Brampton Transit

BUS MAINTENANCE & STORAGE FACILITY

Appendix K

Environmental Site Assessment: Phases 1 and 2

March 18, 2021

Prepared for

BRAMPTON Flower City
brampton.ca

Prepared by

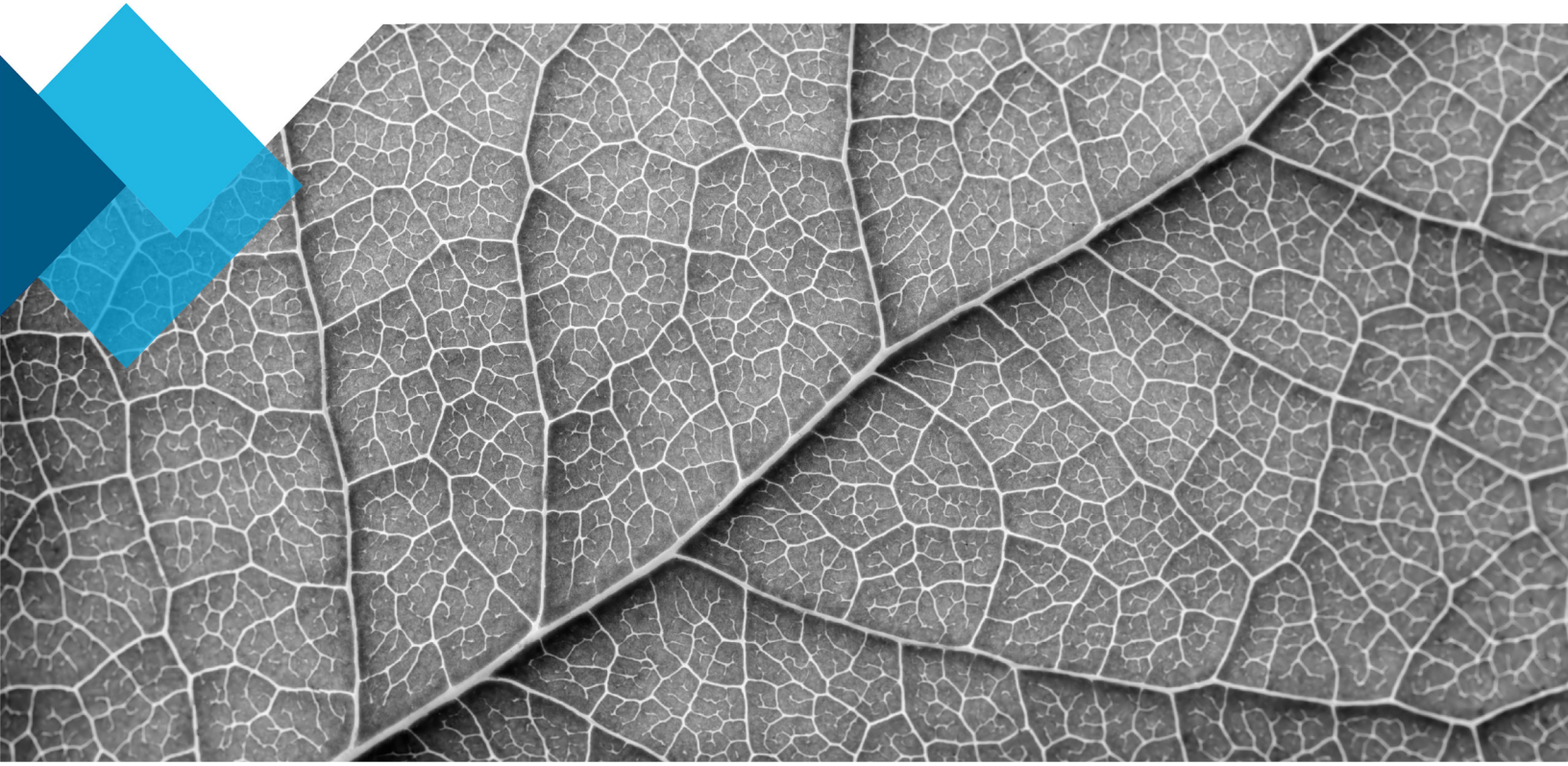
IBI GROUP

SNC·LAVALIN

Phase One Environmental Site Assessment

10192 Highway 50, Brampton, Ontario

City of Brampton



Environment & Geoscience

FINAL – November 29, 2019

Internal Ref.: 665125

Notice to Reader

This report has been prepared and the work referred to in this report has been undertaken by the Environment & Geoscience business unit of SNC-Lavalin Inc. (SNC-Lavalin) for the exclusive use of City of Brampton (the Client), who has been party to the development of the scope of work and understands its limitations. The methodology, findings, conclusions, and recommendations in this report are based solely upon the scope of work and subject to the time and budgetary considerations described in the proposal and/or contract pursuant to which this report was issued. Any use, reliance on, or decision made by a third party based on this report is the sole responsibility of such third party. SNC-Lavalin accepts no liability or responsibility for any damages that may be suffered or incurred by any third party as a result of the use of, reliance on, or any decision made based on this report.

The findings, conclusions, and recommendations in this report (i) have been developed in a manner consistent with the level of skill normally exercised by professionals currently practicing under similar conditions in the area, and (ii) reflect SNC-Lavalin's best judgment based on information available at the time of preparation of this report. No other warranties, either expressed or implied, are made as to the professional services provided under the terms of our original contract and included in this report. The findings and conclusions contained in this report are valid only as of the date of this report and may be based, in part, upon information provided by others. If any of the information is inaccurate, new information is discovered, site conditions change, or applicable standards are amended, modifications to this report may be necessary. The results of this assessment should in no way be construed as a warranty that the subject site is free from any and all contamination.

Any soil and rock descriptions in this report and associated logs have been made with the intent of providing general information on the subsurface conditions of the site. This information should not be used as geotechnical data for any purpose unless specifically addressed in the text of this report. Groundwater conditions described in this report refer only to those observed at the location and time of observation noted in the report.

This report must be read as a whole, as sections taken out of context may be misleading. If discrepancies occur between the preliminary (draft) and final versions of this report, it is the final version that takes precedence. Nothing in this report is intended to constitute or provide a legal opinion.

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Executive Summary

The Environment & Geoscience business unit of SNC-Lavalin Inc. (SNC-Lavalin) was retained by the City of Brampton (the City) to conduct a Phase One Environmental Site Assessment (ESA) of the property located at 10192 Highway 50 located, Brampton, Ontario. It is understood that the City already owns the northeast portion of this property (approximately 8 hectares [ha] in size; identified as "Parcel A1") and plans to purchase an additional 8.5 ha, consisting of an 8 ha "L" shape parcel located along the south and west (identified as "Parcel A"), and a 0.5 ha parcel south of Parcel A just west of Highway 50 (identified as "Parcel B"). Collectively, all three Parcels, herein, are referred to as the "Phase One Property" or the "Site".

This Phase One ESA was completed to meet the requirements for filing of a Record of Site Condition (RSC) under Ontario Regulation 153/04 (O. Reg. 153/04, as amended). The Site is located on the corner of the intersection of Highway 50 and Cadetta Road, in Brampton, Ontario. It is trapezoidal in shape and measures approximately 17 hectares (43 acres).

First developed use of the Phase One Property was determined to be post 2005.

The topography at the Phase One Property is generally flat with a slight slope towards the west. The Site elevation is approximately 209 m amsl. The nearest surface water body is Rainbow Creek that crosses the northwest corner of the Site. Based on the topography of the entire Site, it is anticipated that groundwater flow is towards the south/south west towards this creek.

The regional surface geology comprises Glaciolacustrine deposit, predominantly silt and clay with minor sand (Barnett et. al., 1991, Map 2556). The bedrock geology in the area belongs to the group of the Georgian Bay Formation; Blue Mountain Formation; Billings Formation; Collingwood Member, and Eastview Member consisting of shale, limestone, dolostone and siltstone (Ontario Geological Survey, 1991, Map 2544).

Site observations and review of historical records (environmental reports, chain of title, Ministry of Environment, Parks and Conservation [MECP] and EcoLog Eris records, municipal directories and aerial photographs) provided key Site information including:

- Review of the chain of title indicated the Phase One Property consists of two PINs (14213-0276 [Parcel A1] and a portion [Parcels A and B] of 14213-0300) transferred and owned by various individuals and/or corporation over the years. PIN 14213-0276 was owned by private individuals from 1830 to 2010, when it was purchased by the City of Brampton. PIN 14213-0300 has been owned by the same private individuals as PIN 14213-0276 since 1830 to present.
- A regraded/cleared area at the northeast corner of the Site (i.e., Parcel A1) is being used as a satellite yard by the City's Works Department and was constructed/graded with a layer of crushed stone/asphalt.
- A storage shed located at the south end of PIN 14213-0300 (i.e., Parcel A) was installed post 2005 and has been used to store farm machinery/equipment.
- An above ground storage tank (AST) for dyed diesel fuel located immediately south of the Site.
- Current and historical commercial/industrial operations identified as waste generators and/or metal fabricators were recorded immediately adjacent to the north property boundary of the Site. In addition, a commercial/industrial facility located to the east of Highway 50, and upgradient to the direction of

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inferred groundwater flow direction was listed as waste generator with documented spills. Based on the intervening distance to the Site and/or expected direction of groundwater flow to the south/southwest, potential impacts to soil and/or groundwater quality at the Site are anticipated resulting from the current and historical commercial/industrial operations on these properties.

Based on the specific observations for the Phase One Property and historical records review, on-site Areas of Potential Environmental Concern (APECs) associated with current and historical Potential Contaminating Activities (PCAs) and Areas of Interest (AOI) are presented below. AOI are activities or observations of conditions that may have the potential to adversely affect soil and groundwater conditions at the Site, but do not meet the MECP definition of a PCA.

- Potential impacts to soil by pesticide/herbicides associated with the historical and current agricultural operations at the Site.
- Potential impacts to soil and groundwater associated with fill of unknown quality used to construct the parking area of the City's Works Yard at the northeast corner of the Site.
- Potential impacts to soil and groundwater associated with the storage of farm machinery/equipment located in the storage shed at the south end of the Site.

Based on the specific observations for the Phase One Study Area, the following off-Site PCAs and AOI were identified:

- Potential impacts along north property boundary of the Phase One Property due to the commercial/industrial business located immediately to the north.
- Potential impacts along the south property boundary of the Phase One Property due to petroleum fuel storage and handling associated with the AST located immediately to the south.
- Potential impacts along the east property boundary on the Phase One Property due to the commercial/industrial property located to the east and upgradient.

Based on the historical use of the Site for agricultural purposes, importation of fill of unknown quality, storage of farm equipment/machinery, presence of waste generators and/or metal fabricators located immediately to the north, presence of an AST used to store dyed diesel fuel located immediately to the south, and documented waste generator and spills located at a property upgradient and to the east of the Site; potential contaminants of concern were identified as benzene, toluene, ethylbenzene, xylene (BTEX), petroleum hydrocarbon fractions (PHC) F1 to F4, volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), pesticides and herbicides, and metals and inorganics to soil and groundwater.

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Table of Contents

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© SNC-LAVALIN INC. 2019. ALL RIGHTS RESERVED. CONFIDENTIAL.

Figures

Appendices

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1 Introduction

The Environment & Geoscience business unit of SNC-Lavalin Inc. (SNC-Lavalin) was retained by the City of Brampton (the City) to conduct a Phase One Environmental Site Assessment (ESA) of the property located at 10192 Highway 50, Brampton, Ontario. It is understood that the City already owns the northeast portion of this property (approximately 8 hectares [ha] in size; identified as "Parcel A1") and plans to purchase an additional 8.5 ha, consisting of an 8 ha "L" shape parcel located along the south and west (identified as "Parcel A"), and a 0.5 ha parcel south of Parcel A just west of Highway 50 (identified as "Parcel B"). Collectively, all three Parcels, herein, are referred to as the "Phase One Property" or the "Site".

Although the proposed development will not require a filing of a Record of Site Condition (RSC) under Ontario Regulation 153/04 (O. Reg. 153/04, as amended); however, as requested by the City, this Phase One ESA was completed to meet this requirement.

1.1 Phase One Property Information

The Phase One Property is located on the southwest corner of the intersection of Highway 50 and Cadetta Road in Brampton, Ontario (Figure 1). It is trapezoidal in shape and measures approximately 16.5 ha (40.8 acres). The City already owns the north portion of the Site that is approximately 8 ha in size (i.e., Part 5 of Plan 43R-33140 [PIN 14213-0276]; identified as Parcel A1 for the purpose of this report) and plans to purchase an additional 8.5 hectares located along the south and west area of the Site (i.e., Parts 1 and 2 of the Concession 11, Plan 43R-33140 [PIN 14213-0300]; identified as Parcels A and B for the purpose of this report).

No structures exist on the Site with the exception of a metal shed located on Parcel A property used to store farm equipment/machinery. A gravel driveway exists along a portion of the southeast edge of the Site, Parcel B and which is associated with remainder of the property and having the same municipal address of 10192 Highway 50. The northeastern portion of the Site, Parcel A1 (owned by the City), has been re-graded/cleared and backfilled with a layer of crushed stone/asphalt and is being used as a satellite yard by the City's Works Department. A soil berm, generated during the regarding of the area is located on the west side of yard. Two residential dwellings, nine barns for storage and/or livestock and five silos are located south of the Site, on the remainder of the property and having the same municipal address of 10192 Highway 50.

The Site is primarily flat with a gentle downward slope to the west. The Site is bounded by Cadetta Road and industrial/commercial properties to the north, Highway 50 and a trucking facility to the east and farm lands to the south and west. The land use at the Site is currently agricultural.

A Phase I ESA and a limited Phase II ESA were completed for Parcel A1 in 2008. No other investigations or assessments were completed for the remainder of the Site (i.e., Parcels A and B).

The layout of the Phase One Property is shown on Figure 2.

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1.2 Contact Information

Site Owner	Mr. James F. Johnston Authorized Signing Officer 10192 Highway 50, Brampton, Ontario
Person Requesting Phase One ESA	Ms. Reshma Fazlullah Project Coordinator Building Design and Construction City of Brampton 2 Wellington Street West City Hall – West Tower, 8th Floor Brampton, Ontario L6Y 4R2 Telephone: 416-845-4237

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2 Scope of the Investigation

The purpose of this Phase One ESA is to identify potentially contaminating activities (PCAs) that may have impacted the Site. This Phase One ESA was also requested to satisfy the requirements for the potential filing of a RSC.

The objectives of this Phase One ESA are to:

- Identify areas of potential environmental concern (APECs) and preferential contaminant migration pathways.
- Determine the need for further investigations and the basis for carrying out such investigations.

To meet the objectives described above, SNC-Lavalin completed the following work:

- Reviewed available historical and environmental information for the Phase One Property.
- Completed a Site reconnaissance to observe the current condition of the Phase One Property and Study Area (i.e., all properties within 300 m from the boundaries of the Phase One Property).
- Conducted Interviews with the Phase One Property Owner.
- Provided conclusions based on an evaluation of information gathered during this investigation.

The Phase One work program was based on the Canadian Standards Association (CSA) “Phase One Environmental Site Assessment” Standard Z768-01 (CSA, 2001) and O. Reg. 153/04 as amended, subject to the following study limitations:

- A Phase One 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.
- A current legal plan of survey is not available at this time; a draft plan of survey provided by the City is presented in Appendix A.
- Inspections of surrounding properties were limited to visual observations from the Phase One Property and from publicly accessible vantage points.

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3 Records Review

SNC-Lavalin conducted a review of historical and environmental records relating to the Phase One Property and adjacent properties to identify evidence of actual or potential contamination in connection with the Phase One Property.

3.1 General Information

3.1.1 Phase One Study Area Determination

The Phase One Property is described as follows:

Address:	10192 Highway 50, Brampton, Ontario
Legal Description:	PIN 14213-0276: PT LT 12 CON 11 ND TORONTO GORE; DESIGNATED AS PART 5 ON PLAN 43R33140; CITY OF BRAMPTON PIN 14213-0300: PT LTS 11 AND 12, CON 11 ND, (FORMERLY TWP OF TORONTO GORE); DESIGNATED AS PTS 2,3,4 & 5 43R36614; CITY OF BRAMPTON
Location:	Northeast corner of the intersection of Highway 50 and Cadetta Road
Approximate Size:	PIN 14213-0276 (i.e., Parcel A1): Approximately 20 acre (8. 0 ha) PIN 14213-0300 (i.e., Parcels A and B): Approximately 21 acre (8.5 ha) in total (Ref. Source for PIN 14213-0300 [i.e., Parcel A]: Pearson and Pearson Surveying Ltd., OLS Surveyor's Real Property Report, July 15, 2019)
Zoning:	Agricultural (A Zone) (City of Brampton Zoning By-Law 270-2004)
Current Use:	Agricultural

The layout of the Phase One Property is shown in Figure 2. A current plan of survey of the Phase One Property for PIN 14213-0300 (i.e., Parcel A and B) providing the legal description of the property is included in Appendix A. A survey for PIN 14213-0276 (i.e., Parcel A1) has been requested from the City, however, to date one has not been provided.

The surrounding properties are predominantly zoned as Agricultural (A) or Industrial (M2) under the City of Brampton Zoning By-Law 270-2004.

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

- **North:** Cadetta Road and Industrial (M2 zoning);
- **South:** Agricultural (A zoning), with Residential Rural Estate (RE2 zoning) beyond to the southeast;
- **East:** Highway 50, with industrial/commercial properties beyond; and,
- **West:** Agricultural (A zoning).

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The Phase One Property and all properties located wholly and/or partially within 300 m of the Phase One Property, is shown on Figure 3. Surrounding Land Use is also shown on Figure 3. Based on the current and historical records reviewed as part of this investigation, it was determined that the Phase One Study Area would include all properties within 300 m 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 One ESA Study Area should be expanded.

3.1.2 First Developed Use Determination

The review of the aerial photographs showed agricultural land use associated with the Phase One Property up to present day, with a structure (current location of the farm equipment storage building) noted to be present on the southern portion of the Site (i.e., Parcel A) in the 2015 aerial photograph, which was not present in the 2005 aerial photograph. A review of the chain of title associated with Parcel A1 indicated land was owned and transferred among various individuals from 1830 up to 2010, after which ownership was transferred to The Corporation of The City of Brampton. A review of the chain of title associated with Parcels A and B indicated land was owned and transferred among various individuals from 1830 up to the present owner.

Based on the above information, the first developed use of the Phase One Property was determined post 2005.

3.1.3 Fire Insurance Plans (FIPs)

OPTA Information Intelligence (OPTA) was contracted through EcoLog ERIS to obtain property underwriters' FIPs through their Historical Environmental Reporting System (HEIRS™). In their response dated May 15, 2019, OPTA indicated that no FIPs were available for the Site and/or surrounding area.

The FIP responses are provided in Appendix B.

3.1.4 Chain of Title

Land titles and the legal property descriptions were provided by EcoLog ERIS. As first developed use of the Phase One 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.

The current Phase One Property consists of two PINs (Part 5 of 14213-0276 and Parts 2, 3, 4 & 5 of 14213-0300) transferred and owned by various individuals and/or corporation over the years.

PIN 14213-0276 (Parcel A1)

Year	Grant/Transfer/Lease
1830	The Crown
1830 to 2010	Land owned and transferred among various individuals
2010 to present	Land transferred to the Corporation of the City of Brampton on May 14, 2010

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PIN 14213-0300 (Parcels A and B)

Year	Grant/Transfer/Lease
1830	The Crown
1830 to 1993	Land owned and transferred among various individuals
1993 to present	Land transferred to the current owner James Fraser Johnston

The title search for the Phase One Property has historically been under ownership of private individuals, with a portion of it (Parcel A; i.e., Part 5 of PIN 14213-0276) being transferred to the City in 2010.

3.1.5 Environmental Reports

A Phase I ESA and Limited Phase II ESA documenting a preliminary environmental investigation, were completed in 2008 (Trow, 2008 a and b) on PIN 14213-0276 (i.e. Parcel A1) of the Phase One Property. The findings of these reports are summarized below. No environmental reports are known to exist for PIN 14213-0300 (i.e., Parcels A and B).

Phase I ESA

- On-site APEC relating to historical agricultural land use for crop production potentially affecting soil and groundwater.
- Adjacent commercial and industrial properties to the immediate north and a trucking facility to the east, (across Highway 50) including but not limited to paint coating, tool and machining and automotive truck garages potentially affecting soil and groundwater.
- It was recommended that a limited Phase II ESA be completed to assess topsoil for pesticides, and soil and groundwater testing for chemicals associated with the off-site commercial/industrial activities located adjacent to the north property boundary. The trucking facility to the east (across Highway 50) was considered low environmental risk.

Limited Phase II ESA

- Four boreholes were advanced to depths between 5.0 m and 7.5 m below ground surface (bgs), of which two were instrumented as groundwater monitoring wells. Borehole and monitoring well locations are shown in Figure 2.
- Stratigraphy was noted to be topsoil to depth of approximately 0.28 m underlain by clayey/silt till to an approximate depth of 3.1 m underlain by a sandy silt till to depths of between 4.9 and 7.8 m bgs.
- The depth to water was noted to be between 2.6 m and 4.0 m bgs.
- Detectable concentrations of selected metals and hydride parameters were noted in three analyzed soil samples but were below the then Table 2 criteria for agricultural land use in a potable groundwater condition (Ministry of the Environment (MOE), March 2004).
- Concentrations of organochlorine pesticides (OP) and volatile organic compounds (VOC) in the analyzed soil samples were below the laboratory method detection limits.

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- Concentrations of selected heavy metals, OP and VOC in the analyzed groundwater samples met the then Table 2 criteria and/or were below the laboratory method detection limits.
- It was concluded that no impacts were identified to soil or groundwater associated with historic site use including potential pesticides, and no indication of adverse impacts to soil and groundwater from the adjacent properties located to the north. It was recommended that a more comprehensive investigation of soil and groundwater be completed in close proximity to the north property boundary to evaluate potential impacts from industrial activities on these adjacent north properties.

3.2 Environmental Source Information

3.2.1 EcoLog ERIS Database Information

A copy of the EcoLog ERIS report requested in 2019, including a complete listing of the databases searched is provided as Appendix D.

Information that may be pertinent to the environmental condition of the Phase One Property is discussed below.

Phase One Property:

Address/Business Name	Approximate Distance to the Site	Database Reviewed	Year	Potentially Contaminating Activities (PCAs)/Area of Interest (AOI)
10192 Highway 50	N/A	EHS	2008	The listings indicated ERIS historical search was completed for the Site in 2008.

List of Databases;
EHS –ERIS Historical Searches

Surrounding Properties:

Address/Business Name	Approximate Distance to the Site	Database Reviewed	Year	Potentially Contaminating Activities (PCAs)/Area of Interest (AOI)
2 Cadetta Rd. (Total Crane Rental Ltd.)	Approximately 44 m North of the Site	SPL	2013	A spill of diesel fuel to ground surface (volume not reported) due to unattended vehicle while filling; confirmed soil contamination recorded.
		GEN	1999 to 2001	Listed as registered waste generator for waste oils and lubricants
6 Cadetta Rd. (Joe Gallo Bros. Paving Ltd.)	Approximately 161 m Northwest of the Site	GEN	2001	Listed as registered waste generator for waste oils and lubricants.

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Address/Business Name	Approximate Distance to the Site	Database Reviewed	Year	Potentially Contaminating Activities (PCAs)/Area of Interest (AOI)
6 Cadetta Rd. (Coleraine Junkyard 1976)	Approximately 161 m Northwest of the Site	ANDR	1976	Anderson's Waste Disposal Sites database identified auto junkyard facility at this property.
8 Cadetta Rd. (Forest Contractors Ltd.)	Approximately 165 m Northwest of the Site	GEN	2012 to 2016 and as of Dec. 2018	Listed as registered waste generator for waste crankcase oils and lubricants, and waste oil and lubricants.
8 Cadetta Rd. (Coleraine Junkyard 1969)	Approximately 165 m Northwest of the Site	ANDR	1969	Anderson's Waste Disposal Sites database identified auto junkyard facility at this property.
10 Cadetta Rd. (Alta Cranes Ltd.)	Approximately 226 m North/ Northwest of the Site	GEN	1988 to 2001	Listed as registered waste generator for petroleum distillates.
10 Cadetta Rd. (Advance Fence and Wire)	Approximately 226 m North/ Northwest of the Site	GEN	1996 to 2001	Listed as registered waste generator for petroleum distillates and emulsified oils.
10 Cadetta Rd. (Onsite Ready-Mix Inc.)	Approximately 226 m North/ Northwest of the Site	GEN	2009 to 2011	Listed as registered waste generator for waste oil and lubricants, and other specified inorganics.
10 Cadetta Rd. (1105976 Ontario Limited)	Approximately 226 m North/ Northwest of the Site	GEN	1995	Listed as registered waste generator for emulsified oils.
10 Cadetta Rd. (Magcrete Logistics)	Approximately 226 m North/ Northwest of the Site	GEN	2014 to as of Dec. 2017	Listed as registered waste generator for waste oil and lubricants.
10 Cadetta Rd. (Dura Fence Ltd., Acculink Fence & Wire Inc., York Fence Company Ltd.)	Approximately 226 m North/ Northwest of the Site	SCT	unknown	Business listed for manufacturing fabricated wire products and ornamental and architectural metal products.
12 Cadetta Rd. Terrapave Holdings Inc.)	Approximately 227 m Northwest of the Site	GEN	As of Dec. 2018	Listed as registered waste generator for waste crankcase oils and lubricants

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Address/Business Name	Approximate Distance to the Site	Database Reviewed	Year	Potentially Contaminating Activities (PCAs)/Area of Interest (AOI)
12 Cadetta Rd. (Greenstar Construction)	Approximately 227 m Northwest of the Site	GEN	2015 to 2016 and as of Dec. 2018	Listed as registered waste generator for waste crankcase oils and, oils and lubricants.
12 Cadetta Rd. (Cedar Mills Welding)	Approximately 227 m Northwest of the Site	SCT	1988	Business established in 1988 for manufacturing of heavy gauge metal tanks and other miscellaneous fabricated metal product.
14 Cadetta Rd. (D&D Tool & Machine Co.)	Approximately 248 m Northwest of the Site	SCT	1974	Business established in 1974 as a machine shop and general purpose machinery manufacturing.
14 Cadetta Rd. (Time & Precision Co. Ltd.)	Approximately 270 m Northwest of the Site	GEN	1993 to 1998 and 2005	Listed as registered waste generator for emulsified oils and waste oils and lubricants
16 Cadetta Rd. (Avenue Structures Corp., 1389147 Ontario Inc., Canform Structures Ltd., Avenue Building Corporation)	Approximately 149 m West/ Northwest of the Site	GEN	1986 to 1990, 1992 to 2016 and as of Dec. 2018	Listed as registered waste generator for waste crankcase oils and lubricants, petroleum distillates, waste oils and lubricants, pigments, coatings and paints, emulsified oils.

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Address/Business Name	Approximate Distance to the Site	Database Reviewed	Year	Potentially Contaminating Activities (PCAs)/Area of Interest (AOI)
18 Cadetta Rd. (Tristar Coatings Ltd./Tristar Coating Ltd., Div. of Trebor Ind.)	Approximately 80 m Northwest of the Site	GEN	1988 to 1990, 1992 to 2016 and as of Dec. 2018	Listed as registered waste generator for pigments, coatings and paints, aromatic solvents and residues, polymeric resins, waste crankcase oils and lubricants, paint/pigment coating residues, aliphatic solvents.
		SPL	2008	A spill of 60 L of oil to pavement ground surface by Purolator Courier Ltd. Cause not provided. Contamination reported as not anticipated.
		SCT	1971	A business established in 1971 for paint and coating manufacturing.
20 Cadetta Rd., Unit #7 (Roma Building Restoration Ltd.)	Approximately 86 m Northwest of the Site	GEN	As of Dec. 2018	Listed as registered waste generator for waste crankcase oils and lubricants.
20 Cadetta Rd. [Quality Fabricating and Machining (QFM) Ltd.]	Approximately 88 m Northwest of the Site	SCT	1976	A business established in 1976 for the manufacturing of iron and ferro-alloy; other miscellaneous fabricated metal products.
22 Cadetta Rd. (Pilen Construction of Canada Ltd.)	Approximately 70 m North of the Site	GEN	1986 to 1990, 1992 to 2010, 2012 to 2016 and as of Dec, 2018	Listed as registered waste generator for aromatic solvents and residues, petroleum distillates, light fuels, waste oils/sludges (petroleum based), waste crankcase oils and lubricants.
		PRT	1993	The Private and Retail Fuel Storage Tanks database identified licence issued to the business for a retail storage tank with a capacity of 2000 L; licence expired in 1995.
24 Cadetta Rd. (Wyndale Paving Ltd.)	Approximately 104 m Northwest of the Site	GEN	2015, 2016 and as of Dec 2018	Listed as registered waste generator for petroleum distillates and waste crankcase oil/lubricants

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Address/Business Name	Approximate Distance to the Site	Database Reviewed	Year	Potentially Contaminating Activities (PCAs)/Area of Interest (AOI)
24 Cadetta Rd. (Roma Fence Ltd.)	Approximately 104 m Northwest of the Site	SCT	1969	A business established in 1969 for manufacturing of cutlery and hand tools; plastic products; fabricated wire products; wood products; ornamental and architectural metal products; and miscellaneous fabricated metal products.
6830 Rutherford Rd. (Canadian Pacific Railway)	Approximately 300 m East/ Northeast of the Site	GEN	2001 to 2017, and as of Dec. 2018	Listed as registered waste generator, including, but not limited to, aliphatic solvents, petroleum distillates, PCBs, acid wastes (heavy metals), waste oils & lubricants, oil skimmings and sludges, light fuels, organic laboratory chemicals, and alkaline wastes (heavy metals).
		SPL	 2008 2009 2013	Numerous reported spills, including, but not limited to: 150 L hydraulic fluid to a catch basin due to equipment failure, contamination reported as not anticipated; 250 L hydraulic fluid to asphalt due to leak, cleaned up, contamination reported as not anticipated; 1000 L hydraulic oil to ground, due to line break, cleaned up, contamination reported as not anticipated
9601 Highway 50 (SLH Transport Inc.)	Approximately 189 m East/ Southeast of the Site	FST/FSTH	2000	The fuel storage tank database identified one 100,000 L active diesel fuel double wall AST installed in 2000 (tank status active as of October 2008) for private fuel outlet operations.
		GEN	1999 to 2016 and as of Dec. 2018	Listed as registered waste generator for waste crankcase oils and lubricants, aliphatic solvents/residues, petroleum distillates, oil skimmings and sludges.

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Address/Business Name	Approximate Distance to the Site	Database Reviewed	Year	Potentially Contaminating Activities (PCAs)/Area of Interest (AOI)
9701 Highway 50 (Consolidated Fastrate (Ontario) Holdings Inc.)	Approximately 265 m North/ Northeast of the Site	GEN	2000 to 2016 and as of Dec. 2018	Listed as registered waste generator, including, but not limited to, alkaline solutions, wastes from the use of pigments, coatings and paints, aliphatic solvents and residues, petroleum distillates, light fuels, emulsified oils, polymeric resins, halogenated pesticides and herbicides and waste oils/sludges (petroleum based).
		SPL	November 2003	A spill of phenolic resin (volume not reported) to ground surface, caused by damage to moving containers. Contamination reported as possible to soil, groundwater and surface water.
			June 2006	A spill of 76 L of oil to a settling pond. Cause not provided. Contamination reported as possible to soil, groundwater and surface water.
			March 2006	A spill of varsol (volume not reported) caused by a pipe/hose malfunction. Cause not provided. Environmental impact not anticipated.
9701 Highway 50 (JB Express)	Approximately 265 m North/ Northeast of the Site	GEN	2015, 2016 and as of Dec. 2018	Listed as registered waste generator of waste crankcase oils and lubricants

List of Databases;

ANDR - Anderson's Waste Disposal Sites

FSTH - Fuel Storage Tank - Historic

GEN - Ontario Regulation 347 Waste Generators Summary

PRT - Private and Retail Fuel Storage Tanks

SCT - Scott's Manufacturing Directory

SPL - Ontario Spills

Other Properties/Records:

The Water Well Information System (WWIS) database identified three water wells on the Phase One Property. One well was classified for domestic water supply, constructed in 1977 to an approximate depth of 29 m. The second well was constructed in 2015 to a depth of 12 m, but later abandoned that same year.

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The third well was constructed in 2017 (no details provided). The static water levels for these wells were not provided.

In addition, twenty water wells were identified within a 300 m radius of the Site. These wells were constructed between 1967 and 2015 (status: three domestic water supply, one livestock/domestic water supply, two industrial water supply, one commercial water supply, one water supply, three observation wells, three test holes, one monitoring well, four abandoned [other] and one abandoned water supply). The depths of these wells range from approximately 4.6 m to 29.6 m with static water levels ranging from a depth of approximately 1.3 m to 9.5 m.

EcoLog ERIS also listed 67 unplottable records that indicated various commercial operations such as a trucking/transport businesses, gas station, distribution center, nursery and aggregate business. These records were reviewed for any PCAs in the vicinity of the Site. Based on the location description provided, the commercial operations identified appear to be further from the Site and not within the Phase One Study Area. As such, no impacts to soil and/or groundwater quality at the Site are anticipated from the unplottable commercial operations.

3.2.2 MECP Freedom of Information (FOI) Request

Phase One Property:

Under the FOI Act, a request was submitted to the Ministry of Environment, Conservation and Parks (MECP; previously called Ministry of the Environment [MOE]) in June 2019 to obtain available records for the Site.

A response was provided by the MECP on July 19, 2019. According to the MCEP an Occurrence Report was filed in August 1992 for a reported diesel spill of 80 L from an overturned truck due to an accident on the road adjacent to the Site. No migration of the fuel to the Site was anticipated and no further action was taken.

A copy of the MECP FOI request submission and their response is provided in Appendix E.

3.2.3 Local Municipality

Municipal directories search obtained from EcoLog indicated Brampton, Ontario is listed in the local municipal directories archives for the years 1958, 1967, 1972-1973, 1977-1978, 1983, 1989, 1994 and 2000. The results are summarized below, and a copy of the directories search provided by EcoLog is attached as Appendix F:

Phase One Property:

Year	Listing
1958, 1966, 1972-1973, 1977-1978, 1983, 1989, 1994 and 2000.	The property use for the Phase One Property was not listed in directories for any these years.

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Surrounding Properties:

The surrounding properties with the addresses of 2, 16, 18, 20 and 22 Cadetta Road in Brampton, Ontario (Figure 3) that are immediately adjacent to the Site or suspected to have PCAs were searched. These properties were also searched to assist in determining the historical land use in the vicinity of the Site. The following information was obtained:

- None of the searched properties were listed in the directories for the years 1958, 1966, 1972-1973, 1977-1978, 1983 and 2000.
- 2 Cadetta Road was not listed in the directories for the years 1958, 1966, 1972-1973, 1977-1978, 1983, 1989, 1994 and 2000.
- 16 Cadetta Road was listed as Avenue Structures in 1994, but not listed in 1989.
- 18 Cadetta Road was listed as Tristar Coatings Ltd. in 1994 and as Wedgeloc Industries Ltd. in 1989.
- 20 Cadetta Road was listed as Deform Construction Ltd. and Quality Fabricating & Machining Ltd. in 1994, and as F&J Sales Co. Ltd., Pedrix Technologies and Quality Fabricating & Machining Ltd in 1989.
- 22 Cadetta Road was listed as Pilen Construction of Canada Ltd. in 1994 and 1989.

No changes in the surrounding land use was identified in the updated municipal directories search completed.

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

3.2.4 TSSA Records Search

An email request was submitted to the Technical Standards and Safety Authority (TSSA) on June 14, 2019. SNC Lavalin received a response indicating that there were no records in their database of any fuel storage tanks at the Site or at properties searched in the vicinity of the Site.

TSSA did not register private fuel storage tanks prior to January 1990. Information provided by the TSSA is provided in Appendix G.

3.3 Physical Setting Sources

3.3.1 Aerial Photographs

Aerial photographs for the years 1946, 1951, 1960, 1969, 1976, 1985, 1994, 2005, 2015 and 2018 for the Site and surrounding areas were reviewed to investigate previous land use and Site development history. The significant observations made are summarized below.

Date	Observations
1946 A10117-68 (Figure H.1)	The Site appears to be used for agricultural purposes with no structures visible. Highway 50 is visible to the west of the Site. Several structures are located immediately to the south of the Site (associated with southern portion of 10192 Highway 50, Brampton). A structure is located on the adjacent property to the north.

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Date	Observations
	Land use in the vicinity of the Site appears to be vacant and/or used for agricultural purposes. Rainbow Creek is visible at the northwest corner of the Site.
1951 A13118-127 (Figure H.2)	No significant change of the Site and surrounding properties was observed in the 1951 aerial photograph when compared to the one from 1946.
1960 A16997-5 (Figure H.3)	No significant change at the Site was observed in the 1960 aerial photograph when compared to the one from 1951. Some regrading of the property to the north is noted, that was not apparent in the 1951 photograph. No other significant changes were noted in the surrounding properties.
1969 A20263-78 (Figure H.4)	No significant change at the Site and surrounding properties was observed in the 1969 aerial photograph when compared to the one from 1960.
1976 A24319-92 (Figure H.5)	No significant change at the Site and surrounding properties was observed in the 1976 aerial photograph when compared to the one from 1969. Highway 50 now appears to have been widened.
1985 A31404-105 (Figure H.6)	No significant change at the Site was observed in the 1985 aerial photograph when compared to the one from 1976, however, interpretation was limited due to poor quality aerial photograph. Significant regrading/clearing of the property to the north of the Site along Cadetta Road is now noted. No other significant changes were noted in the surrounding properties.
1994 City of Brampton (Online Map) (Figure H.7)	No significant change at the Site was observed in the 1994 aerial photograph when compared to the one from 1985, however, interpretation was limited due to poor quality aerial photograph. Additional structures are noted immediately to the south of the Site (associated with 10192 Highway 50, Brampton). Significant development is noted the property to the north, with buildings now present and Cadetta Road visible. Redevelopment of the properties to the east of the Site is noted, specifically the presence of a rail yard. No other significant changes were noted in the surrounding properties.
2005 City of Brampton (Online Map) (Figure H.8)	No significant change at the Site was observed in the 2005 aerial photograph when compared to the one from 1994. Further development of the property to the north of the Site, and to the west of Highway 50 is noted. No other significant changes were noted in the surrounding properties.
2015 City of Brampton (Online Map) (Figure H.9)	A structure is now noted along the south property boundary line on Parcel A of the Site. No other significant changes are noted with the Site. Further development of what appears to be a parking lot, on the property to the east of Highway 50 is noted. No significant changes to the surrounding property to the north of the Site was observed in the 2015 aerial photograph when compared to the one from 2005. No other significant changes were noted in the surrounding properties.
2018	The northeast portion of the Site (i.e., Parcel A1) is observed to have been cleared/regraded. No other significant changes are noted with the Site. No significant

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Date	Observations
Google Earth Pro Image (Figure H.10)	change to the surrounding properties was observed in the 2018 aerial photograph when compared to the one from 2015.

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 H.

3.3.2 Topography, Hydrology and Geology

The topography at the Site is generally flat with a slight slope towards the west. The Site elevation is approximately 209 m above mean sea level (amsl). The nearest surface water body is Rainbow Creek that crosses the northwest corner of the Site. A figure showing the topography of the Site is provided as Figure I.1 in Appendix I.

Based on the historical monitoring data available, the depth to groundwater at Parcel A1 ranges from approximately 2.6 m to 4.0 m bgs. It is anticipated that a similar water table depth would be encountered at Parcels A and B. The shallow groundwater flow at Parcel A1 Site was not determined, however, based on the topography of the entire Site, it is anticipated that groundwater flow is towards the south/south west towards Rainbow Creek.

The regional surface geology, as interpreted from Map 2556, Quaternary Geology of Ontario, Southern Sheet (Barnett et. al., 1991), comprises Glaciolacustrine deposit, predominantly silt and silt clay with minor sand.

No previous grain size analysis was performed for the Phase One Property, including the limited Phase II ESA completed at Parcel A1.

The bedrock geology in the area belongs to the group of the Georgian Bay Formation; Blue Mountain Formation; Billings Formation; Collingwood Member, and Eastview Member consisting of shale, limestone, dolostone and siltstone (Ontario Geological Survey, 2011).

3.3.3 Fill Materials

Parcel A1 of the Phase One Property is currently owed by the City. As noted in the aerial photographs, the northeast portion of Parcel A1 was regarded/cleared. Based on the site reconnaissance in May 2019 (discussed further below), a layer of crushed stone/asphalt has been placed over the regraded area.

3.3.4 Water Bodies and Areas of Natural Significance

The nearest surface water body is Rainbow Creek that crosses the northwest corner of the Phase One Property.

Based on a review of the topography, regional groundwater flow appears to south/southwest and toward this surface water body.

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A search of the Natural Heritage Information Centre (NHIC) online database was conducted for threatened or endangered species on or near the Site. A list of the noted species is presented in the following table. Species for which either the most recent observed date is greater than 30 years ago or the NHIC considers less threatened than "vulnerable" were not considered.

Species Name	Common Name	Description	Provincial Rank (S-Rank)	Date Last Observed
Monarda didyma	Scarlet Beebalm	Plant	S3	1948-08-04
Emydoidea blandingii	Blanding's Turtle	Animal	S3	1986-05-24

Key: S3 – Vulnerable

The NHIC database identified no threatened or endangered species at risk in the general area of the Site; however, it identified one vulnerable plant species and one vulnerable animal species, as indicated above in the vicinity of the Site and surrounding area. The Site is undeveloped/farmland and has Rainbow Creek crossing the northwest corner of the Site; as such, the Site may be suitable habitat to promote the growth of the plant species and sustain the animal. The adjacent properties to the north and properties located to the east of Highway 50 are predominantly developed and would not likely be suitable habitat for this type of plant and animal species, however there is undeveloped/farmland land to the west (cross gradient) and south (down gradient) of the Site.

The NHIC database search, review of the Ministry of Natural Resources and Forestry maps of Natural Heritage System and Areas and Areas of Natural and Scientific Interest (ANSI), and review of ANSI map provided by EcoLog did not identify any ANSI, provincially significant wetlands (PSW) or provincial parks within 300 m of the Site; therefore, the Site is not located within an area of natural significance.

The topographic map and the ANSI map from EcoLog that includes the Phase One Study Area are provided in as Figure I.1 in Appendix I.

3.3.5 Water Well Records

According to the Regional Municipality of York (York Region, 2016), a wellhead protection zone (i.e., Kleinburg Well No. 3 WHPA-D) is located approximately 1.7 km to the northeast of the Site. A review of MECP water well records identified nine water supply wells for domestic/industrial use within a 300 m radius of the Site. It is not known how many of these wells are currently in use. The wells were drilled from 1966 to 2000 and installed to depths of approximately 12 m to 37 m bgs. The well logs generally described clay with sand and gravel material from surface to a depth of approximately 8.0 m bgs, with clay below.

A copy of the information obtained from the MECP water well data system is provided in Appendix J. The approximate location of the identified wells within the 300 m radius is provided in Figure J.1.

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4 Interview

An interview with the property owner (Mr. James. F. Johnston) of Parcel A associated with the Phase One Property was completed by SNC-Lavalin through a questionnaire submitted via email to the City which was forwarded to Mr. Johnston. A copy of the questionnaire dated May 16, 2019 is provided in Appendix K. The following information was obtained:

- Mr. Johnston, the current Site owner, has owned Parcels A and B, since 1992, and has been used for agricultural purposes since 1842.
- According to Mr. Johnston, the Site is not municipally serviced, nor is there the presence of a septic tank and field. The Site also has not been previously serviced with either heating oil or coal, nor has it been serviced with natural gas and hydro.
- Mr. Johnston is not aware of any above ground or underground storage tanks (AST/UST) or storage of chemicals at the Site. He indicated that storage of chemicals and a fuel AST is located on the property immediately to the south of the Site.
- Mr. Johnston reported that he is not aware of any spills or leaks caused by farming machinery either at the Site or adjacent properties.
- The existing on-site structure is only used to store farm machinery. Mr. Johnston was not aware of any asbestos containing material associated with the structure.
- Mr. Johnston is not aware of any previous environmental reports associated with the Site.
- The “industrial” properties immediately to the north were established in the 1990s.

No other information suggesting significant potential impacts to the environmental condition of the Site was revealed at the time of the interview.

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5 Site Reconnaissance

5.1 General Requirements

SNC-Lavalin personnel, Mr. Abed Yassine, P. Geo. (Senior Geoscientist) conducted a Site inspection on May 10, 2019. The weather conditions noted at the time of inspection was 17 degrees Celsius with periods of rain. The approximate length of time of the inspection was two hours. The purpose of the Site inspection was to assess Site conditions and corroborate the results of the records review in order to identify APECs.

The Site layout at the time of the inspections is presented in Figure 2. Photographs taken during the inspection are included in Appendix L.

5.2 Specific Observations at Phase One Property

5.2.1 Above Ground Structures

The Site includes a single-story metal shed with slanted roof located in the center of the south edge of the Site (i.e., Parcel A). The majority of the Site predominantly consists of farm fields with a re-graded portion, for parking of City maintenance vehicles, located at the northeast section of the Site (i.e., Parcel A1). The re-graded area of the Site was observed to have a layer of crushed stone/asphalt pieces. Wood pole light standards (without lighting fixtures) were noted to be along the south and west perimeter of the parking area. Two mobile construction job site type trailers used for offices by City's Works Department personnel were located adjacent to the north property boundary line. Above ground hydro lines were connected to the two trailers and also to the light standards.

5.2.2 Below Ground Structures

No below ground structures were observed during the site inspection.

5.2.3 Storage Tanks

No storage tanks were observed during the site inspection.

5.2.4 Potable and Non-Potable Water Usage

No potable water wells were noted on the Phase One Property during the site visit. The WWIS database identified one water well (status: domestic water supply) constructed in 1977 to an approximate depth of 29.6 m, on the remainder of the property having municipal address 10192 Highway 50, located to the south of the Phase One Property.

5.2.5 Site Features

Utilities

The northeast portion of the Site (i.e., Parcel A1) that has the two trailers and light standards are connected to hydro via above ground wires. No other utilities were noted during the site inspection.

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Ground Cover

The Site is predominantly covered with topsoil and vegetative areas of grass/weeds and mature trees located at various locations along the north and west property boundaries. A layer (depth not confirmed) of crushed stone/asphalt covers the re-graded area at the northeast corner of the Site within Parcel A1. A low-rise earthen berm, presumably constructed from re-grading the northeast portion of the Site, is located along the west portion of the re-graded area. A gravel layer covers a driveway along a portion of the southeast edge of Parcel B.

Railway Lines

There are no railway lines at or adjacent to the Site. Railway lines are present more than 300 m east of the Site.

Ground Staining

Staining of the ground surface was observed in the metal storage shed during the site inspection.

Stressed Vegetation

No evidence of stressed vegetation was noted during the site inspection.

Evidence of Fill Materials

As noted, a layer of crushed stone/asphalt of fill was placed on the re-graded portion of the Site within Parcel A1. No other evidence of fill material was observed during the site inspection.

Potentially Contaminating Activities

Historical on-Site Potential Contaminating Activities (PCAs) are discussed in Section 6. PCAs observed during the 2019 site inspection included:

- Current and historical use of the Site for agricultural purposes.
- Use of fill material of unknown quality at the northeast corner of the Site, within Parcel A1.
- Metal shed for storage of farm machinery/equipment located at the south end of the Site, Parcel A.

Unidentified Substances

No unidentified substances were observed at the time of the site inspection.

Topography and Drainage

The topography at the Site was observed to be generally flat with slight slope downward to the west. Runoff from the Site is directed to towards Rainbow Creek which crosses the northwest corner of the Site.

Site Access

The Site is located on the northwest corner of the intersection of Highway 50 and Cadetta Road. Access to Site is by Cadetta Road through Parcel A1.

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Waste Materials

Non-hazardous waste material consisting of several garbage bags of grass/weed clippings, plastic flexible drainage tubes and pieces of concrete were noted to be located at various locations in the vicinity of the parking lot associated with Parcel A1. No other waste material was observed on the remainder of the Site at the time of the site inspection.

Pits or Lagoons

No pits or lagoons were identified at the Site during the site inspection.

Standing Water

No standing water was observed at the time of the site inspection.

Bedrock Outcrops

Bedrock outcrops were not observed during the site inspection.

Spills

No spills were observed during the Site inspection.

Air Emissions

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

Odour

No odours were noted on the Site at the time of the site inspection.

5.2.6 Enhanced Investigation at the Property

The Site is not considered an 'enhanced investigation property' as defined by O. Reg. 153/04, as amended.

5.3 Surrounding Properties

Adjacent and surrounding properties were observed from the boundaries of the Phase One property and from publicly accessible areas. Property uses on adjacent properties are described in Section 3.1.1.

The following observations were made regarding adjacent properties:

- **North:** Cadetta Road and commercial businesses (2, 16, 18 20 and 22 Cadetta Road). Vehicles (i.e., trucks, cars and backhoe) were parked on properties located to the northwest, on the north side of Cadetta Road, and construction machinery along with metal sea crates were noted to be located on properties to the north of the Site.
- **South:** Remainder of the property having municipal address 10192 Highway 50. Two residential dwellings, nine barns for storage and/or livestock, and agricultural fields. An AST contained dyed diesel fuel is located immediately to the south of the metal storage shed.
- **East:** Highway 50 then CP rail yard and commercial businesses (9601 and 9701 Highway 50) beyond.

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- **West:** Agricultural fields.

Potential impacts to soil and/or groundwater quality at the Site are anticipated resulting from the current commercial operations located adjacent to the north of the Site, and the commercial business to the east, and presence of the AST located on the property to the south.

5.4 Written Description of Investigation

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

Based on the specific observations for the Phase One Property and historical records review, on-site APECs associated with current and historical PCAs, and AOI are presented below. AOI are activities or observations of conditions that may have the potential to adversely affect soil and groundwater conditions at the Site, but do not meet the MECP definition of a PCA.

- Historical and current agricultural uses;
- Storage of farm equipment/machinery; and,
- Fill material of unknown quality.

Based on the specific observations for the Phase One Study Area, the following off-site PCAs and AOI were identified:

- Current and historical industrial businesses located to the north and east; and,
- Current and historical petroleum fuel handling associated with the AST located to the south.

Details of these observed areas of PCAs and AOIs, issues identified from records review and resulting APECs are presented in Section 6.

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6 Review and Evaluation of Information

6.1 Review and Evaluations

6.1.1 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 One ESA. The current Site layout is presented in Figure 2.

The current Phase One Property consists of two PINs (14213-0276 [Parcel A1] and a portion [Parcels A and B] of 14213-0300) transferred and owned by various individuals and/or corporation over the years. A summary of current and past uses of the Phase One Property obtained from the chain of title reports is provided below:

PIN 14213-0276

Year	Name of Owner	Description of Property Use	Property Use[1]	Other Observations from Aerial Photographs, Fire Insurance Plans, etc.
PT LT 12 CON 11 ND Toronto Gore; designated as Part 5 on Plan 43R33140; City of Brampton				
May 19, 1830	The Crown	Presumed undeveloped	Agricultural or other	No additional records available to asses property use
May 1830 to October 1831	James Durand	Presumed residential/ agricultural or undeveloped	Residential/ Agricultural or other	No additional records available to asses property use
October 1831 to April 1842	Andrew Mercer	Presumed residential/ agricultural or undeveloped	Residential/ Agricultural or other	No additional records available to asses property use
April 1842 to April 1857	Alexander Johnston	Presumed residential/ agricultural or undeveloped	Residential/ Agricultural or other	No additional records available to asses property use
April 1857 to December 1865	David Johnston	Presumed residential/ agricultural or undeveloped	Residential/ Agricultural or other	No additional records available to asses property use
December 1865 to September 1868	William Johnston	Presumed residential/ agricultural or undeveloped	Residential/ Agricultural or other	No additional records available to asses property use

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Year	Name of Owner	Description of Property Use	Property Use[1]	Other Observations from Aerial Photographs, Fire Insurance Plans, etc.
September 1868 to February 1891	David Johnston	Presumed residential/ agricultural or undeveloped	Residential/ Agricultural or other	No additional records available to asses property use
February 1891 to March 1959	John Johnston (estate of John Johnston)	Presumed residential/ agricultural or undeveloped prior to 1946. Agricultural after 1946.	Residential/ Agricultural or other	The 1946 and 1951 aerial photographs show agricultural fields with no structures visible.
March 1959 to July 1959	Eldred Johnston	Agricultural	Residential/ Agricultural or other	Aerial photographs from 1960, 1968, 1976, 1985, 1994 and 2005 show agricultural fields with no structures visible.
July 1959 to March 1993	Clarence Alexander Johnston	Agricultural	Residential/ Agricultural or other	
March 1993 to May 2010	James Frazer Johnston	Agricultural	Residential/ Agricultural or other	
May 2010 to Present	The Corporation of The City of Brampton	Agricultural	Residential/ Agricultural or other	The 2015 aerial photograph shows an area cleared/regraded at the northeast corner of the PIN.

[1] – Property use as defined in O.Reg.153/04.

PIN 14213-0300

Year	Name of Owner	Description of Property Use	Property Use[1]	Other Observations from Aerial Photographs, Fire Insurance Plans, etc.
PT LTS 11 AND 12, CON 11 ND, (Formerly TWP of Toronto Gore) Designated as PTS 2,3, 4 & 5 43R36614; City of Brampton				
May 19, 1830 to May 2010	Same ownership as PIN 14213-0276	Presumed residential/ agricultural or undeveloped prior to 1946. Agricultural after 1946.	Residential/ Agricultural or other	The 1946, 1951, 1969, 1976, 1985, 1994 and 2005 aerial photographs show agricultural fields with no structures visible. Several structures are located immediately to the south of the Site (associated with 10192 Highway 50, Brampton).

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Year	Name of Owner	Description of Property Use	Property Use[1]	Other Observations from Aerial Photographs, Fire Insurance Plans, etc.
May 2010 to Present	James Frazer Johnston	Agricultural	Residential/ Agricultural or other	The 2015 aerial photograph shows a structure is along the south property boundary line of the Phase One Property.

[1] – Property use as defined in O.Reg.153/04.

6.1.2 Potential Contaminating Activity

6.1.2.1 Potentially Contaminating Activities On-Site

Based on the records review, observations made during the inspection and information gathered through interviews, PCAs and AOIs were identified at the Site. This information is summarized below and in Figure 4.

Address	PCA No.	PCA and AOI	Location of APEC on Phase One Property	APEC No.	Rationale/Evaluation
10192 Highway 50 (Parcels A, A1 and B)	40	Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	General Site area	1	Potential impacts due to historical and current activities associated with agriculture/farming.
	30	Importation of Fill Material of Unknown Quality	Northeast corner	2	Presence of crushed stone/and asphalt pieces.
	N/A	Storage of farm machinery/equipment	Along south property boundary	3	Potential impacts due to storage of farm equipment/machinery: leaks due to motor oil, hydraulic oil, and/or fuel (gasoline and/or diesel).

6.1.2.2 Potentially Contaminating Activities Off-Site

Based on records review, observations made during the inspection and information gathered through interviews, PCAs and AOIs were identified on properties within the Phase One study area that may be contributing to on-site conditions. This information is summarized below and in Figure 4.

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Address	PCA No.	PCA and AOI	Location of APEC on Phase One Property	APEC No.	Rationale/Evaluation
10192 Highway 50 (Remainder of property)	28	Gasoline and associated products storage in fixed tanks.	Along south property boundary (south of the metal storage shed)	5	Potential impacts due to petroleum fuel handling and storage.
2 Cadetta Rd. (Approximately 44 m North of the Site)	N/A	Documented spill of unknown volume of diesel fuel to ground surface.	None	N/A	Spill due to unattended vehicle while filling. Reported confirmed impacts to soil. Impacts to groundwater not known. Cadetta Rd. located to the south of the property and north of the Site. Backfill material of buried utilities along Cadetta Rd. would likely serve as a conduit for groundwater flow, and thus potentially impacted groundwater reaching the Site would be minimal.
6 Cadetta Rd. (Approximately 161 m Northwest of the Site)	N/A	Registered waste generator of waste oils and lubricants.	None	N/A	Joe Gallo Bros. Paving Ltd. exists at this location; however, it is not considered likely to give rise to an APEC based on the intervening distance to the Site.
8 Cadetta Rd. (Approximately 165 m Northwest of the Site)	N/A 34	Various businesses: registered waste generators of waste crankcase oils and lubricants, and waste oil and lubricants, petroleum distillates, emulsified oils, and/or other specified inorganics. Metal fabrication	None	N/A	Forest Contractors Ltd. exists at this location; however, it is not considered likely to give rise to an APEC based on the intervening distance to the Site.
10 Cadetta Rd. (Approximately 226 m North/ Northwest of the Site)	N/A 34	Various businesses: registered waste for petroleum distillates, emulsified oils, waste oil and lubricants, and other specified inorganics. Metal fabrication	None	N/A	Alta Cranes Ltd., Advance Fence and Wire, Onsite Ready-Mix Inc., Dura Fence Ltd., Acculink Fence & Wire Inc., York Fence Company Ltd. exist at this location, however, it is not considered likely to give rise to an APEC based on the intervening distance to the Site.

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Address	PCA No.	PCA and AOI	Location of APEC on Phase One Property	APEC No.	Rationale/Evaluation
12 Cadetta Rd. (Approximately 227 m Northwest of the Site)	N/A 34	Various business: registered waste generators of waste crankcase oils and lubricants, and/or oils and lubricants. Metal fabrication	None	N/A	Terrapave Holdings Inc., Greenstar Construction, and Cedar Mills Welding exist at this location, however, it is not considered likely to give rise to an APEC based on the intervening distance to the Site.
14 Cadetta Rd. (Approximately 248 m Northwest of the Site)	34	Metal fabrication	None	N/A	D&D Tool & Machine Co. and Time & Precision Co. Ltd. exist at this location, however, it is not considered likely to give rise to an APEC based on the intervening distance to the Site.
16 Cadetta Rd. (Approximately 149 m West/ Northwest of the Site)	N/A	Registered waste generator of waste crankcase oils and lubricants, petroleum distillates, waste oils and lubricants, pigments, coatings and paints, emulsified oils.	Along north property boundary/ north west corner	6	Avenue Structures Corp., 1389147 Ontario Inc., and Canform Structure Ltd. exist at this location. Potential impacts due to generation of petroleum hydrocarbon based wastes in close proximity to the Site.
18 Cadetta Rd. (Approximately 80 m Northwest of the Site)	N/A N/A	Registered waste generator of pigments, coatings and paints, aromatic solvents and residues, polymeric resins, waste crankcase oils and lubricants, paint/pigment coating residues, aliphatic solvents. Documented spill of 60 L of oil to pavement ground surface.	Along north property boundary/ north west corner	6	Tristar Coatings Ltd. exists at this location. Potential impacts due to generation of petroleum hydrocarbon-based wastes and solvents in close proximity to the Site.
20 Cadetta Rd., Unit #7 (Approximately 86 m Northwest of the Site)	N/A 34	Registered waste generator of waste crankcase oils and lubricants. Metal fabrication	Along north property boundary	6 7	Roma Building Restoration Ltd. and QFM Ltd. exist at this location. Potential impacts due to generation of petroleum hydrocarbon-based wastes and activities associated with metal fabrication in close proximity to the Site.

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Address	PCA No.	PCA and AOI	Location of APEC on Phase One Property	APEC No.	Rationale/Evaluation
22 Cadetta Rd. (Approximately 70 m North of the Site)	N/A	Registered waste generator for aromatic solvents and residues, petroleum distillates, light fuels, waste oils/sludges (petroleum based), waste crankcase oils and lubricants.	Along north property boundary	6	Pilen Construction of Canada Ltd. exists at this location. Potential impacts due to generation of petroleum hydrocarbon-based wastes and solvents in close proximity to the Site.
24 Cadetta Rd. (Approximately 104 m Northwest of the Site)	N/A 34	Registered waste generator of petroleum distillates and waste oil/lubricants Metal fabrication	Along north property boundary	6 7	Wyndale Paving Ltd. and Roma Fence Ltd. exists at this location. Potential impacts due to generation of petroleum hydrocarbon-based wastes and activities associated with metal fabrication in close proximity to the Site.
6830 Rutherford Rd. (Approximately 300 m East/ Northeast of the Site)	NA	Registered waste generator including, but not limited to, aliphatic solvents, petroleum distillates, PCBs, acid wastes (heavy metals), waste oils & lubricants, oil skimmings and sludges, light fuels, organic laboratory chemicals, and alkaline wastes (heavy metals).	None	N/A	Canadian Pacific Railway exists at this location, however due the intervening distance and cross-gradient location to inferred groundwater flow direction, it is not considered likely to give rise to an APEC based on the intervening distance to the Site.
9601 Highway 50 (Approximately 189 m East/ Southeast of the Site)	28 N/A	Gasoline and associated products storage in fixed tanks. Registered waste generator for waste crankcase oils and lubricants, aliphatic solvents/residues, petroleum distillates, oil/ skimmings and sludges.	None	N/A	SLH Transport Inc. exists at this location, however due the intervening distance and downgradient location, it is not considered likely to give rise to an APEC based on the intervening distance to the Site.
9701 Highway 50 (Approximately 265 m North/ Northeast of the Site)	N/A	Registered waste generator, including, but not limited to, alkaline solutions, wastes from the use of pigments, coatings and paints, aliphatic solvents and	Along east property boundary	4	Consolidated Fastrate Inc. exists at this location. Potential impacts to groundwater as the property is located upgradient of inferred groundwater flow direction.

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Address	PCA No.	PCA and AOI	Location of APEC on Phase One Property	APEC No.	Rationale/Evaluation
		residues, petroleum distillates, light fuels, polymeric resins, halogenated pesticides and herbicides and waste oils/sludges (petroleum based). Documented spills to ground surface: phenolic resin (unknown volume), 76 L of oil, and varsol (unknown volume).			

