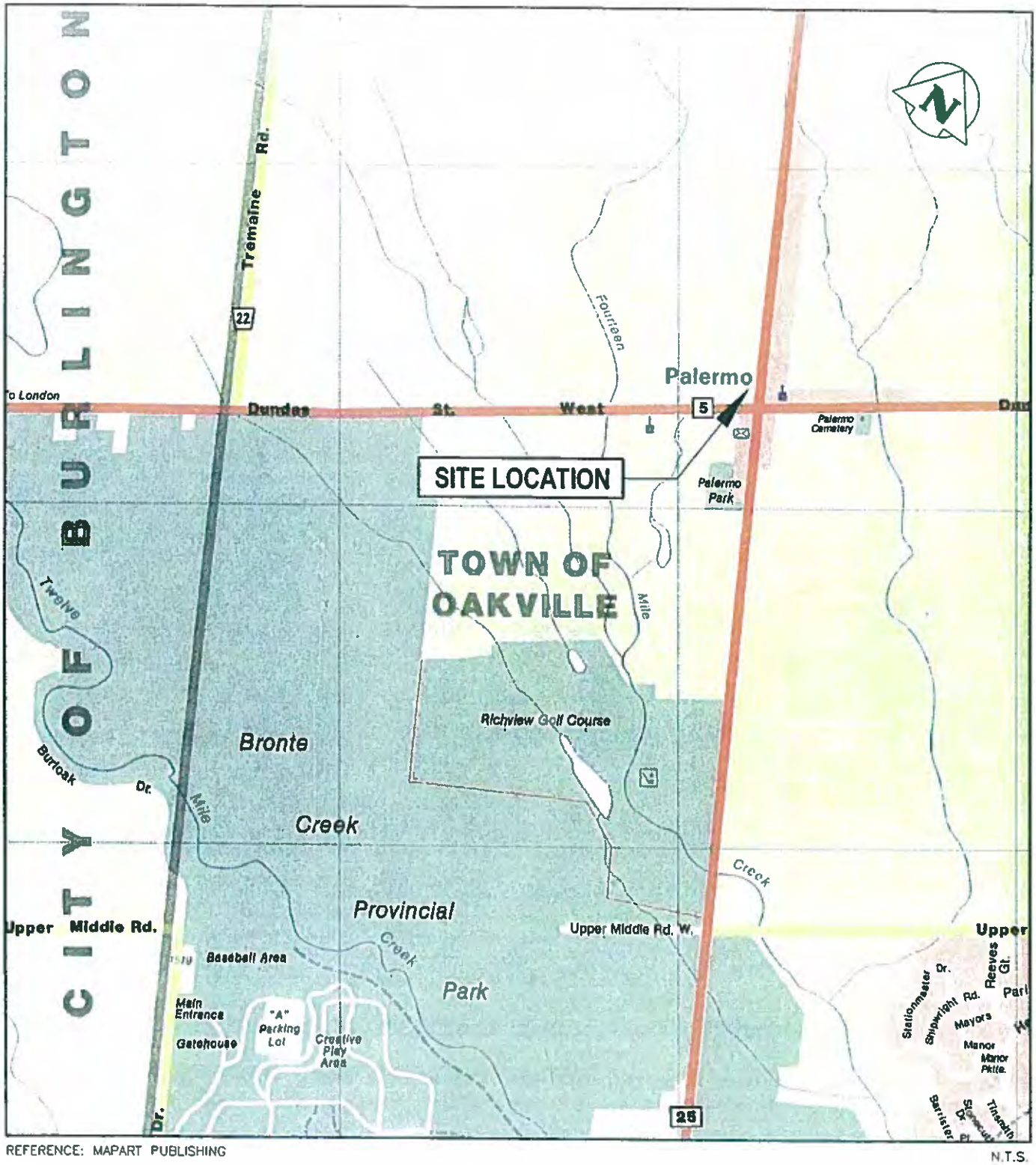
Based on the foregoing Phase II Environmental Site Assessment, the following can be summarized:

- The Site was assessed in accordance with the requirements of Ontario Regulation 153/04 made under Part XV.1 of the Environmental Protection Act. Although MOE Table 2 Full Depth Generic Site Condition Standards for commercial land use and medium and fine textured soils currently apply at the Site, the area is becoming municipally serviced as development proceeds. As such, for discussion purposes, we have also compared the results to the respective MOE Table 3 Standards.
- On December 17 and 18, 2008, six boreholes (BH1 – BH6) were drilled at the Site. On April 3, 2008, two additional boreholes (BH7 and BH8) were drilled using day lighting first via MOE licensed hydro vacuum trucks to a depth of 2.1 mbg. The two boreholes (BH7 and BH8) were then drilled to depths of 4.4 mbg.
- Groundwater monitoring wells were installed in all boreholes to depths ranging between 3.6 to 4.4 mbg.
- Groundwater in the overburden was encountered at depths ranging from 0.23 to 3.85 mbg in monitoring wells BH1 to BH6 during the January 8, 2008, monitoring event, and 0.11 to 3.38 mbg in monitoring wells BH1 to BH8 during the May 6, 2008, monitoring event. There was evidence of perched water in areas where the fine-textured native soil was disturbed (i.e., related to site structures and equipment such as underground storage tanks) during both these monitoring events. Due to this, consistent groundwater flow direction could not be reliably interpreted.
- The results of the analyses illustrate that exceedences to the MOE Table 2 standards for one or more of the analyzed parameters were identified in at least one of the samples collected from all boreholes, with the exception of soil samples collected from boreholes BH1, BH7, and BH8.
- Exceedances to the applicable MOE Table 2 standards for one or more of the analysed parameters were encountered in all the groundwater samples with the exception of the groundwater samples collected from monitoring wells BH1 and BH8.

7.0 LIMITATIONS

The scope of this report is limited to the matters expressly covered and is intended solely for the client to whom it is addressed. Wardrop Engineering Inc. makes no warranties, expressed or implied, including without limitation, as to the marketability of the site, or fitness for a particular use. The assessment was conducted using standard engineering and scientific judgement, principles and practices, within a practical scope and budget. It is partially based on the observations of the assessor during the time of the site visit, in conjunction with archival information obtained from a number of sources which is assumed to be correct. Except as provided, Wardrop has made no independent investigations to verify the accuracy or completeness of the information obtained from secondary sources or personal interviews. Generally, the findings, conclusions, and recommendations are based on a limited amount of data interpolated between sampling points, and the actual conditions on the property may vary from that described above. Any findings regarding site conditions different from those described above upon which this report is based, will consequently change Wardrop's conclusions and recommendations.

FIGURES



REFERENCE: MAPART PUBLISHING

N.T.S.

WARDROP | Engineering inc.

CLIENT: **Shell Canada Products**

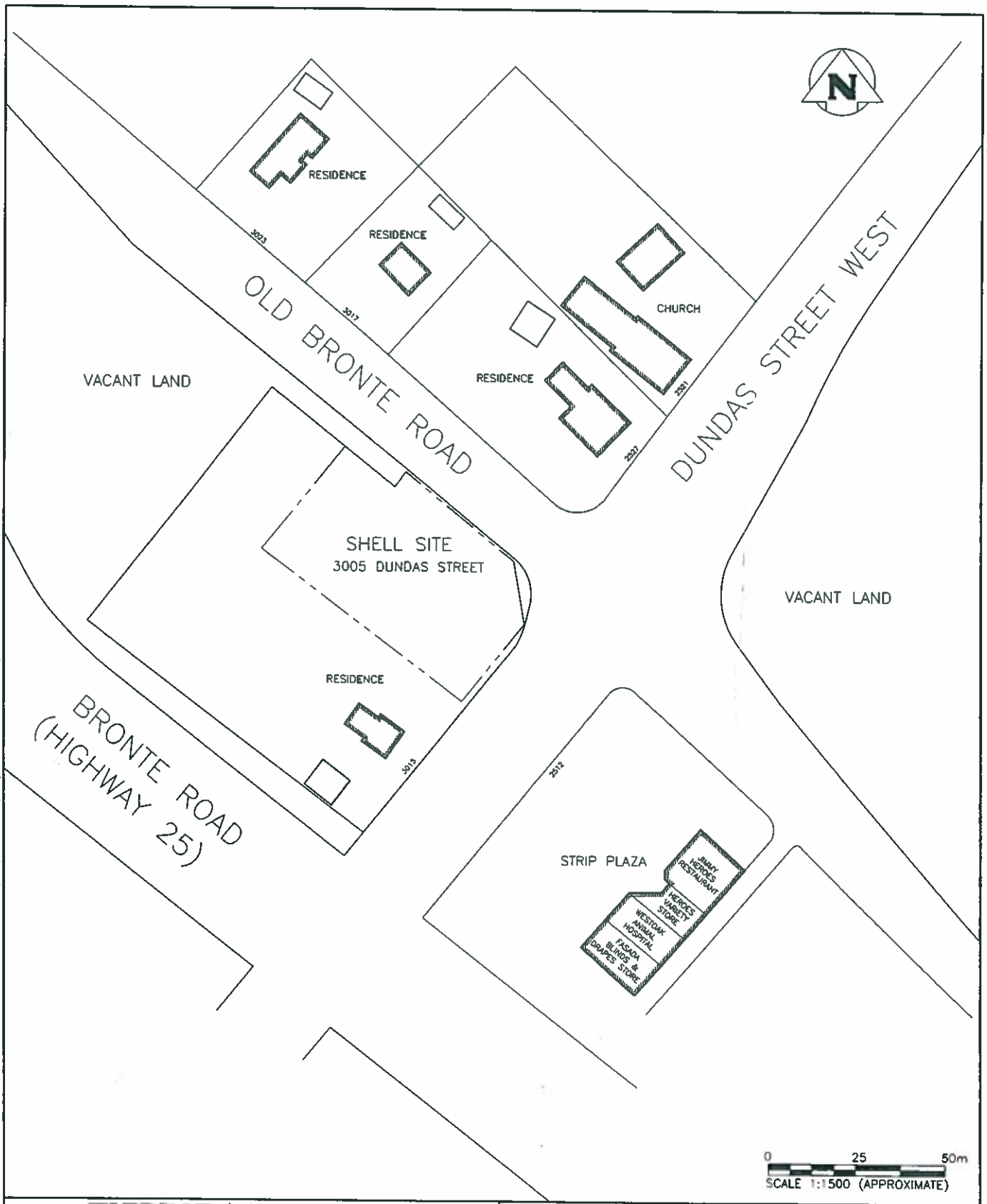
DWG DESCRIPTION:

SITE PLAN LOCATION - OAKVILLE

SHELL RETAIL No. C05875

DRAWN BY:	HR	DATE:	08.05.15	FIGURE 1	REV. 00
REVISED BY:	HR	DATE:	08.05.15		
DESIGNED BY:	FT	CHECKED BY:	FT	DWG NO.	0813480101-SKT-V0001-A

X:\N-S\SHELL - 1348\0813480101 - OAKVILLE ON SHELL C05875 SUPPLEMENTAL PHASE II ESA\CAD_SUBMITTED\ENV\08.09.23_FINAL REPORT\0813480101-SKT-V0001-A-FIG.1.DWG 08.09.23 13:36

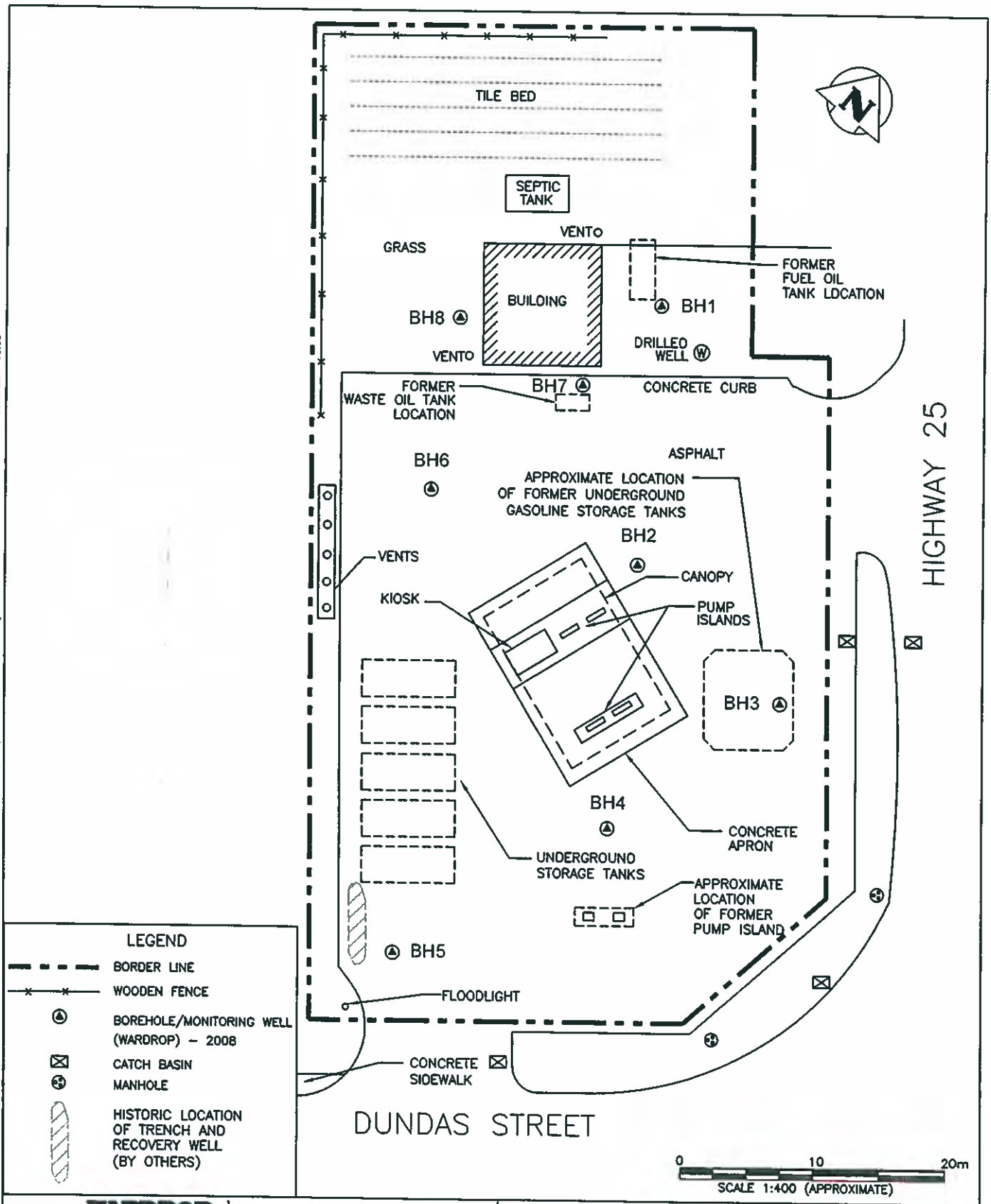


WARDROP | Engineering Inc.

CLIENT: **Shell Canada Products**

DWG DESCRIPTION: LOCAL LAND USE PLAN - SHELL RETAIL No. C05875
3005 DUNDAS STREET WEST
OAKVILLE, ONTARIO

DRAWN BY: HR	DATE: 08.05.15	FIGURE 2	REV. 00
REVISED BY: HR	DATE: 08.05.15		
DESIGNED BY: FT	CHECKED BY: JC	DWG NO. 0813480101-SKT-V0002-A	



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WARDROP | Engineering Inc.

CLIENT: **Shell Canada Products**

DWG DESCRIPTION: SITE PLAN - SHELL RETAIL No. C05875
3005 DUNDAS STREET WEST
OAKVILLE, ONTARIO

DRAWN BY: HR	DATE: 08.05.15	FIGURE 3	REV 00
REVISED BY: HR	DATE: 08.05.22		
DESIGNED BY: FT	CHECKED BY: JC	DWG NO.	0813480101-SKT-V0003-A

BH7 — DATE SAMPLED: APRIL/03/2008

Sample ID	Depth (mbg)	B	T	E	X	F1	F2	F3	F4	Lead
BH7-SS1	2.3 – 2.9	<	<	<	<	<	<	<	<	16

BH1 — DATE SAMPLED: DECEMBER/18/2007

Sample ID	Depth (mbg)	B	T	E	X	F1	F2	F3	F4	Lead
BH1-SS4	2.3 – 2.9	0.004	0.008	<	0.009	<	<	<	<	13

BH8 — DATE SAMPLED: APRIL/03/2008

Sample ID	Depth (mbg)	B	T	E	X	F1	F2	F3	F4	Lead
BH8-AS6	1.5 – 1.8	<	<	<	<	<	<	<	<	11

BH2 — DATE SAMPLED: DECEMBER/18/2007

Sample ID	Depth (mbg)	B	T	E	X	F1	F2	F3	F4	Lead
BH2-SS2	0.8 – 1.4	0.98	0.09	0.92	0.062	37	<	<	<	NA
BH2-SS3	1.5 – 2.1	<	<	<	<	<	<	<	<	NA

BH6 — DATE SAMPLED: DECEMBER/18/2007

Sample ID	Depth (mbg)	B	T	E	X	F1	F2	F3	F4	Lead
BH6-SS1	0.0 – 0.6	11	1.7	62	260	2,000	190	3,100	1,900	NA
BH6-SS3	1.5 – 2.1	<	<	0.06	0.26	<	<	<	<	NA

BH3 — DATE SAMPLED: DECEMBER/17/2007

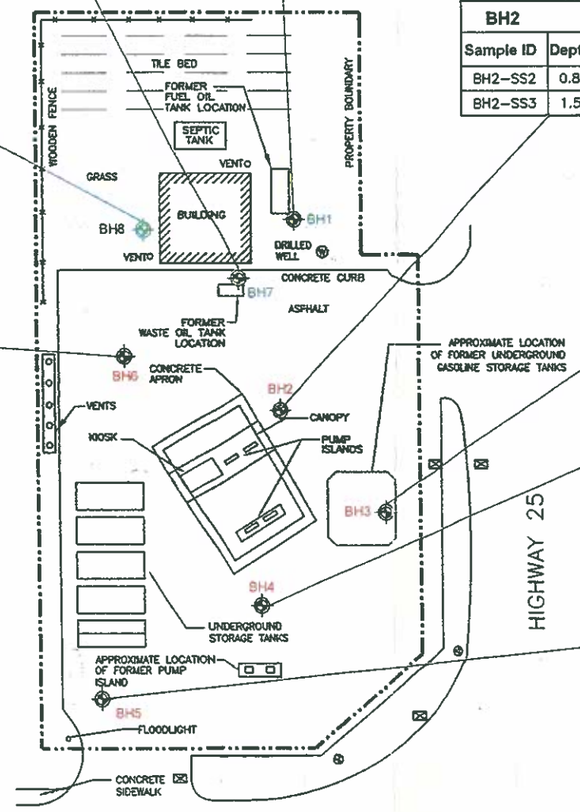
Sample ID	Depth (mbg)	B	T	E	X	F1	F2	F3	F4	Lead
BH3-SS2	0.8 – 1.4	6.2	1.6	110	440	4,100	1,900	360	92	NA
BH3-SS4	2.4 – 2.9	<	<	0.15	0.73	10	12	26	<	NA

BH4 — DATE SAMPLED: DECEMBER/17/2007

Sample ID	Depth (mbg)	B	T	E	X	F1	F2	F3	F4	Lead
BH4-SS3	1.5 – 2.1	0.42	<	0.46	<	16	<	<	<	NA

BH5 — DATE SAMPLED: DECEMBER/18/2007

Sample ID	Depth (mbg)	B	T	E	X	F1	F2	F3	F4	Lead
BH5-SS2	0.8 – 1.4	5.6	65	26	160	160	16	<	<	NA
DUP*	0.8 – 1.4	2.0	23	9.7	53	190	98	13	<	NA
BH5-SS4	2.3 – 2.9	<	0.08	<	0.06	<	<	<	<	NA



SITE CONDITION STANDARDS

THE STANDARDS SHOWN ARE THE *TABLE 2* FULL DEPTH GENERIC SITE CONDITION STANDARDS IN A POTABLE GROUND WATER CONDITION WITH INDUSTRIAL/COMMERCIAL/COMMUNITY PROPERTY USE AND MEDIUM AND FINE TEXTURED SOIL CONDITIONS SELECTED FROM THE SOIL, GROUND WATER AND SEDIMENT STANDARDS FOR USE UNDER PART XV.1 OF THE ENVIRONMENTAL PROTECTION ACT

SHOWN AS	PARAMETER	UNITS	RDL	*Table 2* Standards
B	Benzene	µg/g	0.02	0.24
T	Toluene	µg/g	0.02	2.1
E	Ethylbenzene	µg/g	0.02	0.28
X	Total Xylenes	µg/g	0.04	25
F1	C6-C10; Excluding BTEX	µg/g	10	180
F2	>C10-C16	µg/g	10	250
F3	>C16-C34	µg/g	10	2,500
F4	>C34-C50	µg/g	10	6,600
Lead	Lead	µg/g	5	1,000

LEGEND

- – BOREHOLE WITH MONITORING WELL
- – AT LEAST ONE SOIL SAMPLE EXCEEDED THE APPLICABLE *TABLE 2* STANDAROS FOR AT LEAST ONE PARAMETER ANALYSEO
- – ALL SOIL SAMPLES MET THE APPLICABLE *TABLE 2* STANDARDS FOR ALL PARAMETERS ANALYSED
- TEXT – EXCEEDED *TABLE 2* STANDARO FOR THIS PARAMETER
- TEXT – MET *TABLE 2* STANDARD FOR THIS PARAMETER
- < – PARAMETER PRESENT BELOW THE LABORATORY RDL

- mbg – METRES BELOW GRADE
- * – DENOTES BLIND FIELD DUPLICATE SAMPLE OF PRECEDING SAMPLE
- NA – PARAMETER NOT ANALYSED
- RDL – REPORTABLE DETECTION LIMIT
- µg/g – MICROGRAM(S) PER GRAM
- ⊠ – CATCH BASIN
- ⊕ – MANHOLE

APPROXIMATE LOCATION OF HISTORIC TRENCH AND RECOVERY WELL (BY OTHERS)

0 20 40m

SCALE 1:600 (APPROXIMATE)

WARDROP | Engineering Inc.

CLIENT: **Shell Canada Products**

DWG DESCRIPTION: SOIL LABORATORY DATA - SHELL RETAIL No. C05875
30D5 DUNDAS STREET WEST
OAKVILLE, ONTARIO

DRAWN BY:	HR	DATE: 08.01.15	
REVISED BY:	HR	DATE: 08.06.18	
DESIGNED BY:	FT	CHECKED BY: JC	

FIGURE 4 REV. 00

DWG NO. 0123456789-OWG-V0D05A

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BH1 — SCREEN INTERVAL: 1.4 - 4.4 mbg

Date	Sample ID	B	T	E	X	F1+F2	F3+F4	Lead	MTBE
JAN/08/08	BH1	<	0.3	<	<	<	<	NA	NA

BH7 — SCREEN INTERVAL: 0.6-3.7mbg

Date	Sample ID	B	T	E	X	F1+F2	F3+F4	Lead	MTBE
APR/07/08	BH7	46	<	2.0	<	<	<	<	7

DRILLED WATER WELL & WASHROOM TAP

Date	Sample ID	B	T	E	X	F1+F2	F3+F4
JUN/13/06	OAK	<	<	<	<	<	<
OCT/19/06	FALL-OAKVILLE	<	<	<	0.14	<	<
MAR/23/07	OAKVILLE-SPRING	<	<	<	<	<	<
OCT/12/07	OAKVILLE-FALL	0.4	2.9	23	88	240	<
OCT/24/07	OAKVILLE-WELL	<	24	93	480	1650	<
OCT/24/07	OAKVILLE-EQUIPMENET	<	<	<	<	<	<
OCT/24/07	OAKVILLE-TAP-NO PURGE	<	0.9	18	32	300	<
OCT/24/07	OAKVILLE-TAP-PURGED	<	1.3	6.7	31	110	<
OCT/24/07	OAKVILLE-TAP-DUP	<	1.4	6.8	31	110	<

BH8 — SCREEN INTERVAL: 0.6-3.7mbg

Date	Sample ID	B	T	E	X	F1+F2	F3+F4	Lead	MTBE
APR/07/08	BH8	<	<	<	0.1	<	<	<	0.7

BH2 — SCREEN INTERVAL: 1.4 - 4.4 mbg

Date	Sample ID	B	T	E	X	F1+F2	F3+F4	Lead	MTBE
JAN/08/08	BH2	31	9.5	13	71	<	<	NA	NA

BH6 — SCREEN INTERVAL: 0.6 - 3.7 mbg

Date	Sample ID	B	T	E	X	F1+F2	F3+F4	Lead	MTBE
JAN/08/08	BH6	2,600	<	460	1,900	900	140	<	180

BH3 — SCREEN INTERVAL: 0.8 - 3.8 mbg

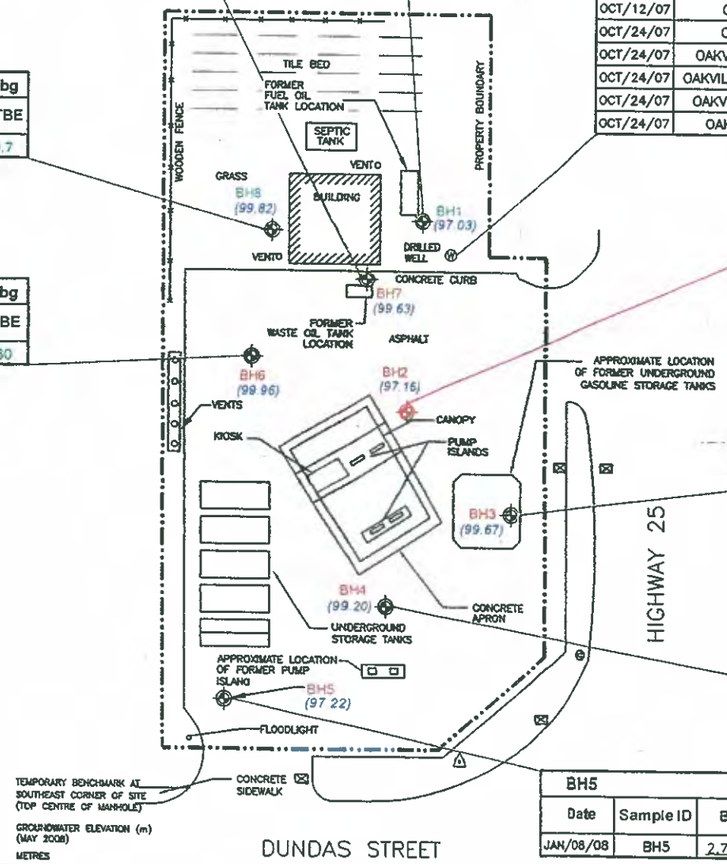
Date	Sample ID	B	T	E	X	F1+F2	F3+F4	Lead	MTBE
JAN/08/08	BH3	340	<	630	3,100	10,800	<	<	<

BH4 — SCREEN INTERVAL: 0.6 - 3.7 mbg

Date	Sample ID	B	T	E	X	F1+F2	F3+F4	Lead	MTBE
JAN/08/08	BH4	2,000	<	660	380	860	<	<	2,000
JAN/08/08	DUP*	2,300	<	930	650	1,100	130	4.5	1,800

BH5 — SCREEN INTERVAL: 1.4 - 4.4 mbg

Date	Sample ID	B	T	E	X	F1+F2	F3+F4	Lead	MTBE
JAN/08/08	BH5	2,700	3,000	430	950	710	130	NA	NA



SITE CONDITION STANDARDS

THE STANDARDS SHOWN ARE THE *TABLE 2* FULL DEPTH GENERIC SITE CONDITION STANDARDS IN A POTABLE GROUND WATER CONDITION WITH ALL TYPES OF PROPERTY USE AND MEDIUM AND FINE TEXTURED SOIL CONDITIONS SELECTED FROM THE SOIL, GROUNDWATER AND SEDIMENT STANDARDS FOR USE UNDER PART XV.1 OF THE ENVIRONMENTAL PROTECTION ACT

SHOWN AS	PARAMETER	UNITS	RDL	*Table 2* Standards
B	Benzene	ug/L	0.1	5.0
T	Toluene	ug/L	0.2	24
E	Ethylbenzene	ug/L	0.1	2.4
X	Total Xylenes	ug/L	0.1	300
F1 + F2	C6-C16; Excluding BTEX	ug/L	10	1,000
F3 + F4	>C16-C50	ug/L	10	1,000
Lead	Lead	ug/L	0.5	10
MTBE	Methyl t-butyl ether	ug/L	0.2	700

LEGEND

- ⊕ – BOREHOLE WITH MONITORING WELL.
- ⊕ – AT LEAST ONE GROUNDWATER SAMPLE EXCEEDED THE APPLICABLE *TABLE 2* STANDARDS FOR AT LEAST ONE PARAMETER ANALYSED
- ⊕ – ALL GROUNDWATER SAMPLES MET THE APPLICABLE STANDARDS FOR ALL PARAMETERS ANALYSED *TABLE 2*
- TEXT – EXCEEDED *TABLE 2* STANDARD FOR THIS PARAMETER
- TEXT – MET *TABLE 2* STANDARD FOR THIS PARAMETER
- < – PARAMETER PRESENT BELOW THE LABORATORY RDL
- △ – TEMPORARY BENCHMARK AT SOUTHEAST CORNER OF SITE (TOP CENTRE OF MANHOLE
- (98.75) – GROUNDWATER ELEVATION (MAY 2008)
- (m) – METRES
- mbg – METRES BELOW GRADE
- * – DENOTES BLIND FIELD DUPLICATE SAMPLE OF PRECEDING SAMPLE
- NA – PARAMETER NOT ANALYSED
- RDL – REPORTABLE DETECTION LIMIT
- ug/L – MICROGRAM(S) PER LITRE
- ⊠ – CATCH BASIN
- ⊛ – MANHOLE

APPROXIMATE LOCATION OF HISTORIC TRENCH AND RECOVERY WELL (BY OTHERS)

0 20 40m

SCALE 1:600 (APPROXIMATE)

WARDROP | Engineering Inc.

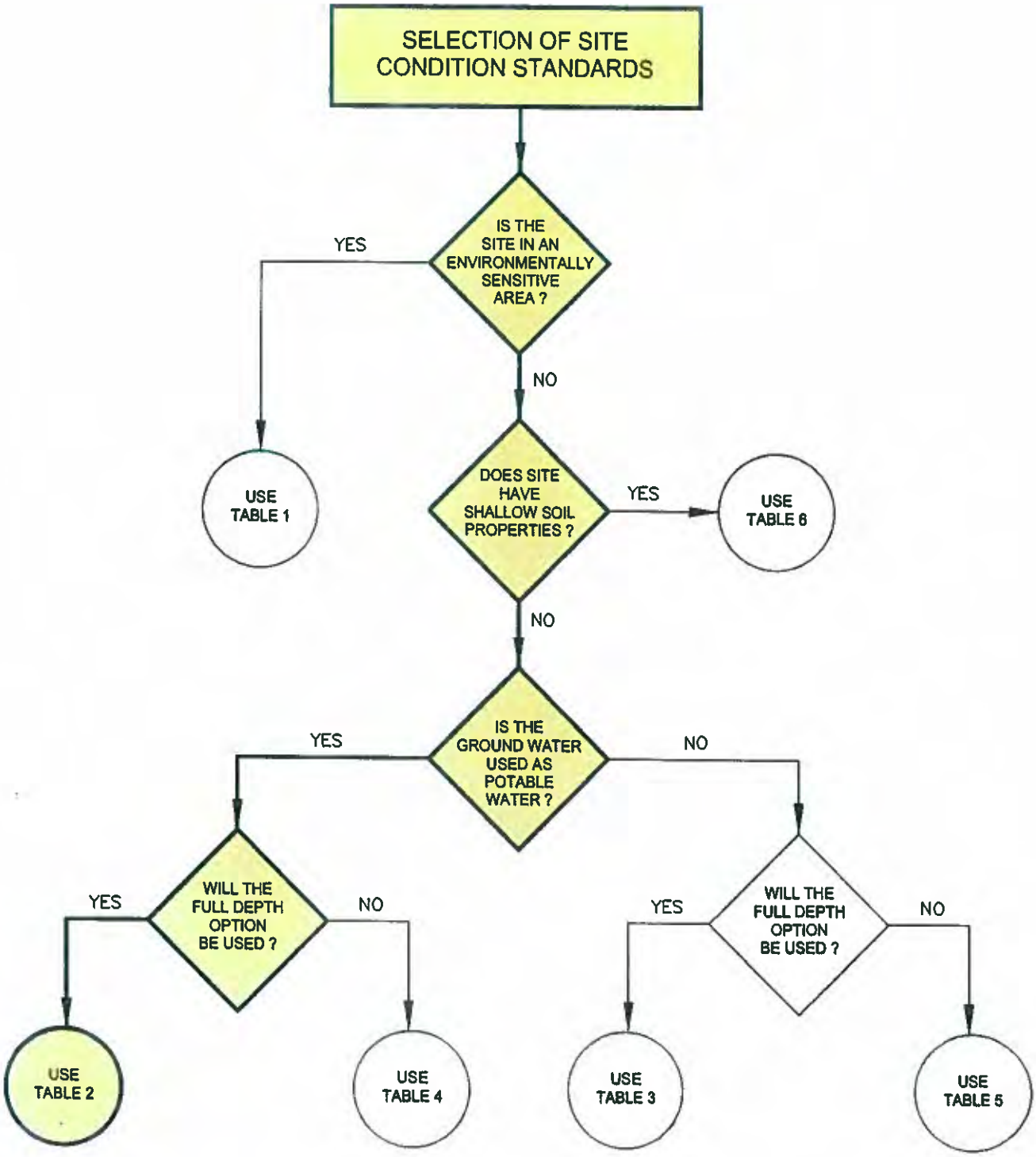
CLIENT: **Shell Canada Products**

DWG DESCRIPTION: GROUNDWATER ELEVATIONS & LABORATORY DATA
- SHELL RETAIL No. C05875
3005 DUNDAS STREET WEST
OAKVILLE, ONTARIO

DRAWN BY:	HR	DATE:	08.01.15
REVISED BY:	HR	DATE:	08.06.18
DESIGNED BY:	FT	CHECKED BY:	JC

FIGURE 5 REV. 00

DWG NO. 0813480101-SKT-V0006-A1



NOTE:
CPG-FRANZ ENVIRONMENTAL INC. FLOWCHART, DERIVED FROM THE ONTARIO REGULATION 153/04 MADE UNDER THE ENVIRONMENTAL PROTECTION ACT. SOIL, GROUND WATER AND SEDIMENT STANDARDS FOR USE UNDER PART XV.1 OF THE *ENVIRONMENTAL PROTECTION ACT* DATED MARCH 9, 2004

WARDROP | Engineering Inc.

CLIENT: **Shell Canada Products**

DWG DESCRIPTION:
STANDARD SELECTION FLOW CHART - SHELL RETAIL No. C05875
3005 DUNDAS STREET WEST
OAKVILLE, ONTARIO

DRAWN BY: HR	DATE: 08.05.15	FIGURE 6	REV. 00
REVISED BY: HR	DATE: 08.05.22		
DESIGNED BY: FT	CHECKED BY: JC	DWG NO: 0813480101-SKT-V0004-A	

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TABLES

TABLE 1
HISTORIC GROUNDWATER LABORATORY ANALYSES (DRILLED WATER WELL AND WASHROOM TAP)
PETROLEUM HYDROCARBON PARAMETERS

Sampling Date	Sample ID Laboratory ID	Benzene	Toluene	Ethylbenzene	Xylenes	F1 + F2	F3 + F4
	RDL[2]	0.2	0.2	0.2	0.4	100	100
	UNITS	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	MOE Reg 153/04 Table 2[1]	**5.0**	**24**	**2.4**	**300**	**1000**	**1000**
13-Jun-06	OAK M54512	<	<	<	<	<	<
19-Oct-06	FALL - OAKVILLE O96271	<	<	<	0.14	<	<
23-Mar-07	OAKVILLE-SPRING R49413	<	<	<	<	<	<
12-Oct-07	OAKVILLE-FALL V21272	0.4	2.9	**23**	88	240	<
24-Oct-07	OAKVILLE-WELL V44893	<	24	**93**	**480**	**1650**	<
	OAKVILLE-EQUIPMENT V44894	<	<	<	<	<	<
	OAKVILLE-TAP-NO PURGE V44895	<	0.9	**18**	32	300	<
	OAKVILLE-TAP-PURGED V44896	<	1.3	**6.7**	31	110	<
	OAKVILLE-TAP-DUP V44897	<	1.4	**6.8**	31	110	<

Notes:
1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for All Types of Property Use and Medium and Fine Textured Soil Conditions.
2. Typical *Table 2* RDL's shown. Refer to laboratory certificates of analysis for any RDL adjustments.
3. **Bold** - Parameters exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (NV) = no value derived; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NM) = not measured; (mbg) = meters below grade; (NA) = not analysed.

TABLE 2

GRAIN SIZE AND pH ANALYSES

Sample ID	Depth (mbg)	pH	Percent (by Mass) of Particles Finer than 75 µm in Mean Diameter	Type of Material	Soil Texture[1]
BH3-SS2	0.8 - 1.4	7.33	-	-	-
BH5-SS4	2.3 - 2.9	7.78	-	-	-
BH6-SS4	2.3 - 2.9	-	85%	Silty Clay	Medium and Fine

Notes:

1. Soil texture is defined in the MOE Soil, Ground Water and Sediment Standards (March 9, 2004) as the following: If it is determined that at least 1/3 of the soil at the property measured by volume consists of "coarse textured soil" (means soil that contains more than 50 per cent by mass of particles that are 75 µm or larger in mean diameter) the standard for coarse textured soil shall be applied; or in any other case, the standard for "medium and fine" (means soil that contains 50 percent or more by mass of particles that are smaller than 75 µm in mean diameter) textured soil shall be applied.
2. Refer to laboratory Certificates of Analysis (Appendix F) for Methods of Analysis.

Table Abbreviations: (mbg) = metres below grade; (µm) = micrometres.

TABLE 3

SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS

Sample ID Laboratory ID	RDL[2]	UNITS	BH1-SS4 W50364	BH2-SS2 W50365	BH2-SS3 W50366	BH3-SS2 W50367	BH3-SS4 W50368	*MOE Reg 153/04 Table 2 Standard*[1]
OVM Reading	-	ppm/% LEL	50 ppm	430 ppm	25 ppm	40% LEL	110 ppm	-
Sample Depth	-	mbg	2.3 - 2.9	0.8 - 1.4	1.5 - 2.1	0.8 - 1.4	2.3 - 2.9	-
Sampling Date	-	-	18-Dec-07	18-Dec-07	18-Dec-07	17-Dec-07	17-Dec-07	-
Benzene	0.02	µg/g	0.004	**0.98**	<	**6.2**	<	0.24
Toluene	0.02	µg/g	0.008	0.09	<	1.6	<	2.1
Ethylbenzene	0.02	µg/g	<	**0.92**	<	**110**	0.15	0.28
Total Xylenes	0.04	µg/g	0.009	0.82	<	**440**	0.73	25
F1 (C6-C10; excluding BTEX)	10	µg/g	<	37	<	**4100**	10	180
F2 (>C10-C16)	10	µg/g	<	<	<	**1900**	12	250
F3 (>C16-C34)	10	µg/g	<	<	<	360	26	2500
F4 (>C34-C50)	10	µg/g	<	<	<	92	<	6600
Lead	5	µg/g	13	NA	NA	NA	NA	1000

Notes:
1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. Typical RDL values shown. Refer to laboratory certificate of analysis for any RDL adjustments.
3. Refer to laboratory Certificates of Analysis (Appendix F) for Methods of Analysis.
4. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (NV) = no value derived; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NM) = not measured; (mbg) = meters below grade; (NA) = not analysed.

TABLE 3 (cont'd)
SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS

Sample ID Laboratory ID	RDL[2]	UNITS	BH4-SS3 W50369	BH5-SS2 W50370	DUP (field duplicate of BH5-SS2) W50375	BH5-SS4 W50371	BH6-SS1 W50372	*MOE Reg 153/0 Table 2 Standard*[1]
OVM Reading	-	ppm/% LEL	110 ppm	90% LEL	-	80 ppm	80% LEL	-
Sample Depth	-	mbg	1.5 - 2.1	0.8 - 1.4	-	2.3 - 2.9	0.0 - 0.6	-
Sampling Date	-	-	17-Dec-07	18-Dec-07	18-Dec-07	18-Dec-07	18-Dec-07	-
Benzene	0.02	µg/g	**0.42**	**5.6**	**2.0**	<	**11**	0.24
Toluene	0.02	µg/g	<	**65**	**23**	0.08	1.7	2.1
Ethylbenzene	0.02	µg/g	**0.46**	**26**	**9.7**	<	**62**	0.28
Total Xylenes	0.04	µg/g	<	**160**	**53**	0.06	**260**	25
F1 (C6-C10; excluding BTEX)	10	µg/g	16	160	**190**	<	**2,000**	180
F2 (>C10-C16)	10	µg/g	<	16	98	<	190	250
F3 (>C16-C34)	10	µg/g	<	<	13	<	**3,100**	2500
F4 (>C34-C50)	10	µg/g	<	<	<	<	1900	6600
Lead	5	µg/g	NA	NA	NA	NA	NA	1000

Notes:
1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. Typical RDL values shown. Refer to laboratory certificate of analysis for any RDL adjustments.
3. Refer to laboratory Certificates of Analysis (Appendix F) for Methods of Analysis.
4. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (NV) = no value derived; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NM) = not measured; (mbg) = meters below grade; (NA) = not analysed.

TABLE 3 (cont'd)

SUMMARY OF SOIL LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS

Sample ID Laboratory ID	RDL[2]	UNITS	BH6-SS3 W50373	BH7-SS1 X92904	BH8-AS6 X92905	*MOE Reg 153/04 Table 2 Standard*[1]
OVM Reading	-	ppm/% LEL	75 ppm	100 ppm	100 ppm	-
Sample Depth	-	mbg	1.5 - 2.1	2.3 -2.9	1.5 -1.8	-
Sampling Date	-	-	18-Dec-07	3-Apr-08	3-Apr-08	-
Benzene	0.02	µg/g	<	<	<	0.24
Toluene	0.02	µg/g	<	<	<	2.1
Ethylbenzene	0.02	µg/g	0.06	<	<	0.28
Total Xylenes	0.04	µg/g	0.26	<	<	25
F1 (C6-C10; excluding BTEX)	10	µg/g	<	<	<	180
F2 (>C10-C16)	10	µg/g	<	<	<	250
F3 (>C16-C34)	10	µg/g	<	<	<	2500
F4 (>C34-C50)	10	µg/g	<	<	<	6600
Lead	5	µg/g	NA	16	11	1000

Notes:
1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. Typical RDL values shown. Refer to laboratory certificate of analysis for any RDL adjustments.
3. Refer to laboratory Certificates of Analysis (Appendix F) for Methods of Analysis.
4. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (NV) = no value derived; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NM) = not measured; (mbg) = meters below grade; (NA) = not analysed.