6.1.3 Areas of Potential Environmental Concern

Based on records review, observations made during the inspection and information gathered from other sources, four APECs were identified for the Phase One Property. These APECs are presented on Figure 5 and are summarized below:

Area of Potential Environmental Concern [1]	Location of Area of Potential Environmental Concern on Phase One Property	Potential Contaminating Activity[2]	Location of PCA (on-site or off-site)	Contaminants of Potential Concern[3]	Media Potentially Impacted (Ground water, soil and/or sediment)
1	General Site area	Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	On-site	Herbicides & Pesticides and Metals/ Inorganics	Soil and Groundwater
2	Northeast corner	Importation of Fill Material of Unknown Quality	On-site	PAHs and Metals/ Inorganics	Soil and Groundwater
3	Along south property boundary (storage of	NA	On-site	BTEX, PHC F1-F4, and PAHs	Soil and Groundwater

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Area of Potential Environmental Concern [1]	Location of Area of Potential Environmental Concern on Phase One Property	Potential Contaminating Activity[2]	Location of PCA (on-site or off-site)	Contaminants of Potential Concern[3]	Media Potentially Impacted (Ground water, soil and/or sediment)
	farm machinery/ equipment)				
4	Along east property boundary (commercial business located at 9701 Highway 50 [upgradient] of the Site documented waste generator and spills)	N/A	Off-site	BTEX, PHC F1-F4, VOCs, PAHs and Metals/ Inorganics	Groundwater
5	Along south property boundary (south of the metal storage shed)	Gasoline and associated products storage in fixed tanks.	Off-site	BTEX, PHC F1-F4, and PAHs	Soil and Groundwater
6	Along north property boundary (waste generators)	N/A	Off-site	BTEX, PHC F1-F4, VOCs, PAHs and Metals/ Inorganics	Soil and Groundwater
7	Along north property boundary	Metal fabrication	Off-site	VOCs and Metals/ Inorganics	Soil and Groundwater

Notes:

[1] – Area of potential environmental concern means the area on, in or under a phase one property where one or more contaminants are potentially present, as determined through the phase one environmental Site assessment

[2] - Potentially contaminating activity means a use or activity set out in Column A of Table 2 of Schedule D that is occurring or has occurred in a phase one study area

[3] – Potential contaminants of concern identified using the Method Groups as identified in the "Protocol for in the Assessment of Properties under Part XV.1 of the Environmental Protection Act, March 9, 2004, as amended.

BTEX	Benzene, Toluene, Ethylene, Xylene
PHC	Petroleum Hydrocarbon
VOC	Volatile Organic Carbon
PAH	Polycyclic Aromatic Hydrocarbon

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6.1.4 Phase One Conceptual Site Model (CSM)

A pictorial representation of the CSM is shown in Figures 4 and 5 and presents the following:

- Existing buildings, structures, roadways and their names within the Phase One Study Area;
- Water bodies and ANSIs, if any, within the Phase One Study Area (Section 3.3.4);
- Water wells, if any, located on the Phase One property (Section 3.3.5);
- Land uses adjacent to the Phase One property;
- Areas of PCAs and APECs, if any, within the Phase One Study Area (Section 6.1.2 and Section 6.1.3, respectively).

The topography at the Site is generally flat with a slight slope towards the west. The Site elevation is approximately 209 m amsl. The nearest surface water body is Rainbow Creek that crosses the northwest corner of the Site.

Based on the historical monitoring data available, the depth to groundwater at Parcel A1 ranges from approximately 2.6 m to 4.0 m bgs. It is anticipated that a similar water table depth would be encountered at Parcels A and B. The shallow groundwater flow at Parcel A1 was not determined, however, based on the topography of the entire Site, it is anticipated that groundwater flow is towards the south/south west towards Rainbow Creek.

The regional surface geology, as interpreted from Map 2556, Quaternary Geology of Ontario, Southern Sheet (Barnett et. al., 1991), comprises Glaciolacustrine deposit, predominantly silt and silty clay with minor sand. The bedrock geology in the area belongs to the group of the Georgian Bay Formation; Blue Mountain Formation; Billings Formation; Collingwood Member, and Eastview Member consisting of shale, limestone, dolostone and siltstone (Ontario Geological Survey, 2011).

The previous environmental investigation completed on Parcel A1, indicated that the shallow overburden in this portion of the Site generally comprises topsoil to depths of approximately 0.28 m underlain by clayey/silt till to an approximate depth of 3.1 m underlain by a sandy silt till to depths of between 4.9 and 7.8 m bgs.

Based on review of the previous environmental investigation completed on Parcel A1, no impacts to soil or groundwater associated with historic site use including potential pesticides were identified. No indications of adverse impacts from the adjacent properties located to the north were identified at the selected test locations. It was recommended that a more comprehensive investigation of soil and groundwater be completed in close proximity to the north property boundary to evaluate potential impacts from industrial activities on these adjacent north properties.

Based on the historical use of the Site for agricultural purposes, storage of farm machinery/equipment, importation of fill of unknown quality, and off-site activities that may impact the Site associated with petroleum fuel handling and storage activities, waste generation and metal fabrication; potential contaminants of concern (PCOC) were identified as BTEX, PHC F1 to F4, VOCs, PAHs, metals/inorganics and herbicide & pesticides, in soil and groundwater.

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6.2 Uncertainties

No uncertainties were noted.

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7 Conclusions

7.1 Summary and Conclusions

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

- First developed use of the Phase One Property was determined to be post 2005.
- Review of the chain of title indicated the Phase One Property consists of two PINs (14213-0276 and a portion of 14213-0300) transferred and owned by various individuals and/or corporation over the years. PIN 14213-0276 was owned by private individuals from 1830 to 2010, when it was purchased by the City of Brampton. PIN 14213-0300 has been owned by the same private individuals as PIN 14213-0276 since 1830 to present.
- Current and historical commercial/industrial operations were recorded in the vicinity of the Site; immediately adjacent to the north property boundary and to the east of Highway 50. Based on the intervening distance to the Site and/or expected direction of groundwater flow to the south/southwest, potential impacts to soil and/or groundwater quality at the Site are anticipated resulting from the current and historical commercial/industrial operations on these properties.
- The Site interview indicated the metal storage shed located on PIN 14213-0300 has been used to store farm machinery/equipment.
- The topography at the Site is generally flat with a slight slope towards the west. The Site elevation is approximately 209 m amsl. The nearest surface water body is Rainbow Creek that crosses the northwest corner of the Site. Based on the topography of the entire Site, it is anticipated that groundwater flow is towards the south/south west towards this creek.
- The Site is currently vacant farmland with an area at the northeast corner (on PIN14213-0276) being used as a satellite yard by the City's Works Department and was constructed/graded with a layer of crushed stone/asphalt.
- Based on the records review, interviews and observations made during the Site visits, PCAs and AOIs were identified on-Site, and include; potential impacts to soil by pesticide/herbicides associated with the historical and current agricultural operations, potential impacts to soil and groundwater associated with fill of unknown quality, and potential impacts to soil and groundwater associated with the storage of farm machinery/equipment.
- PCAs and AOIs identified off-Site that may potentially impact soil and groundwater quality on-Site include commercial/industrial business located adjacent to north property boundary registered as waste generators and/or metal fabricators, petroleum fuel storage and handling associated with an AST located immediately south on the remainder of the property having Municipal address 10192 Highway 50, and commercial/industrial property located to the east of Highway 50 registered as a waste generator and with documented spills.
- Based on the on-Site and off-Site PCAs and AOIs, APECs identified on the Phase One Property include general Site area, northeastern portion of the Site in the parking area, south portion of the Site in the vicinity of the metal storage shed, along the east property boundary of the Site and along the north property boundary of the Site.

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7.1.1 Whether Phase Two Environmental Site Assessment Required Before Record of Site Condition Submitted

Based on the review and evaluation of information discussed herein, a Phase Two ESA would be required before a RSC could be submitted for the Phase One Property.

7.1.2 Record of Site Condition Based on Phase One Environmental Site Assessment Alone

A RSC will not be submitted based on Phase One ESA alone as based on the review and evaluation of information discussed herein, a Phase Two ESA would be required before a RSC could be submitted for the Phase One Property.

7.2 QP Statement

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

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8 Closure

Prepared by:

Robert Mitzakov, M.A.Sc., P.Eng.
Project Engineer

Reviewed by:

PROFESSIONAL GEOSCIENTIST
A. R. YASSINE
PRACTISING MEMBER
1523
Nov. 29/19
ONTARIO

Abed Yassine, P.Geo.
Senior Geoscientist

Environment & Geoscience
Engineering, Design and Project Management

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9 References

Barnett, P.J., Cowan W.R., and Henry, A.P., 1991. "Quaternary Geology of Ontario, Southern Sheet; Ontario Geological Survey, Map 2556, Scale 1:1,000,000".

Canadian Standards Association (CSA), 2001. "Phase One Environmental Site Assessment" Standard Z768-01".

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

Ministry of the Environment (MOE), 2011. "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act". April 15, 2011.

Ministry of the Environment (MOE), 2017. "Ontario Regulation 153/04, Record of Site Condition - Part XV.1 of the Environmental Protection Act," July 28, 2017.

Ontario Geological Survey 1991, "Bedrock Geology of Ontario, Southern Sheet; Ontario Geological Survey, Map 2544, Scale 1:1,000,000".

Ontario Ministry of Natural Resources' (MNR) Natural Heritage Information Centre (NHIC) web Site, "http://nhic.mnr.gov.on.ca/".

Trow Associates Inc. (Trow), 2008a. "Phase I Environmental Site Assessment: Proposed Williams Parkway Satellite Yard 10192 Highway 50, Brampton, Ontario". November 3, 2008.

Trow, 2008b. "Phase II Environmental Site Assessment: Proposed Williams Parkway Satellite Yard 10192 Highway 50, Brampton, Ontario". November 5, 2008.

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Qualifications of The Assessors

Report Author – Mr. Robert Mitzakov, M.A.Sc., P.Eng. Mr. Mitzakov has 15 years relevant experience in environmental assessments and management. He has extensive experience in conducting and implementing Phase I, II and III environmental site assessments (ESAs) associated with various Departments of the Federal Government. He has managed and conducted numerous Phase I and II ESAs at a variety of industrial and commercial sites with emphasis on petroleum hydrocarbon contamination.

Senior Reviewer – Mr. Abed Yassine, P.Geo. Mr. Yassine has over 28 years of experience in the assessment and remediation of contaminated sites. He has completed Phase I and II environmental site assessments (ESAs), investigations and remediation at sites impacted by petroleum hydrocarbons, chlorinated solvents, polychlorinated biphenyls (PCBs), heavy metals and inorganic contaminants. He has also prepared evaluation reports for buildings and structures that contain contaminants and require specific removal and disposal programs prior to general demolition. Mr. Yassine has supervised field demolition programs that require special handling of asbestos and PCBs, completed storm water management design, evaluated subsoil and groundwater conditions for design of private waste systems, designed sewage systems including treatment and distribution systems and lot grading.

Figures

SOURCE(S):
1. GOOGLE EARTH PRO IMAGE, MARCH 7, 2018

SCALE 1:15,000

0 300 600m

SNC·LAVALIN

Client/Location: CITY OF BRAMPTON 10192 HIGHWAY 50, BRAMPTON, ON		Title: SITE LOCATION PLAN	
Project No: 665125	Filename: 002F01_665125	Date: OCTOBER 2019	Dwg No: FIGURE 1
Drawn: AG	Verified: RM	Project Manager: AY	

FILENAME: P:\City of Brampton\Johnston Transit Facility\665125\40_Execution\47_Wrkg_Vers\CAD_GIS\002 (Phase I)\002F01_665125.dwg

PAGE FORMAT: 8.5x11

DISCUSSION NORTH

TRUE NORTH

RAINBOW CREEK

TRCA FLOODPLAIN

BH3

BH2

RE-GRADED/CLEARED AREA

PIN 14213-0276
(PARCEL A1)

BH1

BH4

HIGHWAY 50

PIN 14213-0300
(PARCEL A)

METAL STORAGE SHED

PIN 14213-0300
(PARCEL B)

LEGEND

- BOREHOLE (TROW, 2008)
- MONITORING WELL (TROW, 2008)
- RE-GRADED/CLEARED AREA
- TORONTO AND REGION CONSERVATION AUTHORITY (TRCA) FLOODPLAIN
- PHASE ONE PROPERTY LIMIT
- PROPERTY LINE
- EXISTING BUILDING

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

SCALE 1:2,000

0 40 80m

SNC·LAVALIN

Client/Location: CITY OF BRAMPTON 10192 HIGHWAY 50, BRAMPTON, ON		Title: CURRENT SITE LAYOUT	
Project No: 665125	Filename: 002F02_665125	Date: OCTOBER 2019	Dwg No: FIGURE 2
Drawn: AG	Verified: RM	Project Manager: AY	

PAGE FORMAT: 11x17

FILENAME: P:\City of Brampton\Johnston Transit Facility\665125\40_Execution\47_Wrkg_Vers\CAD_GIS\002 (Phase 1)\002F02_665125.dwg

DISCUSSION NORTH

TRUE NORTH

COLERAINE DRIVE

MAJOR MACKENZIE DRIVE WEST

CADETTA ROAD

PIN 14213-0276
(PARCEL A1)

HIGHWAY 50

PIN 14213-0300
(PARCEL A)

PIN 14213-0300
(PARCEL B)

SCALE 1:5,000

0 100 200m

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. CITY OF BRAMPTON, ONLINE ZONING MAP, MAY 2019
2. CITY OF VAUGHAN, ONLINE ZONING MAP, BY-LAW 1-88, DECEMBER 3, 2018

LEGEND

- PHASE ONE PROPERTY LIMIT
- PROPERTY LINE
- 300m FROM SITE PROPERTY LINE

ZONING

- RESIDENTIAL
- EMPLOYMENT
- INDUSTRIAL
- AGRICULTURAL

SNC·LAVALIN

Client/Location: CITY OF BRAMPTON 10192 HIGHWAY 50, BRAMPTON, ON		Title: SITE AND SURROUNDING LAND USE	
Project No: 665125	Filename: 002F03_665125	Date: OCTOBER 2019	Dwg No: FIGURE 3
Drawn: AG	Verified: RM	Project Manager: AY	

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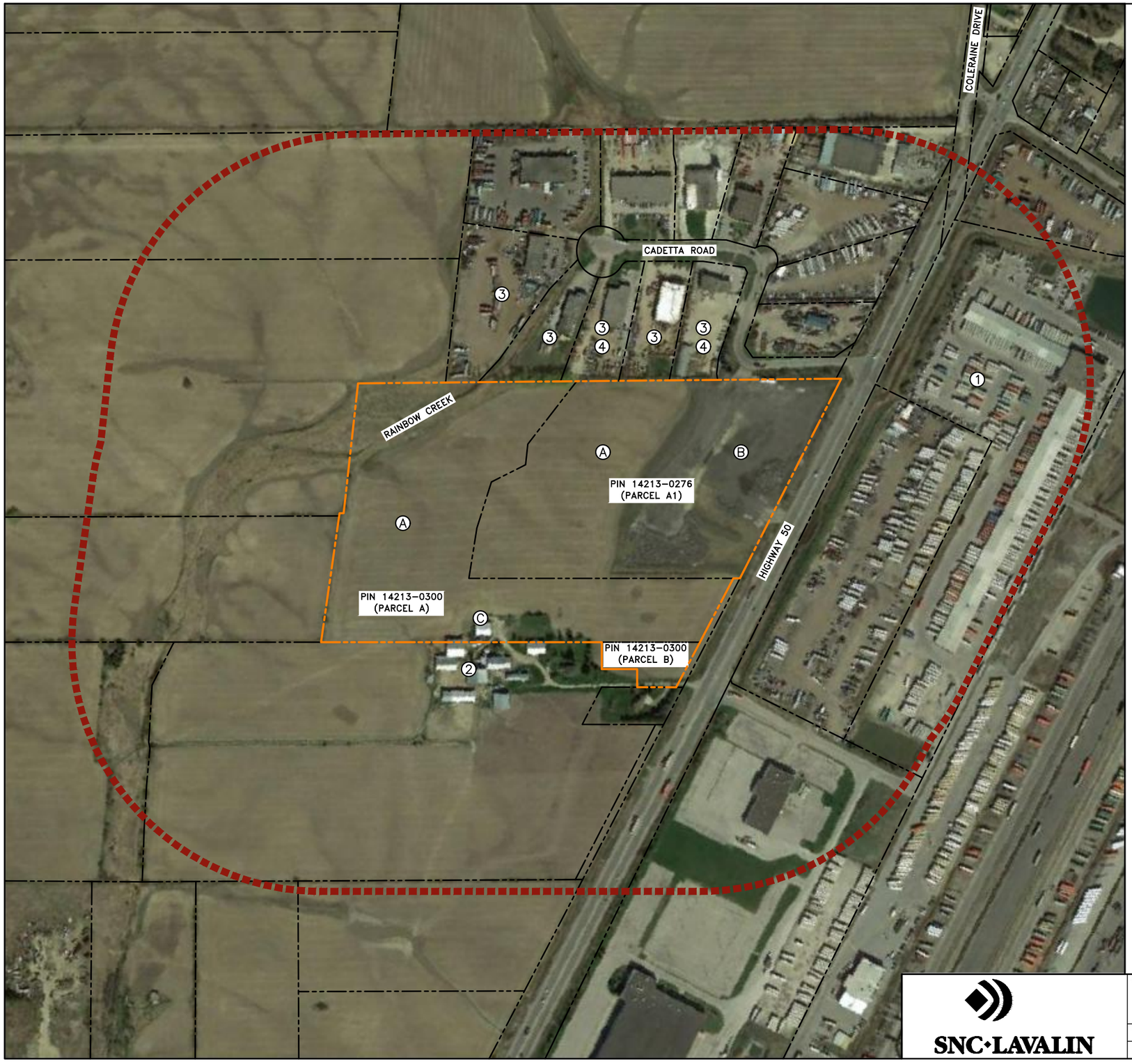

DISCUSSION NORTH

TRUE NORTH

ON PHASE ONE STUDY PROPERTY ARE THERE?		
EXISTING STRUCTURES/BUILDINGS	YES	METAL SHED
WATER WELLS	YES	1 – DOMESTIC WATER SUPPLY WELL CONSTRUCTED IN 1977
IN PHASE ONE STUDY AREA ARE THERE?		
ROADS	YES	SEE FIGURE
WATER BODIES	YES	RAINBOW CREEK – NORTHWEST CORNER OF SITE
AREA OF NATURAL SIGNIFICANCE	NO	

ON-SITE LOCATION	PCA No.	POTENTIAL CONTAMINATION ACTIVITY TYPE	DESCRIPTION
A	40	PESTICIDES (INCLUDING HERBICIDES, FUNGICIDES AND ANTI-FOULING AGENTS) MANUFACTURING, PROCESSING, BULK STORAGE AND LARGE-SCALE APPLICATIONS	HISTORICAL AND CURRENT ACTIVITIES ASSOCIATED WITH AGRICULTURE/FARMING THROUGHOUT THE SITE
B	30	IMPORTATION OF FILL MATERIAL OF UNKNOWN QUALITY	A LAYER OF CRUSHED STONE/AND ASPHALT PIECES IN THE NORTHEAST CORNER OF THE SITE
C	NA	NA	STORAGE OF FARM EQUIPMENT/MACHINERY IN THE METAL STORAGE SHED
OFF-SITE LOCATION	**PCA No.**	**POTENTIAL CONTAMINATION ACTIVITY TYPE**	**DESCRIPTION**
1	NA	NA	PROPERTY LOCATED AT 9701 HIGHWAY 50 (UPGRADIENT OF INFERRED GROUNDWATER FLOW DIRECTION) HAS BEEN DOCUMENTED AS A WASTE GENERATOR AND SPILLS
2	28	GASOLINE AND ASSOCIATED PRODUCTS STORAGE IN FIXED TANKS	PETROLEUM FUEL HANDLING AND STORAGE ASSOCIATED WITH A DYED DIESEL AST LOCATED TO THE SOUTH OF THE METAL SHED ON THE REMAINDER OF THE PROPERTY HAVING MUNICIPAL ADDRESS OF 10192 HIGHWAY 50
3	NA	NA	ALONG NORTH PROPERTY BOUNDARY/NORTH WEST CORNER (WASTE GENERATORS)
4	34	METAL FABRICATION	ALONG NORTH PROPERTY BOUNDARY

SCALE 1:5,000

0 100 200m

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. GOOGLE EARTH PRO IMAGE, MARCH 7, 2018

LEGEND

Ⓐ① POTENTIAL CONTAMINATING ACTIVITY/ ACTIVITIES OF ENVIRONMENTAL INTEREST ITEM NUMBER AS DEFINED IN TABLE 2 WITHIN PART VI OF SCHEDULE D OF O. REG. 153/04

PHASE ONE PROPERTY LIMIT

PROPERTY LINE

300m FROM SITE PROPERTY LINE

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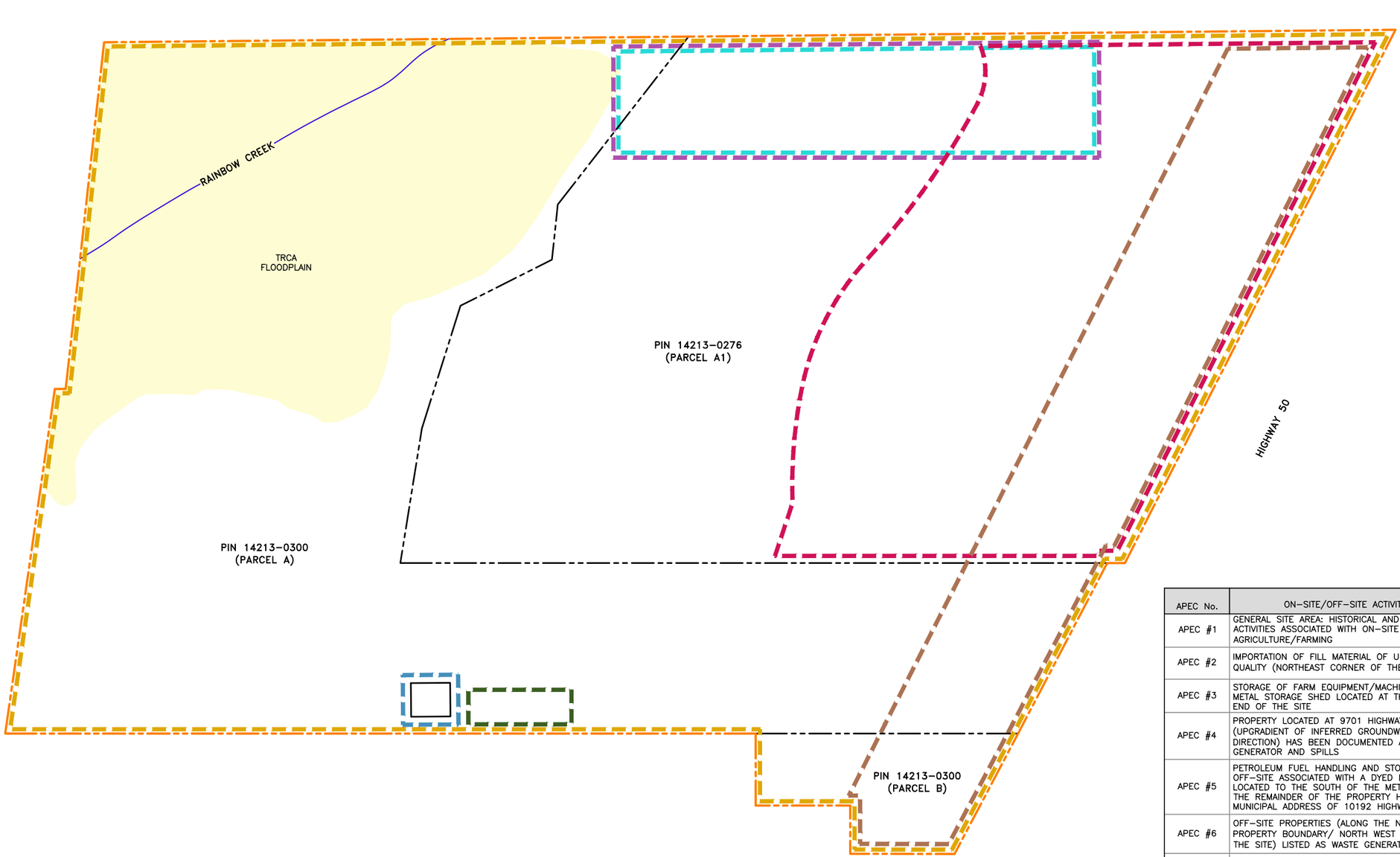
Client/Location:
CITY OF BRAMPTON
10192 HIGHWAY 50,
BRAMPTON, ON

Title:
PHASE ONE CONCEPTUAL SITE MODEL
POTENTIALLY CONTAMINATING ACTIVITIES

Project No:	Filename:	Date:	Dwg No:
665125	002F04_665125	OCTOBER 2019	FIGURE 4
Drawn: AG	Verified: RM	Project Manager: AY	

PAGE FORMAT: 11x17

FILENAME: P:\City of Brampton\Johnston Transit Facility\665125\40_Execution\47_Wrkg_Vers\CAD_GIS\002 (Phase 1)\002F04_665125.dwg



APEC No.	ON-SITE/OFF-SITE ACTIVITIES	PCA No.	POTENTIAL CONTAMINANTS OF CONCERN
APEC #1	GENERAL SITE AREA: HISTORICAL AND CURRENT ACTIVITIES ASSOCIATED WITH ON-SITE AGRICULTURE/FARMING	40	HERBICIDES AND PESTICIDES AND METALS/ INORGANICS
APEC #2	IMPORTATION OF FILL MATERIAL OF UNKNOWN QUALITY (NORTHEAST CORNER OF THE SITE)	30	PAHs AND METALS/ INORGANICS
APEC #3	STORAGE OF FARM EQUIPMENT/MACHINERY IN THE METAL STORAGE SHED LOCATED AT THE SOUTH END OF THE SITE	NA	BTEX, PHC F1-F4, VOCs AND PAHs
APEC #4	PROPERTY LOCATED AT 9701 HIGHWAY 50 (UPGRADIENT OF INFERRED GROUNDWATER FLOW DIRECTION) HAS BEEN DOCUMENTED AS A WASTE GENERATOR AND SPILLS	NA	BTEX, PHC F1-F4, VOCs, PAHs, AND METALS/ INORGANICS
APEC #5	PETROLEUM FUEL HANDLING AND STORAGE OFF-SITE ASSOCIATED WITH A DYED DIESEL AST LOCATED TO THE SOUTH OF THE METAL SHED ON THE REMAINDER OF THE PROPERTY HAVING MUNICIPAL ADDRESS OF 10192 HIGHWAY 50	28	BTEX, PHC F1-F4, VOCs, PAHs, AND METALS/ INORGANICS
APEC #6	OFF-SITE PROPERTIES (ALONG THE NORTH PROPERTY BOUNDARY/ NORTH WEST CORNER OF THE SITE) LISTED AS WASTE GENERATORS	NA	BTEX, PHC F1-F4, VOCs, PAHs, AND METALS/ INORGANICS
APEC #7	OFF-SITE PROPERTIES (ALONG NORTH PROPERTY BOUNDARY OF THE SITE) INVOLVED IN THE MANUFACTURING OF METAL PRODUCTS	34	VOCs AND METALS/ INORGANICS

LEGEND

- TORONTO AND REGION CONSERVATION AUTHORITY (TRCA) FLOODPLAIN
- PHASE ONE PROPERTY LIMIT
- PROPERTY LINE
- EXISTING BUILDING

AREAS OF POTENTIAL ENVIRONMENTAL CONCERN

- APEC #1
- APEC #2
- APEC #3
- APEC #4
- APEC #5
- APEC #6
- APEC #7

NOTE(S):
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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

SCALE 1:2,000

0 40 80m

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Client/Location: CITY OF BRAMPTON 10192 HIGHWAY 50, BRAMPTON, ON		Title: PHASE ONE CONCEPTUAL SITE MODEL AREAS OF POTENTIAL ENVIRONMENTAL CONCERN	
Project No: 665125	Filename: 002F05_665125	Date: OCTOBER 2019	Dwg No: FIGURE 5
Drawn: AG	Verified: RM	Project Manager: AY	

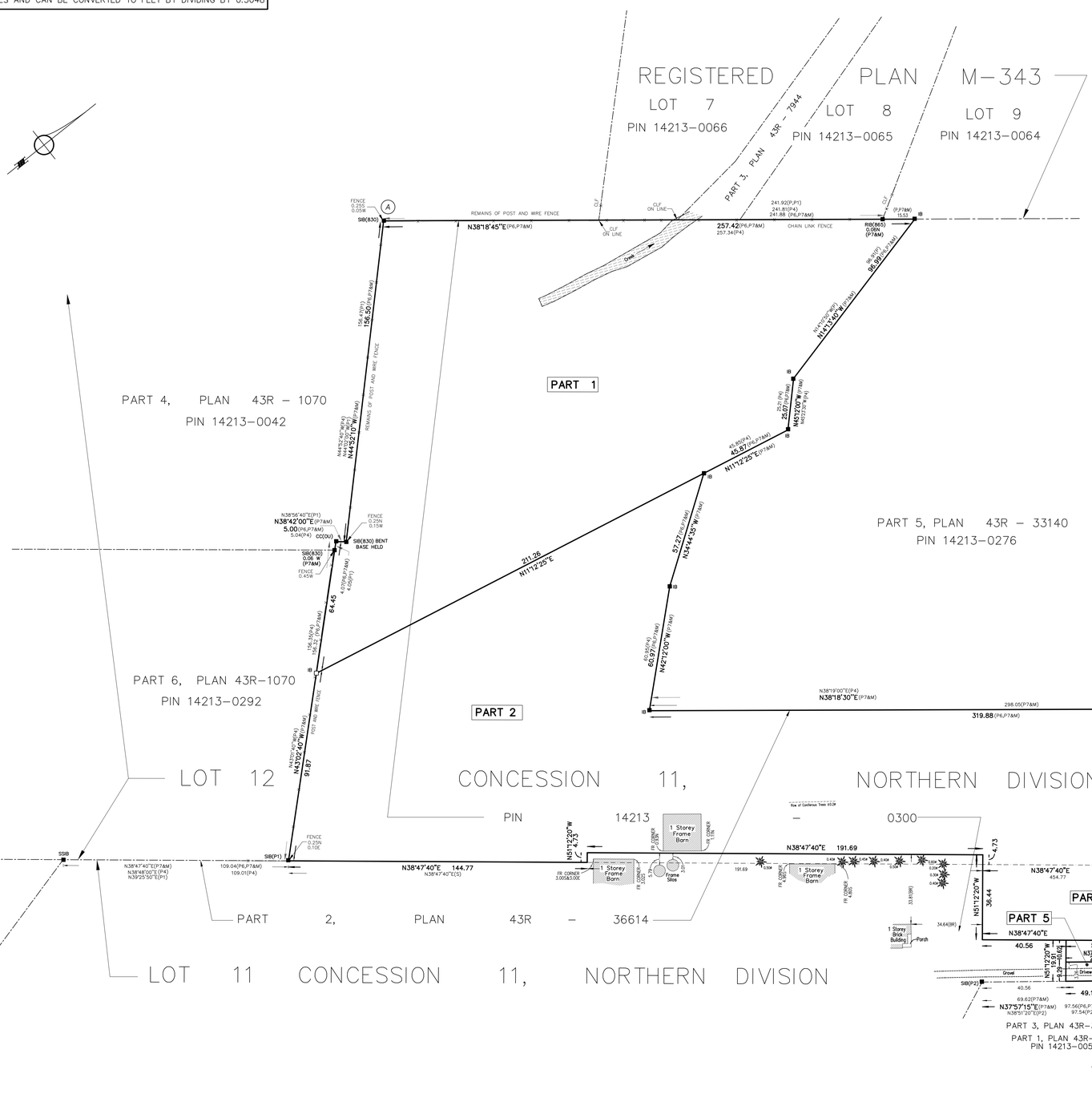
PAGE FORMAT: 11x17

FILENAME: P:\City of Brampton\Johnston Transit Facility\665125\40_Execution\47_Wrkg_Vers\CAD_GIS\002 (Phase 1)\002F05_665125.dwg

Appendix A

Site Survey

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



I REQUIRE THIS PLAN TO BE DEPOSITED UNDER THE LAND TITLES ACT.

DATE : _____ 2019

MICHELE PEARSON
ONTARIO LAND SURVEYOR

Plan 43R-

RECEIVED AND DEPOSITED :

DATE : _____ 2019

REPRESENTATIVE FOR THE LAND REGISTRAR FOR THE LAND TITLES DIVISION OF PEEL REGION (No. 43)

Schedule

PART	PART OF LOT	CONCESSION	PART OF PIN	AREA(Sq.m.)
1	12	11 NORTHERN DIVISION	14213-0300	35222.5
2				44751.1
3	11			3965.2
4				755.7
5				297.0

PLAN OF SURVEY OF
PART OF LOTS 11 AND 12
CONCESSION 11, NORTHERN DIVISION
CITY OF BRAMPTON
REGIONAL MUNICIPALITY OF PEEL
GEOGRAPHIC TOWNSHIP OF TORONTO GORE
COUNTY OF PEEL

SCALE 1:1000

0 10 20 30 40 50 100 Metres

PEARSON & PEARSON SURVEYING LTD. 2019
Ontario Land Surveyors

Bearing Note

BEARINGS SHOWN HEREON ARE GRID, DERIVED FROM OBSERVED REFERENCE POINTS (ORP'S) A & B BY REAL TIME NETWORK OBSERVATIONS, UTM Zone 17, NAD 83 (CSRS V6) (Epoch 2010.00)

DISTANCES SHOWN ON THE PLAN ARE ADJUSTED GROUND DISTANCES AND CAN BE BE USED TO COMPUTE GRID DISTANCES BY MULTIPLYING BY A COMBINED SCALE FACTOR OF 0.9997135

Integration Data

OBSERVED REFERENCE POINTS (ORP'S) DERIVED FROM GPS OBSERVATIONS USING THE SMARTNET NETWORK SERVICE AND ARE REFERRED TO UTM Zone 17, NAD 83 (CSRS V6) (Epoch 2010.00)

COORDINATE VALUES ARE TO URBAN ACCURACY IN ACCORDANCE WITH SECTION 14(2) OF O.REG. 216/10, AND CANNOT, IN THEMSELVES, BE USED TO RE-ESTABLISH CORNERS OR BOUNDARIES SHOWN ON THIS PLAN.

POINT ID	NORTHING	EASTING
ORP A	4851854.26	606031.62
ORP B	4852058.33	606495.83

Legend

□	DENOTES	SURVEY MONUMENT PLANTED
■	DENOTES	SURVEY MONUMENT FOUND
SIB	DENOTES	STANDARD IRON BAR
SSIB	DENOTES	SHORT STANDARD IRON BAR (USED WHERE BURIED UTILITY OR TREE ROOTS COULD BE OF CONCERN)
IB	DENOTES	IRON BAR
S	DENOTES	SET
M	DENOTES	MEASURED
OU	DENOTES	ORIGIN UNKNOWN
P	DENOTES	PLAN M-343
P1	DENOTES	PLAN 43R-1070
D	DENOTES	INST. NO. RO1032242
P2	DENOTES	PLAN 43R-5454
P3	DENOTES	EXPROPRIATION PLAN 5543(MTO PLAN P-2804-4)
P4	DENOTES	PLAN 43R-33140
P5	DENOTES	PLAN 43R-35661
P6	DENOTES	PLAN 43R-36525
P7	DENOTES	PLAN 43R-36614
MMM	DENOTES	MMM GROUP
1670	DENOTES	R.G.PEARSON, O.L.S.
865	DENOTES	E.BIASON, O.L.S.
830	DENOTES	E.W.PETZOLD, O.L.S.
1493	DENOTES	J.F.G.YOUNG, O.L.S.
MTO	DENOTES	MINISTRY OF TRANSPORTATION OF ONTARIO
CLF	DENOTES	CHAIN LINK FENCE
N/S/E/W	DENOTES	NORTH/SOUTH/EAST/WEST
FR	DENOTES	TIES TO FRAME
BR	DENOTES	TIES TO BRICK

ALL FOUND MONUMENTS ARE (1670) UNLESS OTHERWISE NOTED

ALL PROPERTY LINES ARE UNFENCED UNLESS OTHERWISE NOTED

Surveyor's Certificate

I CERTIFY THAT :
1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE LAND TITLES ACT AND THE SURVEYORS ACT AND THE REGULATIONS MADE UNDER THEM.
2. THE SURVEY WAS COMPLETED ON THE DAY OF , 2019.

Date

Michele Pearson
Ontario Land Surveyor

CITY OF BRAMPTON

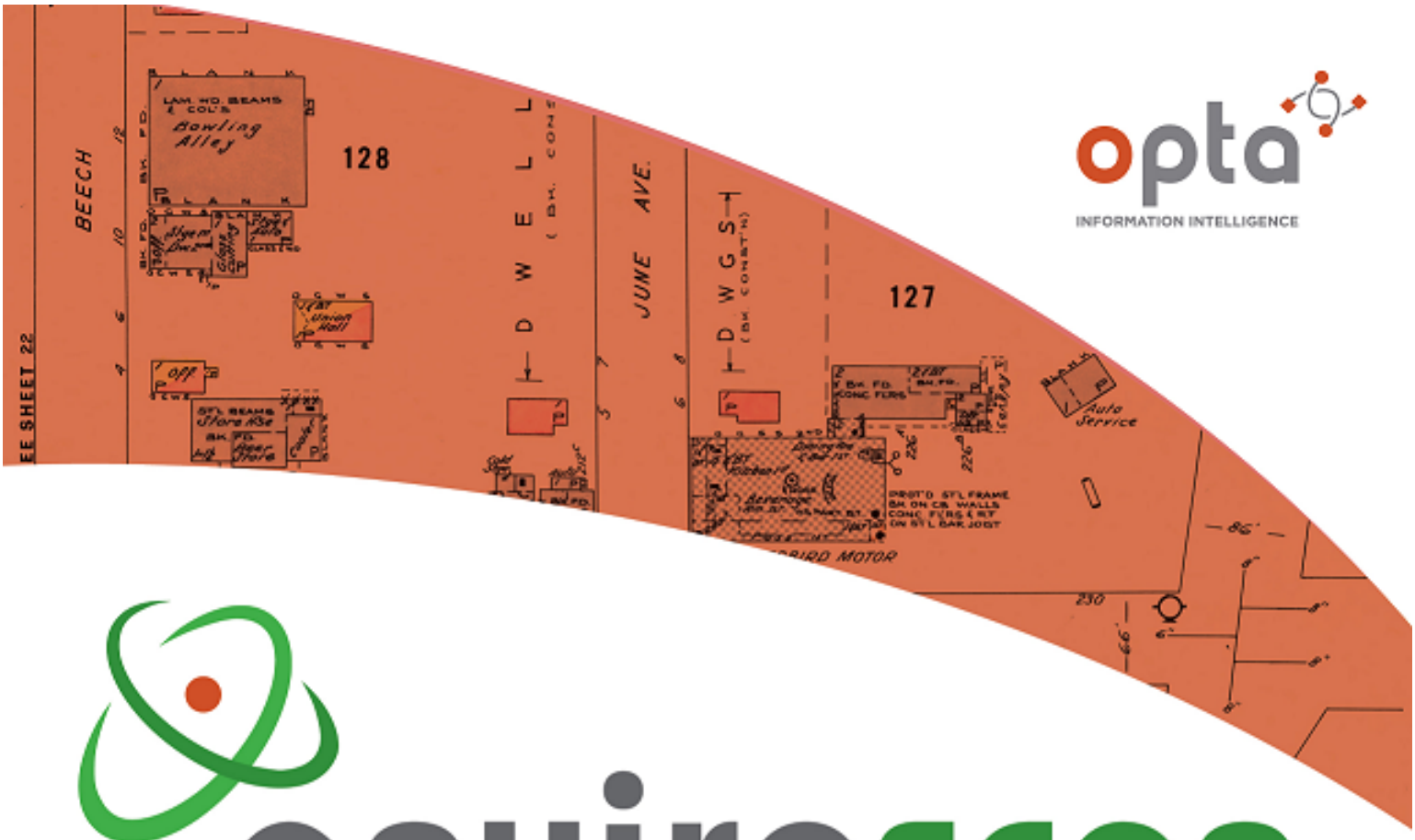
10933 JANE STREET, SECOND FLOOR, MAPLE ONTARIO, L6A 1S1
O. : (289) 553-5453
E. : michelepearson@pearsonandpearson.ca

PEARSON + PEARSON SURVEYING LTD.

DRAWING : 1585-Hwy50-10192A-RPlan.DWG | PROJECT : 1585
CALC. BY: JM | DRAWN BY: TM/JM | CHECKED BY: MP/JM

Appendix B

Fire Insurance Plans



opta
INFORMATION INTELLIGENCE

enviroscan

An SCM Company

175 Commerce Valley Drive W
Markham, Ontario L3T 7Z3

T: 905-882-6300
W: www.optaintel.ca

Report Completed By:

Anthony

Site Address:

10192 Highway 50 Brampton ON

Project No:

20190508200

Opta Order ID:

61165

Requested by:

Eleanor Goolab
Ecolog ERIS

Date Completed:

5/15/2019 11:36:26 AM

Project Name: Johnston Transit Facility City of Brampton

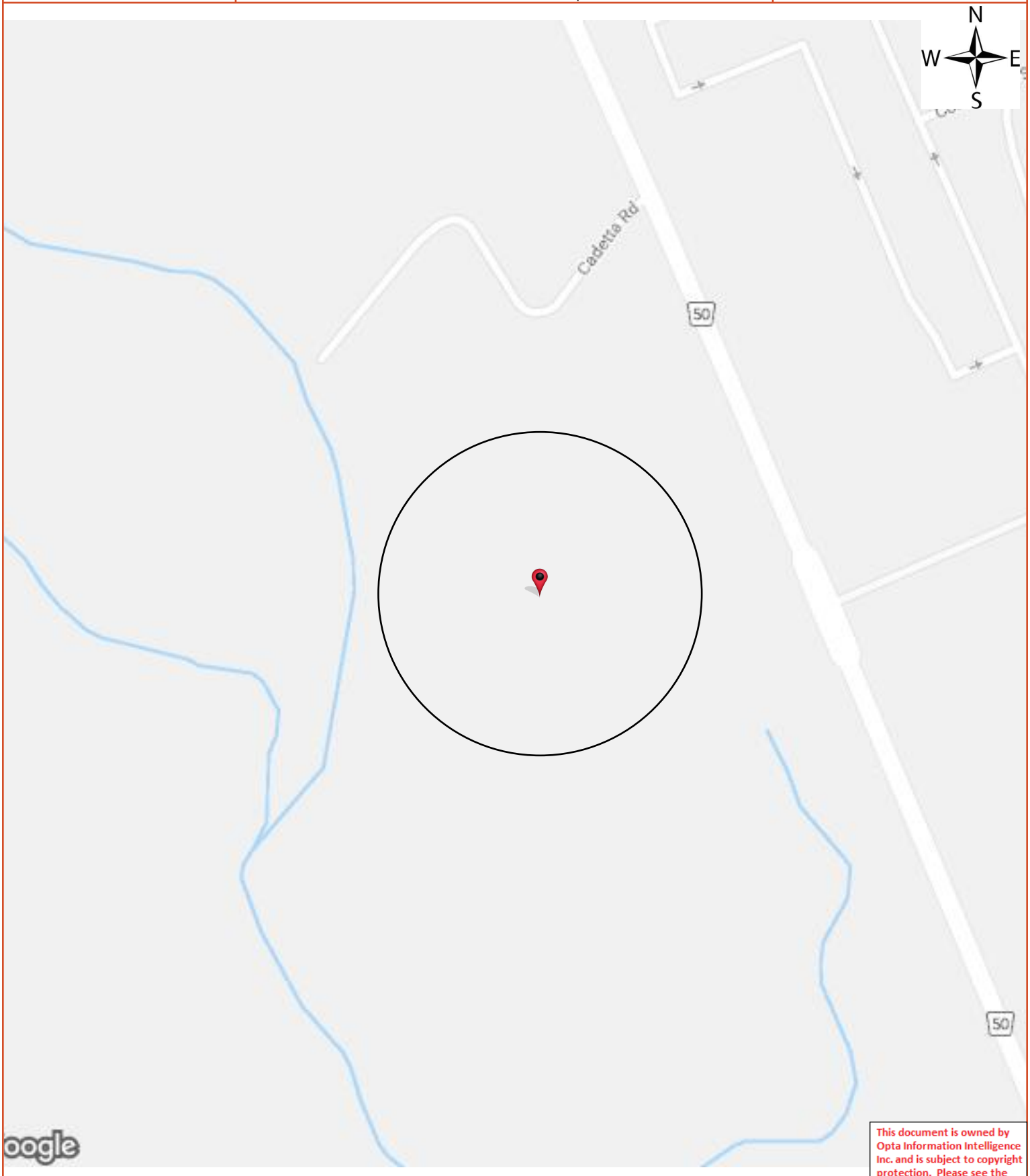
Project #: 20190508200
P.O. #: 665125

ENVIROSCAN Report

Search Area: 10192 Highway 50 Brampton ON

Requested by:
Eleanor Goolab
Date Completed: 05/15/2019 11:36:26

enviroscan
OPTA INFORMATION INTELLIGENCE



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Entire Agreement

The parties hereto acknowledge and agree to be bound by the terms and conditions hereof. The request form constitutes the entire agreement between the parties pertaining to the subject matter hereof and supersedes all prior and contemporaneous agreements, negotiations and discussions, whether oral or written, and there are no representations or warranties, or other agreements between the parties in connection with the subject matter hereof except as specifically set forth herein. No supplement, modification, waiver, or termination of the request shall be binding, unless confirmed in writing by the parties hereto.

Governing Document

In the event of any conflicts or inconsistencies between the provisions hereof and the Reports, the rights and obligations of the parties shall be deemed to be governed by the request form, which shall be the paramount document.

Law

This agreement shall be governed by and construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein.

ENVIROSCAN Report

No Records Found

Requested by:
Eleanor Goolab
Date Completed: 05/15/2019 11:36:26

OPTA INFORMATION INTELLIGENCE

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N
W E
S

Appendix C

Chain of Title

CHAIN OF TITLE REPORT

Project #: 20190508200
Address: w/s Highway #50, Brampton
Legal Description: Part lot 12, Con 11 ND Tor Gore as Part 5, 43R33140

PIN #: 14213-0276(LT)

Searched at: Brampton
LRO #: 43

INSTR #	DOC. TYPE	REG. DATE	PARTY FROM	PARTY TO
	Patent	19 05 1830	Crown	**James DURAND**
8264	Deed	04 10 1831	James Durand	Andrew MERCER
19642	Deed	28 04 1842	Andrew Mercer	Alexander JOHNSTON
3770	Deed	03 04 1857	Alexander Johnston	David JOHNSTON
13953	Deed	15 12 1865	David Johnston	William JOHNSTON
25	Deed	11 09 1868	William Johnston	David JOHNSTON
1228	Deed	13 02 1891	David Johnston	John JOHNSTON
4895	Deed	06 03 1959	John Johnston - estate	Eldred JOHNSTON
4923	Deed	10 07 1959	Eldred Johnston	Clarence Alexander JOHNSTON

Cont'd on page 2

CHAIN OF TITLE REPORT

Project #: 20190508200
Address: w/s Highway #50, Brampton
Legal Description: Part lot 12, Con 11 ND Tor Gore as Part 5, 43R33140

PIN #: 14213-0276(LT)

Searched at: Brampton
LRO #: 43

INSTR #	DOC. TYPE	REG. DATE	PARTY FROM	PARTY TO
RO1032242	Deed	02 03 1993	Clarence Alexander Johnston	James Frazer JOHNSTON
PR1820692	Deed **(Present Owner)**	14 05 2010	James Frazer Johnston	**The Corporation of The City of Brampton**

Ontario ServiceOntario

PARCEL REGISTER (ABBREVIATED) FOR PROPERTY IDENTIFIER

LAND REGISTRY OFFICE #43

14213-0276 (LT)

PREPARED FOR bertucci1
ON 2019/06/12 AT 14:57:53

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

PROPERTY DESCRIPTION: PT LT 12 CON 11 ND TORONTO GORE; DESIGNATED AS PART 5 ON PLAN 43R-33140; CITY OF BRAMPTON

PROPERTY REMARKS:

ESTATE/QUALIFIER:
FEE SIMPLE
LT CONVERSION QUALIFIED

RECENTLY:
DIVISION FROM 14213-0056

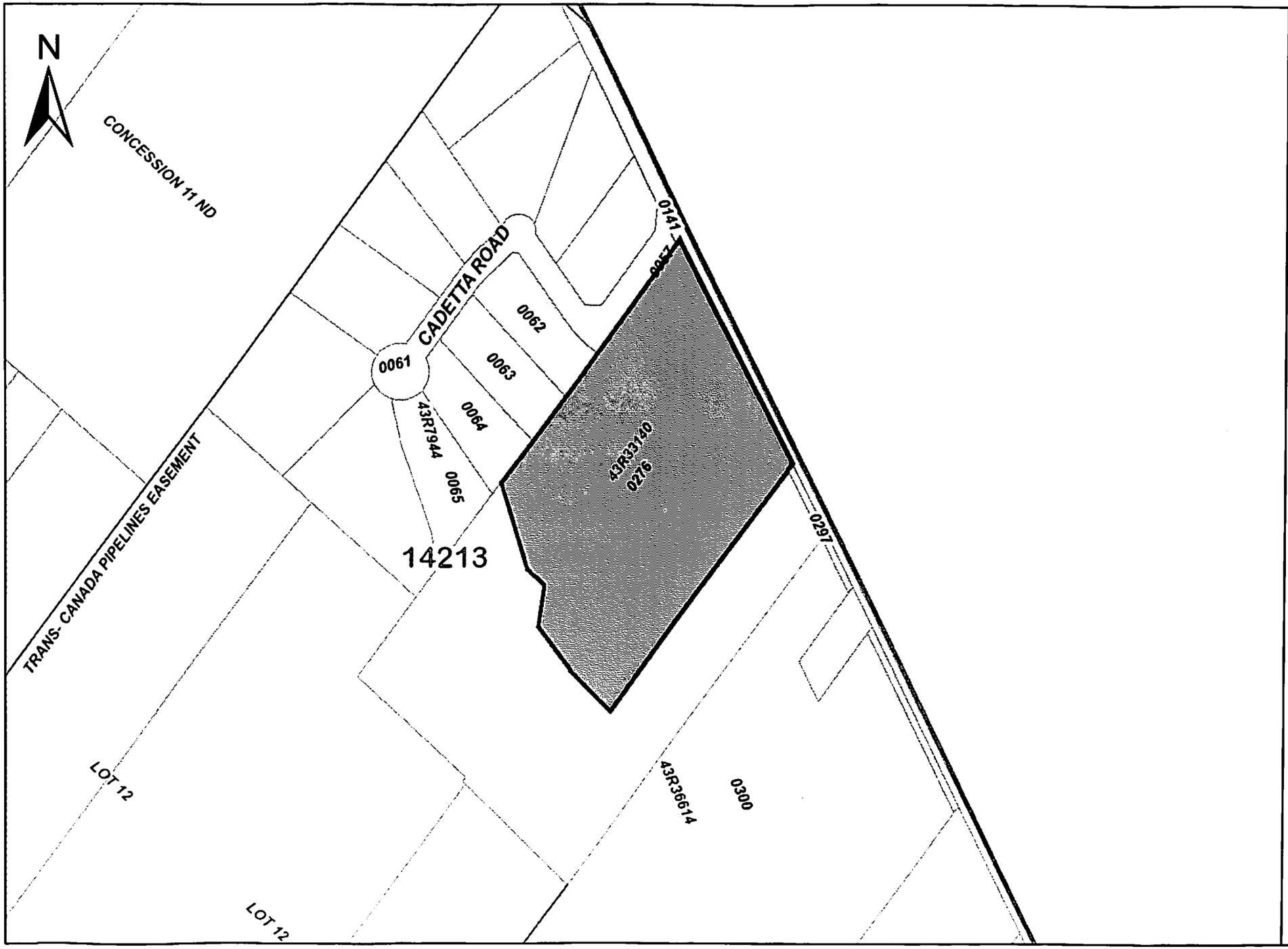
PIN CREATION DATE:
2010/06/11

OWNERS' NAMES
THE CORPORATION OF THE CITY OF BRAMPTON

CAPACITY SHARE
ROWN

REG. NUM.	DATE	INSTRUMENT TYPE	AMOUNT	PARTIES FROM	PARTIES TO	CERT/ CHKD
** PRINTOUT INCLUDES ALL DOCUMENT TYPES AND DELETED INSTRUMENTS SINCE 2010/06/11 **						
**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: 1998/12/22 **						
43R33140	2010/01/25	PLAN REFERENCE				C
PR1820692	2010/05/14	TRANSFER	$6,504,454	JOHNSTON, JAMES FRAZER	THE CORPORATION OF THE CITY OF BRAMPTON	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.



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PRINTED ON 12 JUN, 2019 AT 14:58:29
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SCALE

0 60 120 180 240 meters

PROPERTY INDEX MAP

PEEL(No. 43)

LEGEND

FREEHOLD PROPERTY	
LEASEHOLD PROPERTY	
LIMITED INTEREST PROPERTY	
CONDOMINIUM PROPERTY	
RETIRED PIN (MAP UPDATE PENDING)	
PROPERTY NUMBER	*0449*
BLOCK NUMBER	08050
GEOGRAPHIC FABRIC	——
EASEMENT	- - - -

THIS IS NOT A PLAN OF SURVEY

NOTES

REVIEW THE TITLE RECORDS FOR COMPLETE PROPERTY INFORMATION AS THIS MAP MAY NOT REFLECT RECENT REGISTRATIONS

THIS MAP WAS COMPILED FROM PLANS AND DOCUMENTS RECORDED IN THE LAND REGISTRATION SYSTEM AND HAS BEEN PREPARED FOR PROPERTY INDEXING PURPOSES ONLY

FOR DIMENSIONS OF PROPERTIES BOUNDARIES SEE RECORDED PLANS AND DOCUMENTS

ONLY MAJOR EASEMENTS ARE SHOWN

REFERENCE PLANS UNDERLYING MORE RECENT REFERENCE PLANS ARE NOT ILLUSTRATED

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CHAIN OF TITLE REPORT

Project #: 20190508200
Address: w/s Highway #50, Brampton
Legal Description: Part lots 11 & 12, Con 11 ND Tor Gore as Parts 2 & 3, 43R36614

Searched at: Brampton
LRO #: 43

PIN #: 14213-0300(LT)

INSTR #	DOC. TYPE	REG. DATE	PARTY FROM	PARTY TO
	Patent	19 05 1830	Crown	**James DURAND**
8264	Deed	04 10 1831	James Durand	Andrew MERCER
19642	Deed	28 04 1842	Andrew Mercer	Alexander JOHNSTON
3770	Deed	03 04 1857	Alexander Johnston	David JOHNSTON
13953	Deed	15 12 1865	David Johnston	William JOHNSTON
25	Deed	11 09 1868	William Johnston	David JOHNSTON
1228	Deed	13 02 1891	David Johnston	John JOHNSTON
4895	Deed	06 03 1959	John Johnston - estate	Eldred JOHNSTON
4923	Deed	10 07 1959	Eldred Johnston	Clarence Alexander JOHNSTON

Cont'd on page 2

CHAIN OF TITLE REPORT

Project #: 20190508200
Address: w/s Highway #50, Brampton
Legal Description: Part lots 11 & 12, Con 11 ND Tor Gore as Parts 2 & 3, 43R36614

Searched at: Brampton
LRO #: 43

PIN #: 14213-0300(LT)

INSTR #	DOC. TYPE	REG. DATE	PARTY FROM	PARTY TO
RO1032242	Deed **(Present Owner)**	02 03 1993	Clarence Alexander Johnston	**James Frazer JOHNSTON**

Ontario ServiceOntario

PARCEL REGISTER (ABBREVIATED) FOR PROPERTY IDENTIFIER

LAND REGISTRY OFFICE #43

14213-0300 (LT)

PREPARED FOR bertuccil
ON 2019/06/12 AT 14:59:40

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

PROPERTY DESCRIPTION: PT LTS 11 AND 12, CONC 11 NORTHERN DIVISION, (FORMERLY TWP OF TORONTO GORE) DESIGNATED AS PTS 2& 3 43R36614; CITY OF BRAMPTON

PROPERTY REMARKS:

ESTATE/QUALIFIER:
FEE SIMPLE
LT CONVERSION QUALIFIED

RECENTLY:
DIVISION FROM 14213-0277

PIN CREATION DATE:
2015/09/04

OWNERS' NAMES
JOHNSTON, JAMES FRAZER

CAPACITY SHARE
ROWN

REG. NUM.	DATE	INSTRUMENT TYPE	AMOUNT	PARTIES FROM	PARTIES TO	CERT/ CHKD
** PRINTOUT INCLUDES ALL DOCUMENT TYPES AND DELETED INSTRUMENTS SINCE 2015/09/04 **						
**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: 1998/12/22 **						
NOTE: THE NO DEALINGS INDICATOR IS IN EFFECT ON THIS PROPERTY						
RO1032242	1993/03/02	TRANSFER	$2		JOHNSTON, JAMES FRAZER	C
43R36614	2015/06/26	PLAN REFERENCE				C
PR2760174	2015/08/05	RESTRICTION-LAND		JOHNSTON, JAMES FRAZER JOHNSTON, FRANCES ELEANOR		C
REMARKS: NO TRANSFER O9R CHARGE WITHOUT CONSENT OF THE REGIONAL MUNICIPALITY OF PEEL PTS 2 & 3 ON 43R36614 & PT 1 ON 43R5454						

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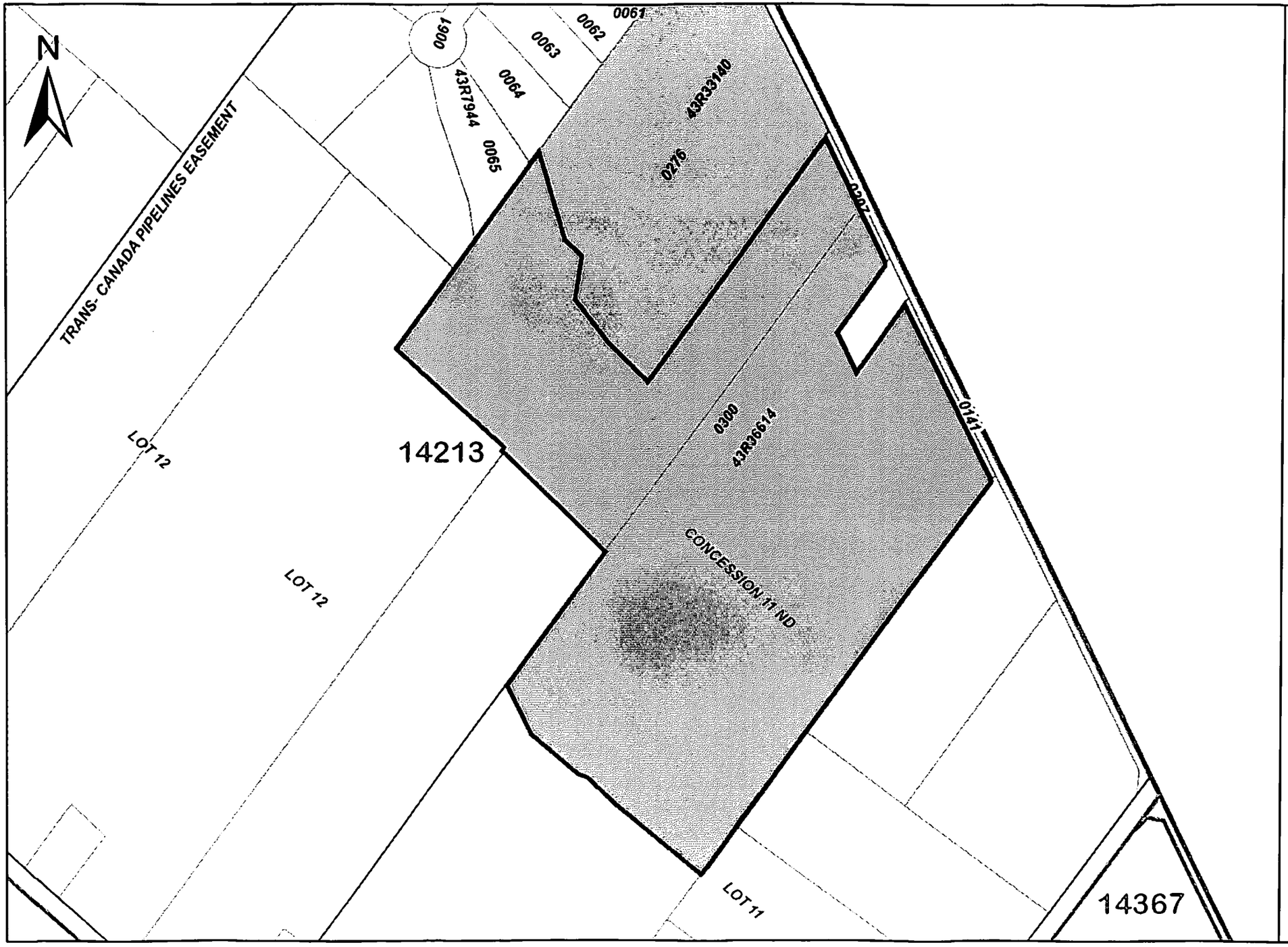
NOTE: ENSURE THAT YOUR PRINTOUT STATES THE TOTAL NUMBER OF PAGES AND THAT YOU HAVE PICKED THEM ALL UP.



ServiceOntario

PRINTED ON 12 JUN, 2019 AT 14:59:03
FOR BERTUCCI1

SCALE

0 60 120 180 240 meters

PROPERTY INDEX MAP

PEEL(No. 43)

LEGEND

FREEHOLD PROPERTY	
LEASEHOLD PROPERTY	
LIMITED INTEREST PROPERTY	
CONDOMINIUM PROPERTY	
RETIRED PIN (MAP UPDATE PENDING)	
PROPERTY NUMBER	*0449*
BLOCK NUMBER	08050
GEOGRAPHIC FABRIC	——
EASEMENT	- - - -

THIS IS NOT A PLAN OF SURVEY

NOTES

REVIEW THE TITLE RECORDS FOR COMPLETE PROPERTY INFORMATION AS THIS MAP MAY NOT REFLECT RECENT REGISTRATIONS

THIS MAP WAS COMPILED FROM PLANS AND DOCUMENTS RECORDED IN THE LAND REGISTRATION SYSTEM AND HAS BEEN PREPARED FOR PROPERTY INDEXING PURPOSES ONLY

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ONLY MAJOR EASEMENTS ARE SHOWN

REFERENCE PLANS UNDERLYING MORE RECENT REFERENCE PLANS ARE NOT ILLUSTRATED

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Appendix D

EcoLog ERIS Report

ENVIRONMENTAL RISK INFORMATION SERVICES

DATABASE REPORT

Project Property:	*Johnston Transit Facility, City of Brampton* *10192 Highway 50* *Brampton ON L6P 0G4*
Project No:	*665125*
Report Type:	*RSC Report - Quote*
Order No:	*20190508200*
Requested by:	*SNC-Lavalin Inc.*
Date Completed:	*July 31, 2019*

Environmental Risk Information Services
A division of Glacier Media Inc.
1.866.517.5204 | info@erisinfo.com | erisinfo.com

Table of Contents

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Executive Summary

Property Information:

Project Property:	*Johnston Transit Facility, City of Brampton* *10192 Highway 50 Brampton ON L6P 0G4*
Project No:	*665125*

Order Information:

Order No:	*20190508200*
Date Requested:	*May 8, 2019*
Requested by:	*SNC-Lavalin Inc.*
Report Type:	*RSC Report - Quote*

Historical/Products:

Aerial Photographs	*Aerials - National Collection - .tiff files*
City Directory Search	*CD - Subject Site plus 10 Adjacent Properties*
Insurance Products	*Fire Insurance Maps/Inspection Reports/Site Plans*
Land Title Search	*Historical Land Title Search*
Topographic Map	*Ontario Base Map (OBM)*

Executive Summary: Report Summary

Database	Name	Searched	Project Property	Boundary to 0.30km	Total
AAGR	Abandoned Aggregate Inventory	Y	0	0	0
AGR	Aggregate Inventory	Y	0	0	0
AMIS	Abandoned Mine Information System	Y	0	0	0
ANDR	Anderson's Waste Disposal Sites	Y	0	2	2
AUWR	Automobile Wrecking & Supplies	Y	0	0	0
BORE	Borehole	Y	0	0	0
CA	Certificates of Approval	Y	0	1	1
CDRY	Dry Cleaning Facilities	Y	0	0	0
CFOT	Commercial Fuel Oil Tanks	Y	0	0	0
CHEM	Chemical Register	Y	0	0	0
CNG	Compressed Natural Gas Stations	Y	0	0	0
COAL	Inventory of Coal Gasification Plants and Coal Tar Sites	Y	0	0	0
CONV	Compliance and Convictions	Y	0	0	0
CPU	Certificates of Property Use	Y	0	0	0
DRL	Drill Hole Database	Y	0	0	0
EASR	Environmental Activity and Sector Registry	Y	0	3	3
EBR	Environmental Registry	Y	0	1	1
ECA	Environmental Compliance Approval	Y	0	5	5
EEM	Environmental Effects Monitoring	Y	0	0	0
EHS	ERIS Historical Searches	Y	1	8	9
EIIS	Environmental Issues Inventory System	Y	0	0	0
EMHE	Emergency Management Historical Event	Y	0	0	0
EPAR	Environmental Penalty Annual Report	Y	0	0	0
EXP	List of TSSA Expired Facilities	Y	0	2	2
FCON	Federal Convictions	Y	0	0	0
FCS	Contaminated Sites on Federal Land	Y	0	0	0
FOFT	Fisheries & Oceans Fuel Tanks	Y	0	0	0
FST	Fuel Storage Tank	Y	0	1	1
FSTH	Fuel Storage Tank - Historic	Y	0	2	2
GEN	Ontario Regulation 347 Waste Generators Summary	Y	0	109	109
GHG	Greenhouse Gas Emissions from Large Facilities	Y	0	0	0
HINC	TSSA Historic Incidents	Y	0	2	2
IAFT	Indian & Northern Affairs Fuel Tanks	Y	0	0	0
INC	TSSA Incidents	Y	0	2	2
LIMO	Landfill Inventory Management Ontario	Y	0	0	0
MINE	Canadian Mine Locations	Y	0	0	0

Database	Name	Searched	Project Property	Boundary to 0.30km	Total
MNR	Mineral Occurrences	Y	0	0	0
NATE	National Analysis of Trends in Emergencies System (NATES)	Y	0	0	0
NCPL	Non-Compliance Reports	Y	0	0	0
NDFT	National Defense & Canadian Forces Fuel Tanks	Y	0	0	0
NDSP	National Defense & Canadian Forces Spills	Y	0	0	0
NDWD	National Defence & Canadian Forces Waste Disposal Sites	Y	0	0	0
NEBI	National Energy Board Pipeline Incidents	Y	0	0	0
NEBP	National Energy Board Wells	Y	0	0	0
NEES	National Environmental Emergencies System (NEES)	Y	0	0	0
NPCB	National PCB Inventory	Y	0	0	0
NPRI	National Pollutant Release Inventory	Y	0	22	22
OGWE	Oil and Gas Wells	Y	0	0	0
OOGW	Ontario Oil and Gas Wells	Y	0	0	0
OPCB	Inventory of PCB Storage Sites	Y	0	0	0
ORD	Orders	Y	0	0	0
PAP	Canadian Pulp and Paper	Y	0	0	0
PCFT	Parks Canada Fuel Storage Tanks	Y	0	0	0
PES	Pesticide Register	Y	0	0	0
PINC	TSSA Pipeline Incidents	Y	0	1	1
PRT	Private and Retail Fuel Storage Tanks	Y	0	1	1
PTTW	Permit to Take Water	Y	0	0	0
REC	Ontario Regulation 347 Waste Receivers Summary	Y	0	0	0
RSC	Record of Site Condition	Y	0	0	0
RST	Retail Fuel Storage Tanks	Y	0	0	0
SCT	Scott's Manufacturing Directory	Y	0	12	12
SPL	Ontario Spills	Y	0	7	7
SRDS	Wastewater Discharger Registration Database	Y	0	0	0
TANK	Anderson's Storage Tanks	Y	0	0	0
TCFT	Transport Canada Fuel Storage Tanks	Y	0	0	0
VAR	TSSA Variances for Abandonment of Underground Storage Tanks	Y	0	0	0
WDS	Waste Disposal Sites - MOE CA Inventory	Y	0	0	0
WDSH	Waste Disposal Sites - MOE 1991 Historical Approval Inventory	Y	0	0	0
WWIS	Water Well Information System	Y	3	25	28
	Total:		4	206	210

Executive Summary: Site Report Summary - Project Property

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev diff (m)	Page Number
1	WWIS		lot 11 con 11 ON ***Well ID:*** 4905218	-/0.0	-0.75	47
2	WWIS		ON ***Well ID:*** 7279718	-/0.0	1.00	50
3	WWIS		Brampton ON ***Well ID:*** 7249974	-/0.0	0.44	51
5	EHS		10192 hwy 50 brampton ON	N/18.3	1.00	52

Executive Summary: Site Report Summary - Surrounding Properties

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
4	WWIS		Brampton ON **Well ID:** 7282340	NNE/5.3	0.00	53
6	WWIS		lot 12 con 11 ON **Well ID:** 4905247	NW/28.6	-1.04	55
7	WWIS		Brampton ON **Well ID:** 7249973	ESE/31.2	-2.00	58
8	GEN	TOTAL CRANE RENTAL LTD.	2 CADETTA ROAD BRAMPTON ON L6T 3Z8	N/43.6	1.00	60
8	INC		2 CADETTA RD, BRAMPTON ON	N/43.6	1.00	60
8	SPL		2 Cadetta Rd Brampton ON	N/43.6	1.00	61
9	WWIS		lot 12 con 11 ON **Well ID:** 4906179	N/53.2	1.00	62
10	WWIS		Brampton ON **Well ID:** 7249975	N/58.9	1.00	65
11	WWIS		lot 11 con 11 ON **Well ID:** 4902862	SSE/60.6	-2.00	67
12	EXP	PILEN CONSTRUCTION OF CANADA LIMITED	22 CADETTA RD RR 9 BRAMPTON ON	NNW/69.6	0.44	70
12	EXP	PILEN CONSTRUCTION OF CANADA LIMITED	22 CADETTA RD RR 9 BRAMPTON ON	NNW/69.6	0.44	71
12	GEN	PILEN CONSTRUCTION OF CANADA LIMITED	22 CADETTA ROAD BRAMPTON ON L6P 0X4	NNW/69.6	0.44	71

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
12	GEN	PILEN CONSTRUCTION OF CANADA LIMITED	22 CADETTA ROAD BRAMPTON ON L6T 3Z8	NNW/69.6	0.44	71
12	GEN	PILEN CONSTRUCTION OF CANADA LIMITED	22 CADETTA ROAD BRAMPTON ON L6T 3Z8	NNW/69.6	0.44	72
12	GEN	PILEN CONSTRUCTION OF CANADA LTD.	RR #9, 22 CADETTA ROAD BRAMPTON ON L6T 3Z8	NNW/69.6	0.44	72
12	GEN	PILEN CONSTRUCTION OF CANADA LIMITED	22 CADETTA ROAD BRAMPTON ON L6P0X4	NNW/69.6	0.44	72
12	GEN	PILEN CONSTRUCTION OF CANADA LTD.	RR #9, 22 CADETTA ROAD BRAMPTON ON L6T 3Z8	NNW/69.6	0.44	73
12	GEN	PILEN CONSTRUCTION OF CANADA LIMITED	22 CADETTA ROAD BRAMPTON ON L6P0X4	NNW/69.6	0.44	73
12	GEN	PILEN CONSTRUCTION OF CANADA LIMITED	22 CADETTA ROAD BRAMPTON ON L6P0X4	NNW/69.6	0.44	74
12	GEN	PILEN CONSTRUCTION OF CANADA LIMITED	22 CADETTA ROAD BRAMPTON ON	NNW/69.6	0.44	74
12	GEN	PILEN CONSTRUCTION OF CANADA LIMITED	22 CADETTA ROAD BRAMPTON ON L6P 0X4	NNW/69.6	0.44	75
12	GEN	PILEN CONSTRUCTION OF CANADA LIMITED	22 CADETTA ROAD BRAMPTON ON L6P0X4	NNW/69.6	0.44	75
12	GEN	PILEN CONSTRUCTION OF CANADA LIMITED	22 CADETTA ROAD BRAMPTON ON L6P 0X4	NNW/69.6	0.44	76
12	GEN	PILEN CONSTRUCTION OF CANADA LIMITED	22 CADETTA ROAD BRAMPTON ON L6P0X4	NNW/69.6	0.44	76
12	PRT	PILEN CONST OF CANADA INC	22 CADETTA RD RR 9 BRAMPTON ON L6T3Z8	NNW/69.6	0.44	77

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
13	CA	TRISTAR COATINGS, DIV. OF TREBOR IND.	18 CADETTA RD., LOT 8/CON.II BRAMPTON CITY ON L6T 3Z8	NW/79.1	-1.79	77
13	GEN	TRISTAR COATINGS LTD	18 Cadetta Road BRAMPTON ON L6P 0X4	NW/79.1	-1.79	77
13	GEN	TRISTAR COATINGS LTD	TRISTAR COATINGS LTD 18 CADETTA ROAD, R.R. #9 BRAMPTON ON L6P 0X4	NW/79.1	-1.79	78
13	GEN	TRISTAR COATINGS LTD	18 Cadetta Road BRAMPTON ON L6P 0X4	NW/79.1	-1.79	78
13	GEN	TRISTAR COATINGS LTD	18 CADETTA ROAD BRAMPTON ON L6T 3Z8	NW/79.1	-1.79	79
13	GEN	TRISTAR COATINGS DIVISION	18 CADETTA ROAD BRAMPTON ON L6T 3Z8	NW/79.1	-1.79	79
13	GEN	TRISTAR COATINGS LTD	TRISTAR COATINGS LTD 18 CADETTA ROAD, R.R. #9 BRAMPTON ON L6P 0X4	NW/79.1	-1.79	79
13	GEN	TRISTAR COATINGS LTD	TRISTAR COATINGS LTD 18 CADETTA ROAD, BRAMPTON ON L6P 0X4	NW/79.1	-1.79	80
13	GEN	TRISTAR COATINGS LTD	TRISTAR COATINGS LTD 18 CADETTA ROAD, BRAMPTON ON L6P 0X4	NW/79.1	-1.79	80
13	GEN	TRISTAR COATINGS LTD	TRISTAR COATINGS LTD 18 CADETTA ROAD, BRAMPTON ON L6P 0X4	NW/79.1	-1.79	81
13	GEN	TRISTAR COATINGS LTD	TRISTAR COATINGS LTD 18 CADETTA ROAD, BRAMPTON ON	NW/79.1	-1.79	81
13	GEN	TRISTAR COATINGS LTD	TRISTAR COATINGS LTD 18 CADETTA ROAD, R.R. #9 BRAMPTON ON L6P 0X4	NW/79.1	-1.79	82

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
13	GEN	TRISTAR COATINGS LTD	18 Cadetta Road BRAMPTON ON L6P 0X4	NW/79.1	-1.79	82
13	GEN	TRISTAR COATINGS	DIVISION OF TREBOR 18 CADETTA RD. R.R.#9 BRAMPTON ON L6T 3Z8	NW/79.1	-1.79	83
13	GEN	TRISTAR COATINGS LTD	18 Cadetta Road BRAMPTON ON L6P 0X4	NW/79.1	-1.79	83
13	GEN	TRISTAR COATINGS DIVISION 38-534	18 CADETTA ROAD BRAMPTON ON L6T 3Z8	NW/79.1	-1.79	84
13	NPRI	TRISTAR COATINGS LTD.	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	NW/79.1	-1.79	84
13	NPRI	TRISTAR COATINGS LTD	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	NW/79.1	-1.79	85
13	NPRI	TRISTAR COATINGS LTD.	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	NW/79.1	-1.79	88
13	NPRI	TRISTAR COATINGS LTD.	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6T 3Z8	NW/79.1	-1.79	89
13	NPRI	TREBOR IND. TRISTAR COATINGS DIV.	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	NW/79.1	-1.79	91
13	NPRI	TREBOR IND. TRISTAR COATINGS DIV.	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	NW/79.1	-1.79	92
13	NPRI	TRISTAR COATINGS LTD	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6T 3Z8	NW/79.1	-1.79	93
13	NPRI	TRISTAR COATINGS LTD.	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	NW/79.1	-1.79	95
13	NPRI	TREBOR IND. TRISTAR COATINGS DIV.	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6T 3Z8	NW/79.1	-1.79	96

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
13	NPRI	TREBOR IND. TRISTAR COATINGS DIV.	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6T 3Z8	NW/79.1	-1.79	97
13	NPRI	TREBOR IND. TRISTAR COATINGS DIV.	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	NW/79.1	-1.79	98
13	NPRI	TRISTAR COATINGS LTD	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	NW/79.1	-1.79	99
13	NPRI	TRISTAR COATINGS LTD	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	NW/79.1	-1.79	101
13	NPRI	TRISTAR COATINGS LTD.	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6T 3Z8	NW/79.1	-1.79	103
13	NPRI	TRISTAR COATINGS LTD.	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	NW/79.1	-1.79	104
13	NPRI	TRISTAR COATINGS LTD	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	NW/79.1	-1.79	105
13	NPRI	TRISTAR COATINGS LTD	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	NW/79.1	-1.79	108
13	NPRI	TRISTAR COATINGS LTD	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	NW/79.1	-1.79	110
13	NPRI	TRISTAR COATINGS LTD.	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	NW/79.1	-1.79	112
13	NPRI	Tristar Coatings Ltd.	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	NW/79.1	-1.79	114
13	NPRI	TREBOR INDUSTRIES	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	NW/79.1	-1.79	115
13	NPRI	TRISTAR COATINGS LTD	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	NW/79.1	-1.79	116

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
13	SCT	Tristar Coatings Ltd.	18 Cadetta Rd Brampton ON L6P 0X4	NW/79.1	-1.79	118
13	SPL	Purolator Courier Ltd.	18 Cadetta Rd Brampton ON L6P 0X4	NW/79.1	-1.79	119
14	WWIS		lot 12 con 11 ON ***Well ID:*** 4908701	WSW/86.0	-2.00	119
15	GEN	Roma Building Restoration Ltd	20 Cadetta Rd Unit # 7 Brampton ON L6P 0X4	NW/86.4	-0.74	123
16	EHS		20 Cadetta Road Brampton ON L6P 0X4	NW/87.7	-0.74	123
16	SCT	Quality Fabricating	20 Cadetta Rd Brampton ON L6T 3Z8	NW/87.7	-0.74	124
16	SCT	Quality Fabricating & Machining Ltd.	20 Cadetta Rd Brampton ON L6T 3Z8	NW/87.7	-0.74	124
16	SCT	QFM Ltd.	20 Cadetta Rd Brampton ON L6P 0X4	NW/87.7	-0.74	124
17	WWIS		BRAMPTON ON ***Well ID:*** 7241945	N/95.3	1.00	124
18	WWIS		lot 12 con 11 ON ***Well ID:*** 4906478	NNW/97.7	0.09	127
19	EASR	THE REGIONAL MUNICIPALITY OF PEEL	ON	ESE/98.0	-2.73	130
20	GEN	WYNDALE PAVING CO. LTD.	24 Cadetta Rd Brampton ON L6P 0X4	NNW/104.4	1.00	130
20	GEN	WYNDALE PAVING CO. LTD.	24 Cadetta Rd Brampton ON L6P 0X4	NNW/104.4	1.00	130

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
20	GEN	WYNDALE PAVING CO. LTD.	24 Cadetta Rd Brampton ON L6P 0X4	NNW/104.4	1.00	131
20	GEN	WYNDALE PAVING CO. LTD.	24 Cadetta Rd Brampton ON L6P 0X4	NNW/104.4	1.00	131
20	HINC		24 CADETTA ROAD BRAMPTON ON L6P 0X4	NNW/104.4	1.00	131
20	SCT	Roma Fence Ltd.	24 Cadetta Rd Brampton ON L6P 0X4	NNW/104.4	1.00	132
21	WWIS		ON ***Well ID:*** 7304020	W/109.3	-2.00	132
22	EHS		24 Cadetta Rd Brampton ON L6P0X4	NNW/111.5	1.00	133
23	ECA	O@B Corporation Inc.	4 Cadetta Rd Brampton ON L6A 4C1	N/123.7	1.00	133
24	WWIS		lot 12 con 11 ON ***Well ID:*** 4905812	NW/127.9	-2.00	134
25	WWIS		Brampton ON ***Well ID:*** 7249972	ESE/129.0	-2.79	137
26	WWIS		BRAMPTON ON ***Well ID:*** 7241946	N/131.1	1.00	139
27	WWIS		KLEINBURG ON ***Well ID:*** 7302203	E/144.7	-2.52	141
28	EHS		16 Cadetta Rd Brampton ON L6P 0X4	WNW/148.4	-2.00	144
28	GEN	1389147 ONTARIO INC	16 CADETTA ROAD BRAMPTON ON L6P 0X4	WNW/148.4	-2.00	144

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
28	GEN	1389147 ONTARIO INC	16 CADETTA ROAD BRAMPTON ON L6P 0X4	WNW/148.4	-2.00	144
28	GEN	1389147 ONTARIO INC	16 CADETTA ROAD BRAMPTON ON L6P 0X4	WNW/148.4	-2.00	145
28	GEN	1389147 ONTARIO INC	16 CADETTA ROAD BRAMPTON ON	WNW/148.4	-2.00	145
28	GEN	AVENUE STRUCTURES CORPORATION	16 CADETTA ROAD BRAMPTON ON L6T 3Z8	WNW/148.4	-2.00	145
28	GEN	1389147 ONTARIO INC	16 CADETTA ROAD BRAMPTON ON L6P 0X4	WNW/148.4	-2.00	146
28	GEN	AVENUE STRUC(OUT OF BUSINESS)	16 CADETTA ROAD BRAMPTON ON L6T 3Z8	WNW/148.4	-2.00	146
28	GEN	Avenue Building Corporation	16 CADETTA ROAD BRAMPTON ON L6T 3Z8	WNW/148.4	-2.00	146
28	GEN	CANFORM STRUCTURES LIMITED	16 CADETTA ROAD BRAMPTON ON L6T 3Z8	WNW/148.4	-2.00	147
28	GEN	AVENUE STRUCTURES CORPORATION 03-217	16 CADETTA ROAD BRAMPTON ON L6T 3Z8	WNW/148.4	-2.00	147
28	GEN	1389147 ONTARIO INC	16 CADETTA ROAD BRAMPTON ON L6P 0X4	WNW/148.4	-2.00	147
28	GEN	AVENUE STRUCTURES CORPORATION	16 CADETTA ROAD BRAMPTON ON L6T 3Z8	WNW/148.4	-2.00	147
28	GEN	1389147 ONTARIO INC	16 CADETTA ROAD BRAMPTON ON L6P0X4	WNW/148.4	-2.00	148
28	GEN	1389147 ONTARIO INC	16 CADETTA ROAD BRAMPTON ON L6P0X4	WNW/148.4	-2.00	148

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
28	GEN	1389147 ONTARIO INC	16 CADETTA ROAD BRAMPTON ON L6P0X4	WNW/148.4	-2.00	148
28	GEN	1389147 ONTARIO INC	16 CADETTA ROAD BRAMPTON ON L6P0X4	WNW/148.4	-2.00	149
28	GEN	1389147 ONTARIO INC	16 CADETTA ROAD BRAMPTON ON L6P0X4	WNW/148.4	-2.00	149
29	WWIS		lot 12 con 11 ON ***Well ID:*** 4905769	NW/156.2	-0.14	149
30	WWIS		KLEINBURG ON ***Well ID:*** 7302202	E/156.5	-3.00	152
31	WWIS		lot 12 con 11 ON ***Well ID:*** 7225368	WNW/157.8	-2.00	155
32	WWIS		Brampton ON ***Well ID:*** 7178624	NW/158.2	-1.38	157
33	ANDR	Coleraine junkyard 1976	Kleinburg ON L0J 1C0	NNW/160.5	1.00	160
34	WWIS		KLEINBURG ON ***Well ID:*** 7302201	E/164.3	-3.00	161
35	ANDR	Coleraine junkyard 1969	Kleinburg ON L0J 1C0	NNW/164.6	1.00	163
36	WWIS		lot 12 con 11 ON ***Well ID:*** 4905768	WNW/178.4	-2.00	164
37	EHS		Hwy 50 Brampton ON	ESE/184.8	-3.00	167
38	GEN	JOE GALLO BROS. PAVING CO. LTD.	6 CADETTA ROAD BRAMPTON ON L6T 3Z8	N/187.5	1.00	167

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
39	EHS		Cadetta Road Brampton ON	WNW/188.6	-1.00	168
40	WWIS		lot 12 con 11 ON ***Well ID:*** 4905813	NW/193.2	-0.37	168
41	WWIS		Brampton ON ***Well ID:*** 7166972	NW/194.2	-0.37	172
42	GEN	Forest Contractors Ltd	8 Cadetta Road Brampton ON L6P 0X4	NNW/200.9	1.00	175
42	GEN	Forest Contractors Ltd	8 Cadetta Road Brampton ON L6P 0X4	NNW/200.9	1.00	175
42	GEN	Forest Contractors Ltd	8 Cadetta Road Brampton ON L6P 0X4	NNW/200.9	1.00	176
42	GEN	Forest Contractors Ltd	8 Cadetta Road Brampton ON L6P 0X4	NNW/200.9	1.00	176
42	GEN	Forest Contractors Ltd	8 Cadetta Road Brampton ON L6P 0X4	NNW/200.9	1.00	176
42	GEN	Forest Contractors Ltd	8 Cadetta Road Brampton ON	NNW/200.9	1.00	176
42	GEN	Forest Contractors Ltd	8 Cadetta Road Brampton ON	NNW/200.9	1.00	177
42	PINC		8 Cadetta Road, Brampton ON	NNW/200.9	1.00	177
42	SPL	Enbridge Gas Distribution Inc.	8 Cadetta Road <UNOFFICIAL> Brampton ON L6P 0X4	NNW/200.9	1.00	177
43	EBR	Onsite Ready-Mix (2009) Corp.	10 Cadetta Road Brampton, Regional Municipality of Peel CITY OF BRAMPTON ON	NNW/225.7	1.00	178

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
43	ECA	Bolton Ready Mix	10 Cadetta Rd Brampton ON M5R 2B1	NNW/225.7	1.00	178
43	ECA	752054 Ontario Limited	10 Cadetta Rd Brampton ON M5R 2B1	NNW/225.7	1.00	179
43	ECA	Bolton Ready Mix	10 Cadetta Road Brampton City, Regional Municipality of Peel L6P 0X4 ON	NNW/225.7	1.00	179
43	ECA	752054 Ontario Limited	10 Cadetta Rd Brampton ON L6P 0X4	NNW/225.7	1.00	179
43	GEN	Onsite Ready-Mix Inc	10 Cadetta Road Brampton ON L6P 0X4	NNW/225.7	1.00	179
43	GEN	ALTA CRANES LIMITED	10 CADETTA ROAD, R.R. #9 BRAMPTON ON L6T 3Z8	NNW/225.7	1.00	180
43	GEN	Onsite Ready-Mix Inc	10 Cadetta Road Brampton ON L6P 0X4	NNW/225.7	1.00	180
43	GEN	ALTA CRANES LIMITED	10 CADETTA ROAD, R.R. #9 BRAMPTON ON L6T 3Z8	NNW/225.7	1.00	180
43	GEN	Onsite Ready-Mix Inc	10 Cadetta Road Brampton ON L6P 0X4	NNW/225.7	1.00	181
43	GEN	ALTA CRANES LIMITED 02-216	10 CADETTA ROAD, R.R. #9 BRAMPTON ON L6T 3Z8	NNW/225.7	1.00	181
43	GEN	Magcrete Logistics	10 Cadetta Road Brampton ON L6P 0X4	NNW/225.7	1.00	181
43	GEN	Magcrete Logistics	10 Cadetta Road Brampton ON L6P 0X4	NNW/225.7	1.00	181
43	GEN	ADVANCED FENCE AND WIRE	10 CADETTA ROAD BRAMPTON ON L6T 3Z8	NNW/225.7	1.00	182

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
43	GEN	Magcrete Logistics	10 Cadetta Road Brampton ON L6P 0X4	NNW/225.7	1.00	182
43	GEN	Magcrete Logistics	10 Cadetta Road Brampton ON L6P 0X4	NNW/225.7	1.00	182
43	GEN	1105976 ONTARIO LIMITED	10 CADETTA ROAD BRAMPTON ON L6T 3Z8	NNW/225.7	1.00	183
43	SCT	Acculink Fence & Wire Inc.	10 Cadetta Rd Brampton ON L6P 0X4	NNW/225.7	1.00	183
43	SCT	Dura Fence Inc.	10 Cadetta Rd Brampton ON L6T 3Z8	NNW/225.7	1.00	183
43	SCT	Acculink Fence And Wire	10 Cadetta Rd Brampton ON L6T 3Z8	NNW/225.7	1.00	184
43	SCT	YORK FENCE COMPANY LTD.	10 Cadetta Rd Brampton ON L6T 3Z8	NNW/225.7	1.00	184
44	GEN	GREENSTAR CONSTRUCTION	12 CADETTA RD UNIT 8 BRAMPTON ON L6P0X4	NW/227.0	-0.23	184
44	GEN	Terrapave Holdings Inc	12 Cadetta Rd Unit 1 Brampton ON L6P 0X4	NW/227.0	-0.23	184
44	GEN	Terrapave Holdings Inc	12 Cadetta Rd Unit 1 Brampton ON L6P 0X4	NW/227.0	-0.23	185
44	GEN	GREENSTAR CONSTRUCTION	12 CADETTA RD UNIT 8 BRAMPTON ON L6P0X4	NW/227.0	-0.23	185
44	GEN	GREENSTAR CONSTRUCTION	12 CADETTA RD UNIT 8 BRAMPTON ON L6P0X4	NW/227.0	-0.23	185
44	GEN	GREENSTAR CONSTRUCTION	12 CADETTA RD UNIT 8 BRAMPTON ON L6P0X4	NW/227.0	-0.23	186

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
45	SCT	Cedar Mills Welding	12 Cadetta Rd Suite 4 Brampton ON L6P 0X4	NW/229.4	-0.33	186
46	GEN	TIME AND PRECISION CO. LTD.	14 CADETTA ROAD BRAMPTON ON L6P 0X4	WNW/235.0	-1.00	186
46	GEN	TMT Freight Systems	14 Caldetta Road Brampton ON L6P 0X4	WNW/235.0	-1.00	186
46	GEN	TIME AND PRECISION CO. LTD. 38-707	14 CADETTA ROAD BRAMPTON ON L6T 3Z8	WNW/235.0	-1.00	187
47	HINC		14 CADETTA ROAD BRAMPTON ON L6P 0X4	NW/248.0	-1.00	187
47	SCT	TIME & PRECISION CO. LTD.	14 CADETTA RD RR 9 BRAMPTON ON L6T 3Z8	NW/248.0	-1.00	187
47	SCT	D & D Tool & Machine Co.	14 Cadetta Rd Brampton ON L6P 0X4	NW/248.0	-1.00	188
48	EHS		10410 Coleraine Drive Brampton ON L6P 0V4	NNW/261.7	3.59	188
49	EASR	2278581 ONTARIO LIMITED	9701 HIGHWAY 50 WOODBRIDGE ON L4H 2G4	NNE/263.3	-1.00	188
49	EASR	2563570 ONTARIO LTD.	9701 HIGHWAY 50 WOODBRIDGE ON L4H 2G4	NNE/263.3	-1.00	188
49	EHS		9701 Highway No. 50 Kleinburg ON	NNE/263.3	-1.00	189
49	GEN	jb express	9701 highway 50 woodbridge ON L4H2G4	NNE/263.3	-1.00	189
49	GEN	jb express	9701 highway 50 woodbridge ON L4H2G4	NNE/263.3	-1.00	189

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
49	GEN	jb express	9701 highway 50 woodbridge ON L4H2G4	NNE/263.3	-1.00	189
49	GEN	CONSOLIDATED FASTFRATE INC.	9701 HIGHWAY 50 VAUGHAN ON L4H 2G4	NNE/263.3	-1.00	190
49	GEN	CONSOLIDATED FASTFRATE INC.	9701 HIGHWAY 50 VAUGHAN ON	NNE/263.3	-1.00	191
49	GEN	CONSOLIDATED FASTFRATE INC.	9701 HIGHWAY 50 VAUGHAN ON L4H 2G4	NNE/263.3	-1.00	191
49	GEN	CONSOLIDATED FASTFRATE INC.	9701 HIGHWAY 50 VAUGHAN ON L4H 2G4	NNE/263.3	-1.00	192
49	GEN	CONSOLIDATED FASTFRATE INC.	9701 HIGHWAY 50 VAUGHAN ON L4H 2G4	NNE/263.3	-1.00	193
49	GEN	CONSOLIDATED FASTFRATE INC.	9701 HIGHWAY 50 VAUGHAN ON L4H 2G4	NNE/263.3	-1.00	194
49	GEN	CONSOLIDATED FASTFRATE INC.	9701 HIGHWAY 50 VAUGHAN ON L4H 2G4	NNE/263.3	-1.00	195
49	GEN	CONSOLIDATED FASTFRATE INC.	9701 HIGHWAY 50 VAUGHAN ON L4H 2G4	NNE/263.3	-1.00	196
49	GEN	CONSOLIDATED FASTFRATE INC.	9701 HIGHWAY 50 VAUGHAN ON L4H 2G4	NNE/263.3	-1.00	196
49	GEN	jb express	9701 highway 50 woodbridge ON L4H2G4	NNE/263.3	-1.00	198
49	GEN	CONSOLIDATED FASTFRATE INC.	9701 HIGHWAY 50 VAUGHAN ON L4H 2G4	NNE/263.3	-1.00	198
49	GEN	CONSOLIDATED FASTFRATE INC.	9701 HIGHWAY 50 VAUGHAN ON L4H 2G4	NNE/263.3	-1.00	199

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
49	SPL	Consolidated Fastfrate (Ontario) Holdings Inc.	9701 Highway 50 CONSOLIDATED FASTFRATE INC. Vaughan ON	NNE/263.3	-1.00	200
49	SPL		9701 Highway 50 in Woodbridge<UNOFFICIAL> Vaughan ON	NNE/263.3	-1.00	200
49	SPL	Consolidated Fastfrate (Ontario) Holdings Inc.	9701 Highway 50 Vaughan ON	NNE/263.3	-1.00	201
49	SPL	Consolidated Fastfrate (Ontario) Holdings Inc.	9701 Highway 50 CONSOLIDATED FASTFRATE INC. Vaughan ON	NNE/263.3	-1.00	201
50	GEN	S.L.H. TRANSPORT INC.	9601 HWY 50 VAUGHAN ON	ESE/265.1	-3.54	202
50	GEN	S.L.H. TRANSPORT INC.	9601 HWY 50 VAUGHAN ON	ESE/265.1	-3.54	202
50	GEN	Train Trailer Rentals Ltd.	9601 Highway 50 VAUGHAN ON L4H2B9	ESE/265.1	-3.54	203
50	GEN	Train Trailer Rentals Ltd.	9601 Highway 50 VAUGHAN ON L4H2B9	ESE/265.1	-3.54	203
50	GEN	S.L.H. TRANSPORT INC.	9601 HWY 50 VAUGHAN ON L4H2B9	ESE/265.1	-3.54	204
50	GEN	S.L.H. TRANSPORT INC.	9601 HWY 50 VAUGHAN ON L4H2B9	ESE/265.1	-3.54	204
50	GEN	S.L.H. TRANSPORT INC.	9601 HWY 50 VAUGHAN ON L4H2B9	ESE/265.1	-3.54	205
50	GEN	S.L.H. TRANSPORT INC.	9601 HWY. 50 VAUGHAN ON L4H 2B9	ESE/265.1	-3.54	205
50	GEN	S.L.H. TRANSPORT INC.	9601 HWY 50 VAUGHAN ON L4H2B9	ESE/265.1	-3.54	205

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
50	GEN	S.L.H. TRANSPORT INC.	9601 HWY 50 VAUGHAN ON	ESE/265.1	-3.54	206
50	GEN	S.L.H. TRANSPORT INC.	9601 HWY 50 VAUGHAN ON	ESE/265.1	-3.54	206
50	GEN	S.L.H. TRANSPORT INC.	9601 HWY 50 VAUGHAN ON L4H2B9	ESE/265.1	-3.54	207
50	GEN	S.L.H. TRANSPORT INC.	9601 HWY 50 VAUGHAN ON L4H2B9	ESE/265.1	-3.54	207
50	GEN	S.L.H. TRANSPORT INC.	9601 HWY #50 VAUGHAN ON L4H 2B9	ESE/265.1	-3.54	207
51	WWIS		BOLTON ON ***Well ID:*** 7255951	N/284.5	2.22	208
52	WWIS		Brampton ON ***Well ID:*** 7249976	N/287.9	2.67	211
53	FST	SLH TRANSPORT INC	9601 HWY 50 VAUGHAN ON L4H 2B9	SE/292.1	-4.00	212
53	FSTH	SLH TRANSPORT INC	9601 HWY 50 VAUGHAN ON	SE/292.1	-4.00	213
53	FSTH	SLH TRANSPORT INC	9601 HWY 50 VAUGHAN ON	SE/292.1	-4.00	213
53	INC		9601 HWY 50, WOODBRIDGE ON	SE/292.1	-4.00	213
54	WWIS		Brampton ON ***Well ID:*** 7249971	SE/298.0	-4.00	214

Executive Summary: Summary By Data Source

ANDR - Anderson's Waste Disposal Sites

A search of the ANDR database, dated 1860s-Present has found that there are 2 ANDR site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
Coleraine junkyard 1976	Kleinburg ON L0J 1C0	160.5	33
Coleraine junkyard 1969	Kleinburg ON L0J 1C0	164.6	35

CA - Certificates of Approval

A search of the CA database, dated 1985-Oct 30, 2011* has found that there are 1 CA site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
TRISTAR COATINGS, DIV. OF TREBOR IND.	18 CADETTA RD., LOT 8/CON.II BRAMPTON CITY ON L6T 3Z8	79.1	13

EASR - Environmental Activity and Sector Registry

A search of the EASR database, dated Oct 2011-Jun 31, 2019 has found that there are 3 EASR site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
THE REGIONAL MUNICIPALITY OF PEEL	ON	98.0	19
2563570 ONTARIO LTD.	9701 HIGHWAY 50 WOODBRIDGE ON L4H 2G4	263.3	49
2278581 ONTARIO LIMITED	9701 HIGHWAY 50 WOODBRIDGE ON L4H 2G4	263.3	49

Site	Address	Distance (m)	Map Key

EBR - Environmental Registry

A search of the EBR database, dated 1994-Jun 30, 2019 has found that there are 1 EBR site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
Onsite Ready-Mix (2009) Corp.	10 Cadetta Road Brampton, Regional Municipality of Peel CITY OF BRAMPTON ON	225.7	43

ECA - Environmental Compliance Approval

A search of the ECA database, dated Oct 2011-Jun 30, 2019 has found that there are 5 ECA site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
O@B Corporation Inc.	4 Cadetta Rd Brampton ON L6A 4C1	123.7	23
752054 Ontario Limited	10 Cadetta Rd Brampton ON M5R 2B1	225.7	43
Bolton Ready Mix	10 Cadetta Road Brampton City, Regional Municipality of Peel L6P 0X4 ON	225.7	43
752054 Ontario Limited	10 Cadetta Rd Brampton ON L6P 0X4	225.7	43
Bolton Ready Mix	10 Cadetta Rd Brampton ON M5R 2B1	225.7	43

EHS - ERIS Historical Searches

A search of the EHS database, dated 1999-Apr 30, 2019 has found that there are 8 EHS site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
	10192 hwy 50 brampton ON	18.3	5
	20 Cadetta Road Brampton ON L6P 0X4	87.7	16
	24 Cadetta Rd Brampton ON L6P0X4	111.5	22
	16 Cadetta Rd Brampton ON L6P 0X4	148.4	28
	Hwy 50 Brampton ON	184.8	37
	Cadetta Road Brampton ON	188.6	39
	10410 Coleraine Drive Brampton ON L6P 0V4	261.7	48
	9701 Highway No. 50 Kleinburg ON	263.3	49

EXP - List of TSSA Expired Facilities

A search of the EXP database, dated Feb 28, 2017 has found that there are 2 EXP site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
PILEN CONSTRUCTION OF CANADA LIMITED	22 CADETTA RD RR 9 BRAMPTON ON	69.6	12
PILEN CONSTRUCTION OF CANADA LIMITED	22 CADETTA RD RR 9 BRAMPTON ON	69.6	12

Site	Address	Distance (m)	Map Key

FST - Fuel Storage Tank

A search of the FST database, dated Feb 28, 2017 has found that there are 1 FST site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
SLH TRANSPORT INC	9601 HWY 50 VAUGHAN ON L4H 2B9	292.1	53

FSTH - Fuel Storage Tank - Historic

A search of the FSTH database, dated Pre-Jan 2010* has found that there are 2 FSTH site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
SLH TRANSPORT INC	9601 HWY 50 VAUGHAN ON	292.1	53
SLH TRANSPORT INC	9601 HWY 50 VAUGHAN ON	292.1	53

GEN - Ontario Regulation 347 Waste Generators Summary

A search of the GEN database, dated 1986-Mar 31, 2019 has found that there are 109 GEN site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
TOTAL CRANE RENTAL LTD.	2 CADETTA ROAD BRAMPTON ON L6T 3Z8	43.6	8
PILEN CONSTRUCTION OF CANADA LIMITED	22 CADETTA ROAD BRAMPTON ON L6P 0X4	69.6	12
PILEN CONSTRUCTION OF CANADA LIMITED	22 CADETTA ROAD BRAMPTON ON L6T 3Z8	69.6	12

Site	Address	Distance (m)	Map Key
PILEN CONSTRUCTION OF CANADA LIMITED	22 CADETTA ROAD BRAMPTON ON L6T 3Z8	69.6	12
PILEN CONSTRUCTION OF CANADA LTD.	RR #9, 22 CADETTA ROAD BRAMPTON ON L6T 3Z8	69.6	12
PILEN CONSTRUCTION OF CANADA LIMITED	22 CADETTA ROAD BRAMPTON ON L6P0X4	69.6	12
PILEN CONSTRUCTION OF CANADA LTD.	RR #9, 22 CADETTA ROAD BRAMPTON ON L6T 3Z8	69.6	12
PILEN CONSTRUCTION OF CANADA LIMITED	22 CADETTA ROAD BRAMPTON ON L6P0X4	69.6	12
PILEN CONSTRUCTION OF CANADA LIMITED	22 CADETTA ROAD BRAMPTON ON L6P0X4	69.6	12
PILEN CONSTRUCTION OF CANADA LIMITED	22 CADETTA ROAD BRAMPTON ON	69.6	12
PILEN CONSTRUCTION OF CANADA LIMITED	22 CADETTA ROAD BRAMPTON ON L6P 0X4	69.6	12
PILEN CONSTRUCTION OF CANADA LIMITED	22 CADETTA ROAD BRAMPTON ON L6P0X4	69.6	12
PILEN CONSTRUCTION OF CANADA LIMITED	22 CADETTA ROAD BRAMPTON ON L6P 0X4	69.6	12
PILEN CONSTRUCTION OF CANADA LIMITED	22 CADETTA ROAD BRAMPTON ON L6P0X4	69.6	12

Site	Address	Distance (m)	Map Key
TRISTAR COATINGS LTD	18 Cadetta Road BRAMPTON ON L6P 0X4	79.1	13
TRISTAR COATINGS LTD	TRISTAR COATINGS LTD 18 CADETTA ROAD, R.R. #9 BRAMPTON ON L6P 0X4	79.1	13
TRISTAR COATINGS LTD	18 Cadetta Road BRAMPTON ON L6P 0X4	79.1	13
TRISTAR COATINGS LTD	18 CADETTA ROAD BRAMPTON ON L6T 3Z8	79.1	13
TRISTAR COATINGS DIVISION	18 CADETTA ROAD BRAMPTON ON L6T 3Z8	79.1	13
TRISTAR COATINGS LTD	TRISTAR COATINGS LTD 18 CADETTA ROAD, R.R. #9 BRAMPTON ON L6P 0X4	79.1	13
TRISTAR COATINGS LTD	TRISTAR COATINGS LTD 18 CADETTA ROAD, BRAMPTON ON L6P 0X4	79.1	13
TRISTAR COATINGS LTD	TRISTAR COATINGS LTD 18 CADETTA ROAD, BRAMPTON ON L6P 0X4	79.1	13
TRISTAR COATINGS LTD	TRISTAR COATINGS LTD 18 CADETTA ROAD, BRAMPTON ON L6P 0X4	79.1	13
TRISTAR COATINGS LTD	TRISTAR COATINGS LTD 18 CADETTA ROAD, BRAMPTON ON	79.1	13
TRISTAR COATINGS LTD	TRISTAR COATINGS LTD 18 CADETTA ROAD, R.R. #9 BRAMPTON ON L6P 0X4	79.1	13
TRISTAR COATINGS LTD	18 Cadetta Road BRAMPTON ON L6P 0X4	79.1	13

Site	Address	Distance (m)	Map Key
TRISTAR COATINGS	DIVISION OF TREBOR 18 CADETTA RD. R.R.#9 BRAMPTON ON L6T 3Z8	79.1	13
TRISTAR COATINGS LTD	18 Cadetta Road BRAMPTON ON L6P 0X4	79.1	13
TRISTAR COATINGS DIVISION 38-534	18 CADETTA ROAD BRAMPTON ON L6T 3Z8	79.1	13
Roma Building Restoration Ltd	20 Cadetta Rd Unit # 7 Brampton ON L6P 0X4	86.4	15
WYNDALE PAVING CO. LTD.	24 Cadetta Rd Brampton ON L6P 0X4	104.4	20
WYNDALE PAVING CO. LTD.	24 Cadetta Rd Brampton ON L6P 0X4	104.4	20
WYNDALE PAVING CO. LTD.	24 Cadetta Rd Brampton ON L6P 0X4	104.4	20
WYNDALE PAVING CO. LTD.	24 Cadetta Rd Brampton ON L6P 0X4	104.4	20
1389147 ONTARIO INC	16 CADETTA ROAD BRAMPTON ON L6P 0X4	148.4	28
1389147 ONTARIO INC	16 CADETTA ROAD BRAMPTON ON L6P 0X4	148.4	28
1389147 ONTARIO INC	16 CADETTA ROAD BRAMPTON ON L6P 0X4	148.4	28

Site	Address	Distance (m)	Map Key
1389147 ONTARIO INC	16 CADETTA ROAD BRAMPTON ON	148.4	28
AVENUE STRUCTURES CORPORATION	16 CADETTA ROAD BRAMPTON ON L6T 3Z8	148.4	28
1389147 ONTARIO INC	16 CADETTA ROAD BRAMPTON ON L6P 0X4	148.4	28
AVENUE STRUC(OUT OF BUSINESS)	16 CADETTA ROAD BRAMPTON ON L6T 3Z8	148.4	28
Avenue Building Corporation	16 CADETTA ROAD BRAMPTON ON L6T 3Z8	148.4	28
CANFORM STRUCTURES LIMITED	16 CADETTA ROAD BRAMPTON ON L6T 3Z8	148.4	28
AVENUE STRUCTURES CORPORATION 03-217	16 CADETTA ROAD BRAMPTON ON L6T 3Z8	148.4	28
1389147 ONTARIO INC	16 CADETTA ROAD BRAMPTON ON L6P 0X4	148.4	28
AVENUE STRUCTURES CORPORATION	16 CADETTA ROAD BRAMPTON ON L6T 3Z8	148.4	28
1389147 ONTARIO INC	16 CADETTA ROAD BRAMPTON ON L6P0X4	148.4	28
1389147 ONTARIO INC	16 CADETTA ROAD BRAMPTON ON L6P0X4	148.4	28
1389147 ONTARIO INC	16 CADETTA ROAD BRAMPTON ON L6P0X4	148.4	28

Site	Address	Distance (m)	Map Key
1389147 ONTARIO INC	16 CADETTA ROAD BRAMPTON ON L6P0X4	148.4	28
1389147 ONTARIO INC	16 CADETTA ROAD BRAMPTON ON L6P0X4	148.4	28
JOE GALLO BROS. PAVING CO. LTD.	6 CADETTA ROAD BRAMPTON ON L6T 3Z8	187.5	38
Forest Contractors Ltd	8 Cadetta Road Brampton ON L6P 0X4	200.9	42
Forest Contractors Ltd	8 Cadetta Road Brampton ON L6P 0X4	200.9	42
Forest Contractors Ltd	8 Cadetta Road Brampton ON L6P 0X4	200.9	42
Forest Contractors Ltd	8 Cadetta Road Brampton ON L6P 0X4	200.9	42
Forest Contractors Ltd	8 Cadetta Road Brampton ON L6P 0X4	200.9	42
Forest Contractors Ltd	8 Cadetta Road Brampton ON	200.9	42
Forest Contractors Ltd	8 Cadetta Road Brampton ON	200.9	42
ALTA CRANES LIMITED 02-216	10 CADETTA ROAD, R.R. #9 BRAMPTON ON L6T 3Z8	225.7	43

Site	Address	Distance (m)	Map Key
Magcrete Logistics	10 Cadetta Road Brampton ON L6P 0X4	225.7	43
Magcrete Logistics	10 Cadetta Road Brampton ON L6P 0X4	225.7	43
ADVANCED FENCE AND WIRE	10 CADETTA ROAD BRAMPTON ON L6T 3Z8	225.7	43
Magcrete Logistics	10 Cadetta Road Brampton ON L6P 0X4	225.7	43
Magcrete Logistics	10 Cadetta Road Brampton ON L6P 0X4	225.7	43
1105976 ONTARIO LIMITED	10 CADETTA ROAD BRAMPTON ON L6T 3Z8	225.7	43
Onsite Ready-Mix Inc	10 Cadetta Road Brampton ON L6P 0X4	225.7	43
ALTA CRANES LIMITED	10 CADETTA ROAD, R.R. #9 BRAMPTON ON L6T 3Z8	225.7	43
Onsite Ready-Mix Inc	10 Cadetta Road Brampton ON L6P 0X4	225.7	43
ALTA CRANES LIMITED	10 CADETTA ROAD, R.R. #9 BRAMPTON ON L6T 3Z8	225.7	43
Onsite Ready-Mix Inc	10 Cadetta Road Brampton ON L6P 0X4	225.7	43
GREENSTAR CONSTRUCTION	12 CADETTA RD UNIT 8 BRAMPTON ON L6P0X4	227.0	44

Site	Address	Distance (m)	Map Key
Terrapave Holdings Inc	12 Cadetta Rd Unit 1 Brampton ON L6P 0X4	227.0	44
Terrapave Holdings Inc	12 Cadetta Rd Unit 1 Brampton ON L6P 0X4	227.0	44
GREENSTAR CONSTRUCTION	12 CADETTA RD UNIT 8 BRAMPTON ON L6P0X4	227.0	44
GREENSTAR CONSTRUCTION	12 CADETTA RD UNIT 8 BRAMPTON ON L6P0X4	227.0	44
GREENSTAR CONSTRUCTION	12 CADETTA RD UNIT 8 BRAMPTON ON L6P0X4	227.0	44
TIME AND PRECISION CO. LTD.	14 CADETTA ROAD BRAMPTON ON L6P 0X4	235.0	46
TMT Freight Systems	14 Caldetta Road Brampton ON L6P 0X4	235.0	46
TIME AND PRECISION CO. LTD. 38-707	14 CADETTA ROAD BRAMPTON ON L6T 3Z8	235.0	46
jb express	9701 highway 50 woodbridge ON L4H2G4	263.3	49
jb express	9701 highway 50 woodbridge ON L4H2G4	263.3	49
jb express	9701 highway 50 woodbridge ON L4H2G4	263.3	49

Site	Address	Distance (m)	Map Key
CONSOLIDATED FASTFRATE INC.	9701 HIGHWAY 50 VAUGHAN ON L4H 2G4	263.3	49
CONSOLIDATED FASTFRATE INC.	9701 HIGHWAY 50 VAUGHAN ON	263.3	49
CONSOLIDATED FASTFRATE INC.	9701 HIGHWAY 50 VAUGHAN ON L4H 2G4	263.3	49
CONSOLIDATED FASTFRATE INC.	9701 HIGHWAY 50 VAUGHAN ON L4H 2G4	263.3	49
CONSOLIDATED FASTFRATE INC.	9701 HIGHWAY 50 VAUGHAN ON L4H 2G4	263.3	49
CONSOLIDATED FASTFRATE INC.	9701 HIGHWAY 50 VAUGHAN ON L4H 2G4	263.3	49
CONSOLIDATED FASTFRATE INC.	9701 HIGHWAY 50 VAUGHAN ON L4H 2G4	263.3	49
CONSOLIDATED FASTFRATE INC.	9701 HIGHWAY 50 VAUGHAN ON L4H 2G4	263.3	49
CONSOLIDATED FASTFRATE INC.	9701 HIGHWAY 50 VAUGHAN ON L4H 2G4	263.3	49
jb express	9701 highway 50 woodbridge ON L4H2G4	263.3	49
CONSOLIDATED FASTFRATE INC.	9701 HIGHWAY 50 VAUGHAN ON L4H 2G4	263.3	49
CONSOLIDATED FASTFRATE INC.	9701 HIGHWAY 50 VAUGHAN ON L4H 2G4	263.3	49

Site	Address	Distance (m)	Map Key
S.L.H. TRANSPORT INC.	9601 HWY 50 VAUGHAN ON	265.1	50
S.L.H. TRANSPORT INC.	9601 HWY 50 VAUGHAN ON	265.1	50
Train Trailer Rentals Ltd.	9601 Highway 50 VAUGHAN ON L4H2B9	265.1	50
Train Trailer Rentals Ltd.	9601 Highway 50 VAUGHAN ON L4H2B9	265.1	50
S.L.H. TRANSPORT INC.	9601 HWY 50 VAUGHAN ON L4H2B9	265.1	50
S.L.H. TRANSPORT INC.	9601 HWY 50 VAUGHAN ON L4H2B9	265.1	50
S.L.H. TRANSPORT INC.	9601 HWY 50 VAUGHAN ON L4H2B9	265.1	50
S.L.H. TRANSPORT INC.	9601 HWY. 50 VAUGHAN ON L4H 2B9	265.1	50
S.L.H. TRANSPORT INC.	9601 HWY 50 VAUGHAN ON L4H2B9	265.1	50
S.L.H. TRANSPORT INC.	9601 HWY 50 VAUGHAN ON	265.1	50
S.L.H. TRANSPORT INC.	9601 HWY 50 VAUGHAN ON	265.1	50

Site	Address	Distance (m)	Map Key
S.L.H. TRANSPORT INC.	9601 HWY 50 VAUGHAN ON L4H2B9	265.1	50
S.L.H. TRANSPORT INC.	9601 HWY 50 VAUGHAN ON L4H2B9	265.1	50
S.L.H. TRANSPORT INC.	9601 HWY #50 VAUGHAN ON L4H 2B9	265.1	50

HINC - TSSA Historic Incidents

A search of the HINC database, dated 2006-June 2009* has found that there are 2 HINC site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
	24 CADETTA ROAD BRAMPTON ON L6P 0X4	104.4	20
	14 CADETTA ROAD BRAMPTON ON L6P 0X4	248.0	47

INC - TSSA Incidents

A search of the INC database, dated Feb 28, 2017 has found that there are 2 INC site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
	2 CADETTA RD, BRAMPTON ON	43.6	8
	9601 HWY 50, WOODBRIDGE ON	292.1	53

NPRI - National Pollutant Release Inventory

A search of the NPRI database, dated 1993-May 2017 has found that there are 22 NPRI site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
TRISTAR COATINGS LTD.	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	79.1	13
TRISTAR COATINGS LTD	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	79.1	13
TRISTAR COATINGS LTD.	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	79.1	13
TRISTAR COATINGS LTD.	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6T 3Z8	79.1	13
TREBOR IND. TRISTAR COATINGS DIV.	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	79.1	13
TREBOR IND. TRISTAR COATINGS DIV.	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	79.1	13
TRISTAR COATINGS LTD	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6T 3Z8	79.1	13
TRISTAR COATINGS LTD.	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	79.1	13
TREBOR IND. TRISTAR COATINGS DIV.	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6T 3Z8	79.1	13
TREBOR IND. TRISTAR COATINGS DIV.	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6T 3Z8	79.1	13
TREBOR IND. TRISTAR COATINGS DIV.	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	79.1	13

Site	Address	Distance (m)	Map Key
TRISTAR COATINGS LTD	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	79.1	13
TRISTAR COATINGS LTD	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	79.1	13
TRISTAR COATINGS LTD.	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6T 3Z8	79.1	13
TRISTAR COATINGS LTD.	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	79.1	13
TRISTAR COATINGS LTD	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	79.1	13
TRISTAR COATINGS LTD	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	79.1	13
TRISTAR COATINGS LTD	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	79.1	13
TRISTAR COATINGS LTD.	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	79.1	13
Tristar Coatings Ltd.	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	79.1	13
TREBOR INDUSTRIES	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	79.1	13
TRISTAR COATINGS LTD	18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	79.1	13

PINC - TSSA Pipeline Incidents

A search of the PINC database, dated Feb 28, 2017 has found that there are 1 PINC site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
	8 Cadetta Road, Brampton ON	200.9	42

PRT - Private and Retail Fuel Storage Tanks

A search of the PRT database, dated 1989-1996* has found that there are 1 PRT site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
PILEN CONST OF CANADA INC	22 CADETTA RD RR 9 BRAMPTON ON L6T3Z8	69.6	12

SCT - Scott's Manufacturing Directory

A search of the SCT database, dated 1992-Mar 2011* has found that there are 12 SCT site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
Tristar Coatings Ltd.	18 Cadetta Rd Brampton ON L6P 0X4	79.1	13
Quality Fabricating	20 Cadetta Rd Brampton ON L6T 3Z8	87.7	16
Quality Fabricating & Machining Ltd.	20 Cadetta Rd Brampton ON L6T 3Z8	87.7	16
QFM Ltd.	20 Cadetta Rd Brampton ON L6P 0X4	87.7	16
Roma Fence Ltd.	24 Cadetta Rd Brampton ON L6P 0X4	104.4	20

Site	Address	Distance (m)	Map Key
Acculink Fence And Wire	10 Cadetta Rd Brampton ON L6T 3Z8	225.7	43
Acculink Fence & Wire Inc.	10 Cadetta Rd Brampton ON L6P 0X4	225.7	43
Dura Fence Inc.	10 Cadetta Rd Brampton ON L6T 3Z8	225.7	43
YORK FENCE COMPANY LTD.	10 Cadetta Rd Brampton ON L6T 3Z8	225.7	43
Cedar Mills Welding	12 Cadetta Rd Suite 4 Brampton ON L6P 0X4	229.4	45
D & D Tool & Machine Co.	14 Cadetta Rd Brampton ON L6P 0X4	248.0	47
TIME & PRECISION CO. LTD.	14 CADETTA RD RR 9 BRAMPTON ON L6T 3Z8	248.0	47

SPL - Ontario Spills

A search of the SPL database, dated 1988-Feb 2019 has found that there are 7 SPL site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
	2 Cadetta Rd Brampton ON	43.6	8
Purolator Courier Ltd.	18 Cadetta Rd Brampton ON L6P 0X4	79.1	13
Enbridge Gas Distribution Inc.	8 Cadetta Road <UNOFFICIAL> Brampton ON L6P 0X4	200.9	42

Site	Address	Distance (m)	Map Key
Consolidated Fastfrate (Ontario) Holdings Inc.	9701 Highway 50 CONSOLIDATED FASTFRATE INC. Vaughan ON	263.3	49
Consolidated Fastfrate (Ontario) Holdings Inc.	9701 Highway 50 CONSOLIDATED FASTFRATE INC. Vaughan ON	263.3	49
	9701 Highway 50 in Woodbridge<UNOFFICIAL> Vaughan ON	263.3	49
Consolidated Fastfrate (Ontario) Holdings Inc.	9701 Highway 50 Vaughan ON	263.3	49

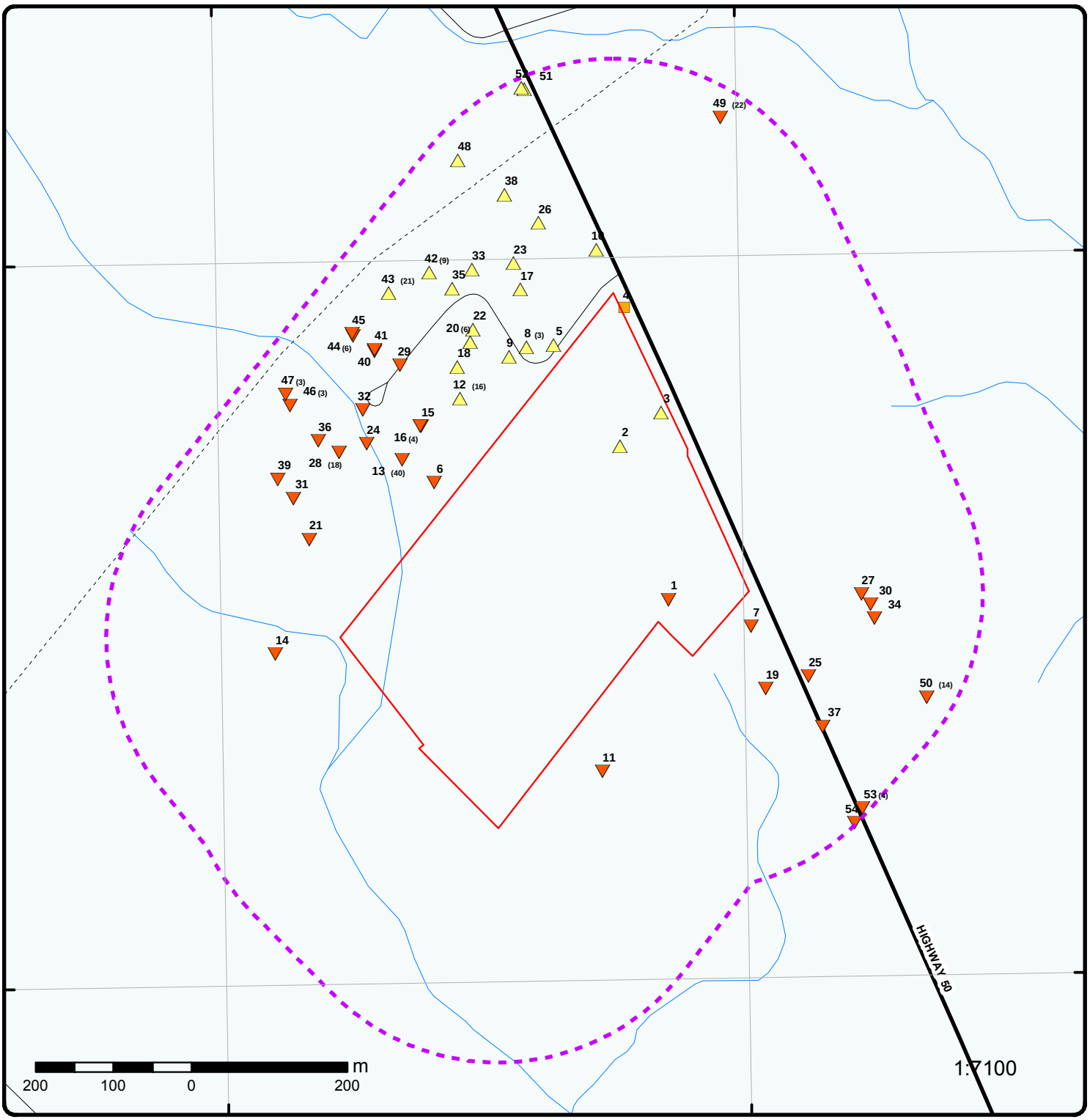
WWIS - Water Well Information System

A search of the WWIS database, dated Feb 28, 2019 has found that there are 28 WWIS site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
	lot 11 con 11 ON ***Well ID:*** 4905218	0.0	1
	ON ***Well ID:*** 7279718	0.0	2
	Brampton ON ***Well ID:*** 7249974	0.0	3
	Brampton ON ***Well ID:*** 7282340	5.3	4
	lot 12 con 11 ON ***Well ID:*** 4905247	28.6	6

Site	Address	Distance (m)	Map Key
	Brampton ON ***Well ID:*** 7249973	31.2	7
	lot 12 con 11 ON ***Well ID:*** 4906179	53.2	9
	Brampton ON ***Well ID:*** 7249975	58.9	10
	lot 11 con 11 ON ***Well ID:*** 4902862	60.6	11
	lot 12 con 11 ON ***Well ID:*** 4908701	86.0	14
	BRAMPTON ON ***Well ID:*** 7241945	95.3	17
	lot 12 con 11 ON ***Well ID:*** 4906478	97.7	18
	ON ***Well ID:*** 7304020	109.3	21
	lot 12 con 11 ON ***Well ID:*** 4905812	127.9	24
	Brampton ON ***Well ID:*** 7249972	129.0	25
	BRAMPTON ON ***Well ID:*** 7241946	131.1	26
	KLEINBURG ON	144.7	27

Site	Address	Distance (m)	Map Key
	Well ID: 7302203		
	lot 12 con 11 ON ***Well ID:*** 4905769	156.2	29
	KLEINBURG ON ***Well ID:*** 7302202	156.5	30
	lot 12 con 11 ON ***Well ID:*** 7225368	157.8	31
	Brampton ON ***Well ID:*** 7178624	158.2	32
	KLEINBURG ON ***Well ID:*** 7302201	164.3	34
	lot 12 con 11 ON ***Well ID:*** 4905768	178.4	36
	lot 12 con 11 ON ***Well ID:*** 4905813	193.2	40
	Brampton ON ***Well ID:*** 7166972	194.2	41
	BOLTON ON ***Well ID:*** 7255951	284.5	51
	Brampton ON ***Well ID:*** 7249976	287.9	52
	Brampton ON ***Well ID:*** 7249971	298.0	54



Map : 0.3 Kilometer Radius

Order No: 20190508200

Address: 10192 Highway 50, Brampton, ON, L6P 0G4

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- Expressway
- Principal Highway
- Secondary Highway
- Major Road
- Local road
- Trail
- Proposed Road
- Ferry Route/Ice Road
- Industrial and Resource - Regions
- Main Line
- Sidetrack
- Transit Line
- Abandoned Line
- National Park
- Provincial or Territorial Park
- Other Park
- Golf Course or Driving Range
- Park or Sports Field
- Other Recreation Area

Source: © 2015 DMTI Spatial Inc.