TABLE 4

SUMMARY OF SOIL LABORATORY ANALYSES
POLYCYCLIC AROMATIC HYDROCARBONS (PAHs)

Sample ID Laboratory ID	RDL	UNITS	BH1-SS4 W50364	*MOE Reg 153/04 Table 2 Standard*[1]
OVM Reading	-	ppm/% LEL	50 ppm	-
Sample Depth	-	mbg	2.3 - 2.9	-
Sampling Date	-	-	18-Dec-07	-
Acenaphthene	0.01	µg/g	<	15
Acenaphthylene	0.005	µg/g	<	130
Anthracene	0.005	µg/g	<	28
Benzo(a)anthracene	0.01	µg/g	<	6.6
Benzo(a)pyrene	0.005	µg/g	<	1.9
Benzo(b/j)fluroanthene	0.005	µg/g	<	18
Benzo(g,h,i)perylene	0.02	µg/g	<	40
Benzo(k)fluoranthene	0.01	µg/g	<	18
Chrysene	0.01	µg/g	<	17
Dibenzo(a,h)anthracene	0.02	µg/g	<	1.9
Fluoranthene	0.005	µg/g	0.005	40
Fluorene	0.005	µg/g	<	340
Indeno(1,2,3-cd)pyrene	0.02	µg/g	<	19
1-Methylnaphthalene[2]	0.005	µg/g	<	1.2
2-Methylnaphthalene	0.005	µg/g	<	1.2
Naphthalene	0.005	µg/g	<	4.6
Phenanthrene	0.005	µg/g	<	40
Pyrene	0.005	µg/g	<	250

Notes:
1. The Standards shown are the MOE Ontario Regulation 153/04 Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. 2-methyl naphthalene soil standard is applicable to 1-methyl naphthalene with the provision that if both are detected in the soil, the sum of the two concentrations cannot exceed the soil standard.
3. Refer to laboratory Certificates of Analysis (Appendix F) for Methods of Analysis.
4. **Bold** - Parameter exceeded the applicable MOE Table 2 Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (NV) = no value derived; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NM) = not measured; (mbg) = meters below grade.

TABLE 5

SUMMARY OF SOIL LABORATORY ANALYSES
VOLATILE ORGANIC COMPOUNDS (VOCs)

Sample ID Laboratory ID	RDL	UNITS	BH1-SS4 W50364	*MOE Reg 153/04 Table 2 Standard*[1]
OVM Reading	-	ppm/% LEL	50 ppm	-
Sample Depth	-	mbg	2.3 - 2.9	-
Sampling Date	-	-	18-Dec-07	-
Acetone	0.1	µg/g	0.1	3.5
Benzene	0.002	µg/g	0.004	0.24
Bromodichloromethane	0.002	µg/g	<	0.12
Bromoform	0.002	µg/g	<	0.11
Bromomethane	0.003	µg/g	<	0.38
Carbon Tetrachloride	0.002	µg/g	<	0.64
Chlorobenzene	0.002	µg/g	<	2.4
Chloroform	0.002	µg/g	<	0.13
Dibromochloromethane	0.002	µg/g	<	0.09
1,2-Dichlorobenzene	0.002	µg/g	0.010	0.88
1,3-Dichlorobenzene	0.002	µg/g	<	30
1,4-Dichlorobenzene	0.002	µg/g	<	0.32
1,1-Dichloroethane	0.002	µg/g	<	3.0
1,2-Dichloroethane	0.002	µg/g	<	0.05
1,1-Dichloroethylene	0.002	µg/g	<	0.015
cis-1,2-Dichloroethylene	0.002	µg/g	<	2.3
trans-1,2-Dichloroethylene	0.002	µg/g	<	4.1
1,2-Dichloropropane	0.002	µg/g	<	0.12
cis-1,3-Dichloropropene	0.002	µg/g	<	NV
trans-1,3-Dichloropropene	0.002	µg/g	<	0.04
Ethylbenzene	0.002	µg/g	<	0.28
Ethylene Dibromide	0.002	µg/g	<	0.012
Methylene Chloride	0.003	µg/g	<	1.1
Methyl Isobutyl Ketone	0.025	µg/g	<	0.48
Methyl Ethyl Ketone	0.025	µg/g	<	0.27
Methyl t-butyl ether (MTBE)	0.002	µg/g	0.002	5.7
Styrene	0.002	µg/g	<	1.7
1,1,1,2-Tetrachloroethane	0.002	µg/g	<	0.12
1,1,2,2-Tetrachloroethane	0.002	µg/g	<	0.01
Tetrachloroethylene	0.002	µg/g	<	0.45
Toluene	0.002	µg/g	0.008	2.1
1,1,1-Trichloroethane	0.002	µg/g	<	34
1,1,2-Trichloroethane	0.002	µg/g	<	0.28
Trichloroethylene	0.002	µg/g	<	3.9
Vinyl Chloride	0.002	µg/g	<	0.0075
Xylenes	0.002	µg/g	0.009	25

Notes:
1. The Standards shown are the MOE Ontario Regulation 153/04 Soil, Ground Water and Sediment Standards (March 9, 2004), *Table* 2 Full Depth Generic Site Condition Standards in a Potable Ground Water Condition with Industrial/Commercial/Community Property Use and Medium and Fine Textured Soil Conditions.
2. Refer to laboratory Certificates of Analysis (Appendix F) for Methods of Analysis.
3. Bold - Parameter exceeded the applicable MOE *Table* 2 Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (NV) = no value derived; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NM) = not measured; (mbg) = meters below grade.

TABLE 6

SUMMARY OF SOIL LABORATORY ANALYSES
REGULATION 558/00 TCLP LEACHATE ANALYSIS

Sample ID Laboratory ID	RDL	UNITS	REG W50404	*MOE Schedule 4* [1] *Leachate Quality Criteria*
Sampling Date	-	-	17-Dec-07	-
Benzene	0.01	mg/L	0.06	0.5
Leachable Total PCBs	3	mg/L	<	0.3
Leachable Benzo(a)pyrene	0.1	mg/L	<	0.001
Leachable Nitrate + Nitrite	1	mg/L	43	1000
Leachable Free Cyanide	0.002	mg/L	<	20
Leachable Fluoride	0.1	mg/L	1.7	150
Leachable Mercury	0.001	mg/L	<	0.1
Leachable Arsenic	0.2	mg/L	<	2.5
Leachable Barium	0.2	mg/L	0.6	100
Leachable Boron	0.1	mg/L	4.3	500
Leachable Cadmium	0.05	mg/L	<	0.5
Leachable Chromium	0.1	mg/L	<	5.0
Leachable Lead	0.1	mg/L	<	5.0
Leachable Selenium	0.2	mg/L	<	1.0
Leachable Silver	0.01	mg/L	<	5
Leachable Uranium	0.01	mg/L	<	10
Ignitability	1	mm/min	NI	NV

Notes:
1. Criteria shown are for contaminants listed in *Schedule 4* of Ontario *Regulation 558/00* derived from the document titled Registration Guidance Manual For Generators of Liquid Industrial and Hazardous Waste, dated October 2000.
2. Refer to laboratory Certificates of Analysis (Appendix F) for Methods of Analysis.
3. **Bold** - Parameter exceeded the MOE *Schedule 4* Leachate Quality Criteria.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (NV) = no value derived; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NM) = not measured; (mbg) = meters below grade.

TABLE 7
MONITORING AND SURVEY DATA
January 8, 2008

Monitoring Point	Free Product (cm)	OVM Reading Well Headspace (ppm or % LEL)	Top of Pipe Elevation[1] (m)	Grade Elevation[1] (m)	Water Level (mbtop)	Groundwater Elevation (m)
BH1	0	100 ppm	100.41	100.56	3.66	96.75
BH2	0	20% LEL	100.11	100.24	3.05	97.06
BH3	0	25% LEL	99.78	99.95	0.23	99.55
BH4	0	100% LEL	100.01	100.14	0.85	99.16
BH5	0	100% LEL	99.96	100.06	3.85	96.11
BH6	0	100% LEL	100.25	100.38	1.82	98.43

Notes: 1. Top of pipe and grade elevations are shown in metres and were surveyed to a benchmark (top and centre of man hole located in the grass boulevard in the southeast corner of the Site) with an assigned datum of 100.00 metres.

Table Abbreviations: (cm) = centimetres; (OVM) = organic vapour meter; (ppm) = parts per million; (% LEL) = percentage of the lower explosive limit; (mbtop) = metres below top of pipe; (m) = metres; (N/A) = not applicable.

TABLE 8

MONITORING AND SURVEY DATA
May 6, 2008

Monitoring Point	Free Product (cm)	OVM Reading Well Headspace (ppm or % LEL)	Top of Pipe Elevation[1] (m)	Grade Elevation[1] (m)	Water Level (mbtop)	Groundwater Elevation (m)
BH1	0	25 ppm	100.41	100.56	3.38	97.03
BH2	0	30% LEL	100.11	100.24	2.95	97.16
BH3	0	420 ppm	99.78	99.95	0.11	99.67
BH4	0	100% LEL	100.01	100.14	0.81	99.20
BH5	0	90% LEL	99.96	100.06	2.74	97.22
BH6	0	10% LEL	100.25	100.38	0.29	99.96
BH7	0	40 ppm	100.58	100.74	0.95	99.63
BH8	0	85 ppm	100.78	100.88	0.96	99.82

Notes: 1. Top of pipe and grade elevations are shown in metres and were surveyed to a benchmark (top and centre of man hole located in the grass boulevard in the southeast corner of the Site) with an assigned datum of 100.00 metres.

Table Abbreviations: (cm) = centimetres; (OVM) = organic vapour meter; (ppm) = parts per million; (% LEL) = percentage of the lower explosive limit; (mbtop) = metres below top of pipe; (m) = metres; (N/A) = not applicable.

TABLE 9
SUMMARY OF GROUNDWATER LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS

Sample ID Laboratory ID	RDL[2]	UNITS	BH1 W69277	BH2 W69278	BH3 W69279	BH4 W69280	DUP (field duplicate of BH4) W69284	*MOE Reg 153/04 Table 2*[1]
OVM Reading	-	ppm/% LEL	100 ppm	20% LEL	25% LEL	100% LEL	-	-
Sampling Date	-	-	8-Jan-08	8-Jan-08	8-Jan-08	8-Jan-08	8-Jan-08	-
Benzene	0.2	µg/L	<	**31**	**340**	**2,000**	**2,300**	5.0
Toluene	0.2	µg/L	0.3	9.5	<	<	<	24
Ethylbenzene	0.2	µg/L	<	**13**	**630**	**660**	**930**	2.4
Total Xylenes	0.4	µg/L	<	71	**3,100**	**380**	**650**	300
F1 + F2 (C6-C16; excluding BTEX)	100	µg/L	<	<	**10,800**	860	**1,100**	1000
F3 + F4 (>C16-C50)	100	µg/L	<	<	<	<	130	1000
Lead	0.5	µg/L	NA	NA	<	<	4.5	10

Notes:

1. The Standards shown are the MOE Ontario Regulation 153/04 Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for All Types of Property Use and Medium and FineTextured Soil Conditions
2. Typical *Table 2* RDL's shown. Refer to laboratory certificate of analysis for any RDL adjustments.
3. Trip spike results are expressed as a percentage of the spiked amounts.
4. Total xylenes Trip Spike recoveries are reported as o-Xylene/p+m-Xylene.
5. Only F2 Trip Spike recovery reported.
6. F3 + F4 Trip Spike recoveries are reported as F3/F4.
7. Refer to laboratory Certificates of Analysis (Appendix F) for Methods of Analysis.
8. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (NV) = no value derived; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NM) = not measured; (mbg) = meters below grade; (NA) = not analysed.

TABLE 9 (cont'd)
SUMMARY OF GROUNDWATER LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS

Sample ID Laboratory ID	RDL[2]	UNITS	BH5 W69281	BH6 W69282	*MOE Reg 153/04 Table 2*[1]	FB W69283	TRIP BLANK W69285	TRIP SPIKE[3] W69286
OVM Reading	-	ppm/% LEL	100% LEL	100% LEL	-	-	-	-
Sampling Date	-	-	8-Jan-08	8-Jan-08	-	8-Jan-08	-	-
Benzene	0.2	µg/L	**2,700**	**2,600**	5.0	<	<	96
Toluene	0.2	µg/L	**3,000**	<	24	<	<	100
Ethylbenzene	0.2	µg/L	**430**	**460**	2.4	<	<	100
Total Xylenes	0.4	µg/L	**950**	**1,900**	300	<	<	98/100[4]
F1 + F2 (C6-C16; excluding BTEX)	100	µg/L	710	900	1000	<	<	79 [5]
F3 + F4 (>C16-C50)	100	µg/L	130	140	1000	<	<	79/79[6]
Lead	0.5	µg/L	NA	<	10	<	<	99

Notes:

1. The Standards shown are the MOE Ontario Regulation 153/04 Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for All Types of Property Use and Medium and Fine Textured Soil Conditions
2. Typical *Table 2* RDL's shown. Refer to laboratory certificate of analysis for any RDL adjustments.
3. Trip spike results are expressed as a percentage of the spiked amounts.
4. Total xylenes Trip Spike recoveries are reported as o-Xylene/p+m-Xylene.
5. Only F2 Trip Spike recovery reported.
6. F3 + F4 Trip Spike recoveries are reported as F3/F4.
7. Refer to laboratory Certificates of Analysis (Appendix F) for Methods of Analysis.
8. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (NV) = no value derived; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NM) = not measured; (mbg) = meters below grade; (NA) = not analysed.

TABLE 9 (cont'd)
SUMMARY OF GROUNDWATER LABORATORY ANALYSES
PETROLEUM HYDROCARBON PARAMETERS

Sample ID Laboratory ID	RDL[2]	UNITS	BH7 X98955	BH8 X98956	*MOE Reg 153/04 Table 2*[1]	FB X99117	TRIP BLANK X99118	TRIP SPIKE[3] X99119
OVM Reading	-	ppm/% LEL	100 ppm	175 ppm	-	-	-	-
Sampling Date	-	-	7-Apr-08	7-Apr-08	-	7-Apr-08	-	-
Benzene	0.2	µg/L	**46**	<	5.0	<	<	75
Toluene	0.2	µg/L	<	<	24	<	<	75
Ethylbenzene	0.2	µg/L	2.0	<	2.4	<	<	76
Total Xylenes	0.4	µg/L	<	0.1	300	<	<	81/87[4]
F1 + F2 (C6-C16; excluding BTEX)	100	µg/L	<	<	1000	<	<	97[5]
F3 + F4 (>C16-C50)	100	µg/L	<	<	1000	<	<	97/97[6]
Lead	0.5	µg/L	<	<	10	<	<	98

Notes:

1. The Standards shown are the MOE Ontario Regulation 153/04 Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for All Types of Property Use and Medium and FineTextured Soil Conditions
2. Typical *Table 2* RDL's shown. Refer to laboratory certificate of analysis for any RDL adjustments.
3. Trip spike results are expressed as a percentage of the spiked amounts.
4. Total xylenes Trip Spike recoveries are reported as o-Xylene/p+m-Xylene.
5. Only F2 Trip Spike recovery reported.
6. F3 + F4 Trip Spike recoveries are reported as F3/F4.
7. Refer to laboratory Certificates of Analysis (Appendix F) for Methods of Analysis.
8. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (NV) = no value derived; (µg/g) = micrograms per gram; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NM) = not measured; (mbg) = meters below grade; (NA) = not analysed.

TABLE 10
SUMMARY OF GROUNDWATER LABORATORY ANALYSES
VOLATILE ORGANIC COMPOUNDS (VOCs)

Sample ID Laboratory ID	RDL[2]	UNITS	BH3 W69279	BH4 W69280	DUP (field duplicate of BH4) W69284	BH6 W69282	*MOE Reg 153/04 Table 2*[1]
OVM Reading	-	ppm/% LEL	25% LEL	100% LEL	-	100% LEL	-
Sampling Date	-	-	8-Jan-08	8-Jan-08	8-Jan-08	8-Jan-08	-
Acetone	10	µg/L	<	<	<	<	3000
Benzene	0.1	µg/L	340	2,000	2,300	2,600	5.0
Bromodichloromethane	0.1	µg/L	<	<	<	<	5.0
Bromoform	0.2	µg/L	<	<	<	<	5.0
Bromomethane	0.5	µg/L	<	<	<	<	10
Carbon Tetrachloride	0.1	µg/L	<	<	<	<	5.0
Chlorobenzene	0.1	µg/L	<	<	<	<	30
Chloroform	0.1	µg/L	<	<	<	<	5.0
Dibromochloromethane	0.2	µg/L	<	<	<	<	5.0
1,2-Dichlorobenzene	0.2	µg/L	<	<	<	<	3.0
1,3-Dichlorobenzene	0.2	µg/L	<	<	<	<	630
1,4-Dichlorobenzene	0.2	µg/L	<	<	<	<	1.0
1,1-Dichloroethane	0.1	µg/L	<	<	<	<	70
1,2-Dichloroethane	0.1	µg/L	<	<	<	<	5.0
1,1-Dichloroethylene	0.1	µg/L	<	<	<	<	4.1
cis-1,2-Dichloroethylene	0.1	µg/L	<	<	<	<	70
trans-1,2-Dichloroethylene	0.1	µg/L	<	<	<	<	100
1,2-Dichloropropane	0.1	µg/L	<	<	<	<	5.0
cis-1,3-Dichloropropene	0.2	µg/L	<	<	<	<	NV
trans-1,3-Dichloropropene	0.2	µg/L	<	<	<	<	1.4
Ethylbenzene	0.1	µg/L	630	660	930	460	2.4
Ethylene Dibromide	0.2	µg/L	<	<	<	<	1.0
Methylene Chloride	0.5	µg/L	<	<	<	<	50
Methyl Isobutyl Ketone	5	µg/L	<	<	<	<	350
Methyl Ethyl Ketone	5	µg/L	<	<	<	<	350
Methyl t-butyl ether (MTBE)	0.2	µg/L	<	2,000	1,800	180	700
Styrene	0.1	µg/L	<	<	<	<	100
1,1,1,2-Tetrachloroethane	0.1	µg/L	<	<	<	<	5.0
1,1,2,2-Tetrachloroethane	0.1	µg/L	<	<	<	<	1.0
Tetrachloroethylene	0.1	µg/L	<	<	<	<	5.0
Toluene	0.2	µg/L	<	<	<	<	24
1,1,1-Trichloroethane	0.1	µg/L	<	<	<	<	200
1,1,2-Trichloroethane	0.2	µg/L	<	<	<	<	5.0
Trichloroethylene	0.1	µg/L	<	<	<	<	50
Vinyl Chloride	0.2	µg/L	<	<	<	<	1.3
Xylene (Total)	0.05	µg/L	3,100	380	650	1,900	300

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), *Table* 2 Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for All Types of Property Use and Medium and Fine Textured Soil Conditions.
2. Typical *Table* 2 RDL's shown. Refer to laboratory certificate of analysis for any ROL adjustments.
3. Trip spike results are expressed as a percentage of the spiked amounts.
4. Total xylenes Trip Spike recoveries are reported as o-Xylene/p+m-Xylene.
5. Refer to laboratory Certificates of Analysis (Appendix F) for Methods of Analysis.
6. Bold - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (NV)=no value derived; [µg/L) = micrograms per litre; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NM) = not measured; (mbg) = meters below grade; (NA) = not analysed.

TABLE 10 (cont'd)
SUMMARY OF GROUNDWATER LABORATORY ANALYSES
VOLATILE ORGANIC COMPOUNDS (VOCs)

Sample ID Laboratory ID	RDL[2]	UNITS	FB W69283	TRIP BLANK W69285	TRIP SPIKE[3] W69286
OVM Reading	-	ppm/% LEL	-	-	-
Sampling Date	-	-	8-Jan-08	-	-
Acetone	10	µg/L	<	<	99
Benzene	0.1	µg/L	<	<	96
Bromodichloromethane	0.1	µg/L	<	<	98
Bromoform	0.2	µg/L	<	<	110
Bromomethane	0.5	µg/L	<	<	100
Carbon Tetrachloride	0.1	µg/L	<	<	100
Chlorobenzene	0.1	µg/L	<	<	100
Chloroform	0.1	µg/L	<	<	97
Dibromochloromethane	0.2	µg/L	<	<	100
1,2-Dichlorobenzene	0.2	µg/L	<	<	98
1,3-Dichlorobenzene	0.2	µg/L	<	<	100
1,4-Dichlorobenzene	0.2	µg/L	<	<	100
1,1-Dichloroethane	0.1	µg/L	<	<	100
1,2-Dichloroethane	0.1	µg/L	<	<	94
1,1-Dichloroethylene	0.1	µg/L	<	<	100
cis-1,2-Dichloroethylene	0.1	µg/L	<	<	97
trans-1,2-Dichloroethylene	0.1	µg/L	<	<	97
1,2-Dichloropropane	0.1	µg/L	<	<	97
cis-1,3-Dichloropropene	0.2	µg/L	<	<	84
trans-1,3-Dichloropropene	0.2	µg/L	<	<	85
Ethylbenzene	0.1	µg/L	<	<	100
Ethylene Dibromide	0.2	µg/L	<	<	100
Methylene Chloride	0.5	µg/L	<	<	99
Methyl Isobutyl Ketone	5	µg/L	<	<	95
Methyl Ethyl Ketone	5	µg/L	<	<	99
Methyl t-butyl ether (MTBE)	0.2	µg/L	<	<	96
Styrene	0.1	µg/L	<	<	97
1,1,1,2-Tetrachloroethane	0.1	µg/L	<	<	98
1,1,2,2-Tetrachloroethane	0.1	µg/L	<	<	96
Tetrachloroethylene	0.1	µg/L	<	<	97
Toluene	0.2	µg/L	<	<	100
1,1,1-Trichloroethane	0.1	µg/L	<	<	99
1,1,2-Trichloroethane	0.2	µg/L	<	<	99
Trichloroethylene	0.1	µg/L	<	<	98
Vinyl Chloride	0.2	µg/L	<	<	110
Xylene (Total)	0.05	µg/L	<	<	98/100[4]

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), Table 2 Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for All Types of Property Use and Medium and Fine Textured Soil Conditions.
2. Typical *Table* 2 RDL's shown. Refer to laboratory certificate of analysis for any RDL adjustments.
3. Trip spike results are expressed as a percentage of the spiked amounts.
4. Total xylenes Trip Spike recoveries are reported as o-Xylene/p+m-Xylene.
5. Refer to laboratory Certificates of Analysis (Appendix F) for Methods of Analysis.
6. Bold - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (NV)=no value derived; (µg/L) = micrograms per litre; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; [MOE) = Ministry of the Environment; (NM) = not measured; (mbg) = meters below grade; (NA) = not analysed.

TABLE 10 (cont'd)
SUMMARY OF GROUNDWATER LABORATORY ANALYSES
VOLATILE ORGANIC COMPOUNDS (VOCs)

Sample ID Laboratory ID	RDL[2]	UNITS	BH7 X98955	BH8 X98956	*MOE Reg 153/04 Table 2*[1]	FB X99117	TRIP BLANK X99118	TRIP SPIKE[3] X99119
OVM Reading	-	ppm/% LEL	100 ppm	175 ppm	-	-	-	-
Sampling Date	-	-	7-Apr-08	7-Apr-08	-	7-Apr-08	-	-
Acetone	10	µg/L	NA	NA	3000	NA	NA	NA
Benzene	0.1	µg/L	**46**	<	5.0	<	<	75
Bromodichloromethane	0.1	µg/L	NA	NA	5.0	NA	NA	NA
Bromoform	0.2	µg/L	NA	NA	5.0	NA	NA	NA
Bromomethane	0.5	µg/L	NA	NA	10	NA	NA	NA
Carbon Tetrachloride	0.1	µg/L	NA	NA	5.0	NA	NA	NA
Chlorobenzene	0.1	µg/L	NA	NA	30	NA	NA	NA
Chloroform	0.1	µg/L	NA	NA	5.0	NA	NA	NA
Dibromochloromethane	0.2	µg/L	NA	NA	5.0	NA	NA	NA
1,2-Dichlorobenzene	0.2	µg/L	NA	NA	3.0	NA	NA	NA
1,3-Dichlorobenzene	0.2	µg/L	NA	NA	630	NA	NA	NA
1,4-Dichlorobenzene	0.2	µg/L	NA	NA	1.0	NA	NA	NA
1,1-Dichloroethane	0.1	µg/L	NA	NA	70	NA	NA	NA
1,2-Dichloroethane	0.1	µg/L	NA	NA	5.0	NA	NA	NA
1,1-Dichloroethylene	0.1	µg/L	NA	NA	4.1	NA	NA	NA
cis-1,2-Dichloroethylene	0.1	µg/L	NA	NA	70	NA	NA	NA
trans-1,2-Dichloroethylene	0.1	µg/L	NA	NA	100	NA	NA	NA
1,2-Dichloropropane	0.1	µg/L	NA	NA	5.0	NA	NA	NA
cis-1,3-Dichloropropene	0.2	µg/L	NA	NA	NV	NA	NA	NA
trans-1,3-Dichloropropene	0.2	µg/L	NA	NA	1.4	NA	NA	NA
Ethylbenzene	0.1	µg/L	2.0	<	2.4	<	<	76
Ethylene Dibromide	0.2	µg/L	NA	NA	1.0	NA	NA	NA
Methylene Chloride	0.5	µg/L	NA	NA	50	NA	NA	NA
Methyl Isobutyl Ketone	5	µg/L	NA	NA	350	NA	NA	NA
Methyl Ethyl Ketone	5	µg/L	NA	NA	350	NA	NA	NA
Methyl t-butyl ether (MTBE)	0.2	µg/L	7	0.7	700	<	<	NA
Styrene	0.1	µg/L	NA	NA	100	NA	NA	NA
1,1,1,2-Tetrachloroethane	0.1	µg/L	NA	NA	5.0	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.1	µg/L	NA	NA	1.0	NA	NA	NA
Tetrachloroethylene	0.1	µg/L	NA	NA	5.0	NA	NA	NA
Toluene	0.2	µg/L	<	<	24	<	<	75
1,1,1-Trichloroethane	0.1	µg/L	NA	NA	200	NA	NA	NA
1,1,2-Trichloroethane	0.2	µg/L	NA	NA	5.0	NA	NA	NA
Trichloroethylene	0.1	µg/L	NA	NA	50	NA	NA	NA
Vinyl Chloride	0.2	µg/L	NA	NA	1.3	NA	NA	NA
Xylene (Total)	0.05	µg/L	<	0.1	300	<	<	81/87[4]

Notes:

1. The Standards shown are the MOE *Ontario Regulation 153/04* Soil, Ground Water and Sediment Standards (March 9, 2004), *Table 2* Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for All Types of Property Use and Medium and Fine Textured Soil Conditions.
2. Typical *Table 2* RDL's shown. Refer to laboratory certificate of analysis for any RDL adjustments.
3. *Trip* spike results are expressed as a percentage of the spiked amounts.
4. Total xylenes *Trip* Spike recoveries are reported as o-Xylene/p+m-Xylene.
5. Refer to laboratory Certificates of Analysis (Appendix F) for Methods of Analysis.
6. **Bold** - Parameter exceeded the applicable MOE *Table 2* Standards.

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (NV)=no value derived; (µg/L] = micrograms per litre; (ppm) = parts per million; (%LEL) = percentage of lower explosive limit; (OVM) = organic vapour meter; (MOE) = Ministry of the Environment; (NM) = not measured; (mbg) = meters below grade; (NA) = not analysed.

APPENDIX A

SITE PHOTOGRAPHS

PLATE 1: LOOKING WEST TO DRILLING OF BH5

PLATE 2: LOOKING WEST TO PUMP ISLANDS AND SERVICE STATION BUILDING

SITE PHOTOGRAPHS

3005 DUNDAS STREET WEST
OAKVILLE, ONTARIO

WARDROP | Engineering Inc.

3875-PH1&2

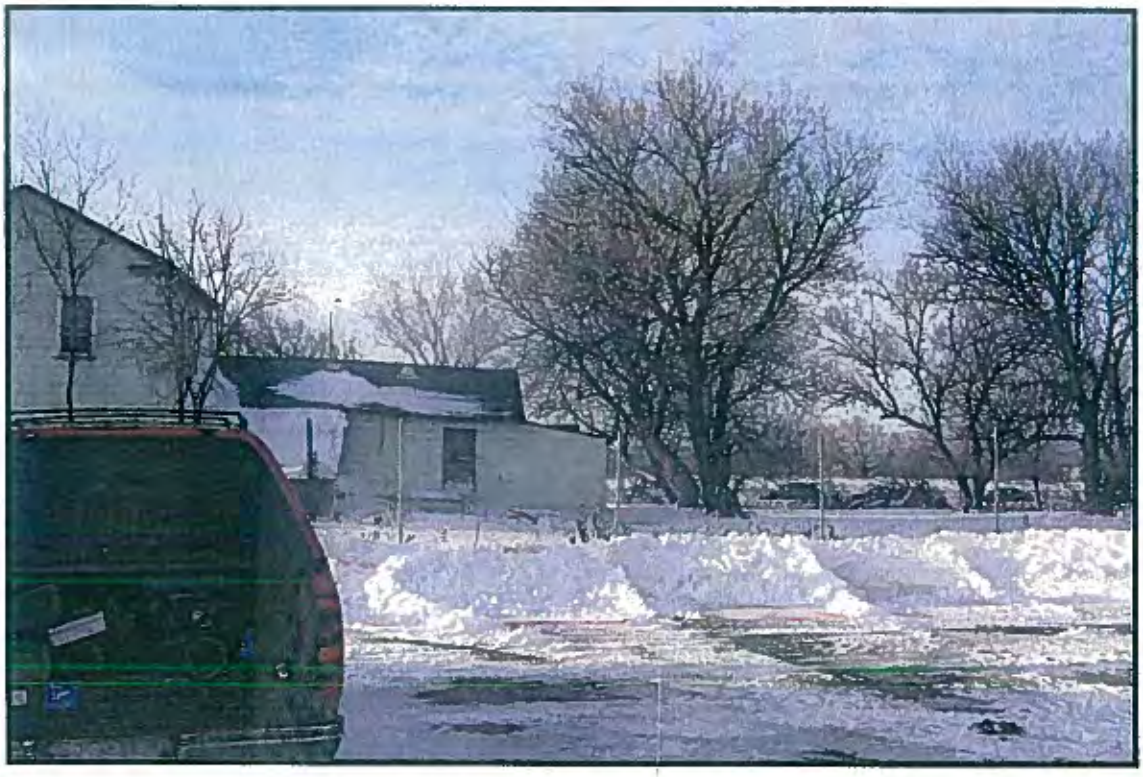

PLATE 3: LOOKING WEST TO NEIGHBOURING PROPERTY

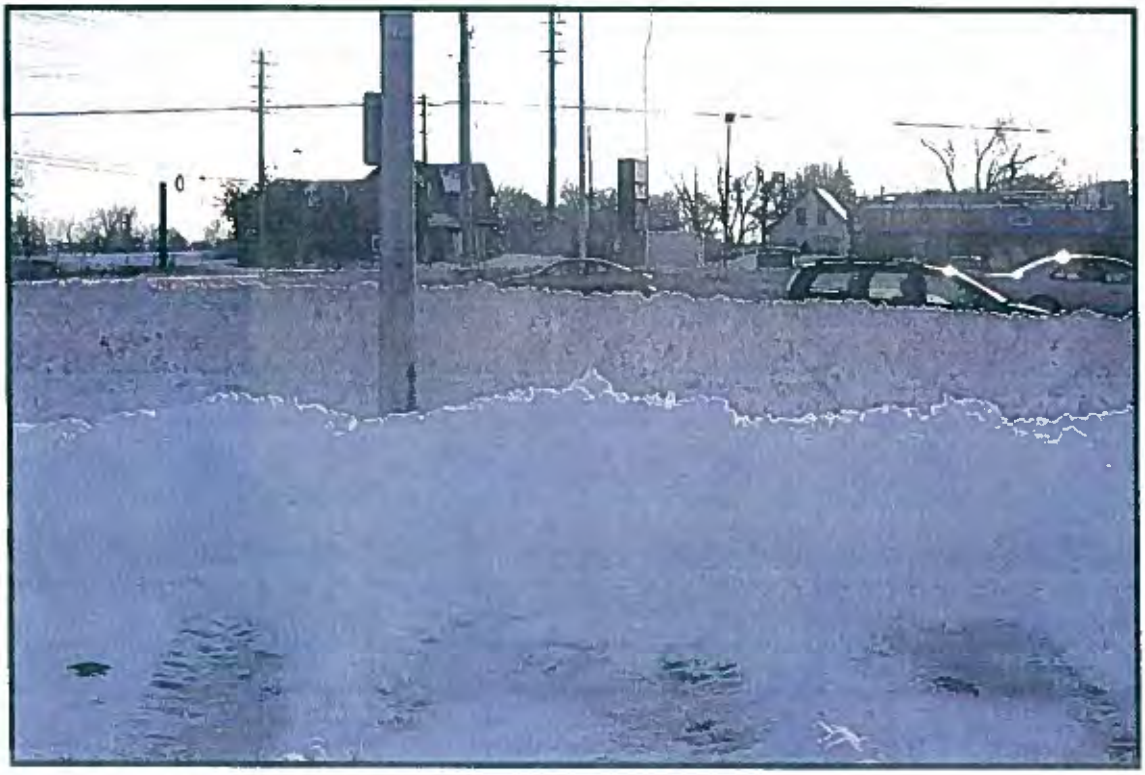

PLATE 4: LOOKING SOUTH TO PLAZA ACROSS DUNDAS STREET WEST

SITE PHOTOGRAPHS

3005 DUNDAS STREET WEST
OAKVILLE, ONTARIO

WARDROP | Engineering Inc.

3875-PH3&4

PLATE 5: VACANT LAND TO THE NORTH

PLATE 6: RESIDENTIAL PROPERTIES TO THE EAST

SITE PHOTOGRAPHS

3005 DUNDAS STREET WEST
OAKVILLE, ONTARIO

WARDROP | Engineering Inc.

3875-PH5&6

APPENDIX B

BOREHOLE LOGS

PROJECT: PHASE II ENVIRONMENTAL SITE ASSESSMENT		BOREHOLE NO: BH1
LOCATION: 3005 DUNDAS STREET WEST, OAKVILLE, ONTARIO		METHOD: HOLLOW STEM
PROJECT NO: 3875	DRILLING DATE: DEC/18/2007	AUGER O.D. (mm): 210
LOGGED BY: C. F.	CONTRACTOR: GEO ENVIRONMENTAL INC.	DRILLING EQUIPMENT: CME 55
VAPOUR ANALYZER: GASTECH 1238 WITHOUT RESPONSE TO METHANE		DATUM(100.00) TOP CENTRE OF MH ELEVATION; SE CORNER OF SITE

ELEVATION (metres)	WELL DATA	SYMBOL	SOIL DESCRIPTION	DEPTH METRES	DEPTH FEET	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE N-VALUE	SAMPLE RECOVERY %	VAPOUR READINGS ● PPM ■ %LEL (100 200 300 400 PPM / 20 40 60 80 %LEL)	NOTES
100.56			GRASS								
100.41			TOPSOIL –Brown, Dry								
			SILTY CLAY (FILL) –Brown, Trace Gravel, Dry	0	1		SS1	11	60	●	
					2						
99.50				1	3		SS2	41	30	●	
99.12			–Trace Red Brick Debris		4						
					5		SS3	15	30	●	
				2	6						
					7						
			SILTY CLAY (TILL) –Green/Grey, Trace Gravel, Damp		8		SS4	7	40	●	LAB SAMPLE (BTEX/F1–F4/LEAD /VOCs/PAHs)
					9						
			–Grey Mottling, Trace Cobbles	3	10						
					11		SS5	20	70	●	
96.75			(Water level @ 3.66 mbtop on Jan/07/08)		12						
				4	13						
					14		SS6	>50	80	●	
96.14			–Shale Fragments		15						
			SHALE –Reddish Brown, Weathered, Some Clay and Trace Cobbles		16		SS7	>50	40	ND	
			END OF BOREHOLE @ 4.9 mbg DUE TO AUGER REFUSAL	5	17						
			Ground water sample submitted Jan/08/08 for BTEX and F1–F4 analyses using dedicated HDPE & Waterra type sampling equipment.		18						
					19						
				6	20						
					21						
					22						
				7	23						
					24						
					25						
				8	26						
					27						
					28						
					29						
				9	30						
					31						
					32						
				10	33						

Engineering Inc.

DATE: 01/14/08 | CHECKED BY: JC

LOCATION/FILE: Z:/PROJECTS/DRAFT/3875

PROJECT: PHASE II ENVIRONMENTAL SITE ASSESSMENT		BOREHOLE NO: BH1
LOCATION: 3005 DUNDAS STREET WEST, OAKVILLE, ONTARIO		METHOD: HOLLOW STEM
PROJECT NO: 3875	DRILLING DATE: DEC/18/2007	AUGER O.D. (mm): 210
LOGGED BY: C. F.	CONTRACTOR: GEO ENVIRONMENTAL INC.	DRILLING EQUIPMENT: CME 55
VAPOUR ANALYZER: GASTECH 1238 WITHOUT RESPONSE TO METHANE		DATUM (100.00) TOP CENTRE OF MH ELEVATION: SE CORNER OF SITE

ELEVATION (metres)	WELL DATA	SYMBOL	SOIL DESCRIPTION	DEPTH METRES	DEPTH FEET	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE N-VALUE	SAMPLE RECOVERY %	VAPOUR READINGS ● PPM ■ %LEL (100 200 300 400 PPM; 20 40 60 80 %LEL)	NOTES
100.56			GRASS								
100.41			TOPSOIL –Brown, Dry								
			SILTY CLAY (FILL) –Brown, Trace Gravel, Dry	1	2		SS1	11	60	●	
99.50					3						
99.12			–Trace Red Brick Debris	2	4		SS2	41	30	●	
					5						
					6		SS3	15	30	●	
			SILTY CLAY (TILL) –Green/Grey, Trace Gravel, Damp		7						
				3	8		SS4	7	40	●	LAB SAMPLE (BTEX/F1–F4/LEAD /VOCs/PAHs)
			–Grey Mottling, Trace Cobbles		9						
96.75			*(Water level @ 3.66 mbtap on Jan/07/08)*		10						
					11		SS5	20	70	●	
				4	12						
					13		SS6	>50	80	●	
96.14			–Shale Fragments		14						
			SHALE –Reddish Brown, Weathered, Some Clay and Trace Cobbles		15		SS7	>50	40	ND	
			END OF BOREHOLE @ 4.9 mbg DUE TO AUGER REFUSAL	5	16						
			Ground water sample submitted Jan/08/08 for BTEX and F1–F4 analyses using dedicated HDPE & Waterra type sampling equipment.		17						
					18						
					19						
				6	20						
					21						
					22						
				7	23						
					24						
					25						
					26						
				8	27						
					28						
					29						
				9	30						
					31						
					32						
				10	33						

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DATE: 01/14/08 | CHECKED BY: JC

LOCATION/FILE: Z:/PROJECTS/DRAFT/3875

PROJECT: PHASE II ENVIRONMENTAL SITE ASSESSMENT		BOREHOLE NO: BH2
LOCATION: 3005 DUNDAS STREET WEST, OAKVILLE, ONTARIO		METHOD: HOLLOW STEM
PROJECT NO: 3875	DRILLING DATE: DEC/18/2007	AUGER O.D. (mm): 210
LOGGED BY: C. F.	CONTRACTOR: GEO ENVIRONMENTAL INC.	DRILLING EQUIPMENT: CME 55
VAPOUR ANALYZER: GASTECH 1238 WITHOUT RESPONSE TO METHANE		DATUM(100.00) TOP CENTRE OF MH ELEVATION: SE CORNER OF SITE

ELEVATION (metres)	WELL DATA	SYMBOL	SOIL DESCRIPTION	DEPTH METRES	DEPTH FEET	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE N-VALUE	SAMPLE RECOVERY %	VAPOUR READINGS ● PPM ■ %LEL (100 200 300 400 PPM; 20 40 60 80 %LEL)	NOTES
100.24											
100.11			ASPHALT (75 mm)								
			SAND AND GRAVEL (FILL) –Brown, Dry		1		SS1	6	20	●	
					2						
99.17			SILTY CLAY –Dark Brown, Trace Organics, with Some Possible Sand and Gravel Fill, Damp	1	3		SS2	7	40	●	LAB SAMPLE (BTEX/F1–F4)
98.87					4						
			–Green/Grey Mottling		5		SS3	10	70	●	LAB SAMPLE (BTEX/F1–F4)
				2	6						
					7						
					8		SS4	27	100	●	
			(Water level @ 3.05 mbtop on Jan/07/08)		9						
97.06			–Reddish Brown	3	10		SS5	23	100	●	
					11						
					12						
				4	13		SS6	33	70	●	
95.82			–Greyish		14						
					15						
			SHALE –Reddish Brown, Weathered, Dry		16		SS7	>50	60	●	
				5	17						
			END OF BOREHOLE @ 5.0 mbg DUE TO AUGER REFUSAL		18						
			Ground water sample submitted Jan/08/08 for BTEX and F1–F4 analyses using dedicated HOPE & Waterra type sampling equipment.		19						
				6	20						
					21						
					22						
				7	23						
					24						
					25						
					26						
				8	27						
					28						
					29						
				9	30						
					31						
					32						
				10	33						

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DATE: 01/14/08 | CHECKED BY: JC

LOCATION/FILE: Z:/PROJECTS/DRAFT/3875

PROJECT: PHASE II ENVIRONMENTAL SITE ASSESSMENT		BOREHOLE NO: BH3
LOCATION: 3005 DUNDAS STREET WEST, OAKVILLE, ONTARIO		METHOD: HOLLOW STEM
PROJECT NO: 3875	DRILLING DATE: DEC/17/2007	AUGER O.D. (mm): 210
LOGGED BY: C. F.	CONTRACTOR: GEO ENVIRONMENTAL INC.	DRILLING EQUIPMENT: CME 55
VAPOUR ANALYZER: GASTECH 1238 WITHOUT RESPONSE TO METHANE		DATUM (100.00) TOP CENTRE OF MH ELEVATION: SE CORNER OF SITE

ELEVATION (metres)	SOIL DESCRIPTION	DEPTH METRES	DEPTH FEET	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE N-VALUE	SAMPLE RECOVERY %	VAPOUR READINGS ● PPM ■ %LEL (100 200 300 400 PPM; 20 40 60 80 %LEL)	NOTES
99.95									
99.78	ASPHALT (100 mm)								
99.55	SAND AND GRAVEL (FILL) –Brown, Some Cobbles, Dry		1		SS1	5	5	■	
99.34			2						
99.19	SILTY CLAY (FILL) –Black, Trace Organics and Brick Debris, Some Cobbles, Saturated	1	3		SS2	5	10	■	LAB SAMPLE (BTEX/F1–F4) ODOURS & STAINING
			4						
	SILTY CLAY (TILL) –Brown and Black, Trace Organics , Damp		5						ODOURS & STAINING
	(Water level @ 0.23 mbtop on Jan/07/08)	2	6		SS3	3	70	■	LAB SAMPLE (BTEX/F1–F4) REG. 558
	–Brown/Grey, Dry to Damp		7						
			8		SS4	21	60	●	LAB SAMPLE (BTEX/F1–F4)
		3	9						
	–Reddish/Brown, Dry		10						
			11		SS5	32	75	●	
96.14			12						
	SHALE –Reddish Brown, Weathered, Some Clay	4	13		SS6	>50	–	●	
			14						
	END OF BOREHOLE @ 4.3 mbg DUE TO AUGER REFUSAL		15						
	Ground water sample submitted Jan/08/08 for VOCs, F1–F4, and Lead analyses using dedicated HDPE & Waterra type sampling equipment.		16						
		5	17						
			18						
			19						
		6	20						
			21						
			22						
		7	23						
			24						
			25						
		8	26						
			27						
			28						
		9	29						
			30						
			31						
			32						
		10	33						

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DATE: 01/14/08 | CHECKED BY: JC

LOCATION/FILE: Z:/PROJECTS/DRAFT/3875

PROJECT: PHASE II ENVIRONMENTAL SITE ASSESSMENT		BOREHOLE NO: BH4
LOCATION: 3005 DUNDAS STREET WEST, OAKVILLE, ONTARIO		METHOD: HOLLOW STEM
PROJECT NO: 3875	DRILLING DATE: DEC/17/2007	AUGER O.D. (mm): 210
LOGGED BY: C. F.	CONTRACTOR: GEO ENVIRONMENTAL INC.	DRILLING EQUIPMENT: CME 55
VAPOUR ANALYZER: GASTECH 1238 WITHOUT RESPONSE TO METHANE		DATUM (100.00) TOP CENTRE OF MH ELEVATION: SE CORNER OF SITE

ELEVATION (metres)	WELL DATA	SYMBOL	SOIL DESCRIPTION	DEPTH METRES	DEPTH FEET	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE N-VALUE	SAMPLE RECOVERY %	VAPOUR READINGS ● PPM ■ %LEL (100 200 300 400 PPM; 20 40 60 80 %LEL)	NOTES
100.14											
100.01			ASPHALT (75 mm)								
99.68			SAND AND GRAVEL (FILL)								
			–Brown, Some Cloy, Dry								
99.53			*(Water level @ 0.85 mbtop on Jan/07/08)*								
99.16			–Reddish Brown with Shale Fragments	1	1		SS1	23	60	●	
					2						
					3		SS2	45	50	●	
					4						
					5						
			SILTY CLAY (TILL)	2	6		SS3	8	80	●	LAB SAMPLE (BTEX/F1–F4)
			–Brown, Trace Saturated Sand Seams, Damp		7						
					8						
			–Green and Grey Mottling, Dry Trace Red Shale Fragments, Damp		9		SS4	20	70	●	
				3	10						
			–Shale Layers		11		SS5	36	50	●	
96.48					12						
				4	13		SS6	–	–	–	
			END OF BOREHOLE @ 4.3 mbg DUE TO AUGER REFUSAL		14						
			Ground water sample submitted Jan/08/08 for VOCs, F1–F4, and Lead analyses using dedicated HOPE & Waterra type sampling equipment.		15						
				5	16						
					17						
					18						
					19						
				6	20						
					21						
					22						
				7	23						
					24						
					25						
					26						
				8	27						
					28						
					29						
				9	30						
					31						
					32						
				10	33						

WARDROP | Engineering Inc.