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79°40'30"W

Aerial (2018)

Address: 10192 Highway 50, Brampton, ON, L6P 0G4

Source: ESRI World Imagery

Order No: 20190508200

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES

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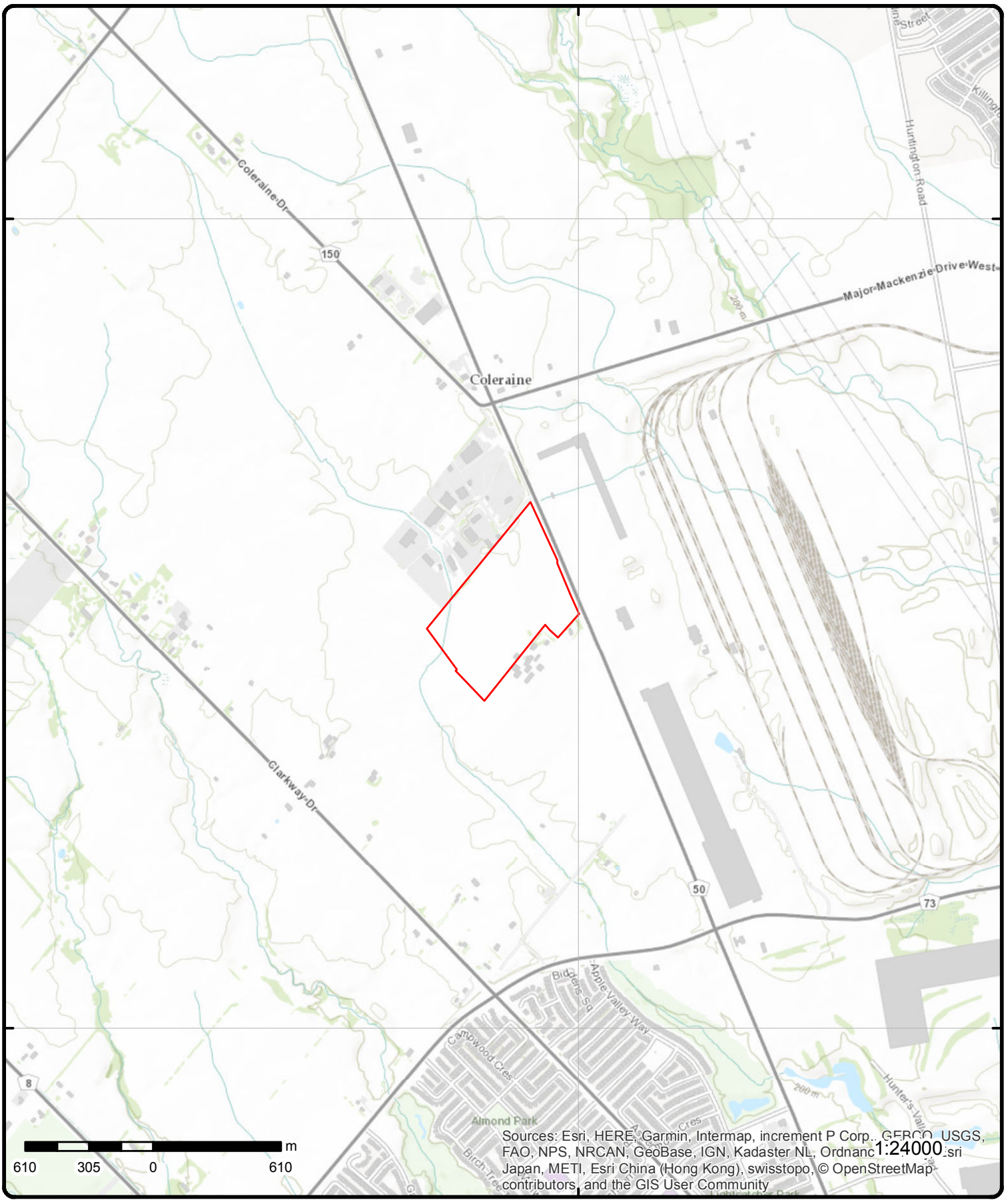

Topographic Map

Address: 10192 Highway 50, Brampton, ON, L6P 0G4

Source: ESRI World Topographic Map

Order No: 20190508200

ERIS ENVIRONMENTAL RISK INFORMATION SERVICES

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Detail Report

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
1	1 of 1	-/0.0	208.1 / -0.75	lot 11 con 11 ON	WWIS

Well ID:	4905218	**Data Entry Status:**	
Construction Date:		**Data Src:**	1
Primary Water Use:	Domestic	**Date Received:**	11/16/1977
Sec. Water Use:	0	**Selected Flag:**	Yes
Final Well Status:	Water Supply	**Abandonment Rec:**	
Water Type:		**Contractor:**	5206
Casing Material:		**Form Version:**	1
Audit No:		**Owner:**	
Tag:		**Street Name:**	
Construction Method:		**County:**	PEEL
Elevation (m):		**Municipality:**	BRAMPTON CITY (TORONTO GORE)
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	011
Well Depth:		**Concession:**	11
Overburden/Bedrock:		**Concession Name:**	CON
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	10319973	**Elevation:**	209.900741
DP2BR:	76	**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:	r	**East83:**	606464.6
Code OB Desc:	Bedrock	**North83:**	4851923
Open Hole:		**Org CS:**	
Cluster Kind:		**UTMRC:**	5
Date Completed:	10/4/1977	**UTMRC Desc:**	margin of error : 100 m - 300 m
Remarks:		**Location Method:**	p5
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932049098
Layer:	3
Color:	6
General Color:	BROWN
Mat1:	05
Most Common Material:	CLAY
Mat2:	
Other Materials:	

Mat3:
Other Materials:
Formation Top Depth: 15
Formation End Depth: 32
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932049097
Layer: 2
Color:
General Color:
Mat1: 05
Most Common Material: CLAY
Mat2: 28
Other Materials: SAND
Mat3:
Other Materials:
Formation Top Depth: 2
Formation End Depth: 15
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932049100
Layer: 5
Color:
General Color:
Mat1: 17
Most Common Material: SHALE
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 76
Formation End Depth: 95
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932049099
Layer: 4
Color:
General Color:
Mat1: 14
Most Common Material: HARDPAN
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 32
Formation End Depth: 76
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932049096
Layer: 1

Color:	6
General Color:	BROWN
Mat1:	02
Most Common Material:	TOPSOIL
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	2
Formation End Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	1
Method Construction:	Cable Tool
Other Method Construction:	

Pipe Information

Pipe ID:	10868543
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930528020
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	78
Casing Diameter:	6
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Results of Well Yield Testing

Pump Test ID:	994905218
Pump Set At:	
Static Level:	8
Final Level After Pumping:	85
Recommended Pump Depth:	90
Pumping Rate:	3
Flowing Rate:	
Recommended Pump Rate:	2
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	1
Pumping Duration HR:	1
Pumping Duration MIN:	0
Flowing:	N

Draw Down & Recovery

Pump Test Detail ID:	934526544
Test Type:	Recovery

Test Duration:	30
Test Level:	55
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934780659
Test Type:	Recovery
Test Duration:	45
Test Level:	40
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934260796
Test Type:	Recovery
Test Duration:	15
Test Level:	70
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	935045623
Test Type:	Recovery
Test Duration:	60
Test Level:	25
Test Level UOM:	ft

Water Details

Water ID:	933793261
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	90
Water Found Depth UOM:	ft

---

2 | ***1 of 1*** | ***-/0.0*** | ***209.9 / 1.00*** | ***ON*** | ***WWIS***

Well ID:	7279718	**Data Entry Status:**	Yes
Construction Date:		**Data Src:**	
Primary Water Use:		**Date Received:**	1/26/2017
Sec. Water Use:		**Selected Flag:**	Yes
Final Well Status:		**Abandonment Rec:**	
Water Type:		**Contractor:**	7230
Casing Material:		**Form Version:**	8
Audit No:	C28723	**Owner:**	
Tag:		**Street Name:**	
Construction Method:		**County:**	PEEL
Elevation (m):		**Municipality:**	BRAMPTON CITY (TORONTO GORE)
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	
Well Depth:		**Concession:**	
Overburden/Bedrock:		**Concession Name:**	
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Bore Hole Information

Bore Hole ID:	1006344430	***Elevation:***	209.772109
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	606402
Code OB Desc:		***North83:***	4852120
Open Hole:		***Org CS:***	UTM83
Cluster Kind:		***UTMRC:***	4
Date Completed:	10/3/2016	***UTMRC Desc:***	margin of error : 30 m - 100 m
Remarks:		***Location Method:***	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

3	***1 of 1***	***-/0.0***	***209.3 / 0.44***	***Brampton ON***	***WWIS***

Well ID:	7249974	***Data Entry Status:***	
Construction Date:		***Data Src:***	
Primary Water Use:		***Date Received:***	10/14/2015
Sec. Water Use:		***Selected Flag:***	Yes
Final Well Status:	Abandoned-Other	***Abandonment Rec:***	Yes
Water Type:		***Contractor:***	7472
Casing Material:		***Form Version:***	7
Audit No:	Z219828	***Owner:***	
Tag:		***Street Name:***	HWY 50 CASTLEMORE RD. & COLERAINE DR.
Construction Method:		***County:***	PEEL
Elevation (m):		***Municipality:***	BRAMPTON CITY (TORONTO GORE)
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	
Well Depth:		***Concession:***	
Overburden/Bedrock:		***Concession Name:***	
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	1005739560	***Elevation:***	208.724685
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	606455
Code OB Desc:		***North83:***	4852163
Open Hole:		***Org CS:***	UTM83
Cluster Kind:		***UTMRC:***	4
Date Completed:	9/10/2015	***UTMRC Desc:***	margin of error : 30 m - 100 m
Remarks:		***Location Method:***	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Annular Space/Abandonment Sealing Record

Plug ID:	1005770427
Layer:	1
Plug From:	0
Plug To:	12
Plug Depth UOM:	m

Pipe Information

Pipe ID:	1005770419
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1005770424
Layer:	
Material:	
Open Hole or Material:	
Depth From:	
Depth To:	
Casing Diameter:	
Casing Diameter UOM:	cm
Casing Depth UOM:	m

Construction Record - Screen

Screen ID:	1005770425
Layer:	
Slot:	
Screen Top Depth:	
Screen End Depth:	
Screen Material:	
Screen Depth UOM:	m
Screen Diameter UOM:	cm
Screen Diameter:	

Hole Diameter

Hole ID:	1005770421
Diameter:	21
Depth From:	0
Depth To:	6.1
Hole Depth UOM:	m
Hole Diameter UOM:	cm

Hole Diameter

Hole ID:	1005770422
Diameter:	5.2
Depth From:	6.1
Depth To:	12
Hole Depth UOM:	m
Hole Diameter UOM:	cm

5	***1 of 1***	***N/18.3***	***209.9 / 1.00***	***10192 hwy 50 brampton ON***	***EHS***

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Order No:	20080924048	**Nearest Intersection:**	Hwy 50 and cadetta road
Status:	C	**Municipality:**	region of Peel
Report Type:	Custom Report	**Client Prov/State:**	ON
Report Date:	10/3/2008	**Search Radius (km):**	0.25
Date Received:	9/24/2008	**X:**	-79.678012
Previous Site Name:		**Y:**	43.815669
Lot/Building Size:	con. 12 EHS Pt Lot 15 RP 43R25795		
Additional Info Ordered:			

4 **1 of 1** **NNE/5.3** **208.9 / 0.00** **WWIS**

Brampton ON

Well ID:	7282340	**Data Entry Status:**	
Construction Date:		**Data Src:**	
Primary Water Use:	Monitoring	**Date Received:**	2/28/2017
Sec. Water Use:		**Selected Flag:**	Yes
Final Well Status:	Observation Wells	**Abandonment Rec:**	
Water Type:		**Contractor:**	6607
Casing Material:		**Form Version:**	7
Audit No:	Z248118	**Owner:**	
Tag:	A217935	**Street Name:**	HWY 50 SOUTHBOUND LANE SOUTH OF CADETTA RD
Construction Method:		**County:**	PEEL
Elevation (m):		**Municipality:**	BRAMPTON CITY (TORONTO GORE)
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	
Well Depth:		**Concession:**	
Overburden/Bedrock:		**Concession Name:**	
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	1006361087	**Elevation:**	209.806594
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	606408
Code OB Desc:		**North83:**	4852298
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	4
Date Completed:	2/1/2017	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1006618317
Layer:	1
Color:	8
General Color:	BLACK
Mat1:	
Most Common Material:	

Mat2: 60
Other Materials: CEMENTED
Mat3:
Other Materials:
Formation Top Depth: 0
Formation End Depth: 0.2
Formation End Depth UOM: m

Overburden and Bedrock Materials Interval

Formation ID: 1006618319
Layer: 3
Color: 2
General Color: GREY
Mat1: 06
Most Common Material: SILT
Mat2: 05
Other Materials: CLAY
Mat3: 66
Other Materials: DENSE
Formation Top Depth: 1.2
Formation End Depth: 6
Formation End Depth UOM: m

Overburden and Bedrock Materials Interval

Formation ID: 1006618318
Layer: 2
Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2: 11
Other Materials: GRAVEL
Mat3: 01
Other Materials: FILL
Formation Top Depth: 0.2
Formation End Depth: 1.2
Formation End Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 1006618327
Layer: 2
Plug From: 0.3
Plug To: 2.7
Plug Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 1006618326
Layer: 1
Plug From: 0
Plug To: 0.3
Plug Depth UOM: m

Method of Construction & Well Use

Method Construction ID:
Method Construction Code: 6
Method Construction: Boring
Other Method Construction:

Pipe Information

Pipe ID: 1006618316
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1006618322
Layer: 1
Material: 5
Open Hole or Material: PLASTIC
Depth From: 0
Depth To: 3
Casing Diameter: 5.1
Casing Diameter UOM: cm
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1006618323
Layer: 1
Slot: 10
Screen Top Depth: 3
Screen End Depth: 6
Screen Material: 5
Screen Depth UOM: m
Screen Diameter UOM: cm
Screen Diameter: 6.4

Hole Diameter

Hole ID: 1006618320
Diameter: 21
Depth From: 0
Depth To: 6
Hole Depth UOM: m
Hole Diameter UOM: cm

---

6 | ***1 of 1*** | ***NW/28.6*** | ***207.8 / -1.04*** | ***lot 12 con 11 ON*** | ***WWIS***

Well ID: 4905247
Construction Date:
Primary Water Use: Domestic
Sec. Water Use: 0
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No:
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:

Data Entry Status:
Data Src: 1
Date Received: 12/7/1977
Selected Flag: Yes
Abandonment Rec:
Contractor: 5206
Form Version: 1
Owner:
Street Name:
County: PEEL
Municipality: BRAMPTON CITY (TORONTO GORE)
Site Info:
Lot: 012

Well Depth:		***Concession:***	11
Overburden/Bedrock:		***Concession Name:***	CON
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	10320002	***Elevation:***	207.618927
DP2BR:	76	***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:	r	***East83:***	606164.6
Code OB Desc:	Bedrock	***North83:***	4852073
Open Hole:		***Org CS:***	
Cluster Kind:		***UTMRC:***	5
Date Completed:	11/30/1977	***UTMRC Desc:***	margin of error : 100 m - 300 m
Remarks:		***Location Method:***	p5
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932049232
Layer:	3
Color:	2
General Color:	GREY
Mat1:	17
Most Common Material:	SHALE
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	76
Formation End Depth:	95
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932049231
Layer:	2
Color:	3
General Color:	BLUE
Mat1:	05
Most Common Material:	CLAY
Mat2:	11
Other Materials:	GRAVEL
Mat3:	
Other Materials:	
Formation Top Depth:	26
Formation End Depth:	76
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932049230
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	05
Most Common Material:	CLAY
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	26
Formation End Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	1
Method Construction:	Cable Tool
Other Method Construction:	

Pipe Information

Pipe ID:	10868572
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930528067
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	82
Casing Diameter:	8
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Results of Well Yield Testing

Pump Test ID:	994905247
Pump Set At:	
Static Level:	20
Final Level After Pumping:	85
Recommended Pump Depth:	85
Pumping Rate:	6
Flowing Rate:	
Recommended Pump Rate:	6
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	1
Pumping Duration HR:	4
Pumping Duration MIN:	0
Flowing:	N

Draw Down & Recovery

Pump Test Detail ID:	935045648
Test Type:	Recovery
Test Duration:	60
Test Level:	20
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934780683
Test Type:	Recovery
Test Duration:	45
Test Level:	25
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934526569
Test Type:	Recovery
Test Duration:	30
Test Level:	40
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934260821
Test Type:	Recovery
Test Duration:	15
Test Level:	70
Test Level UOM:	ft

Water Details

Water ID:	933793292
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	90
Water Found Depth UOM:	ft

---

7 ***1 of 1*** ***ESE/31.2*** ***206.9 / -2.00*** ***Brampton ON*** ***WWIS***

Well ID:	7249973	***Data Entry Status:***	
Construction Date:		***Data Src:***	
Primary Water Use:		***Date Received:***	10/14/2015
Sec. Water Use:		***Selected Flag:***	Yes
Final Well Status:	Abandoned-Other	***Abandonment Rec:***	Yes
Water Type:		***Contractor:***	7472
Casing Material:		***Form Version:***	7
Audit No:	Z219827	***Owner:***	
Tag:		***Street Name:***	HWY 50 CASTLEMORE RD. & COLERAINE DR.
Construction Method:		***County:***	PEEL
Elevation (m):		***Municipality:***	BRAMPTON CITY (TORONTO GORE)
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	
Well Depth:		***Concession:***	
Overburden/Bedrock:		***Concession Name:***	
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	

Flow Rate: ***UTM Reliability:***
Clear/Cloudy:

Bore Hole Information

Bore Hole ID:	1005739557	***Elevation:***	209.180435
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	606570
Code OB Desc:		***North83:***	4851889
Open Hole:		***Org CS:***	UTM83
Cluster Kind:		***UTMRC:***	4
Date Completed:	9/10/2015	***UTMRC Desc:***	margin of error : 30 m - 100 m
Remarks:		***Location Method:***	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID:	1005770415
Layer:	1
Plug From:	0
Plug To:	12
Plug Depth UOM:	m

Pipe Information

Pipe ID:	1005770407
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1005770412
Layer:	
Material:	
Open Hole or Material:	
Depth From:	
Depth To:	
Casing Diameter:	
Casing Diameter UOM:	cm
Casing Depth UOM:	m

Construction Record - Screen

Screen ID:	1005770413
Layer:	
Slot:	
Screen Top Depth:	
Screen End Depth:	
Screen Material:	
Screen Depth UOM:	m
Screen Diameter UOM:	cm
Screen Diameter:	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Hole Diameter

Hole ID: 1005770410
Diameter: 21
Depth From: 0
Depth To: 6.1
Hole Depth UOM: m
Hole Diameter UOM: cm

Hole Diameter

Hole ID: 1005770409
Diameter: 5.2
Depth From: 6.1
Depth To: 12
Hole Depth UOM: m
Hole Diameter UOM: cm

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8 ***1 of 3*** ***N/43.6*** ***209.9 / 1.00*** ***TOTAL CRANE RENTAL LTD.***
2 CADETTA ROAD
BRAMPTON ON L6T 3Z8 ***GEN***

Generator No: ON2489600
Status:
Approval Years: 99,00,01
Contam. Facility:
MHSW Facility:
SIC Code: 9911
SIC Description: IND. MACH. RENTAL
PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

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8 ***2 of 3*** ***N/43.6*** ***209.9 / 1.00*** ***2 CADETTA RD, BRAMPTON ON*** ***INC***

Incident No: 1127028
Incident ID:
Attribute Category: FS-Perform L1 Incident Insp
Status Code:
Incident Location: 2 CADETTA RD, BRAMPTON - SPILL
Drainage System:
Sub Surface Contam.:
Aff. Prop. Use Water:
Contam. Migrated:
Contact Natural Env.:
Near Body of Water:
Approx. Quant. Rel.:
Equipment Model:
Serial No:
Residential App. Type:
Commercial App. Type:
Industrial App. Type:
Institutional App. Type:
Venting Type:
Vent Connector Mater:
Vent Chimney Mater:
Pipeline Type:
Pipeline Involved:
Pipe Material:
Depth Ground Cover:

Regulator Location:	
Regulator Type:	
Operation Pressure:	
Liquid Prop Make:	
Liquid Prop Model:	
Liquid Prop Serial No:	
Equipment Type:	
Cylinder Capacity:	
Cylinder Capac. Units:	
Cylinder Material Type:	
Tank Capacity:	
Fuels Occurence Type:	Liquid Petroleum Spill
Fuel Type Involved:	Diesel
Date of Occurence:	2013/06/11 00:00:00
Time of Occurence:	NULL
Occur Insp Start Date:	2013/06/11 00:00:00
Any Health Impact:	No
Any Environmental Impact:	No
Was Service Interrupted:	No
Was Property Damaged:	No
Operation Type Involved:	Private Fuel Outlet
Enforcement Policy:	NULL
Prc Escalation Required:	NULL
Task No:	4513109
Notes:	
Occurence Narrative:	SPILL DUE TO UNATTENDED VEHCILE WHILE FILLING
Tank Material Type:	
Tank Storage Type:	
Tank Location Type:	
Pump Flow Rate Capac:	
Liquid Prop Notes:	

8	3 of 3	N/43.6	209.9 / 1.00	2 Cadetta Rd Brampton ON		SPL

Ref No:	2501-98KRZM	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:	11-JUN-13	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Leak/Break	**Sector Type:**	Unknown / N/A
Incident Event:		**Agency Involved:**	
Contaminant Code:	13	**Nearest Watercourse:**	
Contaminant Name:	DIESEL FUEL	**Site Address:**	2 Cadetta Rd
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Confirmed	**Site Municipality:**	Brampton
Nature of Impact:	Soil Contamination	**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	
MOE Response:	Priority Field Response (ERP Callout)	**Easting:**	
Dt MOE Arvl on Scn:	11-JUN-13	**Site Geo Ref Accu:**	
MOE Reported Dt:	11-JUN-13	**Site Map Datum:**	
Dt Document Closed:		**SAC Action Class:**	Land Spills
Incident Reason:	Unknown / N/A	**Source Type:**	
Site Name:	1295503 Ontario Inc<UNOFFICIAL>		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Spill diesel from private prop to City boulevard		
Contaminant Qty:	0 other - see incident description		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	1 of 1	N/53.2	209.9 / 1.00	lot 12 con 11 ON	WWIS

Well ID:	4906179	**Data Entry Status:**	
Construction Date:		**Data Src:**	1
Primary Water Use:	Industrial	**Date Received:**	5/18/1984
Sec. Water Use:		**Selected Flag:**	Yes
Final Well Status:	Water Supply	**Abandonment Rec:**	
Water Type:		**Contractor:**	1663
Casing Material:		**Form Version:**	1
Audit No:		**Owner:**	
Tag:		**Street Name:**	
Construction Method:		**County:**	PEEL
Elevation (m):		**Municipality:**	BRAMPTON CITY (TORONTO GORE)
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	012
Well Depth:		**Concession:**	11
Overburden/Bedrock:		**Concession Name:**	CON
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	10320755	**Elevation:**	210.185699
DP2BR:	80	**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:	r	**East83:**	606260.6
Code OB Desc:	Bedrock	**North83:**	4852234
Open Hole:		**Org CS:**	
Cluster Kind:		**UTMRC:**	4
Date Completed:	6/28/1983	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	topo
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932052647
Layer:	5
Color:	2
General Color:	GREY
Mat1:	17
Most Common Material:	SHALE
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	80
Formation End Depth:	89
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932052648

Layer:	6
Color:	2
General Color:	GREY
Mat1:	17
Most Common Material:	SHALE
Mat2:	73
Other Materials:	HARD
Mat3:	
Other Materials:	
Formation Top Depth:	89
Formation End Depth:	97
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932052645
Layer:	3
Color:	2
General Color:	GREY
Mat1:	11
Most Common Material:	GRAVEL
Mat2:	05
Other Materials:	CLAY
Mat3:	
Other Materials:	
Formation Top Depth:	56
Formation End Depth:	61
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932052643
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	05
Most Common Material:	CLAY
Mat2:	11
Other Materials:	GRAVEL
Mat3:	
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	16
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932052644
Layer:	2
Color:	3
General Color:	BLUE
Mat1:	05
Most Common Material:	CLAY
Mat2:	11
Other Materials:	GRAVEL
Mat3:	
Other Materials:	
Formation Top Depth:	16
Formation End Depth:	56
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932052646
Layer:	4
Color:	2
General Color:	GREY
Mat1:	11
Most Common Material:	GRAVEL
Mat2:	28
Other Materials:	SAND
Mat3:	06
Other Materials:	SILT
Formation Top Depth:	61
Formation End Depth:	80
Formation End Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	2
Method Construction:	Rotary (Convent.)
Other Method Construction:	

Pipe Information

Pipe ID:	10869325
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930529268
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	82
Casing Diameter:	6
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Casing

Casing ID:	930529269
Layer:	2
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	97
Casing Diameter:	6
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Results of Well Yield Testing

Pump Test ID:	994906179
Pump Set At:	

Static Level:	31
Final Level After Pumping:	94
Recommended Pump Depth:	95
Pumping Rate:	4
Flowing Rate:	
Recommended Pump Rate:	4
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	2
Pumping Duration HR:	1
Pumping Duration MIN:	20
Flowing:	N

Draw Down & Recovery

Pump Test Detail ID:	934253213
Test Type:	Draw Down
Test Duration:	15
Test Level:	94
Test Level UOM:	ft

Water Details

Water ID:	933794118
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	
Water Found Depth UOM:	ft

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10 ***1 of 1*** ***N/58.9*** ***209.9 / 1.00*** ***Brampton ON*** ***WWIS***

Well ID:	7249975	**Data Entry Status:**	
Construction Date:		**Data Src:**	
Primary Water Use:		**Date Received:**	10/14/2015
Sec. Water Use:		**Selected Flag:**	Yes
Final Well Status:	Abandoned-Other	**Abandonment Rec:**	Yes
Water Type:		**Contractor:**	7472
Casing Material:		**Form Version:**	7
Audit No:	Z214798	**Owner:**	
Tag:		**Street Name:**	HWY 50 APPROX. 300M SOUTH OF COLERAINE
Construction Method:		**County:**	PEEL
Elevation (m):		**Municipality:**	BRAMPTON CITY (TORONTO GORE)
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	
Well Depth:		**Concession:**	
Overburden/Bedrock:		**Concession Name:**	
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	1005739563	**Elevation:**	210.411819
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17

Code OB:		**East83:**	606372
Code OB Desc:		**North83:**	4852371
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	4
Date Completed:	7/24/2015	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID:	1005770439
Layer:	1
Plug From:	0
Plug To:	18
Plug Depth UOM:	m

Pipe Information

Pipe ID:	1005770431
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1005770436
Layer:	
Material:	
Open Hole or Material:	
Depth From:	
Depth To:	
Casing Diameter:	
Casing Diameter UOM:	cm
Casing Depth UOM:	m

Construction Record - Screen

Screen ID:	1005770437
Layer:	
Slot:	
Screen Top Depth:	
Screen End Depth:	
Screen Material:	
Screen Depth UOM:	m
Screen Diameter UOM:	cm
Screen Diameter:	

Hole Diameter

Hole ID:	1005770434
Diameter:	5.2
Depth From:	2
Depth To:	18
Hole Depth UOM:	m
Hole Diameter UOM:	cm

Hole Diameter

Hole ID:	1005770433
Diameter:	21
Depth From:	0
Depth To:	2
Hole Depth UOM:	m
Hole Diameter UOM:	cm

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11 | ***1 of 1*** | ***SSE/60.6*** | ***206.9 / -2.00*** | ***lot 11 con 11 ON*** | ***WWIS***

Well ID:	4902862	***Data Entry Status:***	
Construction Date:		***Data Src:***	1
Primary Water Use:	Livestock	***Date Received:***	1/17/1967
Sec. Water Use:	Domestic	***Selected Flag:***	Yes
Final Well Status:	Water Supply	***Abandonment Rec:***	
Water Type:		***Contractor:***	5206
Casing Material:		***Form Version:***	1
Audit No:		***Owner:***	
Tag:		***Street Name:***	
Construction Method:		***County:***	PEEL
Elevation (m):		***Municipality:***	BRAMPTON CITY (TORONTO GORE)
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	011
Well Depth:		***Concession:***	11
Overburden/Bedrock:		***Concession Name:***	CON
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	10317703	***Elevation:***	208.391708
DP2BR:	66	***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:	r	***East83:***	606379.6
Code OB Desc:	Bedrock	***North83:***	4851703
Open Hole:		***Org CS:***	
Cluster Kind:		***UTMRC:***	4
Date Completed:	10/25/1966	***UTMRC Desc:***	margin of error : 30 m - 100 m
Remarks:		***Location Method:***	p4
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932039383
Layer:	3
Color:	3
General Color:	BLUE
Mat1:	05
Most Common Material:	CLAY
Mat2:	
Other Materials:	

Mat3:
Other Materials:
Formation Top Depth: 18
Formation End Depth: 22
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932039386
Layer: 6
Color:
General Color:
Mat1: 06
Most Common Material: SILT
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 64
Formation End Depth: 66
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932039385
Layer: 5
Color: 3
General Color: BLUE
Mat1: 05
Most Common Material: CLAY
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 23
Formation End Depth: 64
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932039382
Layer: 2
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 1
Formation End Depth: 18
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932039387
Layer: 7

Color: 3
General Color: BLUE
Mat1: 17
Most Common Material: SHALE
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 66
Formation End Depth: 90
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932039384
Layer: 4
Color:
General Color:
Mat1: 11
Most Common Material: GRAVEL
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 22
Formation End Depth: 23
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932039381
Layer: 1
Color:
General Color:
Mat1: 02
Most Common Material: TOPSOIL
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 0
Formation End Depth: 1
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID:
Method Construction Code: 1
Method Construction: Cable Tool
Other Method Construction:

Pipe Information

Pipe ID: 10866273
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID:	930524969
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	66
Casing Diameter:	7
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Casing

Casing ID:	930524970
Layer:	2
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	90
Casing Diameter:	7
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Results of Well Yield Testing

Pump Test ID:	994902862
Pump Set At:	
Static Level:	20
Final Level After Pumping:	85
Recommended Pump Depth:	85
Pumping Rate:	3
Flowing Rate:	
Recommended Pump Rate:	3
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	1
Pumping Duration HR:	8
Pumping Duration MIN:	0
Flowing:	N

Water Details

Water ID:	933790886
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	74
Water Found Depth UOM:	ft

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
12	1 of 16	NNW/69.6	209.3 / 0.44	PILEN CONSTRUCTION OF CANADA LIMITED 22 CADETTA RD RR 9 BRAMPTON ON	EXP

Instance No:	11101494
Instance ID:	69091
Instance Type:	FS Propane Tank
Description:	FS Propane Tank
Status:	EXPIRED
TSSA Program Area:	
Maximum Hazard Rank:	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Facility Type:					
Expired Date:					

12	2 of 16	NNW/69.6	209.3 / 0.44	PILEN CONSTRUCTION OF CANADA LIMITED 22 CADETTA RD RR 9 BRAMPTON ON	EXP

Instance No: 9901394
Instance ID: 394140
Instance Type: FS Facility
Description: FS Propane Refill Cntr - Cylr Fill
Status: EXPIRED
TSSA Program Area:
Maximum Hazard Rank:
Facility Type:
Expired Date:

12	3 of 16	NNW/69.6	209.3 / 0.44	PILEN CONSTRUCTION OF CANADA LIMITED 22 CADETTA ROAD BRAMPTON ON L6P 0X4	GEN

Generator No: ON0140700
Status:
Approval Years: 2011
Contam. Facility:
MHSW Facility:
SIC Code: 532410
SIC Description: Construction Transportation Mining and Forestry Machinery and Equipment Rental and Leasing

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

12	4 of 16	NNW/69.6	209.3 / 0.44	PILEN CONSTRUCTION OF CANADA LIMITED 22 CADETTA ROAD BRAMPTON ON L6T 3Z8	GEN

Generator No: ON0140700
Status:
Approval Years: 92,93,94,95,96,97,98,99,00,01,02,03,04,05,06,07,08
Contam. Facility:
MHSW Facility:
SIC Code: 4122
SIC Description: WATERWORKS & SEWAGE

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

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12 | **5 of 16** | **NNW/69.6** | **209.3 / 0.44** | **PILEN CONSTRUCTION OF CANADA LIMITED**
22 CADETTA ROAD
BRAMPTON ON L6T 3Z8 | **GEN**

Generator No: ON0140700
Status:
Approval Years: 2012
Contam. Facility:
MHSW Facility:
SIC Code: 532410
SIC Description: Construction Transportation Mining and Forestry Machinery and Equipment Rental and Leasing

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

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12 | **6 of 16** | **NNW/69.6** | **209.3 / 0.44** | **PILEN CONSTRUCTION OF CANADA LTD.**
RR #9, 22 CADETTA ROAD
BRAMPTON ON L6T 3Z8 | **GEN**

Generator No: ON0140700
Status:
Approval Years: 90
Contam. Facility:
MHSW Facility:
SIC Code: 4122
SIC Description: WATERWORKS & SEWAGE

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

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12 | **7 of 16** | **NNW/69.6** | **209.3 / 0.44** | **PILEN CONSTRUCTION OF CANADA LIMITED**
22 CADETTA ROAD
BRAMPTON ON L6P0X4 | **GEN**

Generator No: ON0140700
Status: Registered
Approval Years: As of Mar 2019
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

PO Box No:
Country: Canada
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 221 I
Waste Class Desc: Light fuels

Waste Class: 251 L
Waste Class Desc: Waste oils/sludges (petroleum based)

Waste Class: 213 T
Waste Class Desc: Petroleum distillates

Waste Class: 211 H
Waste Class Desc: Aromatic solvents and residues

Waste Class: 252 L
Waste Class Desc: Waste crankcase oils and lubricants

Waste Class: 252 T
Waste Class Desc: Waste crankcase oils and lubricants

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12 | **8 of 16** | **NNW/69.6** | **209.3 / 0.44** | **PILEN CONSTRUCTION OF CANADA LTD.**
RR #9, 22 CADETTA ROAD
BRAMPTON ON L6T 3Z8 | **GEN**

Generator No: ON0140700
Status:
Approval Years: 86,87,88,89
Contam. Facility:
MHSW Facility:
SIC Code: 4122
SIC Description: WATERWORKS & SEWAGE

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

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12 | **9 of 16** | **NNW/69.6** | **209.3 / 0.44** | **PILEN CONSTRUCTION OF CANADA LIMITED**
22 CADETTA ROAD
BRAMPTON ON L6P0X4 | **GEN**

Generator No: ON0140700
Status:
Approval Years: 2015
Contam. Facility: No
MHSW Facility: No
SIC Code: 532410
SIC Description: CONSTRUCTION, TRANSPORTATION, MINING, AND FORESTRY MACHINERY AND EQUIPMENT RENTAL

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin:
Phone No Admin:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

AND LEASING

Detail(s)

Waste Class: 221
Waste Class Desc: LIGHT FUELS

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

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12 ***10 of 16*** ***NNW/69.6*** ***209.3 / 0.44*** ***PILEN CONSTRUCTION OF CANADA LIMITED*** ***GEN***
22 CADETTA ROAD
BRAMPTON ON L6P0X4

Generator No: ON0140700
Status:
Approval Years: 2016
Contam. Facility: No
MHSW Facility: No
SIC Code: 532410
SIC Description: CONSTRUCTION, TRANSPORTATION, MINING, AND FORESTRY MACHINERY AND EQUIPMENT RENTAL AND LEASING

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

Waste Class: 221
Waste Class Desc: LIGHT FUELS

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

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12 ***11 of 16*** ***NNW/69.6*** ***209.3 / 0.44*** ***PILEN CONSTRUCTION OF CANADA LIMITED*** ***GEN***
22 CADETTA ROAD
BRAMPTON ON

Generator No: ON0140700
Status:
Approval Years: 2013
Contam. Facility:
MHSW Facility:
SIC Code: 532410
SIC Description: CONSTRUCTION, TRANSPORTATION, MINING, AND FORESTRY MACHINERY AND EQUIPMENT RENTAL AND LEASING

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Detail(s)

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 221
Waste Class Desc: LIGHT FUELS

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

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12 ***12 of 16*** ***NNW/69.6*** ***209.3 / 0.44*** ***PILEN CONSTRUCTION OF CANADA LIMITED***
22 CADETTA ROAD
BRAMPTON ON L6P 0X4 ***GEN***

Generator No: ON0140700
Status:
Approval Years: 2009
Contam. Facility:
MHSW Facility:
SIC Code: 532410
SIC Description: Construction Transportation Mining and Forestry Machinery and Equipment Rental and Leasing

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

---

12 ***13 of 16*** ***NNW/69.6*** ***209.3 / 0.44*** ***PILEN CONSTRUCTION OF CANADA LIMITED***
22 CADETTA ROAD
BRAMPTON ON L6P0X4 ***GEN***

Generator No: ON0140700
Status:
Approval Years: 2014
Contam. Facility: No
MHSW Facility: No
SIC Code: 532410
SIC Description: CONSTRUCTION, TRANSPORTATION, MINING, AND FORESTRY MACHINERY AND EQUIPMENT RENTAL AND LEASING

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 221
Waste Class Desc: LIGHT FUELS

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

---

12 **14 of 16** **NNW/69.6** **209.3 / 0.44** **PILEN CONSTRUCTION OF CANADA LIMITED** **GEN**
22 CADETTA ROAD
BRAMPTON ON L6P 0X4

Generator No: ON0140700
Status:
Approval Years: 2010
Contam. Facility:
MHSW Facility:
SIC Code: 532410
SIC Description: Construction Transportation Mining and Forestry Machinery and Equipment Rental and Leasing

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

---

12 **15 of 16** **NNW/69.6** **209.3 / 0.44** **PILEN CONSTRUCTION OF CANADA LIMITED** **GEN**
22 CADETTA ROAD
BRAMPTON ON L6P0X4

Generator No: ON0140700
Status: Registered
Approval Years: As of Dec 2018
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

PO Box No:
Country: Canada
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 211 H
Waste Class Desc: Aromatic solvents and residues

Waste Class: 213 T
Waste Class Desc: Petroleum distillates

Waste Class: 221 I
Waste Class Desc: Light fuels

Waste Class: 251 L
Waste Class Desc: Waste oils/sludges (petroleum based)

Waste Class: 252 L

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Waste Class Desc: Waste crankcase oils and lubricants

Waste Class: 252 T
Waste Class Desc: Waste crankcase oils and lubricants

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12 | **16 of 16** | **NNW/69.6** | **209.3 / 0.44** | **PILEN CONST OF CANADA INC**
22 CADETTA RD RR 9
BRAMPTON ON L6T3Z8 | **PRT**

Location ID: 19315
Type: retail
Expiry Date: 1993-01-31
Capacity (L): 2000
Licence #: 0076350479

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13 | **1 of 40** | **NW/79.1** | **207.1 / -1.79** | **TRISTAR COATINGS, DIV. OF TREBOR IND.**
18 CADETTA RD., LOT 8/CON.II
BRAMPTON CITY ON L6T 3Z8 | **CA**

Certificate #: 8-3399-95-006
Application Year: 95
Issue Date: 11/24/95
Approval Type: Industrial air
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description: LIQUID PAINT COATING/BATCHING/MIX PROC.
Contaminants: Suspended Particulate Matter, Methyl Ethyl Ketone (Butanone), Toluene(Pentyl Methane)(Methyl Benzene), Other Organic Compounds
Emission Control: Panel Filter, Baghouse (Incl Vent Fil.)

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13 | **2 of 40** | **NW/79.1** | **207.1 / -1.79** | **TRISTAR COATINGS LTD**
18 Cadetta Road
BRAMPTON ON L6P 0X4 | **GEN**

Generator No: ON1055700
Status: Registered
Approval Years: As of Mar 2019
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

PO Box No:
Country: Canada
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 145 T
Waste Class Desc: Wastes from the use of pigments, coatings and paints

Waste Class: 211 H
Waste Class Desc: Aromatic solvents and residues

Waste Class: 252 L
Waste Class Desc: Waste crankcase oils and lubricants

Waste Class: 145 L
Waste Class Desc: Wastes from the use of pigments, coatings and paints

Waste Class: 232 H

Waste Class Desc: Polymeric resins

Waste Class: 145 H
Waste Class Desc: Wastes from the use of pigments, coatings and paints

Waste Class: 212 H
Waste Class Desc: Aliphatic solvents and residues

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13 | ***3 of 40*** | ***NW/79.1*** | ***207.1 / -1.79*** | ***TRISTAR COATINGS LTD***
TRISTAR COATINGS LTD 18 CADETTA ROAD, R.R. #9
BRAMPTON ON L6P 0X4 | ***GEN***

Generator No: ON1055700
Status:
Approval Years: 05,06,07,08
Contam. Facility:
MHSW Facility:
SIC Code: 325510
SIC Description: Paint and Coating Manufacturing

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 232
Waste Class Desc: POLYMERIC RESINS

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

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13 | ***4 of 40*** | ***NW/79.1*** | ***207.1 / -1.79*** | ***TRISTAR COATINGS LTD***
18 Cadetta Road
BRAMPTON ON L6P 0X4 | ***GEN***

Generator No: ON1055700
Status:
Approval Years: 2016
Contam. Facility: No
MHSW Facility: No
SIC Code: 325510
SIC Description: PAINT AND COATING MANUFACTURING

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin: David Moher
Phone No Admin: 905-794-1100 Ext.21

Detail(s)

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 232
Waste Class Desc: POLYMERIC RESINS

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

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13 **5 of 40** **NW/79.1** **207.1 / -1.79** **GEN**

TRISTAR COATINGS LTD
18 CADETTA ROAD
BRAMPTON ON L6T 3Z8

Generator No: ON1055700
Status:
Approval Years: 02,03,04
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

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13 **6 of 40** **NW/79.1** **207.1 / -1.79** **GEN**

TRISTAR COATINGS DIVISION
18 CADETTA ROAD
BRAMPTON ON L6T 3Z8

Generator No: ON1055700
Status:
Approval Years: 97,98,99,00,01
Contam. Facility:
MHSW Facility:
SIC Code: 3751
SIC Description: PAINT & VARNISH IND.

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

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13 **7 of 40** **NW/79.1** **207.1 / -1.79** **GEN**

TRISTAR COATINGS LTD
TRISTAR COATINGS LTD 18 CADETTA ROAD,
R.R. #9
BRAMPTON ON L6P 0X4

Generator No: ON1055700

PO Box No:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Status: **Country:**
Approval Years: 2009 **Choice of Contact:**
Contam. Facility: **Co Admin:**
MHSW Facility: **Phone No Admin:**
SIC Code: 325510
SIC Description: Paint and Coating Manufacturing

Detail(s)

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 232
Waste Class Desc: POLYMERIC RESINS

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

13	8 of 40	NW/79.1	207.1 / -1.79	***TRISTAR COATINGS LTD*** ***TRISTAR COATINGS LTD 18 CADETTA ROAD, BRAMPTON ON L6P 0X4***	***GEN***

Generator No: ON1055700 **PO Box No:**
Status: **Country:**
Approval Years: 2011 **Choice of Contact:**
Contam. Facility: **Co Admin:**
MHSW Facility: **Phone No Admin:**
SIC Code: 325510
SIC Description: Paint and Coating Manufacturing

Detail(s)

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 232
Waste Class Desc: POLYMERIC RESINS

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

13	9 of 40	NW/79.1	207.1 / -1.79	***TRISTAR COATINGS LTD*** ***TRISTAR COATINGS LTD 18 CADETTA ROAD, BRAMPTON ON L6P 0X4***	***GEN***

Generator No: ON1055700 **PO Box No:**
Status: **Country:**
Approval Years: 2012 **Choice of Contact:**
Contam. Facility: **Co Admin:**
MHSW Facility: **Phone No Admin:**
SIC Code: 325510

SIC Description: Paint and Coating Manufacturing

Detail(s)

Waste Class: 232
Waste Class Desc: POLYMERIC RESINS

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

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13 | ***10 of 40*** | ***NW/79.1*** | ***207.1 / -1.79*** | ***TRISTAR COATINGS LTD***
TRISTAR COATINGS LTD 18 CADETTA ROAD, BRAMPTON ON L6P 0X4 | ***GEN***

Generator No: ON1055700
Status:
Approval Years: 2014
Contam. Facility: No
MHSW Facility: No
SIC Code: 325510
SIC Description: PAINT AND COATING MANUFACTURING

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin: Svetlana Melkova
Phone No Admin: 905-794-1100 Ext.21

Detail(s)

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 232
Waste Class Desc: POLYMERIC RESINS

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

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13 | ***11 of 40*** | ***NW/79.1*** | ***207.1 / -1.79*** | ***TRISTAR COATINGS LTD***
TRISTAR COATINGS LTD 18 CADETTA ROAD, BRAMPTON ON | ***GEN***

Generator No: ON1055700
Status:
Approval Years: 2013
Contam. Facility:
MHSW Facility:
SIC Code: 325510
SIC Description: PAINT AND COATING MANUFACTURING

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 232
Waste Class Desc: POLYMERIC RESINS

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

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13 ***12 of 40*** ***NW/79.1*** ***207.1 / -1.79*** ***TRISTAR COATINGS LTD*** ***GEN***
TRISTAR COATINGS LTD 18 CADETTA ROAD,
R.R. #9
BRAMPTON ON L6P 0X4

Generator No: ON1055700
Status:
Approval Years: 2010
Contam. Facility:
MHSW Facility:
SIC Code: 325510
SIC Description: Paint and Coating Manufacturing

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 232
Waste Class Desc: POLYMERIC RESINS

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13 ***13 of 40*** ***NW/79.1*** ***207.1 / -1.79*** ***TRISTAR COATINGS LTD*** ***GEN***
18 Cadetta Road
BRAMPTON ON L6P 0X4

Generator No: ON1055700
Status:
Approval Years: 2015
Contam. Facility: No
MHSW Facility: No
SIC Code: 325510
SIC Description: PAINT AND COATING MANUFACTURING

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin: Svetlana Melkova
Phone No Admin: 905-794-1100 Ext.21

Detail(s)

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 252

Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 232
Waste Class Desc: POLYMERIC RESINS

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

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13 | ***14 of 40*** | ***NW/79.1*** | ***207.1 / -1.79*** | ***TRISTAR COATINGS***
DIVISION OF TREBOR 18 CADETTA RD. R.R.#9
BRAMPTON ON L6T 3Z8 | ***GEN***

Generator No: ON1055700
Status:
Approval Years: 88,89,90
Contam. Facility:
MHSW Facility:
SIC Code: 3751
SIC Description: PAINT & VARNISH IND.

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

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13 | ***15 of 40*** | ***NW/79.1*** | ***207.1 / -1.79*** | ***TRISTAR COATINGS LTD***
18 Cadetta Road
BRAMPTON ON L6P 0X4 | ***GEN***

Generator No: ON1055700
Status: Registered
Approval Years: As of Dec 2018
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

PO Box No:
Country: Canada
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 145 H
Waste Class Desc: Wastes from the use of pigments, coatings and paints

Waste Class: 145 L
Waste Class Desc: Wastes from the use of pigments, coatings and paints

Waste Class: 145 T
Waste Class Desc: Wastes from the use of pigments, coatings and paints

Waste Class: 211 H
Waste Class Desc: Aromatic solvents and residues

Waste Class: 212 H
Waste Class Desc: Aliphatic solvents and residues

Waste Class: 232 H
Waste Class Desc: Polymeric resins

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Waste Class: 252 L
Waste Class Desc: Waste crankcase oils and lubricants

---

13 **16 of 40** **NW/79.1** **207.1 / -1.79** **TRISTAR COATINGS DIVISION 38-534** **GEN**
18 CADETTA ROAD
BRAMPTON ON L6T 3Z8

Generator No: ON1055700
Status:
Approval Years: 92,93,94,95,96
Contam. Facility:
MHSW Facility:
SIC Code: 3751
SIC Description: PAINT & VARNISH IND.

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

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13 **17 of 40** **NW/79.1** **207.1 / -1.79** **TRISTAR COATINGS LTD.** **NPRI**
18 CADETTA ROAD NOT AVAILABLE
BRAMPTON ON L6P0X4

NPRI ID: 4425
Other ID:
No Other ID:
Track ID: 127396
Report ID: 51492
Report Type: NPRI
Rpt Type ID: 1
Report Year: 2014
Not-Current Rpt?: No
Yr of Last Filed Rpt: 2014
Fac ID: 224562
Fac Name: TRISTAR COATINGS LTD.
Fac Address1: 18 CADETTA ROAD
Fac Address2: NOT AVAILABLE
Fac Postal Zip: L6P0X4
Facility Lat: 43.8144
Facility Long: -79.6805
DLS (Last Filed Rpt):
Facility DLS:
Datum: 1983
Facility Cmnts:
URL: www.tristarcoatings.ca
No of Empl.: 20
Parent Co.:
No Parent Co.:
Pollut Prev Cmnts:
Stacks:
No of Stacks:
Canadian SIC Code (2 digit):
Canadian SIC Code:

Org ID: 103016
Submit Date: 5/19/2015
Last Modified: 6/10/2015 10:59:04 AM
Contact ID: 230549
Cont Type: MEM
Contact Title:
Cont First Name: BRIAN
Cont Last Name: WHISTON
Contact Position: PRESIDENT
Contact Fax:
Contact Ph.: 9057941100
Cont Area Code: 905
Contact Tel.: 57941100
Contact Ext.: 16
Cont Fax Area Cde:
Contact Fax:
Contact Email: BRIAN@TRISTARCOATINGS.CA
Latitude: 43.8144
Longitude: -79.6805
UTM Zone:
UTM Northing:
UTM Easting:
Waste Streams:
No Streams:
Waste Off Sites:
No Off Sites:
Shutdown:
No of Shutdown:

SIC Code Description:
American SIC Code:
NAICS Code (2 digit): 32
NAICS 2 Description: Manufacturing
NAICS Code (4 digit): 3255
NAICS 4 Description: Paint, coating and adhesive manufacturing
NAICS Code (6 digit): 325510
NAICS 6 Description: Paint and coating manufacturing

Substance Release Report

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: Toluene
Chem (fr): Toluène
Quantity: .417
Unit: tonnes
Basis of Estimate Cd: O
Basis of Estimate Desc: O- Engineering Estimates

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: Xylene (all isomers)
Chem (fr): Xylène (tous les isomères)
Quantity: .624
Unit: tonnes
Basis of Estimate Cd: O
Basis of Estimate Desc: O- Engineering Estimates

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: Isopropyl alcohol
Chem (fr): Alcool iso-propylique
Quantity: .084
Unit: tonnes
Basis of Estimate Cd: O
Basis of Estimate Desc: O- Engineering Estimates

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: Methyl ethyl ketone
Chem (fr): Méthyléthylcétone
Quantity: .25
Unit: tonnes
Basis of Estimate Cd: O
Basis of Estimate Desc: O- Engineering Estimates

13	*18 of 40*	*NW/79.1*	*207.1 / -1.79*	***TRISTAR COATINGS LTD*** ***18 CADETTA ROAD NOT AVAILABLE*** ***BRAMPTON ON L6P0X4***	***NPRI***

NPRI ID: 4425 ***Org ID:*** 70696

Other ID:	N	***Submit Date:***	6/1/2006
No Other ID:		***Last Modified:***	5/29/2015 3:28:24 PM
Track ID:	40820	***Contact ID:***	188563
Report ID:	101204	***Cont Type:***	MED
Report Type:	NPRI	***Contact Title:***	
Rpt Type ID:	1	***Cont First Name:***	MICHAEL
Report Year:	2005	***Cont Last Name:***	SHILLUM
Not-Current Rpt?:	No	***Contact Position:***	GENERAL MANAGER
Yr of Last Filed Rpt:	2014	***Contact Fax:***	9057940304
Fac ID:	224562	***Contact Ph.:***	9057941100
Fac Name:	TRISTAR COATINGS LTD.	***Cont Area Code:***	905
Fac Address1:	18 CADETTA ROAD	***Contact Tel.:***	57941100
Fac Address2:	NOT AVAILABLE	***Contact Ext.:***	19
Fac Postal Zip:	L6P0X4	***Cont Fax Area Cde:***	905
Facility Lat:	43.8144	***Contact Fax:***	57940304
Facility Long:	-79.6805	***Contact Email:***	RMS@TRISTARCOATINGS.CA
DLS (Last Filed Rpt):		***Latitude:***	43.8144
Facility DLS:		***Longitude:***	-79.6805
Datum:	1983	***UTM Zone:***	
Facility Cmnts:	False	***UTM Northing:***	
URL:	www.tristarcoating.ca	***UTM Easting:***	
No of Empl.:	19	***Waste Streams:***	False
Parent Co.:	N	***No Streams:***	
No Parent Co.:		***Waste Off Sites:***	Fals
Pollut Prev Cmnts:	False	***No Off Sites:***	1.00
Stacks:	False	***Shutdown:***	
No of Stacks:		***No of Shutdown:***	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	32		
NAICS 2 Description:	Manufacturing		
NAICS Code (4 digit):	3255		
NAICS 4 Description:	Paint, coating and adhesive manufacturing		
NAICS Code (6 digit):	325510		
NAICS 6 Description:	Paint and coating manufacturing		

Substance Release Report

Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	Xylene (all isomers)
Chem (fr):	Xylène (tous les isomères)
Quantity:	5.8
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	MSG#2 - Hydrotreated light distillate
Chem (fr):	EMG#2 - Distillat léger hydrotraité
Quantity:	.488
Unit:	tonnes
Basis of Estimate Cd:	
Basis of Estimate Desc:	

Category Type ID:	13

Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: MSG#1 - Solvent naphtha medium aliphatic
Chem (fr): EMG#1 - Solvant naphta aliphatique moyen
Quantity: .004
Unit: tonnes
Basis of Estimate Cd:
Basis of Estimate Desc:

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: Toluene
Chem (fr): Toluène
Quantity: .978
Unit: tonnes
Basis of Estimate Cd:
Basis of Estimate Desc:

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: Acetone
Chem (fr): Acétone
Quantity: .002
Unit: tonnes
Basis of Estimate Cd:
Basis of Estimate Desc:

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: GE - Diethylene glycol butyl ether (DEGBE)
Chem (fr): EG - Éther butylique de diéthylèneglycol (DEGBE)
Quantity: .096
Unit: tonnes
Basis of Estimate Cd:
Basis of Estimate Desc:

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: Ethyl acetate
Chem (fr): Acétate d'éthyle
Quantity: .14
Unit: tonnes
Basis of Estimate Cd:
Basis of Estimate Desc:

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: MSG#1 - Solvent naphtha light aliphatic
Chem (fr): EMG#1 - Solvant naphta aliphatique léger

Quantity:	.001
Unit:	tonnes
Basis of Estimate Cd:	
Basis of Estimate Desc:	
Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	GE - Propylene glycol methyl ether acetate (PGMEA)
Chem (fr):	EG - Acétate d'éther méthylique de propylèneglycol (PGMEA)
Quantity:	.185
Unit:	tonnes
Basis of Estimate Cd:	
Basis of Estimate Desc:	
Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	Methyl ethyl ketone
Chem (fr):	Méthyléthylcétone
Quantity:	1.44
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	19 of 40	NW/79.1	207.1 / -1.79	TRISTAR COATINGS LTD. 18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	NPRI

NPRI ID:	4425	**Org ID:**	103016
Other ID:		**Submit Date:**	11/8/2013
No Other ID:		**Last Modified:**	5/29/2015 3:28:24 PM
Track ID:	78047	**Contact ID:**	
Report ID:	25878	**Cont Type:**	
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	
Report Year:	2012	**Cont Last Name:**	
Not-Current Rpt?:	No	**Contact Position:**	
Yr of Last Filed Rpt:	2014	**Contact Fax:**	
Fac ID:	224562	**Contact Ph.:**	
Fac Name:	TRISTAR COATINGS LTD.	**Cont Area Code:**	
Fac Address1:	18 CADETTA ROAD	**Contact Tel.:**	
Fac Address2:	NOT AVAILABLE	**Contact Ext.:**	
Fac Postal Zip:	L6P0X4	**Cont Fax Area Cde:**	
Facility Lat:	43.8144	**Contact Fax:**	
Facility Long:	-79.6805	**Contact Email:**	
DLS (Last Filed Rpt):		**Latitude:**	43.8144
Facility DLS:		**Longitude:**	-79.6805
Datum:	1983	**UTM Zone:**	
Facility Cmnts:		**UTM Northing:**	
URL:		**UTM Easting:**	
No of Empl.:	18	**Waste Streams:**	
Parent Co.:		**No Streams:**	
No Parent Co.:		**Waste Off Sites:**	
Pollut Prev Cmnts:		**No Off Sites:**	
Stacks:		**Shutdown:**	
No of Stacks:		**No of Shutdown:**	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			

NAICS Code (2 digit):	32
NAICS 2 Description:	Manufacturing
NAICS Code (4 digit):	3255
NAICS 4 Description:	Paint, coating and adhesive manufacturing
NAICS Code (6 digit):	325510
NAICS 6 Description:	Paint and coating manufacturing

Substance Release Report

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Methyl ethyl ketone
Chem (fr):	Méthyléthylcétone
Quantity:	.19
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Toluene
Chem (fr):	Toluène
Quantity:	.316
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Isopropyl alcohol
Chem (fr):	Alcool iso-propylique
Quantity:	.11
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Xylene (all isomers)
Chem (fr):	Xylène (tous les isomères)
Quantity:	.522
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

13	***20 of 40***	***NW/79.1***	***207.1 / -1.79***	***TRISTAR COATINGS LTD.*** ***18 CADETTA ROAD NOT AVAILABLE*** ***BRAMPTON ON L6T 3Z8***	***NPRI***

NPRI ID:	4425	**Org ID:**	70697
Other ID:	N	**Submit Date:**	5/31/2002
No Other ID:	0.00	**Last Modified:**	5/29/2015 3:28:24 PM

Track ID:	12214	**Contact ID:**	99359
Report ID:		**Cont Type:**	MED
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	MICHAEL
Report Year:	2001	**Cont Last Name:**	SHILLUM
Not-Current Rpt?:	No	**Contact Position:**	GENERAL MANAGER
Yr of Last Filed Rpt:	2014	**Contact Fax:**	9057940304
Fac ID:	117648	**Contact Ph.:**	9057941100
Fac Name:	NOT AVAILABLE	**Cont Area Code:**	905
Fac Address1:	18 CADETTA ROAD	**Contact Tel.:**	57941100
Fac Address2:	NOT AVAILABLE	**Contact Ext.:**	19
Fac Postal Zip:	L6T 3Z8	**Cont Fax Area Cde:**	905
Facility Lat:		**Contact Fax:**	57940304
Facility Long:		**Contact Email:**	RMS@TRISTARCOATINGS.CA
DLS (Last Filed Rpt):		**Latitude:**	43.8144
Facility DLS:		**Longitude:**	-79.6805
Datum:	1983	**UTM Zone:**	
Facility Cmnts:	No	**UTM Northing:**	
URL:	www.tristarcoatings.ca	**UTM Easting:**	
No of Empl.:	17	**Waste Streams:**	No
Parent Co.:	*	**No Streams:**	0.00
No Parent Co.:	1.00	**Waste Off Sites:**	Yes
Pollut Prev Cmnts:	No	**No Off Sites:**	1.00
Stacks:		**Shutdown:**	
No of Stacks:		**No of Shutdown:**	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	32		
NAICS 2 Description:	Manufacturing		
NAICS Code (4 digit):	3255		
NAICS 4 Description:	Paint, coating and adhesive manufacturing		
NAICS Code (6 digit):	325510		
NAICS 6 Description:	Paint and coating manufacturing		

Substance Release Report

Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	Methyl ethyl ketone
Chem (fr):	Méthyléthylcétone
Quantity:	.195
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	Toluene
Chem (fr):	Toluène
Quantity:	.115
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives

Grouping:	Total Air
Trans Code:	VOCs
Chem:	Xylene (mixed isomers)
Chem (fr):	Xylène (mélange d'isomères)
Quantity:	.1
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates
Category Type ID:	2
Category Type Desc:	Storage / Handling
Category Type Desc (fr):	Rejets de stockage ou manutention
Grouping:	Total Air
Trans Code:	VOCg
Chem:	Xylene (mixed isomers)
Chem (fr):	Xylène (mélange d'isomères)
Quantity:	.15
Unit:	tonnes
Basis of Estimate Cd:	C
Basis of Estimate Desc:	C- Mass Balance

13	21 of 40	NW/79.1	207.1 / -1.79	**TREBOR IND. TRISTAR COATINGS DIV.** **18 CADETTA ROAD NOT AVAILABLE** **BRAMPTON ON L6P0X4**	NPRI

NPRI ID:	4425	**Org ID:**	20847
Other ID:	*	**Submit Date:**	7/10/1997
No Other ID:	0	**Last Modified:**	5/29/2015 3:28:24 PM
Track ID:	12207	**Contact ID:**	99363
Report ID:		**Cont Type:**	MED
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	MICHAEL
Report Year:	1996	**Cont Last Name:**	SHILLUM
Not-Current Rpt?:	No	**Contact Position:**	PLANT MANAGER
Yr of Last Filed Rpt:	2014	**Contact Fax:**	9057940304
Fac ID:	48552	**Contact Ph.:**	9057941100
Fac Name:	TRISTAR COATINGS	**Cont Area Code:**	905
Fac Address1:	18 CADETTA ROAD	**Contact Tel.:**	57941100
Fac Address2:	NOT AVAILABLE	**Contact Ext.:**	
Fac Postal Zip:	L6P0X4	**Cont Fax Area Cde:**	905
Facility Lat:	43.8144	**Contact Fax:**	57940304
Facility Long:	-79.6805	**Contact Email:**	NOT AVAILABLE
DLS (Last Filed Rpt):		**Latitude:**	43.8144
Facility DLS:		**Longitude:**	-79.6805
Datum:	1983	**UTM Zone:**	17
Facility Cmnts:	FALSE	**UTM Northing:**	4852100
URL:		**UTM Easting:**	606300
No of Empl.:	14	**Waste Streams:**	FALSE
Parent Co.:	*	**No Streams:**	0
No Parent Co.:	0	**Waste Off Sites:**	TRUE
Pollut Prev Cmnts:	FALSE	**No Off Sites:**	1
Stacks:		**Shutdown:**	
No of Stacks:		**No of Shutdown:**	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	32		
NAICS 2 Description:	Manufacturing		
NAICS Code (4 digit):	3255		
NAICS 4 Description:	Paint, coating and adhesive manufacturing		
NAICS Code (6 digit):	325510		
NAICS 6 Description:	Paint and coating manufacturing		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Substance Release Report

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Xylene (mixed isomers)
Chem (fr):	Xylène (mélange d'isomères)
Quantity:	.718
Unit:	tonnes
Basis of Estimate Cd:	C
Basis of Estimate Desc:	C- Mass Balance

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Toluene
Chem (fr):	Toluène
Quantity:	.478
Unit:	tonnes
Basis of Estimate Cd:	C
Basis of Estimate Desc:	C- Mass Balance

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13 ***22 of 40*** ***NW/79.1*** ***207.1 / -1.79*** ***TREBOR IND. TRISTAR COATINGS DIV.***
18 CADETTA ROAD NOT AVAILABLE
BRAMPTON ON L6P0X4 ***NPRI***

NPRI ID:	4425	***Org ID:***	20847
Other ID:	*	***Submit Date:***	5/31/1999
No Other ID:	0	***Last Modified:***	5/29/2015 3:28:24 PM
Track ID:	12208	***Contact ID:***	99358
Report ID:		***Cont Type:***	MED
Report Type:	NPRI	***Contact Title:***	
Rpt Type ID:	1	***Cont First Name:***	MICHAEL
Report Year:	1998	***Cont Last Name:***	SHILLUM
Not-Current Rpt?:	No	***Contact Position:***	GENERAL MANAGER
Yr of Last Filed Rpt:	2014	***Contact Fax:***	9057940304
Fac ID:	48552	***Contact Ph.:***	9057941100
Fac Name:	TRISTAR COATINGS	***Cont Area Code:***	905
Fac Address1:	18 CADETTA ROAD	***Contact Tel.:***	57941100
Fac Address2:	NOT AVAILABLE	***Contact Ext.:***	
Fac Postal Zip:	L6P0X4	***Cont Fax Area Cde:***	905
Facility Lat:	43.8144	***Contact Fax:***	57940304
Facility Long:	-79.6805	***Contact Email:***	RMS@TRISTARCOATINGS.ON.CA
DLS (Last Filed Rpt):		***Latitude:***	43.8144
Facility DLS:		***Longitude:***	-79.6805
Datum:	1983	***UTM Zone:***	17
Facility Cmnts:	False	***UTM Northing:***	4852100
URL:		***UTM Easting:***	606300
No of Empl.:	16	***Waste Streams:***	False
Parent Co.:	Y	***No Streams:***	0
No Parent Co.:	1	***Waste Off Sites:***	Fals
Pollut Prev Cmnts:	False	***No Off Sites:***	1
Stacks:		***Shutdown:***	
No of Stacks:		***No of Shutdown:***	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	32		
NAICS 2 Description:	Manufacturing		
NAICS Code (4 digit):	3255		

NAICS 4 Description:	Paint, coating and adhesive manufacturing
NAICS Code (6 digit):	325510
NAICS 6 Description:	Paint and coating manufacturing

Substance Release Report

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Xylene (mixed isomers)
Chem (fr):	Xylène (mélange d'isomères)
Quantity:	.775
Unit:	tonnes
Basis of Estimate Cd:	C
Basis of Estimate Desc:	C- Mass Balance

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Methyl ethyl ketone
Chem (fr):	Méthyl éthyl cétone
Quantity:	.426
Unit:	tonnes
Basis of Estimate Cd:	C
Basis of Estimate Desc:	C- Mass Balance

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Toluene
Chem (fr):	Toluène
Quantity:	.13
Unit:	tonnes
Basis of Estimate Cd:	C
Basis of Estimate Desc:	C- Mass Balance

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13 | ***23 of 40*** | ***NW/79.1*** | ***207.1 / -1.79*** | ***TRISTAR COATINGS LTD***
18 CADETTA ROAD NOT AVAILABLE
BRAMPTON ON L6T 3Z8 | ***NPRI***

NPRI ID:	4425	**Org ID:**	70696
Other ID:	*	**Submit Date:**	5/31/2001
No Other ID:	0.00	**Last Modified:**	5/29/2015 3:28:24 PM
Track ID:	12211	**Contact ID:**	99359
Report ID:		**Cont Type:**	MED
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	MICHAEL
Report Year:	2000	**Cont Last Name:**	SHILLUM
Not-Current Rpt?:	No	**Contact Position:**	GENERAL MANAGER
Yr of Last Filed Rpt:	2014	**Contact Fax:**	9057940304
Fac ID:	117648	**Contact Ph.:**	9057941100
Fac Name:	NOT AVAILABLE	**Cont Area Code:**	905
Fac Address1:	18 CADETTA ROAD	**Contact Tel.:**	57941100
Fac Address2:	NOT AVAILABLE	**Contact Ext.:**	19
Fac Postal Zip:	L6T 3Z8	**Cont Fax Area Cde:**	905
Facility Lat:		**Contact Fax:**	57940304
Facility Long:		**Contact Email:**	RMS@TRISTARCOATINGS.CA
DLS (Last Filed Rpt):		**Latitude:**	43.8144

Facility DLS:		**Longitude:**	-79.6805
Datum:	1983	**UTM Zone:**	
Facility Cmnts:	False	**UTM Northing:**	
URL:		**UTM Easting:**	
No of Empl.:	17	**Waste Streams:**	No
Parent Co.:	*	**No Streams:**	0
No Parent Co.:	1.00	**Waste Off Sites:**	Yes
Pollut Prev Cmnts:	False	**No Off Sites:**	1.00
Stacks:		**Shutdown:**	
No of Stacks:		**No of Shutdown:**	

Canadian SIC Code (2 digit):
Canadian SIC Code:
SIC Code Description:
American SIC Code:
NAICS Code (2 digit): 32
NAICS 2 Description: Manufacturing
NAICS Code (4 digit): 3255
NAICS 4 Description: Paint, coating and adhesive manufacturing
NAICS Code (6 digit): 325510
NAICS 6 Description: Paint and coating manufacturing

Substance Release Report

Category Type ID: 2
Category Type Desc: Storage / Handling
Category Type Desc (fr): Rejets de stockage ou manutention
Grouping: Total Air
Trans Code: VOCg
Chem: Xylene (mixed isomers)
Chem (fr): Xylène (mélange d'isomères)
Quantity: .135
Unit: tonnes
Basis of Estimate Cd: C
Basis of Estimate Desc: C- Mass Balance

Category Type ID: 3
Category Type Desc: Fugitive
Category Type Desc (fr): Émissions fugitives
Grouping: Total Air
Trans Code: VOCs
Chem: Methyl ethyl ketone
Chem (fr): Méthyléthylcétone
Quantity: .255
Unit: tonnes
Basis of Estimate Cd: O
Basis of Estimate Desc: O- Engineering Estimates

Category Type ID: 3
Category Type Desc: Fugitive
Category Type Desc (fr): Émissions fugitives
Grouping: Total Air
Trans Code: VOCs
Chem: Xylene (mixed isomers)
Chem (fr): Xylène (mélange d'isomères)
Quantity: .1
Unit: tonnes
Basis of Estimate Cd: O
Basis of Estimate Desc: O- Engineering Estimates

Category Type ID: 3
Category Type Desc: Fugitive
Category Type Desc (fr): Émissions fugitives
Grouping: Total Air
Trans Code: VOCs
Chem: Toluene

Chem (fr):	Toluène
Quantity:	.13
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

13 | **24 of 40** | **NW/79.1** | **207.1 / -1.79** | **TRISTAR COATINGS LTD.**
18 CADETTA ROAD NOT AVAILABLE
BRAMPTON ON L6P0X4 | **NPRI**

NPRI ID:	4425	**Org ID:**	103016
Other ID:		**Submit Date:**	6/27/2012
No Other ID:		**Last Modified:**	5/29/2015 3:28:24 PM
Track ID:	101756	**Contact ID:**	234830
Report ID:	6319	**Cont Type:**	MED
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	
Report Year:	2011	**Cont Last Name:**	
Not-Current Rpt?:	No	**Contact Position:**	
Yr of Last Filed Rpt:	2014	**Contact Fax:**	
Fac ID:	224562	**Contact Ph.:**	
Fac Name:	TRISTAR COATINGS LTD.	**Cont Area Code:**	
Fac Address1:	18 CADETTA ROAD	**Contact Tel.:**	
Fac Address2:	NOT AVAILABLE	**Contact Ext.:**	
Fac Postal Zip:	L6P0X4	**Cont Fax Area Cde:**	
Facility Lat:	43.8144	**Contact Fax:**	
Facility Long:	-79.6805	**Contact Email:**	
DLS (Last Filed Rpt):		**Latitude:**	43.8144
Facility DLS:		**Longitude:**	-79.6805
Datum:	1983	**UTM Zone:**	
Facility Cmnts:		**UTM Northing:**	
URL:		**UTM Easting:**	
No of Empl.:	18	**Waste Streams:**	
Parent Co.:		**No Streams:**	
No Parent Co.:		**Waste Off Sites:**	
Pollut Prev Cmnts:		**No Off Sites:**	
Stacks:		**Shutdown:**	
No of Stacks:		**No of Shutdown:**	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	32		
NAICS 2 Description:	Manufacturing		
NAICS Code (4 digit):	3255		
NAICS 4 Description:	Paint, coating and adhesive manufacturing		
NAICS Code (6 digit):	325510		
NAICS 6 Description:	Paint and coating manufacturing		

Substance Release Report

Category Type ID:	2
Category Type Desc:	Storage / Handling
Category Type Desc (fr):	Rejets de stockage ou manutention
Grouping:	Total Air
Trans Code:	VOCg
Chem:	Acetone
Chem (fr):	Acétone
Quantity:	.003
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

Category Type ID: 13

Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Xylene (all isomers)
Chem (fr):	Xylène (tous les isomères)
Quantity:	.466
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Methyl ethyl ketone
Chem (fr):	Méthyléthylcétone
Quantity:	.419
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Toluene
Chem (fr):	Toluène
Quantity:	.892
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

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13 | ***25 of 40*** | ***NW/79.1*** | ***207.1 / -1.79*** | ***TREBOR IND. TRISTAR COATINGS DIV.***
18 CADETTA ROAD NOT AVAILABLE
BRAMPTON ON L6T 3Z8 | ***NPRI***

NPRI ID:	4425	**Org ID:**	20847
Other ID:	FALSE	**Submit Date:**	
No Other ID:	0	**Last Modified:**	5/29/2015 3:28:24 PM
Track ID:	12212	**Contact ID:**	99350
Report ID:		**Cont Type:**	MED
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	MICHAEL
Report Year:	1994	**Cont Last Name:**	SHILLUM
Not-Current Rpt?:	No	**Contact Position:**	NOT AVAILABLE
Yr of Last Filed Rpt:	2014	**Contact Fax:**	9057940304
Fac ID:	117648	**Contact Ph.:**	9057941100
Fac Name:	NOT AVAILABLE	**Cont Area Code:**	905
Fac Address1:	18 CADETTA ROAD	**Contact Tel.:**	57941100
Fac Address2:	NOT AVAILABLE	**Contact Ext.:**	
Fac Postal Zip:	L6T 3Z8	**Cont Fax Area Cde:**	905
Facility Lat:		**Contact Fax:**	57940304
Facility Long:		**Contact Email:**	NOT AVAILABLE
DLS (Last Filed Rpt):		**Latitude:**	43.8144
Facility DLS:		**Longitude:**	-79.6805
Datum:	1983	**UTM Zone:**	17
Facility Cmnts:	FALSE	**UTM Northing:**	4852100
URL:		**UTM Easting:**	606300
No of Empl.:	14	**Waste Streams:**	FALSE
Parent Co.:	FALSE	**No Streams:**	0
No Parent Co.:	0	**Waste Off Sites:**	TRUE
Pollut Prev Cmnts:		**No Off Sites:**	1

Stacks:		**Shutdown:**	
No of Stacks:		**No of Shutdown:**	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	32		
NAICS 2 Description:	Manufacturing		
NAICS Code (4 digit):	3255		
NAICS 4 Description:	Paint, coating and adhesive manufacturing		
NAICS Code (6 digit):	325510		
NAICS 6 Description:	Paint and coating manufacturing		

Substance Release Report

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Toluene
Chem (fr):	Toluène
Quantity:	.005
Unit:	tonnes
Basis of Estimate Cd:	M
Basis of Estimate Desc:	M- Monitoring or Direct Measurement - In use from 1994 to 2002

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Xylene (mixed isomers)
Chem (fr):	Xylène (mélange d'isomères)
Quantity:	.182
Unit:	tonnes
Basis of Estimate Cd:	M
Basis of Estimate Desc:	M- Monitoring or Direct Measurement - In use from 1994 to 2002

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	26 of 40	NW/79.1	207.1 / -1.79	TREBOR IND. TRISTAR COATINGS DIV. 18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6T 3Z8	NPRI

NPRI ID:	4425	**Org ID:**	20847
Other ID:	*	**Submit Date:**	9/26/2001
No Other ID:	0	**Last Modified:**	5/29/2015 3:28:24 PM
Track ID:	12213	**Contact ID:**	99350
Report ID:		**Cont Type:**	MED
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	MICHAEL
Report Year:	1995	**Cont Last Name:**	SHILLUM
Not-Current Rpt?:	No	**Contact Position:**	NOT AVAILABLE
Yr of Last Filed Rpt:	2014	**Contact Fax:**	9057940304
Fac ID:	117648	**Contact Ph.:**	9057941100
Fac Name:	NOT AVAILABLE	**Cont Area Code:**	905
Fac Address1:	18 CADETTA ROAD	**Contact Tel.:**	57941100
Fac Address2:	NOT AVAILABLE	**Contact Ext.:**	
Fac Postal Zip:	L6T 3Z8	**Cont Fax Area Cde:**	905
Facility Lat:		**Contact Fax:**	57940304
Facility Long:		**Contact Email:**	NOT AVAILABLE
DLS (Last Filed Rpt):		**Latitude:**	43.8144
Facility DLS:		**Longitude:**	-79.6805
Datum:	1983	**UTM Zone:**	17
Facility Cmnts:	FALSE	**UTM Northing:**	4852100

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

URL:		**UTM Easting:**	606300
No of Empl.:	13	**Waste Streams:**	FALSE
Parent Co.:	*	**No Streams:**	0
No Parent Co.:	0	**Waste Off Sites:**	TRUE
Pollut Prev Cmnts:	FALSE	**No Off Sites:**	1
Stacks:		**Shutdown:**	
No of Stacks:		**No of Shutdown:**	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	32		
NAICS 2 Description:	Manufacturing		
NAICS Code (4 digit):	3255		
NAICS 4 Description:	Paint, coating and adhesive manufacturing		
NAICS Code (6 digit):	325510		
NAICS 6 Description:	Paint and coating manufacturing		

Substance Release Report

Category Type ID:	2
Category Type Desc:	Storage / Handling
Category Type Desc (fr):	Rejets de stockage ou manutention
Grouping:	Total Air
Trans Code:	VOCg
Chem:	Xylene (mixed isomers)
Chem (fr):	Xylène (mélange d'isomères)
Quantity:	1.038
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

Category Type ID:	2
Category Type Desc:	Storage / Handling
Category Type Desc (fr):	Rejets de stockage ou manutention
Grouping:	Total Air
Trans Code:	VOCg
Chem:	Toluene
Chem (fr):	Toluène
Quantity:	.5
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

13	*27 of 40*	*NW/79.1*	*207.1 / -1.79*	***TREBOR IND. TRISTAR COATINGS DIV.*** ***18 CADETTA ROAD NOT AVAILABLE*** ***BRAMPTON ON L6P0X4***	*NPRI*

NPRI ID:	4425	**Org ID:**	20847
Other ID:	*	**Submit Date:**	5/28/1998
No Other ID:	0	**Last Modified:**	5/29/2015 3:28:24 PM
Track ID:	12210	**Contact ID:**	99355
Report ID:		**Cont Type:**	MED
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	MICHAEL
Report Year:	1997	**Cont Last Name:**	SHILLUM
Not-Current Rpt?:	No	**Contact Position:**	GENERAL MANAGER
Yr of Last Filed Rpt:	2014	**Contact Fax:**	9057940304
Fac ID:	48552	**Contact Ph.:**	9057941100
Fac Name:	TRISTAR COATINGS	**Cont Area Code:**	905
Fac Address1:	18 CADETTA ROAD	**Contact Tel.:**	57941100
Fac Address2:	NOT AVAILABLE	**Contact Ext.:**	
Fac Postal Zip:	L6P0X4	**Cont Fax Area Cde:**	905
Facility Lat:	43.8144	**Contact Fax:**	57940304

Facility Long:	-79.6805	**Contact Email:**	NOT AVAILABLE
DLS (Last Filed Rpt):		**Latitude:**	43.8144
Facility DLS:		**Longitude:**	-79.6805
Datum:	1983	**UTM Zone:**	17
Facility Cmnts:	FALSE	**UTM Northing:**	4852100
URL:		**UTM Easting:**	606300
No of Empl.:	16	**Waste Streams:**	FALSE
Parent Co.:	*	**No Streams:**	0
No Parent Co.:	1	**Waste Off Sites:**	TRUE
Pollut Prev Cmnts:	FALSE	**No Off Sites:**	1
Stacks:		**Shutdown:**	
No of Stacks:		**No of Shutdown:**	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	32		
NAICS 2 Description:	Manufacturing		
NAICS Code (4 digit):	3255		
NAICS 4 Description:	Paint, coating and adhesive manufacturing		
NAICS Code (6 digit):	325510		
NAICS 6 Description:	Paint and coating manufacturing		

Substance Release Report

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Xylene (mixed isomers)
Chem (fr):	Xylène (mélange d'isomères)
Quantity:	.665
Unit:	tonnes
Basis of Estimate Cd:	C
Basis of Estimate Desc:	C- Mass Balance

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Toluene
Chem (fr):	Toluène
Quantity:	.11
Unit:	tonnes
Basis of Estimate Cd:	C
Basis of Estimate Desc:	C- Mass Balance

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Methyl ethyl ketone
Chem (fr):	Méthyléthylcétone
Quantity:	.342
Unit:	tonnes
Basis of Estimate Cd:	C
Basis of Estimate Desc:	C- Mass Balance

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	28 of 40	NW/79.1	207.1 / -1.79	TRISTAR COATINGS LTD 18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	NPRI

NPRI ID:	4425	**Org ID:**	70696
Other ID:	N	**Submit Date:**	5/28/2009
No Other ID:		**Last Modified:**	5/29/2015 3:28:24 PM
Track ID:	66308	**Contact ID:**	234830
Report ID:	127724	**Cont Type:**	MED
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	
Report Year:	2008	**Cont Last Name:**	
Not-Current Rpt?:	No	**Contact Position:**	
Yr of Last Filed Rpt:	2014	**Contact Fax:**	
Fac ID:	224562	**Contact Ph.:**	
Fac Name:	TRISTAR COATINGS LTD.	**Cont Area Code:**	
Fac Address1:	18 CADETTA ROAD	**Contact Tel.:**	
Fac Address2:	NOT AVAILABLE	**Contact Ext.:**	
Fac Postal Zip:	L6P0X4	**Cont Fax Area Cde:**	
Facility Lat:	43.8144	**Contact Fax:**	
Facility Long:	-79.6805	**Contact Email:**	
DLS (Last Filed Rpt):		**Latitude:**	43.8144
Facility DLS:		**Longitude:**	-79.6805
Datum:	1983	**UTM Zone:**	
Facility Cmnts:	No	**UTM Northing:**	
URL:	www.tristarcoating.ca	**UTM Easting:**	
No of Empl.:	19	**Waste Streams:**	No
Parent Co.:	N	**No Streams:**	
No Parent Co.:		**Waste Off Sites:**	Yes
Pollut Prev Cmnts:	No	**No Off Sites:**	1
Stacks:	No	**Shutdown:**	No
No of Stacks:		**No of Shutdown:**	

Canadian SIC Code (2 digit):
Canadian SIC Code:
SIC Code Description:
American SIC Code:

NAICS Code (2 digit):	32
NAICS 2 Description:	Manufacturing
NAICS Code (4 digit):	3255
NAICS 4 Description:	Paint, coating and adhesive manufacturing
NAICS Code (6 digit):	325510
NAICS 6 Description:	Paint and coating manufacturing

Substance Release Report

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Xylene (all isomers)
Chem (fr):	Xylène (tous les isomères)
Quantity:	.768
Unit:	tonnes
Basis of Estimate Cd:	
Basis of Estimate Desc:	

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Methyl ethyl ketone
Chem (fr):	Méthyléthylcétone
Quantity:	.504
Unit:	tonnes
Basis of Estimate Cd:	
Basis of Estimate Desc:	

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: n-Butyl alcohol
Chem (fr): Butan-1-ol
Quantity: .008
Unit: tonnes
Basis of Estimate Cd:
Basis of Estimate Desc:

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: Isopropyl alcohol
Chem (fr): Alcool iso-propylique
Quantity: .256
Unit: tonnes
Basis of Estimate Cd:
Basis of Estimate Desc:

Category Type ID: 3
Category Type Desc: Fugitive
Category Type Desc (fr): Émissions fugitives
Grouping: Total Air
Trans Code: VOCs
Chem: Toluene
Chem (fr): Toluène
Quantity: 1.13
Unit: tonnes
Basis of Estimate Cd: O
Basis of Estimate Desc: O- Engineering Estimates

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: Methyl isobutyl ketone
Chem (fr): Méthylisobutylecétone
Quantity: .174
Unit: tonnes
Basis of Estimate Cd:
Basis of Estimate Desc:

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13 | ***29 of 40*** | ***NW/79.1*** | ***207.1 / -1.79*** | ***TRISTAR COATINGS LTD***
18 CADETTA ROAD NOT AVAILABLE
BRAMPTON ON L6P0X4 | ***NPRI***

NPRI ID: 4425
Other ID: *
No Other ID:
Track ID: 73232
Report ID: 152737
Report Type: NPRI
Rpt Type ID: 1
Report Year: 2003
Not-Current Rpt?: No
Yr of Last Filed Rpt: 2014
Fac ID: 224562
Fac Name: TRISTAR COATINGS LTD.

Org ID: 70696
Submit Date: 6/1/2004
Last Modified: 5/29/2015 3:28:24 PM
Contact ID: 188563
Cont Type: MED
Contact Title:
Cont First Name: MICHAEL
Cont Last Name: SHILLUM
Contact Position: GENERAL MANAGER
Contact Fax: 9057940304
Contact Ph.: 9057941100
Cont Area Code: 905

Fac Address1:	18 CADETTA ROAD	**Contact Tel.:**	57941100
Fac Address2:	NOT AVAILABLE	**Contact Ext.:**	19
Fac Postal Zip:	L6P0X4	**Cont Fax Area Cde:**	905
Facility Lat:	43.8144	**Contact Fax:**	57940304
Facility Long:	-79.6805	**Contact Email:**	RMS@TRISTARCOATINGS.CA
DLS (Last Filed Rpt):		**Latitude:**	43.8144
Facility DLS:		**Longitude:**	-79.6805
Datum:	1983	**UTM Zone:**	
Facility Cmnts:	False	**UTM Northing:**	
URL:	www.tristarcoating.ca	**UTM Easting:**	
No of Empl.:	17	**Waste Streams:**	True?
Parent Co.:	*	**No Streams:**	
No Parent Co.:	1	**Waste Off Sites:**	Fals
Pollut Prev Cmnts:	False	**No Off Sites:**	1
Stacks:	True	**Shutdown:**	True
No of Stacks:		**No of Shutdown:**	

Canadian SIC Code (2 digit):
Canadian SIC Code:
SIC Code Description:
American SIC Code:
NAICS Code (2 digit): 32
NAICS 2 Description: Manufacturing
NAICS Code (4 digit): 3255
NAICS 4 Description: Paint, coating and adhesive manufacturing
NAICS Code (6 digit): 325510
NAICS 6 Description: Paint and coating manufacturing

Substance Release Report

Category Type ID: 1
Category Type Desc: Stack / Point
Category Type Desc (fr): Rejets de cheminée ou ponctuels
Grouping: Total Air
Trans Code: ASta
Chem: Volatile Organic Compounds (VOCs)
Chem (fr): Composés organiques volatils (COV)
Quantity: 12.078
Unit: tonnes
Basis of Estimate Cd: O
Basis of Estimate Desc: O- Engineering Estimates

Category Type ID: 3
Category Type Desc: Fugitive
Category Type Desc (fr): Émissions fugitives
Grouping: Total Air
Trans Code: VOCs
Chem: Xylene (all isomers)
Chem (fr): Xylène (tous les isomères)
Quantity: 3.585
Unit: tonnes
Basis of Estimate Cd: O
Basis of Estimate Desc: O- Engineering Estimates

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: Methyl ethyl ketone
Chem (fr): Méthyléthylcétone
Quantity: .52
Unit: tonnes
Basis of Estimate Cd:
Basis of Estimate Desc:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	30 of 40	NW/79.1	207.1 / -1.79	TRISTAR COATINGS LTD. 18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6T 3Z8	NPRI

NPRI ID:	4425	**Org ID:**	70697
Other ID:	N	**Submit Date:**	1/8/2004
No Other ID:	0	**Last Modified:**	5/29/2015 3:28:24 PM
Track ID:	76622	**Contact ID:**	188563
Report ID:	161152	**Cont Type:**	MED
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	MICHAEL
Report Year:	2002	**Cont Last Name:**	SHILLUM
Not-Current Rpt?:	No	**Contact Position:**	GENERAL MANAGER
Yr of Last Filed Rpt:	2014	**Contact Fax:**	9057940304
Fac ID:	117648	**Contact Ph.:**	9057941100
Fac Name:	NOT AVAILABLE	**Cont Area Code:**	905
Fac Address1:	18 CADETTA ROAD	**Contact Tel.:**	57941100
Fac Address2:	NOT AVAILABLE	**Contact Ext.:**	19
Fac Postal Zip:	L6T 3Z8	**Cont Fax Area Cde:**	905
Facility Lat:		**Contact Fax:**	57940304
Facility Long:		**Contact Email:**	RMS@TRISTARCOATINGS.CA
DLS (Last Filed Rpt):		**Latitude:**	43.8144
Facility DLS:		**Longitude:**	-79.6805
Datum:	1983	**UTM Zone:**	
Facility Cmnts:	False	**UTM Northing:**	
URL:	www.tristarcoatings.ca	**UTM Easting:**	
No of Empl.:	17	**Waste Streams:**	False
Parent Co.:	*	**No Streams:**	0
No Parent Co.:	1	**Waste Off Sites:**	Fals
Pollut Prev Cmnts:	False	**No Off Sites:**	1
Stacks:	False	**Shutdown:**	False
No of Stacks:		**No of Shutdown:**	0
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	32		
NAICS 2 Description:	Manufacturing		
NAICS Code (4 digit):	3255		
NAICS 4 Description:	Paint, coating and adhesive manufacturing		
NAICS Code (6 digit):	325510		
NAICS 6 Description:	Paint and coating manufacturing		

Substance Release Report

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Methyl isobutyl ketone
Chem (fr):	Méthylisobutylecétone
Quantity:	.364
Unit:	tonnes
Basis of Estimate Cd:	
Basis of Estimate Desc:	

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Toluene
Chem (fr):	Toluène

Quantity:	.817
Unit:	tonnes
Basis of Estimate Cd:	
Basis of Estimate Desc:	
Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	Xylene (mixed isomers)
Chem (fr):	Xylène (mélange d'isomères)
Quantity:	4.61
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates
Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Methyl ethyl ketone
Chem (fr):	Méthyléthylcétone
Quantity:	.363
Unit:	tonnes
Basis of Estimate Cd:	
Basis of Estimate Desc:	

13 | ***31 of 40*** | ***NW/79.1*** | ***207.1 / -1.79*** | ***TRISTAR COATINGS LTD.***
18 CADETTA ROAD NOT AVAILABLE
BRAMPTON ON L6P0X4 | ***NPRI***

NPRI ID:	4425	**Org ID:**	103016
Other ID:		**Submit Date:**	6/11/2014
No Other ID:		**Last Modified:**	5/29/2015 3:28:24 PM
Track ID:	122953	**Contact ID:**	230549
Report ID:	28930	**Cont Type:**	MED
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	BRIAN
Report Year:	2013	**Cont Last Name:**	WHISTON
Not-Current Rpt?:	No	**Contact Position:**	PRESIDENT
Yr of Last Filed Rpt:	2014	**Contact Fax:**	
Fac ID:	224562	**Contact Ph.:**	9057941100
Fac Name:	TRISTAR COATINGS LTD.	**Cont Area Code:**	905
Fac Address1:	18 CADETTA ROAD	**Contact Tel.:**	57941100
Fac Address2:	NOT AVAILABLE	**Contact Ext.:**	16
Fac Postal Zip:	L6P0X4	**Cont Fax Area Cde:**	
Facility Lat:	43.8144	**Contact Fax:**	
Facility Long:	-79.6805	**Contact Email:**	BRIAN@TRISTARCOATINGS.CA
DLS (Last Filed Rpt):		**Latitude:**	43.8144
Facility DLS:		**Longitude:**	-79.6805
Datum:	1983	**UTM Zone:**	
Facility Cmnts:		**UTM Northing:**	
URL:	www.tristarcoatings.ca	**UTM Easting:**	
No of Empl.:	20	**Waste Streams:**	
Parent Co.:		**No Streams:**	
No Parent Co.:		**Waste Off Sites:**	
Pollut Prev Cmnts:		**No Off Sites:**	
Stacks:		**Shutdown:**	
No of Stacks:		**No of Shutdown:**	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			

NAICS Code (2 digit):	32
NAICS 2 Description:	Manufacturing
NAICS Code (4 digit):	3255
NAICS 4 Description:	Paint, coating and adhesive manufacturing
NAICS Code (6 digit):	325510
NAICS 6 Description:	Paint and coating manufacturing

Substance Release Report

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Isopropyl alcohol
Chem (fr):	Alcool iso-propylique
Quantity:	.082
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Toluene
Chem (fr):	Toluène
Quantity:	.295
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Xylene (all isomers)
Chem (fr):	Xylène (tous les isomères)
Quantity:	.747
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Methyl ethyl ketone
Chem (fr):	Méthyléthylcétone
Quantity:	.227
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

13	***32 of 40***	***NW/79.1***	***207.1 / -1.79***	***TRISTAR COATINGS LTD*** ***18 CADETTA ROAD NOT AVAILABLE*** ***BRAMPTON ON L6P0X4***	***NPRI***

NPRI ID:	4425	**Org ID:**	70696
Other ID:	N	**Submit Date:**	6/24/2005
No Other ID:		**Last Modified:**	5/29/2015 3:28:24 PM

Track ID:	29812	**Contact ID:**	188563
Report ID:	90500	**Cont Type:**	MED
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	MICHAEL
Report Year:	2004	**Cont Last Name:**	SHILLUM
Not-Current Rpt?:	No	**Contact Position:**	GENERAL MANAGER
Yr of Last Filed Rpt:	2014	**Contact Fax:**	9057940304
Fac ID:	224562	**Contact Ph.:**	9057941100
Fac Name:	TRISTAR COATINGS LTD.	**Cont Area Code:**	905
Fac Address1:	18 CADETTA ROAD	**Contact Tel.:**	57941100
Fac Address2:	NOT AVAILABLE	**Contact Ext.:**	19
Fac Postal Zip:	L6P0X4	**Cont Fax Area Cde:**	905
Facility Lat:	43.8144	**Contact Fax:**	57940304
Facility Long:	-79.6805	**Contact Email:**	RMS@TRISTARCOATINGS.CA
DLS (Last Filed Rpt):		**Latitude:**	43.8144
Facility DLS:		**Longitude:**	-79.6805
Datum:	1983	**UTM Zone:**	
Facility Cmnts:	True	**UTM Northing:**	
URL:	www.tristarcoating.ca	**UTM Easting:**	
No of Empl.:	17	**Waste Streams:**	False
Parent Co.:	N	**No Streams:**	
No Parent Co.:		**Waste Off Sites:**	Fals
Pollut Prev Cmnts:	True	**No Off Sites:**	1
Stacks:	No	**Shutdown:**	
No of Stacks:		**No of Shutdown:**	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	32		
NAICS 2 Description:	Manufacturing		
NAICS Code (4 digit):	3255		
NAICS 4 Description:	Paint, coating and adhesive manufacturing		
NAICS Code (6 digit):	325510		
NAICS 6 Description:	Paint and coating manufacturing		

Substance Release Report

Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	Xylene (all isomers)
Chem (fr):	Xylène (tous les isomères)
Quantity:	3.27
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Methyl ethyl ketone
Chem (fr):	Méthyléthylcétone
Quantity:	.367
Unit:	tonnes
Basis of Estimate Cd:	
Basis of Estimate Desc:	

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias

Grouping: Total All Media<1t
Trans Code:
Chem: GE - Diethylene glycol butyl ether (DEGBE)
Chem (fr): EG - Éther butylique de diéthylèneglycol (DEGBE)
Quantity: .103
Unit: tonnes
Basis of Estimate Cd:
Basis of Estimate Desc:

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: Ethyl acetate
Chem (fr): Acétate d'éthyle
Quantity: .2
Unit: tonnes
Basis of Estimate Cd:
Basis of Estimate Desc:

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: Heavy aromatic solvent naphtha
Chem (fr): Solvant naphta aromatique lourd
Quantity: .105
Unit: tonnes
Basis of Estimate Cd:
Basis of Estimate Desc:

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: GE - Ethylene glycol propyl ether (EGPE)
Chem (fr): EG - Éther propylique d'éthylèneglycol (EGPE)
Quantity: .107
Unit: tonnes
Basis of Estimate Cd:
Basis of Estimate Desc:

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: Toluene
Chem (fr): Toluène
Quantity: .691
Unit: tonnes
Basis of Estimate Cd:
Basis of Estimate Desc:

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: GE - Propylene glycol methyl ether acetate (PGMEA)
Chem (fr): EG - Acétate d'éther méthylique de propylèneglycol (PGMEA)
Quantity: .216
Unit: tonnes

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Basis of Estimate Cd:
Basis of Estimate Desc:

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13 | **33 of 40** | **NW/79.1** | **207.1 / -1.79** | **TRISTAR COATINGS LTD**
18 CADETTA ROAD NOT AVAILABLE
BRAMPTON ON L6P0X4 | **NPRI**

NPRI ID:	4425	**Org ID:**	70696
Other ID:	N	**Submit Date:**	5/26/2008
No Other ID:		**Last Modified:**	5/29/2015 3:28:24 PM
Track ID:	53696	**Contact ID:**	234830
Report ID:	113625	**Cont Type:**	MED
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	
Report Year:	2007	**Cont Last Name:**	
Not-Current Rpt?:	No	**Contact Position:**	
Yr of Last Filed Rpt:	2014	**Contact Fax:**	
Fac ID:	224562	**Contact Ph.:**	
Fac Name:	TRISTAR COATINGS LTD.	**Cont Area Code:**	
Fac Address1:	18 CADETTA ROAD	**Contact Tel.:**	
Fac Address2:	NOT AVAILABLE	**Contact Ext.:**	
Fac Postal Zip:	L6P0X4	**Cont Fax Area Cde:**	
Facility Lat:	43.8144	**Contact Fax:**	
Facility Long:	-79.6805	**Contact Email:**	
DLS (Last Filed Rpt):		**Latitude:**	43.8144
Facility DLS:		**Longitude:**	-79.6805
Datum:	1983	**UTM Zone:**	
Facility Cmnts:	False	**UTM Northing:**	
URL:	www.tristarcoating.ca	**UTM Easting:**	
No of Empl.:	19	**Waste Streams:**	True?
Parent Co.:	N	**No Streams:**	
No Parent Co.:		**Waste Off Sites:**	True?
Pollut Prev Cmnts:	False	**No Off Sites:**	
Stacks:	True	**Shutdown:**	
No of Stacks:		**No of Shutdown:**	

Canadian SIC Code (2 digit):
Canadian SIC Code:
SIC Code Description:
American SIC Code:
NAICS Code (2 digit): 32
NAICS 2 Description: Manufacturing
NAICS Code (4 digit): 3255
NAICS 4 Description: Paint, coating and adhesive manufacturing
NAICS Code (6 digit): 325510
NAICS 6 Description: Paint and coating manufacturing

Substance Release Report

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: Methyl ethyl ketone
Chem (fr): Méthyléthylcétone
Quantity: .749
Unit: tonnes
Basis of Estimate Cd:
Basis of Estimate Desc:

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t

Trans Code:
Chem: GE - Diethylene glycol butyl ether (DEGBE)
Chem (fr): EG - Éther butylique de diéthylèneglycol (DEGBE)
Quantity: .026
Unit: tonnes
Basis of Estimate Cd:
Basis of Estimate Desc:

Category Type ID: 3
Category Type Desc: Fugitive
Category Type Desc (fr): Émissions fugitives
Grouping: Total Air
Trans Code: VOCs
Chem: GE - Propylene glycol methyl ether acetate (PGMEA)
Chem (fr): EG - Acétate d'éther méthylique de propylèneglycol (PGMEA)
Quantity: 217.55
Unit: tonnes
Basis of Estimate Cd: O
Basis of Estimate Desc: O- Engineering Estimates

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: MSG#2 - Hydrotreated light distillate
Chem (fr): EMG#2 - Distillat léger hydrotraité
Quantity: .242
Unit: tonnes
Basis of Estimate Cd:
Basis of Estimate Desc:

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: Ethyl acetate
Chem (fr): Acétate d'éthyle
Quantity: .162
Unit: tonnes
Basis of Estimate Cd:
Basis of Estimate Desc:

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: Xylene (all isomers)
Chem (fr): Xylène (tous les isomères)
Quantity: .46
Unit: tonnes
Basis of Estimate Cd:
Basis of Estimate Desc:

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: MSG#1 - Solvent naphtha light aliphatic
Chem (fr): EMG#1 - Solvant naphta aliphatique léger
Quantity: .002
Unit: tonnes
Basis of Estimate Cd:

Basis of Estimate Desc:

Category Type ID: 3
Category Type Desc: Fugitive
Category Type Desc (fr): Émissions fugitives
Grouping: Total Air
Trans Code: VOCs
Chem: Toluene
Chem (fr): Toluène
Quantity: 1.1
Unit: tonnes
Basis of Estimate Cd: O
Basis of Estimate Desc: O- Engineering Estimates

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: MSG#1 - Solvent naphtha medium aliphatic
Chem (fr): EMG#1 - Solvant naphta aliphatique moyen
Quantity: .011
Unit: tonnes
Basis of Estimate Cd:
Basis of Estimate Desc:

13	34 of 40	NW/79.1	207.1 / -1.79	TRISTAR COATINGS LTD 18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	NPRI

NPRI ID: 4425
Other ID: N
No Other ID:
Track ID: 51515
Report ID: 111969
Report Type: NPRI
Rpt Type ID: 1
Report Year: 2006
Not-Current Rpt?: No
Yr of Last Filed Rpt: 2014
Fac ID: 224562
Fac Name: TRISTAR COATINGS LTD.
Fac Address1: 18 CADETTA ROAD
Fac Address2: NOT AVAILABLE
Fac Postal Zip: L6P0X4
Facility Lat: 43.8144
Facility Long: -79.6805
DLS (Last Filed Rpt):
Facility DLS:
Datum: 1983
Facility Cmnts: False
URL: www.tristarcoating.ca
No of Empl.: 19
Parent Co.: N
No Parent Co.:
Pollut Prev Cmnts: False
Stacks: True
No of Stacks:
Canadian SIC Code (2 digit):
Canadian SIC Code:
SIC Code Description:
American SIC Code:
NAICS Code (2 digit): 32
NAICS 2 Description: Manufacturing
NAICS Code (4 digit): 3255

Org ID: 70696
Submit Date: 8/27/2007
Last Modified: 5/29/2015 3:28:24 PM
Contact ID: 234830
Cont Type: MED
Contact Title:
Cont First Name:
Cont Last Name:
Contact Position:
Contact Fax:
Contact Ph.:
Cont Area Code:
Contact Tel.:
Contact Ext.:
Cont Fax Area Cde:
Contact Fax:
Contact Email:
Latitude: 43.8144
Longitude: -79.6805
UTM Zone:
UTM Northing:
UTM Easting:
Waste Streams: True?
No Streams:
Waste Off Sites: Fals
No Off Sites: 1.00
Shutdown:
No of Shutdown:

NAICS 4 Description: Paint, coating and adhesive manufacturing
NAICS Code (6 digit): 325510
NAICS 6 Description: Paint and coating manufacturing

Substance Release Report

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: MSG#2 - Hydrotreated light distillate
Chem (fr): EMG#2 - Distillat léger hydrotraité
Quantity: .501
Unit: tonnes
Basis of Estimate Cd:
Basis of Estimate Desc:

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: Ethyl acetate
Chem (fr): Acétate d'éthyle
Quantity: .018
Unit: tonnes
Basis of Estimate Cd:
Basis of Estimate Desc:

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: Methyl ethyl ketone
Chem (fr): Méthyléthylcétone
Quantity: .749
Unit: tonnes
Basis of Estimate Cd:
Basis of Estimate Desc:

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: Xylene (all isomers)
Chem (fr): Xylène (tous les isomères)
Quantity: .614
Unit: tonnes
Basis of Estimate Cd:
Basis of Estimate Desc:

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: GE - Diethylene glycol butyl ether (DEGBE)
Chem (fr): EG - Éther butylique de diéthylèneglycol (DEGBE)
Quantity: .092
Unit: tonnes
Basis of Estimate Cd:
Basis of Estimate Desc:

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	GE - Propylene glycol methyl ether acetate (PGMEA)
Chem (fr):	EG - Acétate d'éther méthylique de propylèneglycol (PGMEA)
Quantity:	.003
Unit:	tonnes
Basis of Estimate Cd:	
Basis of Estimate Desc:	

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	MSG#1 - Solvent naphtha medium aliphatic
Chem (fr):	EMG#1 - Solvant naphta aliphatique moyen
Quantity:	.004
Unit:	tonnes
Basis of Estimate Cd:	
Basis of Estimate Desc:	

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	MSG#1 - Solvent naphtha light aliphatic
Chem (fr):	EMG#1 - Solvant naphta aliphatique léger
Quantity:	.002
Unit:	tonnes
Basis of Estimate Cd:	
Basis of Estimate Desc:	

Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	Toluene
Chem (fr):	Toluène
Quantity:	1.91
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

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13 | ***35 of 40*** | ***NW/79.1*** | ***207.1 / -1.79*** | ***TRISTAR COATINGS LTD.***
18 CADETTA ROAD NOT AVAILABLE
BRAMPTON ON L6P0X4 | ***NPRI***

NPRI ID:	4425	**Org ID:**	103016
Other ID:	Y	**Submit Date:**	6/17/2011
No Other ID:	2	**Last Modified:**	5/29/2015 3:28:24 PM
Track ID:	92814	**Contact ID:**	234830
Report ID:	146866	**Cont Type:**	MED
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	
Report Year:	2010	**Cont Last Name:**	
Not-Current Rpt?:	No	**Contact Position:**	
Yr of Last Filed Rpt:	2014	**Contact Fax:**	
Fac ID:	224562	**Contact Ph.:**	
Fac Name:	TRISTAR COATINGS LTD.	**Cont Area Code:**	

Fac Address1:	18 CADETTA ROAD	***Contact Tel.:***	
Fac Address2:	NOT AVAILABLE	***Contact Ext.:***	
Fac Postal Zip:	L6P0X4	***Cont Fax Area Cde:***	
Facility Lat:	43.8144	***Contact Fax:***	
Facility Long:	-79.6805	***Contact Email:***	
DLS (Last Filed Rpt):		***Latitude:***	43.8144
Facility DLS:		***Longitude:***	-79.6805
Datum:	1983	***UTM Zone:***	
Facility Cmnts:	No	***UTM Northing:***	
URL:		***UTM Easting:***	
No of Empl.:	18	***Waste Streams:***	No
Parent Co.:	*	***No Streams:***	
No Parent Co.:		***Waste Off Sites:***	Yes
Pollut Prev Cmnts:	No	***No Off Sites:***	1
Stacks:	No	***Shutdown:***	No
No of Stacks:		***No of Shutdown:***	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	32		
NAICS 2 Description:	Manufacturing		
NAICS Code (4 digit):	3255		
NAICS 4 Description:	Paint, coating and adhesive manufacturing		
NAICS Code (6 digit):	325510		
NAICS 6 Description:	Paint and coating manufacturing		

Substance Release Report

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Methyl ethyl ketone
Chem (fr):	Méthyléthylcétone
Quantity:	.383
Unit:	tonnes
Basis of Estimate Cd:	
Basis of Estimate Desc:	

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Xylene (all isomers)
Chem (fr):	Xylène (tous les isomères)
Quantity:	.443
Unit:	tonnes
Basis of Estimate Cd:	
Basis of Estimate Desc:	

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Toluene
Chem (fr):	Toluène
Quantity:	.644
Unit:	tonnes
Basis of Estimate Cd:	
Basis of Estimate Desc:	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	36 of 40	NW/79.1	207.1 / -1.79	Tristar Coatings Ltd. 18 CADETTA ROAD NOT AVAILABLE BRAMPTON ON L6P0X4	NPRI

NPRI ID:	4425	**Org ID:**	107081
Other ID:		**Submit Date:**	4/8/2016
No Other ID:		**Last Modified:**	11/18/2016 8:28:05 AM
Track ID:	135729	**Contact ID:**	241778
Report ID:	68242	**Cont Type:**	MEM
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	NOT AVAILABLE
Report Year:	2015	**Cont Last Name:**	NOT AVAILABLE
Not-Current Rpt?:	No	**Contact Position:**	
Yr of Last Filed Rpt:	2014	**Contact Fax:**	
Fac ID:	224562	**Contact Ph.:**	0
Fac Name:	TRISTAR COATINGS LTD.	**Cont Area Code:**	0
Fac Address1:	18 CADETTA ROAD	**Contact Tel.:**	
Fac Address2:	NOT AVAILABLE	**Contact Ext.:**	
Fac Postal Zip:	L6P0X4	**Cont Fax Area Cde:**	
Facility Lat:	43.8144	**Contact Fax:**	
Facility Long:	-79.6805	**Contact Email:**	NOT AVAILABLE
DLS (Last Filed Rpt):		**Latitude:**	43.8144
Facility DLS:		**Longitude:**	-79.6805
Datum:	1983	**UTM Zone:**	
Facility Cmnts:		**UTM Northing:**	
URL:		**UTM Easting:**	
No of Empl.:	20	**Waste Streams:**	
Parent Co.:		**No Streams:**	
No Parent Co.:		**Waste Off Sites:**	
Pollut Prev Cmnts:		**No Off Sites:**	
Stacks:		**Shutdown:**	
No of Stacks:		**No of Shutdown:**	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	32		
NAICS 2 Description:	Manufacturing		
NAICS Code (4 digit):	3255		
NAICS 4 Description:	Paint, coating and adhesive manufacturing		
NAICS Code (6 digit):	325510		
NAICS 6 Description:	Paint and coating manufacturing		

Substance Release Report

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	
Chem (fr):	
Quantity:	.084
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	
Chem (fr):	

Quantity:	.25
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates
Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	
Chem (fr):	
Quantity:	.417
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates
Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	
Chem (fr):	
Quantity:	.624
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

13 | ***37 of 40*** | ***NW/79.1*** | ***207.1 / -1.79*** | ***TREBOR INDUSTRIES***
18 CADETTA ROAD NOT AVAILABLE
BRAMPTON ON L6P0X4 | ***NPRI***

NPRI ID:	4425	**Org ID:**	20851
Other ID:	*	**Submit Date:**	5/16/2000
No Other ID:	0	**Last Modified:**	5/29/2015 3:28:24 PM
Track ID:	12209	**Contact ID:**	99358
Report ID:		**Cont Type:**	MED
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	MICHAEL
Report Year:	1999	**Cont Last Name:**	SHILLUM
Not-Current Rpt?:	No	**Contact Position:**	GENERAL MANAGER
Yr of Last Filed Rpt:	2014	**Contact Fax:**	9057940304
Fac ID:	224562	**Contact Ph.:**	9057941100
Fac Name:	TRISTAR COATINGS LTD.	**Cont Area Code:**	905
Fac Address1:	18 CADETTA ROAD	**Contact Tel.:**	57941100
Fac Address2:	NOT AVAILABLE	**Contact Ext.:**	
Fac Postal Zip:	L6P0X4	**Cont Fax Area Cde:**	905
Facility Lat:	43.8144	**Contact Fax:**	57940304
Facility Long:	-79.6805	**Contact Email:**	RMS@TRISTARCOATINGS.ON.CA
DLS (Last Filed Rpt):		**Latitude:**	43.8144
Facility DLS:		**Longitude:**	-79.6805
Datum:	1983	**UTM Zone:**	17
Facility Cmnts:	False	**UTM Northing:**	4852100
URL:		**UTM Easting:**	606300
No of Empl.:	17	**Waste Streams:**	Yes
Parent Co.:	*	**No Streams:**	0
No Parent Co.:	1	**Waste Off Sites:**	Yes
Pollut Prev Cmnts:	False	**No Off Sites:**	0
Stacks:		**Shutdown:**	
No of Stacks:		**No of Shutdown:**	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			

NAICS Code (2 digit):	32
NAICS 2 Description:	Manufacturing
NAICS Code (4 digit):	3255
NAICS 4 Description:	Paint, coating and adhesive manufacturing
NAICS Code (6 digit):	325510
NAICS 6 Description:	Paint and coating manufacturing

Substance Release Report

Category Type ID:	2
Category Type Desc:	Storage / Handling
Category Type Desc (fr):	Rejets de stockage ou manutention
Grouping:	Total Air
Trans Code:	VOCg
Chem:	Xylene (mixed isomers)
Chem (fr):	Xylène (mélange d'isomères)
Quantity:	.1
Unit:	tonnes
Basis of Estimate Cd:	C
Basis of Estimate Desc:	C- Mass Balance

Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	Xylene (mixed isomers)
Chem (fr):	Xylène (mélange d'isomères)
Quantity:	.1
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	Methyl ethyl ketone
Chem (fr):	Méthyléthylcétone
Quantity:	.225
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	Toluene
Chem (fr):	Toluène
Quantity:	.1
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

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13 | ***38 of 40*** | ***NW/79.1*** | ***207.1 / -1.79*** | ***TRISTAR COATINGS LTD***
18 CADETTA ROAD NOT AVAILABLE
BRAMPTON ON L6P0X4 | ***NPRI***

NPRI ID:	4425	**Org ID:**	70696
Other ID:	N	**Submit Date:**	5/18/2010
No Other ID:		**Last Modified:**	5/29/2015 3:28:24 PM

Track ID:	84882	**Contact ID:**	234830
Report ID:	138752	**Cont Type:**	MED
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	
Report Year:	2009	**Cont Last Name:**	
Not-Current Rpt?:	No	**Contact Position:**	
Yr of Last Filed Rpt:	2014	**Contact Fax:**	
Fac ID:	224562	**Contact Ph.:**	
Fac Name:	TRISTAR COATINGS LTD.	**Cont Area Code:**	
Fac Address1:	18 CADETTA ROAD	**Contact Tel.:**	
Fac Address2:	NOT AVAILABLE	**Contact Ext.:**	
Fac Postal Zip:	L6P0X4	**Cont Fax Area Cde:**	
Facility Lat:	43.8144	**Contact Fax:**	
Facility Long:	-79.6805	**Contact Email:**	
DLS (Last Filed Rpt):		**Latitude:**	43.8144
Facility DLS:		**Longitude:**	-79.6805
Datum:	1983	**UTM Zone:**	
Facility Cmnts:	No	**UTM Northing:**	
URL:	www.tristarcoating.ca	**UTM Easting:**	
No of Empl.:	19	**Waste Streams:**	No
Parent Co.:	N	**No Streams:**	
No Parent Co.:		**Waste Off Sites:**	Yes
Pollut Prev Cmnts:	No	**No Off Sites:**	1
Stacks:	No	**Shutdown:**	No
No of Stacks:		**No of Shutdown:**	

Canadian SIC Code (2 digit):
Canadian SIC Code:
SIC Code Description:
American SIC Code:

NAICS Code (2 digit):	32
NAICS 2 Description:	Manufacturing
NAICS Code (4 digit):	3255
NAICS 4 Description:	Paint, coating and adhesive manufacturing
NAICS Code (6 digit):	325510
NAICS 6 Description:	Paint and coating manufacturing

Substance Release Report

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Xylene (all isomers)
Chem (fr):	Xylène (tous les isomères)
Quantity:	.555
Unit:	tonnes
Basis of Estimate Cd:	
Basis of Estimate Desc:	

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Isopropyl alcohol
Chem (fr):	Alcool iso-propylique
Quantity:	.254
Unit:	tonnes
Basis of Estimate Cd:	
Basis of Estimate Desc:	

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Grouping:	Total All Media<1t
Trans Code:	
Chem:	Methyl isobutyl ketone
Chem (fr):	Méthylisobutylecétone
Quantity:	.121
Unit:	tonnes
Basis of Estimate Cd:	
Basis of Estimate Desc:	

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Methyl ethyl ketone
Chem (fr):	Méthyléthylcétone
Quantity:	.392
Unit:	tonnes
Basis of Estimate Cd:	
Basis of Estimate Desc:	

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Toluene
Chem (fr):	Toluène
Quantity:	.817
Unit:	tonnes
Basis of Estimate Cd:	
Basis of Estimate Desc:	

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	n-Butyl alcohol
Chem (fr):	Butan-1-ol
Quantity:	.008
Unit:	tonnes
Basis of Estimate Cd:	
Basis of Estimate Desc:	

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Acetone
Chem (fr):	Acétone
Quantity:	.003
Unit:	tonnes
Basis of Estimate Cd:	
Basis of Estimate Desc:	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	39 of 40	NW/79.1	207.1 / -1.79	**Tristar Coatings Ltd.** **18 Cadetta Rd** **Brampton ON L6P 0X4**	SCT

Established:	01-JAN-71
Plant Size (ft²):	12000
Employment:	

--Details--
Description: Paint and Coating Manufacturing
SIC/NAICS Code: 325510

Description: Paint and Coating Manufacturing
SIC/NAICS Code: 325510

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13 | ***40 of 40*** | ***NW/79.1*** | ***207.1 / -1.79*** | ***Purolator Courier Ltd.***
18 Cadetta Rd
Brampton ON L6P 0X4 | ***SPL***

Ref No: 4013-7HRTVK
Site No:
Incident Dt:
Year:
Incident Cause: Other Discharges
Incident Event:
Contaminant Code: 15
Contaminant Name: OIL (PETROLEUM BASED, NOT SPECIFIED)
Contaminant Limit 1:
Contam Limit Freq 1:
Contaminant UN No 1:
Environment Impact: Not Anticipated
Nature of Impact: Other Impact(s)
Receiving Medium:
Receiving Env:
MOE Response: No Field Response
Dt MOE Arvl on Scn:
MOE Reported Dt: 8/22/2008
Dt Document Closed: 9/17/2008
Incident Reason: Spill
Site Name: Tristar Coatings<UNOFFICIAL>
Site County/District:
Site Geo Ref Meth:
Incident Summary: Purolator: 60 L oil to pavement, clning
Contaminant Qty: 60 L

Discharger Report:
Material Group:
Health/Env Conseq:
Client Type:
Sector Type: Other
Agency Involved:
Nearest Watercourse:
Site Address:
Site District Office: Halton-Peel
Site Postal Code:
Site Region:
Site Municipality: Brampton
Site Lot:
Site Conc:
Northing:
Easting:
Site Geo Ref Accu:
Site Map Datum:
SAC Action Class: Land Spills
Source Type:

---

14 | ***1 of 1*** | ***WSW/86.0*** | ***206.9 / -2.00*** | ***lot 12 con 11***
ON | ***WWIS***

Well ID: 4908701
Construction Date:
Primary Water Use:
Sec. Water Use:
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No: 227370
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src: 1
Date Received: 2/7/2001
Selected Flag: Yes
Abandonment Rec:
Contractor: 1663
Form Version: 1
Owner:
Street Name:
County: PEEL
Municipality: BRAMPTON CITY (TORONTO GORE)
Site Info:
Lot: 012
Concession: 11
Concession Name: CON
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID:	10323236	***Elevation:***	206.439178
DP2BR:	0	***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:	h	***East83:***	605960.7
Code OB Desc:	Mixed in a Layer	***North83:***	4851853
Open Hole:		***Org CS:***	
Cluster Kind:		***UTMRC:***	9
Date Completed:	3/31/2000	***UTMRC Desc:***	unknown UTM
Remarks:		***Location Method:***	lot
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932064569
Layer:	4
Color:	2
General Color:	GREY
Mat1:	28
Most Common Material:	SAND
Mat2:	11
Other Materials:	GRAVEL
Mat3:	06
Other Materials:	SILT
Formation Top Depth:	67
Formation End Depth:	88
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932064566
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	11
Most Common Material:	GRAVEL
Mat2:	43
Other Materials:	GYPSUM
Mat3:	
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	1
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932064571
Layer:	6
Color:	2
General Color:	GREY
Mat1:	17
Most Common Material:	SHALE
Mat2:	
Other Materials:	

Mat3:
Other Materials:
Formation Top Depth: 89
Formation End Depth: 138
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932064568
Layer: 3
Color: 3
General Color: BLUE
Mat1: 05
Most Common Material: CLAY
Mat2: 28
Other Materials: SAND
Mat3: 11
Other Materials: GRAVEL
Formation Top Depth: 15
Formation End Depth: 67
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932064567
Layer: 2
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 1
Formation End Depth: 15
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932064570
Layer: 5
Color: 3
General Color: BLUE
Mat1: 05
Most Common Material: CLAY
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 88
Formation End Depth: 89
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933171289
Layer: 1

Plug From: 0
Plug To: 20
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID:
Method Construction Code: 2
Method Construction: Rotary (Convent.)
Other Method Construction:

Pipe Information

Pipe ID: 10871806
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930532944
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To:
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 994908701
Pump Set At:
Static Level: 39
Final Level After Pumping: 63
Recommended Pump Depth: 130
Pumping Rate: 1
Flowing Rate:
Recommended Pump Rate:
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 2
Water State After Test: CLOUDY
Pumping Test Method:
Pumping Duration HR: 1
Pumping Duration MIN:
Flowing: N

Draw Down & Recovery

Pump Test Detail ID: 934260321
Test Type: Draw Down
Test Duration: 15
Test Level: 41
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 935045699

Test Type:	Draw Down
Test Duration:	60
Test Level:	63
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934526210
Test Type:	Draw Down
Test Duration:	30
Test Level:	50
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934779736
Test Type:	Draw Down
Test Duration:	45
Test Level:	59
Test Level UOM:	ft

Water Details

Water ID:	933796800
Layer:	1
Kind Code:	2
Kind:	SALTY
Water Found Depth:	130
Water Found Depth UOM:	ft

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15 | ***1 of 1*** | ***NW/86.4*** | ***208.1 / -0.74*** | ***Roma Building Restoration Ltd***
20 Cadetta Rd Unit # 7
Brampton ON L6P 0X4 | ***GEN***

Generator No:	ON9271498	**PO Box No:**	
Status:	Registered	**Country:**	Canada
Approval Years:	As of Dec 2018	**Choice of Contact:**	
Contam. Facility:		**Co Admin:**	
MHSW Facility:		**Phone No Admin:**	
SIC Code:			
SIC Description:			

Detail(s)

Waste Class:	252 L
Waste Class Desc:	Waste crankcase oils and lubricants

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16 | ***1 of 4*** | ***NW/87.7*** | ***208.1 / -0.74*** | ***20 Cadetta Road***
Brampton ON L6P 0X4 | ***EHS***

Order No:	20071003030	**Nearest Intersection:**	#10 Sideroad and Colraine Drive
Status:	C	**Municipality:**	
Report Type:	CAN - Site Report	**Client Prov/State:**	
Report Date:	10/5/2007	**Search Radius (km):**	0.25
Date Received:	10/3/2007	**X:**	-79.680452
Previous Site Name:		**Y:**	43.815133
Lot/Building Size:			
Additional Info Ordered:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
16	2 of 4	NW/87.7	208.1 / -0.74	Quality Fabricating 20 Cadetta Rd Brampton ON L6T 3Z8	SCT

Established: 1976
Plant Size (ft²):
Employment: 5

--Details--
Description: Iron and Steel Mills and Ferro-Alloy Manufacturing
SIC/NAICS Code: 331110

Description: All Other Miscellaneous Fabricated Metal Product Manufacturing
SIC/NAICS Code: 332999

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
16	3 of 4	NW/87.7	208.1 / -0.74	Quality Fabricating & Machining Ltd. 20 Cadetta Rd Brampton ON L6T 3Z8	SCT

Established:
Plant Size (ft²):
Employment: 7

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
16	4 of 4	NW/87.7	208.1 / -0.74	QFM Ltd. 20 Cadetta Rd Brampton ON L6P 0X4	SCT

Established: 1976
Plant Size (ft²): 10000
Employment:

--Details--
Description: All Other Miscellaneous Fabricated Metal Product Manufacturing
SIC/NAICS Code: 332999

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
17	1 of 1	N/95.3	209.9 / 1.00	BRAMPTON ON	WWIS

Well ID:	7241945	**Data Entry Status:**	
Construction Date:		**Data Src:**	
Primary Water Use:	Monitoring and Test Hole	**Date Received:**	5/28/2015
Sec. Water Use:	0	**Selected Flag:**	Yes
Final Well Status:	Observation Wells	**Abandonment Rec:**	
Water Type:		**Contractor:**	7241
Casing Material:		**Form Version:**	7
Audit No:	Z208698	**Owner:**	
Tag:	A181317	**Street Name:**	4 CORDETTA RD
Construction Method:		**County:**	PEEL
Elevation (m):		**Municipality:**	BRAMPTON CITY (TORONTO GORE)
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	
Well Depth:		**Concession:**	
Overburden/Bedrock:		**Concession Name:**	
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	1005384400	***Elevation:***	210.361083
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	606275
Code OB Desc:		***North83:***	4852320
Open Hole:		***Org CS:***	UTM83
Cluster Kind:		***UTMRC:***	4
Date Completed:	5/11/2015	***UTMRC Desc:***	margin of error : 30 m - 100 m
Remarks:		***Location Method:***	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1005608631
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	11
Other Materials:	GRAVEL
Mat3:	
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	3
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1005608632
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	06
Other Materials:	SILT
Mat3:	66
Other Materials:	DENSE
Formation Top Depth:	3
Formation End Depth:	6
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1005608633
Layer:	3
Color:	6
General Color:	BROWN
Mat1:	06
Most Common Material:	SILT
Mat2:	

Other Materials:
Mat3: 73
Other Materials: HARD
Formation Top Depth: 6
Formation End Depth: 20
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1005608641
Layer: 1
Plug From: 0
Plug To: 9
Plug Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1005608642
Layer: 2
Plug From: 9
Plug To: 20
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID:
Method Construction Code: B
Method Construction: Other Method
Other Method Construction: DIRECT PUSH

Pipe Information

Pipe ID: 1005608630
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1005608636
Layer: 1
Material: 5
Open Hole or Material: PLASTIC
Depth From: 0
Depth To: 10
Casing Diameter: 2
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 1005608637
Layer: 1
Slot: 10
Screen Top Depth: 10
Screen End Depth: 20
Screen Material: 5
Screen Depth UOM: ft

Screen Diameter UOM: inch
Screen Diameter: 2.25

Hole Diameter

Hole ID: 1005608634
Diameter: 6
Depth From: 0
Depth To: 20
Hole Depth UOM: ft
Hole Diameter UOM: inch

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18 | **1 of 1** | **NNW/97.7** | **209.0 / 0.09** | **lot 12 con 11 ON** | **WWIS**

Well ID: 4906478
Construction Date:
Primary Water Use: Commerical
Sec. Water Use:
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No: NA
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src: 1
Date Received: 8/8/1986
Selected Flag: Yes
Abandonment Rec:
Contractor: 4778
Form Version: 1
Owner:
Street Name:
County: PEEL
Municipality: BRAMPTON CITY (TORONTO GORE)
Site Info:
Lot: 012
Concession: 11
Concession Name: CON
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 10321043
DP2BR: 76
Spatial Status:
Code OB: r
Code OB Desc: Bedrock
Open Hole:
Cluster Kind:
Date Completed: 8/2/1985
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 210.348068
Elevrc:
Zone: 17
East83: 606193.6
North83: 4852221
Org CS:
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: topo

Overburden and Bedrock Materials Interval

Formation ID: 932053847
Layer: 4
Color: 3
General Color: BLUE
Mat1: 17

Most Common Material:	SHALE
Mat2:	73
Other Materials:	HARD
Mat3:	
Other Materials:	
Formation Top Depth:	88
Formation End Depth:	94
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932053846
Layer:	3
Color:	3
General Color:	BLUE
Mat1:	17
Most Common Material:	SHALE
Mat2:	85
Other Materials:	SOFT
Mat3:	
Other Materials:	
Formation Top Depth:	76
Formation End Depth:	88
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932053845
Layer:	2
Color:	3
General Color:	BLUE
Mat1:	05
Most Common Material:	CLAY
Mat2:	12
Other Materials:	STONES
Mat3:	
Other Materials:	
Formation Top Depth:	40
Formation End Depth:	76
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932053844
Layer:	1
Color:	
General Color:	
Mat1:	24
Most Common Material:	PREV. DRILLED
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	40
Formation End Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:
Method Construction Code: 1
Method Construction: Cable Tool
Other Method Construction:

Pipe Information

Pipe ID: 10869613
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930529740
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 88
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 994906478
Pump Set At:
Static Level: 20
Final Level After Pumping: 88
Recommended Pump Depth: 85
Pumping Rate: 5
Flowing Rate:
Recommended Pump Rate: 5
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code:
Water State After Test:
Pumping Test Method: 2
Pumping Duration HR: 4
Pumping Duration MIN: 0
Flowing: N

Draw Down & Recovery

Pump Test Detail ID: 935048414
Test Type:
Test Duration: 60
Test Level: 80
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934528829
Test Type:
Test Duration: 30
Test Level: 65
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934782918
Test Type:
Test Duration: 45
Test Level: 79
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934254235
Test Type:
Test Duration: 15
Test Level: 45
Test Level UOM: ft

Water Details

Water ID: 933794454
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 92
Water Found Depth UOM: ft

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19 | ***1 of 1*** | ***ESE/98.0*** | ***206.1 / -2.73*** | ***THE REGIONAL MUNICIPALITY OF PEEL*** | ***EASR***

ON

Approval No: R-009-9110185357
Status: REGISTERED
Date: 2017-07-14
Record Type: EASR
Link Source: MOFA
Project Type: Water Taking - Construction Dewatering
Full Address:
SWP Area Name: Toronto
MOE District: Halton-Peel
City:
Latitude: 43.81166667
Longitude: -79.67472222
Geometry X:
Geometry Y:
Approval Type: EASR-Water Taking - Construction Dewatering
Full PDF Link: http://www.accessenvironment.ene.gov.on.ca/AEWeb/ae/ViewDocument.action?documentRefID=2039314

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20 | ***1 of 6*** | ***NNW/104.4*** | ***209.9 / 1.00*** | ***WYNDALE PAVING CO. LTD.*** ***24 Cadetta Rd*** ***Brampton ON L6P 0X4*** | ***GEN***

Generator No: ON5265053
Status:
Approval Years: 2016
Contam. Facility: No
MHSW Facility: No
SIC Code: 811199
SIC Description: ALL OTHER AUTOMOTIVE REPAIR AND MAINTENANCE
PO Box No:
Country: Canada
Choice of Contact: CO_ADMIN
Co Admin: Trish O'Hearn
Phone No Admin: 905-850-3057 Ext.