DATE: 01/14/08 | CHECKED BY: JC

LOCATION/FILE: Z:/PROJECTS/DRAFT/3875

PROJECT: PHASE II ENVIRONMENTAL SITE ASSESSMENT		BOREHOLE NO: BH5
LOCATION: 3005 DUNDAS STREET WEST, OAKVILLE, ONTARIO		METHOD: HOLLOW STEM
PROJECT NO: 3875	DRILLING DATE: DEC/18/2007	AUGER O.D. (mm): 210
LOGGED BY: C. F.	CONTRACTOR: GEO ENVIRONMENTAL INC.	DRILLING EQUIPMENT: CME 55
VAPOUR ANALYZER: GASTECH 1238 WITHOUT RESPONSE TO METHANE		DATUM(100.00) TOP CENTRE OF MH ELEVATION: SE CORNER OF SITE

ELEVATION (metres)	SOIL DESCRIPTION	DEPTH METRES	DEPTH FEET	SAMPLE INTERVAL	SAMPLE NUMBER	N-VALUE	RECOVERY %	NOTES
100.06								
99.96	ASPHALT (75 mm)							
	SAND, GRAVEL AND CLAY (FILL) –Brown, Dry		1		SS1	10	30	PHC ODOURS
99.00	SILTY CLAY (TILL) –Brown with Green And Grey Mottling, Dry	1	3		SS2	11	50	PHC ODOURS LAB SAMPLE (BTEX/F1–F4)
98.69			5		SS3	22	80	
	–Reddish Brown, Fractured Shale Layers, Dry	2	6		SS4	30	80	LAB SAMPLE (BTEX/F1–F4)
	–Shale Fragments		8		SS5	>50	60	
96.11	*(Water level @ 3.85 mbtop on Jan/07/08)*	3	10		SS6	>50	40	
95.64			13		SS7	>50	70	
	SHALE	4	15					
	END OF BOREHOLE @ 5.0 mbg DUE TO AUGER REFUSAL	5	16					
	Ground water sample submitted Jan/08/08 for BTEX and F1–F4 analyses using dedicated HDPE & Waterra type sampling equipment.	6	20					
		7	23					
		8	26					
		9	30					
		10	33					

VAPOUR READINGS: ● PPM ■ %LEL — 100 200 300 400 PPM; 20 40 60 80 %LEL

WARDROP | Engineering Inc.

DATE: 01/14/08 | CHECKED BY: JC

LOCATION/FILE: Z:/PROJECTS/DRAFT/3875

PROJECT: PHASE II ENVIRONMENTAL SITE ASSESSMENT	BOREHOLE NO: BH6
LOCATION: 3005 DUNDAS STREET WEST, OAKVILLE, ONTARIO	METHOD: HOLLOW STEM
PROJECT NO: 3875 / DRILLING DATE: DEC/18/2007	AUGER O.D. (mm): 210
LOGGED BY: C. F. / CONTRACTOR: GEO ENVIRONMENTAL INC.	DRILLING EQUIPMENT: CME 55
VAPOUR ANALYZER: GASTECH 1238 WITHOUT RESPONSE TO METHANE	DATUM (100.00) TOP CENTRE OF MH ELEVATION: SE CORNER OF SITE

ELEVATION (metres)	WELL DATA	SYMBOL	SOIL DESCRIPTION	DEPTH METRES	DEPTH FEET	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE N-VALUE	SAMPLE RECOVERY %	VAPOUR READINGS ● PPM ■ %LEL (100 200 300 400 PPM; 20 40 60 80 %LEL)	NOTES
100.40											
100.25			ASPHALT (75 mm)								
99.93			SAND AND GRAVEL (FILL)								
99.80			–Brown, Some Clay, Dry								
			–Reddish Brown with Shale Fragments	1	3		SS1	26	20	■	LAB SAMPLE (BTEX/F1–F4)
					4		SS2	6	30	■	
			SILTY CLAY (TILL)		5						
98.43			–Brown, Green and Grey Mottling, Trace Red Shale Fragments, Damp	2	6		SS3	20	80	●	LAB SAMPLE (BTEX/F1–F4)
			(Water level @ 1.82 mbtop on Jan/07/08)		7						
					8		SS4	22	100	●	GRAIN SIZE ANALYSIS
			–Shale Layers	3	9						
					10		SS5	41	100	●	
96.73					11						
					12						
				4	13		SS6	>50	70	●	
			END OF BOREHOLE@ 4.4 mbg DUE TO AUGER REFUSAL		14						
			Ground water sample submitted Jan/08/08 for VOCs, F1–F4, and Lead analyses using dedicated HOPE & Waterra type sampling equipment		15						
				5	16						
					17						
					18						
					19						
				6	20						
					21						
					22						
					23						
				7	24						
					25						
					26						
				8	27						
					28						
					29						
				9	30						
					31						
					32						
				10	33						

WARDROP | Engineering Inc.

DATE: 01/14/08 | CHECKED BY: JL

LOCATION/FILE: Z:/PROJECTS/DRAFT/3875

PROJECT: PHASE II ENVIRONMENTAL SITE ASSESSMENT			BOREHOLE NO: BH7
LOCATION: 3005 DUNDAS STREET WEST, OAKVILLE, ONTARIO			METHOD: HYDRO-VACUUM AND HOLLOW STEM
PROJECT NO: 3875	DRILLING DATE: APRIL 3, 2008		AUGER O.D. (mm): 210
LOGGED BY: K.O.	CONTRACTOR: DIRECT LINE/ GEDI		DRILLING EQUIPMENT: TRACK MOUNTED CME 55
VAPOUR ANALYZER: GASTECH 1238 WITHOUT RESPONSE TO METHANE			DATUM ELEVATION: (100.00) TOP CENTRE OF MH SE CORNER OF SITE

ELEVATION (metres)	WELL DATA	SYMBOL	SOIL DESCRIPTION	DEPTH METRES	DEPTH FEET	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE N-VALUE	SAMPLE RECOVERY %	VAPOUR READINGS ● PPM ■ %LEL (100 200 300 400 PPM; 20 40 60 80 %LEL)	NOTES
100.74											
100.58			ASPHALT (75 mm)				AS1	–	–	●	DAYLIGHTED TO 2.1 m HAND AUGER SAMPLES TAKEN
100.28			LIMESTONE SCREENING FILL		1		AS2	–	–	●	
100.13			SILT Brown, Some Sond ond Grovel, Troce Cloy, Domp		2		AS3	–	–	●	
99.63			*(Water level @ 0.95 mbtop on May 6, 2008)* –Wet	1	3		AS4	–	–	●	
					4		AS5	–	–	●	
			SILTY CLAY Dork Brown, Some Sand ond Grovel, Wet		5		AS6	–	–	●	
			–Brown/Grey Mottling, Troce Oxidotion, Moist		6		AS7	–	–	●	
				2	7						
					8		SS1	31	80	●	LAB SAMPLE (BTEX/F1–F4/Lead)
					9						
				3	10						
97.08			–Brown, Troce Grovel, Moist, Red Weathered Shale Fragments at Tip		11		SS2	49	50	●	
					12						
96.34				4	13		SS3	63	80	●	
			END OF BOREHOLE @ 4.4 mbg		14						
			(On April 8, 2008 a ground water sample was collected using dedicated HDPE & Waterra type sampling equipment and was submitted for BTEX, F1–F4, and Lead analyses)		15						
				5	16						
					17						
					18						
					19						
				6	20						
					21						
					22						
				7	23						
					24						
					25						
					26						
				8	27						
					28						
					29						
				9	30						
					31						
					32						
				10	33						

WARDROP | Engineering Inc.

DATE: 05/06/08 | CHECKED BY: JC

LOCATION/FILE: Z:/PROJECTS/DRAFT/3875

PROJECT: PHASE II ENVIRONMENTAL SITE ASSESSMENT		BOREHOLE NO: BH8
LOCATION: 3005 DUNDAS STREET WEST, OAKVILLE, ONTARIO		METHOD: HYDRO-VACUUM AND HOLLOW STEM
PROJECT NO: 3875	DRILLING DATE: APRIL 3, 2008	AUGER O.D. (mm): 210
LOGGED BY: K.O.	CONTRACTOR: DIRECT LINE/ GEDI	DRILLING EQUIPMENT: TRACK MOUNTED CME 55
VAPOUR ANALYZER: GASTECH 1238 WITHOUT RESPONSE TO METHANE		DATUM ELEVATION: (100.00) TOP CENTRE OF MH SE CORNER OF SITE

ELEVATION (metres)	WELL DATA	SYMBOL	SOIL DESCRIPTION	DEPTH METRES	DEPTH FEET	SAMPLE INTERVAL	SAMPLE NUMBER	SAMPLE N-VALUE	SAMPLE RECOVERY %	VAPOUR READINGS ● PPM ■ %LEL (100 200 300 400 PPM; 20 40 60 80 %LEL)	NOTES
100.88			GRASS								
100.78			TOPSOIL Dark Brown, Trace Organics, Moist				AS1	–	–	●	DAYLIGHTED TO 2.1 m HAND AUGER SAMPLES TAKEN
100.43			SILTY CLAY Brown, Trace Sand, Gravel and Organics, Moist		1		AS2	–	–	●	
100.27					2		AS3	–	–	●	
99.92			*(Water level @ 0.96 mbtop on May 6, 2008)*	1	3		AS4	–	–	●	
			–Trace Red Shale Fragments		4		AS5	–	–	●	
			–Trace Red Shale Fragments and Oxidation		5		AS6	–	–	●	1 AR SAMPLE (BTEX/F1–F4/Lead)
			–Brown/Grey Mottling, Trace Shale Fragments, Moist to Wet	2	6 7		AS7	–	–	●	
			–Brown, Trace Gravel, Moist		8						
					9		SS1	32	30	●	
97.23				3	10						
					11		SS2	32	80	●	
					12						
96.48				4	13		SS3	46	80	●	
			END OF BOREHOLE @ 4.4 mbg (On April 8, 2008 a ground water sample was collected using dedicated HDPE & Waterra type sampling equipment and was submitted for BTEX, F1–F4, and Lead analyses)		14 15						
				5	16 17						
					18 19						
				6	20 21						
					22						
				7	23 24						
					25						
				8	26 27						
					28 29						
				9	30						
					31 32						
				10	33						

WARDROP | Engineering Inc.

DATE: 05/06/08 | CHECKED BY: JE

LOCATION/FILE: Z:/PROJECTS/DRAFT/3875

APPENDIX C

LABORATORY DATA PACKAGE

Your Project #: 3875
Site: 3005 DUNDAS ST.W,OAKVILLE
Your C.O.C. #: 00507450

Attention: Jeff Muir/Rene De Vries
CPG-Franz Inc
15-250 Shields Crt
Markham, ON
L3R 9W7

Report Date: 2008/01/03

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A7E0814
Received: 2007/12/19, 14:09

Sample Matrix: Soil
Samples Received: 12

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Petroleum Hydro. CCME F1 & BTEX in Soil	11	2007/12/24	2007/12/28	CAM SOP-00315	CCME CWS
Petroleum Hydrocarbons F2-F4 in Soil	11	2007/12/28	2007/12/30	CAM SOP-00316	CCME CWS
Total Metals Analysis by ICP	1	2007/12/23	2007/12/24	CAM SOP-00408	EPA 6010
MOISTURE	11	N/A	2007/12/24	Ont SOP-0114	MOE HANDBOOK(1983)
PAH Compounds in Soil by GC/MS (SIM)	1	2007/12/21	2007/12/21	SOP - 00318	EPA 8270
pH CaCl2 EXTRACT	2	N/A	2007/12/31	Ont SOP-0067	4500-H+B
Sieve, 75um (1)	1	N/A	2008/01/02	Ont SOP 0929	
Volatile Organic Compounds in Soil	t	N/A	2007/12/28	CAM SOP-00226	EPA 8260 modified

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) The Sieve test has been validated in accordance with ISO Guide 17025 requirements. SCC accreditation pending.

Encryption Key

Sam Lyons
03 Jan 2008 12:52:45 -05:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

KRISTEN BURMEISTER, Project Manager
Email: Kristen.Burmeister@maxxamanalytics.com
Phone# (905) 817-5700 Ext:5816

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CAEAL have approved this reporting process and electronic report format.

For Service Group specific validation please refer to the Validation Signature Page

Total cover pages: 1

6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: 905-817-5700 Toll free:800-563-6266 Fax: 905-817-5777

Maxxam Job #: A7E0814
Report Date: 2008/01/03

CPG-Franz Inc
Client Project #: 3875
Project name: 3005 DUNDAS ST.W,OAKVILLE
Sampler Initials:

O'REG 153 PETROLEUM HYDROCARBONS (SOIL)

Maxxam ID		W50364	W50365	W50366		
Sampling Date		2007/12/18 11:00	2007/12/18 10:00	2007/12/18 10:15		
COC Number		00507450	00507450	00507450		
	Units	BH1-SS4	BH2-SS2	BH2-SS3	RDL	QC Batch
INORGANICS						
Moisture	%	18	20	15	0.2	1432487
F1 PHC and BTEX						
Benzene	ug/g	ND	0.98	ND	0.02	1432481
Toluene	ug/g	ND	0.09	ND	0.02	1432481
Ethylbenzene	ug/g	ND	0.92	ND	0.02	1432481
o-Xylene	ug/g	ND	ND	ND	0.02	1432481
p+m-Xylene	ug/g	ND	0.82	ND	0.04	1432481
Total Xylenes	ug/g	ND	0.82	ND	0.04	1432481
F1 (C6-C10)	ug/g	ND	40	ND	10	1432481
F1 (C6-C10) - BTEX	ug/g	ND	37	ND	10	1432481
F2-F4 PHC						
F2 (C10-C16 Hydrocarbons)	ug/g	ND	ND	ND	10	1433568
F3 (C16-C34 Hydrocarbons)	ug/g	ND	ND	ND	10	1433568
F4 (C34-C50 Hydrocarbons)	ug/g	ND	ND	ND	10	1433568
Reached Baseline at C50	ug/g	Yes	Yes	Yes		1433568
Surrogate Recovery (%)						
1,4-Difluorobenzene	%	105	106	104		1432481
4-Bromofluorobenzene	%	97	97	95		1432481
D10-Ethylbenzene	%	121	97	117		1432481
D4-1,2-Dichloroethane	%	92	93	92		1432481
o-Terphenyl	%	90	90	91		1433568

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: 905-817-5700 Toll free:800-563-6266 Fax: 905-817-5777

Maxxam Job #: A7E0814
Report Date: 2008/01/03

CPG-Franz Inc
Client Project #: 3875
Project name: 3005 DUNDAS ST.W,OAKVILLE
Sampler Initials:

O'REG 153 PETROLEUM HYDROCARBONS (SOIL)

Maxxam ID		W50367		W50368		
Sampling Date		2007/12/17 12:00		2007/12/17 12:15		
COC Number		00507450		00507450		
	Units	BH3-SS2	RDL	BH3-SS4	RDL	QC Batch
INORGANICS						
Moisture	%	37	0.2	12	0.2	1432487
F1 PHC and BTEX						
Benzene	ug/g	6.2	0.2	ND	0.02	1432481
Toluene	ug/g	1.6	0.2	ND	0.02	1432481
Ethylbenzene	ug/g	110	0.2	0.15	0.02	1432481
o-Xylene	ug/g	40	0.2	0.10	0.02	1432481
p+m-Xylene	ug/g	400	0.4	0.64	0.04	1432481
Total Xylenes	ug/g	440	0.4	0.73	0.04	1432481
F1 (C6-C10)	ug/g	4600	100	11	10	1432481
F1 (C6-C10) - BTEX	ug/g	4100	100	10	10	1432481
F2-F4 PHC						
F2 (C10-C16 Hydrocarbons)	ug/g	1900	10	12	10	1433568
F3 (C16-C34 Hydrocarbons)	ug/g	360	10	26	10	1433568
F4 (C34-C50 Hydrocarbons)	ug/g	92	10	ND	10	1433568
Reached Baseline at C50	ug/g	Yes		Yes		1433568
Surrogate Recovery (%)						
1,4-Difluorobenzene	%	109		105		1432481
4-Bromofluorobenzene	%	95		96		1432481
D10-Ethylbenzene	%	138 (1)		113		1432481
D4-1,2-Dichloroethane	%	93		93		1432481
o-Terphenyl	%	92		87		1433568

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) The extraction surrogate recovery is outside the acceptance limits due to matrix interference.

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Maxxam Job #: A7E0814
Report Date: 2008/01/03

CPG-Franz Inc
Client Project #: 3875
Project name: 3005 DUNDAS ST.W,OAKVILLE
Sampler Initials:

O'REG 153 PETROLEUM HYDROCARBONS (SOIL)

Maxxam ID		W50369		W50370		
Sampling Date		2007/12/17 14:00		2007/12/18 08:00		
COC Number		00507450		00507450		
	Units	BH4-SS3	RDL	BH5-SS2	RDL	QC Batch
INORGANICS						
Moisture	%	19	0.2	12	0.2	1432487
F1 PHC and BTEX						
Benzene	ug/g	0.42	0.02	5.6	0.2	1432481
Toluene	ug/g	ND	0.02	65	0.2	1432481
Ethylbenzene	ug/g	0.46	0.02	26	0.2	1432481
o-Xylene	ug/g	ND	0.02	44	0.2	1432481
p+m-Xylene	ug/g	ND	0.04	110	0.4	1432481
Total Xylenes	ug/g	ND	0.04	160	0.4	1432481
F1 (C6-C10)	ug/g	17	10	410	100	1432481
F1 (C6-C10) - BTEX	ug/g	16	10	160	100	1432481
F2-F4 PHC						
F2 (C10-C16 Hydrocarbons)	ug/g	ND	10	16	10	1433568
F3 (C16-C34 Hydrocarbons)	ug/g	ND	10	ND	10	1433568
F4 (C34-C50 Hydrocarbons)	ug/g	ND	10	ND	10	1433568
Reached Baseline at C50	ug/g	Yes		Yes		1433568
Surrogate Recovery (%)						
1,4-Difluorobenzene	%	102		96		1432481
4-Bromofluorobenzene	%	96		103		1432481
D10-Ethylbenzene	%	119		183 (1)		1432481
D4-1,2-Dichloroethane	%	93		104		1432481
o-Terphenyl	%	90		88		1433568

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) The extraction surrogate recovery is outside the acceptance limits due to matrix interference.

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Maxxam Job #: A7E0814
Report Date: 2008/01/03

CPG-Franz Inc
Client Project #: 3875
Project name: 3005 DUNDAS ST.W,OAKVILLE
Sampler Initials:

O'REG 153 PETROLEUM HYDROCARBONS (SOIL)

Maxxam ID		W50371		W50372		
Sampling Date		2007/12/18 08:10		2007/12/18 09:00		
COC Number		00507450		00507450		
	Units	BH5-SS4	RDL	BH6-SS1	RDL	QC Batch
INORGANICS						
Moisture	%	10	0.2	4.4	0.2	1432487
F1 PHC and BTEX						
Benzene	ug/g	ND	0.02	11	0.2	1432481
Toluene	ug/g	0.08	0.02	1.7	0.2	1432481
Ethylbenzene	ug/g	ND	0.02	62	0.2	1432481
o-Xylene	ug/g	ND	0.02	3.6	0.2	1432481
p+m-Xylene	ug/g	0.06	0.04	260	0.4	1432481
Total Xylenes	ug/g	0.06	0.04	260	0.4	1432481
F1 (C6-C10)	ug/g	ND	10	2400	100	1432481
F1 (C6-C10) - BTEX	ug/g	ND	10	2000	100	1432481
F2-F4 PHC						
F2 (C10-C16 Hydrocarbons)	ug/g	ND	10	190	10	1433568
F3 (C16-C34 Hydrocarbons)	ug/g	ND	10	3100	10	1433568
F4 (C34-C50 Hydrocarbons)	ug/g	ND	10	1900	10	1433568
Reached Baseline at C50	ug/g	Yes		Yes		1433568
Surrogate Recovery (%)						
1,4-Difluorobenzene	%	103		106		1432481
4-Bromofluorobenzene	%	96		95		1432481
D10-Ethylbenzene	%	119		107		1432481
D4-1,2-Dichloroethane	%	95		93		1432481
o-Terphenyl	%	95		92		1433568

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: 905-817-5700 Toll free:800-563-6266 Fax: 905-817-5777

Maxxam Job #: A7E0814
Report Date: 2008/01/03

CPG-Franz Inc
Client Project #: 3875
Project name: 3005 DUNDAS ST.W,OAKVILLE
Sampler Initials:

O'REG 153 PETROLEUM HYDROCARBONS (SOIL)

Maxxam ID		W50373	W50375		
Sampling Date		2007/12/18 09:10			
COC Number		00507450	00507450		
	Units	BH6-SS3	DUP	RDL	QC Batch
INORGANICS					
Moisture	%	12	16	0.2	1432487
F1 PHC and BTEX					
Benzene	ug/g	ND	2.0	0.02	1432481
Toluene	ug/g	ND	23	0.02	1432481
Ethylbenzene	ug/g	0.06	9.7	0.02	1432481
o-Xylene	ug/g	ND	16	0.02	1432481
p+m-Xylene	ug/g	0.26	37	0.04	1432481
Total Xylenes	ug/g	0.26	53	0.04	1432481
F1 (C6-C10)	ug/g	ND	280	10	1432481
F1 (C6-C10) - BTEX	ug/g	ND	190	10	1432481
F2-F4 PHC					
F2 (C10-C16 Hydrocarbons)	ug/g	ND	98	10	1433568
F3 (C16-C34 Hydrocarbons)	ug/g	ND	13	10	1433568
F4 (C34-C50 Hydrocarbons)	ug/g	ND	ND	10	1433568
Reached Baseline at C50	ug/g	Yes	Yes		1433568
Surrogate Recovery (%)					
1,4-Difluorobenzene	%	104	106		1432481
4-Bromofluorobenzene	%	95	95		1432481
D10-Ethylbenzene	%	113	118		1432481
D4-1,2-Dichloroethane	%	93	95		1432481
o-Terphenyl	%	110	113		1433568

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: 905-817-5700 Toll free:800-563-6266 Fax: 905-817-5777

Maxxam Job #: A7E0814
Report Date: 2008/01/03

CPG-Franz Inc
Client Project #: 3875
Project name: 3005 DUNDAS ST.W,OAKVILLE
Sampler Initials:

RESULTS OF ANALYSES OF SOIL

Maxxam ID		W50367	W50371	W50374		
Sampling Date		2007/12/17 12:00	2007/12/18 08:10	2007/12/18 09:15		
COC Number		00507450	00507450	00507450		
	Units	BH3-SS2	BH5-SS4	BH6-SS4	RDL	QC Batch
INORGANICS						
Available (CaCl2) pH	pH	7.33	7.78			1434134
MISCELLANEOUS						
Grain Size	%			FINE	N/A	1434287
Sieve - #200 (<0.075mm)	%			85	N/A	1434287
Sieve - #200 (>0.075mm)	%			15	N/A	1434287

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: A7E0814
Report Date: 2008/01/03

CPG-Franz Inc
Client Project #: 3875
Project name: 3005 DUNDAS ST.W,OAKVILLE
Sampler Initials:

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		W50364		
Sampling Date		2007/12/18 11:00		
COC Number		00507450		
	Units	BH1-SS4	RDL	QC Batch
METALS				
Acid Extractable Lead (Pb)	ug/g	13	5	1432255

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: A7E0814
Report Date: 2008/01/03

CPG-Franz Inc
Client Project #: 3875
Project name: 3005 DUNDAS ST.W,OAKVILLE
Sampler Initials:

SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		W50364		
Sampling Date		2007/12/18 11:00		
COC Number		00507450		
	Units	BH1-SS4	RDL	QC Batch
PAHs				
Acenaphthene	ug/g	ND	0.01	1431665
Acenaphthylene	ug/g	ND	0.005	1431665
Anthracene	ug/g	ND	0.005	1431665
Benzo(a)anthracene	ug/g	ND	0.01	1431665
Benzo(a)pyrene	ug/g	ND	0.005	1431665
Benzo(b/j)fluoranthene	ug/g	ND	0.005	1431665
Benzo(g,h,i)perylene	ug/g	ND	0.02	1431665
Benzo(k)fluoranthene	ug/g	ND	0.01	1431665
Chrysene	ug/g	ND	0.01	1431665
Dibenz(a,h)anthracene	ug/g	ND	0.02	1431665
Fluoranthene	ug/g	0.005	0.005	1431665
Fluorene	ug/g	ND	0.005	1431665
Indeno(1,2,3-cd)pyrene	ug/g	ND	0.02	1431665
1-Methylnaphthalene	ug/g	ND	0.005	1431665
2-Methylnaphthalene	ug/g	ND	0.005	1431665
Naphthalene	ug/g	ND	0.005	1431665
Phenanthrene	ug/g	ND	0.005	1431665
Pyrene	ug/g	ND	0.005	1431665
Surrogate Recovery (%)				
D10-Anthracene	%	92		1431665
D14-Terphenyl (FS)	%	102		1431665
D7-Quinoline	%	49		1431665
D8-Acenaphthylene	%	60		1431665

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Report Date: 2008/01/03

CPG-Franz Inc
Client Project #: 3875
Project name: 3005 DUNDAS ST.W,OAKVILLE
Sampler Initials:

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		W50364		
Sampling Date		2007/12/18 11:00		
COC Number		00507450		
	Units	BH1-SS4	RDL	QC Batch
VOLATILES				
Acetone (2-Propanone)	ug/g	0.1	0.1	1433232
Benzene	ug/g	0.004	0.002	1433232
Bromodichloromethane	ug/g	ND	0.002	1433232
Bromoform	ug/g	ND	0.002	1433232
Bromomethane	ug/g	ND	0.003	1433232
Carbon Tetrachloride	ug/g	ND	0.002	1433232
Chlorobenzene	ug/g	ND	0.002	1433232
Chloroform	ug/g	ND	0.002	1433232
Dibromochloromethane	ug/g	ND	0.002	1433232
1,2-Dichlorobenzene	ug/g	0.010	0.002	1433232
1,3-Dichlorobenzene	ug/g	ND	0.002	1433232
1,4-Dichlorobenzene	ug/g	ND	0.002	1433232
1,1-Dichloroethane	ug/g	ND	0.002	1433232
1,2-Dichloroethane	ug/g	ND	0.002	1433232
1,1-Dichloroethylene	ug/g	ND	0.002	1433232
cis-1,2-Dichloroethylene	ug/g	ND	0.002	1433232
trans-1,2-Dichloroethylene	ug/g	ND	0.002	1433232
1,2-Dichloropropane	ug/g	ND	0.002	1433232
cis-1,3-Dichloropropene	ug/g	ND	0.002	1433232
trans-1,3-Dichloropropene	ug/g	ND	0.002	1433232
Ethylbenzene	ug/g	ND	0.002	1433232
Ethylene Dibromide	ug/g	ND	0.002	1433232
Methylene Chloride(Dichloromethane)	ug/g	ND	0.003	1433232
Methyl Isobutyl Ketone	ug/g	ND	0.025	1433232
Methyl Ethyl Ketone (2-Butanone)	ug/g	ND	0.025	1433232
Methyl t-butyl ether (MTBE)	ug/g	0.002	0.002	1433232
Styrene	ug/g	ND	0.002	1433232
1,1,1,2-Tetrachloroethane	ug/g	ND	0.002	1433232
1,1,2,2-Tetrachloroethane	ug/g	ND	0.002	1433232
Tetrachloroethylene	ug/g	ND	0.002	1433232
Toluene	ug/g	0.008	0.002	1433232

ND = Not detected
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QC Batch = Quality Control Batch

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Maxxam Job #: A7E0814
Report Date: 2008/01/03

CPG-Franz Inc
Client Project #: 3875
Project name: 3005 DUNDAS ST.W,OAKVILLE
Sampler Initials:

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		W50364		
Sampling Date		2007/12/18 11:00		
COC Number		00507450		
	Units	BH1-SS4	RDL	QC Batch
1,1,1-Trichloroethane	ug/g	ND	0.002	1433232
1,1,2-Trichloroethane	ug/g	ND	0.002	1433232
Trichloroethylene	ug/g	ND	0.002	1433232
Vinyl Chloride	ug/g	ND	0.002	1433232
p+m-Xylene	ug/g	0.009	0.002	1433232
o-Xylene	ug/g	ND	0.002	1433232
Xylene (Total)	ug/g	0.009	0.002	1433232
Surrogate Recovery (%)				
4-Bromofluorobenzene	%	93		1433232
D4-1,2-Dichloroethane	%	102		1433232
D8-Toluene	%	108		1433232

ND = Not detected
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GENERAL COMMENTS

Results relate only to the items tested.

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CPG-Franz Inc
Attention: Jeff Muir/Rene De Vries
Client Project #: 3875
P.O. #:
Project name: 3005 DUNDAS ST.W,OAKVILLE

Quality Assurance Report

Maxxam Job Number: MA7E0814

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1431665 PMO	MATRIX SPIKE	D10-Anthracene	2007/12/21		81	%	30 - 130
		D14-Terphenyl (FS)	2007/12/21		103	%	30 - 130
		D7-Quinoline	2007/12/21		79	%	30 - 130
		D8-Acenaphthylene	2007/12/21		86	%	30 - 130
		Acenaphthene	2007/12/21		87	%	30 - 130
		Acenaphthylene	2007/12/21		92	%	30 - 130
		Anthracene	2007/12/21		102	%	30 - 130
		Benzo(a)anthracene	2007/12/21		103	%	30 - 130
		Benzo(a)pyrene	2007/12/21		79	%	30 - 130
		Benzo(b/j)fluoranthene	2007/12/21		77	%	30 - 130
		Benzo(g,h,i)perylene	2007/12/21		89	%	30 - 130
		Benzo(k)fluoranthene	2007/12/21		106	%	30 - 130
		Chrysene	2007/12/21		99	%	30 - 130
		Dibenz(a,h)anthracene	2007/12/21		72	%	30 - 130
		Fluoranthene	2007/12/21		112	%	30 - 130
		Fluorene	2007/12/21		86	%	30 - 130
		Indeno(1,2,3-cd)pyrene	2007/12/21		66	%	30 - 130
		1-Methylnaphthalene	2007/12/21		100	%	30 - 130
		2-Methylnaphthalene	2007/12/21		98	%	30 - 130
		Naphthalene	2007/12/21		103	%	30 - 130
		Phenanthrene	2007/12/21		108	%	30 - 130
		Pyrene	2007/12/21		107	%	30 - 130
	Spiked Blank	D10-Anthracene	2007/12/21		103	%	30 - 130
		D14-Terphenyl (FS)	2007/12/21		105	%	30 - 130
		D7-Quinoline	2007/12/21		86	%	30 - 130
		D8-Acenaphthylene	2007/12/21		96	%	30 - 130
		Acenaphthene	2007/12/21		87	%	30 - 130
		Acenaphthylene	2007/12/21		97	%	30 - 130
		Anthracene	2007/12/21		102	%	30 - 130
		Benzo(a)anthracene	2007/12/21		102	%	30 - 130
		Benzo(a)pyrene	2007/12/21		93	%	30 - 130
		Benzo(b/j)fluoranthene	2007/12/21		92	%	30 - 130
		Benzo(g,h,i)perylene	2007/12/21		100	%	30 - 130
		Benzo(k)fluoranthene	2007/12/21		116	%	30 - 130
		Chrysene	2007/12/21		102	%	30 - 130
		Dibenz(a,h)anthracene	2007/12/21		85	%	30 - 130
		Fluoranthene	2007/12/21		113	%	30 - 130
		Fluorene	2007/12/21		89	%	30 - 130
		Indeno(1,2,3-cd)pyrene	2007/12/21		81	%	30 - 130
		1-Methylnaphthalene	2007/12/21		96	%	30 - 130
		2-Methylnaphthalene	2007/12/21		94	%	30 - 130
		Naphthalene	2007/12/21		92	%	30 - 130
		Phenanthrene	2007/12/21		108	%	30 - 130
		Pyrene	2007/12/21		107	%	30 - 130
	Method Blank	D10-Anthracene	2007/12/21		98	%	30 - 130
		D14-Terphenyl (FS)	2007/12/21		96	%	30 - 130
		D7-Quinoline	2007/12/21		76	%	30 - 130
		D8-Acenaphthylene	2007/12/21		81	%	30 - 130
		Acenaphthene	2007/12/21	ND, RDL=0.01		ug/g	
		Acenaphthylene	2007/12/21	ND, RDL=0.005		ug/g	
		Anthracene	2007/12/21	ND, RDL=0.005		ug/g	
		Benzo(a)anthracene	2007/12/21	ND, RDL=0.01		ug/g	
		Benzo(a)pyrene	2007/12/21	ND, RDL=0.005		ug/g	
		Benzo(b/j)fluoranthene	2007/12/21	ND, RDL=0.005		ug/g	
		Benzo(g,h,i)perylene	2007/12/21	ND, RDL=0.02		ug/g	

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Client Project #: 3875
P.O. #:
Project name: 3005 DUNDAS ST.W,OAKVILLE

Quality Assurance Report (Continued)

Maxxam Job Number: MA7E0814

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1431665 PMO	Method Blank	Benzo(k)fluoranthene	2007/12/21	ND, RDL=0.01		ug/g	
		Chrysene	2007/12/21	ND, RDL=0.01		ug/g	
		Dibenz(a,h)anthracene	2007/12/21	ND, RDL=0.02		ug/g	
		Fluoranthene	2007/12/21	ND, RDL=0.005		ug/g	
		Fluorene	2007/12/21	ND, RDL=0.005		ug/g	
		Indeno(1,2,3-cd)pyrene	2007/12/21	ND, RDL=0.02		ug/g	
		1-Methylnaphthalene	2007/12/21	ND, RDL=0.005		ug/g	
		2-Methylnaphthalene	2007/12/21	ND, RDL=0.005		ug/g	
		Naphthalene	2007/12/21	ND, RDL=0.005		ug/g	
		Phenanthrene	2007/12/21	ND, RDL=0.005		ug/g	
		Pyrene	2007/12/21	ND, RDL=0.005		ug/g	
	RPD	D14-Terphenyl (FS)	2007/12/21	5.3		%	N/A
		Acenaphthene	2007/12/21	NC		%	50
		Acenaphthylene	2007/12/21	NC		%	50
		Anthracene	2007/12/21	NC		%	50
		Benzo(a)anthracene	2007/12/21	NC		%	50
		Benzo(a)pyrene	2007/12/21	NC		%	50
		Benzo(b/j)fluoranthene	2007/12/21	NC		%	50
		Benzo(g,h,i)perylene	2007/12/21	NC		%	50
		Benzo(k)fluoranthene	2007/12/21	NC		%	50
		Chrysene	2007/12/21	NC		%	50
		Dibenz(a,h)anthracene	2007/12/21	NC		%	50
		Fluoranthene	2007/12/21	NC		%	50
		Fluorene	2007/12/21	NC		%	50
		Indeno(1,2,3-cd)pyrene	2007/12/21	NC		%	50
		1-Methylnaphthalene	2007/12/21	NC		%	50
		2-Methylnaphthalene	2007/12/21	NC		%	50
		Naphthalene	2007/12/21	NC		%	50
		Phenanthrene	2007/12/21	NC		%	50
		Pyrene	2007/12/21	NC		%	50
1432255 KCO	MATRIX SPIKE	Acid Extractable Lead (Pb)	2007/12/24		107	%	75 - 125
	QC STANDARD	Acid Extractable Lead (Pb)	2007/12/24		98	%	75 - 125
	Method Blank	Acid Extractable Lead (Pb)	2007/12/24	ND, RDL=5		ug/g	
	RPD	Acid Extractable Lead (Pb)	2007/12/24	NC		%	35
1432481 SPV	MATRIX SPIKE	1,4-Difluorobenzene	2007/12/28		103	%	60 - 140
		4-Bromofluorobenzene	2007/12/28		96	%	60 - 140
		D10-Ethylbenzene	2007/12/28		115	%	30 - 130
		D4-1,2-Dichloroethane	2007/12/28		94	%	60 - 140
		Benzene	2007/12/28		103	%	60 - 140
		Toluene	2007/12/28		102	%	60 - 140
		Ethylbenzene	2007/12/28		103	%	60 - 140
		o-Xylene	2007/12/28		105	%	60 - 140
		p+m-Xylene	2007/12/28		106	%	60 - 140
		F1 (C6-C10)	2007/12/28		90	%	60 - 140
	Spiked Blank	1,4-Difluorobenzene	2007/12/28		107	%	60 - 140
		4-Bromofluorobenzene	2007/12/28		102	%	60 - 140
		D10-Ethylbenzene	2007/12/28		98	%	30 - 130
		D4-1,2-Dichloroethane	2007/12/28		116	%	60 - 140
		Benzene	2007/12/28		110	%	60 - 140
		Toluene	2007/12/28		96	%	60 - 140
		Ethylbenzene	2007/12/28		85	%	60 - 140
		o-Xylene	2007/12/28		96	%	60 - 140
		p+m-Xylene	2007/12/28		91	%	60 - 140
		F1 (C6-C10)	2007/12/28		71	%	60 - 140
	Method Blank	1,4-Difluorobenzene	2007/12/28		108	%	60 - 140

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Quality Assurance Report (Continued)

Maxxam Job Number: MA7E0814

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1432481 SPV	Method Blank	4-Bromofluorobenzene	2007/12/28		95	%	60 - 140
		D10-Ethylbenzene	2007/12/28		114	%	30 - 130
		D4-1,2-Dichloroethane	2007/12/28		91	%	60 - 140
		Benzene	2007/12/28	ND, RDL=0.02		ug/g	
		Toluene	2007/12/28	ND, RDL=0.02		ug/g	
		Ethylbenzene	2007/12/28	ND, RDL=0.02		ug/g	
		o-Xylene	2007/12/28	ND, RDL=0.02		ug/g	
		p+m-Xylene	2007/12/28	ND, RDL=0.04		ug/g	
		Total Xylenes	2007/12/28	ND, RDL=0.04		ug/g	
		F1 (C6-C10)	2007/12/28	ND, RDL=10		ug/g	
		F1 (C6-C10) - BTEX	2007/12/28	ND, RDL=10		ug/g	
	RPD	Benzene	2007/12/28	NC		%	50
		Toluene	2007/12/28	NC		%	50
		Ethylbenzene	2007/12/28	NC		%	50
		o-Xylene	2007/12/28	NC		%	50
		p+m-Xylene	2007/12/28	NC		%	50
		Total Xylenes	2007/12/28	NC		%	50
		F1 (C6-C10)	2007/12/28	NC		%	50
		F1 (C6-C10) - BTEX	2007/12/28	NC		%	50
1432487 HVP	RPD [W50364-01]	Moisture	2007/12/24	2.2		%	50
1433232 AH	MATRIX SPIKE	4-Bromofluorobenzene	2007/12/28		106	%	60 - 140
		D4-1,2-Dichloroethane	2007/12/28		86	%	60 - 140
		D8-Toluene	2007/12/28		103	%	60 - 140
		Acetone (2-Propanone)	2007/12/28		67	%	24 - 171
		Benzene	2007/12/28		85	%	39 - 137
		Bromodichloromethane	2007/12/28		88	%	45 - 131
		Bromoform	2007/12/28		82	%	44 - 131
		Bromomethane	2007/12/28		80	%	20 - 146
		Carbon Tetrachloride	2007/12/28		90	%	40 - 139
		Chlorobenzene	2007/12/28		95	%	45 - 140
		Chloroform	2007/12/28		86	%	48 - 128
		Dibromochloromethane	2007/12/28		91	%	52 - 135
		1,2-Dichlorobenzene	2007/12/28		91	%	39 - 145
		1,3-Dichlorobenzene	2007/12/28		97	%	38 - 158
		1,4-Dichlorobenzene	2007/12/28		97	%	35 - 159
		1,1-Dichloroethane	2007/12/28		86	%	48 - 131
		1,2-Dichloroethane	2007/12/28		76	%	43 - 123
		1,1-Dichloroethylene	2007/12/28		84	%	50 - 134
		cis-1,2-Dichloroethylene	2007/12/28		88	%	45 - 136
		trans-1,2-Dichloroethylene	2007/12/28		89	%	45 - 138
		1,2-Dichloropropane	2007/12/28		81	%	51 - 130
		cis-1,3-Dichloropropene	2007/12/28		88	%	39 - 143
		trans-1,3-Dichloropropene	2007/12/28		87	%	33 - 135
		Ethylbenzene	2007/12/28		NC (1)	%	46 - 150
		Ethylene Dibromide	2007/12/28		88	%	48 - 136
		Methylene Chloride(Dichloromethane)	2007/12/28		81	%	47 - 124
		Methyl Isobutyl Ketone	2007/12/28		85	%	48 - 133
		Methyl Ethyl Ketone (2-Butanone)	2007/12/28		81	%	39 - 160
		Methyl t-butyl ether (MTBE)	2007/12/28		82	%	37 - 150
		Styrene	2007/12/28		90	%	27 - 148
		1,1,1,2-Tetrachloroethane	2007/12/28		91	%	51 - 140
		1,1,2,2-Tetrachloroethane	2007/12/28		76	%	46 - 128
		Tetrachloroethylene	2007/12/28		92	%	45 - 154
		Toluene	2007/12/28		98	%	30 - 158
		1,1,1-Trichloroethane	2007/12/28		90	%	44 - 136