Detail(s)

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

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20 | ***2 of 6*** | ***NNW/104.4*** | ***209.9 / 1.00*** | ***WYNDALE PAVING CO. LTD.*** ***24 Cadetta Rd*** | ***GEN***

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Brampton ON L6P 0X4

Generator No:	ON5265053	***PO Box No:***	
Status:		***Country:***	Canada
Approval Years:	2015	***Choice of Contact:***	CO_ADMIN
Contam. Facility:	No	***Co Admin:***	Trish O'Hearn
MHSW Facility:	No	***Phone No Admin:***	905-850-3057 Ext.
SIC Code:	811199		
SIC Description:	ALL OTHER AUTOMOTIVE REPAIR AND MAINTENANCE		

Detail(s)

Waste Class:	252
Waste Class Desc:	WASTE OILS & LUBRICANTS

20	***3 of 6***	***NNW/104.4***	***209.9 / 1.00***	***WYNDALE PAVING CO. LTD.*** ***24 Cadetta Rd*** ***Brampton ON L6P 0X4***	***GEN***

Generator No:	ON5265053	***PO Box No:***	
Status:	Registered	***Country:***	Canada
Approval Years:	As of Mar 2019	***Choice of Contact:***	
Contam. Facility:		***Co Admin:***	
MHSW Facility:		***Phone No Admin:***	
SIC Code:			
SIC Description:			

Detail(s)

Waste Class:	213 T
Waste Class Desc:	Petroleum distillates
Waste Class:	252 L
Waste Class Desc:	Waste crankcase oils and lubricants

20	***4 of 6***	***NNW/104.4***	***209.9 / 1.00***	***WYNDALE PAVING CO. LTD.*** ***24 Cadetta Rd*** ***Brampton ON L6P 0X4***	***GEN***

Generator No:	ON5265053	***PO Box No:***	
Status:	Registered	***Country:***	Canada
Approval Years:	As of Dec 2018	***Choice of Contact:***	
Contam. Facility:		***Co Admin:***	
MHSW Facility:		***Phone No Admin:***	
SIC Code:			
SIC Description:			

Detail(s)

Waste Class:	213 T
Waste Class Desc:	Petroleum distillates
Waste Class:	252 L
Waste Class Desc:	Waste crankcase oils and lubricants

20	***5 of 6***	***NNW/104.4***	***209.9 / 1.00***	***24 CADETTA ROAD*** ***BRAMPTON ON L6P 0X4***	***HINC***

External File Num:	FS INC 0806-02776
Fuel Occurrence Type:	Pipeline Strike

Date of Occurrence:	6/2/2008
Fuel Type Involved:	Natural Gas
Status Desc:	Completed - Causal Analysis(End)
Job Type Desc:	Incident/Near-Miss Occurrence (FS)
Oper. Type Involved:	Construction Site (pipeline strike)
Service Interruptions:	Yes
Property Damage:	No
Fuel Life Cycle Stage:	Transmission, Distribution and Transportation
Root Cause:	Root Cause: Equipment/Material/Component:No Procedures:Yes Maintenance:No Design:No Training:No Management:Yes Human Factors:Yes
Reported Details:	
Fuel Category:	Gaseous Fuel
Occurrence Type:	Incident
Affiliation:	Industry Stakeholder (Licensee/Registration/Certificate Holder, Facility Owner, etc.)
County Name:	Peel
Approx. Quant. Rel:	
Nearby body of water:	
Enter Drainage Syst.:	
Approx. Quant. Unit:	
Environmental Impact:	

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20 | ***6 of 6*** | ***NNW/104.4*** | ***209.9 / 1.00*** | ***Roma Fence Ltd.***
24 Cadetta Rd
Brampton ON L6P 0X4 | ***SCT***

Established:	01-AUG-69
Plant Size (ft²):	80000
Employment:	

--Details--

Description:	Cutlery and Hand Tool Manufacturing
SIC/NAICS Code:	332210
Description:	All Other Plastic Product Manufacturing
SIC/NAICS Code:	326198
Description:	Other Fabricated Wire Product Manufacturing
SIC/NAICS Code:	332619
Description:	All Other Miscellaneous Wood Product Manufacturing
SIC/NAICS Code:	321999
Description:	Other Ornamental and Architectural Metal Product Manufacturing
SIC/NAICS Code:	332329
Description:	Construction, Transportation, Mining, and Forestry Machinery and Equipment Rental and Leasing
SIC/NAICS Code:	532410
Description:	All Other Miscellaneous Fabricated Metal Product Manufacturing
SIC/NAICS Code:	332999
Description:	Cutlery and Hand Tool Manufacturing
SIC/NAICS Code:	332210

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21 | ***1 of 1*** | ***W/109.3*** | ***206.9 / -2.00*** | ***ON*** | ***WWIS***

Well ID:	7304020	**Data Entry Status:**	Yes
Construction Date:		**Data Src:**	
Primary Water Use:		**Date Received:**	1/24/2018
Sec. Water Use:		**Selected Flag:**	Yes

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Final Well Status:		**Abandonment Rec:**	
Water Type:		**Contractor:**	7383
Casing Material:		**Form Version:**	8
Audit No:	C33620	**Owner:**	
Tag:	A226456	**Street Name:**	
Construction Method:		**County:**	PEEL
Elevation (m):		**Municipality:**	BRAMPTON CITY (TORONTO GORE)
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	
Well Depth:		**Concession:**	
Overburden/Bedrock:		**Concession Name:**	
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	1006975322	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	606004
Code OB Desc:		**North83:**	4852000
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	4
Date Completed:	7/17/2017	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

22	1 of 1	NNW/111.5	209.9 / 1.00	**24 Cadetta Rd** **Brampton ON L6P0X4**	EHS

Order No:	20141203073	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Standard Report	**Client Prov/State:**	ON
Report Date:	10-DEC-14	**Search Radius (km):**	.25
Date Received:	03-DEC-14	**X:**	-79.679288
Previous Site Name:		**Y:**	43.815865
Lot/Building Size:			
Additional Info Ordered:	Aerial Photos		

23	1 of 1	N/123.7	209.9 / 1.00	**O@B Corporation Inc.** **4 Cadetta Rd** **Brampton ON L6A 4C1**	ECA

Approval No:	6568-9E3SKD	**MOE District:**	
Approval Date:	2013-12-18	**City:**	
Status:	Approved	**Longitude:**	
Record Type:	ECA	**Latitude:**	
Link Source:	IDS	**Geometry X:**	
SWP Area Name:		**Geometry Y:**	

Approval Type:	ECA-WASTE MANAGEMENT SYSTEMS
Project Type:	WASTE MANAGEMENT SYSTEMS
Address:	4 Cadetta Rd
Full Address:	
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/5607-9C3R3S-14.pdf

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
24	1 of 1	NW/127.9	206.9 / -2.00	lot 12 con 11 ON	WWIS

Well ID: 4905812
Construction Date:
Primary Water Use: Domestic
Sec. Water Use:
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No:
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src: 1
Date Received: 11/3/1981
Selected Flag: Yes
Abandonment Rec:
Contractor: 3746
Form Version: 1
Owner:
Street Name:
County: PEEL
Municipality: BRAMPTON CITY (TORONTO GORE)
Site Info:
Lot: 012
Concession: 11
Concession Name: CON
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 10320497
DP2BR:
Spatial Status:
Code OB: o
Code OB Desc: Overburden
Open Hole:
Cluster Kind:
Date Completed: 10/5/1981
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 208.051589
Elevrc:
Zone: 17
East83: 606077.6
North83: 4852123
Org CS:
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: topo

Overburden and Bedrock Materials Interval

Formation ID: 932051414
Layer: 1
Color:
General Color:
Mat1: 02
Most Common Material: TOPSOIL
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 0
Formation End Depth: 1
Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID:	932051417
Layer:	4
Color:	
General Color:	
Mat1:	10
Most Common Material:	COARSE SAND
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	32
Formation End Depth:	35
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932051415
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	05
Most Common Material:	CLAY
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	1
Formation End Depth:	20
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932051416
Layer:	3
Color:	3
General Color:	BLUE
Mat1:	05
Most Common Material:	CLAY
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	20
Formation End Depth:	32
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932051418
Layer:	5
Color:	3
General Color:	BLUE
Mat1:	05
Most Common Material:	CLAY
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	

Formation Top Depth:	35
Formation End Depth:	40
Formation End Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	6
Method Construction:	Boring
Other Method Construction:	

Pipe Information

Pipe ID:	10869067
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930528816
Layer:	1
Material:	3
Open Hole or Material:	CONCRETE
Depth From:	
Depth To:	40
Casing Diameter:	30
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Results of Well Yield Testing

Pump Test ID:	994905812
Pump Set At:	
Static Level:	12
Final Level After Pumping:	35
Recommended Pump Depth:	36
Pumping Rate:	3
Flowing Rate:	
Recommended Pump Rate:	3
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	2
Pumping Duration HR:	4
Pumping Duration MIN:	0
Flowing:	N

Draw Down & Recovery

Pump Test Detail ID:	934261937
Test Type:	
Test Duration:	15
Test Level:	35
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934527675

Test Type:
Test Duration: 30
Test Level: 35
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934781776
Test Type:
Test Duration: 45
Test Level: 35
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 935046790
Test Type:
Test Duration: 60
Test Level: 35
Test Level UOM: ft

Water Details

Water ID: 933793819
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 32
Water Found Depth UOM: ft

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25 | ***1 of 1*** | ***ESE/129.0*** | ***206.1 / -2.79*** | ***Brampton ON*** | ***WWIS***

Well ID: 7249972
Construction Date:
Primary Water Use:
Sec. Water Use:
Final Well Status: Abandoned-Other
Water Type:
Casing Material:
Audit No: Z219826
Tag:

Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src:
Date Received: 10/14/2015
Selected Flag: Yes
Abandonment Rec: Yes
Contractor: 7472
Form Version: 7
Owner:
Street Name: HWY 50 ASTLEMORE ROAD-COLERAINE DR.
County: YORK
Municipality: VAUGHAN TOWN (VAUGHAN TWP)
Site Info:
Lot:
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 1005739554
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:

Elevation: 207.995269
Elevrc:
Zone: 17
East83: 606644
North83: 4851825

Open Hole:
Cluster Kind:
Date Completed: 9/10/2015
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1005770400
Layer: 1
Plug From: 0
Plug To: 12
Plug Depth UOM: m

Pipe Information

Pipe ID: 1005770392
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1005770397
Layer:
Material:
Open Hole or Material:
Depth From:
Depth To:
Casing Diameter:
Casing Diameter UOM: cm
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1005770398
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM: cm
Screen Diameter:

Hole Diameter

Hole ID: 1005770395
Diameter: 5.2
Depth From: 6.1
Depth To: 12
Hole Depth UOM: m
Hole Diameter UOM: cm

Hole Diameter

Hole ID:	1005770394
Diameter:	21
Depth From:	0
Depth To:	6.1
Hole Depth UOM:	m
Hole Diameter UOM:	cm

26 **1 of 1** **N/131.1** **209.9 / 1.00** **BRAMPTON ON** **WWIS**

Well ID:	7241946	**Data Entry Status:**	
Construction Date:		**Data Src:**	
Primary Water Use:	Monitoring and Test Hole	**Date Received:**	5/28/2015
Sec. Water Use:	0	**Selected Flag:**	Yes
Final Well Status:	Observation Wells	**Abandonment Rec:**	
Water Type:		**Contractor:**	7241
Casing Material:		**Form Version:**	7
Audit No:	Z208700	**Owner:**	
Tag:	A181319	**Street Name:**	4 CORDETTA RD
Construction Method:		**County:**	PEEL
Elevation (m):		**Municipality:**	BRAMPTON CITY (TORONTO GORE)
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	
Well Depth:		**Concession:**	
Overburden/Bedrock:		**Concession Name:**	
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	1005384403	**Elevation:**	210.352798
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	606298
Code OB Desc:		**North83:**	4852406
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	4
Date Completed:	5/11/2015	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1005608655
Layer:	3
Color:	2
General Color:	GREY
Mat1:	06
Most Common Material:	SILT
Mat2:	
Other Materials:	
Mat3:	73
Other Materials:	HARD

Formation Top Depth:	12
Formation End Depth:	27
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1005608654
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	06
Other Materials:	SILT
Mat3:	66
Other Materials:	DENSE
Formation Top Depth:	7
Formation End Depth:	12
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1005608653
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	11
Other Materials:	GRAVEL
Mat3:	77
Other Materials:	LOOSE
Formation Top Depth:	0
Formation End Depth:	7
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1005608663
Layer:	1
Plug From:	0
Plug To:	16
Plug Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1005608664
Layer:	2
Plug From:	16
Plug To:	27
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	B
Method Construction:	Other Method

Other Method Construction: DIRECT PUSH

Pipe Information

Pipe ID: 1005608652
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1005608658
Layer: 1
Material: 5
Open Hole or Material: PLASTIC
Depth From: 0
Depth To: 17
Casing Diameter: 2
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 1005608659
Layer: 1
Slot: 10
Screen Top Depth: 17
Screen End Depth: 27
Screen Material: 5
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter: 2.25

Hole Diameter

Hole ID: 1005608656
Diameter: 6
Depth From: 0
Depth To: 27
Hole Depth UOM: ft
Hole Diameter UOM: inch

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27 ***1 of 1*** ***E/144.7*** ***206.3 / -2.52*** ***KLEINBURG ON*** ***WWIS***

Well ID: 7302203
Construction Date:
Primary Water Use: Test Hole
Sec. Water Use: Monitoring
Final Well Status: Observation Wells
Water Type:
Casing Material:
Audit No: Z274189
Tag: A167821
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:

Data Entry Status:
Data Src:
Date Received: 12/22/2017
Selected Flag: Yes
Abandonment Rec:
Contractor: 7241
Form Version: 7
Owner:
Street Name: 9501 HWY 50
County: YORK
Municipality: VAUGHAN TOWN (VAUGHAN TWP)
Site Info:
Lot:
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:

Flowing (Y/N):
Flow Rate:
Clear/Cloudy:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID:	1006924743	***Elevation:***	208.187667
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	606712
Code OB Desc:		***North83:***	4851930
Open Hole:		***Org CS:***	UTM83
Cluster Kind:		***UTMRC:***	4
Date Completed:	11/23/2017	***UTMRC Desc:***	margin of error : 30 m - 100 m
Remarks:		***Location Method:***	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1007100398
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	06
Most Common Material:	SILT
Mat2:	34
Other Materials:	TILL
Mat3:	
Other Materials:	
Formation Top Depth:	73
Formation End Depth:	15
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1007100399
Layer:	3
Color:	2
General Color:	GREY
Mat1:	05
Most Common Material:	CLAY
Mat2:	34
Other Materials:	TILL
Mat3:	
Other Materials:	
Formation Top Depth:	15
Formation End Depth:	23
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1007100397
Layer:	1
Color:	6

General Color:	BROWN
Mat1:	11
Most Common Material:	GRAVEL
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	73
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1007100407
Layer:	1
Plug From:	0
Plug To:	1
Plug Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1007100409
Layer:	3
Plug From:	12
Plug To:	23
Plug Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1007100408
Layer:	2
Plug From:	1
Plug To:	12
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	D
Method Construction:	Direct Push
Other Method Construction:	

Pipe Information

Pipe ID:	1007100396
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1007100402
Layer:	1
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	0
Depth To:	13

Casing Diameter: 2
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 1007100403
Layer: 1
Slot: 10
Screen Top Depth: 13
Screen End Depth: 23
Screen Material: 5
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter: 2.25

Hole Diameter

Hole ID: 1007100400
Diameter: 6
Depth From: 0
Depth To: 23
Hole Depth UOM: ft
Hole Diameter UOM: inch

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28 ***1 of 18*** ***WNW/148.4*** ***206.9 / -2.00*** ***16 Cadetta Rd***
Brampton ON L6P 0X4 ***EHS***

Order No: 20070705003
Status: C
Report Type: CAN - Complete Report
Report Date: 7/13/2007
Date Received: 7/5/2007
Previous Site Name:
Lot/Building Size:
Additional Info Ordered:

Nearest Intersection:
Municipality:
Client Prov/State:
Search Radius (km): 0.25
X: -79.681053
Y: 43.814909

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28 ***2 of 18*** ***WNW/148.4*** ***206.9 / -2.00*** ***1389147 ONTARIO INC***
16 CADETTA ROAD
BRAMPTON ON L6P 0X4 ***GEN***

Generator No: ON2949179
Status:
Approval Years: 2010
Contam. Facility:
MHSW Facility:
SIC Code: 484110
SIC Description: General Freight Trucking Local

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

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28 ***3 of 18*** ***WNW/148.4*** ***206.9 / -2.00*** ***1389147 ONTARIO INC***
16 CADETTA ROAD
BRAMPTON ON L6P 0X4 ***GEN***

Generator No: ON2949179
Status:

PO Box No:
Country:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Approval Years: 2012
Contam. Facility:
MHSW Facility:
SIC Code: 484110
SIC Description: General Freight Trucking Local

Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

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28 **4 of 18** **WNW/148.4** **206.9 / -2.00** **1389147 ONTARIO INC**
16 CADETTA ROAD
BRAMPTON ON L6P 0X4
GEN

Generator No: ON2949179
Status:
Approval Years: 2011
Contam. Facility:
MHSW Facility:
SIC Code: 484110
SIC Description: General Freight Trucking Local

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

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28 **5 of 18** **WNW/148.4** **206.9 / -2.00** **1389147 ONTARIO INC**
16 CADETTA ROAD
BRAMPTON ON
GEN

Generator No: ON2949179
Status:
Approval Years: 2013
Contam. Facility:
MHSW Facility:
SIC Code: 484110
SIC Description: GENERAL FREIGHT TRUCKING, LOCAL

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

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28 **6 of 18** **WNW/148.4** **206.9 / -2.00** **AVENUE STRUCTURES CORPORATION**
16 CADETTA ROAD
BRAMPTON ON L6T 3Z8
GEN

Generator No: ON0706400
Status:
Approval Years: 86,87,88,89,90
Contam. Facility:
MHSW Facility:
SIC Code: 0007
SIC Description: LETTER ACKNOWLEDG.

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 213

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Waste Class Desc: PETROLEUM DISTILLATES

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28 | **7 of 18** | **WNW/148.4** | **206.9 / -2.00** | **1389147 ONTARIO INC**
16 CADETTA ROAD
BRAMPTON ON L6P 0X4 | **GEN**

Generator No: ON2949179
Status:
Approval Years: 2009
Contam. Facility:
MHSW Facility:
SIC Code: 484110
SIC Description: General Freight Trucking Local

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

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28 | **8 of 18** | **WNW/148.4** | **206.9 / -2.00** | **AVENUE STRUC(OUT OF BUSINESS)**
16 CADETTA ROAD
BRAMPTON ON L6T 3Z8 | **GEN**

Generator No: ON0706400
Status:
Approval Years: 99,00
Contam. Facility:
MHSW Facility:
SIC Code: 4222
SIC Description: FORM WORK

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

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28 | **9 of 18** | **WNW/148.4** | **206.9 / -2.00** | **Avenue Building Corporation**
16 CADETTA ROAD
BRAMPTON ON L6T 3Z8 | **GEN**

Generator No: ON2540900
Status:
Approval Years: 04,05,06
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 253
Waste Class Desc: EMULSIFIED OILS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
28	10 of 18	WNW/148.4	206.9 / -2.00	CANFORM STRUCTURES LIMITED 16 CADETTA ROAD BRAMPTON ON L6T 3Z8	GEN

Generator No: ON2540900
Status:
Approval Years: 99,00,01,02,03
Contam. Facility:
MHSW Facility:
SIC Code: 4022
SIC Description: COMMERCIAL BUILDING

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
28	11 of 18	WNW/148.4	206.9 / -2.00	AVENUE STRUCTURES CORPORATION 03-217 16 CADETTA ROAD BRAMPTON ON L6T 3Z8	GEN

Generator No: ON0706400
Status:
Approval Years: 94,95,96
Contam. Facility:
MHSW Facility:
SIC Code: 4222
SIC Description: FORM WORK

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
28	12 of 18	WNW/148.4	206.9 / -2.00	1389147 ONTARIO INC 16 CADETTA ROAD BRAMPTON ON L6P 0X4	GEN

Generator No: ON2949179
Status:
Approval Years: 07,08
Contam. Facility:
MHSW Facility:
SIC Code: 484110
SIC Description: General Freight Trucking Local

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
28	13 of 18	WNW/148.4	206.9 / -2.00	AVENUE STRUCTURES CORPORATION 16 CADETTA ROAD BRAMPTON ON L6T 3Z8	GEN

Generator No: ON0706400
Status:
Approval Years: 92,93,97,98
Contam. Facility:
MHSW Facility:
SIC Code: 4222

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

SIC Description: FORM WORK

Detail(s)

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

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28 ***14 of 18*** ***WNW/148.4*** ***206.9 / -2.00*** ***1389147 ONTARIO INC*** ***GEN***
16 CADETTA ROAD
BRAMPTON ON L6P0X4

Generator No: ON2949179
Status:
Approval Years: 2016
Contam. Facility: No
MHSW Facility: No
SIC Code: 484110
SIC Description: GENERAL FREIGHT TRUCKING, LOCAL

PO Box No:
Country: Canada
Choice of Contact: CO_ADMIN
Co Admin: FALGUNI SONI
Phone No Admin: 905-612-9046 Ext.226

Detail(s)

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

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28 ***15 of 18*** ***WNW/148.4*** ***206.9 / -2.00*** ***1389147 ONTARIO INC*** ***GEN***
16 CADETTA ROAD
BRAMPTON ON L6P0X4

Generator No: ON2949179
Status:
Approval Years: 2015
Contam. Facility: No
MHSW Facility: No
SIC Code: 484110
SIC Description: GENERAL FREIGHT TRUCKING, LOCAL

PO Box No:
Country: Canada
Choice of Contact: CO_ADMIN
Co Admin: FALGUNI SONI
Phone No Admin: 905-612-9046 Ext.226

Detail(s)

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

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28 ***16 of 18*** ***WNW/148.4*** ***206.9 / -2.00*** ***1389147 ONTARIO INC*** ***GEN***
16 CADETTA ROAD
BRAMPTON ON L6P0X4

Generator No: ON2949179
Status:
Approval Years: 2014
Contam. Facility: No
MHSW Facility: No
SIC Code: 484110
SIC Description: GENERAL FREIGHT TRUCKING, LOCAL

PO Box No:
Country: Canada
Choice of Contact: CO_ADMIN
Co Admin: FALGUNI SONI
Phone No Admin: 905-612-9046 Ext.226

Detail(s)

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
28	17 of 18	WNW/148.4	206.9 / -2.00	1389147 ONTARIO INC 16 CADETTA ROAD BRAMPTON ON L6P0X4	GEN

Generator No: ON2949179
Status: Registered
Approval Years: As of Dec 2018
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:
PO Box No:
Country: Canada
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 252 L
Waste Class Desc: Waste crankcase oils and lubricants

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
28	18 of 18	WNW/148.4	206.9 / -2.00	1389147 ONTARIO INC 16 CADETTA ROAD BRAMPTON ON L6P0X4	GEN

Generator No: ON2949179
Status: Registered
Approval Years: As of Mar 2019
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:
PO Box No:
Country: Canada
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 252 L
Waste Class Desc: Waste crankcase oils and lubricants

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
29	1 of 1	NW/156.2	208.7 / -0.14	lot 12 con 11 ON	WWIS

Well ID: 4905769
Construction Date:
Primary Water Use: Industrial
Sec. Water Use:
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No:
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:
Data Entry Status:
Data Src: 1
Date Received: 4/10/1981
Selected Flag: Yes
Abandonment Rec:
Contractor: 1413
Form Version: 1
Owner:
Street Name:
County: PEEL
Municipality: BRAMPTON CITY (TORONTO GORE)
Site Info:
Lot: 012
Concession: 11
Concession Name: CON
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 10320462
DP2BR:
Elevation: 208.523986
Elevrc:

Spatial Status:		***Zone:***	17
Code OB:	o	***East83:***	606120.6
Code OB Desc:	Overburden	***North83:***	4852223
Open Hole:		***Org CS:***	
Cluster Kind:		***UTMRC:***	4
Date Completed:	3/26/1981	***UTMRC Desc:***	margin of error : 30 m - 100 m
Remarks:		***Location Method:***	topo
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932051222
Layer:	3
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	11
Other Materials:	GRAVEL
Mat3:	74
Other Materials:	LAYERED
Formation Top Depth:	42
Formation End Depth:	45
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932051221
Layer:	2
Color:	3
General Color:	BLUE
Mat1:	05
Most Common Material:	CLAY
Mat2:	66
Other Materials:	DENSE
Mat3:	
Other Materials:	
Formation Top Depth:	14
Formation End Depth:	42
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932051220
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	05
Most Common Material:	CLAY
Mat2:	66
Other Materials:	DENSE
Mat3:	
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	14

Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID:
Method Construction Code: 2
Method Construction: Rotary (Convent.)
Other Method Construction:

Pipe Information

Pipe ID: 10869032
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930528764
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 45
Casing Diameter: 8
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 994905769
Pump Set At:
Static Level: 9
Final Level After Pumping: 37
Recommended Pump Depth: 40
Pumping Rate: 3
Flowing Rate:
Recommended Pump Rate: 3
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 2
Water State After Test: CLOUDY
Pumping Test Method: 2
Pumping Duration HR: 2
Pumping Duration MIN: 30
Flowing: N

Draw Down & Recovery

Pump Test Detail ID: 934781757
Test Type:
Test Duration: 45
Test Level: 33
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 935046770
Test Type:
Test Duration: 60

Test Level: 34
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934527653
Test Type:
Test Duration: 30
Test Level: 29
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934261913
Test Type:
Test Duration: 15
Test Level: 23
Test Level UOM: ft

Water Details

Water ID: 933793781
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 45
Water Found Depth UOM: ft

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30 | 1 of 1 | E/156.5 | 205.9 / -3.00 | KLEINBURG ON | WWIS

Well ID: 7302202
Construction Date:
Primary Water Use: Test Hole
Sec. Water Use: Monitoring
Final Well Status: Observation Wells
Water Type:
Casing Material:
Audit No: Z274188
Tag: A166933
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src:
Date Received: 12/22/2017
Selected Flag: Yes
Abandonment Rec:
Contractor: 7241
Form Version: 7
Owner:
Street Name: 9501 HWY 50
County: YORK
Municipality: VAUGHAN TOWN (VAUGHAN TWP)
Site Info:
Lot:
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 1006924740
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 11/23/2017

Elevation: 208.086349
Elevrc:
Zone: 17
East83: 606723
North83: 4851917
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m

Remarks: ***Location Method:*** wwr
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Overburden and Bedrock Materials Interval

Formation ID: 1007100385
Layer: 3
Color: 2
General Color: GREY
Mat1: 06
Most Common Material: SILT
Mat2: 34
Other Materials: TILL
Mat3:
Other Materials:
Formation Top Depth: 15
Formation End Depth: 23
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 1007100384
Layer: 2
Color: 6
General Color: BROWN
Mat1: 06
Most Common Material: SILT
Mat2: 34
Other Materials: TILL
Mat3:
Other Materials:
Formation Top Depth: 7
Formation End Depth: 15
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 1007100383
Layer: 1
Color: 6
General Color: BROWN
Mat1: 11
Most Common Material: GRAVEL
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 0
Formation End Depth: 7
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1007100394
Layer: 2
Plug From: 1
Plug To: 12
Plug Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1007100395
Layer: 3
Plug From: 12
Plug To: 23
Plug Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1007100393
Layer: 1
Plug From: 0
Plug To: 1
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID:
Method Construction Code: D
Method Construction: Direct Push
Other Method Construction:

Pipe Information

Pipe ID: 1007100382
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1007100388
Layer: 1
Material: 5
Open Hole or Material: PLASTIC
Depth From: 0
Depth To: 13
Casing Diameter: 2
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 1007100389
Layer: 1
Slot: 10
Screen Top Depth: 13
Screen End Depth: 23
Screen Material: 5
Screen Depth UOM: ft
Screen Diameter UOM: inch

Screen Diameter: 2.25

Hole Diameter

Hole ID: 1007100386
Diameter: 6
Depth From: 0
Depth To: 23
Hole Depth UOM: ft
Hole Diameter UOM: inch

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31 | 1 of 1 | WNW/157.8 | 206.9 / -2.00 | lot 12 con 11 ON | WWIS

Well ID: 7225368
Construction Date:
Primary Water Use: Not Used
Sec. Water Use:
Final Well Status: Abandoned-Supply
Water Type:
Casing Material:
Audit No: Z185833
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src:
Date Received: 8/12/2014
Selected Flag: Yes
Abandonment Rec: Yes
Contractor: 1663
Form Version: 7
Owner:
Street Name: 16 CADETTA RD.
County: PEEL
Municipality: BRAMPTON CITY (TORONTO GORE)
Site Info:
Lot: 012
Concession: 11
Concession Name: CON
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 1005056302
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 6/6/2014
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 207.600082
Elevrc:
Zone: 17
East83: 605984
North83: 4852053
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1005270613
Layer: 2
Plug From: 2
Plug To: 12
Plug Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID:	1005270612
Layer:	1
Plug From:	0
Plug To:	2
Plug Depth UOM:	m

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	B
Method Construction:	Other Method
Other Method Construction:	

Pipe Information

Pipe ID:	1005270603
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1005270608
Layer:	1
Material:	3
Open Hole or Material:	CONCRETE
Depth From:	0
Depth To:	12
Casing Diameter:	92
Casing Diameter UOM:	cm
Casing Depth UOM:	m

Construction Record - Screen

Screen ID:	1005270609
Layer:	
Slot:	
Screen Top Depth:	
Screen End Depth:	
Screen Material:	
Screen Depth UOM:	m
Screen Diameter UOM:	cm
Screen Diameter:	

Results of Well Yield Testing

Pump Test ID:	1005270604
Pump Set At:	
Static Level:	1
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	m
Rate UOM:	LPM
Water State After Test Code:	0
Water State After Test:	

Pumping Test Method:	0
Pumping Duration HR:	
Pumping Duration MIN:	
Flowing:	

Water Details

Water ID:	1005270607
Layer:	1
Kind Code:	8
Kind:	Untested
Water Found Depth:	
Water Found Depth UOM:	m

Hole Diameter

Hole ID:	1005270606
Diameter:	92
Depth From:	0
Depth To:	12
Hole Depth UOM:	m
Hole Diameter UOM:	cm

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32 ***1 of 1*** ***NW/158.2*** ***207.5 / -1.38*** ***Brampton ON*** ***WWIS***

Well ID:	7178624	**Data Entry Status:**	
Construction Date:		**Data Src:**	
Primary Water Use:	Test Hole	**Date Received:**	3/29/2012
Sec. Water Use:		**Selected Flag:**	Yes
Final Well Status:	Test Hole	**Abandonment Rec:**	
Water Type:		**Contractor:**	7320
Casing Material:		**Form Version:**	7
Audit No:	Z145891	**Owner:**	
Tag:	A126986	**Street Name:**	16 CADETLA ROAD
Construction Method:		**County:**	PEEL
Elevation (m):		**Municipality:**	BRAMPTON CITY (TORONTO GORE)
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	
Well Depth:		**Concession:**	
Overburden/Bedrock:		**Concession Name:**	
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	1003706330	**Elevation:**	208.060363
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	606073
Code OB Desc:		**North83:**	4852166
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	4
Date Completed:	3/21/2012	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			

Source Revision Comment:
Supplier Comment:

Overburden and Bedrock Materials Interval

Formation ID:	1004229769
Layer:	3
Color:	6
General Color:	BROWN
Mat1:	05
Most Common Material:	CLAY
Mat2:	06
Other Materials:	SILT
Mat3:	66
Other Materials:	DENSE
Formation Top Depth:	2.5
Formation End Depth:	4.6
Formation End Depth UOM:	m

Overburden and Bedrock Materials Interval

Formation ID:	1004229770
Layer:	4
Color:	2
General Color:	GREY
Mat1:	05
Most Common Material:	CLAY
Mat2:	06
Other Materials:	SILT
Mat3:	11
Other Materials:	GRAVEL
Formation Top Depth:	4.6
Formation End Depth:	12.1
Formation End Depth UOM:	m

Overburden and Bedrock Materials Interval

Formation ID:	1004229768
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	11
Other Materials:	GRAVEL
Mat3:	77
Other Materials:	LOOSE
Formation Top Depth:	4.6
Formation End Depth:	2.5
Formation End Depth UOM:	m

Overburden and Bedrock Materials Interval

Formation ID:	1004229767
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	05

Most Common Material:	CLAY
Mat2:	06
Other Materials:	SILT
Mat3:	85
Other Materials:	SOFT
Formation Top Depth:	0
Formation End Depth:	4.6
Formation End Depth UOM:	m

Annular Space/Abandonment Sealing Record

Plug ID:	1004229778
Layer:	2
Plug From:	0.3
Plug To:	6.2
Plug Depth UOM:	m

Annular Space/Abandonment Sealing Record

Plug ID:	1004229779
Layer:	3
Plug From:	6.2
Plug To:	12.1
Plug Depth UOM:	m

Annular Space/Abandonment Sealing Record

Plug ID:	1004229777
Layer:	1
Plug From:	0
Plug To:	0.3
Plug Depth UOM:	m

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	6
Method Construction:	Boring
Other Method Construction:	HSA

Pipe Information

Pipe ID:	1004229766
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1004229773
Layer:	1
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	0
Depth To:	10.6
Casing Diameter:	5.1
Casing Diameter UOM:	cm

Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1004229774
Layer: 1
Slot: 10
Screen Top Depth: 10.6
Screen End Depth: 12.1
Screen Material: 5
Screen Depth UOM: m
Screen Diameter UOM: cm
Screen Diameter: 6.1

Water Details

Water ID: 1004229772
Layer: 1
Kind Code: 8
Kind: Untested
Water Found Depth: 1.25
Water Found Depth UOM: m

Hole Diameter

Hole ID: 1004229771
Diameter: 15
Depth From: 0
Depth To: 12.1
Hole Depth UOM: m
Hole Diameter UOM: cm

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33 | ***1 of 1*** | ***NNW/160.5*** | ***209.9 / 1.00*** | ***Coleraine junkyard 1976***
Kleinburg ON L0J 1C0 | ***ANDR***

Legal Description: Toronto Gore Con 9 Lot 12 pt
Location Description: W of Highway 50
Municipality: Brampton City
Current Municipality: Brampton City
RM: Peel Region
Facility: Auto Junkyard
Date Active: 1976
Date Begun:
Date Complete:
Area (Ha): 9.625
Landfill Type:
Group Name: Humber River
Operated By: Metro Auto Wreckers Inc
Serial: JY PEEL5 1976
NTS: 30M12
Diameter (m):

Historical Summary:

Coleraine junkyard 1976 1978 NTS Map Junkyard marked [1978 NTS 1:50,000 map Brampton ON Sheet 30M13 Edition 5].

Waste Type:
UTM X Nad 27: 606200
UTM Y Nad 27: 4852125
UTM Zone: 17

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
34	1 of 1	E/164.3	205.9 / -3.00	KLEINBURG ON	WWIS

Well ID: 7302201
Construction Date:
Primary Water Use: Test Hole
Sec. Water Use: Monitoring
Final Well Status: Observation Wells
Water Type:
Casing Material:
Audit No: Z274187
Tag: A217619
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src:
Date Received: 12/22/2017
Selected Flag: Yes
Abandonment Rec:
Contractor: 7241
Form Version: 7
Owner:
Street Name: 9501 HWY 50
County: YORK
Municipality: VAUGHAN TOWN (VAUGHAN TWP)
Site Info:
Lot:
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 1006924737
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 11/23/2017
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 208.014694
Elevrc:
Zone: 17
East83: 606728
North83: 4851899
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Overburden and Bedrock Materials Interval

Formation ID: 1007100370
Layer: 2
Color: 6
General Color: BROWN
Mat1: 06
Most Common Material: SILT
Mat2: 34
Other Materials: TILL
Mat3:
Other Materials:
Formation Top Depth: 5
Formation End Depth: 15
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID:	1007100369
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	11
Most Common Material:	GRAVEL
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	5
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1007100371
Layer:	3
Color:	2
General Color:	GREY
Mat1:	05
Most Common Material:	CLAY
Mat2:	34
Other Materials:	TILL
Mat3:	
Other Materials:	
Formation Top Depth:	15
Formation End Depth:	25
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1007100380
Layer:	2
Plug From:	1
Plug To:	14
Plug Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1007100379
Layer:	1
Plug From:	0
Plug To:	1
Plug Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1007100381
Layer:	3
Plug From:	14
Plug To:	25
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:

Method Construction Code: D
Method Construction: Direct Push
Other Method Construction:

Pipe Information

Pipe ID: 1007100368
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1007100374
Layer: 1
Material: 5
Open Hole or Material: PLASTIC
Depth From: 0
Depth To: 15
Casing Diameter: 2
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 1007100375
Layer: 1
Slot: 10
Screen Top Depth: 15
Screen End Depth: 25
Screen Material: 5
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter: 2.25

Hole Diameter

Hole ID: 1007100372
Diameter: 6
Depth From: 0
Depth To: 25
Hole Depth UOM: ft
Hole Diameter UOM: inch

---

35 | ***1 of 1*** | ***NNW/164.6*** | ***209.9 / 1.00*** | ***Coleraine junkyard 1969***
Kleinburg ON L0J 1C0 | ***ANDR***

Legal Description: Toronto Gore Con 9 Lot 12 pt
Location Description: 25m SW of Highway 50, adj. Humber R trib., on site u/g gas pipeline
Municipality: Toronto Gore Township
Current Municipality: Brampton City
RM: Peel Region
Facility: Auto junkyard
Date Active: 1969
Date Begun:
Date Complete:
Area (Ha): 11.25
Landfill Type:
Group Name: Humber River
Operated By: Metro Truck Wreckers
Serial: JY PEEL5 1969

NTS: 30M12
Diameter (m): 375

Historical Summary:

Coleraine junkyard 1969 1972 NTS Map 30M12B Junkyard marked, 375m x 300m, 25m SW of Highway 50, adj. Humber R trib., on site u/g gas pipeline [1972 NTS 1:25,000 Map Wildfield ON Sheet 30M12B Edition 2 (air photos 1969, culture check 1970, printed 1972)].

Waste Type:
UTM X Nad 27: 606175
UTM Y Nad 27: 4852100
UTM Zone: 17

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36 | **1 of 1** | **WNW/178.4** | **206.9 / -2.00** | **lot 12 con 11 ON** | **WWIS**

Well ID: 4905768
Construction Date:
Primary Water Use: Industrial
Sec. Water Use:
Final Well Status: Test Hole
Water Type:
Casing Material:
Audit No:
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src: 1
Date Received: 4/10/1981
Selected Flag: Yes
Abandonment Rec:
Contractor: 1413
Form Version: 1
Owner:
Street Name:
County: PEEL
Municipality: BRAMPTON CITY (TORONTO GORE)
Site Info:
Lot: 012
Concession: 11
Concession Name: CON
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 10320461
DP2BR: 64
Spatial Status:
Code OB: r
Code OB Desc: Bedrock
Open Hole:
Cluster Kind:
Date Completed: 3/24/1981
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 208.466079
Elevrc:
Zone: 17
East83: 606015.6
North83: 4852126
Org CS:
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: topo

Overburden and Bedrock Materials Interval

Formation ID: 932051216
Layer: 2
Color: 3
General Color: BLUE

Mat1: 05
Most Common Material: CLAY
Mat2: 66
Other Materials: DENSE
Mat3:
Other Materials:
Formation Top Depth: 18
Formation End Depth: 37
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932051217
Layer: 3
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2: 12
Other Materials: STONES
Mat3: 73
Other Materials: HARD
Formation Top Depth: 37
Formation End Depth: 64
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932051215
Layer: 1
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2: 66
Other Materials: DENSE
Mat3:
Other Materials:
Formation Top Depth: 0
Formation End Depth: 18
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932051219
Layer: 5
Color: 2
General Color: GREY
Mat1: 17
Most Common Material: SHALE
Mat2: 74
Other Materials: LAYERED
Mat3:
Other Materials:
Formation Top Depth: 89
Formation End Depth: 122
Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID:	932051218
Layer:	4
Color:	2
General Color:	GREY
Mat1:	17
Most Common Material:	SHALE
Mat2:	66
Other Materials:	DENSE
Mat3:	
Other Materials:	
Formation Top Depth:	64
Formation End Depth:	89
Formation End Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	2
Method Construction:	Rotary (Convent.)
Other Method Construction:	

Pipe Information

Pipe ID:	10869031
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930528763
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	73
Casing Diameter:	8
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Results of Well Yield Testing

Pump Test ID:	994905768
Pump Set At:	
Static Level:	11
Final Level After Pumping:	107
Recommended Pump Depth:	100
Pumping Rate:	2
Flowing Rate:	
Recommended Pump Rate:	2
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	2
Water State After Test:	CLOUDY
Pumping Test Method:	2
Pumping Duration HR:	1
Pumping Duration MIN:	30
Flowing:	N

Draw Down & Recovery

Pump Test Detail ID:	934261912
Test Type:	
Test Duration:	15
Test Level:	26
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	935046769
Test Type:	
Test Duration:	60
Test Level:	57
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934527652
Test Type:	
Test Duration:	30
Test Level:	38
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934781756
Test Type:	
Test Duration:	45
Test Level:	48
Test Level UOM:	ft

Water Details

Water ID:	933793780
Layer:	1
Kind Code:	4
Kind:	MINERIAL
Water Found Depth:	107
Water Found Depth UOM:	ft

---

37 ***1 of 1*** ***ESE/184.8*** ***205.9 / -3.00*** ***Hwy 50 Brampton ON*** ***EHS***

Order No:	20161219094	***Nearest Intersection:***	
Status:	C	***Municipality:***	
Report Type:	Custom Report	***Client Prov/State:***	ON
Report Date:	28-DEC-16	***Search Radius (km):***	.25
Date Received:	19-DEC-16	***X:***	-79.673825
Previous Site Name:		***Y:***	43.811221
Lot/Building Size:			
Additional Info Ordered:			

---

38 ***1 of 1*** ***N/187.5*** ***209.9 / 1.00*** ***JOE GALLO BROS. PAVING CO. LTD. 6 CADETTA ROAD BRAMPTON ON L6T 3Z8*** ***GEN***

Generator No:	ON2652900	***PO Box No:***	
Status:		***Country:***	
Approval Years:	01	***Choice of Contact:***	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Contam. Facility:
MHSW Facility:
SIC Code: 3199
SIC Description: OTHER MACHINERY

Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

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39 | **1 of 1** | **WNW/188.6** | **207.9 / -1.00** | **Cadetta Road Brampton ON** | **EHS**

Order No: 20120131028
Status: C
Report Type: Standard Select Report
Report Date: 2/9/2012 4:28:40 PM
Date Received: 1/31/2012 4:26:54 PM
Previous Site Name:
Lot/Building Size:
Additional Info Ordered:

Nearest Intersection:
Municipality: Brampton
Client Prov/State: ON
Search Radius (km): 0.25
X: -79.68244
Y: 43.81417

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40 | **1 of 1** | **NW/193.2** | **208.5 / -0.37** | **lot 12 con 11 ON** | **WWIS**

Well ID: 4905813
Construction Date:
Primary Water Use: Domestic
Sec. Water Use:
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No:
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src: 1
Date Received: 11/3/1981
Selected Flag: Yes
Abandonment Rec:
Contractor: 3413
Form Version: 1
Owner:
Street Name:
County: PEEL
Municipality: BRAMPTON CITY (TORONTO GORE)
Site Info:
Lot: 012
Concession: 11
Concession Name: CON
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 10320498
DP2BR:
Spatial Status:
Code OB: o
Code OB Desc: Overburden
Open Hole:
Cluster Kind:
Date Completed: 4/28/1981
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:

Elevation: 208.693344
Elevrc:
Zone: 17
East83: 606087.6
North83: 4852241
Org CS:
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: topo

Supplier Comment:

Overburden and Bedrock Materials Interval

Formation ID: 932051419
Layer: 1
Color:
General Color:
Mat1: 02
Most Common Material: TOPSOIL
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 0
Formation End Depth: 1
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932051423
Layer: 5
Color: 3
General Color: BLUE
Mat1: 05
Most Common Material: CLAY
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 35
Formation End Depth: 62
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932051420
Layer: 2
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 1
Formation End Depth: 20
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932051422
Layer: 4
Color:
General Color:
Mat1: 10
Most Common Material: COARSE SAND

Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 32
Formation End Depth: 35
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932051424
Layer: 6
Color:
General Color:
Mat1: 10
Most Common Material: COARSE SAND
Mat2: 91
Other Materials: WATER-BEARING
Mat3:
Other Materials:
Formation Top Depth: 62
Formation End Depth: 64
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932051421
Layer: 3
Color: 3
General Color: BLUE
Mat1: 05
Most Common Material: CLAY
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 20
Formation End Depth: 32
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933169922
Layer: 1
Plug From: 18
Plug To:
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID:
Method Construction Code: 6
Method Construction: Boring
Other Method Construction:

Pipe Information

Pipe ID: 10869068

Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930528817
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 52
Casing Diameter: 24
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930528818
Layer: 2
Material: 3
Open Hole or Material: CONCRETE
Depth From:
Depth To: 64
Casing Diameter: 30
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 933359857
Layer: 1
Slot: 012
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 994905813
Pump Set At:
Static Level: 20
Final Level After Pumping: 52
Recommended Pump Depth: 45
Pumping Rate: 3
Flowing Rate:
Recommended Pump Rate: 3
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 1
Water State After Test: CLEAR
Pumping Test Method: 2
Pumping Duration HR: 4
Pumping Duration MIN: 0
Flowing: N

Draw Down & Recovery

Pump Test Detail ID: 935046791

Test Type:
Test Duration: 60
Test Level: 52
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934261938
Test Type:
Test Duration: 15
Test Level: 52
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934781777
Test Type:
Test Duration: 45
Test Level: 52
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934527676
Test Type:
Test Duration: 30
Test Level: 52
Test Level UOM: ft

Water Details

Water ID: 933793820
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 32
Water Found Depth UOM: ft

Water Details

Water ID: 933793821
Layer: 2
Kind Code: 1
Kind: FRESH
Water Found Depth: 62
Water Found Depth UOM: ft

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41 ***1 of 1*** ***NW/194.2*** ***208.5 / -0.37*** ***Brampton ON*** ***WWIS***

Well ID: 7166972
Construction Date:
Primary Water Use: Test Hole
Sec. Water Use:
Final Well Status: Test Hole
Water Type:
Casing Material:
Audit No: Z133674
Tag: A108057
Construction Method:
Elevation (m):

Data Entry Status:
Data Src:
Date Received: 8/9/2011
Selected Flag: Yes
Abandonment Rec:
Contractor: 7215
Form Version: 7
Owner:
Street Name: 12 CADETTA RD
County: PEEL
Municipality: BRAMPTON CITY (TORONTO GORE)

Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Site Info:
Lot:
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID:	1003547278	***Elevation:***	208.752227
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	606088
Code OB Desc:		***North83:***	4852243
Open Hole:		***Org CS:***	UTM83
Cluster Kind:		***UTMRC:***	3
Date Completed:	6/17/2011	***UTMRC Desc:***	margin of error : 10 - 30 m
Remarks:		***Location Method:***	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1003911568
Layer:	3
Color:	6
General Color:	BROWN
Mat1:	34
Most Common Material:	TILL
Mat2:	
Other Materials:	
Mat3:	68
Other Materials:	DRY
Formation Top Depth:	12
Formation End Depth:	18
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1003911567
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	
Other Materials:	
Mat3:	68
Other Materials:	DRY
Formation Top Depth:	8
Formation End Depth:	12
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1003911566
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	01
Most Common Material:	FILL
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	8
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1003911576
Layer:	2
Plug From:	11
Plug To:	1
Plug Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1003911575
Layer:	1
Plug From:	18
Plug To:	11
Plug Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1003911577
Layer:	3
Plug From:	1
Plug To:	0
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	2
Method Construction:	Rotary (Convent.)
Other Method Construction:	

Pipe Information

Pipe ID:	1003911565
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID: 1003911571
Layer: 1
Material: 5
Open Hole or Material: PLASTIC
Depth From: 13
Depth To: 1
Casing Diameter: 2
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 1003911572
Layer: 1
Slot: 10
Screen Top Depth: 18
Screen End Depth: 13
Screen Material: 5
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter: 2

Hole Diameter

Hole ID: 1003911569
Diameter: 8
Depth From: 0
Depth To: 18
Hole Depth UOM: ft
Hole Diameter UOM: inch

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42 ***1 of 9*** ***NNW/200.9*** ***209.9 / 1.00*** ***Forest Contractors Ltd***
8 Cadetta Road
Brampton ON L6P 0X4 ***GEN***

Generator No: ON4322559
Status:
Approval Years: 2016
Contam. Facility: No
MHSW Facility: No
SIC Code: 238190
SIC Description: OTHER FOUNDATION, STRUCTURE AND BUILDING EXTERIOR CONTRACTORS

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

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42 ***2 of 9*** ***NNW/200.9*** ***209.9 / 1.00*** ***Forest Contractors Ltd***
8 Cadetta Road
Brampton ON L6P 0X4 ***GEN***

Generator No: ON4322559
Status:
Approval Years: 2014
Contam. Facility: No
MHSW Facility: No
SIC Code: 238190
SIC Description: OTHER FOUNDATION, STRUCTURE AND BUILDING EXTERIOR CONTRACTORS

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

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42 **3 of 9** **NNW/200.9** **209.9 / 1.00** **Forest Contractors Ltd** **GEN**
8 Cadetta Road
Brampton ON L6P 0X4

Generator No: ON4322559
Status: Registered
Approval Years: As of Mar 2019
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

PO Box No:
Country: Canada
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 252 L
Waste Class Desc: Waste crankcase oils and lubricants

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42 **4 of 9** **NNW/200.9** **209.9 / 1.00** **Forest Contractors Ltd** **GEN**
8 Cadetta Road
Brampton ON L6P 0X4

Generator No: ON4322559
Status: Registered
Approval Years: As of Dec 2018
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

PO Box No:
Country: Canada
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 252 L
Waste Class Desc: Waste crankcase oils and lubricants

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42 **5 of 9** **NNW/200.9** **209.9 / 1.00** **Forest Contractors Ltd** **GEN**
8 Cadetta Road
Brampton ON L6P 0X4

Generator No: ON4322559
Status:
Approval Years: 2015
Contam. Facility: No
MHSW Facility: No
SIC Code: 238190
SIC Description: OTHER FOUNDATION, STRUCTURE AND BUILDING EXTERIOR CONTRACTORS

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

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42 **6 of 9** **NNW/200.9** **209.9 / 1.00** **Forest Contractors Ltd** **GEN**
8 Cadetta Road
Brampton ON

Generator No: ON4322559

PO Box No:

Status: | **Country:**
Approval Years: 2012 | **Choice of Contact:**
Contam. Facility: | **Co Admin:**
MHSW Facility: | **Phone No Admin:**
SIC Code: 238190
SIC Description: Other Foundation Structure and Building Exterior Contractors

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42 **7 of 9** **NNW/200.9** **209.9 / 1.00** **Forest Contractors Ltd**
8 Cadetta Road
Brampton ON
GEN

Generator No: ON4322559 | **PO Box No:**
Status: | **Country:**
Approval Years: 2013 | **Choice of Contact:**
Contam. Facility: | **Co Admin:**
MHSW Facility: | **Phone No Admin:**
SIC Code: 238190
SIC Description: OTHER FOUNDATION, STRUCTURE AND BUILDING EXTERIOR CONTRACTORS

Detail(s)

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

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42 **8 of 9** **NNW/200.9** **209.9 / 1.00** **8 Cadetta Road, Brampton ON**
PINC

Incident ID: 2774542 | **Health Impact:** No
Incident No: 618004 | **Environment Impact:** No
Type: FS-Pipeline Incident | **Property Damage:** Yes
Status Code: Pipeline Damage Reason Est | **Service Interupt:** Yes
Fuel Occurrence Tp: Pipeline Strike | **Enforce Policy:** Yes
Fuel Type: Natural Gas | **Public Relation:** No
Tank Status: RC Established | **Pipeline System:**
Task No: 3394400 | **Depth:**
Spills Action Centre: 8578-8J6SSF | **Pipe Material:** Plastic
Method Details: E-mail | **PSIG:** 60
Fuel Category: Natural Gas | **Attribute Category:** FS-Perform P-line Inc Invest
Date of Occurrence: 6/25/2011 0:00 | **Regualtor Location:** Outside
Occurrence Start Date: 2011/06/29
Operation Type: Construction Site (including excavation)
Pipeline Type: Main Distribution Pipeline
Regulator Type: Service Regulator (up to 60 psi intake)
Summary: 8 Cadetta Road, Brampton - 2" Pipeline Hit
Reported By: Bill Reid - Enbridge
Affiliation: Industry Stakeholder (Licensee/Registration/Certificate Holder, Facility Owner, etc.)
Occurrence Desc:
Damage Reason: Excavation practices not sufficient
Notes: z

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42 **9 of 9** **NNW/200.9** **209.9 / 1.00** **Enbridge Gas Distribution Inc.**
8 Cadetta Road <UNOFFICIAL>
Brampton ON L6P 0X4
SPL

Ref No: 8578-8J6SSF | **Discharger Report:**
Site No: | **Material Group:**
Incident Dt: 6/25/2011 | **Health/Env Conseq:**
Year: | **Client Type:**
Incident Cause: Discharge or Emission to Air | **Sector Type:** Pipeline
Incident Event: | **Agency Involved:**
Contaminant Code: 35 | **Nearest Watercourse:**

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Contaminant Name: NATURAL GAS (METHANE)
Contaminant Limit 1:
Contam Limit Freq 1:
Contaminant UN No 1:
Environment Impact: Confirmed
Nature of Impact: Air Pollution
Receiving Medium:
Receiving Env:
MOE Response: Not MOE mandate
Dt MOE Arvl on Scn:
MOE Reported Dt: 6/25/2011
Dt Document Closed: 6/30/2011
Incident Reason: Negligence (Apparent) - Caused by lack of diligence
Site Name: 8 Cadetta Road <UNOFFICIAL>
Site County/District:
Site Geo Ref Meth:
Incident Summary: TSSA-FSB: 2" plastic strike, made safe
Contaminant Qty: 0 other - see incident description

Site Address:
Site District Office:
Site Postal Code:
Site Region:
Site Municipality: Brampton
Site Lot:
Site Conc:
Northing:
Easting:
Site Geo Ref Accu:
Site Map Datum:
SAC Action Class: TSSA - Fuel Safety Branch
Source Type:

---

43 | **1 of 21** | **NNW/225.7** | **209.9 / 1.00** | **Onsite Ready-Mix (2009) Corp.**
10 Cadetta Road Brampton, Regional Municipality of Peel CITY OF BRAMPTON ON | **EBR**

EBR Registry No: 011-5316
Ministry Ref No: 1567-8LQMFC
Notice Type: Instrument Decision
Notice Stage: 803923189
Notice Date: December 28, 2012
Proposal Date: December 06, 2011
Decision Posted:
Posted By:
Company Name: Onsite Ready-Mix (2009) Corp.
Off Instrument Name:
Instrument Type: (EPA Part II.1-air) - Environmental Compliance Approval (project type: air)
Proponent Name:
Proponent Address: 1250 Bay Street, 3rd Floor Street, Toronto Ontario, Canada M5R 2B1
Site Address:
Location Other:
URL:

Year: 2011
Act 1:
Act 2:
Comment Period:
Section:
Site Location Map:

Site Location Details:

10 Cadetta Road Brampton, Regional Municipality of Peel CITY OF BRAMPTON

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43 | **2 of 21** | **NNW/225.7** | **209.9 / 1.00** | **Bolton Ready Mix**
10 Cadetta Rd
Brampton ON M5R 2B1 | **ECA**

Approval No: 3514-8XERYE
Approval Date: 2013-11-28
Status: Approved
Record Type: ECA
Link Source: IDS
SWP Area Name: Toronto
Approval Type: ECA-AIR
Project Type: AIR
Address: 10 Cadetta Rd
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/1055-94XPWY-14.pdf

MOE District: Halton-Peel
City:
Longitude: -79.68074
Latitude: 43.81644
Geometry X:
Geometry Y:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

43 **3 of 21** **NNW/225.7** **209.9 / 1.00** **752054 Ontario Limited** **ECA**
10 Cadetta Rd
Brampton ON M5R 2B1

Approval No:	3514-8XERYE	**MOE District:**	Halton-Peel
Approval Date:	2012-12-20	**City:**	
Status:	Amended	**Longitude:**	-79.68074
Record Type:	ECA	**Latitude:**	43.81644
Link Source:	IDS	**Geometry X:**	
SWP Area Name:	Toronto	**Geometry Y:**	
Approval Type:	ECA-AIR		
Project Type:	AIR		
Address:	10 Cadetta Rd		
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/1567-8LQMFC-14.pdf		

43 **4 of 21** **NNW/225.7** **209.9 / 1.00** **Bolton Ready Mix** **ECA**
10 Cadetta Road
Brampton City, Regional Municipality of Peel
L6P 0X4 ON

Approval No:	3514-8XERYE	**MOE District:**	
Approval Date:	28-NOV-13	**City:**	Brampton City, Regional Municipality of Peel L6P 0X4
Status:	Approved	**Longitude:**	
Record Type:		**Latitude:**	
Link Source:		**Geometry X:**	
SWP Area Name:		**Geometry Y:**	
Approval Type:			
Project Type:	Air/Noise		
Address:			
Full Address:	10 Cadetta Road		
Full PDF Link:			

43 **5 of 21** **NNW/225.7** **209.9 / 1.00** **752054 Ontario Limited** **ECA**
10 Cadetta Rd
Brampton ON L6P 0X4

Approval No:	3514-8XERYE	**MOE District:**	
Approval Date:	12/20/2012	**City:**	Brampton
Status:	Approved	**Longitude:**	
Record Type:		**Latitude:**	
Link Source:		**Geometry X:**	
SWP Area Name:		**Geometry Y:**	
Approval Type:			
Project Type:	Air/Noise		
Address:			
Full Address:			
Full PDF Link:			

43 **6 of 21** **NNW/225.7** **209.9 / 1.00** **Onsite Ready-Mix Inc** **GEN**
10 Cadetta Road
Brampton ON L6P 0X4

Generator No:	ON7891244	**PO Box No:**	
Status:		**Country:**	
Approval Years:	2009	**Choice of Contact:**	
Contam. Facility:		**Co Admin:**	

MHSW Facility: **Phone No Admin:**
SIC Code: 327330
SIC Description: Concrete Pipe Brick and Block Manufacturing

Detail(s)

Waste Class: 146
Waste Class Desc: OTHER SPECIFIED INORGANICS

---

43 **7 of 21** **NNW/225.7** **209.9 / 1.00** **ALTA CRANES LIMITED** **GEN**
10 CADETTA ROAD, R.R. #9
BRAMPTON ON L6T 3Z8

Generator No: ON0987600 **PO Box No:**
Status: **Country:**
Approval Years: 90,99,00,01 **Choice of Contact:**
Contam. Facility: **Co Admin:**
MHSW Facility: **Phone No Admin:**
SIC Code: 3231
SIC Description: MOTOR VEHICLE IND.