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Quality Assurance Report (Continued)

Maxxam Job Number: MA7E0814

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1433232 AH	MATRIX SPIKE	1,1,2-Trichloroethane	2007/12/28		85	%	56 - 135
		Trichloroethylene	2007/12/28		96	%	39 - 146
		Vinyl Chloride	2007/12/28		69	%	34 - 136
		p+m-Xylene	2007/12/28		123	%	29 - 161
		o-Xylene	2007/12/28		106	%	45 - 150
	Spiked Blank	4-Bromofluorobenzene	2007/12/28		96	%	60 - 140
		D4-1,2-Dichloroethane	2007/12/28		102	%	60 - 140
		D8-Toluene	2007/12/28		95	%	60 - 140
		Acetone (2-Propanone)	2007/12/28		115	%	60 - 140
		Benzene	2007/12/28		102	%	60 - 140
		Bromodichloromethane	2007/12/28		101	%	60 - 140
		Bromoform	2007/12/28		114	%	60 - 140
		Bromomethane	2007/12/28		95	%	60 - 140
		Carbon Tetrachloride	2007/12/28		99	%	60 - 140
		Chlorobenzene	2007/12/28		100	%	60 - 140
		Chloroform	2007/12/28		99	%	60 - 140
		Dibromochloromethane	2007/12/28		98	%	60 - 140
		1,2-Dichlorobenzene	2007/12/28		108	%	60 - 140
		1,3-Dichlorobenzene	2007/12/28		116	%	60 - 140
		1,4-Dichlorobenzene	2007/12/28		116	%	60 - 140
		1,1-Dichloroethane	2007/12/28		101	%	60 - 140
		1,2-Dichloroethane	2007/12/28		97	%	60 - 140
		1,1-Dichloroethylene	2007/12/28		103	%	60 - 140
		cis-1,2-Dichloroethylene	2007/12/28		99	%	60 - 140
		trans-1,2-Dichloroethylene	2007/12/28		102	%	60 - 140
		1,2-Dichloropropane	2007/12/28		96	%	60 - 140
		cis-1,3-Dichloropropene	2007/12/28		105	%	60 - 140
		trans-1,3-Dichloropropene	2007/12/28		106	%	60 - 140
		Ethylbenzene	2007/12/28		103	%	60 - 140
		Ethylene Dibromide	2007/12/28		97	%	60 - 140
		Methylene Chloride(Dichloromethane)	2007/12/28		97	%	60 - 140
		Methyl Isobutyl Ketone	2007/12/28		113	%	60 - 140
		Methyl Ethyl Ketone (2-Butanone)	2007/12/28		112	%	60 - 140
		Methyl t-butyl ether (MTBE)	2007/12/28		107	%	60 - 140
		Styrene	2007/12/28		97	%	60 - 140
		1,1,1,2-Tetrachloroethane	2007/12/28		91	%	60 - 140
		1,1,2,2-Tetrachloroethane	2007/12/28		97	%	60 - 140
		Tetrachloroethylene	2007/12/28		99	%	60 - 140
		Toluene	2007/12/28		97	%	60 - 140
		1,1,1-Trichloroethane	2007/12/28		100	%	60 - 140
		1,1,2-Trichloroethane	2007/12/28		95	%	60 - 140
		Trichloroethylene	2007/12/28		103	%	60 - 140
		Vinyl Chloride	2007/12/28		76	%	60 - 140
		p+m-Xylene	2007/12/28		109	%	60 - 140
		o-Xylene	2007/12/28		101	%	60 - 140
	Method Blank	4-Bromofluorobenzene	2007/12/28		102	%	60 - 140
		D4-1,2-Dichloroethane	2007/12/28		105	%	60 - 140
		D8-Toluene	2007/12/28		103	%	60 - 140
		Acetone (2-Propanone)	2007/12/28	ND, RDL=0.1		ug/g	
		Benzene	2007/12/28	ND, RDL=0.002		ug/g	
		Bromodichloromethane	2007/12/28	ND, RDL=0.002		ug/g	
		Bromoform	2007/12/28	ND, RDL=0.002		ug/g	
		Bromomethane	2007/12/28	ND, RDL=0.003		ug/g	
		Carbon Tetrachloride	2007/12/28	ND, RDL=0.002		ug/g	
		Chlorobenzene	2007/12/28	ND, RDL=0.002		ug/g	

6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: 905-817-5700 Toll free:800-563-6266 Fax: 905-817-5777

CPG-Franz Inc
Attention: Jeff Muir/Rene De Vries
Client Project #: 3875
P.O. #:
Project name: 3005 DUNDAS ST.W,OAKVILLE

Quality Assurance Report (Continued)

Maxxam Job Number: MA7E0814

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1433232 AH	Method Blank	Chloroform	2007/12/28	ND, RDL=0.002		ug/g	
		Dibromochloromethane	2007/12/28	ND, RDL=0.002		ug/g	
		1,2-Dichlorobenzene	2007/12/28	ND, RDL=0.002		ug/g	
		1,3-Dichlorobenzene	2007/12/28	ND, RDL=0.002		ug/g	
		1,4-Dichlorobenzene	2007/12/28	ND, RDL=0.002		ug/g	
		1,1-Dichloroethane	2007/12/28	ND, RDL=0.002		ug/g	
		1,2-Dichloroethane	2007/12/28	ND, RDL=0.002		ug/g	
		1,1-Dichloroethylene	2007/12/28	ND, RDL=0.002		ug/g	
		cis-1,2-Dichloroethylene	2007/12/28	ND, RDL=0.002		ug/g	
		trans-1,2-Dichloroethylene	2007/12/28	ND, RDL=0.002		ug/g	
		1,2-Dichloropropane	2007/12/28	ND, RDL=0.002		ug/g	
		cis-1,3-Dichloropropene	2007/12/28	ND, RDL=0.002		ug/g	
		trans-1,3-Dichloropropene	2007/12/28	ND, RDL=0.002		ug/g	
		Ethylbenzene	2007/12/28	ND, RDL=0.002		ug/g	
		Ethylene Dibromide	2007/12/28	ND, RDL=0.002		ug/g	
		Methylene Chloride(Dichloromethane)	2007/12/28	ND, RDL=0.003		ug/g	
		Methyl Isobutyl Ketone	2007/12/28	ND, RDL=0.025		ug/g	
		Methyl Ethyl Ketone (2-Butanone)	2007/12/28	ND, RDL=0.025		ug/g	
		Methyl t-butyl ether (MTBE)	2007/12/28	ND, RDL=0.002		ug/g	
		Styrene	2007/12/28	ND, RDL=0.002		ug/g	
		1,1,1,2-Tetrachloroethane	2007/12/28	ND, RDL=0.002		ug/g	
		1,1,2,2-Tetrachloroethane	2007/12/28	ND, RDL=0.002		ug/g	
		Tetrachloroethylene	2007/12/28	ND, RDL=0.002		ug/g	
		Toluene	2007/12/28	ND, RDL=0.002		ug/g	
		1,1,1-Trichloroethane	2007/12/28	ND, RDL=0.002		ug/g	
		1,1,2-Trichloroethane	2007/12/28	ND, RDL=0.002		ug/g	
		Trichloroethylene	2007/12/28	ND, RDL=0.002		ug/g	
		Vinyl Chloride	2007/12/28	ND, RDL=0.002		ug/g	
		p+m-Xylene	2007/12/28	ND, RDL=0.002		ug/g	
		o-Xylene	2007/12/28	ND, RDL=0.002		ug/g	
		Xylene (Total)	2007/12/28	ND, RDL=0.002		ug/g	
	RPD	Acetone (2-Propanone)	2007/12/28	NC		%	50
		Benzene	2007/12/28	NC		%	50
		Bromodichloromethane	2007/12/28	NC		%	50
		Bromoform	2007/12/28	NC		%	50
		Bromomethane	2007/12/28	NC		%	50
		Carbon Tetrachloride	2007/12/28	NC		%	50
		Chlorobenzene	2007/12/28	NC		%	50
		Chloroform	2007/12/28	NC		%	50
		Dibromochloromethane	2007/12/28	NC		%	50
		1,2-Dichlorobenzene	2007/12/28	NC		%	50
		1,3-Dichlorobenzene	2007/12/28	NC		%	50
		1,4-Dichlorobenzene	2007/12/28	NC		%	50
		1,1-Dichloroethane	2007/12/28	NC		%	50
		1,2-Dichloroethane	2007/12/28	NC		%	50
		1,1-Dichloroethylene	2007/12/28	NC		%	50
		cis-1,2-Dichloroethylene	2007/12/28	NC		%	50
		trans-1,2-Dichloroethylene	2007/12/28	NC		%	50
		1,2-Dichloropropane	2007/12/28	NC		%	50
		cis-1,3-Dichloropropene	2007/12/28	NC		%	50
		trans-1,3-Dichloropropene	2007/12/28	NC		%	50
		Ethylbenzene	2007/12/28	0.6		%	50
		Ethylene Dibromide	2007/12/28	NC		%	50
		Methylene Chloride(Dichloromethane)	2007/12/28	NC		%	50
		Methyl Isobutyl Ketone	2007/12/28	NC		%	50

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CPG-Franz Inc
Attention: Jeff Muir/Rene De Vries
Client Project #: 3875
P.O. #:
Project name: 3005 DUNDAS ST.W,OAKVILLE

Quality Assurance Report (Continued)

Maxxam Job Number: MA7E0814

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1433232 AH	RPD	Methyl Ethyl Ketone (2-Butanone)	2007/12/28	NC		%	50
		Methyl t-butyl ether (MTBE)	2007/12/28	NC		%	50
		Styrene	2007/12/28	NC		%	50
		1,1,1,2-Tetrachloroethane	2007/12/28	NC		%	50
		1,1,2,2-Tetrachloroethane	2007/12/28	NC		%	50
		Tetrachloroethylene	2007/12/28	NC		%	50
		Toluene	2007/12/28	NC		%	50
		1,1,1-Trichloroethane	2007/12/28	NC		%	50
		1,1,2-Trichloroethane	2007/12/28	NC		%	50
		Trichloroethylene	2007/12/28	NC		%	50
		Vinyl Chloride	2007/12/28	NC		%	50
		p+m-Xylene	2007/12/28	3.3		%	50
		o-Xylene	2007/12/28	2.9		%	50
		Xylene (Total)	2007/12/28	3.1		%	50
1433568 JXI	MATRIX SPIKE	o-Terphenyl	2007/12/30		101	%	30 - 130
		F2 (C10-C16 Hydrocarbons)	2007/12/30		72	%	60 - 130
		F3 (C16-C34 Hydrocarbons)	2007/12/30		72	%	60 - 130
		F4 (C34-C50 Hydrocarbons)	2007/12/30		72	%	60 - 130
	Spiked Blank	o-Terphenyl	2007/12/30		97	%	30 - 130
		F2 (C10-C16 Hydrocarbons)	2007/12/30		63	%	60 - 130
		F3 (C16-C34 Hydrocarbons)	2007/12/30		63	%	60 - 130
		F4 (C34-C50 Hydrocarbons)	2007/12/30		63	%	60 - 130
	Method Blank	o-Terphenyl	2007/12/30		93	%	30 - 130
		F2 (C10-C16 Hydrocarbons)	2007/12/30	ND, RDL=10		ug/g	
		F3 (C16-C34 Hydrocarbons)	2007/12/30	ND, RDL=10		ug/g	
		F4 (C34-C50 Hydrocarbons)	2007/12/30	ND, RDL=10		ug/g	
	RPD	F2 (C10-C16 Hydrocarbons)	2007/12/30	NC		%	50
		F3 (C16-C34 Hydrocarbons)	2007/12/30	NC		%	50
		F4 (C34-C50 Hydrocarbons)	2007/12/30	NC		%	50
1434287 MYG	RPD	Grain Size	2008/01/02	NC		%	20
		Sieve - #200 (<0.075mm)	2008/01/02	6.4		%	20
		Sieve - #200 (>0.075mm)	2008/01/02	4.6		%	20

ND = Not detected
N/A = Not Applicable
NC = Non-calculable
RPD = Relative Percent Difference
QC Standard = Quality Control Standard
SPIKE = Fortified sample
(1) The recovery in the matrix spike was not calculated (NC). Spiked concentration was less than 2x that native to the sample.

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Validation Signature Page

Maxxam Job #: A7E0814

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

CHRISTINA NERVO, Scientific Services

MEDHAT RISKALLAH, Manager, Hydrocarbon Department

MICHAEL WANG,

SUZANA POPOVIC, Supervisor, Hydrocarbons

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CAEAL have approved this reporting process and electronic report format.

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IMMEDIATE TEST

Maxxam Analytics Inc. 6740 Campobello Road, Mississauga, ON L5N 2L8 Phone: 905-817-5700 Fax: 905-817-5779 Toll Free: 800-563-6266

CHAIN OF CUSTODY RECORD

Page 1 of 1

INVOICE INFORMATION

Company Name: Wardrop
Contact Name: Kashif Khan
Address: 6725 Airport Rd. 6th Floor, Mississauga, Ont. L4V 1V2
Phone: 673-3788 Fax: 673-8007
Email: Kashif.Khan@Wardrop.Com

REPORT INFORMATION (if differs from invoice)

Company Name: CPG-Franz
Contact Name: René DeVries
Address: 250 Shields ct. #15, Markham, Ont.
Phone: 905-470-6570 Fax: 905-470-0958
Email: RDeVries@Franzenvironmental.Com

PROJECT INFORMATION

Quotation #: As per Wardrop - Shell contract
P.O. #: NA
Project #: 3875
Project Name: Shell
Location: 3005 Dundas st W, Oakville
Sampled By: C. Frankruyter

MAXXAM JOB NUMBER

CHAIN OF CUSTODY #

REGULATORY CRITERIA

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form.

[ ] MISA Reg. 153: [ ] Table 1 [X] Table 2 [ ] Table 3 Sewer Use: [ ] Sanitary [ ] Storm Region: ____ [ ] Other ____ specify

[ ] PWQO

[ ] Reg. 558

Report Criteria on C of A? [ ]

SAMPLES MUST BE KEPT COOL (<10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM.

ANALYSIS REQUESTED (Please be specific)

#	Sample Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water? (Y / N)	Metals Field Filtered? (Y / N)	BTEX	F1-F4	PH	PAH's	VOC's	Lead	Grain size analysis	# of Cont.	Comments / TAT Comments
1	BH1-SS4	Dec 15/07	11:00	Soil			X	X		X	X	X		2	Insufficient sample volume
2	BH2-SS2	↓	10:00	↓			X	X						2	↓
3	BH2-SS3	↓	10:15	↓			X	X						2	↓
4	BH3-SS2	Dec 17/07	12:00	↓			X	X	X					2	↓
5	BH3-SS4	↓	12:15	↓			X	X						3	
6	BH4-SS3	↓	2:00	↓			X	X						3	
7	BH5-SS2	Dec 18/07	8:00	↓			X	X						3	
8	BH5-SS4		8:10	↓			X	X	X					3	
9	BH6-SS1		9:00	↓			X	X						2	Insufficient sample volume
10	BH6-SS3		9:10	↓			X	X						2	↓
11	BH6-SS4		9:15	↓			[illegible]	[illegible]					X	1	
12	Dup	↓	NA	↓			X	X						3	

TURNAROUND TIME (TAT) REQUIRED

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS.

Regular (Standard) TAT: [X] 5 to 7 Working Days

Rush TAT: Rush Confirmation #: ____

[ ] 1 day

DATE Re[illegible]

TIME Re[illegible]

Please note that TA[illegible] contact your Proje[illegible]

19-Dec-07 14:09
TIM DAS
A7E0814
S_A ENV-657

RELINQUISHED BY (Signature/Print)	RECEIVED BY (Signature/Print)	Date	Time
Carl Frankruyter	[illegible]	07/12/19	14:09

Laboratory Use Only

Temperature (°C) on Receipt: 3/4/7 °C

Condition of Sample on Receipt: [ ] OK [ ] Off

*MANDATORY SECTIONS IN GREY MUST BE FILLED OUT. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.**

DATA QUALITY REVIEW CHECKLIST

Consultant: *Wardrop Engineering Inc.* Sampling Date: *December 17 & 18, 2007*

Location: *3005 Dundas Street, Oakville, Ontario* Laboratory : *Maxxam Analytics Inc.*

Consultant Project Number: *08134801-01* Maxxam Job Number: *A7E0814*

Are All Laboratory QC Samples Within Acceptance Criteria (Yes, No, Not Applicable)?

	Yes	No	NA	Comments
Instrument Surrogate Recovery	X			*- The extraction surrogate recovery is outside the acceptance limits due to matrix interference affecting BH3-SS2 and BH5-SS2.*
Extraction Surrogate Recovery		X		
Method Blank Concentration	X			
Matrix Duplicate RPD	X			
Matrix Spike Recovery	X			
Lab Control Sample Recovery	X			

Are All Field QC Samples Within Alert Limits (Yes, No, Not Applicable)?

	Yes	No	NA	Comments
Field Blank Concentration	X			*- RPD alert limit exceeded for BH5-SS2 and its associated field duplicates sample (DUP) for xylenes.*
Trip Blank Concentration	X			
Field Duplicate RPD		X		

Has CoA been signed off (Yes/No)?:	*Yes*
Has lab warranted all tests were in statistical control in CoA (Yes/No)?:	*Yes*
Has lab warranted all tests were analyzed following SOP's in CoA (Yes/No)?:	*Yes*
Were all samples analyzed within hold times (Yes/No)?:	*Yes*
All volatiles samples methanol extracted (if required) within 48 hours (Yes/No)?:	*No*
Is Chain of Custody completed and signed (Yes/No)?:	*Yes*
Were sample temperatures acceptable when they reached lab (Yes/No)?:	*Yes*

Was a Data Quality Waiver (DQW) issued (Yes/No)?: *No*

Date Issued: *NA* Date of Response: *NA*

Is data considered to be reliable (Yes/No)?: *Yes*

If answer is "No", describe and provide rationale:

Data Reviewed by (Print): *Fatema Tavawala* Data Reviewed by (Signature):

Date: *January 15, 2008*

Your Project #: 3875
Site: 3005 DUNDAS ST.W.,OAKVILLE
Your C.O.C. #: 00507452

Attention: Jeff Muir/Rene De Vries
CPG-Franz Inc
15-250 Shields Crt
Markham, ON
L3R 9W7

Report Date: 2007/12/31

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A7E0824
Received: 2007/12/19, 14:09

Sample Matrix: Soil
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Semivolatile Organic Compounds (TCLP)	1	2007/12/21	2007/12/21	Ont SOP-0117	EPA 8270 modified
Cyanide (WAD) in Leachates	1	N/A	2007/12/27	CAM SOP-00457	SM 4500 CN-I
Fluoride by ISE in Leachates	1	2007/12/27	2007/12/27	Ont SOP-0621	SM 4500FC
Mercury (TCLP Leachable) (mg/L)	1	N/A	2007/12/24	CAM SOP-00453	EPA 7470
Total Metals in TCLP Leachate by ICPMS	1	2007/12/21	2007/12/21	CAM SOP-00447	EPA 6020
Ignitability of a Sample (1)	1	2007/12/31	2007/12/31	Ont SOP-0932	EPA 1030
Nitrate(NO3) + Nitrite(NO2) in Leachate	1	N/A	2007/12/24	CAM SOP-00440	SM 4500 NO3 I
Polychlorinated Biphenyl in Leachate	1	2007/12/22	2007/12/24	CAM SOP-00307	EPA 8082
TCLP - % Solids	1	2007/12/21	2007/12/21	CAM SOP-00401	EPA 1311 (TCLP)
TCLP - EXTRACTION FLUID	1	N/A	2007/12/21	CAM SOP-00401	EPA 1311
TCLP-INITIAL AND FINAL PH	1	N/A	2007/12/21	CAM SOP-00401	EPA 1311
TCLP Zero Headspace Extraction	1	2007/12/21	2007/12/21	Ont SOP-0762	EPA 1311
VOCs in ZHE Leachates	1	2007/12/20	2007/12/24	CAM SOP 0226	EPA 8260 modified

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Ignitability is not an SCC accredited test.

Kristen Burmeister
31 Dec 2007 10:50:04 -05:00

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

KRISTEN BURMEISTER, Project Manager
Email: Kristen.Burmeister@maxxamanalytics.com
Phone# (905) 817-5700 Ext:5816

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section

Your Project #: 3875
Site: 3005 DUNDAS ST.W.,OAKVILLE
Your C.O.C. #: 00507452

Attention: Jeff Muir/Rene De Vries
CPG-Franz Inc
15-250 Shields Crt
Markham, ON
L3R 9W7

Report Date: 2007/12/31

CERTIFICATE OF ANALYSIS

5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CAEAL have approved this reporting process and electronic report format.

For Service Group specific validation please refer to the Validation Signature Page

Total cover pages: 2

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Maxxam Job #: A7E0824
Report Date: 2007/12/31

CPG-Franz Inc
Client Project #: 3875
Project name: 3005 DUNDAS ST.W.,OAKVILLE
Sampler Initials:

O'REG 558 TCLP BENZO(A)PYRENE

Maxxam ID		W50404		
Sampling Date		2007/12/17 12:10		
COC Number		00507452		
	Units	REG	RDL	QC Batch
SEMIVOLATILES				
Leachable Benzo(a)pyrene	ug/L	ND	0.1	1431278
Surrogate Recovery (%)				
Leachable 2-Fluorobiphenyl	%	73		1431278
Leachable D14-Terphenyl (FS)	%	100		1431278
Leachable D5-Nitrobenzene	%	80		1431278
Leachable D5-Phenol	%	34		1431278

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: A7E0824
Report Date: 2007/12/31

CPG-Franz Inc
Client Project #: 3875
Project name: 3005 DUNDAS ST.W.,OAKVILLE
Sampler Initials:

O'REG 558 TCLP BENZENE (SOIL)

Maxxam ID		W50404		
Sampling Date		2007/12/17 12:10		
COC Number		00507452		
	Units	REG	RDL	QC Batch
VOLATILES				
Amount Extracted (Wet Weight) (g)	N/A	25	N/A	1431576
Benzene	mg/L	0.06	0.01	1431261
Surrogate Recovery (%)				
4-Bromofluorobenzene	%	102		1431261
D4-1,2-Dichloroethane	%	79		1431261
D8-Toluene	%	103		1431261

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: A7E0824
Report Date: 2007/12/31

CPG-Franz Inc
Client Project #: 3875
Project name: 3005 DUNDAS ST.W.,OAKVILLE
Sampler Initials:

O'REG 558 TCLP INORGANICS PACKAGE (SOIL)

Maxxam ID		W50404		
Sampling Date		2007/12/17 12:10		
COC Number		00507452		
	Units	REG	RDL	QC Batch
INORGANICS				
Leachable Fluoride (F-)	mg/L	1.7	0.1	1432796
Leachable Free Cyanide	mg/L	ND	0.002	1432767
Leachable Nitrite (N)	mg/L	ND	0.1	1432347
Leachable Nitrate (N)	mg/L	43	1	1432347
Leachable Nitrate + Nitrite	mg/L	43	1	1432347
METALS				
Leachable Mercury (Hg)	mg/L	ND	0.001	1432464
Leachable Arsenic (As)	mg/L	ND	0.2	1431328
Leachable Barium (Ba)	mg/L	0.6	0.2	1431328
Leachable Boron (B)	mg/L	4.3	0.1	1431328
Leachable Cadmium (Cd)	mg/L	ND	0.05	1431328
Leachable Chromium (Cr)	mg/L	ND	0.1	1431328
Leachable Lead (Pb)	mg/L	ND	0.1	1431328
Leachable Selenium (Se)	mg/L	ND	0.2	1431328
Leachable Silver (Ag)	mg/L	ND	0.01	1431328
Leachable Uranium (U)	mg/L	ND	0.01	1431328

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: 905-817-5700 Toll free:800-563-6266 Fax: 905-817-5777

Maxxam Job #: A7E0824
Report Date: 2007/12/31

CPG-Franz Inc
Client Project #: 3875
Project name: 3005 DUNDAS ST.W.,OAKVILLE
Sampler Initials:

O'REG 558 TCLP LEACHATE PREPARATION (SOIL)

Maxxam ID		W50404		
Sampling Date		2007/12/17 12:10		
COC Number		00507452		
	Units	REG	RDL	QC Batch
Charge/Prep Analysis				
Final pH	pH	4.80		1431365
Initial pH	pH	7.38		1431365
TCLP - % Solids	%	100	0.2	1431363
TCLP Extraction Fluid	ml	FLUID1	N/A	1431364

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: A7E0824
Report Date: 2007/12/31

CPG-Franz Inc
Client Project #: 3875
Project name: 3005 DUNDAS ST.W.,OAKVILLE
Sampler Initials:

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		W50404		
Sampling Date		2007/12/17 12:10		
COC Number		00507452		
	Units	REG	RDL	QC Batch
PCBs				
Leachable Total PCB	ug/L	ND	3	1432115
Surrogate Recovery (%)				
Leachable 2,4,5,6-Tetrachloro-m-xylene	%	81		1432115
Leachable Decachlorobiphenyl	%	99		1432115

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: A7E0824
Report Date: 2007/12/31

CPG-Franz Inc
Client Project #: 3875
Project name: 3005 DUNDAS ST.W.,OAKVILLE
Sampler Initials:

MISCELLANEOUS (SOIL)

Maxxam ID		W50404		
Sampling Date		2007/12/17 12:10		
COC Number		00507452		
	Units	REG	RDL	QC Batch
INORGANICS				
Ignitability	mm/min.	NI		1434051

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: A7E0824
Report Date: 2007/12/31

CPG-Franz Inc
Client Project #: 3875
Project name: 3005 DUNDAS ST.W.,OAKVILLE
Sampler Initials:

GENERAL COMMENTS

Sample W50404-01: NI = Not ignitable

Results relate only to the items tested.

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CPG-Franz Inc
Attention: Jeff Muir/Rene De Vries
Client Project #: 3875
P.O. #:
Project name: 3005 DUNDAS ST.W.,OAKVILLE

Quality Assurance Report

Maxxam Job Number: MA7E0824

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1431261 TMI	Spiked Blank	4-Bromofluorobenzene	2007/12/24		108	%	70 - 130
		D4-1,2-Dichloroethane	2007/12/24		106	%	70 - 130
		D8-Toluene	2007/12/24		101	%	70 - 130
		Benzene	2007/12/24		104	%	70 - 130
	Method Blank	4-Bromofluorobenzene	2007/12/24		102	%	70 - 130
		D4-1,2-Dichloroethane	2007/12/24		79	%	70 - 130
		D8-Toluene	2007/12/24		t02	%	70 - 130
		Benzene	2007/12/24	ND, RDL=0.01		mg/L	
1431278 YZ	MATRIX SPIKE	Leachable 2-Fluorobiphenyl	2007/12/21		73	%	30 - 130
		Leachable D14-Terphenyl (FS)	2007/12/21		99	%	30 - 130
		Leachable D5-Nitrobenzene	2007/12/21		82	%	30 - 130
		Leachable D5-Phenol	2007/12/21		26	%	10 - 130
		Leachable Benzo(a)pyrene	2007/12/21		102	%	30 - 130
	Spiked Blank	Leachable 2-Fluorobiphenyl	2007/12/21		74	%	30 - 130
		Leachable D14-Terphenyl (FS)	2007/12/21		98	%	30 - 130
		Leachable D5-Nitrobenzene	2007/12/21		76	%	30 - 130
		Leachable D5-Phenol	2007/12/21		22	%	10 - 130
		Leachable Benzo(a)pyrene	2007/12/21		100	%	30 - 130
	Method Blank	Leachable 2-Fluorobiphenyl	2007/12/21		70	%	30 - 130
		Leachable D14-Terphenyl (FS)	2007/12/21		98	%	30 - 130
		Leachable D5-Nitrobenzene	2007/12/21		77	%	30 - 130
		Leachable D5-Phenol	2007/12/21		21	%	10 - 130
		Leachable Benzo(a)pyrene	2007/12/21	ND, RDL=0.1		ug/L	
	RPD	Leachable D14-Terphenyl (FS)	2007/12/21	2.6		%	N/A
		Leachable Benzo(a)pyrene	2007/12/21	NC		%	40
1431328 JBW	MATRIX SPIKE	Leachable Arsenic (As)	2007/12/21		101	%	75 - 125
		Leachable Barium (Ba)	2007/12/21		101	%	75 - 125
		Leachable Boron (B)	2007/12/21		105	%	75 - 125
		Leachable Cadmium (Cd)	2007/12/21		105	%	75 - 125
		Leachable Chromium (Cr)	2007/12/21		104	%	75 - 125
		Leachable Lead (Pb)	2007/12/21		t01	%	75 - 125
		Leachable Selenium (Se)	2007/12/21		104	%	75 - 125
		Leachable Silver (Ag)	2007/12/21		94	%	75 - 125
		Leachable Uranium (U)	2007/12/21		104	%	75 - 125
	LEACH. BLANK	Leachable Arsenic (As)	2007/12/21	ND, RDL=0.2		mg/L	
		Leachable Barium (Ba)	2007/12/21	ND, RDL=0.2		mg/L	
		Leachable Boron (B)	2007/12/21	ND, RDL=0.1		mg/L	
		Leachable Cadmium (Cd)	2007/12/21	ND, RDL=0.05		mg/L	
		Leachable Chromium (Cr)	2007/12/21	ND, RDL=0.1		mg/L	
		Leachable Lead (Pb)	2007/12/21	ND, RDL=0.1		mg/L	
		Leachable Selenium (Se)	2007/12/21	ND, RDL=0.2		mg/L	
		Leachable Silver (Ag)	2007/12/21	ND, RDL=0.01		mg/L	
		Leachable Uranium (U)	2007/12/21	ND, RDL=0.01		mg/L	
	Spiked Blank	Leachable Arsenic (As)	2007/12/21		98	%	86 - 119
		Leachable Barium (Ba)	2007/12/21		98	%	83 - 115
		Leachable Boron (B)	2007/12/21		106	%	78 - 133
		Leachable Cadmium (Cd)	2007/12/21		102	%	85 - 116
		Leachable Chromium (Cr)	2007/12/21		100	%	76 - 120
		Leachable Lead (Pb)	2007/12/21		100	%	80 - 123
		Leachable Selenium (Se)	2007/12/21		100	%	82 - 118
		Leachable Silver (Ag)	2007/12/21		93	%	75 - 125
		Leachable Uranium (U)	2007/12/21		100	%	82 - 124
	RPD	Leachable Arsenic (As)	2007/12/21	NC		%	25
		Leachable Barium (Ba)	2007/12/21	NC		%	25
		Leachable Boron (B)	2007/12/21	NC		%	25

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CPG-Franz Inc
Attention: Jeff Muir/Rene De Vries
Client Project #: 3875
P.O. #:
Project name: 3005 DUNDAS ST.W.,OAKVILLE

Quality Assurance Report (Continued)

Maxxam Job Number: MA7E0824

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1431328 JBW	RPD	Leachable Cadmium (Cd)	2007/12/21	NC		%	25
		Leachable Chromium (Cr)	2007/12/21	NC		%	25
		Leachable Lead (Pb)	2007/12/21	NC		%	25
		Leachable Selenium (Se)	2007/12/21	NC		%	25
		Leachable Silver (Ag)	2007/12/21	NC		%	25
		Leachable Uranium (U)	2007/12/21	NC		%	25
1431363 TFA	RPD	TCLP - % Solids	2007/12/21	0		%	35
1431364 TFA	RPD	TCLP Extraction Fluid	2007/12/21	NC		%	35
1432115 RBA	MATRIX SPIKE	Leachable 2,4,5,6-Tetrachloro-m-xylene	2007/12/24		85	%	30 - 130
		Leachable Decachlorobiphenyl	2007/12/24		103	%	30 - 130
		Leachable Total PCB	2007/12/24		81	%	40 - 130
	Spiked Blank	Leachable 2,4,5,6-Tetrachloro-m-xylene	2007/12/24		79	%	30 - 130
		Leachable Decachlorobiphenyl	2007/12/24		94	%	30 - 130
		Leachable Total PCB	2007/12/24		79	%	40 - 130
	Method Blank	Leachable 2,4,5,6-Tetrachloro-m-xylene	2007/12/24		75	%	30 - 130
		Leachable Decachlorobiphenyl	2007/12/24		82	%	30 - 130
		Leachable Total PCB	2007/12/24	ND, RDL=3		ug/L	
	RPD	Leachable Decachlorobiphenyl	2007/12/24	2.0		%	N/A
		Leachable Total PCB	2007/12/24	NC		%	40
1432347 CCI	MATRIX SPIKE	Leachable Nitrite (N)	2007/12/24		101	%	75 - 125
		Leachable Nitrate (N)	2007/12/24		88	%	75 - 125
	LEACH. BLANK	Leachable Nitrite (N)	2007/12/24	ND, RDL=0.01		mg/L	
		Leachable Nitrate (N)	2007/12/24	ND, RDL=0.1		mg/L	
		Leachable Nitrate + Nitrite	2007/12/24	ND, RDL=0.1		mg/L	
	Spiked Blank	Leachable Nitrite (N)	2007/12/24		99	%	80 - 120
		Leachable Nitrate (N)	2007/12/24		91	%	80 - 120
	Method Blank	Leachable Nitrite (N)	2007/12/24	ND, RDL=0.01		mg/L	
		Leachable Nitrate (N)	2007/12/24	ND, RDL=0.1		mg/L	
		Leachable Nitrate + Nitrite	2007/12/24	ND, RDL=0.1		mg/L	
	RPD	Leachable Nitrite (N)	2007/12/24	NC		%	25
		Leachable Nitrate (N)	2007/12/24	4.0		%	25
		Leachable Nitrate + Nitrite	2007/12/24	4.0		%	25
1432464 SUK	MATRIX SPIKE	Leachable Mercury (Hg)	2007/12/24		89	%	75 - 125
	LEACH. BLANK	Leachable Mercury (Hg)	2007/12/24	ND, RDL=0.001		mg/L	
	QC STANDARD	Leachable Mercury (Hg)	2007/12/24		97	%	75 - 125
	Spiked Blank	Leachable Mercury (Hg)	2007/12/24		95	%	84 - 113
	Method Blank	Leachable Mercury (Hg)	2007/12/24	ND, RDL=0.001		mg/L	
	RPD	Leachable Mercury (Hg)	2007/12/24	NC		%	25
1432767 LHA	MATRIX SPIKE	Leachable Free Cyanide	2007/12/27		100	%	75 - 125
	LEACH. BLANK	Leachable Free Cyanide	2007/12/27	ND, RDL=0.002		mg/L	
	Spiked Blank	Leachable Free Cyanide	2007/12/27		106	%	75 - 125
	Method Blank	Leachable Free Cyanide	2007/12/27	ND, RDL=0.002		mg/L	
	RPD	Leachable Free Cyanide	2007/12/27	NC		%	20
1432796 SAC	MATRIX SPIKE	Leachable Fluoride (F-)	2007/12/27		97	%	75 - 125
	LEACH. BLANK	Leachable Fluoride (F-)	2007/12/27	ND, RDL=0.1		mg/L	
	Spiked Blank	Leachable Fluoride (F-)	2007/12/27		95	%	75 - 125
	Method Blank	Leachable Fluoride (F-)	2007/12/27	ND, RDL=0.1		mg/L	
	RPD	Leachable Fluoride (F-)	2007/12/27	NC		%	25
1434051 HVP	RPD	Ignitability	2007/12/31	NC		%	10

ND = Not detected
N/A = Not Applicable
NC = Non-calculable
RPD = Relative Percent Difference
QC Standard = Quality Control Standard
SPIKE = Fortified sample

6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: 905-817-5700 Toll free:800-563-6266 Fax: 905-817-5777

Validation Signature Page

Maxxam Job #: A7E0824

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

CHARLES ANCKER, B.Sc., M.Sc., C.Chem, Senior Analyst

CHRISTINA NERVO, Scientific Services

FLOYD MAYEDE,

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CAEAL have approved this reporting process and electronic report format.

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CHAIN OF CUSTODY RECORD

Page 1 of 1

Maxxam Analytics Inc. — 6740 Campobello Road, Mississauga, ON L5N 2L8 — Phone: 905-817-5700 — Fax: 905-817-5779 — Toll Free: (800) 563-6266

INVOICE INFORMATION	REPORT INFORMATION (if differs from invoice)	PROJECT INFORMATION	MAXXAM JOB NUMBER
Company Name: Wardrop	Company Name: CPG-Franz	Quotation #: Aspe Wardrop Shell contract	
Contact Name: Koshif Khan	Contact Name: Rene DeVries	P.O. #: NA	CHAIN OF CUSTODY #
Address: 6725 Airport rd. 6th Floor Mississauga, Ont L4V 1V2	Address: 250 Shields ct. #15 Markham, Ont.	Project #: 3875	005 7…
Phone: 673-3788 Fax: 673-8007	Phone: 470-6570 Fax: 470-0958	Project Name: Shell	
Email: Koshif.Khan@Wardrop.com	Email: Rdevries@Franzenvironmental.com	Location: 3005 Dundas st. W. Oakville	
		Sampled By: C. Frankforter	

REGULATORY CRITERIA

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

- ☐ MISA
- ☐ PWQO
- ☒ Reg 558
- Reg 153: ☐ Table 1 ☐ Table 2 ☐ Table 3
- Sewer Use: ☐ Sanitary ☐ Storm; Region ____
- ☐ Other ____ (specify)
- Report Criteria on C of A? ☐

SAMPLES MUST BE KEPT COOL (<10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM.

ANALYSIS REQUESTED (Please be specific)

	Sample Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water? (Y / N)	Metals Field Filtered? (Y / N)	Reg 558 - Ign. tability	- Inorganics	- PCBs	- Benzo-a-pyrene	- Benzene	# of Cont.
1	Reg	Dec 17/07	12:10	Soil			X	X	X	X	X	3
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												

TURNAROUND TIME (TAT) REQUIRED

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Regular (Standard) TAT: ☒ 5 to 7 Working Days

Rush TAT: Rush Confirmation #: ____ (call Lab for #)

☐ 1 day

DATE Required:

TIME Required:

19-Dec-07 14:09

TIM DAS

A7E0824

S_A ENV-657

RELINQUISHED BY (Signature/Print)	RECEIVED BY (Signature/Print)	Date	Time
Carl Frankforter	Toni ...	07/12/19	14:09

Laboratory Use Only: Temperature (°C) on Receipt: 3/4/5 °C — Condition of Sample on Receipt: OK / SIF

MANDATORY SECTIONS IN GREY MUST BE FILLED OUT. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

DATA QUALITY REVIEW CHECKLIST

Consultant: *Wardrop Engineering Inc.* Sampling Date: *December 17, 2007*

Location: *3005 Dundas Street, Oakville, Ontario* Laboratory : *Maxxam Analytics Inc.*

Consultant Project Number: *08134801-01* Maxxam Job Number: *A7E0824*

Are All Laboratory QC Samples Within Acceptance Criteria (Yes, No, Not Applicable)?

	Yes	No	NA	Comments
Instrument Surrogate Recovery	X			*- all lab QC have met acceptance criteria*
Extraction Surrogate Recovery	X			
Method Blank Concentration	X			
Matrix Duplicate RPD	X			
Matrix Spike Recovery	X			
Lab Control Sample Recovery	X			

Are All Field QC Samples Within Alert Limits (Yes, No, Not Applicable)?

	Yes	No	NA	Comments
Field Blank Concentration			X	
Trip Blank Concentration			X	
Field Duplicate RPD			X	

Has CoA been signed off (Yes/No)?:	*Yes*
Has lab warranted all tests were in statistical control in CoA (Yes/No)?:	*Yes*
Has lab warranted all tests were analyzed following SOP's in CoA (Yes/No)?:	*Yes*
Were all samples analyzed within hold times (Yes/No)?:	*Yes*
All volatiles samples methanol extracted (if required) within 48 hours (Yes/No)?:	*Yes*
Is Chain of Custody completed and signed (Yes/No)?:	*Yes*
Were sample temperatures acceptable when they reached lab (Yes/No)?:	*Yes*

Was a Data Quality Waiver (DQW) issued (Yes/No)?: *No*

Date Issued: *NA* Date of Response: *NA*

Is data considered to be reliable (Yes/No)?: *Yes*

If answer is "No", describe and provide rationale:

Data Reviewed by (Print): *Fatema Tawawala* Data Reviewed by (Signature):

Date: *January 15, 2008*

Your Project #: 3875
Site: 3005 DUNDAS ST.W. OAKVILLE
Your C.O.C. #: C64286

Attention: Jeff Muir/Rene De Vries
CPG-Franz Inc
15-250 Shields Crt
Markham, ON
L3R 9W7

Report Date: 2008/01/15

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A802259
Received: 2008/01/09, 14:41

Sample Matrix: Water
Samples Received: 10

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Petroleum Hydro. CCME F1 & BTEX in Water	10	N/A	2008/01/11	CAM SOP-00315	CCME CWS
Petroleum Hydrocarbons F2-F4 in Water	10	2008/01/12	2008/01/14	CAM SOP-00316	CCME Hydrocarbons
Dissolved Metals by ICPMS	7	N/A	2008/01/11	CAM SOP-00447	EPA 6020
Volatile Organic Compounds in Water	7	N/A	2008/01/11	CAM SOP-00226	EPA 8260 modified

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key RSzurski
Renata Szurski
15 Jan 2008 15:12:24 -05:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

KRISTEN BURMEISTER, Project Manager
Email: Kristen.Burmeister@maxxamanalytics.com
Phone# (905) 817-5700 Ext:5816

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CAEAL have approved this reporting process and electronic report format.

For Service Group specific validation please refer to the Validation Signature Page

Total cover pages: 1

6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: 905-817-5700 Toll free:800-563-6266 Fax: 905-817-5777

Maxxam Job #: A802259
Report Date: 2008/01/15

CPG-Franz Inc
Client Project #: 3875
Project name: 3005 DUNDAS ST.W. OAKVILLE
Sampler Initials:

OREG 153 PETROLEUM HYDROCARBONS (WATER)

Maxxam ID		W69277	W69278		
Sampling Date		2008/01/08 11:00	2008/01/08 11:15		
COC Number		C64286	C64286		
	Units	BH1	BH2	RDL	QC Batch
F1 PHC and BTEX					
Benzene	ug/L	ND	31	0.2	1439040
Toluene	ug/L	0.3	9.5	0.2	1439040
Ethylbenzene	ug/L	ND	13	0.2	1439040
o-Xylene	ug/L	ND	19	0.2	1439040
p+m-Xylene	ug/L	ND	53	0.4	1439040
Total Xylenes	ug/L	ND	71	0.4	1439040
F1 (C6-C10)	ug/L	ND	170	100	1439040
F1 (C6-C10) - BTEX	ug/L	ND	ND	100	1439040
F2-F4 PHC					
F2 (C10-C16 Hydrocarbons)	ug/L	ND	ND	100	1439736
F3 (C16-C34 Hydrocarbons)	ug/L	ND	ND	100	1439736
F4 (C34-C50 Hydrocarbons)	ug/L	ND	ND	100	1439736
Reached Baseline at C50	ug/L	Yes	Yes		1439736
Surrogate Recovery (%)					
1,4-Difluorobenzene	%	100	100		1439040
4-Bromofluorobenzene	%	99	99		1439040
D10-Ethylbenzene	%	109	115		1439040
D4-1,2-Dichloroethane	%	101	100		1439040
o-Terphenyl	%	74	72		1439736

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: 905-817-5700 Toll free:800-563-6266 Fax: 905-817-5777

Maxxam Job #: A802259
Report Date: 2008/01/15

CPG-Franz Inc
Client Project #: 3875
Project name: 3005 DUNDAS ST.W. OAKVILLE
Sampler Initials:

OREG 153 PETROLEUM HYDROCARBONS (WATER)

Maxxam ID		W69279	W69280		
Sampling Date		2008/01/08 11:30	2008/01/08 11:45		
COC Number		C64286	C64286		
	Units	BH3	BH4	RDL	QC Batch
F1 PHC and BTEX					
F1 (C6-C10)	ug/L	10000	3000	1000	1439040
F1 (C6-C10) - BTEX	ug/L	5900	ND	1000	1439040
F2-F4 PHC					
F2 (C10-C16 Hydrocarbons)	ug/L	4900	860	100	1439736
F3 (C16-C34 Hydrocarbons)	ug/L	ND	ND	100	1439736
F4 (C34-C50 Hydrocarbons)	ug/L	ND	ND	100	1439736
Reached Baseline at C50	ug/L	Yes	Yes		1439736
Surrogate Recovery (%)					
1,4-Difluorobenzene	%	95	93		1439040
4-Bromofluorobenzene	%	102	102		1439040
D10-Ethylbenzene	%	103	112		1439040
D4-1,2-Dichloroethane	%	111	114		1439040
o-Terphenyl	%	89	71		1439736

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: 905-817-5700 Toll free:800-563-6266 Fax: 905-817-5777

Maxxam Job #: A802259
Report Date: 2008/01/15

CPG-Franz Inc
Client Project #: 3875
Project name: 3005 DUNDAS ST.W. OAKVILLE
Sampler Initials:

OREG 153 PETROLEUM HYDROCARBONS (WATER)

Maxxam ID		W69281	W69282		
Sampling Date		2008/01/08 12:00	2008/01/08 12:15		
COC Number		C64286	C64286		
	Units	BH5	BH6	RDL	QC Batch
F1 PHC and BTEX					
Benzene	ug/L	2700		2	1439040
Toluene	ug/L	3000		2	1439040
Ethylbenzene	ug/L	430		2	1439040
o-Xylene	ug/L	650		2	1439040
p+m-Xylene	ug/L	300		4	1439040
Total Xylenes	ug/L	950		4	1439040
F1 (C6-C10)	ug/L	5000	3500	1000	1439040
F1 (C6-C10) - BTEX	ug/L	ND	ND	1000	1439040
F2-F4 PHC					
F2 (C10-C16 Hydrocarbons)	ug/L	710	900	100	1439736
F3 (C16-C34 Hydrocarbons)	ug/L	130	140	100	1439736
F4 (C34-C50 Hydrocarbons)	ug/L	ND	ND	100	1439736
Reached Baseline at C50	ug/L	Yes	Yes		1439736
Surrogate Recovery (%)					
1,4-Difluorobenzene	%	94	92		1439040
4-Bromofluorobenzene	%	103	102		1439040
D10-Ethylbenzene	%	100	119		1439040
D4-1,2-Dichloroethane	%	114	113		1439040
o-Terphenyl	%	90	91		1439736

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: A802259
Report Date: 2008/01/15

CPG-Franz Inc
Client Project #: 3875
Project name: 3005 DUNDAS ST.W. OAKVILLE
Sampler Initials:

OREG 153 PETROLEUM HYDROCARBONS (WATER)

Maxxam ID		W69283		W69284		
Sampling Date		2008/01/08 12:30				
COC Number		C64286		C64286		
	Units	FB	RDL	DUP	RDL	QC Batch
F1 PHC and BTEX						
F1 (C6-C10)	ug/L	ND	100	2700	1000	1439040
F1 (C6-C10) - BTEX	ug/L	ND	100	ND	1000	1439040
F2-F4 PHC						
F2 (C10-C16 Hydrocarbons)	ug/L	ND	100	1100	100	1439736
F3 (C16-C34 Hydrocarbons)	ug/L	ND	100	130	100	1439736
F4 (C34-C50 Hydrocarbons)	ug/L	ND	100	ND	100	1439736
Reached Baseline at C50	ug/L	Yes		Yes		1439736
Surrogate Recovery (%)						
1,4-Difluorobenzene	%	99		98		1439040
4-Bromofluorobenzene	%	100		101		1439040
D10-Ethylbenzene	%	103		95		1439040
D4-1,2-Dichloroethane	%	103		104		1439040
o-Terphenyl	%	90		81		1439736

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: A802259
Report Date: 2008/01/15

CPG-Franz Inc
Client Project #: 3875
Project name: 3005 DUNDAS ST.W. OAKVILLE
Sampler Initials:

OREG 153 PETROLEUM HYDROCARBONS (WATER)

Maxxam ID		W69285	W69286		
Sampling Date					
COC Number		C64286	C64286		
	Units	TRIP BLANK	TRIP SPIKE	RDL	QC Batch
F1 PHC and BTEX					
F1 (C6-C10)	ug/L	ND		100	1439040
F1 (C6-C10) - BTEX	ug/L	ND		100	1439040
F2-F4 PHC					
F2 (C10-C16 Hydrocarbons)	ug/L	ND	79%	100	1439736
F3 (C16-C34 Hydrocarbons)	ug/L	ND	79%	100	1439736
F4 (C34-C50 Hydrocarbons)	ug/L	ND	79%	100	1439736
Reached Baseline at C50	ug/L	Yes	Yes		1439736
Surrogate Recovery (%)					
1,4-Difluorobenzene	%	101	99		1439040
4-Bromofluorobenzene	%	98	98		1439040
D10-Ethylbenzene	%	101	108		1439040
D4-1,2-Dichloroethane	%	98	99		1439040
o-Terphenyl	%	81	71		1439736

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: A802259
Report Date: 2008/01/15

CPG-Franz Inc
Client Project #: 3875
Project name: 3005 DUNDAS ST.W. OAKVILLE
Sampler Initials:

O'REG 153 ICPMS DISSOLVED METALS (WATER)

Maxxam ID		W69279	W69280	W69282	W69283		
Sampling Date		2008/01/08 11:30	2008/01/08 11:45	2008/01/08 12:15	2008/01/08 12:30		
COC Number		C64286	C64286	C64286	C64286		
	Units	BH3	BH4	BH6	FB	RDL	QC Batch
METALS							
Dissolved Lead (Pb)	ug/L	ND	ND	ND	ND	0.5	1439391

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam ID		W69284		W69285	W69286		
Sampling Date							
COC Number		C64286		C64286	C64286		
	Units	DUP	QC Batch	TRIP BLANK	TRIP SPIKE	RDL	QC Batch
METALS							
Dissolved Lead (Pb)	ug/L	4.5	1439391	ND	99 (1)	0.5	1439099

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Result is expressed as percentage recovery

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Maxxam Job #: A802259
Report Date: 2008/01/15

CPG-Franz Inc
Client Project #: 3875
Project name: 3005 DUNDAS ST.W. OAKVILLE
Sampler Initials:

VOLATILE ORGANICS BY GC/MS (WATER)

Maxxam ID		W69279		W69280		
Sampling Date		2008/01/08 11:30		2008/01/08 11:45		
COC Number		C64286		C64286		
	Units	BH3	RDL	BH4	RDL	QC Batch
VOLATILES						
Acetone (2-Propanone)	ug/L	ND	5000	ND	5000	1438789
Benzene	ug/L	340	50	2000	50	1438789
Bromodichloromethane	ug/L	ND	50	ND	50	1438789
Bromoform	ug/L	ND	100	ND	100	1438789
Bromomethane	ug/L	ND	300	ND	300	1438789
Carbon Tetrachloride	ug/L	ND	50	ND	50	1438789
Chlorobenzene	ug/L	ND	50	ND	50	1438789
Chloroform	ug/L	ND	50	ND	50	1438789
Dibromochloromethane	ug/L	ND	100	ND	100	1438789
1,2-Dichlorobenzene	ug/L	ND	100	ND	100	1438789
1,3-Dichlorobenzene	ug/L	ND	100	ND	100	1438789
1,4-Dichlorobenzene	ug/L	ND	100	ND	100	1438789
1,1-Dichloroethane	ug/L	ND	50	ND	50	1438789
1,2-Dichloroethane	ug/L	ND	50	ND (1)	90	1438789
1,1-Dichloroethylene	ug/L	ND	50	ND	50	1438789
cis-1,2-Dichloroethylene	ug/L	ND	50	ND	50	1438789
trans-1,2-Dichloroethylene	ug/L	ND	50	ND	50	1438789
1,2-Dichloropropane	ug/L	ND	50	ND	50	1438789
cis-1,3-Dichloropropene	ug/L	ND	100	ND	100	1438789
trans-1,3-Dichloropropene	ug/L	ND	100	ND	100	1438789
Ethylbenzene	ug/L	630	50	660	50	1438789
Ethylene Dibromide	ug/L	ND	100	ND	100	1438789
Methylene Chloride(Dichloromethane)	ug/L	ND	300	ND	300	1438789
Methyl Isobutyl Ketone	ug/L	ND	3000	ND	3000	1438789
Methyl Ethyl Ketone (2-Butanone)	ug/L	ND	3000	ND	3000	1438789
Methyl t-butyl ether (MTBE)	ug/L	ND	100	2000	100	1438789
Styrene	ug/L	ND	50	ND	50	1438789
1,1,1,2-Tetrachloroethane	ug/L	ND	50	ND	50	1438789
1,1,2,2-Tetrachloroethane	ug/L	ND	100	ND	100	1438789
Tetrachloroethylene	ug/L	ND	50	ND	50	1438789

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Detection limit was raised due to interference from coeluting benzene.

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Maxxam Job #: A802259
Report Date: 2008/01/15

CPG-Franz Inc
Client Project #: 3875
Project name: 3005 DUNDAS ST.W. OAKVILLE
Sampler Initials:

VOLATILE ORGANICS BY GC/MS (WATER)

Maxxam ID		W69279		W69280		
Sampling Date		2008/01/08 11:30		2008/01/08 11:45		
COC Number		C64286		C64286		
	Units	BH3	RDL	BH4	RDL	QC Batch
Toluene	ug/L	ND	100	ND	100	1438789
1,1,1-Trichloroethane	ug/L	ND	50	ND	50	1438789
1,1,2-Trichloroethane	ug/L	ND	100	ND	100	1438789
Trichloroethylene	ug/L	ND	50	ND	50	1438789
Vinyl Chloride	ug/L	ND	100	ND	100	1438789
p+m-Xylene	ug/L	2800	50	380	50	1438789
o-Xylene	ug/L	320	50	ND	50	1438789
Xylene (Total)	ug/L	3100	50	380	50	1438789
Surrogate Recovery (%)						
4-Bromofluorobenzene	%	96		94		1438789
D4-1,2-Dichloroethane	%	102		99		1438789
D8-Toluene	%	102		102		1438789

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: A802259
Report Date: 2008/01/15

CPG-Franz Inc
Client Project #: 3875
Project name: 3005 DUNDAS ST.W. OAKVILLE
Sampler Initials:

VOLATILE ORGANICS BY GC/MS (WATER)

Maxxam ID		W69282		W69283		
Sampling Date		2008/01/08 12:15		2008/01/08 12:30		
COC Number		C64286		C64286		
	Units	BH6	RDL	FB	RDL	QC Batch
VOLATILES						
Acetone (2-Propanone)	ug/L	ND	3000	ND	10	1438789
Benzene	ug/L	2600	30	ND	0.1	1438789
Bromodichloromethane	ug/L	ND	30	ND	0.1	1438789
Bromoform	ug/L	ND	50	ND	0.2	1438789
Bromomethane	ug/L	ND	100	ND	0.5	1438789
Carbon Tetrachloride	ug/L	ND	30	ND	0.1	1438789
Chlorobenzene	ug/L	ND	30	ND	0.1	1438789
Chloroform	ug/L	ND	30	ND	0.1	1438789
Dibromochloromethane	ug/L	ND	50	ND	0.2	1438789
1,2-Dichlorobenzene	ug/L	ND	50	ND	0.2	1438789
1,3-Dichlorobenzene	ug/L	ND	50	ND	0.2	1438789
1,4-Dichlorobenzene	ug/L	ND	50	ND	0.2	1438789
1,1-Dichloroethane	ug/L	ND	30	ND	0.1	1438789
1,2-Dichloroethane	ug/L	ND (1)	100	ND	0.1	1438789
1,1-Dichloroethylene	ug/L	ND	30	ND	0.1	1438789
cis-1,2-Dichloroethylene	ug/L	ND	30	ND	0.1	1438789
trans-1,2-Dichloroethylene	ug/L	ND	30	ND	0.1	1438789
1,2-Dichloropropane	ug/L	ND	30	ND	0.1	1438789
cis-1,3-Dichloropropene	ug/L	ND	50	ND	0.2	1438789
trans-1,3-Dichloropropene	ug/L	ND	50	ND	0.2	1438789
Ethylbenzene	ug/L	460	30	ND	0.1	1438789
Ethylene Dibromide	ug/L	ND	50	ND	0.2	1438789
Methylene Chloride(Dichloromethane)	ug/L	ND	100	ND	0.5	1438789
Methyl Isobutyl Ketone	ug/L	ND	1000	ND	5	1438789
Methyl Ethyl Ketone (2-Butanone)	ug/L	ND	1000	ND	5	1438789
Methyl t-butyl ether (MTBE)	ug/L	180	50	ND	0.2	1438789
Styrene	ug/L	ND	30	ND	0.1	1438789
1,1,1,2-Tetrachloroethane	ug/L	ND	30	ND	0.1	1438789
1,1,2,2-Tetrachloroethane	ug/L	ND	50	ND	0.2	1438789
Tetrachloroethylene	ug/L	ND	30	ND	0.1	1438789

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Detection limit was raised due to interference from coeluting benzene.

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Maxxam Job #: A802259
Report Date: 2008/01/15

CPG-Franz Inc
Client Project #: 3875
Project name: 3005 DUNDAS ST.W. OAKVILLE
Sampler Initials:

VOLATILE ORGANICS BY GC/MS (WATER)

Maxxam ID		W69282		W69283		
Sampling Date		2008/01/08 12:15		2008/01/08 12:30		
COC Number		C64286		C64286		
	Units	BH6	RDL	FB	RDL	QC Batch
Toluene	ug/L	ND	50	ND	0.2	1438789
1,1,1-Trichloroethane	ug/L	ND	30	ND	0.1	1438789
1,1,2-Trichloroethane	ug/L	ND	50	ND	0.2	1438789
Trichloroethylene	ug/L	ND	30	ND	0.1	1438789
Vinyl Chloride	ug/L	ND	50	ND	0.2	1438789
p+m-Xylene	ug/L	1900	30	ND	0.1	1438789
o-Xylene	ug/L	43	30	ND	0.1	1438789
Xylene (Total)	ug/L	1900	30	ND	0.1	1438789
Surrogate Recovery (%)						
4-Bromofluorobenzene	%	95		93		1438789
D4-1,2-Dichloroethane	%	98		99		1438789
D8-Toluene	%	105		103		1438789

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: A802259
Report Date: 2008/01/15

CPG-Franz Inc
Client Project #: 3875
Project name: 3005 DUNDAS ST.W. OAKVILLE
Sampler Initials:

VOLATILE ORGANICS BY GC/MS (WATER)

Maxxam ID		W69284		W69285	W69286		
Sampling Date							
COC Number		C64286		C64286	C64286		
	Units	DUP	RDL	TRIP BLANK	TRIP SPIKE	RDL	QC Batch
VOLATILES							
Acetone (2-Propanone)	ug/L	ND	5000	ND	99	10	1438789
Benzene	ug/L	2300	50	ND	96	0.1	1438789
Bromodichloromethane	ug/L	ND	50	ND	98	0.1	1438789
Bromoform	ug/L	ND	100	ND	110	0.2	1438789
Bromomethane	ug/L	ND	300	ND	100	0.5	1438789
Carbon Tetrachloride	ug/L	ND	50	ND	100	0.1	1438789
Chlorobenzene	ug/L	ND	50	ND	100	0.1	1438789
Chloroform	ug/L	ND	50	ND	97	0.1	1438789
Dibromochloromethane	ug/L	ND	100	ND	100	0.2	1438789
1,2-Dichlorobenzene	ug/L	ND	100	ND	98	0.2	1438789
1,3-Dichlorobenzene	ug/L	ND	100	ND	100	0.2	1438789
1,4-Dichlorobenzene	ug/L	ND	100	ND	100	0.2	1438789
1,1-Dichloroethane	ug/L	ND	50	ND	100	0.1	1438789
1,2-Dichloroethane	ug/L	ND (1)	100	ND	94	0.1	1438789
1,1-Dichloroethylene	ug/L	ND	50	ND	100	0.1	1438789
cis-1,2-Dichloroethylene	ug/L	ND	50	ND	97	0.1	1438789
trans-1,2-Dichloroethylene	ug/L	ND	50	ND	97	0.1	1438789
1,2-Dichloropropane	ug/L	ND	50	ND	97	0.1	1438789
cis-1,3-Dichloropropene	ug/L	ND	100	ND	84	0.2	1438789
trans-1,3-Dichloropropene	ug/L	ND	100	ND	85	0.2	1438789
Ethylbenzene	ug/L	930	50	ND	100	0.1	1438789
Ethylene Dibromide	ug/L	ND	100	ND	100	0.2	1438789
Methylene Chloride(Dichloromethane)	ug/L	ND	300	ND	99	0.5	1438789
Methyl Isobutyl Ketone	ug/L	ND	3000	ND	95	5	1438789
Methyl Ethyl Ketone (2-Butanone)	ug/L	ND	3000	ND	99	5	1438789
Methyl t-butyl ether (MTBE)	ug/L	1800	100	ND	96	0.2	1438789
Styrene	ug/L	ND	50	ND	97	0.1	1438789
1,1,1,2-Tetrachloroethane	ug/L	ND	50	ND	98	0.1	1438789
1,1,2,2-Tetrachloroethane	ug/L	ND	100	ND	96	0.2	1438789
Tetrachloroethylene	ug/L	ND	50	ND	97	0.1	1438789
Toluene	ug/L	ND	100	ND	100	0.2	1438789

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Detection limit was raised due to interference from coeluting benzene.

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Maxxam Job #: A802259
Report Date: 2008/01/15

CPG-Franz Inc
Client Project #: 3875
Project name: 3005 DUNDAS ST.W. OAKVILLE
Sampler Initials:

VOLATILE ORGANICS BY GC/MS (WATER)

Maxxam ID		W69284		W69285	W69286		
Sampling Date							
COC Number		C64286		C64286	C64286		
	Units	DUP	RDL	TRIP BLANK	TRIP SPIKE	RDL	QC Batch
1,1,1-Trichloroethane	ug/L	ND	50	ND	99	0.1	1438789
1,1,2-Trichloroethane	ug/L	ND	100	ND	99	0.2	1438789
Trichloroethylene	ug/L	ND	50	ND	98	0.1	1438789
Vinyl Chloride	ug/L	ND	100	ND	110	0.2	1438789
p+m-Xylene	ug/L	650	50	ND	98	0.1	1438789
o-Xylene	ug/L	ND	50	ND	100	0.1	1438789
Xylene (Total)	ug/L	650	50	ND		0.1	1438789
Surrogate Recovery (%)							
4-Bromofluorobenzene	%	94		93	100		1438789
D4-1,2-Dichloroethane	%	99		97	95		1438789
D8-Toluene	%	102		104	102		1438789

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: A802259
Report Date: 2008/01/15

CPG-Franz Inc
Client Project #: 3875
Project name: 3005 DUNDAS ST.W. OAKVILLE
Sampler Initials:

GENERAL COMMENTS

VOC Analysis: Due to high concentrations of target analytes, most of the samples required dilution. Detection limits were adjusted accordingly.

Sample W69279-01: F1/BTEX Analysis:The BTEX results used for the F1-BTEX calculation were obtained from Headspace-GC analysis.

Sample W69280-01: F1/BTEX Analysis:The BTEX results used for the F1-BTEX calculation were obtained from Headspace-GC analysis. Due to high concentration of target analytes, sample required dilution. Reporting limits were adjusted accordingly.

Sample W69281-01: F1/BTEX Analysis: Due to high concentration of target analytes, sample required dilution. Reporting limits were adjusted accordingly.

Sample W69282-01: F1/BTEX Analysis:The BTEX results used for the F1-BTEX calculation were obtained from Headspace-GC analysis. Due to high concentration of target analytes, sample required dilution. Reporting limits were adjusted accordingly.

Sample W69283-01: F1/BTEX Analysis:The BTEX results used for the F1-BTEX calculation were obtained from Headspace-GC analysis.

Sample W69284-01: F1/BTEX Analysis:The BTEX results used for the F1-BTEX calculation were obtained from Headspace-GC analysis. Due to high concentration of target analytes, sample required dilution. Reporting limits were adjusted accordingly.

Sample W69285-01: F1/BTEX Analysis:The BTEX results used for the F1-BTEX calculation were obtained from Headspace-GC analysis.

Sample W69286-01: VOC Analysis: Trip Spike results are expressed as percent recoveries.

- F2-F4 Analysis: Trip spike results are expressed as percentage of the spiked amounts.

Results relate only to the items tested.

6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: 905-817-5700 Toll free:800-563-6266 Fax: 905-817-5777

CPG-Franz Inc
Attention: Jeff Muir/Rene De Vries
Client Project #: 3875
P.O. #:
Project name: 3005 DUNDAS ST.W. OAKVILLE

Quality Assurance Report

Maxxam Job Number: MA802259

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1438789 AAD	MATRIX SPIKE	4-Bromofluorobenzene	2008/01/11		100	%	70 - 130
		D4-1,2-Dichloroethane	2008/01/11		95	%	70 - 130
		D8-Toluene	2008/01/11		103	%	70 - 130
		Acetone (2-Propanone)	2008/01/11		226 (1)	%	60 - 140
		Benzene	2008/01/11		102	%	70 - 130
		Bromodichloromethane	2008/01/11		104	%	70 - 130
		Bromoform	2008/01/11		120	%	70 - 130
		Bromomethane	2008/01/11		108	%	60 - 140
		Carbon Tetrachloride	2008/01/11		110	%	70 - 130
		Chlorobenzene	2008/01/11		109	%	70 - 130
		Chloroform	2008/01/11		103	%	70 - 130
		Dibromochloromethane	2008/01/11		106	%	70 - 130
		1,2-Dichlorobenzene	2008/01/11		105	%	70 - 130
		1,3-Dichlorobenzene	2008/01/11		113	%	70 - 130
		1,4-Dichlorobenzene	2008/01/11		113	%	70 - 130
		1,1-Dichloroethane	2008/01/11		107	%	70 - 130
		1,2-Dichloroethane	2008/01/11		98	%	70 - 130
		1,1-Dichloroethylene	2008/01/11		112	%	70 - 130
		cis-1,2-Dichloroethylene	2008/01/11		103	%	70 - 130
		trans-1,2-Dichloroethylene	2008/01/11		107	%	70 - 130
		1,2-Dichloropropane	2008/01/11		102	%	70 - 130
		cis-1,3-Dichloropropene	2008/01/11		104	%	70 - 130
		trans-1,3-Dichloropropene	2008/01/11		104	%	70 - 130
		Ethylbenzene	2008/01/11		111	%	70 - 130
		Ethylene Dibromide	2008/01/11		101	%	70 - 130
		Methylene Chloride(Dichloromethane)	2008/01/11		104	%	70 - 130
		Methyl Isobutyl Ketone	2008/01/11		107	%	60 - 140
		Methyl Ethyl Ketone (2-Butanone)	2008/01/11		167 (1)	%	60 - 140
		Methyl t-butyl ether (MTBE)	2008/01/11		97	%	70 - 130
		Styrene	2008/01/11		107	%	70 - 130
		1,1,1,2-Tetrachloroethane	2008/01/11		105	%	70 - 130
		1,1,2,2-Tetrachloroethane	2008/01/11		98	%	70 - 130
		Tetrachloroethylene	2008/01/11		111	%	70 - 130
		Toluene	2008/01/11		109	%	70 - 130
		1,1,1-Trichloroethane	2008/01/11		107	%	70 - 130
		1,1,2-Trichloroethane	2008/01/11		102	%	70 - 130
		Trichloroethylene	2008/01/11		106	%	70 - 130
		Vinyl Chloride	2008/01/11		120	%	70 - 130
		p+m-Xylene	2008/01/11		110	%	70 - 130
		o-Xylene	2008/01/11		112	%	70 - 130
	Spiked Blank	4-Bromofluorobenzene	2008/01/11		102	%	70 - 130
		D4-1,2-Dichloroethane	2008/01/11		95	%	70 - 130
		D8-Toluene	2008/01/11		103	%	70 - 130
		Acetone (2-Propanone)	2008/01/11		98	%	60 - 140
		Benzene	2008/01/11		95	%	70 - 130
		Bromodichloromethane	2008/01/11		97	%	70 - 130
		Bromoform	2008/01/11		117	%	70 - 130
		Bromomethane	2008/01/11		96	%	60 - 140
		Carbon Tetrachloride	2008/01/11		101	%	70 - 130
		Chlorobenzene	2008/01/11		104	%	70 - 130
		Chloroform	2008/01/11		97	%	70 - 130
		Dibromochloromethane	2008/01/11		102	%	70 - 130
		1,2-Dichlorobenzene	2008/01/11		99	%	70 - 130
		1,3-Dichlorobenzene	2008/01/11		103	%	70 - 130
		1,4-Dichlorobenzene	2008/01/11		103	%	70 - 130

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CPG-Franz Inc
Attention: Jeff Muir/Rene De Vries
Client Project #: 3875
P.O. #:
Project name: 3005 DUNDAS ST.W. OAKVILLE

Quality Assurance Report (Continued)

Maxxam Job Number: MA802259

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1438789 AAD	Spiked Blank	1,1-Dichloroethane	2008/01/11		100	%	70 - 130
		t,2-Dichloroethane	2008/01/11		94	%	70 - 130
		1,1-Dichloroethylene	2008/01/11		104	%	70 - 130
		cis-1,2-Dichloroethylene	2008/01/11		97	%	70 - 130
		trans-1,2-Dichloroethylene	2008/01/11		99	%	70 - 130
		1,2-Dichloropropane	2008/01/11		97	%	70 - 130
		cis-1,3-Dichloropropene	2008/01/11		95	%	70 - 130
		trans-1,3-Dichloropropene	2008/01/11		96	%	70 - 130
		Ethylbenzene	2008/01/11		103	%	70 - 130
		Ethylene Dibromide	2008/01/11		101	%	70 - 130
		Methylene Chloride(Dichloromethane)	2008/01/11		98	%	70 - 130
		Methyl Isobutyl Ketone	2008/01/11		97	%	60 - 140
		Methyl Ethyl Ketone (2-Butanone)	2008/01/11		100	%	60 - 140
		Methyl t-butyl ether (MTBE)	2008/01/11		96	%	70 - 130
		Styrene	2008/01/11		102	%	70 - 130
		1,1,1,2-Tetrachloroethane	2008/01/11		100	%	70 - 130
		1,1,2,2-Tetrachloroethane	2008/01/11		99	%	70 - 130
		Tetrachloroethylene	2008/01/11		103	%	70 - 130
		Toluene	2008/01/11		102	%	70 - 130
		1,1,1-Trichloroethane	2008/01/11		99	%	70 - 130
		1,1,2-Trichloroethane	2008/01/11		100	%	70 - 130
		Trichloroethylene	2008/01/11		98	%	70 - 130
		Vinyl Chloride	2008/01/11		112	%	70 - 130
		p+m-Xylene	2008/01/11		102	%	70 - 130
		o-Xylene	2008/01/11		105	%	70 - 130
	Method Blank	4-Bromofluorobenzene	2008/01/11		95	%	70 - 130
		D4-1,2-Dichloroethane	2008/01/11		97	%	70 - 130
		D8-Toluene	2008/01/11		103	%	70 - 130
		Acetone (2-Propanone)	2008/01/11	ND, RDL=10		ug/L	
		Benzene	2008/01/11	ND, RDL=0.1		ug/L	
		Bromodichloromethane	2008/01/11	ND, RDL=0.1		ug/L	
		Bromoform	2008/01/11	ND, RDL=0.2		ug/L	
		Bromomethane	2008/01/11	ND, RDL=0.5		ug/L	
		Carbon Tetrachloride	2008/01/11	ND, RDL=0.1		ug/L	
		Chlorobenzene	2008/01/11	ND, RDL=0.1		ug/L	
		Chloroform	2008/01/11	ND, RDL=0.1		ug/L	
		Dibromochloromethane	2008/01/11	ND, RDL=0.2		ug/L	
		1,2-Dichlorobenzene	2008/01/11	ND, RDL=0.2		ug/L	
		1,3-Dichlorobenzene	2008/01/11	ND, RDL=0.2		ug/L	
		1,4-Dichlorobenzene	2008/01/11	ND, RDL=0.2		ug/L	
		1,1-Dichloroethane	2008/01/11	ND, RDL=0.1		ug/L	
		1,2-Dichloroethane	2008/01/11	ND, RDL=0.1		ug/L	
		1,1-Dichloroethylene	2008/01/11	ND, RDL=0.1		ug/L	
		cis-1,2-Dichloroethylene	2008/01/11	ND, RDL=0.1		ug/L	
		trans-1,2-Dichloroethylene	2008/01/11	ND, RDL=0.1		ug/L	
		1,2-Dichloropropane	2008/01/11	ND, RDL=0.1		ug/L	
		cis-1,3-Dichloropropene	2008/01/11	ND, RDL=0.2		ug/L	
		trans-1,3-Dichloropropene	2008/01/11	ND, RDL=0.2		ug/L	
		Ethylbenzene	2008/01/11	ND, RDL=0.1		ug/L	
		Ethylene Dibromide	2008/01/11	ND, RDL=0.2		ug/L	
		Methylene Chloride(Dichloromethane)	2008/01/11	ND, RDL=0.5		ug/L	
		Methyl Isobutyl Ketone	2008/01/11	ND, RDL=5		ug/L	
		Methyl Ethyl Ketone (2-Butanone)	2008/01/11	ND, RDL=5		ug/L	
		Methyl t-butyl ether (MTBE)	2008/01/11	ND, RDL=0.2		ug/L	
		Styrene	2008/01/11	ND, RDL=0.1		ug/L	

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CPG-Franz Inc
Attention: Jeff Muir/Rene De Vries
Client Project #: 3875
P.O. #:
Project name: 3005 DUNDAS ST.W. OAKVILLE

Quality Assurance Report (Continued)

Maxxam Job Number: MA802259

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1438789 AAD	Method Blank	1,1,1,2-Tetrachloroethane	2008/01/11	ND, RDL=0.1		ug/L	
		1,1,2,2-Tetrachloroethane	2008/01/11	ND, RDL=0.2		ug/L	
		Tetrachloroethylene	2008/01/11	ND, RDL=0.1		ug/L	
		Toluene	2008/01/11	ND, RDL=0.2		ug/L	
		1,1,1-Trichloroethane	2008/01/11	ND, RDL=0.1		ug/L	
		1,1,2-Trichloroethane	2008/01/11	ND, RDL=0.2		ug/L	
		Trichloroethylene	2008/01/11	ND, RDL=0.1		ug/L	
		Vinyl Chloride	2008/01/11	ND, RDL=0.2		ug/L	
		p+m-Xylene	2008/01/11	ND, RDL=0.1		ug/L	
		o-Xylene	2008/01/11	ND, RDL=0.1		ug/L	
		Xylene (Total)	2008/01/11	ND, RDL=0.1		ug/L	
	RPD	Benzene	2008/01/11	NC		%	40
		Bromodichloromethane	2008/01/11	NC		%	40
		Bromoform	2008/01/11	NC		%	40
		Bromomethane	2008/01/11	NC		%	40
		Carbon Tetrachloride	2008/01/11	NC		%	40
		Chlorobenzene	2008/01/11	NC		%	40
		Chloroform	2008/01/11	NC		%	40
		Dibromochloromethane	2008/01/11	NC		%	40
		1,2-Dichlorobenzene	2008/01/11	NC		%	40
		1,3-Dichlorobenzene	2008/01/11	NC		%	40
		1,4-Dichlorobenzene	2008/01/11	NC		%	40
		1,1-Dichloroethane	2008/01/11	1.6		%	40
		1,2-Dichloroethane	2008/01/11	NC		%	40
		1,1-Dichloroethylene	2008/01/11	NC		%	40
		cis-1,2-Dichloroethylene	2008/01/11	2.8		%	40
		trans-1,2-Dichloroethylene	2008/01/11	NC		%	40
		1,2-Dichloropropane	2008/01/11	NC		%	40
		cis-1,3-Dichloropropene	2008/01/11	NC		%	40
		trans-1,3-Dichloropropene	2008/01/11	NC		%	40
		Ethylbenzene	2008/01/11	NC		%	40
		Ethylene Dibromide	2008/01/11	NC		%	40
		Methylene Chloride(Dichloromethane)	2008/01/11	NC		%	40
		1,1,1,2-Tetrachloroethane	2008/01/11	NC		%	40
		1,1,2,2-Tetrachloroethane	2008/01/11	NC		%	40
		Tetrachloroethylene	2008/01/11	NC		%	40
		Toluene	2008/01/11	NC		%	40
		1,1,1-Trichloroethane	2008/01/11	NC		%	40
		1,1,2-Trichloroethane	2008/01/11	NC		%	40
		Trichloroethylene	2008/01/11	NC		%	40
		Vinyl Chloride	2008/01/11	NC		%	40
		p+m-Xylene	2008/01/11	NC		%	40
		o-Xylene	2008/01/11	NC		%	40
		Xylene (Total)	2008/01/11	NC		%	40
1439040 SPV	MATRIX SPIKE	1,4-Difluorobenzene	2008/01/11		100	%	70 - 130
		4-Bromofluorobenzene	2008/01/11		99	%	70 - 130
		D10-Ethylbenzene	2008/01/11		104	%	70 - 130
		D4-1,2-Dichloroethane	2008/01/11		100	%	70 - 130
		Benzene	2008/01/11		93	%	70 - 130
		Toluene	2008/01/11		91	%	70 - 130
		Ethylbenzene	2008/01/11		89	%	70 - 130
		o-Xylene	2008/01/11		94	%	70 - 130
		p+m-Xylene	2008/01/11		95	%	70 - 130
		F1 (C6-C10)	2008/01/11		91	%	70 - 130
	Spiked Blank	1,4-Difluorobenzene	2008/01/11		101	%	70 - 130

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CPG-Franz Inc
Attention: Jeff Muir/Rene De Vries
Client Project #: 3875
P.O. #:
Project name: 3005 DUNDAS ST.W. OAKVILLE

Quality Assurance Report (Continued)

Maxxam Job Number: MA802259

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1439040 SPV	Spiked Blank	4-Bromofluorobenzene	2008/01/11		98	%	70 - 130
		D10-Ethylbenzene	2008/01/11		106	%	70 - 130
		D4-1,2-Dichloroethane	2008/01/11		98	%	70 - 130
		Benzene	2008/01/11		88	%	70 - 130
		Toluene	2008/01/11		91	%	70 - 130
		Ethylbenzene	2008/01/11		90	%	70 - 130
		o-Xylene	2008/01/11		94	%	70 - 130
		p+m-Xylene	2008/01/11		95	%	70 - 130
		F1 (C6-C10)	2008/01/11		103	%	70 - 130
	Method Blank	1,4-Difluorobenzene	2008/01/11		101	%	70 - 130
		4-Bromofluorobenzene	2008/01/11		99	%	70 - 130
		D10-Ethylbenzene	2008/01/11		104	%	70 - 130
		D4-1,2-Dichloroethane	2008/01/11		99	%	70 - 130
		Benzene	2008/01/11	ND, RDL=0.2		ug/L	
		Toluene	2008/01/11	ND, RDL=0.2		ug/L	
		Ethylbenzene	2008/01/11	ND, RDL=0.2		ug/L	
		o-Xylene	2008/01/11	ND, RDL=0.2		ug/L	
		p+m-Xylene	2008/01/11	ND, RDL=0.4		ug/L	
		Total Xylenes	2008/01/11	ND, RDL=0.4		ug/L	
		F1 (C6-C10)	2008/01/11	ND, RDL=100		ug/L	
		F1 (C6-C10) - BTEX	2008/01/11	ND, RDL=100		ug/L	
	RPD	F1 (C6-C10)	2008/01/11	NC		%	40
		F1 (C6-C10) - BTEX	2008/01/11	NC		%	40
1439099 HRE	MATRIX SPIKE	Dissolved Lead (Pb)	2008/01/11		103	%	80 - 120
	Spiked Blank	Dissolved Lead (Pb)	2008/01/11		98	%	85 - 115
	Method Blank	Dissolved Lead (Pb)	2008/01/11	ND, RDL=0.5		ug/L	
	RPD	Dissolved Lead (Pb)	2008/01/11	NC		%	25
1439391 HRE	MATRIX SPIKE	Dissolved Lead (Pb)	2008/01/11		100	%	80 - 120
	Spiked Blank	Dissolved Lead (Pb)	2008/01/11		101	%	85 - 115
	Method Blank	Dissolved Lead (Pb)	2008/01/11	ND, RDL=0.5		ug/L	
	RPD	Dissolved Lead (Pb)	2008/01/11	NC		%	25
1439736 NCI	MATRIX SPIKE	o-Terphenyl	2008/01/14		92	%	30 - 130
		F2 (C10-C16 Hydrocarbons)	2008/01/14		119	%	60 - 130
		F3 (C16-C34 Hydrocarbons)	2008/01/14		119	%	60 - 130
		F4 (C34-C50 Hydrocarbons)	2008/01/14		119	%	60 - 130
	Spiked Blank	o-Terphenyl	2008/01/14		90	%	30 - 130
		F2 (C10-C16 Hydrocarbons)	2008/01/14		121	%	60 - 130
		F3 (C16-C34 Hydrocarbons)	2008/01/14		121	%	60 - 130
		F4 (C34-C50 Hydrocarbons)	2008/01/14		121	%	60 - 130
	Method Blank	o-Terphenyl	2008/01/14		83	%	30 - 130
		F2 (C10-C16 Hydrocarbons)	2008/01/14	ND, RDL=100		ug/L	
		F3 (C16-C34 Hydrocarbons)	2008/01/14	ND, RDL=100		ug/L	
		F4 (C34-C50 Hydrocarbons)	2008/01/14	ND, RDL=100		ug/L	
	RPD	F2 (C10-C16 Hydrocarbons)	2008/01/14	NC		%	50
		F3 (C16-C34 Hydrocarbons)	2008/01/14	NC		%	50
		F4 (C34-C50 Hydrocarbons)	2008/01/14	NC		%	50

ND = Not detected
NC = Non-calculable
RPD = Relative Percent Difference
SPIKE = Fortified sample
(1) The recoveries for acetone and methyl ethyl ketone were above the upper control limits for the matrix spike. The recoveries were in control for the Spiked Blank. Responses for ketone compounds are highly matrix dependent. The high recoveries represent a potential high bias for these compounds for the spiked sample that may not necessarily apply to other samples reported.

6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: 905-817-5700 Toll free:800-563-6266 Fax: 905-817-5777

Validation Signature Page

Maxxam Job #: A802259

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

EWA PRANJIC, M.Sc., C.Chem, Scientific Specialist

MEDHAT RISKALLAH, Manager, Hydrocarbon Department

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CAEAL have approved this reporting process and electronic report format.

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9-Jan-08 14:41
CHRISTINE MCLEAN
A802259
DKN ENV-938

Maxxam Analytics Inc
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: (905) 817-5700 Toll-free: 800-563-6266 Fax: (905) 817-5779 www.maxxamanalytics.com

CHAIN OF CUSTODY RECORD

Report [redacted] INFORMATION
Company Name: #6389 CPG-Franz Inc
Contact Name: [redacted] René Delvies
Address: 15-260 Shields Crt
Markham ON L3R 9W7
Phone: (905)470-6570 Fax: (905)470-0958
Email: rdevries[redacted]@franzenvironmental.com

Invoice [redacted] INFORMATION (if differs from Invoice)
Company Name: Wardrop
Contact Name: Kashif Khan
Address: 6725 Airport rd. 6th Floor
Mississauga, Ont. L4V 1V2
Phone: 905-673-3788 Fax: 905-673-8007
Email: [redacted] kashif.khan@wardrop.com

PROJECT INFORMATION
Quotation #: A63555
P.O. #:
Project #: 5573
Project Name: 3005 Dundas st.W., Oakville
Site Location: Shel
Sampled By: Carl Frankruyter

BOTT 54286
CHAIN OF CUSTODY #: C#54286-01-01
PROJECT MANAGER: CHRISTINE MCLEAN

REGULATORY CRITERIA
☐ MISA Reg. 153/04: ☐ Table 1 ☒ Table 2 ☐ Table 3 ☐ Table 6 Sewer Use: ☐ Sanitary ☐ Storm ☐ Combined
☐ PWQO
☐ Reg 558 Municipality: ____
Other (specify): ____

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

SPECIAL INSTRUCTIONS
Small bubbles may be present in vials due to degassing.
- Small amounts of sediment in some bottles due to nature of water.

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

ANALYSIS REQUESTED (Please be specific)
RUSH ANALYSIS & TAT: 1 day ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ / 2 day ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ / 3 day ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

TURNAROUND TIME (TAT) REQUIRED:
PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Regular (Standard) TAT: ☒
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.
Job Specific Rush TAT (if applies to entire submission) ☐
Date Required: ____
Time Required: ____
Rush Confirmation Number: ____ (call lab for #)

#	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Regulated Drinking Water (Y/N)	Metals Require Lab Filtering (Y/N)	Rush Sample (Select samples)	F1-F4 and BTEX	Dissolved Lead by ICPMS	Volatile Organic Compounds in Water	Matrix (GW, SW, Soil etc.)	# of Bottles	Expected Concentration High Low	Comments
1		BH1	Jan 8/08	11:00	N	N	☐	X			GW	5	☐ ☐	
2		BH2		11:15		N	☐	X				5	☐ ☐	
3		BH3		11:30		N	☐	X	X	X		9	☐ ☐	Metals Field Filtered
4		BH4		11:45		N	☐	X	X	X		9	☐ ☐	↓ ↓ ↓
5		BH5		12:00		N	☐	X				5	☐ ☐	
6		BH6		12:15		N	☐	X	X	X		9	☐ ☐	Metals Field Filtered
7		FB		12:30		N	☐	X	X	X		9	☐ ☐	
8		Dup	↓	N/A		N	☐	X	X	X		9	☐ ☐	
9		Trip Blank	Lab supplied			N	☐	X	X	X		9	☐ ☐	
10		Trip Spike	↓	↓	↓	N	☐	X	X	X	↓	9	☐ ☐	

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	Temperature (°C) on Receipt	Custody Seal Intact on Cooler
Carl Frankruyter	Jan 9/08	8:00 am.	[illegible]	08/01/09	14:41	2/2/1 1/1/5 °C	☐ Yes ☐ No

Laboratory Use Only: Condition of Sample on Receipt ☐ OK ☐ SF

White: Maxxam Yellow: Client

* MANDATORY SECTIONS IN GREY MUST BE FILLED OUT. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

DATA QUALITY REVIEW CHECKLIST

Consultant: *Wardrop Engineering Inc.* Sampling Date: *January 8, 2008*

Location: *3005 Dundas Street, Oakville, Ontario* Laboratory : *Maxxam Analytics Inc.*

Consultant Project Number: *08134801-01* Maxxam Job Number: *A802259*

Are All Laboratory QC Samples Within Acceptance Criteria (Yes, No, Not Applicable)?