Detail(s)

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

---

43 **8 of 21** **NNW/225.7** **209.9 / 1.00** **Onsite Ready-Mix Inc** **GEN**
10 Cadetta Road
Brampton ON L6P 0X4

Generator No: ON7891244 **PO Box No:**
Status: **Country:**
Approval Years: 2011 **Choice of Contact:**
Contam. Facility: **Co Admin:**
MHSW Facility: **Phone No Admin:**
SIC Code: 327330
SIC Description: Concrete Pipe Brick and Block Manufacturing

Detail(s)

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 146
Waste Class Desc: OTHER SPECIFIED INORGANICS

---

43 **9 of 21** **NNW/225.7** **209.9 / 1.00** **ALTA CRANES LIMITED** **GEN**
10 CADETTA ROAD, R.R. #9
BRAMPTON ON L6T 3Z8

Generator No: ON0987600 **PO Box No:**
Status: **Country:**
Approval Years: 88,89 **Choice of Contact:**
Contam. Facility: **Co Admin:**
MHSW Facility: **Phone No Admin:**
SIC Code: 3231
SIC Description: MOTOR VEHICLE IND.

Detail(s)

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

---

43 **10 of 21** **NNW/225.7** **209.9 / 1.00** **Onsite Ready-Mix Inc** **GEN**
10 Cadetta Road
Brampton ON L6P 0X4

Generator No: ON7891244
Status:
Approval Years: 2010
Contam. Facility:
MHSW Facility:
SIC Code: 327330
SIC Description: Concrete Pipe Brick and Block Manufacturing

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 146
Waste Class Desc: OTHER SPECIFIED INORGANICS

---

43 **11 of 21** **NNW/225.7** **209.9 / 1.00** **ALTA CRANES LIMITED 02-216** **GEN**
10 CADETTA ROAD, R.R. #9
BRAMPTON ON L6T 3Z8

Generator No: ON0987600
Status:
Approval Years: 92,93,94,95,96,97,98
Contam. Facility:
MHSW Facility:
SIC Code: 9911
SIC Description: IND. MACH. RENTAL

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

---

43 **12 of 21** **NNW/225.7** **209.9 / 1.00** **Magcrete Logistics** **GEN**
10 Cadetta Road
Brampton ON L6P 0X4

Generator No: ON8841934
Status:
Approval Years: 2015
Contam. Facility: No
MHSW Facility: No
SIC Code: 484110
SIC Description: GENERAL FREIGHT TRUCKING, LOCAL

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

---

43 **13 of 21** **NNW/225.7** **209.9 / 1.00** **Magcrete Logistics** **GEN**
10 Cadetta Road
Brampton ON L6P 0X4

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Generator No: ON8841934
Status:
Approval Years: 2014
Contam. Facility: No
MHSW Facility: No
SIC Code: 484110
SIC Description: GENERAL FREIGHT TRUCKING, LOCAL

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

---

43 | **14 of 21** | **NNW/225.7** | **209.9 / 1.00** | **ADVANCED FENCE AND WIRE**
10 CADETTA ROAD
BRAMPTON ON L6T 3Z8 | **GEN**

Generator No: ON1974500
Status:
Approval Years: 96,97,98,99,00,01
Contam. Facility:
MHSW Facility:
SIC Code: 3059
SIC Description: OTHER WIRE PROD.

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 253
Waste Class Desc: EMULSIFIED OILS

---

43 | **15 of 21** | **NNW/225.7** | **209.9 / 1.00** | **Magcrete Logistics**
10 Cadetta Road
Brampton ON L6P 0X4 | **GEN**

Generator No: ON8841934
Status: Registered
Approval Years: As of Dec 2017
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

PO Box No:
Country: Canada
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 252 L
Waste Class Desc: Waste crankcase oils and lubricants

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43 | **16 of 21** | **NNW/225.7** | **209.9 / 1.00** | **Magcrete Logistics**
10 Cadetta Road
Brampton ON L6P 0X4 | **GEN**

Generator No: ON8841934
Status:
Approval Years: 2016
Contam. Facility: No
MHSW Facility: No
SIC Code: 484110

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin:
Phone No Admin:

SIC Description: GENERAL FREIGHT TRUCKING, LOCAL

Detail(s)

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

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43 ***17 of 21*** ***NNW/225.7*** ***209.9 / 1.00*** ***1105976 ONTARIO LIMITED***
10 CADETTA ROAD
BRAMPTON ON L6T 3Z8 ***GEN***

Generator No: ON1974500
Status:
Approval Years: 95
Contam. Facility:
MHSW Facility:
SIC Code: 3059
SIC Description: OTHER WIRE PROD.

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 253
Waste Class Desc: EMULSIFIED OILS

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43 ***18 of 21*** ***NNW/225.7*** ***209.9 / 1.00*** ***Acculink Fence & Wire Inc.***
10 Cadetta Rd
Brampton ON L6P 0X4 ***SCT***

Established:
Plant Size (ft²):
Employment:

--Details--
Description: Other Fabricated Wire Product Manufacturing
SIC/NAICS Code: 332619

Description: Other Specialty-Line Building Supplies Wholesaler-Distributors
SIC/NAICS Code: 416390

Description: Other Ornamental and Architectural Metal Product Manufacturing
SIC/NAICS Code: 332329

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43 ***19 of 21*** ***NNW/225.7*** ***209.9 / 1.00*** ***Dura Fence Inc.***
10 Cadetta Rd
Brampton ON L6T 3Z8 ***SCT***

Established:
Plant Size (ft²):
Employment: 25

--Details--
Description: Other Ornamental and Architectural Metal Products Manufacturing
SIC/NAICS Code: 332329

Description: Other Fabricated Wire Product Manufacturing
SIC/NAICS Code: 332619

Description: Other Specialty-Line Building Supplies Wholesaler-Distributors
SIC/NAICS Code: 416390

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

43	20 of 21	NNW/225.7	209.9 / 1.00	**Acculink Fence And Wire** **10 Cadetta Rd** **Brampton ON L6T 3Z8**	SCT

Established:
Plant Size (ft²):
Employment: 25

--Details--
Description: Other Ornamental and Architectural Metal Products Manufacturing
SIC/NAICS Code: 332329

Description: Other Fabricated Wire Product Manufacturing
SIC/NAICS Code: 332619

Description: Other Specialty-Line Building Supplies Wholesaler-Distributors
SIC/NAICS Code: 416390

43	21 of 21	NNW/225.7	209.9 / 1.00	**YORK FENCE COMPANY LTD.** **10 Cadetta Rd** **Brampton ON L6T 3Z8**	SCT

Established: 1963
Plant Size (ft²): 0
Employment: 8

--Details--
Description: Other Ornamental and Architectural Metal Products Manufacturing
SIC/NAICS Code: 332329

44	1 of 6	NW/227.0	208.6 / -0.23	**GREENSTAR CONSTRUCTION** **12 CADETTA RD UNIT 8** **BRAMPTON ON L6P0X4**	GEN

Generator No: ON3466416
Status:
Approval Years: 2016
Contam. Facility: No
MHSW Facility: No
SIC Code: 236110, 236210
SIC Description: RESIDENTIAL BUILDING CONSTRUCTION, INDUSTRIAL BUILDING AND STRUCTURE CONSTRUCTION

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin: Tina Cerrone
Phone No Admin: 905-794-0624 Ext.222

Detail(s)

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

44	2 of 6	NW/227.0	208.6 / -0.23	**Terrapave Holdings Inc** **12 Cadetta Rd Unit 1** **Brampton ON L6P 0X4**	GEN

Generator No: ON2752676
Status: Registered
Approval Years: As of Dec 2018
Contam. Facility:
MHSW Facility:

PO Box No:
Country: Canada
Choice of Contact:
Co Admin:
Phone No Admin:

SIC Code:
SIC Description:

Detail(s)

Waste Class: 252 L
Waste Class Desc: Waste crankcase oils and lubricants

---

44 **3 of 6** **NW/227.0** **208.6 / -0.23** **GEN**

Terrapave Holdings Inc
12 Cadetta Rd Unit 1
Brampton ON L6P 0X4

Generator No: ON2752676
Status: Registered
Approval Years: As of Mar 2019
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

PO Box No:
Country: Canada
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 252 L
Waste Class Desc: Waste crankcase oils and lubricants

---

44 **4 of 6** **NW/227.0** **208.6 / -0.23** **GEN**

GREENSTAR CONSTRUCTION
12 CADETTA RD UNIT 8
BRAMPTON ON L6P0X4

Generator No: ON3466416
Status: Registered
Approval Years: As of Dec 2018
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

PO Box No:
Country: Canada
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 252 L
Waste Class Desc: Waste crankcase oils and lubricants

---

44 **5 of 6** **NW/227.0** **208.6 / -0.23** **GEN**

GREENSTAR CONSTRUCTION
12 CADETTA RD UNIT 8
BRAMPTON ON L6P0X4

Generator No: ON3466416
Status: Registered
Approval Years: As of Mar 2019
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

PO Box No:
Country: Canada
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 252 L
Waste Class Desc: Waste crankcase oils and lubricants

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
44	6 of 6	NW/227.0	208.6 / -0.23	GREENSTAR CONSTRUCTION 12 CADETTA RD UNIT 8 BRAMPTON ON L6P0X4	GEN

Generator No: ON3466416
Status:
Approval Years: 2015
Contam. Facility: No
MHSW Facility: No
SIC Code: 236110, 236210
SIC Description: RESIDENTIAL BUILDING CONSTRUCTION, INDUSTRIAL BUILDING AND STRUCTURE CONSTRUCTION

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin: Tina Cerrone
Phone No Admin: 905-794-0624 Ext.222

Detail(s)

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
45	1 of 1	NW/229.4	208.5 / -0.33	Cedar Mills Welding 12 Cadetta Rd Suite 4 Brampton ON L6P 0X4	SCT

Established: 1988
Plant Size (ft²):
Employment:

--Details--
Description: Metal Tank (Heavy Gauge) Manufacturing
SIC/NAICS Code: 332420

Description: All Other Miscellaneous Fabricated Metal Product Manufacturing
SIC/NAICS Code: 332999

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
46	1 of 3	WNW/235.0	207.9 / -1.00	TIME AND PRECISION CO. LTD. 14 CADETTA ROAD BRAMPTON ON L6P 0X4	GEN

Generator No: ON1717700
Status:
Approval Years: 05
Contam. Facility:
MHSW Facility:
SIC Code: 332710
SIC Description: Machine Shops

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 253
Waste Class Desc: EMULSIFIED OILS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
46	2 of 3	WNW/235.0	207.9 / -1.00	TMT Freight Systems 14 Caldetta Road Brampton ON L6P 0X4	GEN

Generator No: ON6795398
Status: Registered
Approval Years: As of Mar 2019
Contam. Facility:

PO Box No:
Country: Canada
Choice of Contact:
Co Admin:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

MHSW Facility: **Phone No Admin:**
SIC Code:
SIC Description:

Detail(s)

Waste Class: 252 L
Waste Class Desc: Waste crankcase oils and lubricants

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46 **3 of 3** **WNW/235.0** **207.9 / -1.00** **TIME AND PRECISION CO. LTD. 38-707**
14 CADETTA ROAD
BRAMPTON ON L6T 3Z8 **GEN**

Generator No: ON1717700 **PO Box No:**
Status: **Country:**
Approval Years: 93,94,95,96,97,98 **Choice of Contact:**
Contam. Facility: **Co Admin:**
MHSW Facility: **Phone No Admin:**
SIC Code: 6599
SIC Description: OTHER RETAIL STORES

Detail(s)

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

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47 **1 of 3** **NW/248.0** **207.9 / -1.00** **14 CADETTA ROAD**
BRAMPTON ON L6P 0X4 **HINC**

External File Num: FS INC 0711-06942
Fuel Occurrence Type: Pipeline Strike
Date of Occurrence: 10/27/2007
Fuel Type Involved: Natural Gas
Status Desc: Completed - Causal Analysis(End)
Job Type Desc: Incident/Near-Miss Occurrence (FS)
Oper. Type Involved: Construction Site (pipeline strike)
Service Interruptions: Yes
Property Damage: No
Fuel Life Cycle Stage: Transmission, Distribution and Transportation
Root Cause: Root Cause: Equipment/Material/Component:No Procedures:No Maintenance:No Design:No Training:No Management:No Human Factors:Yes
Reported Details:
Fuel Category: Gaseous Fuel
Occurrence Type: Incident
Affiliation: Industry Stakeholder (Licensee/Registration/Certificate Holder, Facility Owner, etc.)
County Name: Peel
Approx. Quant. Rel:
Nearby body of water:
Enter Drainage Syst.:
Approx. Quant. Unit:
Environmental Impact:

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47 **2 of 3** **NW/248.0** **207.9 / -1.00** **TIME & PRECISION CO. LTD.**
14 CADETTA RD RR 9
BRAMPTON ON L6T 3Z8 **SCT**

Established: 1974
Plant Size (ft²): 20000
Employment: 5

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

--Details--
Description: INDUSTRIAL AND COMMERCIAL MACHINERY AND EQUIPMENT, NOT ELSEWHERE CLASSIFIED
SIC/NAICS Code: 3599

Description: Machine Shops
SIC/NAICS Code: 332710

Description: All Other General-Purpose Machinery Manufacturing
SIC/NAICS Code: 333990

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47 | ***3 of 3*** | ***NW/248.0*** | ***207.9 / -1.00*** | ***D & D Tool & Machine Co.*** ***14 Cadetta Rd*** ***Brampton ON L6P 0X4*** | ***SCT***

Established: 1974
Plant Size (ft²): 20000
Employment:

--Details--
Description: Machine Shops
SIC/NAICS Code: 332710

Description: All Other General-Purpose Machinery Manufacturing
SIC/NAICS Code: 333990

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48 | ***1 of 1*** | ***NNW/261.7*** | ***212.5 / 3.59*** | ***10410 Coleraine Drive*** ***Brampton ON L6P 0V4*** | ***EHS***

Order No: 20070501001
Status: C
Report Type: CAN - Complete Report
Report Date: 5/9/2007
Date Received: 5/1/2007
Previous Site Name:
Lot/Building Size:
Additional Info Ordered:
Nearest Intersection:
Municipality:
Client Prov/State:
Search Radius (km): 0.25
X: -79.679489
Y: 43.817821

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49 | ***1 of 22*** | ***NNE/263.3*** | ***207.9 / -1.00*** | ***2278581 ONTARIO LIMITED*** ***9701 HIGHWAY 50*** ***WOODBRIDGE ON L4H 2G4*** | ***EASR***

Approval No: R-004-9111056693
Status: REGISTERED
Date: 2019-03-04
Record Type: EASR
Link Source: MOFA
Project Type: Waste Management System
Full Address:
Approval Type: EASR-Waste Management System
Full PDF Link: http://www.accessenvironment.ene.gov.on.ca/AEWeb/ae/ViewDocument.action?documentRefID=2131427
SWP Area Name: Toronto
MOE District: York-Durham
City: WOODBRIDGE
Latitude: 43.81777778
Longitude: -79.67611111
Geometry X:
Geometry Y:

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49 | ***2 of 22*** | ***NNE/263.3*** | ***207.9 / -1.00*** | ***2563570 ONTARIO LTD.*** ***9701 HIGHWAY 50*** ***WOODBRIDGE ON L4H 2G4*** | ***EASR***

Approval No: R-004-6110183703
Status: REGISTERED
Date: 2017-07-14
SWP Area Name: Toronto
MOE District: York-Durham
City: WOODBRIDGE

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Record Type: EASR
Link Source: MOFA
Project Type: Waste Management System
Full Address:
Approval Type: EASR-Waste Management System
Full PDF Link: http://www.accessenvironment.ene.gov.on.ca/AEWeb/ae/ViewDocument.action?documentRefID=2039301

Latitude: 43.81777778
Longitude: -79.67611111
Geometry X:
Geometry Y:

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49 | **3 of 22** | **NNE/263.3** | **207.9 / -1.00** | **9701 Highway No. 50 Kleinburg ON** | **EHS**

Order No: 20071206009
Status: C
Report Type: CAN - Custom Report
Report Date: 12/12/2007
Date Received: 12/6/2007
Previous Site Name:
Lot/Building Size:
Additional Info Ordered:

Nearest Intersection: Major Mackenzie Drive
Municipality:
Client Prov/State:
Search Radius (km): 0.45
X: -79.675172
Y: 43.816791

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49 | **4 of 22** | **NNE/263.3** | **207.9 / -1.00** | **jb express 9701 highway 50 woodbridge ON L4H2G4** | **GEN**

Generator No: ON3978882
Status:
Approval Years: 2016
Contam. Facility: No
MHSW Facility: No
SIC Code: 484110
SIC Description: GENERAL FREIGHT TRUCKING, LOCAL

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

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49 | **5 of 22** | **NNE/263.3** | **207.9 / -1.00** | **jb express 9701 highway 50 woodbridge ON L4H2G4** | **GEN**

Generator No: ON3978882
Status: Registered
Approval Years: As of Dec 2018
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

PO Box No:
Country: Canada
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 252 L
Waste Class Desc: Waste crankcase oils and lubricants

---

49 | **6 of 22** | **NNE/263.3** | **207.9 / -1.00** | **jb express 9701 highway 50 woodbridge ON L4H2G4** | **GEN**

Generator No: ON3978882
Status:

PO Box No:
Country: Canada

Approval Years:	2015	**Choice of Contact:**	CO_OFFICIAL
Contam. Facility:	No	**Co Admin:**	
MHSW Facility:	No	**Phone No Admin:**	
SIC Code:	484110		
SIC Description:	GENERAL FREIGHT TRUCKING, LOCAL		

Detail(s)

Waste Class:	252
Waste Class Desc:	WASTE OILS & LUBRICANTS

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49 | ***7 of 22*** | ***NNE/263.3*** | ***207.9 / -1.00*** | ***CONSOLIDATED FASTFRATE INC.***
9701 HIGHWAY 50
VAUGHAN ON L4H 2G4 | ***GEN***

Generator No:	ON0222701	**PO Box No:**	
Status:		**Country:**	
Approval Years:	2009	**Choice of Contact:**	
Contam. Facility:		**Co Admin:**	
MHSW Facility:		**Phone No Admin:**	
SIC Code:	484122, 493110		
SIC Description:	General Freight Trucking Long Distance Less Than Truck-Load, General Warehousing and Storage		

Detail(s)

Waste Class:	145
Waste Class Desc:	PAINT/PIGMENT/COATING RESIDUES
Waste Class:	150
Waste Class Desc:	INERT INORGANIC WASTES
Waste Class:	146
Waste Class Desc:	OTHER SPECIFIED INORGANICS
Waste Class:	148
Waste Class Desc:	INORGANIC LABORATORY CHEMICALS
Waste Class:	211
Waste Class Desc:	AROMATIC SOLVENTS
Waste Class:	212
Waste Class Desc:	ALIPHATIC SOLVENTS
Waste Class:	213
Waste Class Desc:	PETROLEUM DISTILLATES
Waste Class:	221
Waste Class Desc:	LIGHT FUELS
Waste Class:	232
Waste Class Desc:	POLYMERIC RESINS
Waste Class:	242
Waste Class Desc:	HALOGENATED PESTICIDES
Waste Class:	251
Waste Class Desc:	OIL SKIMMINGS & SLUDGES
Waste Class:	252
Waste Class Desc:	WASTE OILS & LUBRICANTS
Waste Class:	263
Waste Class Desc:	ORGANIC LABORATORY CHEMICALS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
49	8 of 22	NNE/263.3	207.9 / -1.00	CONSOLIDATED FASTFRATE INC. 9701 HIGHWAY 50 VAUGHAN ON	GEN

Generator No: ON0222701
Status:
Approval Years: 2013
Contam. Facility:
MHSW Facility:
SIC Code: 484122, 493110
SIC Description: GENERAL WAREHOUSING AND STORAGE

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 263
Waste Class Desc: ORGANIC LABORATORY CHEMICALS

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 242
Waste Class Desc: HALOGENATED PESTICIDES

Waste Class: 221
Waste Class Desc: LIGHT FUELS

Waste Class: 150
Waste Class Desc: INERT INORGANIC WASTES

Waste Class: 146
Waste Class Desc: OTHER SPECIFIED INORGANICS

Waste Class: 148
Waste Class Desc: INORGANIC LABORATORY CHEMICALS

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Waste Class: 232
Waste Class Desc: POLYMERIC RESINS

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
49	9 of 22	NNE/263.3	207.9 / -1.00	CONSOLIDATED FASTFRATE INC. 9701 HIGHWAY 50 VAUGHAN ON L4H 2G4	GEN

Generator No: ON0222701
Status:
Approval Years: 2010
Contam. Facility:
MHSW Facility:

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

SIC Code: 484122, 493110
SIC Description: General Freight Trucking Long Distance Less Than Truck-Load, General Warehousing and Storage

Detail(s)

Waste Class: 148
Waste Class Desc: INORGANIC LABORATORY CHEMICALS

Waste Class: 221
Waste Class Desc: LIGHT FUELS

Waste Class: 150
Waste Class Desc: INERT INORGANIC WASTES

Waste Class: 146
Waste Class Desc: OTHER SPECIFIED INORGANICS

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

Waste Class: 232
Waste Class Desc: POLYMERIC RESINS

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 263
Waste Class Desc: ORGANIC LABORATORY CHEMICALS

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 242
Waste Class Desc: HALOGENATED PESTICIDES

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

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49 | ***10 of 22*** | ***NNE/263.3*** | ***207.9 / -1.00*** | ***CONSOLIDATED FASTFRATE INC.***
9701 HIGHWAY 50
VAUGHAN ON L4H 2G4 | ***GEN***

Generator No: ON0222701
Status:
Approval Years: 2015
Contam. Facility: No
MHSW Facility: No
SIC Code: 484122, 493110
SIC Description: 484122, GENERAL WAREHOUSING AND STORAGE

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 263
Waste Class Desc: ORGANIC LABORATORY CHEMICALS

Waste Class: 150
Waste Class Desc: INERT INORGANIC WASTES

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Waste Class: 122
Waste Class Desc: ALKALINE WASTES - OTHER METALS

Waste Class: 242
Waste Class Desc: HALOGENATED PESTICIDES

Waste Class: 148
Waste Class Desc: INORGANIC LABORATORY CHEMICALS

Waste Class: 232
Waste Class Desc: POLYMERIC RESINS

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 146
Waste Class Desc: OTHER SPECIFIED INORGANICS

Waste Class: 221
Waste Class Desc: LIGHT FUELS

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

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49 | **11 of 22** | **NNE/263.3** | **207.9 / -1.00** | **CONSOLIDATED FASTFRATE INC.**
9701 HIGHWAY 50
VAUGHAN ON L4H 2G4 | **GEN**

Generator No: ON0222701
Status:
Approval Years: 00,01,02,03,04,05,06,07,08
Contam. Facility:
MHSW Facility:
SIC Code: 4561
SIC Description: GEN. FREIGHT TRUCK.

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 146
Waste Class Desc: OTHER SPECIFIED INORGANICS

Waste Class: 150
Waste Class Desc: INERT INORGANIC WASTES

Waste Class: 232
Waste Class Desc: POLYMERIC RESINS

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 148

Waste Class Desc: INORGANIC LABORATORY CHEMICALS

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 221
Waste Class Desc: LIGHT FUELS

Waste Class: 242
Waste Class Desc: HALOGENATED PESTICIDES

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 263
Waste Class Desc: ORGANIC LABORATORY CHEMICALS

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49 | **12 of 22** | **NNE/263.3** | **207.9 / -1.00** | **CONSOLIDATED FASTFRATE INC.**
9701 HIGHWAY 50
VAUGHAN ON L4H 2G4 | **GEN**

Generator No: ON0222701
Status:
Approval Years: 2014
Contam. Facility: No
MHSW Facility: No
SIC Code: 484122, 493110
SIC Description: 484122, GENERAL WAREHOUSING AND STORAGE

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 150
Waste Class Desc: INERT INORGANIC WASTES

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 146
Waste Class Desc: OTHER SPECIFIED INORGANICS

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 263
Waste Class Desc: ORGANIC LABORATORY CHEMICALS

Waste Class: 232
Waste Class Desc: POLYMERIC RESINS

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 242
Waste Class Desc: HALOGENATED PESTICIDES

Waste Class: 122
Waste Class Desc: ALKALINE WASTES - OTHER METALS

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

Waste Class: 221
Waste Class Desc: LIGHT FUELS

Waste Class: 148
Waste Class Desc: INORGANIC LABORATORY CHEMICALS

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

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49 | **13 of 22** | **NNE/263.3** | **207.9 / -1.00** | **CONSOLIDATED FASTFRATE INC.**
9701 HIGHWAY 50
VAUGHAN ON L4H 2G4 | **GEN**

Generator No: ON0222701
Status:
Approval Years: 2012
Contam. Facility:
MHSW Facility:
SIC Code: 484122, 493110
SIC Description: General Freight Trucking Long Distance Less Than Truck-Load, General Warehousing and Storage

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 263
Waste Class Desc: ORGANIC LABORATORY CHEMICALS

Waste Class: 150
Waste Class Desc: INERT INORGANIC WASTES

Waste Class: 242
Waste Class Desc: HALOGENATED PESTICIDES

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 146
Waste Class Desc: OTHER SPECIFIED INORGANICS

Waste Class: 232
Waste Class Desc: POLYMERIC RESINS

Waste Class: 221
Waste Class Desc: LIGHT FUELS

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Waste Class: 148
Waste Class Desc: INORGANIC LABORATORY CHEMICALS

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

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49 **14 of 22** **NNE/263.3** **207.9 / -1.00** **CONSOLIDATED FASTFRATE INC.**
9701 HIGHWAY 50
VAUGHAN ON L4H 2G4
GEN

Generator No: ON0222701
Status:
Approval Years: 2011
Contam. Facility:
MHSW Facility:
SIC Code: 484122, 493110
SIC Description: General Freight Trucking Long Distance Less Than Truck-Load, General Warehousing and Storage

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 221
Waste Class Desc: LIGHT FUELS

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 232
Waste Class Desc: POLYMERIC RESINS

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 242
Waste Class Desc: HALOGENATED PESTICIDES

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 150
Waste Class Desc: INERT INORGANIC WASTES

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Waste Class: 148
Waste Class Desc: INORGANIC LABORATORY CHEMICALS

Waste Class: 263
Waste Class Desc: ORGANIC LABORATORY CHEMICALS

Waste Class: 146
Waste Class Desc: OTHER SPECIFIED INORGANICS

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

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49 **15 of 22** **NNE/263.3** **207.9 / -1.00** **CONSOLIDATED FASTFRATE INC.**
9701 HIGHWAY 50
VAUGHAN ON L4H 2G4
GEN

Generator No:	ON0222701	**PO Box No:**	
Status:	Registered	**Country:**	Canada
Approval Years:	As of Mar 2019	**Choice of Contact:**	
Contam. Facility:		**Co Admin:**	
MHSW Facility:		**Phone No Admin:**	
SIC Code:			
SIC Description:			

Detail(s)

Waste Class:	242 A
Waste Class Desc:	Halogenated pesticides and herbicides
Waste Class:	221 I
Waste Class Desc:	Light fuels
Waste Class:	232 I
Waste Class Desc:	Polymeric resins
Waste Class:	252 L
Waste Class Desc:	Waste crankcase oils and lubricants
Waste Class:	145 I
Waste Class Desc:	Wastes from the use of pigments, coatings and paints
Waste Class:	212 I
Waste Class Desc:	Aliphatic solvents and residues
Waste Class:	148 C
Waste Class Desc:	Misc. wastes and inorganic chemicals
Waste Class:	221 L
Waste Class Desc:	Light fuels
Waste Class:	212 L
Waste Class Desc:	Aliphatic solvents and residues
Waste Class:	242 B
Waste Class Desc:	Halogenated pesticides and herbicides
Waste Class:	150 L
Waste Class Desc:	Inert organic wastes
Waste Class:	251 L
Waste Class Desc:	Waste oils/sludges (petroleum based)
Waste Class:	122 C
Waste Class Desc:	Alkaline slutions - containing other metals and non-metals (not cyanide)
Waste Class:	213 T
Waste Class Desc:	Petroleum distillates
Waste Class:	145 L
Waste Class Desc:	Wastes from the use of pigments, coatings and paints
Waste Class:	232 L
Waste Class Desc:	Polymeric resins
Waste Class:	213 I
Waste Class Desc:	Petroleum distillates
Waste Class:	232 B
Waste Class Desc:	Polymeric resins

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Waste Class: 263 I
Waste Class Desc: Misc. waste organic chemicals

Waste Class: 253 L
Waste Class Desc: Emulsified oils

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49 **16 of 22** **NNE/263.3** **207.9 / -1.00** **GEN**

jb express
9701 highway 50
woodbridge ON L4H2G4

Generator No: ON3978882
Status: Registered
Approval Years: As of Mar 2019
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

PO Box No:
Country: Canada
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 252 L
Waste Class Desc: Waste crankcase oils and lubricants

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49 **17 of 22** **NNE/263.3** **207.9 / -1.00** **GEN**

CONSOLIDATED FASTFRATE INC.
9701 HIGHWAY 50
VAUGHAN ON L4H 2G4

Generator No: ON0222701
Status: Registered
Approval Years: As of Dec 2018
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

PO Box No:
Country: Canada
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 122 C
Waste Class Desc: Alkaline slutions - containing other metals and non-metals (not cyanide)

Waste Class: 145 I
Waste Class Desc: Wastes from the use of pigments, coatings and paints

Waste Class: 145 L
Waste Class Desc: Wastes from the use of pigments, coatings and paints

Waste Class: 148 C
Waste Class Desc: Misc. wastes and inorganic chemicals

Waste Class: 150 L
Waste Class Desc: Inert organic wastes

Waste Class: 212 I
Waste Class Desc: Aliphatic solvents and residues

Waste Class: 212 L
Waste Class Desc: Aliphatic solvents and residues

Waste Class: 213 I
Waste Class Desc: Petroleum distillates

Waste Class: 213 T
Waste Class Desc: Petroleum distillates

Waste Class: 221 I
Waste Class Desc: Light fuels

Waste Class: 221 L
Waste Class Desc: Light fuels

Waste Class: 232 B
Waste Class Desc: Polymeric resins

Waste Class: 232 I
Waste Class Desc: Polymeric resins

Waste Class: 232 L
Waste Class Desc: Polymeric resins

Waste Class: 242 A
Waste Class Desc: Halogenated pesticides and herbicides

Waste Class: 242 B
Waste Class Desc: Halogenated pesticides and herbicides

Waste Class: 251 L
Waste Class Desc: Waste oils/sludges (petroleum based)

Waste Class: 252 L
Waste Class Desc: Waste crankcase oils and lubricants

Waste Class: 253 L
Waste Class Desc: Emulsified oils

Waste Class: 263 I
Waste Class Desc: Misc. waste organic chemicals

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49 | **18 of 22** | **NNE/263.3** | **207.9 / -1.00** | **CONSOLIDATED FASTFRATE INC.**
9701 HIGHWAY 50
VAUGHAN ON L4H 2G4 | **GEN**

Generator No: ON0222701
Status:
Approval Years: 2016
Contam. Facility: No
MHSW Facility: No
SIC Code: 484122, 493110
SIC Description: 484122, GENERAL WAREHOUSING AND STORAGE

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 146
Waste Class Desc: OTHER SPECIFIED INORGANICS

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Waste Class: 213

Waste Class Desc:	PETROLEUM DISTILLATES
Waste Class:	150
Waste Class Desc:	INERT INORGANIC WASTES
Waste Class:	232
Waste Class Desc:	POLYMERIC RESINS
Waste Class:	221
Waste Class Desc:	LIGHT FUELS
Waste Class:	148
Waste Class Desc:	INORGANIC LABORATORY CHEMICALS
Waste Class:	211
Waste Class Desc:	AROMATIC SOLVENTS
Waste Class:	122
Waste Class Desc:	ALKALINE WASTES - OTHER METALS
Waste Class:	242
Waste Class Desc:	HALOGENATED PESTICIDES
Waste Class:	263
Waste Class Desc:	ORGANIC LABORATORY CHEMICALS

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49 | ***19 of 22*** | ***NNE/263.3*** | ***207.9 / -1.00*** | ***Consolidated Fastfrate (Ontario) Holdings Inc.***
9701 Highway 50 CONSOLIDATED FASTFRATE INC.
Vaughan ON | ***SPL***

Ref No:	0022-6QCNNB	**Discharger Report:**	
Site No:		**Material Group:**	Oils
Incident Dt:	6/1/2006	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Other Discharges	**Sector Type:**	Transport Truck
Incident Event:		**Agency Involved:**	
Contaminant Code:	13	**Nearest Watercourse:**	
Contaminant Name:	DIESEL FUEL	**Site Address:**	9701 HIGHWAY 50
Contaminant Limit 1:		**Site District Office:**	York-Durham
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Possible	**Site Municipality:**	Vaughan
Nature of Impact:	Soil Contamination; Surface Water Pollution	**Site Lot:**	
Receiving Medium:	Land & Water	**Site Conc:**	
Receiving Env:		**Northing:**	NA
MOE Response:		**Easting:**	NA
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	6/1/2006	**Site Map Datum:**	
Dt Document Closed:		**SAC Action Class:**	
Incident Reason:		**Source Type:**	
Site Name:	9701 HIGHWAY 50		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Consolidated Fastfrate,ukn vol diesel to settling pond		
Contaminant Qty:	76 L		

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49 | ***20 of 22*** | ***NNE/263.3*** | ***207.9 / -1.00*** | ***9701 Highway 50 in Woodbridge<UNOFFICIAL>***
Vaughan ON | ***SPL***

Ref No:	5061-8N6VZE	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:	10/31/2011	**Health/Env Conseq:**	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Year:		**Client Type:**	
Incident Cause:		**Sector Type:**	
Incident Event:		**Agency Involved:**	
Contaminant Code:	27	**Nearest Watercourse:**	
Contaminant Name:	FLAMMABLE LIQUIDS, N.O.S.	**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Not Anticipated	**Site Municipality:**	Vaughan
Nature of Impact:		**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	
MOE Response:		**Easting:**	
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	10/31/2011	**Site Map Datum:**	
Dt Document Closed:		**SAC Action Class:**	Land Spills
Incident Reason:		**Source Type:**	
Site Name:	9701 Highway 50 in Woodbridge<UNOFFICIAL>		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Lorama Inc-Ukn Qty UN 1866 to Ground from Leaking Tote		
Contaminant Qty:			

49	21 of 22	NNE/263.3	207.9 / -1.00	**Consolidated Fastfrate (Ontario) Holdings Inc.** **9701 Highway 50** **Vaughan ON**	SPL

Ref No:	7355-5TFR59	**Discharger Report:**	
Site No:		**Material Group:**	Chemical
Incident Dt:	11/18/2003	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Other Transport Accident	**Sector Type:**	Transport Truck
Incident Event:		**Agency Involved:**	
Contaminant Code:	27	**Nearest Watercourse:**	
Contaminant Name:	PHENOLIC RESINS	**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	York-Durham
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	Central
Environment Impact:	Possible	**Site Municipality:**	Vaughan
Nature of Impact:	Soil Contamination; Surface Water Pollution	**Site Lot:**	
Receiving Medium:	Land & Water	**Site Conc:**	
Receiving Env:		**Northing:**	NA
MOE Response:		**Easting:**	NA
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	11/19/2003	**Site Map Datum:**	
Dt Document Closed:		**SAC Action Class:**	Spills
Incident Reason:	Damage By Moving Equipment - Containers damaged by moving	**Source Type:**	
Site Name:	CONSOLIDATED FASTFRATE INC.		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Consolidated Fastfrate: 225L Phenolic Resin to grd		
Contaminant Qty:	225 L		

49	22 of 22	NNE/263.3	207.9 / -1.00	**Consolidated Fastfrate (Ontario) Holdings Inc.** **9701 Highway 50 CONSOLIDATED FASTFRATE INC.** **Vaughan ON**	SPL

Ref No:	5012-6NCH6X	**Discharger Report:**	
Site No:		**Material Group:**	Chemicals
Incident Dt:	3/29/2006	**Health/Env Conseq:**	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Year:		**Client Type:**	
Incident Cause:	Pipe Or Hose Leak	**Sector Type:**	Other
Incident Event:		**Agency Involved:**	
Contaminant Code:	24	**Nearest Watercourse:**	
Contaminant Name:	VARSOL	**Site Address:**	9701 HIGHWAY 50
Contaminant Limit 1:		**Site District Office:**	York-Durham
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Not Anticipated	**Site Municipality:**	Vaughan
Nature of Impact:	Human Health/Safety; Multi-Media Pollution	**Site Lot:**	
Receiving Medium:	Land	**Site Conc:**	
Receiving Env:		**Northing:**	NA
MOE Response:		**Easting:**	NA
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	3/29/2006	**Site Map Datum:**	
Dt Document Closed:		**SAC Action Class:**	
Incident Reason:	Equipment Failure - Malfunction of system components	**Source Type:**	
Site Name:	9701 HIGHWAY 50		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Consolidated Fastfrate:@25 L varsol to floor, no CB impacted		
Contaminant Qty:	25 L		

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50 | ***1 of 14*** | ***ESE/265.1*** | ***205.3 / -3.54*** | ***S.L.H. TRANSPORT INC.***
9601 HWY 50
VAUGHAN ON | ***GEN***

Generator No:	ON1533301	**PO Box No:**	
Status:		**Country:**	
Approval Years:	2011	**Choice of Contact:**	
Contam. Facility:		**Co Admin:**	
MHSW Facility:		**Phone No Admin:**	
SIC Code:	484121, 488490		
SIC Description:	General Freight Trucking Long Distance Truck-Load, Other Support Activities for Road Transportation		

Detail(s)

Waste Class:	213
Waste Class Desc:	PETROLEUM DISTILLATES
Waste Class:	212
Waste Class Desc:	ALIPHATIC SOLVENTS
Waste Class:	251
Waste Class Desc:	OIL SKIMMINGS & SLUDGES
Waste Class:	252
Waste Class Desc:	WASTE OILS & LUBRICANTS

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50 | ***2 of 14*** | ***ESE/265.1*** | ***205.3 / -3.54*** | ***S.L.H. TRANSPORT INC.***
9601 HWY 50
VAUGHAN ON | ***GEN***

Generator No:	ON1533301	**PO Box No:**	
Status:		**Country:**	
Approval Years:	2010	**Choice of Contact:**	
Contam. Facility:		**Co Admin:**	
MHSW Facility:		**Phone No Admin:**	
SIC Code:	484121, 488490		
SIC Description:	General Freight Trucking Long Distance Truck-Load, Other Support Activities for Road Transportation		

Detail(s)

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

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50 ***3 of 14*** ***ESE/265.1*** ***205.3 / -3.54*** ***Train Trailer Rentals Ltd.*** ***GEN***
9601 Highway 50
VAUGHAN ON L4H2B9

Generator No: ON8325872
Status: Registered
Approval Years: As of Mar 2019
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

PO Box No:
Country: Canada
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 251 L
Waste Class Desc: Waste oils/sludges (petroleum based)

Waste Class: 213 T
Waste Class Desc: Petroleum distillates

Waste Class: 232 L
Waste Class Desc: Polymeric resins

Waste Class: 331 I
Waste Class Desc: Waste compressed gases including cylinders

Waste Class: 252 L
Waste Class Desc: Waste crankcase oils and lubricants

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50 ***4 of 14*** ***ESE/265.1*** ***205.3 / -3.54*** ***Train Trailer Rentals Ltd.*** ***GEN***
9601 Highway 50
VAUGHAN ON L4H2B9

Generator No: ON8325872
Status: Registered
Approval Years: As of Dec 2018
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

PO Box No:
Country: Canada
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 213 T
Waste Class Desc: Petroleum distillates

Waste Class: 232 L
Waste Class Desc: Polymeric resins

Waste Class: 251 L
Waste Class Desc: Waste oils/sludges (petroleum based)

Waste Class: 252 L
Waste Class Desc: Waste crankcase oils and lubricants

Waste Class: 331 I
Waste Class Desc: Waste compressed gases including cylinders

---

50 **5 of 14** **ESE/265.1** **205.3 / -3.54** **S.L.H. TRANSPORT INC.**
9601 HWY 50
VAUGHAN ON L4H2B9 **GEN**

Generator No: ON1533301
Status:
Approval Years: 2014
Contam. Facility: No
MHSW Facility: No
SIC Code: 484121, 488490
SIC Description: GENERAL FREIGHT TRUCKING, LONG DISTANCE, TRUCK-LOAD, OTHER SUPPORT ACTIVITIES FOR ROAD TRANSPORTATION

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin: CATHY LEDINGHAM
Phone No Admin: 905-893-4318 Ext.

Detail(s)

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

---

50 **6 of 14** **ESE/265.1** **205.3 / -3.54** **S.L.H. TRANSPORT INC.**
9601 HWY 50
VAUGHAN ON L4H2B9 **GEN**

Generator No: ON1533301
Status: Registered
Approval Years: As of Dec 2018
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

PO Box No:
Country: Canada
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 212 L
Waste Class Desc: Aliphatic solvents and residues

Waste Class: 213 I
Waste Class Desc: Petroleum distillates

Waste Class: 213 T
Waste Class Desc: Petroleum distillates

Waste Class: 251 L
Waste Class Desc: Waste oils/sludges (petroleum based)

Waste Class: 252 L

Waste Class Desc: Waste crankcase oils and lubricants

Waste Class: 252 T
Waste Class Desc: Waste crankcase oils and lubricants

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50 | ***7 of 14*** | ***ESE/265.1*** | ***205.3 / -3.54*** | ***S.L.H. TRANSPORT INC.***
9601 HWY 50
VAUGHAN ON L4H2B9 | ***GEN***

Generator No: ON1533301
Status:
Approval Years: 2016
Contam. Facility: No
MHSW Facility: No
SIC Code: 484121, 488490
SIC Description: GENERAL FREIGHT TRUCKING, LONG DISTANCE, TRUCK-LOAD, OTHER SUPPORT ACTIVITIES FOR ROAD TRANSPORTATION

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin: CATHY LEDINGHAM
Phone No Admin: 905-893-4318 Ext.

Detail(s)

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

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50 | ***8 of 14*** | ***ESE/265.1*** | ***205.3 / -3.54*** | ***S.L.H. TRANSPORT INC.***
9601 HWY. 50
VAUGHAN ON L4H 2B9 | ***GEN***

Generator No: ON1533301
Status:
Approval Years: 99
Contam. Facility:
MHSW Facility:
SIC Code: 3251
SIC Description: VEHICLE ENGINE IND.

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

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50 | ***9 of 14*** | ***ESE/265.1*** | ***205.3 / -3.54*** | ***S.L.H. TRANSPORT INC.***
9601 HWY 50
VAUGHAN ON L4H2B9 | ***GEN***

Generator No: ON1533301
Status:
Approval Years: 2012
Contam. Facility:
MHSW Facility:
SIC Code: 484121, 488490
SIC Description: General Freight Trucking Long Distance Truck-Load, Other Support Activities for Road Transportation

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 251

Waste Class Desc: OIL SKIMMINGS & SLUDGES

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

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50 ***10 of 14*** ***ESE/265.1*** ***205.3 / -3.54*** ***S.L.H. TRANSPORT INC.***
9601 HWY 50
VAUGHAN ON ***GEN***

Generator No: ON1533301
Status:
Approval Years: 2013
Contam. Facility:
MHSW Facility:
SIC Code: 484121, 488490
SIC Description: GENERAL FREIGHT TRUCKING, LONG DISTANCE, TRUCK-LOAD, OTHER SUPPORT ACTIVITIES FOR ROAD TRANSPORTATION

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

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50 ***11 of 14*** ***ESE/265.1*** ***205.3 / -3.54*** ***S.L.H. TRANSPORT INC.***
9601 HWY 50
VAUGHAN ON ***GEN***

Generator No: ON1533301
Status:
Approval Years: 2009
Contam. Facility:
MHSW Facility:
SIC Code: 484121, 488490
SIC Description: General Freight Trucking Long Distance Truck-Load, Other Support Activities for Road Transportation

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
50	12 of 14	ESE/265.1	205.3 / -3.54	S.L.H. TRANSPORT INC. 9601 HWY 50 VAUGHAN ON L4H2B9	GEN

Generator No: ON1533301
Status:
Approval Years: 02,03,04,05,06,07,08
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
50	13 of 14	ESE/265.1	205.3 / -3.54	S.L.H. TRANSPORT INC. 9601 HWY 50 VAUGHAN ON L4H2B9	GEN

Generator No: ON1533301
Status:
Approval Years: 2015
Contam. Facility: No
MHSW Facility: No
SIC Code: 484121, 488490
SIC Description: GENERAL FREIGHT TRUCKING, LONG DISTANCE, TRUCK-LOAD, OTHER SUPPORT ACTIVITIES FOR ROAD TRANSPORTATION

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin: CATHY LEDINGHAM
Phone No Admin: 905-893-4318 Ext.

Detail(s)

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
50	14 of 14	ESE/265.1	205.3 / -3.54	S.L.H. TRANSPORT INC. 9601 HWY #50 VAUGHAN ON L4H 2B9	GEN

Generator No: ON1533301
Status:
Approval Years: 00,01
Contam. Facility:
MHSW Facility:
SIC Code: 3251

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

SIC Description: VEHICLE ENGINE IND.

Detail(s)

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

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51 | **1 of 1** | **N/284.5** | **211.1 / 2.22** | **BOLTON ON** | **WWIS**

Well ID: 7255951
Construction Date:
Primary Water Use: Monitoring and Test Hole
Sec. Water Use: 0
Final Well Status: Monitoring and Test Hole
Water Type:
Casing Material:
Audit No: Z208472
Tag: A187664
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src:
Date Received: 1/14/2016
Selected Flag: Yes
Abandonment Rec:
Contractor: 7247
Form Version: 7
Owner:
Street Name: HWY 50 + COLERAINE RD.
County: PEEL
Municipality: BRAMPTON CITY (TORONTO GORE)
Site Info:
Lot:
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 1005867324
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 7/14/2015
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 209.83348
Elevrc:
Zone: 17
East83: 606280
North83: 4852577
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Overburden and Bedrock Materials Interval

Formation ID: 1005934769
Layer: 1
Color: 6
General Color: BROWN

Mat1:	28
Most Common Material:	SAND
Mat2:	11
Other Materials:	GRAVEL
Mat3:	01
Other Materials:	FILL
Formation Top Depth:	0
Formation End Depth:	1.5
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1005934772
Layer:	4
Color:	2
General Color:	GREY
Mat1:	06
Most Common Material:	SILT
Mat2:	28
Other Materials:	SAND
Mat3:	05
Other Materials:	CLAY
Formation Top Depth:	26
Formation End Depth:	30
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1005934770
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	05
Most Common Material:	CLAY
Mat2:	84
Other Materials:	SILTY
Mat3:	81
Other Materials:	SANDY
Formation Top Depth:	1.5
Formation End Depth:	15
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1005934771
Layer:	3
Color:	2
General Color:	GREY
Mat1:	05
Most Common Material:	CLAY
Mat2:	84
Other Materials:	SILTY
Mat3:	28
Other Materials:	SAND
Formation Top Depth:	15
Formation End Depth:	26
Formation End Depth UOM:	ft

Annular Space/Abandonment

Sealing Record

Plug ID:	1005934780
Layer:	1
Plug From:	0
Plug To:	19
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	2
Method Construction:	Rotary (Convent.)
Other Method Construction:	

Pipe Information

Pipe ID:	1005934768
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1005934775
Layer:	1
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	0
Depth To:	20
Casing Diameter:	2
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Screen

Screen ID:	1005934776
Layer:	1
Slot:	10
Screen Top Depth:	20
Screen End Depth:	30
Screen Material:	5
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	2.125

Water Details

Water ID:	1005934774
Layer:	1
Kind Code:	8
Kind:	Untested
Water Found Depth:	27.5
Water Found Depth UOM:	ft

Hole Diameter

Hole ID:	1005934773
Diameter:	6
Depth From:	0

Depth To:	30
Hole Depth UOM:	ft
Hole Diameter UOM:	inch

52 **1 of 1** **N/287.9** **211.5 / 2.67** **Brampton ON** **WWIS**

Well ID:	7249976	**Data Entry Status:**	
Construction Date:		**Data Src:**	
Primary Water Use:		**Date Received:**	10/14/2015
Sec. Water Use:		**Selected Flag:**	Yes
Final Well Status:	Abandoned-Other	**Abandonment Rec:**	Yes
Water Type:		**Contractor:**	7472
Casing Material:		**Form Version:**	7
Audit No:	Z214799	**Owner:**	
Tag:		**Street Name:**	HWY 50 APPROX. 100M SOUTH OF COLERAINE
Construction Method:		**County:**	PEEL
Elevation (m):		**Municipality:**	BRAMPTON CITY (TORONTO GORE)
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	
Well Depth:		**Concession:**	
Overburden/Bedrock:		**Concession Name:**	
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	1005739566	**Elevation:**	209.871887
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	606276
Code OB Desc:		**North83:**	4852579
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	4
Date Completed:	7/24/2015	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID:	1005770451
Layer:	1
Plug From:	0
Plug To:	18.2
Plug Depth UOM:	m

Pipe Information

Pipe ID:	1005770443
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1005770448
Layer:	
Material:	
Open Hole or Material:	
Depth From:	
Depth To:	
Casing Diameter:	
Casing Diameter UOM:	cm
Casing Depth UOM:	m

Construction Record - Screen

Screen ID:	1005770449
Layer:	
Slot:	
Screen Top Depth:	
Screen End Depth:	
Screen Material:	
Screen Depth UOM:	m
Screen Diameter UOM:	cm
Screen Diameter:	

Hole Diameter

Hole ID:	1005770446
Diameter:	5.2
Depth From:	2
Depth To:	18.2
Hole Depth UOM:	m
Hole Diameter UOM:	cm

Hole Diameter

Hole ID:	1005770445
Diameter:	21
Depth From:	0
Depth To:	2
Hole Depth UOM:	m
Hole Diameter UOM:	cm

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
53	1 of 4	SE/292.1	204.9 / -4.00	SLH TRANSPORT INC 9601 HWY 50 VAUGHAN ON L4H 2B9	FST

Instance No:	11609343
Cont Name:	
Instance Type:	FS Liquid Fuel Tank
Fuel Type:	Diesel
Status:	Active
Capacity:	100000
Tank Material:	Steel
Corrosion Protection:	Painted
Tank Type:	Double Wall Horizontal AST
Install Year:	2000
Parent Facility Type:	Fuels Safety Private Fuel Outlet - Self Serve
Facility Type:	FS Liquid Fuel Tank

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
53	2 of 4	SE/292.1	204.9 / -4.00	SLH TRANSPORT INC 9601 HWY 50 VAUGHAN ON	FSTH

License Issue Date: 10/13/2000
Tank Status: Licensed
Tank Status As Of: August 2007
Operation Type: Private Fuel Outlet
Facility Type: Gasoline Station - Self Serve

--Details--
Status: Active
Year of Installation: 2000
Corrosion Protection:
Capacity: 100000
Tank Fuel Type: Liquid Fuel Double Wall AST - Diesel

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
53	3 of 4	SE/292.1	204.9 / -4.00	SLH TRANSPORT INC 9601 HWY 50 VAUGHAN ON	FSTH

License Issue Date: 10/13/2000
Tank Status: Licensed
Tank Status As Of: December 2008
Operation Type: Private Fuel Outlet
Facility Type: Gasoline Station - Self Serve

--Details--
Status: Active
Year of Installation: 2000
Corrosion Protection:
Capacity: 100000
Tank Fuel Type: Liquid Fuel Double Wall AST - Diesel

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
53	4 of 4	SE/292.1	204.9 / -4.00	9601 HWY 50, WOODBRIDGE ON	INC

Incident No: 1532778
Incident ID:
Attribute Category: FS-Perform L1 Incident Insp
Status Code:
Incident Location: 9601 HWY 50, WOODBRIDGE - LEAK
Drainage System:
Sub Surface Contam.:
Aff. Prop. Use Water:
Contam. Migrated:
Contact Natural Env.:
Near Body of Water:
Approx. Quant. Rel.:
Equipment Model:
Serial No:
Residential App. Type:
Commercial App. Type:
Industrial App. Type:
Institutional App. Type:
Venting Type:
Vent Connector Mater:
Vent Chimney Mater:
Pipeline Type:
Pipeline Involved:
Pipe Material:

Depth Ground Cover:	
Regulator Location:	
Regulator Type:	
Operation Pressure:	
Liquid Prop Make:	
Liquid Prop Model:	
Liquid Prop Serial No:	
Equipment Type:	
Cylinder Capacity:	
Cylinder Capac. Units:	
Cylinder Material Type:	
Tank Capacity:	
Fuels Occurence Type:	Leak
Fuel Type Involved:	Diesel
Date of Occurence:	2014/11/30 00:00:00
Time of Occurence:	NULL
Occur Insp Start Date:	2014/12/01 00:00:00
Any Health Impact:	No
Any Environmental Impact:	No
Was Service Interrupted:	No
Was Property Damaged:	No
Operation Type Involved:	Private Fuel Outlet
Enforcement Policy:	NULL
Prc Escalation Required:	NULL
Task No:	5276996
Notes:	
Occurence Narrative:	SPILL DUE TO CHECK VALVE A/G TANK
Tank Material Type:	
Tank Storage Type:	
Tank Location Type:	
Pump Flow Rate Capac:	
Liquid Prop Notes:	

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54 | ***1 of 1*** | ***SE/298.0*** | ***204.9 / -4.00*** | ***Brampton ON*** | ***WWIS***

Well ID:	7249971	**Data Entry Status:**	
Construction Date:		**Data Src:**	
Primary Water Use:		**Date Received:**	10/14/2015
Sec. Water Use:		**Selected Flag:**	Yes
Final Well Status:	Abandoned-Other	**Abandonment Rec:**	Yes
Water Type:		**Contractor:**	7472
Casing Material:		**Form Version:**	7
Audit No:	Z214797	**Owner:**	
Tag:		**Street Name:**	HWY 50 APPROX. 860M NORTH OF RUTHERFORD
Construction Method:		**County:**	PEEL
Elevation (m):		**Municipality:**	BRAMPTON CITY (TORONTO GORE)
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	
Well Depth:		**Concession:**	
Overburden/Bedrock:		**Concession Name:**	
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	1005739551	**Elevation:**	207.990554
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17

Code OB:		**East83:**	606703
Code OB Desc:		**North83:**	4851637
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	4
Date Completed:	7/24/2015	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID:	1005770385
Layer:	1
Plug From:	0
Plug To:	13.8
Plug Depth UOM:	m

Pipe Information

Pipe ID:	1005770377
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1005770382
Layer:	
Material:	
Open Hole or Material:	
Depth From:	
Depth To:	
Casing Diameter:	
Casing Diameter UOM:	cm
Casing Depth UOM:	m

Construction Record - Screen

Screen ID:	1005770383
Layer:	
Slot:	
Screen Top Depth:	
Screen End Depth:	
Screen Material:	
Screen Depth UOM:	m
Screen Diameter UOM:	cm
Screen Diameter:	

Hole Diameter

Hole ID:	1005770380
Diameter:	5.2
Depth From:	2
Depth To:	13.8
Hole Depth UOM:	m
Hole Diameter UOM:	cm

Hole Diameter

Hole ID:	1005770379
Diameter:	21
Depth From:	0
Depth To:	2
Hole Depth UOM:	m
Hole Diameter UOM:	cm