	Yes	No	NA	Comments
Instrument Surrogate Recovery	X			*- all lab QC have met acceptance criteria*
Extraction Surrogate Recovery	X			
Method Blank Concentration	X			
Matrix Duplicate RPD	X			
Matrix Spike Recovery	X			
Lab Control Sample Recovery	X			

Are All Field QC Samples Within Alert Limits (Yes, No, Not Applicable)?

	Yes	No	NA	Comments
Field Blank Concentration	X			*- all field QC have met acceptance criteria*
Trip Blank Concentration	X			
Field Duplicate RPD	X			

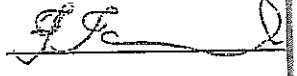
Has CoA been signed off (Yes/No)?:	*Yes*
Has lab warranted all tests were in statistical control in CoA (Yes/No)?:	*Yes*
Has lab warranted all tests were analyzed following SOP's in CoA (Yes/No)?:	*Yes*
Were all samples analyzed within hold times (Yes/No)?:	*Yes*
All volatiles samples methanol extracted (if required) within 48 hours (Yes/No)?:	*NA*
Is Chain of Custody completed and signed (Yes/No)?:	*Yes*
Were sample temperatures acceptable when they reached lab (Yes/No)?:	*Yes*

Was a Data Quality Waiver (DQW) issued (Yes/No)?: *No*

Date Issued: *NA* Date of Response: *NA*

Is data considered to be reliable (Yes/No)?: *Yes*

If answer is "No", describe and provide rationale:

Data Reviewed by (Print): *Fatema Tawawala* Data Reviewed by (Signature): 

Date: *January 21, 2008*

Your Project #: 0813480101
Site: 3005 DUNDAS ST. W. OAKVILLE
Your C.O.C. #: 00507484

Attention: Jeff Muir/Rene De Vries
Wardrop Environmental Inc
15-250 Shields Crt
Markham, ON
CANADA L3R 9W7

Report Date: 2008/04/11

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A832845
Received: 2008/04/04, 14:52

Sample Matrix: Soil
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Petroleum Hydro. CCME F1 & BTEX in Soil	2	2008/04/07	2008/04/08	CAM SOP-00315	CCME CWS
Petroleum Hydrocarbons F2-F4 in Soil	2	2008/04/07	2008/04/08	CAM SOP-00316	CCME CWS
Total Metals Analysis by ICP	2	2008/04/09	2008/04/09	CAM SOP-00408	EPA 6010
MOISTURE	2	N/A	2008/04/07	Ont SOP-0114	MOE HANDBOOK(1983)

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key RSzurski
Renata Szurski
11 Apr 2008 17:30:50 -04:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

RENATA SZURSKI, Project Manager
Email: Renata.Szurski@maxxamanalytics.com
Phone# (905) 817-5700 Ext:5818

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CAEAL have approved this reporting process and electronic report format.

For Service Group specific validation please refer to the Validation Signature Page

Total cover pages: 1

Maxxam Job #: A832845
Report Date: 2008/04/11

Wardrop Environmental Inc
Client Project #: 0813480101
Project name: 3005 DUNDAS ST. W. OAKVILLE
Sampler Initials:

O'REG 153 PETROLEUM HYDROCARBONS (SOIL)

Maxxam ID		X92904	X92905		
Sampling Date		2008/04/03 05:00	2008/04/03 11:00		
COC Number		00507484	00507484		
	Units	BH7-SS1	BH8-AS6	RDL	QC Batch
Inorganics					
Moisture	%	13	19	0.2	1488582
BTEX & F1 Hydrocarbons					
Benzene	ug/g	ND	ND	0.02	1488872
Toluene	ug/g	ND	ND	0.02	1488872
Ethylbenzene	ug/g	ND	ND	0.02	1488872
o-Xylene	ug/g	ND	ND	0.02	1488872
p+m-Xylene	ug/g	ND	ND	0.04	1488872
Total Xylenes	ug/g	ND	ND	0.04	1488872
F1 (C6-C10)	ug/g	ND	ND	10	1488872
F1 (C6-C10) - BTEX	ug/g	ND	ND	10	1488872
F2-F4 Hydrocarbons					
F2 (C10-C16 Hydrocarbons)	ug/g	ND	ND	10	1488898
F3 (C16-C34 Hydrocarbons)	ug/g	ND	ND	10	1488898
F4 (C34-C50 Hydrocarbons)	ug/g	ND	ND	10	1488898
Reached Baseline at C50	ug/g	Yes	Yes		1488898
Surrogate Recovery (%)					
1,4-Difluorobenzene	%	103	104		1488872
4-Bromofluorobenzene	%	95	95		1488872
D10-Ethylbenzene	%	116	119		1488872
D4-1,2-Dichloroethane	%	98	99		1488872
o-Terphenyl	%	83	77		1488898

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: A832845
Report Date: 2008/04/11

Wardrop Environmental Inc
Client Project #: 0813480101
Project name: 3005 DUNDAS ST. W. OAKVILLE
Sampler Initials:

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		X92904	X92905		
Sampling Date		2008/04/03 05:00	2008/04/03 11:00		
COC Number		00507484	00507484		
	Units	BH7-SS1	BH8-AS6	RDL	QC Batch
Metals					
Acid Extractable Lead (Pb)	ug/g	16	11	5	1489923

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: A832845
Report Date: 2008/04/11

Wardrop Environmental Inc
Client Project #: 0813480101
Project name: 3005 DUNDAS ST. W. OAKVILLE
Sampler Initials:

Package 1	-2.0°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Note: F1BTEX - all soils were Methanol extracted on 2008/04/05

Results relate only to the items tested.

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Wardrop Environmental Inc
Attention: Jeff Muir/Rene De Vries
Client Project #: 0813480101
P.O. #:
Project name: 3005 DUNDAS ST. W. OAKVILLE

Quality Assurance Report

Maxxam Job Number: MA832845

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1488582	HVP	RPD	Moisture	2008/04/07	5.8		%	50
1488872	AGA	MATRIX SPIKE	1,4-Difluorobenzene	2008/04/08		101	%	60 - 140
			4-Bromofluorobenzene	2008/04/08		97	%	60 - 140
			D10-Ethylbenzene	2008/04/08		116	%	30 - 130
			D4-1,2-Dichloroethane	2008/04/08		102	%	60 - 140
			Benzene	2008/04/08		99	%	60 - 140
			Toluene	2008/04/08		98	%	60 - 140
			Ethylbenzene	2008/04/08		94	%	60 - 140
			o-Xylene	2008/04/08		100	%	60 - 140
			p+m-Xylene	2008/04/08		101	%	60 - 140
			F1 (C6-C10)	2008/04/08		84	%	60 - 140
		Spiked Blank	1,4-Difluorobenzene	2008/04/08		104	%	60 - 140
			4-Bromofluorobenzene	2008/04/08		95	%	60 - 140
			D10-Ethylbenzene	2008/04/08		109	%	30 - 130
			D4-1,2-Dichloroethane	2008/04/08		98	%	60 - 140
			Benzene	2008/04/08		93	%	60 - 140
			Toluene	2008/04/08		93	%	60 - 140
			Ethylbenzene	2008/04/08		92	%	60 - 140
			o-Xylene	2008/04/08		96	%	60 - 140
			p+m-Xylene	2008/04/08		98	%	60 - 140
			F1 (C6-C10)	2008/04/08		130	%	60 - 140
		Method Blank	1,4-Difluorobenzene	2008/04/08		103	%	60 - 140
			4-Bromofluorobenzene	2008/04/08		95	%	60 - 140
			D10-Ethylbenzene	2008/04/08		111	%	30 - 130
			D4-1,2-Dichloroethane	2008/04/08		99	%	60 - 140
			Benzene	2008/04/08	ND, RDL=0.02		ug/g	
			Toluene	2008/04/08	ND, RDL=0.02		ug/g	
			Ethylbenzene	2008/04/08	ND, RDL=0.02		ug/g	
			o-Xylene	2008/04/08	ND, RDL=0.02		ug/g	
			p+m-Xylene	2008/04/08	ND, RDL=0.04		ug/g	
			Total Xylenes	2008/04/08	ND, RDL=0.04		ug/g	
			F1 (C6-C10)	2008/04/08	ND, RDL=10		ug/g	
			F1 (C6-C10) - BTEX	2008/04/08	ND, RDL=10		ug/g	
		RPD	Benzene	2008/04/08	NC		%	50
			Toluene	2008/04/08	NC		%	50
			Ethylbenzene	2008/04/08	NC		%	50
			o-Xylene	2008/04/08	NC		%	50
			p+m-Xylene	2008/04/08	NC		%	50
			Total Xylenes	2008/04/08	NC		%	50
			F1 (C6-C10)	2008/04/08	NC		%	50
			F1 (C6-C10) - BTEX	2008/04/08	NC		%	50
1488898	NCI	MATRIX SPIKE	o-Terphenyl	2008/04/08		91	%	30 - 130
			F2 (C10-C16 Hydrocarbons)	2008/04/08		92	%	60 - 130
			F3 (C16-C34 Hydrocarbons)	2008/04/08		92	%	60 - 130
			F4 (C34-C50 Hydrocarbons)	2008/04/08		92	%	60 - 130
		Spiked Blank	o-Terphenyl	2008/04/08		92	%	30 - 130
			F2 (C10-C16 Hydrocarbons)	2008/04/08		88	%	60 - 130
			F3 (C16-C34 Hydrocarbons)	2008/04/08		88	%	60 - 130
			F4 (C34-C50 Hydrocarbons)	2008/04/08		88	%	60 - 130
		Method Blank	o-Terphenyl	2008/04/08		93	%	30 - 130
			F2 (C10-C16 Hydrocarbons)	2008/04/08	ND, RDL=10		ug/g	
			F3 (C16-C34 Hydrocarbons)	2008/04/08	ND, RDL=10		ug/g	
			F4 (C34-C50 Hydrocarbons)	2008/04/08	ND, RDL=10		ug/g	
		RPD	F2 (C10-C16 Hydrocarbons)	2008/04/08	NC		%	50
			F3 (C16-C34 Hydrocarbons)	2008/04/08	NC		%	50

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Wardrop Environmental Inc
Attention: Jeff Muir/Rene De Vries
Client Project #: 0813480101
P.O. #:
Project name: 3005 DUNDAS ST. W. OAKVILLE

Quality Assurance Report (Continued)

Maxxam Job Number: MA832845

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1488898 NCI	RPD	F4 (C34-C50 Hydrocarbons)	2008/04/08	NC		%	50
1489923 KCO	MATRIX SPIKE	Acid Extractable Lead (Pb)	2008/04/09		79	%	75 - 125
	QC STANDARD	Acid Extractable Lead (Pb)	2008/04/09		96	%	75 - 125
	Method Blank	Acid Extractable Lead (Pb)	2008/04/09	ND, RDL=5		ug/g	
	RPD	Acid Extractable Lead (Pb)	2008/04/09	NC		%	35

ND = Not detected
NC = Non-calculable
RPD = Relative Percent Difference
QC Standard = Quality Control Standard
SPIKE = Fortified sample

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Validation Signature Page

Maxxam Job #: A832845

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

SUZANA POPOVIC, Supervisor, Hydrocarbons

TROY CARRIERE, B.Sc., C.Chem, Scientific Specialist

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CHAIN OF CUSTODY RECORD

Maxxam Analytics Inc. 6740 Campobello Road, Mississauga, ON L5N 2L8 Phone: 905-817-5700 Fax: 905-817-5778

Page 1 of 1

INVOICE INFORMATION	
Company Name:	Wardrop
Contact Name:	Kashif Khan
Address:	6725 Airport Rd, 6th Floor, Mississauga, ON L4V 1V2
Phone:	905-673-3788 Fax: 905-673-5507
Email:	kashif.khan@wardrop.com

REPORT INFORMATION (if differs from invoice)	
Company Name:	Wardrop
Contact Name:	René de Vries
Address:	250 Shields Ct., Unit 15, Markham, ON L3R 9W7
Phone:	905-470-1570 Fax: 905-470-0958
Email:	rene.devries@wardrop.com

PROJECT INFORMATION	
Quotation #:	As per Shell Contract
P.O. #:	N/A
Project #:	0813480101
Project Name:	Shell
Location:	3005 Dundas St W, Oakville
Sampled By:	K. Oullahan / J. Hur

MAXXAM JOB NUMBER

CHAIN OF CUSTODY #: 00 507...

REGULATORY CRITERIA

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

- [ ] MISA
- [ ] PWQO
- [ ] Reg. 558
- (Reg. 153) circled: [ ] Table 1, [X] Table 2, [ ] Table 3
- Sewer Use: [ ] Sanitary [ ] Storm, Region: ____
- [ ] Other ____ specify

Report Criteria on C of A? [ ]

SAMPLES MUST BE KEPT COOL (<10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM.

ANALYSIS REQUESTED (Please be specific)

4-Apr-08 14:52
TIM DAS
A832845
ABO ENV-781

Sample Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water? (Y / N)	Metals Field Filtered? (Y / N)	BTEX, F1	F2 - F4	Lead	# of Cont	Comments / TAT Comments
BH7-SS1	08/04/03	5:00	soil			X	X	X	3	void spaces may be present due to ... Hyd...
BH8-AS6	08/04/03	11:00	soil			X	X	X	3	" "

TURNAROUND TIME (TAT) REQUIRED

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Regular (Standard) TAT:
[X] 5 to 7 Working Days

Rush TAT: Rush Confirmation #: ____ (call lab for #)

[ ] 1 day [ ] 2 days [ ] 3 days

DATE Required: ____

TIME Required: ____

Please note that TAT for certain tests such as ... and ... are ... contact your Project Manager for details.

'08 APR 4 14:52

Custody Seal Intact

RELINQUISHED BY (Signature/Print)	RECEIVED BY (Signature/Print)	Date	Time
K. Oullahan (signature)		08/04/04	9:00
	S. ... Leelle	08/04/04	1452

Laboratory Use Only

Temperature (°C) on Receipt	Condition of Sample on Receipt
21-21-2 °C	[ ] OK [ ] Still

MANDATORY SECTIONS IN GREY MUST BE FILLED OUT. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

DATA QUALITY REVIEW CHECKLIST

Consultant: *Wardrop Engineering Inc.* Sampling Date: *April 3, 2008*

Location: *3005 Dundas Street, Oakville, Ontario* Laboratory : *Maxxam Analytics Inc.*

Consultant Project Number: *08134801-01* Maxxam Job Number: *A832845*

Are All Laboratory QC Samples Within Acceptance Criteria (Yes, No, Not Applicable)?

	Yes	No	NA	Comments
Instrument Surrogate Recovery	X			*- all lab QC have met acceptance criteria*
Extraction Surrogate Recovery	X			
Method Blank Concentration	X			
Matrix Duplicate RPD	X			
Matrix Spike Recovery	X			
Lab Control Sample Recovery	X			

Are All Field QC Samples Within Alert Limits (Yes, No, Not Applicable)?

	Yes	No	NA	Comments
Field Blank Concentration			X	
Trip Blank Concentration			X	
Field Duplicate RPD			X	

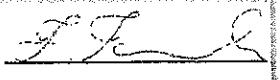
Has CoA been signed off (Yes/No)?:	*Yes*
Has lab warranted all tests were in statistical control in CoA (Yes/No)?:	*Yes*
Has lab warranted all tests were analyzed following SOP's in CoA (Yes/No)?:	*Yes*
Were all samples analyzed within hold times (Yes/No)?:	*Yes*
All volatiles samples methanol extracted (if required) within 48 hours (Yes/No)?:	*NA*
Is Chain of Custody completed and signed (Yes/No)?:	*Yes*
Were sample temperatures acceptable when they reached lab (Yes/No)?:	*Yes*

Was a Data Quality Waiver (DQW) issued (Yes/No)?: *No*

Date Issued: *NA* Date of Response: *NA*

Is data considered to be reliable (Yes/No)?: *Yes*

If answer is "No", describe and provide rationale:

Data Reviewed by (Print): *Fatema Tavawala* Data Reviewed by (Signature): 

Date: *April 24, 2008*

Your Project #: 08134801 SHELL-OAKVILLE
Site: 3005 DUNDAS STREET W
Your C.O.C. #: 00453712

Attention: Jeff Muir/Rene De Vries
Wardrop Environmental Inc
15-250 Shields Crt
Markham, ON
CANADA L3R 9W7

Report Date: 2008/04/14

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A834181
Received: 2008/04/08, 13:48

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Petroleum Hydro. CCME F1 & BTEX in Water	2	N/A	2008/04/11	CAM SOP-00315	CCME CWS
Petroleum Hydrocarbons F2-F4 in Water	2	2008/04/10	2008/04/10	CAM SOP-00316	CCME Hydrocarbons
Dissolved Metals by ICPMS	2	N/A	2008/04/11	CAM SOP-00447	EPA 6020
Volatile Organic Compounds in Water	2	N/A	2008/04/10	CAM SOP-00226	EPA 8260 modified

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key RSzurski
Renata Szurski
15 Apr 2008 17:12:10 -04:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

RENATA SZURSKI, Project Manager
Email: Renata.Szurski@maxxamanalytics.com
Phone# (905) 817-5700 Ext:5818

==========

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For Service Group specific validation please refer to the Validation Signature Page

Total cover pages: 1

Maxxam Job #: A834181
Report Date: 2008/04/14

Wardrop Environmental Inc
Client Project #: 08134801 SHELL-OAKVILLE
Project name: 3005 DUNDAS STREET W
Sampler Initials:

OREG 153 PETROLEUM HYDROCARBONS (WATER)

Maxxam ID		X98955	X98956		
Sampling Date		2008/04/07 15:30	2008/04/07 16:00		
COC Number		00453712	00453712		
	Units	BH 7	BH 8	RDL	QC Batch
BTEX & F1 Hydrocarbons					
F1 (C6-C10)	ug/L	ND	ND	100	1492407
F1 (C6-C10) - BTEX	ug/L	ND	ND	100	1492407
F2-F4 Hydrocarbons					
F2 (C10-C16 Hydrocarbons)	ug/L	ND	ND	100	1490901
F3 (C16-C34 Hydrocarbons)	ug/L	ND	ND	100	1490901
F4 (C34-C50 Hydrocarbons)	ug/L	ND	ND	100	1490901
Reached Baseline at C50	ug/L	Yes	Yes		1490901
Surrogate Recovery (%)					
1,4-Difluorobenzene	%	105	109		1492407
4-Bromofluorobenzene	%	97	96		1492407
D10-Ethylbenzene	%	104	110		1492407
D4-1,2-Dichloroethane	%	96	89		1492407
o-Terphenyl	%	93	93		1490901

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: A834181
Report Date: 2008/04/14

Wardrop Environmental Inc
Client Project #: 08134801 SHELL-OAKVILLE
Project name: 3005 DUNDAS STREET W
Sampler Initials:

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		X98955	X98956		
Sampling Date		2008/04/07 15:30	2008/04/07 16:00		
COC Number		00453712	00453712		
	Units	BH 7	BH 8	RDL	QC Batch
Metals					
Dissolved Lead (Pb)	ug/L	ND	ND	0.5	1491403

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: 905-817-5700 Toll free:800-563-6266 Fax: 905-817-5777

Maxxam Job #: A834181
Report Date: 2008/04/14

Wardrop Environmental Inc
Client Project #: 08134801 SHELL-OAKVILLE
Project name: 3005 DUNDAS STREET W
Sampler Initials:

VOLATILE ORGANICS BY GC/MS (WATER)

Maxxam ID		X98955		X98956		
Sampling Date		2008/04/07 15:30		2008/04/07 16:00		
COC Number		00453712		00453712		
	Units	BH 7	RDL	BH 8	RDL	QC Batch
Volatile Organics						
Benzene	ug/L	46	0.5	ND	0.1	1490892
Ethylbenzene	ug/L	2.0	0.5	ND	0.1	1490892
Methyl t-butyl ether (MTBE)	ug/L	7	1	0.7	0.2	1490892
Toluene	ug/L	ND	1	ND	0.2	1490892
p+m-Xylene	ug/L	ND	0.5	0.1	0.1	1490892
o-Xylene	ug/L	ND	0.5	ND	0.1	1490892
Xylene (Total)	ug/L	ND	0.5	0.1	0.1	1490892
Surrogate Recovery (%)						
4-Bromofluorobenzene	%	87		89		1490892
D4-1,2-Dichloroethane	%	106		112		1490892
D8-Toluene	%	96		98		1490892

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: 905-817-5700 Toll free:800-563-6266 Fax: 905-817-5777

Maxxam Job #: A834181
Report Date: 2008/04/14

Wardrop Environmental Inc
Client Project #: 08134801 SHELL-OAKVILLE
Project name: 3005 DUNDAS STREET W
Sampler Initials:

Package 1	1.7°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

F1BTEX analysis:
The BTEX results used for the F1-BTEX calculation were obtained from Headspace-GC analysis.

Sample X98955-01: VOC Analysis: Due to high concentrations of target analytes, sample required dilution. Detection limits were adjusted accordingly.

Results relate only to the items tested.

6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: 905-817-5700 Toll free:800-563-6266 Fax: 905-817-5777

Wardrop Environmental Inc
Attention: Jeff Muir/Rene De Vries
Client Project #: 08134801 SHELL-OAKVILLE
P.O. #:
Project name: 3005 DUNDAS STREET W

Quality Assurance Report

Maxxam Job Number: MA834181

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1490892 MAL	MATRIX SPIKE	4-Bromofluorobenzene	2008/04/10		96	%	70 - 130
		D4-1,2-Dichloroethane	2008/04/10		116	%	70 - 130
		D8-Toluene	2008/04/10		98	%	70 - 130
		Benzene	2008/04/10		98	%	70 - 130
		Ethylbenzene	2008/04/10		103	%	70 - 130
		Methyl t-butyl ether (MTBE)	2008/04/10		112	%	70 - 130
		Toluene	2008/04/10		102	%	70 - 130
		p+m-Xylene	2008/04/10		106	%	70 - 130
		o-Xylene	2008/04/10		112	%	70 - 130
	Spiked Blank	4-Bromofluorobenzene	2008/04/10		97	%	70 - 130
		D4-1,2-Dichloroethane	2008/04/10		117	%	70 - 130
		D8-Toluene	2008/04/10		100	%	70 - 130
		Benzene	2008/04/10		95	%	70 - 130
		Ethylbenzene	2008/04/10		97	%	70 - 130
		Methyl t-butyl ether (MTBE)	2008/04/10		107	%	70 - 130
		Toluene	2008/04/10		96	%	70 - 130
		p+m-Xylene	2008/04/10		100	%	70 - 130
		o-Xylene	2008/04/10		103	%	70 - 130
	Method Blank	4-Bromofluorobenzene	2008/04/10		90	%	70 - 130
		D4-1,2-Dichloroethane	2008/04/10		117	%	70 - 130
		D8-Toluene	2008/04/10		99	%	70 - 130
		Benzene	2008/04/10	ND, RDL=0.1		ug/L	
		Ethylbenzene	2008/04/10	ND, RDL=0.1		ug/L	
		Methyl t-butyl ether (MTBE)	2008/04/10	ND, RDL=0.2		ug/L	
		Toluene	2008/04/10	ND, RDL=0.2		ug/L	
		p+m-Xylene	2008/04/10	ND, RDL=0.1		ug/L	
		o-Xylene	2008/04/10	ND, RDL=0.1		ug/L	
		Xylene (Total)	2008/04/10	ND, RDL=0.1		ug/L	
	RPD	Benzene	2008/04/10	NC		%	40
		Ethylbenzene	2008/04/10	NC		%	40
		Toluene	2008/04/10	NC		%	40
		p+m-Xylene	2008/04/10	NC		%	40
		o-Xylene	2008/04/10	NC		%	40
		Xylene (Total)	2008/04/10	NC		%	40
1490901 JXI	MATRIX SPIKE	o-Terphenyl	2008/04/10		99	%	30 - 130
		F2 (C10-C16 Hydrocarbons)	2008/04/10		94	%	60 - 130
		F3 (C16-C34 Hydrocarbons)	2008/04/10		94	%	60 - 130
		F4 (C34-C50 Hydrocarbons)	2008/04/10		94	%	60 - 130
	Spiked Blank	o-Terphenyl	2008/04/10		96	%	30 - 130
		F2 (C10-C16 Hydrocarbons)	2008/04/10		94	%	60 - 130
		F3 (C16-C34 Hydrocarbons)	2008/04/10		94	%	60 - 130
		F4 (C34-C50 Hydrocarbons)	2008/04/10		94	%	60 - 130
	Method Blank	o-Terphenyl	2008/04/10		78	%	30 - 130
		F2 (C10-C16 Hydrocarbons)	2008/04/10	ND, RDL=100		ug/L	
		F3 (C16-C34 Hydrocarbons)	2008/04/10	ND, RDL=100		ug/L	
		F4 (C34-C50 Hydrocarbons)	2008/04/10	ND, RDL=100		ug/L	
	RPD	F2 (C10-C16 Hydrocarbons)	2008/04/10	NC		%	50
		F3 (C16-C34 Hydrocarbons)	2008/04/10	NC		%	50
		F4 (C34-C50 Hydrocarbons)	2008/04/10	NC		%	50
1491403 MIL	MATRIX SPIKE	Dissolved Lead (Pb)	2008/04/11		102	%	80 - 120
	Spiked Blank	Dissolved Lead (Pb)	2008/04/11		98	%	85 - 115
	Method Blank	Dissolved Lead (Pb)	2008/04/11	ND, RDL=0.5		ug/L	
	RPD	Dissolved Lead (Pb)	2008/04/11	NC		%	25
1492407 NBA	MATRIX SPIKE	1,4-Difluorobenzene	2008/04/11		109	%	70 - 130
		4-Bromofluorobenzene	2008/04/11		96	%	70 - 130

6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: 905-817-5700 Toll free:800-563-6266 Fax: 905-817-5777

Wardrop Environmental Inc
Attention: Jeff Muir/Rene De Vries
Client Project #: 08134801 SHELL-OAKVILLE
P.O. #:
Project name: 3005 DUNDAS STREET W

Quality Assurance Report (Continued)

Maxxam Job Number: MA834181

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1492407 NBA	MATRIX SPIKE	D10-Ethylbenzene	2008/04/11		109	%	70 - 130
		D4-1,2-Dichloroethane	2008/04/11		92	%	70 - 130
		F1 (C6-C10)	2008/04/11		95	%	70 - 130
	Spiked Blank	1,4-Difluorobenzene	2008/04/11		109	%	70 - 130
		4-Bromofluorobenzene	2008/04/11		97	%	70 - 130
		D10-Ethylbenzene	2008/04/11		110	%	70 - 130
		D4-1,2-Dichloroethane	2008/04/11		92	%	70 - 130
		F1 (C6-C10)	2008/04/11		99	%	70 - 130
	Method Blank	1,4-Difluorobenzene	2008/04/11		109	%	70 - 130
		4-Bromofluorobenzene	2008/04/11		97	%	70 - 130
		D10-Ethylbenzene	2008/04/11		107	%	70 - 130
		D4-1,2-Dichloroethane	2008/04/11		92	%	70 - 130
		F1 (C6-C10)	2008/04/11	ND, RDL=100		ug/L	
		F1 (C6-C10) - BTEX	2008/04/11	ND, RDL=100		ug/L	
	RPD	F1 (C6-C10)	2008/04/11	NC		%	40
		F1 (C6-C10) - BTEX	2008/04/11	NC		%	40

ND = Not detected
NC = Non-calculable
RPD = Relative Percent Difference
SPIKE = Fortified sample

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Validation Signature Page

Maxxam Job #: A834181

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

CHRISTINA NERVO, Scientific Services

MEDHAT RISKALLAH, Manager, Hydrocarbon Department

MAMDOUH SALIB, Analyst, Hydrocarbons

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6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: 905-817-5700 Toll free:800-563-6266 Fax: 905-817-5777

CHAIN OF CUSTODY RECORD

Maxxam

Page 1 of 1

INVOICE INFORMATION
Company Name: WARDROP
Contact Name: Kashif Khan
Address: 6725 Airport Road 6th Flr, Mississauga ON L4V 1V2
Phone: 905-673-3788 Fax: 905-673-8007
Email: Kashif.Khan@wardrop.com

REPORT INFORMATION (if differs from invoice)
Company Name: WARDROP
Contact Name: René de Vries
Address: 290 Shields Court #15, Markham ON L3R 9W7
Phone: 905-470-6570 Fax: 905-470-6958
Email: rene.devries@wardrop.com

PROJECT INFORMATION
Quotation #: As per Shell contract
PO #: NA
Project #: 08134801
Project Name: Shell - Oakville
Location: 3005 Dundas Street W, Oakville, ON
Sampled By: H. Saeed.

MAXXAM JOB NUMBER

CHAIN OF CUSTODY # 00453712

REGULATORY CRITERIA

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form.

- [ ] MISA
- [ ] PWQO
- [ ] Reg. 558
- Reg. 153: [ ] Table 1 [X] Table 2 [ ] Table 3
- Sewer Use: [ ] Sanitary [ ] Storm; Region:
- [ ] Other (specify)
- Report Criteria on C of A? [ ]

SAMPLES MUST BE KEPT COOL (<10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM.

ANALYSIS REQUESTED (Please be specific)

	Sample Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water? (Y / N)	Metals Field Filtered? (Y / N)	BTEX - F1	F2 - F4	LEAD	MTBE	# of Cont.
1	BH7	03/04/08	15:30	GW			X	X	X	X	9
2	BH8	↓	16:00	↓			X	X	X	X	9
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											

8-Apr-08 13:48
RENATA SZURSKI
A834181
CCO ENV-895

TURNAROUND TIME (TAT) REQUIRED

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS.

Regular (Standard) TAT: [X] 5 to 7 Working Days

Rush TAT: Rush Confirmation #: (call lab for #)
[ ] 1 day [ ] 2 days [ ] 3 days

DATE Required:

TIME Required:

Please note that TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

COMMENTS / TAT COMMENTS

* Small air bubbles may be present due to degassing
* small amount of sediment may be present due to water type

'08 APR 8 13:48

RELINQUISHED BY (Signature/Print)	RECEIVED BY (Signature/Print)	Date	Time
[signature]		08/04/08	9.00am
	[signature]	08/04/08	13:48

Laboratory Use Only

Temperature (°C) on Receipt	Condition of Sample on Receipt
4/2/1 °C	[ ] OK [ ] SF

*MANDATORY SECTIONS IN GREY MUST BE FILLED OUT. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

DATA QUALITY REVIEW CHECKLIST

Consultant: *Wardrop Engineering Inc.* Sampling Date: *April 7, 2008*

Location: *3005 Dundas Street, Oakville, Ontario* Laboratory : *Maxxam Analytics Inc.*

Consultant Project Number: *08134801-01* Maxxam Job Number: *A834181*

Are All Laboratory QC Samples Within Acceptance Criteria (Yes, No, Not Applicable)?

	Yes	No	NA	Comments
Instrument Surrogate Recovery	X			- *all lab QC have met acceptance criteria*
Extraction Surrogate Recovery	X			
Method Blank Concentration	X			
Matrix Duplicate RPD	X			
Matrix Spike Recovery	X			
Lab Control Sample Recovery	X			

Are All Field QC Samples Within Alert Limits (Yes, No, Not Applicable)?

	Yes	No	NA	Comments
Field Blank Concentration			X	
Trip Blank Concentration			X	
Field Duplicate RPD			X	

Has CoA been signed off (Yes/No)?:	*Yes*
Has lab warranted all tests were in statistical control in CoA (Yes/No)?:	*Yes*
Has lab warranted all tests were analyzed following SOP's in CoA (Yes/No)?:	*Yes*
Were all samples analyzed within hold times (Yes/No)?:	*Yes*
All volatiles samples methanol extracted (if required) within 48 hours (Yes/No)?:	*NA*
Is Chain of Custody completed and signed (Yes/No)?:	*Yes*
Were sample temperatures acceptable when they reached lab (Yes/No)?:	*Yes*

Was a Data Quality Waiver (DQW) issued (Yes/No)?: *No*

Date Issued: *NA* Date of Response: *NA*

Is data considered to be reliable (Yes/No)?: *Yes*

If answer is "No", describe and provide rationale:

Data Reviewed by (Print): *Fatema Tavawala* Data Reviewed by (Signature):

Date: *April 25, 2008*

Your Project #: 08134801 SHELL-OAKVILLE
Site: 3005 DUNDAS STREET W
Your C.O.C. #: 444225

Attention: Jeff Muir/Rene De Vries
Wardrop Environmental Inc
15-250 Shields Crt
Markham, ON
CANADA L3R 9W7

Report Date: 2008/05/08

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A834233
Received: 2008/04/08, 14:19

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Petroleum Hydro. CCME F1 & BTEX in Water	3	N/A	2008/04/09	CAM SOP-00315	CCME CWS
Petroleum Hydrocarbons F2-F4 in Water	3	2008/04/09	2008/04/10	CAM SOP-00316	CCME Hydrocarbons
Dissolved Metals by ICPMS	2	N/A	2008/04/10	CAM SOP-00447	EPA 6020
Dissolved Metals by ICPMS	1	N/A	2008/04/11	CAM SOP-00447	EPA 6020
Volatile Organic Compounds in Water	2	N/A	2008/04/10	CAM SOP-00226	EPA 8260 modified

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key Christine McLean 08 May 2008 16:22:05 -04:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

RENATA SZURSKI, Project Manager
Email: Renata.Szurski@maxxamanalytics.com
Phone# (905) 817-5700 Ext:5818

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CAEAL have approved this reporting process and electronic report format.

For Service Group specific validation please refer to the Validation Signature Page

Total cover pages: 1

6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: 905-817-5700 Toll free:800-563-6266 Fax: 905-817-5777

Maxxam Job #: A834233
Report Date: 2008/05/08

Wardrop Environmental Inc
Client Project #: 08134801 SHELL-OAKVILLE
Project name: 3005 DUNDAS STREET W
Sampler Initials:

OREG 153 PETROLEUM HYDROCARBONS (WATER)

Maxxam ID		X99117	X99118		X99119		
Sampling Date		2008/04/07	2008/03/13		2008/04/01		
COC Number		444225	444225		444225		
	Units	FB	TRIP BLANK	RDL	TRIP SPIKE	RDL	QC Batch
BTEX & F1 Hydrocarbons							
Benzene	ug/L			N/A	75	N/A	1490678
Toluene	ug/L			N/A	75	N/A	1490678
Ethylbenzene	ug/L			N/A	76	N/A	1490678
o-Xylene	ug/L			N/A	81	N/A	1490678
p+m-Xylene	ug/L			N/A	87	N/A	1490678
F1 (C6-C10)	ug/L	ND	ND	100		100	1490678
F1 (C6-C10) - BTEX	ug/L	ND	ND	100		100	1490678
F2-F4 Hydrocarbons							
F2 (C10-C16 Hydrocarbons)	ug/L	ND	ND	100	97	N/A	1490679
F3 (C16-C34 Hydrocarbons)	ug/L	ND	ND	100	97	N/A	1490679
F4 (C34-C50 Hydrocarbons)	ug/L	ND	ND	100	97	N/A	1490679
Reached Baseline at C50	ug/L	Yes	Yes		Yes		1490679
Surrogate Recovery (%)							
1,4-Difluorobenzene	%	92	93		86		1490678
4-Bromofluorobenzene	%	95	93		89		1490678
D10-Ethylbenzene	%	89	90		88		1490678
D4-1,2-Dichloroethane	%	97	100		95		1490678
o-Terphenyl	%	115	111		111		1490679

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: A834233
Report Date: 2008/05/08

Wardrop Environmental Inc
Client Project #: 08134801 SHELL-OAKVILLE
Project name: 3005 DUNDAS STREET W
Sampler Initials:

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		X99117		X99118	X99119		
Sampling Date		2008/04/07		2008/03/31	2008/03/19		
COC Number		444225		444225	444225		
	Units	FB	QC Batch	TRIP BLANK	TRIP SPIKE	RDL	QC Batch
Metals							
Dissolved Lead (Pb)	ug/L	ND	1491403	ND	98	0.5	1491101

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: A834233
Report Date: 2008/05/08

Wardrop Environmental Inc
Client Project #: 08134801 SHELL-OAKVILLE
Project name: 3005 DUNDAS STREET W
Sampler Initials:

VOLATILE ORGANICS BY GC/MS (WATER)

Maxxam ID		X99117	X99118		
Sampling Date		2008/04/07	2008/04/02		
COC Number		444225	444225		
	Units	FB	TRIP BLANK	RDL	QC Batch
Volatile Organics					
Benzene	ug/L	ND	ND	0.1	1490892
Ethylbenzene	ug/L	ND	ND	0.1	1490892
Methyl t-butyl ether (MTBE)	ug/L	ND	ND	0.2	1490892
Toluene	ug/L	ND	ND	0.2	1490892
p+m-Xylene	ug/L	ND	ND	0.1	1490892
o-Xylene	ug/L	ND	ND	0.1	1490892
Xylene (Total)	ug/L	ND	ND	0.1	1490892
Surrogate Recovery (%)					
4-Bromofluorobenzene	%	91	88		1490892
D4-1,2-Dichloroethane	%	115	112		1490892
D8-Toluene	%	97	96		1490892

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: 905-817-5700 Toll free:800-563-6266 Fax: 905-817-5777

Maxxam Job #: A834233
Report Date: 2008/05/08

Wardrop Environmental Inc
Client Project #: 08134801 SHELL-OAKVILLE
Project name: 3005 DUNDAS STREET W
Sampler Initials:

Package 1	1.3°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Sample X99117-01: F1/BTEX Analysis: The BTEX results used for the F1-BTEX calculation were obtained from Headspace-GC analysis.

Sample X99118-01: F1/BTEX Analysis: The BTEX results used for the F1-BTEX calculation were obtained from Headspace-GC analysis.

Sample X99119-01: Trip spike results are expressed as percentage recovery of the spiked amounts.

Results relate only to the items tested.

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Wardrop Environmental Inc
Attention: Jeff Muir/Rene De Vries
Client Project #: 08134801 SHELL-OAKVILLE
P.O. #:
Project name: 3005 DUNDAS STREET W

Quality Assurance Report

Maxxam Job Number: MA834233

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1490678 DTI	MATRIX SPIKE	1,4-Difluorobenzene	2008/04/09		94	%	70 - 130
		4-Bromofluorobenzene	2008/04/09		96	%	70 - 130
		D10-Ethylbenzene	2008/04/09		86	%	70 - 130
		D4-1,2-Dichloroethane	2008/04/09		99	%	70 - 130
		Benzene	2008/04/09		79	%	70 - 130
		Toluene	2008/04/09		89	%	70 - 130
		Ethylbenzene	2008/04/09		89	%	70 - 130
		o-Xylene	2008/04/09		92	%	70 - 130
		p+m-Xylene	2008/04/09		103	%	70 - 130
		F1 (C6-C10)	2008/04/09		97	%	70 - 130
	Spiked Blank	1,4-Difluorobenzene	2008/04/09		97	%	70 - 130
		4-Bromofluorobenzene	2008/04/09		100	%	70 - 130
		D10-Ethylbenzene	2008/04/09		92	%	70 - 130
		D4-1,2-Dichloroethane	2008/04/09		98	%	70 - 130
		Benzene	2008/04/09		81	%	70 - 130
		Toluene	2008/04/09		87	%	70 - 130
		Ethylbenzene	2008/04/09		88	%	70 - 130
		o-Xylene	2008/04/09		91	%	70 - 130
		p+m-Xylene	2008/04/09		100	%	70 - 130
		F1 (C6-C10)	2008/04/09		112	%	70 - 130
	Method Blank	1,4-Difluorobenzene	2008/04/09		96	%	70 - 130
		4-Bromofluorobenzene	2008/04/09		93	%	70 - 130
		D10-Ethylbenzene	2008/04/09		91	%	70 - 130
		D4-1,2-Dichloroethane	2008/04/09		95	%	70 - 130
		Benzene	2008/04/09	ND, RDL=0.2		ug/L	
		Toluene	2008/04/09	ND, RDL=0.2		ug/L	
		Ethylbenzene	2008/04/09	ND, RDL=0.2		ug/L	
		o-Xylene	2008/04/09	ND, RDL=0.2		ug/L	
		p+m-Xylene	2008/04/09	ND, RDL=0.4		ug/L	
		F1 (C6-C10)	2008/04/09	ND, RDL=100		ug/L	
		F1 (C6-C10) - BTEX	2008/04/09	ND, RDL=100		ug/L	
	RPD	Benzene	2008/04/09	NC		%	40
		Toluene	2008/04/09	NC		%	40
		Ethylbenzene	2008/04/09	NC		%	40
		o-Xylene	2008/04/09	NC		%	40
		p+m-Xylene	2008/04/09	NC		%	40
		F1 (C6-C10)	2008/04/09	NC		%	40
		F1 (C6-C10) - BTEX	2008/04/09	NC		%	40
1490679 DPO	MATRIX SPIKE	o-Terphenyl	2008/04/10		128	%	30 - 130
		F2 (C10-C16 Hydrocarbons)	2008/04/10		105	%	60 - 130
		F3 (C16-C34 Hydrocarbons)	2008/04/10		105	%	60 - 130
		F4 (C34-C50 Hydrocarbons)	2008/04/10		105	%	60 - 130
	Spiked Blank	o-Terphenyl	2008/04/10		123	%	30 - 130
		F2 (C10-C16 Hydrocarbons)	2008/04/10		104	%	60 - 130
		F3 (C16-C34 Hydrocarbons)	2008/04/10		104	%	60 - 130
		F4 (C34-C50 Hydrocarbons)	2008/04/10		104	%	60 - 130
	Method Blank	o-Terphenyl	2008/04/10		115	%	30 - 130
		F2 (C10-C16 Hydrocarbons)	2008/04/10	ND, RDL=100		ug/L	
		F3 (C16-C34 Hydrocarbons)	2008/04/10	ND, RDL=100		ug/L	
		F4 (C34-C50 Hydrocarbons)	2008/04/10	ND, RDL=100		ug/L	
	RPD	F2 (C10-C16 Hydrocarbons)	2008/04/10	12.1		%	50
		F3 (C16-C34 Hydrocarbons)	2008/04/10	4.9		%	50
		F4 (C34-C50 Hydrocarbons)	2008/04/10	10.3		%	50
1490892 MAL	MATRIX SPIKE	4-Bromofluorobenzene	2008/04/10		96	%	70 - 130
		D4-1,2-Dichloroethane	2008/04/10		116	%	70 - 130

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Wardrop Environmental Inc
Attention: Jeff Muir/Rene De Vries
Client Project #: 08134801 SHELL-OAKVILLE
P.O. #:
Project name: 3005 DUNDAS STREET W

Quality Assurance Report (Continued)

Maxxam Job Number: MA834233

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1490892 MAL	MATRIX SPIKE	D8-Toluene	2008/04/10		98	%	70 - 130
		Benzene	2008/04/10		98	%	70 - 130
		Ethylbenzene	2008/04/10		103	%	70 - 130
		Methyl t-butyl ether (MTBE)	2008/04/10		112	%	70 - 130
		Toluene	2008/04/10		102	%	70 - 130
		p+m-Xylene	2008/04/10		106	%	70 - 130
		o-Xylene	2008/04/10		112	%	70 - 130
	Spiked Blank	4-Bromofluorobenzene	2008/04/10		97	%	70 - 130
		D4-1,2-Dichloroethane	2008/04/10		117	%	70 - 130
		D8-Toluene	2008/04/10		100	%	70 - 130
		Benzene	2008/04/10		95	%	70 - 130
		Ethylbenzene	2008/04/10		97	%	70 - 130
		Methyl t-butyl ether (MTBE)	2008/04/10		107	%	70 - 130
		Toluene	2008/04/10		96	%	70 - 130
		p+m-Xylene	2008/04/10		100	%	70 - 130
		o-Xylene	2008/04/10		103	%	70 - 130
	Method Blank	4-Bromofluorobenzene	2008/04/10		90	%	70 - 130
		D4-1,2-Dichloroethane	2008/04/10		117	%	70 - 130
		D8-Toluene	2008/04/10		99	%	70 - 130
		Benzene	2008/04/10	ND, RDL=0.1		ug/L	
		Ethylbenzene	2008/04/10	ND, RDL=0.1		ug/L	
		Methyl t-butyl ether (MTBE)	2008/04/10	ND, RDL=0.2		ug/L	
		Toluene	2008/04/10	ND, RDL=0.2		ug/L	
		p+m-Xylene	2008/04/10	ND, RDL=0.1		ug/L	
		o-Xylene	2008/04/10	ND, RDL=0.1		ug/L	
		Xylene (Total)	2008/04/10	ND, RDL=0.1		ug/L	
	RPD	Benzene	2008/04/10	NC		%	40
		Ethylbenzene	2008/04/10	NC		%	40
		Toluene	2008/04/10	NC		%	40
		p+m-Xylene	2008/04/10	NC		%	40
		o-Xylene	2008/04/10	NC		%	40
		Xylene (Total)	2008/04/10	NC		%	40
1491101 MIL	MATRIX SPIKE	Dissolved Lead (Pb)	2008/04/10		105	%	80 - 120
	Spiked Blank	Dissolved Lead (Pb)	2008/04/10		99	%	85 - 115
	Method Blank	Dissolved Lead (Pb)	2008/04/10	ND, RDL=0.5		ug/L	
	RPD	Dissolved Lead (Pb)	2008/04/10	NC		%	25
1491403 MIL	MATRIX SPIKE	Dissolved Lead (Pb)	2008/04/11		102	%	80 - 120
	Spiked Blank	Dissolved Lead (Pb)	2008/04/11		98	%	85 - 115
	Method Blank	Dissolved Lead (Pb)	2008/04/11	ND, RDL=0.5		ug/L	
	RPD	Dissolved Lead (Pb)	2008/04/11	NC		%	25

ND = Not detected
NC = Non-calculable
RPD = Relative Percent Difference
SPIKE = Fortified sample

6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: 905-817-5700 Toll free:800-563-6266 Fax: 905-817-5777

Validation Signature Page

Maxxam Job #: A834233

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

BRAD NEWMAN, Scientific Specialist

MEDHAT RISKALLAH, Manager, Hydrocarbon Department

SUZANA POPOVIC, Supervisor, Hydrocarbons

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CAEAL have approved this reporting process and electronic report format.

6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: 905-817-5700 Toll free:800-563-6266 Fax: 905-817-5777

Maxxam 6740 Campobello Road, Mississauga, ON L5N 2L8 Phone: 905-817-5700 Fax: 905-817-5778 Toll Free: (800) 563-6266

CHAIN OF CUSTODY RECORD

Page 1 of 1

INVOICE INFORMATION

Company Name: WARDROP
Contact Name: Kashif Khan
Address: 6725 Airport Road, 6th Floor, Mississauga, ON L4V 1V2
Phone: 905-673-3788 Fax: 905-673-8007
Email: kashif.khan@wardrop.com

REPORT INFORMATION (if differs from invoice)

Company Name: WARDROP
Contact Name: René de Vries
Address: 250 Shields Court #15, Markham, ON L3R 9W7
Phone: 905-470-6570 Fax: 905-470-0958
Email: rene.devries@wardrop.com

PROJECT INFORMATION

Quotation #: As Per Shell contract
PO #: NA
Project #: 08134801
Project Name: Shell - Oakville
Location: 3005 Dundas Street W, Oakville, ON
Sampled By: H. Saeed

MAXXAM JOB NUMBER

CHAIN OF CUSTODY # 00444225

REGULATORY CRITERIA

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

- [ ] MISA
- Reg. 153: [ ] Table 1, [X] Table 2, [ ] Table 3
- Sewer Use: Sanitary, [ ] Storm, Region:
- [ ] Other (specify)
- PWQO
- [ ] Reg. 558
- Report Criteria on C of A? [ ]

SAMPLES MUST BE KEPT COOL (<10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM.

ANALYSIS REQUESTED (Please be specific)

#	Sample Identification	Date Sampled	Time Sampled	Matrix (GW, SW, Soil, etc.)	Regulated Drinking Water? (Y / N)	Metals Field Filtered? (Y / N)	BTEX-F1	F2-F4	LEAD	MTBE	# of Cont.
1	FB	08/04/07	1715	GW			X	X	X	X	8
2	TRIP BLANK	*	*	↓			X	X	X	X	8
3	TRIP SPIKE	**	**	↓			X	X	X		5
4											
5											
6											
7											
8											
9											
10											
11											
12											

TURNAROUND TIME (TAT) REQUIRED

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS.

Regular (Standard) TAT: [X] 5 to 7 Working Days

Rush TAT: Rush Confirmation #: ______ (call Lab for #)

[ ] 1 day [ ] 2 days [ ] 3 days

DATE Req
TIME Req

Please note that TAT is not your Project

8-Apr-08 14:19
RENATA SZURSKI
A834233
KS ENV-702

'08 APR 8 14:19

*	DATE	TIME
F2-F4	2008/03/20	1:15pm
METALS	2008/03/31	N/A
VOC's	2008/04/02	N/A
F1/BTEX	2008/03/13	N/A

**	DATE	TIME
METALS	MAR 19, 2008	NA
F2-F4	2008/04/03	3:00
VOCs	2008/04/01	[illegible]

RELINQUISHED BY (Signature/Print)	RECEIVED BY (Signature/Print)	Date	Time
[signature]		08/04/08	9:00am
	[signature]	08/04/08	14:19

Laboratory Use Only

Temperature (°C) on Receipt: 1/1/2 °C
Condition of Sample on Receipt: [ ] OK [ ] SIF

*MANDATORY SECTIONS IN GREY MUST BE FILLED OUT. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

ENV-COC-[illegible]

White: Maxxam Yellow: Mail Pink: Client

DATA QUALITY REVIEW CHECKLIST

Consultant: *Wardrop Engineering Inc.* Sampling Date: *April 7, 2008*

Location: *3005 Dundas Street, Oakville, Ontario* Laboratory : *Maxxam Analytics Inc.*

Consultant Project Number: *08134801-01* Maxxam Job Number: *A834233*

Are All Laboratory QC Samples Within Acceptance Criteria (Yes, No, Not Applicable)?

	Yes	No	NA	Comments
Instrument Surrogate Recovery	X			- *all lab QC have met acceptance criteria*
Extraction Surrogate Recovery	X			
Method Blank Concentration	X			
Matrix Duplicate RPD	X			
Matrix Spike Recovery	X			
Lab Control Sample Recovery	X			

Are All Field QC Samples Within Alert Limits (Yes, No, Not Applicable)?

	Yes	No	NA	Comments
Field Blank Concentration	X			- *all field QC have met acceptance criteria*
Trip Blank Concentration	X			
Field Duplicate RPD			X	

Has CoA been signed off (Yes/No)?:	*Yes*
Has lab warranted all tests were in statistical control in CoA (Yes/No)?:	*Yes*
Has lab warranted all tests were analyzed following SOP's in CoA (Yes/No)?:	*Yes*
Were all samples analyzed within hold times (Yes/No)?:	*Yes*
All volatiles samples methanol extracted (if required) within 48 hours (Yes/No)?:	*NA*
Is Chain of Custody completed and signed (Yes/No)?:	*Yes*
Were sample temperatures acceptable when they reached lab (Yes/No)?:	*Yes*

Was a Data Quality Waiver (DQW) issued (Yes/No)?: *No*

Date Issued: *NA* Date of Response: *NA*

Is data considered to be reliable (Yes/No)?: *Yes*

If answer is "No", describe and provide rationale:

Data Reviewed by (Print): *Fatema Tawawala* Data Reviewed by (Signature):

Date: *May 8, 2008*

APPENDIX D

SAMPLING METHODOLOGY

Sampling Methodology
Summary of Wardrop Engineering Inc.
General Practices for Soil and Ground Water Sampling

Sampling Activity	Section	General Practices
Organic Vapour Meter (OVM)	A	- A catalytic explosimeter with methane exclusion capability (eg: the Gastech 1238ME) is used as the instrument for measuring the organic vapours in soil. - The Gastech used, is at a minimum, calibrated daily, prior to use in the field. - The standard practice for measuring the soil vapour is to fill a plastic sealed bag 1/4 full and allow the soil to equilibrate for 30 minutes at a minimum of 15 degrees Celsius before measurement of the peak headspace vapour concentration. - The Organic Vapour Meter (OVM) concentration in the bagged soil sample's headspaces is carried out with the Gastech 1238ME in parts per million (ppm) or as a percentage of the lower explosive limit (% LEL) of equivalent hexane vapour. A reading of 110 ppm is the equivalent of 1% LEL. The gas detector is set to screen out a response due to methane gas.
Discrete Soil Sampling	B	- Discrete samples are taken from a single sampling location, over as short a time period as possible. - Each sample is examined and described in the field for colour, texture, and olfactory/visual evidence of petroleum hydrocarbon impact. - Discrete samples are used for all parameters that are wholly or partially composed of volatile organic fractions. - Homogenization of discrete samples being submitted for laboratory analysis is not conducted.
Composite Soil Sampling	C	- Composite samples are taken from multiple sampling locations over as short a time period as practical. - Composite samples cannot be used for parameters with volatile organic fractions. They can be used for non-volatile organic and inorganic parameters. - Homogenization of composite samples being submitted for laboratory analysis is not carried out.
Sample Handling	D	- Contact or handling of the soil is minimized at all times by use of gloves or plastic sampling materials. Stainless steel sampling devices are utilized. - The top layer of soil is discarded to expose a fresh face of soil for sampling. - Bottles being submitted to the laboratory for volatiles analysis have "zero headspace". Zero headspace is used for all analyses (including non-volatile organic and inorganic parameters), assuming sufficient soil volumes are available to completely fill the bottles for these parameters. Settlement due to wet or un-compactable soil samples can occur. - Samples being submitted to the laboratory for organic parameter analysis have contact with plastics minimized. - Soil samples used for field vapour screening are not submitted for laboratory analysis of organic parameters.

Sampling Methodology
Summary of Wardrop Engineering Inc.
General Practices for Soil and Ground Water Sampling

Sampling Activity	Section	General Practices
Sample Bottles, Preservation, and Shipment	E	- All samples submitted to the laboratory are subjected to internal quality assurance/quality control checklist (including temperature measurement) prior to laboratory submission. - All provincial guidelines or regulations regarding sample preservation that are required are used. - Sample bottles with appropriate preservatives are provided by accredited laboratory. - Only samples being sent to the lab for textural analysis (a physical test) are submitted to the lab in plastic bags. - Samples are submitted to laboratory within the holding times (as a minimum) of regulatory Guidance requirement limits. Proper preservation methods are used as recommended by accredited laboratories. When samples are placed and transported in a cooler, a temperature of < 10 degrees Celsius is maintained by using ice.
Borehole Sampling	F	- Hollow stem augers are used as the preferred method. Samples are collected at 0.75 metre intervals. - One (1) sample with the highest observed OVM concentration is collected for laboratory analysis, and if necessary, a clean bottom is obtained, therefore, for each borehole at least one (1) soil sample is submitted to the laboratory. - A steel split spoon sampler is used to collect a 24 inch (0.6 metre) sample. The split spoon is driven as per ASTM D1586-99 and the number of blow counts is recorded. - Discrete interval sampling of the borehole is conducted. - Taking disturbed samples from the hollow stem auger flights may occur when driving a split spoon is not possible. - Prior to taking a sample of the split spoon core, the outer layer of the core is removed. - Soil samples for field vapour and chemical analyses are taken separately by longitudinally splitting the core. - Representative discrete samples are taken from each distinct zone (based on soil type and level of contamination). - After each use of the split spoon, the sampler is washed with light (phosphate-free) soapy water and rinsed with clean water followed by a methanol rinse.
Test Pit Sampling	G	- Soil samples from the test pit are taken from the excavator bucket. - At 0.5 metre intervals, soil samples will be collected, bottled and monitored for OVM concentrations. - A minimum of one (1) sample per test pit is sent to the laboratory for analysis; even from test pits that exhibit no contamination based on field observations. Bottled samples not selected for laboratory analysis are discarded. - If contamination is encountered, the first non-impacted sample interval underneath the contaminated layer is selected for laboratory analysis. - The test pit is backfilled with the excavated soil in the approximate order that it was removed. - Alternatively, highly contaminated soil is segregated and tested for off-site disposal.

Sampling Methodology
Summary of Wardrop Engineering Inc.
General Practices for Soil and Ground Water Sampling

Sampling Activity	Section	General Practices
Excavation Sampling	H	- All provincial guidelines or regulations which are required for a specific site are applied. - Excavations remain open until zones with highest vapour concentrations are determined and sampled. - The samples are bottled directly from the excavator bucket and are placed in laboratory prepared glass jars, sealed, and packed on ice in a cooler. - Soils are sampled on the walls at horizontal intervals of approximately 3.0 metre and at vertical intervals of approximately 1.0 metre. Soils are sampled from the floor in an approximate 3.0 metre square grid pattern.
Monitoring Well Installation	I	- Schedule 40 PVC, 50 millimetre inside diameter PVC casings is used, the screen is slot 10 with no filter sock. - PVC casings used meet the requirements of ASTM Standard F480-02. - The PVC casings used have threaded, flush-joint ends with square profile threads and an O-ring seal. - A clean silica sand pack (K&E #3 or equivalent) is placed around the annulus of the well screen and to a minimum of 0.3 metre above the top of screen. - A minimum of 0.9 metres of riser is used (unless ground water level is expected at less than 0.9 metres below grade). - Dry chipped bentonite is used to fill the annulus from the top of the sand pack to approx. one (1) metre below grade. - Hydrated bentonite is used to seal the annulus from the top of the chipped bentonite to the ground surface. - Monitoring wells are protected by installing a flush mount or aboveground steel casing. If the well is installed in a high traffic area, (eg: a roadway), the steel casing installed meets AASHTO standard M306-89. - All steel casings are finished with 15-20 centimetres of concrete or coldpatch at grade to prevent settlement. - All monitoring wells are locked (either caps or the casings) to prevent entry by unauthorized personnel. - Nested wells that target various vertical zones are installed in separate boreholes. - Monitoring well construction details are included in the borehole logs.
Monitoring Well Water Sampling	J	- Dedicated equipment is used to purge (and for metals: filters) the ground water before sampling. - Purging of monitoring well is conducted by removing at least three (3) well volumes of ground water, or pumping the well to dryness, or pumping the well until the temperature/ pH/ conductivity of the water has stabilized. - Dedicated water sampling equipment (preferrably high density) polyethylene sample tubing attached to ball-check valve assembly is used for sampling. - Sample bottles have zero headspace (except for the gravimetric determination of oil/ grease). - Field preservation of water samples includes hydrochloric acid for benzene, toluene, ethylbenzene, xylenes (BTEX), petroleum hydrocarbon fractions F1-F4 and volatile organic compounds (VOCs) and nitric acid for lead.

APPENDIX E

WASTE MANIFESTS

MOVEMENT DOCUMENT / MANIFEST
DOCUMENT DE MOUVEMENT / MANIFESTE

This Movement document/manifest conforms to all federal and provincial transport and environmental legislation.
Ce document de mouvement/manifeste est conforme aux législations fédérale et provinciale sur l'environnement et le transport.

RT19782-2-1

RT19782-2

Movement Document / Manifest Reference No.
N° de référence du document de mouvement/manifeste

A Generator / consignor / Producteur / expéditeur

Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial: ON4096008

Company name / Nom de l'entreprise: SHELL CANADA PRODUCTS c/o LEE HOWELL

Mailing address / Adresse postale: 10 SHEPARD AVE EAST | City / Ville: TORONTO | Province: ONTARIO | Postal code / Code postal: M2N 6Z7

E-mail / Courrier électronique | Tel. No. / N° de tél.

Shipping site address / Adresse de lieu de l'expédition: 3005 DUNDAS STREET WEST

City / Ville: OAKVILLE, HALTON | Province: ONTARIO | Postal code / Code postal

Intended Receiver / consignee / Réceptionnaire / destinataire prévu: DIRECT LINE ENVIRONMENTAL SERVICES | Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial: A680301

Mailing address / Adresse postale: 1070 TOY AVE | City: PICKERING | Province: ONTARIO | Postal code / Code postal: L1W 3P1

E-mail / Courrier électronique | Tel. No. / N° de tél.

Receiving site address / Adresse de lieu de réception: 1070 TOY AVE

City / Ville: PICKERING ONTARIO | Province | Postal code / Code postal: L1W 3P1

B Carrier / Transporteur

Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial: A841650

Company name / Nom de l'entreprise: ENVIROWAY WASTE MANAGEMENT INC.

Mailing address / Adresse postale: 84 MALMO CRT UNIT 2 | City: MAPLE | Postal code / Code postal: ONTARIO L6A 1R4

Email / Courrier électronique | Tel. No. / N° de tél.

Vehicle / Véhicule: Trailer - Rail car No. 1 / 1re remorque - wagon: 290 5RZ | Prov.: ONT

Trailer - Rail car No. 2 / 2e remorque - wagon:

Port of entry / Point d'entrée | Port of exit / Point de sortie

Carrier Certification: I certify that I have received waste or recyclable material from the generator / consignor for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct. / Attestation du transporteur : J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au réceptionnaire / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets.

Name of authorized person (print) / Nom de l'agent autorisé (caractères d'imprimerie): ANTHONY GARIBALDI | Tel. No. / N° de tél.: 905 832 3247

Year / Année: 0 8 | Month / Mois: 0 1 | Day / Jour: 1 0 | Signature

C Receiver / consignee / Réceptionnaire / destinataire

Registration No. / Provincial ID No. / N° d'immatriculation - d'id. provincial

Reference Nos. of other movement document(s) / manifest(s) used / N° de référence des autres documents de mouvement/manifestes utilisés

Receiver / consignee information same as in Part A / Les renseignements du réceptionnaire / destinataire sont la même qu'à la Partie A
☐ Yes / Oui ☐ No, complete the box below / Non, remplir la case ci-dessous

Company name / Nom de l'entreprise

Mailing address / Adresse postale

City / Ville | Province | Postal code / Code postal

E-mail / Courrier électronique | Tel. No. / N° de tél.

Receiving site address / Address de lieu de destination

Date received / Date de réception: Year / Année | Month / Mois | Day / Jour | Time / Heure ☐ AM ☐ PM

If waste or recyclable material to be transferred, specify intended company name / Si les déchets ou matières recyclables doivent être transférés, préciser le nom du destinataire | Registration No. / Provincial ID No. / N° d'immatriculation / d'id provincial

Prov. code / Code prov.	Shipping name / Appellation réglementaire	Class / Classe: Sub. class(es) / Classe(s) sub.	UN No. / N° NU	Packing / Risk gr. / Gr. d'emballage / de risque	Quantity shipped / Quantité expédiée	Units / L or / ou Kg / Unités	Packaging / Contenant: No. / N°	Codes / Code(s)	Phys. state / État phys.	Quantity received / Quantité reçue	Units / L or / ou Kg / Unités	Comments / Commentaires	Handling Code / Code de manutention	Shipment / Envoi: Accepted / Accepté	Refused / Refusé	Discard: Rock. Cont.	Veh. Veh.
(i) 25L	WASTE OILY WATER	N/A	N/A	N/A	170	L	01	03	L								
(ii)																	
(iii)																	
(iv)																	

Notice No. / N° de notification	Notice Line No. / N° de ligne de la notification	Shipment / Envoi	GI / De	D or R code / Code D ou R	C code / Code C	Basel Annex VIII or OECD Code / Annexe VIII de Bâle ou Code OCDE	H code / Code H	Y code / Code Y	National code in country of: / Code du pays: Export / Exportation	Import / Importation	Customs code(s) / Code(s) de douanes
(i)											
(ii)											
(iii)											
(iv)											

If handling code "Other", specify / Si code de manutention « autre », spécifier

Receiver / consignee, certification: I certify that the information contained in Part C is correct and complete. / Attestation du réceptionnaire / destinataire : J'atteste que tous les renseignements à la partie C sont exacts et complets.

Name of authorized person (print) / Nom de l'agent autorisé (caractères d'imprimerie)

Signature | Tel. No. / N° de tél.

Special handling / Manutention spéciale: 25 Hours
☐ Attached / Ci-joint ☑ As follows / Ci-contre : DIRECT LINE 1-800-541-2527

Generator / consignor certification: I certify that the information contained in Part A is correct and complete. / Attestation du producteur / expéditeur : J'atteste que tous les renseignements à la partie A sont exacts et complets.

Name of authorized person (print) / Nom de l'agent autorisé (caractères d'imprimerie): HAMMAD SAEED | Signature | Tel. No. / N° de tél.: (905) 470-6570 EXT 121

Date shipped / Date d'expédition: Year / Année: 0 8 | Month / Mois: 0 1 | Day / Jour: 1 0 | Time / Heure ☑ AM ☐ PM: 1945

Scheduled arrival date / Date d'arrivée prévue: Year / Année: 2 0 | Month / Mois: 0 1 | Day / Jour: 1 0

MOE 09-1917 (06/05)

Instructions for completion and distribution on reverse / Instructions pour compléter et distribuer au verso

Copy / Copie 1 (white / blanche)

Transfer Bill
and
Bill of Lading

SCALE TICKET

10-JAN-08 12:50 PM

Gross: 17630

Tare: 15950

Net: 1680

INDUSTRIAL SERVICES

P.O. Box 423, LCD 1, Hamilton, Ontario L8L 7W2
Phone (905) 544-6687 â€¢ Toll: 1-800-668-9599

INVOICE TO	CPG INC 250 Shields Court MARKHAM ON, L3R 9W7

M.M.R #	Load #	Transport Code
ND-6644-FS	348420	
S.A. #	Manifest #	

A. GENERATOR (Please Please)

Company Name	SHELL CANADA 3005 Dundas St W OAKVILLE ON,
Description of Waste: Soil, Sand, Non-Haz	Packaging:
Quantity Shipped: Shipped To Date: 1.68 tonnes	TEL. NO. (AREA CODE):
TRANSFER RECYCLEABLE PRODUCT ☐ TRANSFER WASTE ☐	GENERATOR REGISTRATION NO.:
MINISTRY OF ENVIRONMENT ONTARIO WASTE CLASS: N	
SHIPPING DATE: 2008 01 10	NAME OF AUTHORIZED PERSON (PRINT): Carl Frankruyter
SIGNATURE:	

B. CARRIER (Please Print)

Company Name: ENVIROWAY WASTE MANAGEMENT INC. #06-06.MOE 841650	MOE Certificate of Approval No./ Provincial No:
Vehicle License Plate Number: 290-5RZ	Unit Number: ENVIROWAY6
Signature of Driver: ANTHONY GARIBALDI X	
Box In:	Box Out:

Travel Time	Waiting Time	Loading Time	Finish Time	Total Hours

Details of Waiting Time:

C. RECEIVER (Please Print)

Company Name: NIS (237 Brant St., Hamilton, ON, L8L 7W2)	MOE Receiver No./Provincial No.: A100143
FINAL DISPOSAL: ☐ Recycling ☐ Secure Landfill ☐ Incineration ☐ Other (State nature)	Receiving No.: Time Received:
Name of Authorized Person (Please Print):	Signature of Authorized Person:

TDGA Information (if applicable)

Physical State Etat physique	Shipping Name of Waste Appellation regelmentaire du dÃ©chet	Waste Identification Identification du dÃ©chet: NA* Provincial No. (Quebec - Ontario only) (QoÃ©bec - Ontario se	TDGA PIN LTMD NIP	Quantity Shipped QuantitÃ© expÃ©diÃ©e	Units L or / ou Kg Unitâ€s	Classification	Packing Group Groupe d'emballage	Packaging Contenants No. / Nbre	Codes Int. -

APPENDIX F

MOE WELL RECORDS

Ontario Ministry of the Environment

Well Tag No. for Master Well *(Place Sticker and/or Print Below)*: A[illegible]541

Master Well Record for Cluster Well Construction

Regulation 903 Ontario Water Resources Act

Page 1 of 2

Master Well Owner's and Land Owner's Information

First Name	Last Name	E-mail Address
	[illegible]	

Mailing Address (Street Number/Name, RR)	Municipality	Province	Postal Code	Telephone No. (inc. area code)

Location and Construction of the Master Well in the Cluster

Address of Well Location (Street Number/Name, RR)	Township	Lot	Concession

County/District/Municipality	City/Town/Village	Province	Postal Code
		Ontario	

UTM Coordinates	Zone	Easting	Northing	GPS Unit Make	Model
NAD 83	17				

Mode of Operation: ☐ Undifferentiated ☑ Averaged ☐ Differentiated, specify

Overburden and Bedrock Materials Encountered in the Master Well

General Colour	Most Common Material	Other Materials	General Description	Depth (Metres) From	Depth (Metres) To
				0	.76
				.76	1.52
				1.52	3.8

Water Level Restoration During Well Construction

Depth (Metres) From	Depth (Metres) To	Diameter (Centimetres)
0	3.8	21

Water Use

☐ Public ☐ Industrial ☐ Not used ☐ Other, specify
☐ Domestic ☐ Commercial ☐ Dewatering
☐ Livestock ☐ Municipal ☑ Monitoring
☐ Irrigation ☐ Test Hole ☐ Cooling & Air Conditioning

Method of Construction

☐ Cable Tool ☐ Air Percussion ☐ Digging
☐ Rotary (Conventional) ☐ Diamond ☑ Boring
☐ Rotary (Reverse) ☐ Jetting ☐ Other, specify
☐ Rotary (Air) ☐ Driving

Status of Well

☑ Test Hole ☐ Abandoned, Insufficient Supply
☐ Replacement Well ☐ Abandoned, Poor Water Quality
☐ Dewatering Well ☐ Other, specify
☐ Alteration (Construction) ☐ Abandoned, other, specify

Construction Details

Inside Diameter (Centimetres)	Material (steel, plastic, fibreglass, concrete, galvanized)	Wall Thickness	Depth (Metres) From	Depth (Metres) To
5.1	Plastic	0.65	0	.76

No Casing and Screen Used

Open Hole ☐ Yes ☑ No

Static Water Level Test

[ ] Metres

Casing and Screen Record

☐ Galvanized ☐ Steel ☐ Fibreglass ☐ Concrete ☑ Plastic

Outside Diameter (Centimetres)	Slot No.
6.4	20

Annular Space/Abandonment Sealing Record

Depth Set at (Metres) From	Depth Set at (Metres) To	Type of Sealant Used (Material and Type)	Volume Used (Cubic Metres)
	1.1	Bentonite	

Water Details

Water found at Depth	Kind of Water
0.45 Metres ☐ Gas	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals
Metres ☐ Gas	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals
Metres ☐ Gas	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals

Disinfected ☐ Yes ☑ No If no, provide reason: Test Hole

Date Master Well Completed (yyyy/mm/dd): 2005/10/25

Cluster Information *(Please also fill out the additional Cluster Well Information for Well Construction for each parcel of land and cluster.)*

Total Wells in Cluster	Please indicate Number of Cluster Well Information Log Sheets Submitted
6	1
Total Wells on this Property	
6	

Location of Well Cluster

Detailed Map must be provided as an attachment no larger than legal size (8.5" x 14"). Sketches are not allowed.

☑ Check box to confirm detailed map is provided as per Section 11.1 (3)

Consent to release additional information concerning the cluster to the Director upon request

Signature of Technician/Contractor: [signature] Date (yyyy/mm/dd): 2005/12/19

Master Well Owner's/Land Owner's consent to use Cluster Form

Signature: Date (yyyy/mm/dd):

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No
[illegible]	1[illegible]17

Business Address (Street No./Name, number, RR)	Municipality
[illegible]	

Province	Postal Code	Business E-mail Address

Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)
[illegible]	[illegible]

Well Technician's Licence No.	Signature of Technician	Date Submitted (yyyy/mm/dd)
[illegible]	[signature]	2005/12/19

Ministry Use Only

Audit No.	Well Contractor No.
M 01232	
Date Received (yyyy/mm/dd)	Date of Inspection (yyyy/mm/dd)
Remarks	

1992 (11/2005)

Well Owner's Copy

Ontario

Ministry of the Environment

Well Tag No. for Master Well *(Print Well Tag No.)*: A 102541

Cluster Well Information for Cluster Well Construction

Regulation 903 Ontario Water Resources Act

Page _____ of _____

Property Owner's Information

First Name	Last Name	Mailing Address (Street No./Name, RR)	Municipality
[illegible]	[illegible]	[illegible]	[illegible]

Province	Postal Code	E-mail Address	Telephone No. (inc. area code)
ON	[illegible]		[illegible]

Cluster Well Information

Address of Well Location (Street Number/Name, RR)	Lot	Concession	Township	County/District/Municipality
[illegible]				

City/Town/Village	Province	Postal Code	GPS Unit Make	Model	Unit Mode of Operation
Oakville	Ontario	L6J 4J4	Ma	K	☐ Undifferentiated ☒ Averaged ☐ Differentiated, specify:

Consent

Property Owner's Consent to use cluster form

Signature	Date *(yyyy/mm/dd)*

Consent to release additional information to the Director upon request

Signature of Technician/Contractor	Date *(yyyy/mm/dd)*
[signature]	2007/12/17

Well # on Sketch	UTM Coordinates Zone	Easting	Northing	Full Depth of Hole (metres)	Hole Diameter (cm)	Method of Construction	Casing Material	Casing Length (metres)	Screen Interval (metres) From	To	Annular Space Sealant Used	Static Water Level (metres)	Abandonment Sealant Used	Comments	Date of Completion *(yyyy/mm/dd)*
1	17	[illegible]	[illegible]	3.8	21	auger	Plastic	.76	.76	3.8	Bentonite	—	—		2007/12/17
2	17	[illegible]	[illegible]	3.8	21	auger	Plastic	.76	.76	3.8	Bentonite	—	—		2007/12/17
4	17	[illegible]	[illegible]	3.8	21	auger	Plastic	.76	.76	3.8	Bentonite	—	—		2007/12/17
5	17	[illegible]	[illegible]	3.8	21	auger	Plastic	.76	.76	3.8	Bentonite	—	—		2007/12/17
6	17	[illegible]	[illegible]	3.8	21	auger	Plastic	.76	.76	3.8	Bentonite	—	—		2007/12/17

Well Contractor and Well Technician Information

Business Name of Well Contractor	Business Address (Street Number/Name, RR)	Municipality	Province
[illegible]	[illegible]	[illegible]	ON

Postal Code	Business Telephone No. *(inc. area code)*	Well Contractor's Licence No.	Business E-mail Address
[illegible]	[illegible]	7017	

Name of Well Technician (First Name, Last Name)	Well Technician's Licence No.	Date Submitted *(yyyy/mm/dd)*	Signature of Technician
[illegible]	7062	2007/12/19	[signature]

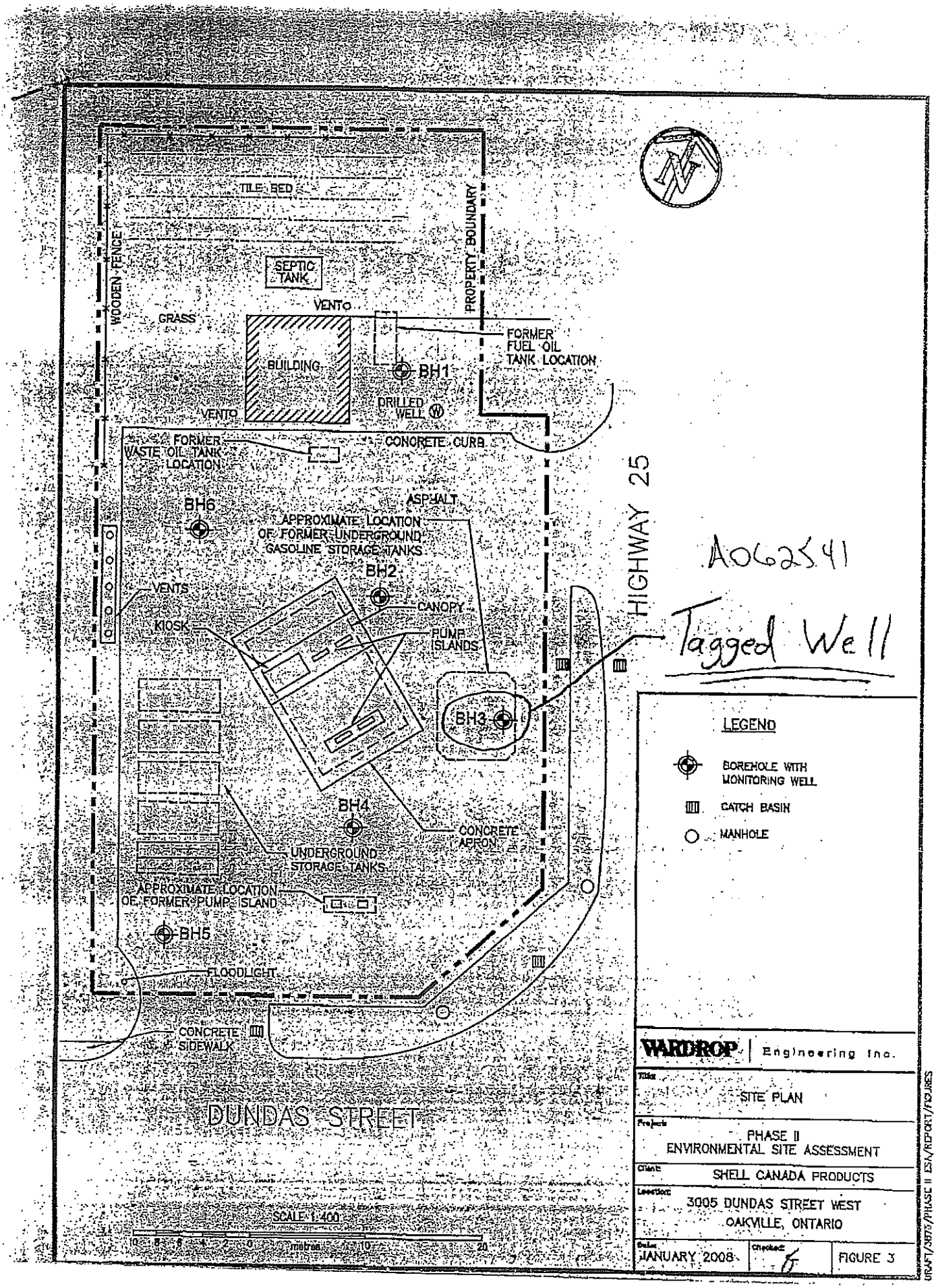
Date 1st Well in Cluster Constructed *(yyyy/mm/dd)*	Date Last Well in Cluster Constructed *(yyyy/mm/dd)*
2007/12/17	2007/12/19

Ministry Use Only

Date Received *(yyyy/mm/dd)*	Date Inspected *(yyyy/mm/dd)*
Audit No. C 02239	Remarks

1991 (11/2006)

Well Owner's Copy


TILE BED
WOODEN FENCE
PROPERTY BOUNDARY
SEPTIC TANK
VENTo
GRASS
BUILDING
BH1
FORMER FUEL OIL TANK LOCATION
DRILLED WELL
VENTO
CONCRETE CURB
FORMER WASTE OIL TANK LOCATION
BH6
ASPHALT
APPROXIMATE LOCATION OF FORMER UNDERGROUND GASOLINE STORAGE TANKS
BH2
VENTS
KIOSK
CANOPY
PUMP ISLANDS
HIGHWAY 25
BH3
BH4
CONCRETE APRON
UNDERGROUND STORAGE TANKS
APPROXIMATE LOCATION OF FORMER PUMP ISLAND
BH5
FLOODLIGHT
CONCRETE SIDEWALK
DUNDAS STREET
SCALE 1:400
10 8 6 4 2 0 metres 10 20
A062541
Tagged Well
LEGEND
BOREHOLE WITH MONITORING WELL
CATCH BASIN
MANHOLE
WARDROP | Engineering Inc.
Title: SITE PLAN
Project: PHASE II ENVIRONMENTAL SITE ASSESSMENT
Client: SHELL CANADA PRODUCTS
Location: 3005 DUNDAS STREET WEST OAKVILLE, ONTARIO
Date: JANUARY 2008
Checked:
FIGURE 3
DRAFT/3875/PHASE II ESA/REPORT/FIGURES

Ontario Ministry of the Environment

RECEIVED MAY 0 2008 A054647

Well Tag No. for Master Well (Place Sticker and/or Print Below) A 054647

Master Well Record for Cluster Well Construction

Regulation 903 Ontario Water Resources Act

Page 1 of 2

Master Well Owner's and Land Owner's Information

First Name	Last Name	E-mail Address
SHELL CANADA PRODUCTS	ATTN: LEE HOWELL	

Mailing Address (Street Number/Name, RR)	Municipality	Province	Postal Code	Telephone No. (inc. area code)
90 SHEPPARD AVE. EAST	TORONTO	ON	M2N 6Y2	[illegible]

Location and Construction of the Master Well in the Cluster

Address of Well Location (Street Number/Name, RR)	Township	Lot	Concession
3005 DUNDAS STREET WEST			

County/District/Municipality	City/Town/Village	Province	Postal Code
HALTON REGION	OAKVILLE	Ontario	L6M 4J4

UTM Coordinates: NAD 83, Zone 17, Easting 599156, Northing 4809131; GPS Unit Make: Magellan; Model: Sportrak

Mode of Operation: ☐ Undifferentiated ☒ Averaged ☐ Differentiated, specify

Overburden and Bedrock Materials (see instructions on the back of this form)

General Colour	Most Common Material	Other Materials	General Description	Depth (Metres) From	To
BROWN	TOPSOIL	—	LOOSE	0.0	0.3
BROWN	CLAY	SILT, GRAVEL	LOOSE-SOFT	0.3	1.8
BROWN	CLAY	SILT GRAVEL	DENSE	1.8	4.4

Hole Details

Depth (Metres) From	To	Diameter (Centimetres)
0	4.4	21

Water Use

☐ Public ☐ Domestic ☐ Livestock ☐ Irrigation ☐ Industrial ☐ Commercial ☐ Municipal ☐ Test Hole ☐ Not used ☐ Dewatering ☒ Monitoring ☐ Cooling & Air Conditioning ☐ Other, specify

Construction Method

☐ Cable Tool ☐ Rotary (Conventional) ☐ Rotary (Reverse) ☐ Rotary (Air) ☐ Air Percussion ☐ Diamond ☐ Jetting ☐ Driving ☐ Digging ☒ Boring ☐ Other, specify

Status of Well

☒ Test Hole ☐ Replacement Well ☐ Dewatering Well ☐ Alteration (Construction) ☐ Abandoned, Insufficient Supply ☐ Abandoned, Poor Water Quality ☐ Other, specify ☐ Abandoned, other, specify

No Casing and Screen Used / Static Water Level Test

Open Hole ☐ Yes ☐ No — Metres

Construction Details

Inside Diameter (Centimetres)	Material (steel, plastic, fibreglass, concrete, galvanized)	Wall Thickness	Depth (Metres) From	To
5.1	PLASTIC	0.63	0	4.4

Screen

☐ Galvanized ☐ Steel ☐ Fibreglass ☐ Concrete ☒ Plastic

Outside Diameter (Centimetres): 6.4 Slot No.: 10

Water Details

Water found at Depth	Kind of Water
1.12 Metres ☐ Gas	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals
Metres ☐ Gas	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals
Metres ☐ Gas	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals

Annular Space/Abandonment Sealing Record

Depth Set at (Metres) From	To	Type of Sealant Used (Material and Type)	Volume Used (Cubic Metres)
0	0.3	[illegible] Concrete	
0.3	2.6	Bentonite	
2.6	4.4	Sand	

Disinfected ☐ Yes ☐ No If no, provide reason:

Date Master Well Completed (yyyy/mm/dd): 2008/04/03

Cluster Information (Please also fill out the additional Cluster Well Information for Well Construction for each parcel of land and cluster.)

Total Wells in Cluster: 2

Please indicate Number of Cluster Well Information Log Sheets Submitted: 1

Total Wells on this Property:

Location of Well Cluster

Detailed Map must be provided as an attachment no larger than legal size (8.5" x 14"). Sketches are not allowed.

☒ Check box to confirm detailed map is provided as per Section 11.1 (3)

Consent to release additional information concerning the cluster to the Director upon request

Signature of Technician/Contractor — Date (yyyy/mm/dd): 2008/04/03

Master Well Owner's/Land Owner's consent to use Cluster Form

Signature — Date (yyyy/mm/dd)

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
Geo Environmental Drilling	6161017

Business Address (Street No./Name, number, RR)	Municipality
[illegible]	Milton

Province	Postal Code	Business E-mail Address
ON	[illegible]	

Bus.Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)
[illegible]	[illegible]

Well Technician's Licence No.	Signature of Technician	Date Submitted (yyyy/mm/dd)
3 [illegible]		2008/04/07

Ministry Use Only

Audit No. M 01729 Well Contractor No.

Date Received (yyyy/mm/dd) Date of Inspection (yyyy/mm/dd)

Remarks

1992 (11/2006)

Well Owner's Copy

Ontario

Ministry of the Environment

Well Tag No. for Master Well *(Print Well Tag No.)*: A054647

Cluster Well Information for Cluster Well Construction

Regulation 903 Ontario Water Resources Act

Property Owner's Information

First Name	Last Name	Mailing Address (Street No./Name, RR)	Municipality
BELL CANADA PRODUCTS	ATTN: LEE HOWELL	90 SHEPPARD AVE. EAST	TORONTO

Province	Postal Code	E-mail Address	Telephone No. (inc. area code)
ONTARIO	M2N6Y2		8006611600

Cluster Well Information

Address of Well Location (Street Number/Name, RR)	Lot	Concession	Township	County/District/Municipality
3005 DUNDAS STREET WEST				HALTON REGION

City/Town/Village	Province	Postal Code	GPS Unit Make	Model	Unit Mode of Operation
OAKVILLE	Ontario	L6M4J4	Magellan	Sportrak	☐ Undifferentiated ☒ Averaged ☐ Differentiated, specify:

Consent

Property Owner's Consent to use cluster form

Signature: | Date *(yyyy/mm/dd)*:

Consent to release additional information to the Director upon request

Signature of Technician/Contractor: [signature] | Date *(yyyy/mm/dd)*: [illegible]

Well # on Sketch	UTM Coordinates Zone	Easting	Northing	Full Depth of Hole (metres)	Hole Diameter (cm)	Method of Construction	Casing Material	Casing Length (metres)	Screen Interval (metres) From	To	Annular Space Sealant Used	Static Water Level (metres)	Abandonment Sealant Used	Comments	Date of Completion (yyyy/mm/dd)
MW7	17	598941	4819931	4	21	Boring	Plastic	0.6	0.6	3.6	Bentonite	2.5			2008/04/03

Well Contractor and Well Technician Information

Business Name of Well Contractor	Business Address (Street Number/Name, RR)	Municipality	Province
Geo-Environmental Drilling	590 Nolan Rd. Milton	Halton	ON

Postal Code	Business Telephone No. (inc. area code)	Well Contractor's Licence No.	Business E-mail Address
L9T5K4	[illegible]	6617	

Name of Well Technician (First Name, Last Name)	Well Technician's Licence No.	Date Submitted (yyyy/mm/dd)	Signature of Technician
[illegible]	3109	2008/04/03	[signature]

Date 1st Well in Cluster Constructed *(yyyy/mm/dd)*: 2008/04/03

Date Last Well in Cluster Constructed *(yyyy/mm/dd)*: 2008/04/03

Ministry Use Only

Date Received *(yyyy/mm/dd)*:

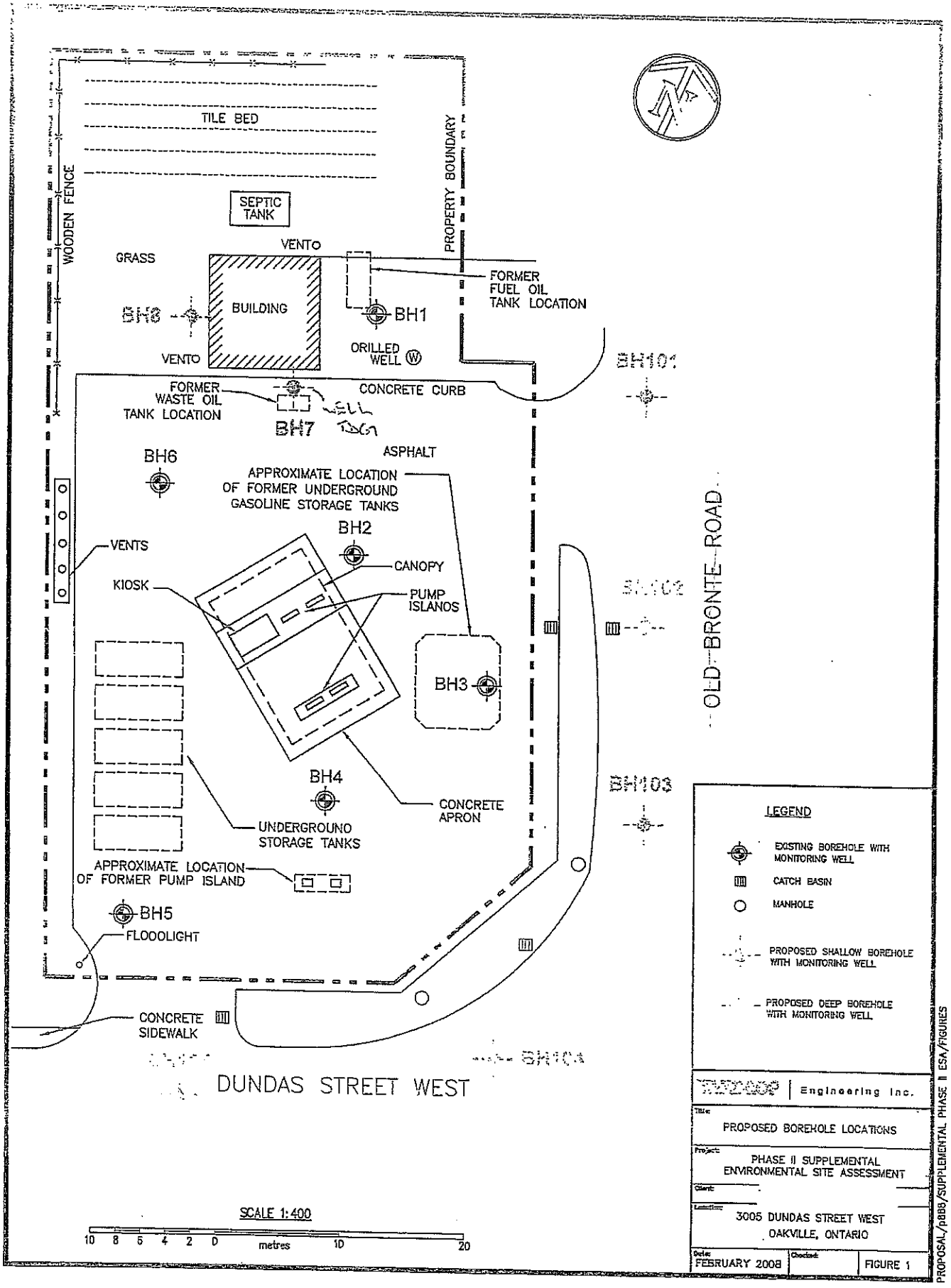
Date Inspected *(yyyy/mm/dd)*:

Audit No. C 02741

Remarks:

1991 (11/2006)

Well Owner's Copy


TILE BED
WOODEN FENCE
PROPERTY BOUNDARY
SEPTIC TANK
VENTO
GRASS
BUILDING
BH1
FORMER FUEL OIL TANK LOCATION
BH8
VENTO
ORILLED WELL (W)
BH101
FORMER WASTE OIL TANK LOCATION
CONCRETE CURB
BH7
BH6
ASPHALT
APPROXIMATE LOCATION OF FORMER UNDERGROUND GASOLINE STORAGE TANKS
BH2
VENTS
CANOPY
KIOSK
PUMP ISLANDS
BH102
BH3
OLD BRONTE ROAD
BH4
BH103
CONCRETE APRON
UNDERGROUND STORAGE TANKS
APPROXIMATE LOCATION OF FORMER PUMP ISLAND
BH5
FLOODLIGHT
CONCRETE SIDEWALK
BH104
DUNDAS STREET WEST
LEGEND
EXISTING BOREHOLE WITH MONITORING WELL
CATCH BASIN
MANHOLE
PROPOSED SHALLOW BOREHOLE WITH MONITORING WELL
PROPOSED DEEP BOREHOLE WITH MONITORING WELL
SCALE 1:400
10 8 6 4 2 0 metres 10 20
Engineering Inc.
PROPOSED BOREHOLE LOCATIONS
PHASE II SUPPLEMENTAL ENVIRONMENTAL SITE ASSESSMENT
3005 DUNDAS STREET WEST
OAKVILLE, ONTARIO
FEBRUARY 2008
FIGURE 1
PROPOSAL/p888/SUPPLEMENTAL PHASE II ESA/FIGURES

APPENDIX G

SOIL AND GROUNDWATER SAMPLE QUALITY ASSURANCE/QUALITY CONTROL

TABLE F1
SUMMARY OF RELATIVE PERCENT DIFFERENCE (RPD) CALCULATIONS
SOIL FIELD DUPLICATE SAMPLE
PETROLEUM HYDROCARBON PARAMETERS
December 17/18, 2007

Sample ID Laboratory ID	RDL	BH5-SS2 W50370	DUP (Field duplicate of BH5-SS2) W50375	RPD	Alert Limit
Units	µg/g	µg/g	µg/g	%	%
Benzene	0.02	5.6	2.0	94.74	100
Toluene	0.02	65	23	95.45	100
Ethylbenzene	0.02	26	9.7	91.32	100
Total Xylenes	0.04	160	53	100.47	100
F1 (C6-C10); excluding BTEX	10	160	190	NC	100
F2 (>C10-C16)	10	16	98	NC	100
F3 (>C16-C34)	10	<	13	NC	100
F4 (>C34-C50)	10	<	<	NC	100
Lead	5	NA	NA	NC	100

TABLE F2
SUMMARY OF RELATIVE PERCENT DIFFERENCE (RPD) CALCULATIONS
GROUNDWATER FIELD DUPLICATE SAMPLE
PETROLEUM HYDROCARBON PARAMETERS
January 8, 2008

Sample ID Laboratory ID	RDL	BH4 W69280	DUP (Field duplicate of BH4) W69284	RPD	Alert Limit
Units	µg/L	µg/L	µg/L	%	%
Benzene	0.1	2,000	2,300	13.95	80
Toluene	0.2	<	<	NC	80
Ethylbenzene	0.1	660	930	33.96	80
Methyl t-butyl ether (MTBE)	0.2	380	650	52.43	80
Total Xylenes	0.1	860	1,000	15.05	80
F1 + F2 (C6-C16); excluding BTEX	100	<	<	NC	80
F3 + F4 (>C16-C50)	100	<	<	NC	80

Table Abbreviations: (<) = parameter present below the laboratory reportable detection limit [RDL]; (µg/g) = micrograms per gram; (NC) = Not Calculable (since one or both of the reported results is less than five (5) times the RDL); (NA) = Not Analysed.

Note: Typical RDL values are shown, for adjusted RDLs refer to the laboratory certificates of analyses

Soil and Groundwater Sample Quality Assurance/Quality Control (QA/QC)

Soil

The extraction surrogate recovery for D10-ethylbenzene was above its associated upper control limit for soil samples BH3-SS2 and BH5-SS2. Therefore, possible high bias in BTEX and F1 (excluding BTEX) results were reported for these soil samples. For soil sample BH3-SS2, results for all parameters are well above the MOE Table 2 standards, except for toluene, which is below the MOE Table 2 standard. For soil sample BH5-SS2, results for all parameters are well above the MOE Table 2 standards, except for F1 (excluding BTEX), which is below the MOE Table 2 standard. The potential for a positive bias in the data should have no material effect on the interpretation of the reported BTEX and F1 (excluding BTEX) results.

Relative percent differences (RPD) calculations are only performed if the analytical results for both the sample and the associated field duplicate sample are greater than five (5) times the laboratory reportable detection limit (RDL).

The results of the RPD calculations for one (1) soil sample (BH5-SS2) and its field duplicate soil sample (DUP) are presented on Table F1 and discussed below:

- Soil sample BH5-SS2 and its associated field duplicate sample, DUP, had RPD values of 94.74% for benzene, 95.45% for toluene and 91.32% for ethylbenzene. The RPDs for these parameters were within their respective alert limits.
- Soil sample BH5-SS2 and its associated field duplicate sample, DUP, had a RPD value of 100.47% for total xylenes which in not within its respective alert limit. This can be attributed to heterogeneous soil conditions.
- Concentrations for all other parameters analysed were below the laboratory RDLs for soil sample BH5-SS2 and its associated field duplicate sample (DUP). Therefore, the RPDs could not be calculated.

In summary, no issues with laboratory analysis, sample shipping, sample preservation, or field sampling techniques that could have a material effect on the interpretation of the reported results were identified as part of this QA/QC program. Therefore, all soil analytical laboratory data are considered reliable.

Groundwater

All applicable laboratory QC samples and applicable field QC samples were within acceptance criteria and alert limits.

Relative percent differences (RPD) calculations are only performed if the analytical results for both the sample and the associated field duplicate sample are greater than five (5) times the laboratory reportable detection limit (RDL).

Soil and Groundwater Sample Quality Assurance/Quality Control (QA/QC)

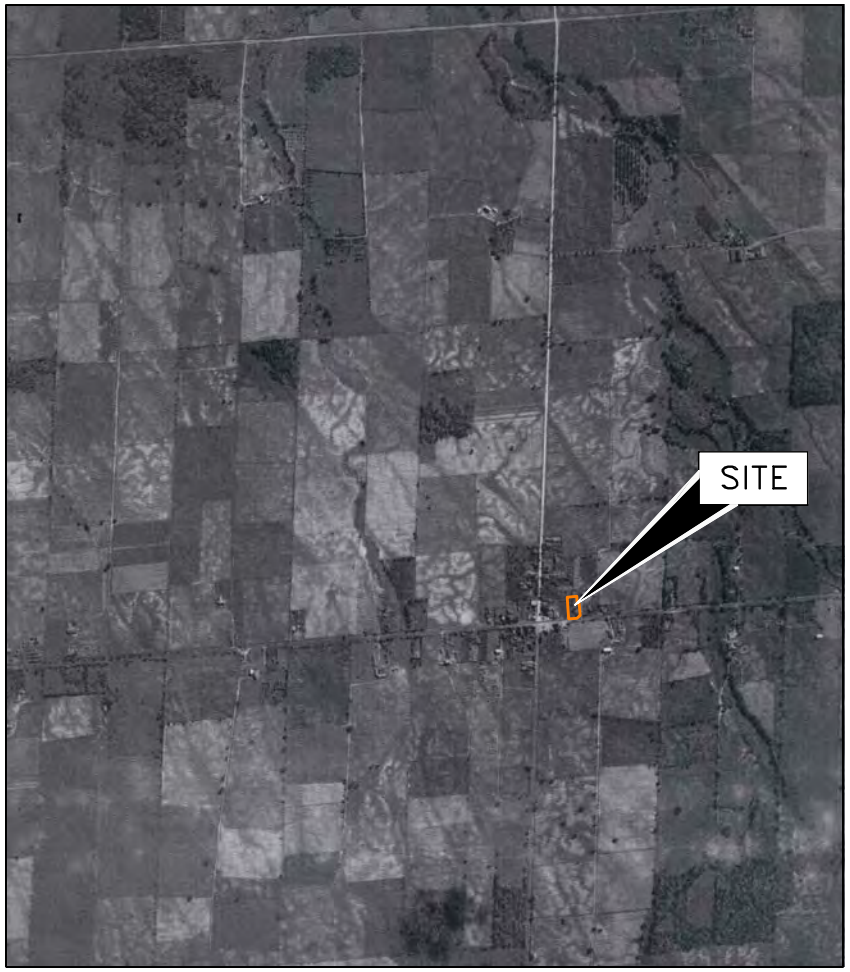
The results of the RPD calculations for one (1) groundwater sample (BH4) and its field duplicate groundwater sample (DUP) are presented on Table F2 and discussed below:

- Groundwater sample BH4 and its associated field duplicate sample, DUP, had RPD values of 13.95% for benzene, 33.96% for ethylbenzene, 52.43% for MTBE and 15.05% for xylenes. The RPDs for these parameters were within their respective alert limits.
- Concentrations for all other parameters analysed were below the laboratory RDLs for groundwater sample BH4 and its associated field duplicate sample (DUP). Therefore, the RPDs could not be calculated.

No issues with laboratory analysis, sample shipping, sample preservation, or field sampling techniques that could have a material effect on the interpretation of the reported results were identified as part of this QA/QC program. Therefore, all groundwater analytical laboratory data are considered reliable.

APPENDIX I

AERIAL PHOTOGRAPHS



NOTE(S):
1. SCALE AND SITE INFRASTRUCTURE LOCATIONS ARE APPROXIMATE
2. INFORMATION ON THIS FIGURE MAY BE LOST IF IT IS PHOTOCOPIED OR FAXED
3. "m" : METRES

SOURCE(S):
1. NATIONAL AIR PHOTO LIBRARY, AERIAL PHOTOGRAPHY, A4837–34, 1934

SCALE 1:25000

0 500 1000m

SNC·LAVALIN Environment

Client/Location: SHELL 3005 DUNDAS STREET WEST OAKVILLE, ON		Title: AERIAL PHOTOGRAPH (1934)	
Project No: S09125	Filename: 11FA1_S09125	Date: OCTOBER 2010	Dwg No: FIGURE A.1
Drawn: FD	Verified:	Project Manager:	

N

NOTE(S):
1. SCALE AND SITE INFRASTRUCTURE LOCATIONS ARE APPROXIMATE
2. INFORMATION ON THIS FIGURE MAY BE LOST IF IT IS PHOTOCOPIED OR FAXED
3. "m" : METRES

SOURCE(S):
1. NATIONAL AIR PHOTO LIBRARY, AERIAL PHOTOGRAPHY, A19345–55, 1965

SCALE 1:25000

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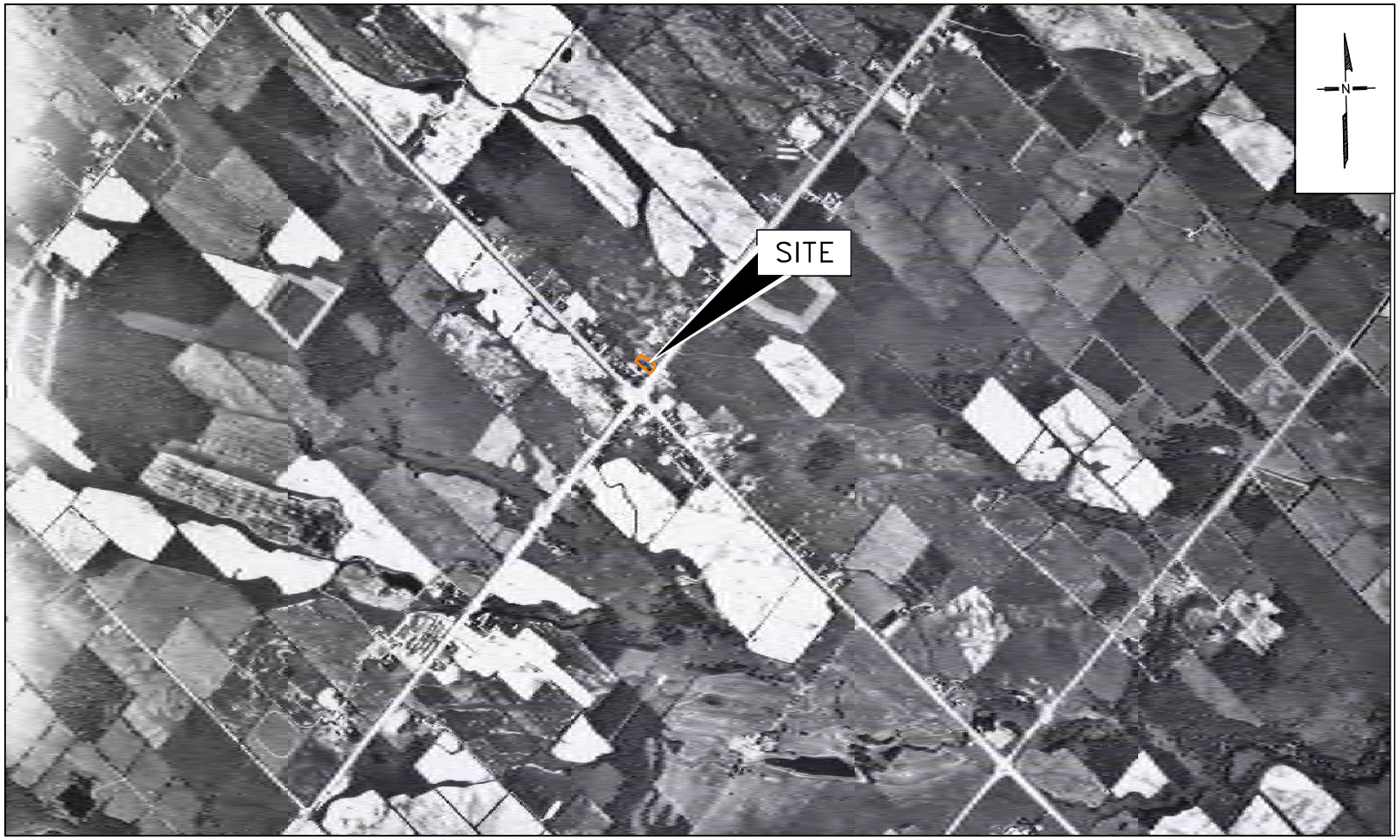
SNC·LAVALIN Environment

Client/Location: SHELL 3005 DUNDAS STREET WEST OAKVILLE, ON		Title: AERIAL PHOTOGRAPH (1965)	
Project No: S09125	Filename: 11FA2_S09125	Date: OCTOBER 2010	Dwg No: FIGURE A.2
Drawn: FD	Verified:	Project Manager:	



NOTE(S):
1. SCALE AND SITE INFRASTRUCTURE LOCATIONS ARE APPROXIMATE
2. INFORMATION ON THIS FIGURE MAY BE LOST IF IT IS PHOTOCOPIED OR FAXED
3. "m" : METRES

SOURCE(S):
1. NATIONAL AIR PHOTO LIBRARY, AERIAL PHOTOGRAPHY, 1979

SCALE 1:25000

0 500 1000m

SNC·LAVALIN Environment

Client/Location: SHELL 3005 DUNDAS STREET WEST OAKVILLE, ON		Title: AERIAL PHOTOGRAPH (1979)	
Project No: S09125	Filename: 11FA3_S09125	Date: OCTOBER 2010	Dwg No: FIGURE A.3
Drawn: FD	Verified:	Project Manager:	

NOTE(S):
1. SCALE AND SITE INFRASTRUCTURE LOCATIONS ARE APPROXIMATE
2. INFORMATION ON THIS FIGURE MAY BE LOST IF IT IS PHOTOCOPIED OR FAXED
3. "m" : METRES

SOURCE(S):
1. NATIONAL AIR PHOTO LIBRARY, AERIAL PHOTOGRAPHY, A31427–55, 1985

SCALE 1:25000

0 500 1000m

SNC·LAVALIN Environment

Client/Location: SHELL 3005 DUNDAS STREET WEST OAKVILLE, ON		Title: AERIAL PHOTOGRAPH (1985)	
Project No: S09125	Filename: 11FA4_S09125	Date: OCTOBER 2010	Dwg No: FIGURE A.4
Drawn: FD	Verified:	Project Manager:	

APPENDIX J

MINISTRY OF THE ENVIRONMENT – WATER WELL RECORDS

TOWNSHIP CONCESSION (LOT)	UTM[1]	DATE[2] CNTR[3]	CASING DIA[4]	WATER[5,6] DETAIL	STAT LVL/PUMP LVL[7] RATE[8]/TIME HR:MIN	WATER USE[9]	SCREEN INFO[10]	WELL # (AUDIT#) WELL TAG # DEPTHS TO WHICH FORMATIONS EXTEND[5,11]
OAKVILLE TOWN DS N 01(030)	17 599037 4810023[W]	1981/05 4602	06	FR 0046	012 / 042 006 / 1:0	DO		2805737 () BRWN CLAY 0010 GREY CLAY 0017 RED SHLE 0048
OAKVILLE TOWN DS N 01(030)	17 599006 4809961[W]	1985/11 4005	06	UK 0039 FR 0048	006 / 050 004 / 1:0	DO		2806373 () BRWN CLAY SNDY GRVL 0020 RED SHLE HARD 0051
OAKVILLE TOWN DS N 01(030)	17 598821 4810168[W]	1953/10 1429	06 06	FR 0023 FR 0040	004 / 040 002 / 1:0	DO		2802158 () CLAY 0005 SHLE 0040
OAKVILLE TOWN DS N 01(030)	17 598877 4810122[W]	1954/10 1642	06 06	FR 0048	020 / 003 / :0	DO		2802159 () CLAY 0019 RED SHLE 0050
OAKVILLE TOWN DS N 01(030)	17 599001 4809991[W]	1955/09 1642	06 06	FR 0042	010 / 040 008 / :0	DO		2802160 () CLAY 0016 RED SHLE 0044
OAKVILLE TOWN DS N 01(030)	17 598908 4810090[W]	1955/09 1642	06 06	FR 0050	015 / 048 001 / :0	DO		2802161 () CLAY 0013 RED SHLE 0055
OAKVILLE TOWN DS N 01(030)	17 598793 4810220[W]	1958/05 1642	06 06	FR 0028	015 / 025 003 / 0:15	DO		2802164 () CLAY 0016 RED SHLE 0030
OAKVILLE TOWN DS N 01(030)	17 599115 4810093[W]	1960/07 4602	06 06	FR 0034	010 / 036 002 / 1:0	DO		2802165 () BRWN CLAY 0016 RED SHLE 0036
OAKVILLE TOWN DS N 01(030)	17 598811 4810173[W]	1961/10 4001	06 06	FR 0038	011 / 037 003 / 2:0	DO		2802166 () GREY CLAY 0008 RED SHLE 0040
OAKVILLE TOWN DS N 01(030)	17 599117 4810293[W]	1963/11 4602	06	FR 0034	008 / 036 006 / 1:0	ST DO		2802168 () PRDG 0014 RED SHLE 0036
OAKVILLE TOWN DS N 01(030)	17 598725 4810289[W]	1963/12 4001	06 06	FR 0040	020 / 045 001 / 2:0	DO		2802169 () BLUE CLAY 0014 RED SHLE 0045
OAKVILLE TOWN DS N 01(030)	17 598946 4810058[W]	1966/03 4602	06 06	FR 0044	006 / 046 006 / 1:0	DO		2802171 () GREY CLAY 0016 RED SHLE 0046
OAKVILLE TOWN DS N 01(030)	17 598730 4810289[W]	1967/11 4001	06 06	FR 0032	010 / 040 002 / 3:0	DO		2802172 () BRWN CLAY 0005 RED CLAY 0020 RED SHLE 0045
OAKVILLE TOWN DS N 01(030)	17 598998 4810034[W]	1951/06 1642	06 06	FR 0044	012 / 001 / :0	DO		2802156 () CLAY 0017 RED SHLE 0046
OAKVILLE TOWN DS N 01(030)	17 598768 4810227[W]	1953/10 1429	06 06	FR 0024 FR 0080	008 / 080 001 / 1:0	DO		2802157 () CLAY 0005 SHLE 0081
OAKVILLE TOWN DS N 01(030)	17 598765 4810273[W]	1954/07 1642	06 06	FR 0033	007 / 010 003 / 1:0	DO		2802235 () CLAY 0014 RED SHLE 0035
OAKVILLE TOWN DS N 01(030)	17 599102 4810148[W]	1992/10 4005	06		/ / :30			2808052 (118164)

TOWNSHIP CONCESSION (LOT)	UTM[1]	DATE[2] CNTR[3]	CASING DIA[4]	WATER[5,6] DETAIL	STAT LVL/PUMP LVL[7] RATE[8]/TIME HR:MIN	WATER USE[9]	SCREEN INFO[10]	WELL # (AUDIT#) WELL TAG # DEPTHS TO WHICH FORMATIONS EXTEND[5,11]
OAKVILLE TOWN DS N 01(030)	17 599160 4810201[W]	1989/09 4005	06	UK 0050	008 / 052 003 / 1:0	DO		2807384 (55635) RED SHLE HARD 0054
OAKVILLE TOWN DS N 01(030)	17 598920 4810058[W]	1986/01 4005	06	FR 0044 FR 0050	009 / 030 024 / 1:0	DO		2806416 () BRWN CLAY SNDY LOOS 0012 RED CLAY LOOS 0020 RED SHLE HARD 0054
OAKVILLE TOWN DS N 01(030)	17 598924 4810044[W]	1985/09 4005	06	FR 0032 UK 0052	011 / 040 010 / 1:0	DO		2806344 () BRWN CLAY LOOS 0005 BRWN CLAY SAND GRVL 0018 RED CLAY LOOS 0023 RED SHLE HARD 0053
OAKVILLE TOWN DS N 01(031)	17 598975 4809956[W]	1953/10 1429	06 06	FR 0048 FR 0024	011 / 016 006 / 2:30	CO		2802174 () CLAY 0009 SHLE 0051
OAKVILLE TOWN DS N 01(031)	17 598981 4809878[W]	1959/05 5417	06 06	FR 0032 FR 0048	012 / 040 011 / 0:45	DO		2802173 () BRWN LOAM 0001 BRWN CLAY 0016 RED CLAY SHLE 0020 RED SHLE 0050
OAKVILLE TOWN DS N 01(031)	17 598953 4809849[W]	2009/06 2663						7129277 (Z100112)
OAKVILLE TOWN DS N 01(031)	17 599019 4809841[W]	2009/01 2663				DO		7129278 (Z100111)
OAKVILLE TOWN DS N 01(031)	17 598995 4809963[W]	1978/05 4005	06	FR 0028 FR 0037	009 / 035 005 / 1:0	CO		2805218 () BRWN CLAY SNDY LOOS 0015 BRWN CLAY GRVL SNDY 0020 RED SHLE HARD 0040
OAKVILLE TOWN DS N 01(031)	17 598995 4809923[W]	1978/05 4005	06					2805217 () PRDR 0018 RED SHLE HARD 0050
OAKVILLE TOWN DS N 01(031)	17 599011 4809916[W]	1976/03 2519	30	FR 0018	012 / 003 / 1:0	PS		2804851 () FILL 0003 BRWN CLAY 0014 RED SHLE CLAY 0020
OAKVILLE TOWN DS N 01(032)	17 598553 4809449[W]	1984/01 4005	06	SU 0095	082 / 086 010 / 1:0	DO CO		2806106 () BRWN CLAY LOOS 0043 GREY SAND GRVL LOOS 0086 GREY SAND GRVL LOOS 0095
OAKVILLE TOWN DS S 01(030)	17 599166 4809851[W]	1955/10 1642	06	FR 0038	010 / 018 020 / 0:30	CO DO		2802331 () PRDG 0016 PRDR 0033 SHLE 0039
OAKVILLE TOWN DS S 01(030)	17 599393 4809720[W]	1954/02 1642	06					2802321 () CLAY 0017 RED SHLE 0065
OAKVILLE TOWN DS S 01(030)	17 599247 4809759[W]	1993/07 1660	06 06	SA 0065	013 / 092 002 / 1:0	PS		2808262 () BRWN LOAM 0001 BRWN CLAY STNS 0017 RED CLAY 0020 RED SHLE 0095
OAKVILLE TOWN DS S 01(030)	17 599126 4809871[W]	1955/09 1642	06 06	FR 0048	016 / 045 004 / 2:0	IN		2802330 () CLAY 0016 RED SHLE 0053
OAKVILLE TOWN DS S 01(030)	17 599095 4809983[W]	1972/03 1663	05 05	FR 0033	005 / 040 003 / 6:0	DO		2803929 () LOAM 0004 RED CLAY 0013 RED SHLE CLAY 0040 RED CLAY SHLE 0043
OAKVILLE TOWN DS S 01(030)	17 599405 4809705[W]	1954/02 1642	06	SA 0065	012 / / :0	NU		2802322 () CLAY 0016 RED SHLE 0065

TOWNSHIP CONCESSION (LOT)	UTM[1]	DATE[2] CNTR[3]	CASING DIA[4]	WATER[5,6] DETAIL	STAT LVL/PUMP LVL[7] RATE[8]/TIME HR:MIN	WATER USE[9]	SCREEN INFO[10]	WELL # (AUDIT#) WELL TAG # DEPTHS TO WHICH FORMATIONS EXTEND[5,11]
OAKVILLE TOWN DS S 01(030)	17 599376 4809692[W]	1954/03 1642	06	SA 0060	010 / / :0	NU		2802323 () CLAY 0015 RED SHLE 0060
OAKVILLE TOWN DS S 01(030)	17 599424 4809825[W]	1954/03 1642	06	SA 0065	015 / 001 / :0	NU		2802324 () CLAY 0015 RED SHLE 0065
OAKVILLE TOWN DS S 01(030)	17 599410 4809705[W]	1954/04 1642	06 06	FR 0017	007 / 001 / :0	PS		2802325 () CLAY 0017 RED SHLE 0048
OAKVILLE TOWN DS S 01(030)	17 599412 4809603[W]	1954/09 1642	06		020 / / :0	NU		2802327 () CLAY 0015 SHLE 0028
OAKVILLE TOWN DS S 01(030)	17 599072 4809932[W]	1955/03 2909	06 06	FR 0025	009 / 012 014 / 11:0	CO		2802329 () FILL 0005 BRWN CLAY STNS 0017 RED SHLE 0064
OAKVILLE TOWN DS S 01(030)	17 599315 4809801[W]	1971/07 5417	06	FR 0021 FR 0041	009 / 031 002 / 1:0	PS		2803613 () GREY CLAY 0015 RED SHLE 0043
OAKVILLE TOWN DS S 01(030)	17 599240 4809772[W]	1955/11 1642	06 06	FR 0043	016 / 026 004 / 0:15	DO		2802332 () PRDG 0020 RED SHLE 0046
OAKVILLE TOWN DS S 01(030)	17 599411 4809640[W]	1966/09 2309	06 06	FR 0028 FR 0044	018 / 042 002 / 1:0	DO		2802337 () BRWN CLAY 0014 RED SHLE 0045
OAKVILLE TOWN DS S 01(031)	17 599016 4809840[W]	4552						2807864 (104455)
OAKVILLE TOWN DS S 01(031)	17 599018 4809842[W]	1991/09 4552	06	FR 0035	020 / 020 006 / 2:0	CO		2807863 (104462) WHIT FILL LOOS 0003 BLGY CLAY DNSE 0018 RED SHLE LMSN HARD 0036
OAKVILLE TOWN DS S 01(031)	17 599132 4809754[W]	1990/03 1660	06 06	SA 0068	011 / 066 003 / 1:30	DO		2807805 (43826) BRWN LOAM 0001 BRWN CLAY 0023 RED SHLE 0073
OAKVILLE TOWN DS S 01(031)	17 599055 4809863[W]	1978/05 4005		FR 0025 FR 0035 FR 0032	006 / 033 003 / 1:0	CO		2805219 () BRWN CLAY LOOS 0018 RED SHLE HARD 0038
OAKVILLE TOWN DS S 01(031)	17 598880 4809701[W]	2004/03 4868				DO		2809880 (Z03984)
OAKVILLE TOWN DS S 01(031)	17 599214 4809735[W]	1974/10 4602						2804639 () BRWN CLAY 0010 RED CLAY 0017 RED SHLE 0075
OAKVILLE TOWN DS S 01(031)	17 598995 4809843[W]	1972/05 1663	05 05	FR 0034	007 / 010 020 / 4:0	DO		2803928 () RED CLAY 0015 RED SHLE 0034
OAKVILLE TOWN DS S 01(031)	17 599114 4809813[W]	1960/07 4602	06	FR 0042	012 / 052 002 / 1:0	DO		2802346 () PRDR 0029 RED SHLE 0052
OAKVILLE TOWN DS S 01(031)	17 599429 4809483[W]	1958/05 1642	06 06	FR 0046	015 / 045 001 / 1:0	PS		2802345 () CLAY 0019 RED SHLE 0050

TOWNSHIP CONCESSION (LOT)	UTM[1]	DATE[2] CNTR[3]	CASING DIA[4]	WATER[5,6] DETAIL	STAT LVL/PUMP LVL[7] RATE[8]/TIME HR:MIN	WATER USE[9]	SCREEN INFO[10]	WELL # (AUDIT#) WELL TAG # DEPTHS TO WHICH FORMATIONS EXTEND[5,11]
OAKVILLE TOWN DS S 01(031)	17 599284 4809466[W]	1958/05 1642	06	SA 0055	025 / 050 / 0:10	NU		2802343 () CLAY 0019 RED SHLE 0056
OAKVILLE TOWN DS S 01(031)	17 599170 4809769[W]	1956/07 1642	06 06	FR 0027	012 / 026 002 / 0:15	DO		2802342 () CLAY 0020 RED SHLE 0029
OAKVILLE TOWN DS S 01(031)	17 598942 4809765[W]	1955/06 1642	06 06	FR 0033	007 / 012 004 / 0:30	DO		2802341 () CLAY MSND 0008 CLAY GRVL 0021 RED SHLE 0037
OAKVILLE TOWN DS S 01(031)	17 598820 4809596[W]	1953/10 1642	06	FR 0111	098 / 010 / :0	DO		2802339 () CLAY MSND STNS 0111
OAKVILLE TOWN DS S 01(031)	17 599159 4809786[W]	1953/11 1429	06 06	SU 0040	004 / 040 002 / 1:0	DO		2802340 () CLAY 0006 SHLE 0040
OAKVILLE TOWN DS S 01(032)	17 598798 4809568[W]	1964/08 1308	30					2802351 () BRWN CLAY MSND 0007 BRWN CLAY BLDR 0030 BLUE CLAY 0040
OAKVILLE TOWN 01(029)	17 549580 4809822[W]	2008/01 6988	02				10 5	7102285 (M00229) A064021 BRWN LOAM 0000 BRWN TILL CLAY SILT 0010 RED SHLE 0016
OAKVILLE TOWN 01(030)	17 598845 4810126[W]	2007/07 1660						7047696 (Z52756)
OAKVILLE TOWN 01(031)	17 599049 4809826[W]	2006/10 3349				NU		2810673 (Z71807)
OAKVILLE TOWN 01(032)	17 599127 4809333[W]	2005/04 7201		FR 0069			75 5	2810255 (Z28620) A022270 BRWN SILT CLAY FILL 0005 BRWN SILT CLAY TILL 0045 BRWN SAND SILT 0071 GREY SAND GRVL 0085
OAKVILLE TOWN 02(009)	17 599351 4810297[W]	2009/06 1663	30		010 / / :0	NU		7124872 (Z94095)
OAKVILLE TOWN ()	17 598987 4809947[W]	2008/04 6607	04	FR 0035				7107062 (M01748) A067329 BRWN SAND GRVL FILL 0004 BRWN SILT CLAY SAND 0014 RED SHLE WTHD 0020 RED SHLE LMSN 0037
OAKVILLE TOWN ()	17 598952 4809720[W]	2008/09 6607	06	0011				7113789 (Z60598)
OAKVILLE TOWN ()	17 598979 4809944[W]	2008/09 6607			007 / / :0			7113891 (M03919) A062514
OAKVILLE TOWN ()	17 598955 4809933[W]	2009/02 1660						7139558 (Z89726)
OAKVILLE TOWN ()	17 598948 4809931[W]	2008/09 6607			003 / / :0			7113897 (M03068) A054647

TOWNSHIP CONCESSION (LOT)	UTM[1]	DATE[2] CNTR[3]	CASING DIA[4]	WATER[5,6] DETAIL	STAT LVL/PUMP LVL[7] RATE[8]/TIME HR:MIN	WATER USE[9]	SCREEN INFO[10]	WELL # (AUDIT#) WELL TAG # DEPTHS TO WHICH FORMATIONS EXTEND[5,11]
OAKVILLE TOWN ()	17 598972 4809935[W]	2008/12 1660						7120486 (Z89724)
OAKVILLE TOWN ()	99 999999 9999999[W]	2009/04 7241	20					7122832 (M03354) A085485 BRWN FILL 0008
OAKVILLE TOWN ()	17 598979 4809944[W]	2008/01 6607	02	0001				7128691 (M01232) A062541 BRWN SAND GRVL 0002 BLCK CLAY SLTY 0005 BRWN CLAY SLTY 0012
OAKVILLE TOWN ()	17 598974 4809700[W]	2009/09 6607	02		009 / / :0			7132472 (M05699) A088192
OAKVILLE TOWN ()	17 599083 4809902[W]	2009/10 6607	02					7135552 (M06170) A092268 BRWN SILT CLAY DNSE 0011 RED SILT CLAY HARD 0015
OAKVILLE TOWN ()	17 598974 4809700[W]	2009/09 6607	02					7136481 (M05698) A085485
OAKVILLE TOWN ()	17 598956 4809907[W]	2008/04 6607	02	0008				7105546 (M01728) A067319 BRWN SILT SAND LOOS 0005 GREY SILT CLAY SOFT 0009 BRWN SILT CLAY STNS 0012 BRWN SILT CLAY SHLE 0017
OAKVILLE TOWN ()	17 598956 4809931[W]	2008/04 6607	02	0004				7105545 (M01729) A054647 BRWN LOAM LOOS 0001 BRWN CLAY SILT GRVL 0006 BRWN CLAY SILT GRVL 0014
OAKVILLE TOWN ()	17 599210 4810259[W]	2007/08 1660						7101500 (Z67951)
OAKVILLE TOWN ()	17 598971 4809649[W]	2008/09 6607	02	UK 0019				7113894 (M03093) A078554 BRWN SILT GRVL DNSE 0013 RED SILT GRVL 0020

Notes:
1. UTM in Zone, Easting, Northing and Datum is NAD83; L: UTM estimated from Centroid of Lot; W: UTM not from Lot Centroid
2. Date Work Completed
3. Well Contractor Licence Number
4. Casing diameter in inches
5. Unit of Depth in Feet
6. See Table 4 for Meaning of Code
7. STAT LVL: Static Water Level in Feet ; PUMP LVL: Water Level After Pumping in Feet
8. Pump Test Rate in GPM, Pump Test Duration in Hour : Minutes
9. See Table 3 for Meaning of Code
10. Screen Depth and Length in feet
11. See Table 1 and 2 for Meaning of Code

1. Core Material and Descriptive terms

Code	Description	…	Code	Description	…	Code	Description	…	Code	Description	…	Code	Description
BLDR	BOULDERS		FCRD	FRACTURED		IRFM	IRON FORMATION		PORS	POROUS		SOFT	SOFT
BSLT	BASALT		FGRD	FINE-GRAINED		LIMY	LIMY		PRDG	PREVIOUSLY DUG		SPST	SOAPSTONE
CGRD	COARSE-GRAINED		FGVL	FINE GRAVEL		LMSN	LIMESTONE		PRDR	PREV. DRILLED		STKY	STICKY
CGVL	COARSE GRAVEL		FILL	FILL		LOAM	TOPSOIL		QRTZ	QUARTZITE		STNS	STONES
CHRT	CHERT		FLDS	FELDSPAR		LOOS	LOOSE		QSND	QUICKSAND		STNY	STONEY
CLAY	CLAY		FLNT	FLINT		LTCL	LIGHT-COLOURED		QTZ	QUARTZ		THIK	THICK
CLN	CLEAN		FOSS	FOSILIFEROUS		LYRD	LAYERED		ROCK	ROCK		THIN	THIN
CLYY	CLAYEY		FSND	FINE SAND		MARL	MARL		SAND	SAND		TILL	TILL
CMTD	CEMENTED		GNIS	GNEISS		MGRD	MEDIUM-GRAINED		SHLE	SHALE		UNKN	UNKNOWN TYPE
CONG	CONGLOMERATE		GRNT	GRANITE		MGVL	MEDIUM GRAVEL		SHLY	SHALY		VERY	VERY
CRYS	CRYSTALLINE		GRSN	GREENSTONE		MRBL	MARBLE		SHRP	SHARP		WBRG	WATER-BEARING
CSND	COARSE SAND		GRVL	GRAVEL		MSND	MEDIUM SAND		SHST	SCHIST		WDFR	WOOD FRAGMENTS
DKCL	DARK-COLOURED		GRWK	GREYWACKE		MUCK	MUCK		SILT	SILT		WTHD	WEATHERED
DLMT	DOLOMITE		GVLY	GRAVELLY		OBDN	OVERBURDEN		SLTE	SLATE			
DNSE	DENSE		GYPS	GYPSUM		PCKD	PACKED		SLTY	SILTY			
DRTY	DIRTY		HARD	HARD		PEAT	PEAT		SNDS	SANDSTONE			
DRY	DRY		HPAN	HARDPAN		PGVL	PEA GRAVEL		SNDY	SANDY			

2. Core Color

Code	Description
WHIT	WHITE
GREY	GREY
BLUE	BLUE
GREN	GREEN
YLLW	YELLOW
BRWN	BROWN
RED	RED
BLCK	BLACK
BLGY	BLUE-GREY

3. Water Use

Code	Description	Code	Description
DO	Domestic	OT	Other
ST	Livestock	TH	Test Hole
IR	Irrigation	DE	Dewatering
IN	Industrial	MO	Monitoring
CO	Commercial		
MN	Municipal		
PS	Public		
AC	Cooling And A/C		
NU	Not Used		

4. Water Detail

Code	Description	Code	Description
FR	Fresh	GS	Gas
SA	Salty	IR	Iron
SU	Sulphur		
MN	Mineral		
UK	Unknown		

APPENDIX K

SITE PHOTOGRAPHS

Photograph 1: View of the Site (facing northwest).

Photograph 2: View of the residential housing development to the south of the Site, across Dundas Street.

Photograph 3: View of the commercial development to the east of the Site, across Dundas street.

Photograph 4: View of the monitoring well on-site (stick up wells) the vacant land (former residential property) immediately to the west of the site.

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