Unplottable Summary

Total: 67 Unplottable sites

DB	Company Name/Site Name	Address	City	Postal
AAGR		Lot 18 Con 12	Peel ON	
AAGR		Lot 18 Con 12	Peel ON	
AAGR		Lot 18 Con 12	Peel ON	
AGR	Edwin Horst	Lot W1/2 of 19, Con 12	PEEL ON	
CA	VAUGHAN TOWN RUTHERFORD RD.	RUTHERFORD RD.	VAUGHAN TOWN ON	
CA	VAUGHAN TOWN	RUTHERFORD ROAD	VAUGHAN TOWN ON	
CA	VAUGHAN TOWN	RUTHERFORD ROAD	VAUGHAN TOWN ON	
CA	VAUGHAN TOWN	RUTHERFORD RD.	VAUGHAN TOWN ON	
CA	VAUGHAN TOWN	RUTHERFORD ROAD	VAUGHAN TOWN ON	
CA	VAUGHAN CITY	SWM - RUTHERFORD ROAD	VAUGHAN CITY ON	
CA	SOUTH MAPLE CREEK LANDS LTD.	RUTHERFORD RD.NGHB.2 MAPLE COM	VAUGHAN TOWN ON	
CA	SOUTH MAPLE CREEK LANDS LTD.	RUTHERFORD RD.NGHB.2 MAPLE COM	VAUGHAN TOWN ON	
CA	LONGMOOR BUILDING CO.	RUTHERFORD RD. LONGMOOR IND.	BRAMPTON CITY ON	
CA	SOUTH MAPLE CREEK LANDS LTD.	N. RUTHERFORD RD. NEIGHB. 2	VAUGHAN TOWN ON	
CA	IMPERIAL OIL	RUTHERFORD ST.,ESSO GAS STA.	VAUGHAN TOWN ON	
CA	Vaughan Distribution Centre	Part Lots 16-19, Concession 10	Vaughan ON	
CA	LONGMOOR BUILDING CO.	RUTHERFORD RD. LONGMOOR IND.	BRAMPTON CITY ON	

CA	The Regional Municipality of Peel	Clarkway Dr between Castlemore Rd and Countryside Dr,	Brampton ON	
CA	The Corporation of the City of Brampton	From The Gore Road to Highway 50	Brampton ON	
CA	The Corporation of the City of Brampton	From The Gore Road to Highway 50	Brampton ON	
CA	Bolton/Brampton Trunk Sewer	Highway No. 50	Brampton ON	
CA	IZUSA INVEST. INC.-PT.LOT 15/CONC. 6	RUTHERFORD RD./TEMP. S.W. POND	VAUGHAN CITY ON	
CA	FIELDGATE DEVELOPMENT AND CONSTRUCTION	RUTHERFORD RD.	VAUGHAN TOWN ON	
CA	FIELDGATE DEVELOPMENT AND CONSTRUCTION	RUTHERFORD RD.	VAUGHAN TOWN ON	
CA	CITY OF VAUGHAN	RUTHERFORD ROAD	VAUGHAN CITY ON	
CA	ANNA LEONNE	RUTHERFORD RD.	VAUGHAN TOWN ON	
CA	ANNA LEONNE	RUTHERFORD RD.	VAUGHAN TOWN ON	
CA	AVDELL DEVELOPMENTS INC.	RIVERSIDE EST.SUBD/RUTHERFORD	VAUGHAN CITY ON	
CONV	PUROLATOR COURIER LTD.		ON	
CONV	S.R. TRUCKING CO. LTD.		ON	
CONV	SIM-TRAN (ONTARIO) INC.		ON	
EBR	Artibus Development Corporation	located on the west side of Weston Road and south of Major Mackenzie Drive in Lot 20, Concession 6 CITY OF VAUGHAN	ON	
ECA	Berkshire Glade Estates Inc. & Bay-Yonge Custom Builders Inc.	Clarkway Drive	Brampton ON	L4K 5P5
ECA	Block 33 West Properties Inc.	Part of Lot 20 and 21	Vaughan ON	L3R 4T5
ECA	The Corporation of the City of Brampton	From The Gore Road to Highway 50	Brampton ON	L6Y 5T1
ECA	The Corporation of the City of Brampton	From The Gore Road to Highway 50	Brampton ON	L6Y 5T1
ECA	The Regional Municipality of Peel	Clarkway Dr between Castlemore Rd and Countryside Dr,	Brampton ON	L6S 4J3
EHS		Rutherford Road	Vaughan ON	
EHS		Highway 50 - no municipal address	Bolton ON	

EXP	REGIONAL MUNICIPALITY OF YORK TONY PULLA	RUTHERFORD RD MAINTENANCE DEPOT	MAPLE ON	
HINC		LOT 13, CONCESSION 10	BRAMPTON ON	
PES	SANT'S COLD CREEK NURSERY	R. R. #2, HWY. 50	BOLTON ON	L7E5R8
PES	SANT'S COLD CREEK NURSERY	R. R. #2, HWY. 50	BOLTON ON	L7E5R8
RST	SONNY'S ESSO	17200 50 HWY	BRAMPTON ON	L0N 1P0
SCT	CALEDON SAND & GRAVEL INC.	HIGHWAY 50 RR 1	BOLTON ON	L7E 5Z7
SCT	James Dick Concrete Aggregates - Div. of James Dick Construction Ltd.	Hwy 50	Bolton ON	L7E 5T4
SCT	JAMES DICK CONCRETE AGGREGATES	HWY 50	BOLTON ON	L7E 5T4
SCT	Caledon Sand & Gravel Inc.	Hwy 50	Bolton ON	L7E 5Z7
SPL		North of Rutherford	Vaughan ON	
SPL	Huna Transport Inc.<UNOFFICIAL>	Regional Road # 50, south of Rutherford Drive	Brampton ON	
SPL	Canadian Pacific Railway Company	mile 15.3 Mac Tier Sub	Vaughan ON	
SPL	LODWICK TRANSPORT	HWY 50 JUST SOUTH OF BOLTON TRANSPORT TRUCK (CARGO)	PEEL R.M. ON	
SPL	UNKNOWN	HWY 50 BETWEEN HWY 9 AND HWY 7	BRAMPTON CITY ON	
SPL	TRANSPORT TRUCK	HWY 50 & 22 ND LINE MOTOR VEHICLE (OPERATING FLUID)	BRAMPTON CITY ON	
SPL	PRIVATE OWNER	HWY 50 N OF BOLTON-TOP OF HILL ACROSS FROM PETRO CANADA STORAGE TANK/BARREL	PEEL R.M. ON	
SPL	TMT Freight Systems	West side of Hwy 50 1 km North of Rutherford Rd	Brampton ON	
SPL	Mancuso Paving Limited	SB Hwy 50 at Clarkway Dr	Brampton ON	
SPL	Anytime, Anywhere Transport<UNOFFICIAL>	between Huntington Rd and Hwy 50, North shoulder	Vaughan ON	
SPL	Canadian National Railway Company	Rutherford Road	Vaughan ON	
SPL	CANADIAN PACIFIC RAILWAYS	MILE 7.9, MACTIER SUB, JUST SOUTH OF WOODBRIDGE TRAIN	VAUGHAN CITY ON	

SPL	CANADIAN PACIFIC RAILWAYS	12.8-15.2 RAILWAY MILEAGE. TRAIN	VAUGHAN CITY ON
SPL	PUROLATOR COURIER LTD.	WAREHOUSE	BRAMPTON CITY ON
SPL	CANADIAN PACIFIC RAILWAYS	MACTIER SUBDIVISION BEFORE VAUGHAN AND UTOPIA ON CP RAIL TRACK MOTOR VEHICLE (OPERATING FLUID)	VAUGHAN CITY ON
WWIS		lot 18 con 10	VAUGHAN ON
WWIS		lot 18	ON
WWIS			BOLTON ON
WWIS		con 12	ON

Unplottable Report

Site: ***Database:*** ***AAGR***
Lot 18 Con 12 Peel ON

Type:
Region/County: Wellington
Township: Peel
Concession: 12
Lot: 18
Size (ha):
Landuse:
Comments:

Site: ***Database:*** ***AAGR***
Lot 18 Con 12 Peel ON

Type:
Region/County: Wellington
Township: Peel
Concession: 12
Lot: 18
Size (ha):
Landuse:
Comments: rehabilitated

Site: ***Database:*** ***AAGR***
Lot 18 Con 12 Peel ON

Type: Pit
Region/County: Wellington
Township: Peel
Concession: 12
Lot: 18
Size (ha): 2
Landuse:
Comments: appears hummocky with some revegetation

Site: ***Edwin Horst*** ***Database:*** ***AGR***
Lot W1/2 of 19, Con 12 PEEL ON

ID: 5661
Current Status:
Status Date:
Effective Date:
Approval Type: Class B Licence
Operation Type: Pit
Max Annual Tonnage: 20000
Unlimited Tonnage:
Location Name:
Licenced Area (ha):
Extraction Area:
Authority Type:
Section:
Municipality: MAPLETON TP
County: WELLINGTON CO
District:

Site: ***VAUGHAN TOWN RUTHERFORD RD.*** ***Database:*** ***CA***
RUTHERFORD RD. VAUGHAN TOWN ON

Certificate #: 7-0751-88-
Application Year: 88

Issue Date: 11/28/1988
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***VAUGHAN TOWN***
RUTHERFORD ROAD VAUGHAN TOWN ON

Database: ***CA***

Certificate #: 7-0551-89-
Application Year: 89
Issue Date: 5/23/1989
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***VAUGHAN TOWN***
RUTHERFORD ROAD VAUGHAN TOWN ON

Database: ***CA***

Certificate #: 7-1753-87-
Application Year: 87
Issue Date: 12/17/1987
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***VAUGHAN TOWN***
RUTHERFORD RD. VAUGHAN TOWN ON

Database: ***CA***

Certificate #: 3-1505-87-
Application Year: 87
Issue Date: 8/24/1987
Approval Type: Municipal sewage
Status: Cancelled
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***VAUGHAN TOWN***
RUTHERFORD ROAD VAUGHAN TOWN ON

Database: ***CA***

Certificate #: 3-2074-87-
Application Year: 87
Issue Date: 12/17/1987
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***VAUGHAN CITY***
SWM - RUTHERFORD ROAD VAUGHAN CITY ON

Database: ***CA***

Certificate #: 3-0803-95-
Application Year: 95
Issue Date: 7/25/1995
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***SOUTH MAPLE CREEK LANDS LTD.***
RUTHERFORD RD.NGHB.2 MAPLE COM VAUGHAN TOWN ON

Database: ***CA***

Certificate #: 7-1498-89-
Application Year: 89
Issue Date: 9/15/1989
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***SOUTH MAPLE CREEK LANDS LTD.***
RUTHERFORD RD.NGHB.2 MAPLE COM VAUGHAN TOWN ON

Database: ***CA***

Certificate #: 3-1798-89-
Application Year: 89
Issue Date: 9/15/1989
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:

Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***LONGMOOR BUILDING CO.***
RUTHERFORD RD. LONGMOOR IND. BRAMPTON CITY ON

Database: ***CA***

Certificate #: 3-0336-87-
Application Year: 87
Issue Date: 3/27/1987
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***SOUTH MAPLE CREEK LANDS LTD.***
N. RUTHERFORD RD. NEIGHB. 2 VAUGHAN TOWN ON

Database: ***CA***

Certificate #: 3-0293-86-
Application Year: 86
Issue Date: 4/16/1986
Approval Type: Municipal sewage
Status: Nullity, letter of concurrence issued
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***IMPERIAL OIL***
RUTHERFORD ST.,ESSO GAS STA. VAUGHAN TOWN ON

Database: ***CA***

Certificate #: 3-1280-94-
Application Year: 94
Issue Date: 10/5/1994
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***Vaughan Distribution Centre***
Part Lots 16-19, Concession 10 Vaughan ON

Database: ***CA***

Certificate #: 7545-4JSK2X
Application Year: 00
Issue Date: 5/12/00

Approval Type: Municipal & Private sewage
Status: Approved
Application Type: New Certificate of Approval
Client Name: Sears Canada Inc.
Client Address: 222 Jarvis Street
Client City: Toronto
Client Postal Code: M5B 2B8
Project Description: This application is for the installation of a stormwater management system to serve the Sears Canada Inc. Vaughan Distribution Centre, which includes two (2) stormwater management wet detention ponds that receives storm water runoff from a two drainage area of 16.05 and 11.22 hectares respectively, discharging to East Rainbow Creek via outlet control structures.
Contaminants:
Emission Control:

Site: ***LONGMOOR BUILDING CO.***
RUTHERFORD RD. LONGMOOR IND. BRAMPTON CITY ON

Database: ***CA***

Certificate #: 7-0280-87-
Application Year: 87
Issue Date: 3/27/1987
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***The Regional Municipality of Peel***
Clarkway Dr between Castlemore Rd and Countryside Dr, Brampton ON

Database: ***CA***

Certificate #: 6393-8DGKHP
Application Year: 2011
Issue Date: 2/8/2011
Approval Type: Municipal and Private Sewage Works
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***The Corporation of the City of Brampton***
From The Gore Road to Highway 50 Brampton ON

Database: ***CA***

Certificate #: 7097-86EPGY
Application Year: 2010
Issue Date: 7/21/2010
Approval Type: Municipal and Private Sewage Works
Status: Revoked and/or Replaced
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***The Corporation of the City of Brampton***
From The Gore Road to Highway 50 Brampton ON

Database: ***CA***

Certificate #:	6949-8A9KGR
Application Year:	2010
Issue Date:	10/19/2010
Approval Type:	Municipal and Private Sewage Works
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Site: ***Bolton/Brampton Trunk Sewer***
Highway No. 50 Brampton ON

Database: ***CA***

Certificate #:	7514-5A2PTM
Application Year:	02
Issue Date:	5/13/02
Approval Type:	Municipal & Private sewage
Status:	Approved
Application Type:	New Certificate of Approval
Client Name:	The Corporation of the Regional Municipality of Peel
Client Address:	10 Peel Centre Drive, Fourth Floor
Client City:	Brampton
Client Postal Code:	L6T 4B9
Project Description:	Install Storm Sewers on Highway No. 50
Contaminants:	
Emission Control:	

Site: ***IZUSA INVEST. INC.-PT.LOT 15/CONC. 6***
RUTHERFORD RD./TEMP. S.W. POND VAUGHAN CITY ON

Database: ***CA***

Certificate #:	3-1317-92-
Application Year:	92
Issue Date:	11/24/1992
Approval Type:	Municipal sewage
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Site: ***FIELDGATE DEVELOPMENT AND CONSTRUCTION***
RUTHERFORD RD. VAUGHAN TOWN ON

Database: ***CA***

Certificate #:	3-0269-89-
Application Year:	89
Issue Date:	4/7/1989
Approval Type:	Municipal sewage
Status:	Approved
Application Type:	
Client Name:	

Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***FIELDGATE DEVELOPMENT AND CONSTRUCTION***
RUTHERFORD RD. VAUGHAN TOWN ON

Database: ***CA***

Certificate #: 7-0244-89-
Application Year: 89
Issue Date: 4/7/1989
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***CITY OF VAUGHAN***
RUTHERFORD ROAD VAUGHAN CITY ON

Database: ***CA***

Certificate #: 7-0003-95-
Application Year: 95
Issue Date: 1/12/1995
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***ANNA LEONNE***
RUTHERFORD RD. VAUGHAN TOWN ON

Database: ***CA***

Certificate #: 3-0480-87-
Application Year: 87
Issue Date: 4/29/1987
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***ANNA LEONNE***
RUTHERFORD RD. VAUGHAN TOWN ON

Database: ***CA***

Certificate #: 7-0395-87-

Application Year: 87
Issue Date: 4/29/1987
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***AVDELL DEVELOPMENTS INC.***
RIVERSIDE EST.SUBD/RUTHERFORD VAUGHAN CITY ON

Database: ***CA***

Certificate #: 7-0874-95-
Application Year: 95
Issue Date: 9/8/1995
Approval Type: Municipal water
Status: Cancelled
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***PUROLATOR COURIER LTD.***
ON

Database: ***CONV***

File No:
Crown Brief No: 99-0022-0138
Court Location:
Publication City:
Publication Title:
Act:
Act(s):
First Matter:
Second Matter:
Investigation 1:
Investigation 2:
Penalty Imposed:
Description: FAILURE TO NOTIFY THE MINISTRY OF A DISCHARGE OF DIESEL FUEL, OUT OF THE NORMAL COURSE OF EVENTS, INTO THE NATURAL ENVIRONMENT.
Background:
URL:

Location:
Region: CENTRAL REGION
Ministry District: METRO

Additional Details

Publication Date:
Count: 1
Act: EPA
Regulation:
Section: 15(1)
Act/Regulation/Section: EPA- -15(1)
Date of Offence:
Date of Conviction:
Date Charged: 10/13/99
Charge Disposition: SUSPENDED SENTENCE
Fine: $1,800.00
Synopsis:

Site: ***S.R. TRUCKING CO. LTD.***
ON

Database: ***CONV***

File No:
Crown Brief No: 99-0204-0289
Court Location:
Publication City:
Publication Title:
Act:
Act(s):
First Matter:
Second Matter:
Investigation 1:
Investigation 2:
Penalty Imposed:
Description: OPERATE HEAVY DIESEL FUELLED MOTOR VEHICLE THAT CONTRAVENES EMISSION STANDARDS
Background:
URL:

Location:
Region: CENTRAL REGION
Ministry District: METRO

Additional Details

Publication Date:
Count: 1
Act: EPA
Regulation: 361/98
Section: 12(5)
Act/Regulation/Section: EPA-361/98-12(5)
Date of Offence:
Date of Conviction:
Date Charged: 1/14/00
Charge Disposition: SUSPENDED SENTENCE
Fine: $425.00
Synopsis:

Site: ***SIM-TRAN (ONTARIO) INC.***
ON

Database: ***CONV***

File No:
Crown Brief No: 98-0096-0164
Court Location:
Publication City:
Publication Title:
Act:
Act(s):
First Matter:
Second Matter:
Investigation 1:
Investigation 2:
Penalty Imposed:
Description: PERMIT THE OPERATION OF A HEAVY DIESEL-FUELLED MOTOR VEHICLE THAT
Background:
URL:

Location:
Region: CENTRAL REGION
Ministry District: METRO

Additional Details

Publication Date:
Count: 1
Act: EPA
Regulation: 361/98
Section: 12(5)
Act/Regulation/Section: EPA-361/98- 12(5)
Date of Offence:
Date of Conviction:
Date Charged: 1/21/99
Charge Disposition: SUSPENDED SENTENCE
Fine: $250.00

Synopsis:

Site: ***Artibus Development Corporation***
located on the west side of Weston Road and south of Major Mackenzie Drive in Lot 20, Concession 6 CITY OF VAUGHAN ON

Database: ***EBR***

EBR Registry No:	IA02E0597	***Year:***	2002
Ministry Ref No:	S46306004	***Act 1:***	
Notice Type:	Instrument Decision	***Act 2:***	
Notice Stage:	800484701	***Comment Period:***	
Notice Date:	September 03, 2002	***Section:***	
Proposal Date:	June 13, 2002	***Site Location Map:***	
Decision Posted:			
Posted By:			
Company Name:	Artibus Development Corporation		
Off Instrument Name:			
Instrument Type:	(EPA s. 46) - Approval for use of a former waste disposal site.		
Proponent Name:			
Proponent Address:	c/o O'Neill, Browning, Pineu, 372 Bay Street , 302, Toronto Ontario, M5H 2W9		
Site Address:			
Location Other:			
URL:			

Site Location Details:

located on the west side of Weston Road and south of Major Mackenzie Drive in Lot 20, Concession 6 CITY OF VAUGHAN

Site: ***Berkshire Glade Estates Inc. & Bay-Yonge Custom Builders Inc.***
Clarkway Drive Brampton ON L4K 5P5

Database: ***ECA***

Approval No:	7200-95BKGG	***MOE District:***	
Approval Date:	2013-03-01	***City:***	
Status:	Approved	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	
Approval Type:	ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS		
Project Type:	MUNICIPAL AND PRIVATE SEWAGE WORKS		
Address:	Clarkway Drive		
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/1916-94EJ4R-14.pdf		

Site: ***Block 33 West Properties Inc.***
Part of Lot 20 and 21 Vaughan ON L3R 4T5

Database: ***ECA***

Approval No:	4717-AA3MV4	***MOE District:***	
Approval Date:	2016-05-18	***City:***	
Status:	Approved	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	
Approval Type:	ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS		
Project Type:	MUNICIPAL AND PRIVATE SEWAGE WORKS		
Address:	Part of Lot 20 and 21		
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/0743-A9ZHGJ-14.pdf		

Site: ***The Corporation of the City of Brampton***
From The Gore Road to Highway 50 Brampton ON L6Y 5T1

Database: ***ECA***

Approval No:	6949-8A9KGR	***MOE District:***	
Approval Date:	2010-10-19	***City:***	

Status:	Approved	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	
Approval Type:	ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS		
Project Type:	MUNICIPAL AND PRIVATE SEWAGE WORKS		
Address:	From The Gore Road to Highway 50		
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/7523-84SJRW-14.pdf		

Site: ***The Corporation of the City of Brampton***
From The Gore Road to Highway 50 Brampton ON L6Y 5T1

Database: ***ECA***

Approval No:	7097-86EPGY	***MOE District:***	
Approval Date:	2010-07-21	***City:***	
Status:	Revoked and/or Replaced	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	
Approval Type:	ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS		
Project Type:	MUNICIPAL AND PRIVATE SEWAGE WORKS		
Address:	From The Gore Road to Highway 50		
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/0297-856JXP-14.pdf		

Site: ***The Regional Municipality of Peel***
Clarkway Dr between Castlemore Rd and Countryside Dr, Brampton ON L6S 4J3

Database: ***ECA***

Approval No:	6393-8DGKHP	***MOE District:***	
Approval Date:	2011-02-08	***City:***	
Status:	Approved	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	
Approval Type:	ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS		
Project Type:	MUNICIPAL AND PRIVATE SEWAGE WORKS		
Address:	Clarkway Dr between Castlemore Rd and Countryside Dr,		
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/3007-8CFK8S-14.pdf		

Site:
Rutherford Road Vaughan ON

Database: ***EHS***

Order No:	20060525020	***Nearest Intersection:***	Rutherford Rd and Bathurst St
Status:	C	***Municipality:***	York
Report Type:	Basic Report	***Client Prov/State:***	ON
Report Date:	6/2/2006	***Search Radius (km):***	0.25
Date Received:	5/25/2006	***X:***	-79.465661
Previous Site Name:		***Y:***	43.845442
Lot/Building Size:			
Additional Info Ordered:			

Site:
Highway 50 - no municipal address Bolton ON

Database: ***EHS***

Order No:	20041222004	***Nearest Intersection:***	
Status:	C	***Municipality:***	
Report Type:	Complete Report	***Client Prov/State:***	ON
Report Date:	1/3/05	***Search Radius (km):***	0.5
Date Received:	12/22/04	***X:***	-79.723944
Previous Site Name:		***Y:***	43.8557
Lot/Building Size:			

Additional Info Ordered:

Site: ***REGIONAL MUNICIPALITY OF YORK TONY PULLA***
RUTHERFORD RD MAINTENANCE DEPOT MAPLE ON

Database: ***EXP***

Instance No:	10125851
Instance ID:	12398
Instance Type:	FS Facility
Description:	FS Propane Refill Cntr - Cylr Fill
Status:	EXPIRED
TSSA Program Area:	
Maximum Hazard Rank:	
Facility Type:	
Expired Date:	

Site:
LOT 13, CONCESSION 10 BRAMPTON ON

Database: ***HINC***

External File Num:	FS INC 0609-02662
Fuel Occurrence Type:	
Date of Occurrence:	
Fuel Type Involved:	
Status Desc:	Completed - No Action Required
Job Type Desc:	Incident/Near-Miss Occurrence (FS)
Oper. Type Involved:	
Service Interruptions:	
Property Damage:	
Fuel Life Cycle Stage:	
Root Cause:	
Reported Details:	Leak is on a natural gas well on property owned by TransCanada Pipeline.
Fuel Category:	Gaseous Fuel
Occurrence Type:	Near-miss
Affiliation:	Industry Stakeholder (Licensee/Registration/Certificate Holder, Facility Owner, etc.)
County Name:	Halton
Approx. Quant. Rel:	
Nearby body of water:	
Enter Drainage Syst.:	
Approx. Quant. Unit:	
Environmental Impact:	

Site: ***SANT'S COLD CREEK NURSERY***
R. R. #2, HWY. 50 BOLTON ON L7E5R8

Database: ***PES***

Detail Licence No:		***Operator Box:***	
Licence No:	09418	***Operator Class:***	
Status:		***Operator No:***	
Approval Date:		***Operator Type:***	
Report Source:	Legacy Licenses (Excluding TS)	***Oper Area Code:***	416
Licence Type:	Retail Vendor Class 03	***Oper Phone No:***	8570416
Licence Type Code:	21	***Operator Ext:***	
Licence Class:	03	***Operator Lot:***	
Licence Control:		***Oper Concession:***	
Latitude:		***Operator Region:***	
Longitude:		***Operator District:***	
Lot:		***Operator County:***	
Concession:		***Op Municipality:***	
Region:		***Post Office Box:***	
District:		***MOE District:***	
County:		***SWP Area Name:***	
Trade Name:			
PDF Link:			

Site: ***SANT'S COLD CREEK NURSERY***
R. R. #2, HWY. 50 BOLTON ON L7E5R8

Database: ***PES***

Detail Licence No:	23-01-09418-0	***Operator Box:***	
Licence No:	09418	***Operator Class:***	
Status:		***Operator No:***	
Approval Date:		***Operator Type:***	
Report Source:	Legacy Licenses (Excluding TS)	***Oper Area Code:***	416
Licence Type:	Limited Vendor	***Oper Phone No:***	8570416
Licence Type Code:	23	***Operator Ext:***	
Licence Class:	01	***Operator Lot:***	
Licence Control:	0	***Oper Concession:***	
Latitude:		***Operator Region:***	3
Longitude:		***Operator District:***	1
Lot:		***Operator County:***	49
Concession:		***Op Municipality:***	
Region:	3	***Post Office Box:***	
District:	1	***MOE District:***	
County:	49	***SWP Area Name:***	
Trade Name:			
PDF Link:			

Site: ***SONNY'S ESSO***
17200 50 HWY BRAMPTON ON L0N 1P0

Database: ***RST***

Headcode:	1186800
Headcode Desc:	Service Stations-Gasoline, Oil & Natural Gas
Phone:	9058800086
List Name:	
Description:	

Site: ***CALEDON SAND & GRAVEL INC.***
HIGHWAY 50 RR 1 BOLTON ON L7E 5Z7

Database: ***SCT***

Established:	1966
Plant Size (ft²):	0
Employment:	47

--Details--

Description:	MINERALS AND EARTHS, GROUND OR OTHERWISE TREATED
SIC/NAICS Code:	3295

Site: ***James Dick Concrete Aggregates - Div. of James Dick Construction Ltd.***
Hwy 50 Bolton ON L7E 5T4

Database: ***SCT***

Established:	1964
Plant Size (ft²):	10000
Employment:	250

--Details--

Description:	All Other Non-Metallic Mineral Product Manufacturing
SIC/NAICS Code:	327990

Site: ***JAMES DICK CONCRETE AGGREGATES***
HWY 50 BOLTON ON L7E 5T4

Database: ***SCT***

Established:	1964
Plant Size (ft²):	10000
Employment:	250

--Details--
Description: Ready-Mix Concrete Manufacturing
SIC/NAICS Code: 327320

Description: All Other Non-Metallic Mineral Product Manufacturing
SIC/NAICS Code: 327990

Site: ***Caledon Sand & Gravel Inc.***
Hwy 50 Bolton ON L7E 5Z7

Database: ***SCT***

Established: 1966
Plant Size (ft²):
Employment: 47

--Details--
Description: All Other Non-Metallic Mineral Product Manufacturing
SIC/NAICS Code: 327990

Description: Other Specialty-Line Building Supplies Wholesaler-Distributors
SIC/NAICS Code: 416390

Site:
North of Rutherford Vaughan ON

Database: ***SPL***

Ref No:	4554-78LQU6	***Discharger Report:***	
Site No:		***Material Group:***	Oil
Incident Dt:		***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	Other Transport Accident	***Sector Type:***	Other Motor Vehicle
Incident Event:		***Agency Involved:***	
Contaminant Code:	13	***Nearest Watercourse:***	
Contaminant Name:	DIESEL FUEL	***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	Not Anticipated	***Site Municipality:***	Vaughan
Nature of Impact:	Soil Contamination; Surface Water Pollution	***Site Lot:***	
Receiving Medium:	Land & Water	***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:		***Easting:***	
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	11/3/2007	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	
Incident Reason:	Unknown - Reason not determined	***Source Type:***	
Site Name:	Hwy 50<UNOFFICIAL>		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	MVA: Hwy 50, 150 L diesel to ditch, cleaning		
Contaminant Qty:	150 L		

Site: ***Huna Transport Inc.<UNOFFICIAL>***
Regional Road # 50, south of Rutherford Drive Brampton ON

Database: ***SPL***

Ref No:	7457-8B544C	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:		***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	Other Transport Accident	***Sector Type:***	Transport Truck
Incident Event:		***Agency Involved:***	
Contaminant Code:	13	***Nearest Watercourse:***	
Contaminant Name:	DIESEL FUEL	***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	

Contaminant UN No 1:		***Site Region:***	
Environment Impact:	Not Anticipated	***Site Municipality:***	
Nature of Impact:	Soil Contamination	***Site Lot:***	
Receiving Medium:		***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:	No Field Response	***Easting:***	
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	11/11/2010	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	Highway Spills (usually highway accidents)
Incident Reason:	Error- Operator error	***Source Type:***	
Site Name:	highway<UNOFFICIAL>		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	TT: diesel to road; ~ 283 L; cntnd & clng		
Contaminant Qty:	283 L		

Site: ***Canadian Pacific Railway Company***
mile 15.3 Mac Tier Sub Vaughan ON

Database: ***SPL***

Ref No:	6140-9MXE45	***Discharger Report:***	
Site No:	NA	***Material Group:***	
Incident Dt:	2014/08/13	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	Leak/Break	***Sector Type:***	Motor Vehicle
Incident Event:		***Agency Involved:***	
Contaminant Code:	15	***Nearest Watercourse:***	
Contaminant Name:	HYDRAULIC OIL	***Site Address:***	mile 15.3 Mac Tier Sub
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	Not Anticipated	***Site Municipality:***	Vaughan
Nature of Impact:	Other Impact(s)	***Site Lot:***	
Receiving Medium:		***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:		***Easting:***	
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	2014/08/13	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	Land Spills
Incident Reason:	Material Failure - Poor Design/Substandard Material	***Source Type:***	
Site Name:	Vaughan Yard<UNOFFICIAL>		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	CP Rail: 3 L hydraulic oil to concrete pad		
Contaminant Qty:	3 L		

Site: ***LODWICK TRANSPORT***
HWY 50 JUST SOUTH OF BOLTON TRANSPORT TRUCK (CARGO) PEEL R.M. ON

Database: ***SPL***

Ref No:	39013	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:	8/9/1990	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	OTHER TRANSPORTATION ACCIDENT	***Sector Type:***	
Incident Event:		***Agency Involved:***	
Contaminant Code:		***Nearest Watercourse:***	
Contaminant Name:		***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	POSSIBLE	***Site Municipality:***	21000
Nature of Impact:		***Site Lot:***	
Receiving Medium:	LAND	***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:		***Easting:***	OPP, FD, PEEL R.M.
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	

MOE Reported Dt:	8/9/1990	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	
Incident Reason:	UNKNOWN	***Source Type:***	
Site Name:			
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	LODWICK TRANSPORT - 150 L CAR PAINT TO DITCH.		
Contaminant Qty:			

Site: ***UNKNOWN***
HWY 50 BETWEEN HWY 9 AND HWY 7 BRAMPTON CITY ON

Database: ***SPL***

Ref No:	229955	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:	6/27/2002	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	OTHER CONTAINER LEAK	***Sector Type:***	
Incident Event:		***Agency Involved:***	REGION OF PEEL
Contaminant Code:		***Nearest Watercourse:***	
Contaminant Name:		***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	POSSIBLE	***Site Municipality:***	21101
Nature of Impact:	Soil contamination	***Site Lot:***	
Receiving Medium:	LAND	***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:		***Easting:***	
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	6/27/2002	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	
Incident Reason:	UNKNOWN	***Source Type:***	
Site Name:			
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	TRAIL OF VEGETABLE BASED OIL ON ASPHALT RD (HWY50) MOSTLY ABSORBED,SANDED		
Contaminant Qty:			

Site: ***TRANSPORT TRUCK***
HWY 50 & 22 ND LINE MOTOR VEHICLE (OPERATING FLUID) BRAMPTON CITY ON

Database: ***SPL***

Ref No:	78951	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:	10/2/1992	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	OTHER CONTAINER LEAK	***Sector Type:***	
Incident Event:		***Agency Involved:***	
Contaminant Code:		***Nearest Watercourse:***	
Contaminant Name:		***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	NOT ANTICIPATED	***Site Municipality:***	21101
Nature of Impact:		***Site Lot:***	
Receiving Medium:	LAND	***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:		***Easting:***	OPP,PEEL REG,FD,MTO.
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	10/2/1992	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	
Incident Reason:	ERROR	***Source Type:***	
Site Name:			
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	BACKENTRY/TRNASPORT TRUCK-135 L DIESEL FUEL TO THEROADWAY,OPP,FD,MTO.		
Contaminant Qty:			

Site: ***PRIVATE OWNER***
HWY 50 N OF BOLTON-TOP OF HILL ACROSS FROM PETRO CANADA STORAGE TANK/BARREL PEEL R.M. ON

Database: ***SPL***

Ref No:	38095	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:	7/23/1990	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	PIPE/HOSE LEAK	***Sector Type:***	
Incident Event:		***Agency Involved:***	
Contaminant Code:		***Nearest Watercourse:***	
Contaminant Name:		***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	CONFIRMED	***Site Municipality:***	21000
Nature of Impact:	Soil contamination	***Site Lot:***	
Receiving Medium:	LAND	***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:		***Easting:***	
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	7/23/1990	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	
Incident Reason:	CORROSION	***Source Type:***	
Site Name:			
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	FURNACE OIL TO GROUND		
Contaminant Qty:			

Site: ***TMT Freight Systems***
West side of Hwy 50 1 km North of Rutherford Rd Brampton ON

Database: ***SPL***

Ref No:	1611-9QXLBE	***Discharger Report:***	
Site No:	NA	***Material Group:***	
Incident Dt:	2014/11/17	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	Collision/Accident	***Sector Type:***	Truck - Only Saddle Tanks
Incident Event:		***Agency Involved:***	
Contaminant Code:	13	***Nearest Watercourse:***	
Contaminant Name:	DIESEL FUEL	***Site Address:***	West side of Hwy 50 1 km North of Rutherford Rd
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:		***Site Municipality:***	Brampton
Nature of Impact:	Land	***Site Lot:***	
Receiving Medium:		***Site Conc:***	
Receiving Env:		***Northing:***	4852535
MOE Response:	Y	***Easting:***	606558
Dt MOE Arvl on Scn:	2014/11/18	***Site Geo Ref Accu:***	
MOE Reported Dt:	2014/11/17	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	Primary Assessment of Incident
Incident Reason:	Operator/Human Error	***Source Type:***	
Site Name:	Southbound lane and Road-side ditch<UNOFFICIAL>		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	TMT Freight Systems, ~250L dsl to ditch. contained		
Contaminant Qty:	250 L		

Site: ***Mancuso Paving Limited***
SB Hwy 50 at Clarkway Dr Brampton ON

Database: ***SPL***

Ref No:	6361-AH4JKY	***Discharger Report:***	

Site No:	NA	***Material Group:***	
Incident Dt:	2016/12/29	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:		***Sector Type:***	Municipal Sewage
Incident Event:	Collision/Accident	***Agency Involved:***	
Contaminant Code:	13	***Nearest Watercourse:***	
Contaminant Name:	DIESEL FUEL	***Site Address:***	SB Hwy 50 at Clarkway Dr
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:		***Site Municipality:***	Brampton
Nature of Impact:		***Site Lot:***	
Receiving Medium:		***Site Conc:***	
Receiving Env:	Land; Surface Water	***Northing:***	
MOE Response:	No	***Easting:***	
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	2016/12/29	***Site Map Datum:***	
Dt Document Closed:	2017/01/09	***SAC Action Class:***	Highway Spills (usually highway accidents)
Incident Reason:	Operator/Human Error	***Source Type:***	
Site Name:	Diesel spill<UNOFFICIAL>		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	TT MVA Hwy 50, 50-100L diesel to shoulder, CBs, cntd		
Contaminant Qty:	100 L		

Site: ***Anytime, Anywhere Transport<UNOFFICIAL>***
between Huntington Rd and Hwy 50, North shoulder Vaughan ON

Database: ***SPL***

Ref No:	1878-7MT68N	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:		***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	Other Transport Accident	***Sector Type:***	Transport Truck
Incident Event:		***Agency Involved:***	
Contaminant Code:	14	***Nearest Watercourse:***	
Contaminant Name:	ASPHALT	***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	York-Durham
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	Possible	***Site Municipality:***	Vaughan
Nature of Impact:	Soil Contamination	***Site Lot:***	
Receiving Medium:		***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:	No Field Response	***Easting:***	
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	12/29/2008	***Site Map Datum:***	
Dt Document Closed:	3/24/2009	***SAC Action Class:***	Primary Assessment of Incident
Incident Reason:	Other - Reason not otherwise defined	***Source Type:***	
Site Name:	Major Mackenzie Rd<UNOFFICIAL>		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Anytime, Anywhere Transpo: granular asphalt to field		
Contaminant Qty:	0 other - see incident description		

Site: ***Canadian National Railway Company***
Rutherford Road Vaughan ON

Database: ***SPL***

Ref No:	7343-9PHPEW	***Discharger Report:***	
Site No:	NA	***Material Group:***	
Incident Dt:	2014/10/02	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	Leak/Break	***Sector Type:***	Train
Incident Event:		***Agency Involved:***	
Contaminant Code:	27	***Nearest Watercourse:***	
Contaminant Name:	HEXAMETHYLENEDIAMINE	***Site Address:***	Rutherford Road
Contaminant Limit 1:		***Site District Office:***	

Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	Not Anticipated	***Site Municipality:***	Vaughan
Nature of Impact:	Soil Contamination	***Site Lot:***	
Receiving Medium:		***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:	No Field Response	***Easting:***	
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	2014/10/02	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	Derailment / Railway Spills
Incident Reason:	Unknown / N/A	***Source Type:***	
Site Name:	MacMillan Yard<UNOFFICIAL>		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	CN MacMillan Yard: leak of hexamethylendiamine from railcar		
Contaminant Qty:	0 other - see incident description		

Site: ***CANADIAN PACIFIC RAILWAYS***
MILE 7.9, MACTIER SUB, JUST SOUTH OF WOODBRIDGE TRAIN VAUGHAN CITY ON

Database: ***SPL***

Ref No:	151023	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:	1/4/1998	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	OTHER CONTAINER LEAK	***Sector Type:***	
Incident Event:		***Agency Involved:***	
Contaminant Code:		***Nearest Watercourse:***	
Contaminant Name:		***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	POSSIBLE	***Site Municipality:***	27101
Nature of Impact:	Soil contamination	***Site Lot:***	
Receiving Medium:	LAND	***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:		***Easting:***	EPS
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	1/4/1998	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	
Incident Reason:	UNKNOWN	***Source Type:***	
Site Name:			
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	CP RAIL: 45 L DIESEL TO RAILBED FROM LEAKING TANK, UNRECOVERABLE.		
Contaminant Qty:			

Site: ***CANADIAN PACIFIC RAILWAYS***
12.8-15.2 RAILWAY MILEAGE. TRAIN VAUGHAN CITY ON

Database: ***SPL***

Ref No:	159045	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:	8/15/1998	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	PIPE/HOSE LEAK	***Sector Type:***	
Incident Event:		***Agency Involved:***	
Contaminant Code:		***Nearest Watercourse:***	
Contaminant Name:		***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	CONFIRMED	***Site Municipality:***	27101
Nature of Impact:	Soil contamination	***Site Lot:***	
Receiving Medium:	LAND	***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:		***Easting:***	ENVT CANADA
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	

MOE Reported Dt:	8/15/1998	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	
Incident Reason:	EQUIPMENT FAILURE	***Source Type:***	
Site Name:			
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	CANADIAN PACIFIC RAILWAYS225 L HYDRAULIC OIL ALONG4 KM, NO CLEANUP.		
Contaminant Qty:			

Site: ***PUROLATOR COURIER LTD.***
WAREHOUSE BRAMPTON CITY ON

Database: ***SPL***

Ref No:	19194	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:	5/27/1989	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	OTHER CONTAINER LEAK	***Sector Type:***	
Incident Event:		***Agency Involved:***	
Contaminant Code:		***Nearest Watercourse:***	
Contaminant Name:		***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:		***Site Municipality:***	21101
Nature of Impact:		***Site Lot:***	
Receiving Medium:	AIR	***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:		***Easting:***	CANUTEC,MOE
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	5/27/1989	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	
Incident Reason:	ERROR	***Source Type:***	
Site Name:			
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	PUROLATOR-1 L DICHLORO METHANE TO FLOOR- VAPOURSOUTSIDE WAREHOUSE		
Contaminant Qty:			

Site: ***CANADIAN PACIFIC RAILWAYS***
MACTIER SUBDIVISION BEFORE VAUGHAN AND UTOPIA ON CP RAIL TRACK MOTOR VEHICLE (OPERATING FLUID) VAUGHAN CITY ON

Database: ***SPL***

Ref No:	169491	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:	6/27/1999	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	OTHER CONTAINER LEAK	***Sector Type:***	
Incident Event:		***Agency Involved:***	
Contaminant Code:		***Nearest Watercourse:***	
Contaminant Name:		***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	POSSIBLE	***Site Municipality:***	27101
Nature of Impact:	Soil contamination	***Site Lot:***	
Receiving Medium:	LAND	***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:		***Easting:***	
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	6/27/1999	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	
Incident Reason:	EQUIPMENT FAILURE	***Source Type:***	
Site Name:			
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	CP RAIL: SPILL OF 5,600 LDIESEL FUEL OVER 72 KM TRAIN STOPPED REPAIRS TBA		

Contaminant Qty:

Site:
lot 18 con 10 VAUGHAN ON

Database:
WWIS

Well ID:	7036953	***Data Entry Status:***	
Construction Date:		***Data Src:***	
Primary Water Use:		***Date Received:***	11/16/2006
Sec. Water Use:		***Selected Flag:***	Yes
Final Well Status:	Abandoned-Other	***Abandonment Rec:***	Yes
Water Type:		***Contractor:***	5459
Casing Material:		***Form Version:***	3
Audit No:	Z56409	***Owner:***	
Tag:	A048213	***Street Name:***	VAUGHAN YARD
Construction Method:		***County:***	YORK
Elevation (m):		***Municipality:***	VAUGHAN TOWN (VAUGHAN TWP)
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	018
Well Depth:		***Concession:***	10
Overburden/Bedrock:		***Concession Name:***	
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	11761112	***Elevation:***	
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	
Code OB:	_	***East83:***	
Code OB Desc:	No formation data	***North83:***	
Open Hole:		***Org CS:***	
Cluster Kind:		***UTMRC:***	
Date Completed:	10/26/2006	***UTMRC Desc:***	
Remarks:		***Location Method:***	
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID:	933310297
Layer:	2
Plug From:	41.7
Plug To:	2
Plug Depth UOM:	m

Annular Space/Abandonment Sealing Record

Plug ID:	933310298
Layer:	3
Plug From:	2
Plug To:	0
Plug Depth UOM:	m

Annular Space/Abandonment Sealing Record

Plug ID: 933310296
Layer: 1
Plug From: 45
Plug To: 41.7
Plug Depth UOM: m

Pipe Information

Pipe ID: 11768802
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930893324
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From: 45
Depth To: 0
Casing Diameter: 15.24
Casing Diameter UOM: cm
Casing Depth UOM: m

Hole Diameter

Hole ID: 11847017
Diameter: 15.29
Depth From: 45
Depth To: 0
Hole Depth UOM: m
Hole Diameter UOM: cm

Site:
lot 18 ON

Database:
WWIS

Well ID: 6714474
Construction Date:
Primary Water Use: Domestic
Sec. Water Use:
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No: 257922
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src: 1
Date Received: 6/20/2003
Selected Flag: Yes
Abandonment Rec:
Contractor: 2663
Form Version: 1
Owner:
Street Name:
County: WELLINGTON
Municipality: PEEL TOWNSHIP
Site Info:
Lot: 018
Concession:
Concession Name: CON
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 10542319
DP2BR:
Spatial Status:
Code OB: o

Elevation:
Elevrc:
Zone: 17
East83:

Code OB Desc: Overburden
Open Hole:
Cluster Kind:
Date Completed: 6/10/2003
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

North83:
Org CS:
UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: na

Overburden and Bedrock Materials Interval

Formation ID: 932922171
Layer: 6
Color:
General Color:
Mat1: 11
Most Common Material: GRAVEL
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 190
Formation End Depth: 195
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932922168
Layer: 3
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2: 12
Other Materials: STONES
Mat3: 14
Other Materials: HARDPAN
Formation Top Depth: 68
Formation End Depth: 145
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932922170
Layer: 5
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2: 11
Other Materials: GRAVEL
Mat3:
Other Materials:
Formation Top Depth: 183
Formation End Depth: 190
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932922169
Layer: 4
Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2: 05
Other Materials: CLAY
Mat3:
Other Materials:
Formation Top Depth: 145
Formation End Depth: 183
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932922166
Layer: 1
Color: 8
General Color: BLACK
Mat1: 02
Most Common Material: TOPSOIL
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 0
Formation End Depth: 2
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932922167
Layer: 2
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2: 14
Other Materials: HARDPAN
Mat3:
Other Materials:
Formation Top Depth: 2
Formation End Depth: 68
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933240232
Layer: 1
Plug From: 0
Plug To: 20
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID:
Method Construction Code: 4
Method Construction: Rotary (Air)
Other Method Construction:

Pipe Information

Pipe ID: 11090889
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930779174
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 195
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 996714474
Pump Set At:
Static Level: 50
Final Level After Pumping: 54
Recommended Pump Depth: 120
Pumping Rate: 16
Flowing Rate:
Recommended Pump Rate: 16
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 1
Water State After Test: CLEAR
Pumping Test Method: 1
Pumping Duration HR: 1
Pumping Duration MIN: 0
Flowing: N

Draw Down & Recovery

Pump Test Detail ID: 934875227
Test Type: Draw Down
Test Duration: 45
Test Level: 54
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934614215
Test Type: Draw Down
Test Duration: 30
Test Level: 54
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934350768
Test Type: Draw Down
Test Duration: 15
Test Level: 54
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID:	935136286
Test Type:	Draw Down
Test Duration:	60
Test Level:	54
Test Level UOM:	ft

Water Details

Water ID:	934036121
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	195
Water Found Depth UOM:	ft

Site:
BOLTON ON

Database:
WWIS

Well ID:	4909998	***Data Entry Status:***	
Construction Date:		***Data Src:***	
Primary Water Use:		***Date Received:***	12/20/2005
Sec. Water Use:		***Selected Flag:***	Yes
Final Well Status:	Observation Wells	***Abandonment Rec:***	
Water Type:		***Contractor:***	7201
Casing Material:		***Form Version:***	3
Audit No:	Z41333	***Owner:***	
Tag:	_NO_TAG	***Street Name:***	HWY 50
Construction Method:		***County:***	PEEL
Elevation (m):		***Municipality:***	CALEDON TOWN (BOLTON)
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	
Well Depth:		***Concession:***	
Overburden/Bedrock:		***Concession Name:***	
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	11323731	***Elevation:***	
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	
Code OB:	o	***East83:***	
Code OB Desc:	Overburden	***North83:***	
Open Hole:		***Org CS:***	
Cluster Kind:		***UTMRC:***	
Date Completed:	8/17/2005	***UTMRC Desc:***	
Remarks:		***Location Method:***	na
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	933021963
Layer:	3
Color:	2
General Color:	GREY

Mat1: 05
Most Common Material: CLAY
Mat2: 06
Other Materials: SILT
Mat3:
Other Materials:
Formation Top Depth: 4.2
Formation End Depth: 8.2
Formation End Depth UOM: m

Overburden and Bedrock Materials Interval

Formation ID: 933021961
Layer: 1
Color: 6
General Color: BROWN
Mat1: 01
Most Common Material: FILL
Mat2: 28
Other Materials: SAND
Mat3: 69
Other Materials: FINE-GRAINED
Formation Top Depth: 0
Formation End Depth: 0.9
Formation End Depth UOM: m

Overburden and Bedrock Materials Interval

Formation ID: 933021962
Layer: 2
Color: 6
General Color: BROWN
Mat1: 06
Most Common Material: SILT
Mat2: 01
Other Materials: FILL
Mat3:
Other Materials:
Formation Top Depth: 0.9
Formation End Depth: 4.2
Formation End Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 933283602
Layer: 1
Plug From: 0
Plug To: 0.8
Plug Depth UOM: m

Method of Construction & Well Use

Method Construction ID:
Method Construction Code: 6
Method Construction: Boring
Other Method Construction:

Pipe Information

Pipe ID: 11338586
Casing No: 1

Comment:
Alt Name:

Construction Record - Casing

Casing ID:	930866784
Layer:	1
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	
Casing Diameter:	3.2
Casing Diameter UOM:	cm
Casing Depth UOM:	m

Construction Record - Screen

Screen ID:	933416141
Layer:	1
Slot:	10
Screen Top Depth:	
Screen End Depth:	
Screen Material:	5
Screen Depth UOM:	m
Screen Diameter UOM:	cm
Screen Diameter:	3.2

Hole Diameter

Hole ID:	11543600
Diameter:	20
Depth From:	0
Depth To:	8.2
Hole Depth UOM:	m
Hole Diameter UOM:	cm

Site:
con 12 ON

Database:
WWIS

Well ID:	6709490	***Data Entry Status:***	
Construction Date:		***Data Src:***	1
Primary Water Use:	Domestic	***Date Received:***	1/4/1989
Sec. Water Use:		***Selected Flag:***	Yes
Final Well Status:	Water Supply	***Abandonment Rec:***	
Water Type:		***Contractor:***	1804
Casing Material:		***Form Version:***	1
Audit No:	34882	***Owner:***	
Tag:		***Street Name:***	
Construction Method:		***County:***	WELLINGTON
Elevation (m):		***Municipality:***	PEEL TOWNSHIP
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	
Well Depth:		***Concession:***	12
Overburden/Bedrock:		***Concession Name:***	CON
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	10473339	***Elevation:***	
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17

Code OB: o
Code OB Desc: Overburden
Open Hole:
Cluster Kind:
Date Completed: 12/8/1988
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

East83:
North83:
Org CS:
UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: na

Overburden and Bedrock Materials Interval

Formation ID: 932643757
Layer: 2
Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2: 05
Other Materials: CLAY
Mat3:
Other Materials:
Formation Top Depth: 2
Formation End Depth: 62
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932643760
Layer: 5
Color: 6
General Color: BROWN
Mat1: 11
Most Common Material: GRAVEL
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 145
Formation End Depth: 160
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932643758
Layer: 3
Color: 6
General Color: BROWN
Mat1: 11
Most Common Material: GRAVEL
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 62
Formation End Depth: 68
Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID: 932643756
Layer: 1
Color: 8
General Color: BLACK
Mat1: 02
Most Common Material: TOPSOIL
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 0
Formation End Depth: 2
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932643759
Layer: 4
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 68
Formation End Depth: 145
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID:
Method Construction Code: 2
Method Construction: Rotary (Convent.)
Other Method Construction:

Pipe Information

Pipe ID: 11021909
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930770572
Layer: 1
Material: 2
Open Hole or Material: GALVANIZED
Depth From:
Depth To: 160
Casing Diameter: 5
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930770573
Layer: 2
Material: 4

Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 160
Casing Diameter:
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 996709490
Pump Set At:
Static Level: 70
Final Level After Pumping: 130
Recommended Pump Depth: 145
Pumping Rate: 6
Flowing Rate:
Recommended Pump Rate: 4
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 1
Water State After Test: CLEAR
Pumping Test Method: 1
Pumping Duration HR: 2
Pumping Duration MIN: 0
Flowing: N

Draw Down & Recovery

Pump Test Detail ID: 934342716
Test Type: Recovery
Test Duration: 15
Test Level: 80
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 935138696
Test Type: Recovery
Test Duration: 60
Test Level: 70
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934617713
Test Type: Recovery
Test Duration: 30
Test Level: 72
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934870017
Test Type: Recovery
Test Duration: 45
Test Level: 70
Test Level UOM: ft

Water Details

Water ID: 933962911
Layer: 1
Kind Code: 1
Kind: FRESH

Water Found Depth: 148
Water Found Depth UOM: ft

Appendix: Database Descriptions

Environmental Risk Information Services (ERIS) 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 ERIS at the time of update. ***Note:*** *Databases denoted with " * " indicates that the database will no longer be updated. See the individual database description for more information.*

Abandoned Aggregate Inventory: Provincial AAGR

The MAAP Program maintains a database of 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.*

Government Publication Date: Sept 2002*

Aggregate Inventory: Provincial AGR

The Ontario Ministry of Natural Resources maintains a database of all active pits and quarries. The database provides information regarding the registered owner/operator, location name, operation type, approval type, and maximum annual tonnage.

Government Publication Date: Up to Sep 2018

Abandoned Mine Information System: Provincial 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.

Government Publication Date: 1800-Oct 2018

Anderson's Waste Disposal Sites: Private 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 authoritative. The information was collected for research purposes only.

Government Publication Date: 1860s-Present

Automobile Wrecking & Supplies: Private AUWR

This database provides an inventory of 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.

Government Publication Date: 1999-Jan 31, 2019

Borehole: Provincial 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.

Government Publication Date: 1875-Jul 2018

Certificates of Approval: Provincial CA

This database contains the following types of approvals: Air & Noise, Industrial Sewage, Municipal & Private Sewage, Waste Management Systems and Renewable Energy Approvals. The MOE in Ontario states that any facility that releases emissions to the atmosphere, discharges contaminants to ground or surface water, provides potable water supplies, or stores, transports or disposes of waste, must have a Certificate of Approval before it can operate lawfully. Fields include approval number, business name, address, approval date, approval type and status. This database will no longer be updated, as CofA's have been replaced by either Environmental Activity and Sector Registry (EASR) or Environmental Compliance Approval (ECA). Please refer to those individual databases for any information after Oct.31, 2011.

Government Publication Date: 1985-Oct 30, 2011*

Dry Cleaning Facilities: Federal CDRY

List of dry cleaning facilities made available by Environment and Climate Change Canada. Environment and Climate Change Canada's Tetrachloroethylene (Use in Dry Cleaning and Reporting Requirements) Regulations (SOR/2003-79) are intended to reduce releases of tetrachloroethylene to the environment from dry cleaning facilities.

Government Publication Date: Jan 2004-Dec 2017

Commercial Fuel Oil Tanks: Provincial CFOT

List of commercial underground fuel oil tanks made available by the Fuels Safety Program of the Technical Standards & Safety Authority (TSSA). Ontario Regulation 213/01 of the Technical Standards and Safety Act (2000) requires that all underground tanks be registered with the TSSA. Note: the Fuels Safety Division does not register waste oil tanks in apartments, office buildings, residences, etc., or aboveground gas or diesel tanks. Records are not verified for accuracy or completeness. This is not a comprehensive or complete inventory of commercial fuel tanks in the province. The TSSA updates information in its system on an ongoing basis; this listing is a copy of the data captured at one moment in time and is hence limited by the record date provided here.

Government Publication Date: Feb 28, 2017

Chemical Register: Private 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.).

Government Publication Date: 1999-Jan 31, 2019

Compressed Natural Gas Stations: Private CNG

Canada has a network of public access compressed natural gas (CNG) refuelling stations. These stations dispense natural gas in compressed form at 3,000 pounds per square inch (psi), the pressure which is allowed within the current Canadian codes and standards. The majority of natural gas refuelling is located at existing retail gasoline that have a separate refuelling island for natural gas. This list of stations is made available by the Canadian Natural Gas Vehicle Alliance.

Government Publication Date: Dec 2012 - Mar 2019

Inventory of Coal Gasification Plants and Coal Tar Sites: Provincial COAL

This inventory includes both the "Inventory of Coal Gasification Plant Waste Sites in Ontario-April 1987" and the Inventory of Industrial Sites Producing or Using Coal Tar and Related Tars in Ontario-November 1988) collected by the MOE. 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, land use, information on adjoining properties, soil condition, site operators/occupants, site description, potential environmental impacts and historic maps available. This was a one-time inventory.*

Government Publication Date: Apr 1987 and Nov 1988*

Compliance and Convictions: Provincial 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.

Government Publication Date: 1989-May 2019

Certificates of Property Use: Provincial CPU

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include all CPU's on the registry such as (EPA s. 168.6) - Certificate of Property Use.

Government Publication Date: 1994-Jun 30, 2019

Drill Hole Database: Provincial 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".

Government Publication Date: 1886 - Oct 2018

Environmental Activity and Sector Registry: Provincial EASR

On October 31, 2011, a smarter, faster environmental approvals system came into effect in Ontario. The EASR allows businesses to register certain activities with the ministry, rather than apply for an approval. The registry is available for common systems and processes, to which preset rules of operation can be applied. The EASR is currently available for: heating systems, standby power systems and automotive refinishing. Businesses whose activities aren't subject to the EASR may apply for an ECA (Environmental Compliance Approval), Please see our ECA database.

Government Publication Date: Oct 2011-Jun 31, 2019

Environmental Registry: Provincial 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, license, or certificate of approval to release substances into the air or water; these are notified on the registry. Data includes: Approval for discharge into the natural environment other than water (i.e. Air) - EPA s. 9, Approval for sewage works - OWRA s. 53(1), and EPA s. 27 - Approval for a waste disposal site. For information regarding Permit to Take Water (PTTW), Certificate of Property Use (CPU) and (ORD) Orders please refer to those individual databases.

Government Publication Date: 1994-Jun 30, 2019

Environmental Compliance Approval: Provincial ECA

On October 31, 2011, a smarter, faster environmental approvals system came into effect in Ontario. In the past, a business had to apply for multiple approvals (known as certificates of approval) for individual processes and pieces of equipment. Today, a business either registers itself, or applies for a single approval, depending on the types of activities it conducts. Businesses whose activities aren't subject to the EASR may apply for an ECA. A single ECA addresses all of a business's emissions, discharges and wastes. Separate approvals for air, noise and waste are no longer required. This database will also include Renewable Energy Approvals. For certificates of approval prior to Nov 1st, 2011, please refer to the CA database. For all Waste Disposal Sites please refer to the WDS database.

Government Publication Date: Oct 2011-Jun 30, 2019

Environmental Effects Monitoring: Federal 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.

Government Publication Date: 1992-2007*

ERIS Historical Searches: Private EHS

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.

Government Publication Date: 1999-Apr 30, 2019

Environmental Issues Inventory System: Federal 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.

Government Publication Date: 1992-2001*

Emergency Management Historical Event: Provincial EMHE

List of locations of historical occurrences of emergency events, including those assigned to the Ministry of Natural Resources by Order-In-Council (OIC) under the Emergency Management and Civil Protection Act, as well as events where MNR provided requested emergency response assistance. Many of these events will have involved community evacuations, significant structural loss, and/or involvement of MNR emergency response staff. These events fall into one of ten (10) type categories: Dam Failure; Drought / Low Water; Erosion; Flood; Forest Fire; Soil and Bedrock Instability; Petroleum Resource Center Event, EMO Requested Assistance, Continuity of Operations Event, Other Requested Assistance. EMHE record details are reproduced by ERIS under License with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2017.

Government Publication Date: Dec 31, 2016

Environmental Penalty Annual Report: Provincial EPAR

This database contains data from Ontario's annual environmental penalty report published by the Ministry of the Environment and Climate Change. These reports provide information on environmental penalties for land or water violations issued to companies in one of the nine industrial sectors covered by the Municipal Industrial Strategy for Abatement (MISA) regulations.

Government Publication Date: Jan 1, 2011 - Dec 31, 2018

List of TSSA Expired Facilities: Provincial EXP

List of facilities and tanks - for which there was once a registration - no longer registered with the Fuels Safety Program of the Technical Standards and Safety Authority (TSSA). Includes private fuel outlets, bulk plants, fuel oil tanks, gasoline stations, marinas, propane filling stations, liquid fuel tanks, piping systems, etc. Tanks which have been removed from the ground are included in the expired facilities inventory held by the TSSA. Notes: 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; nor does the Division register waste oil tanks in apartments, office buildings, residences, etc., or aboveground gas or diesel tanks. Records are not verified for accuracy or completeness. This is not a comprehensive or complete inventory of expired tanks/tank facilities in the province. The TSSA updates information in its system on an ongoing basis; this listing is hence limited by the record date provided here.

Government Publication Date: Feb 28, 2017

Federal Convictions: Federal 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.

Government Publication Date: 1988-Jun 2007*

Contaminated Sites on Federal Land: Federal FCS

The Federal Contaminated Sites Inventory includes information on known federal contaminated sites under the custodianship of departments, agencies and consolidated Crown corporations as well as those that are being or have been investigated to determine whether they have contamination arising from past use that could pose a risk to human health or the environment. The inventory also includes non-federal contaminated sites for which the Government of Canada has accepted some or all financial responsibility. It does not include sites where contamination has been caused by, and which are under the control of, enterprise Crown corporations, private individuals, firms or other levels of government.

Government Publication Date: Jun 2000-May 2019

Fisheries & Oceans Fuel Tanks: Federal FOFT

Fisheries & Oceans Canada maintains an inventory of 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.

Government Publication Date: 1964-Sep 2018

Fuel Storage Tank: Provincial FST

List of registered private and retail fuel storage tanks made available by the Fuels Safety Program of the Technical Standards & Safety Authority (TSSA). Ontario Regulation 213/01 of the Technical Standards and Safety Act (2000) requires that all underground tanks be registered with the TSSA. Notes: 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; nor does the Division register waste oil tanks in apartments, office buildings, residences, etc., or aboveground gas or diesel tanks. Records are not verified for accuracy or completeness. This is not a comprehensive or complete inventory of fuel storage tanks/tank facilities in the province. The TSSA updates information in its system on an ongoing basis; this listing is hence limited by the record date provided here.

Government Publication Date: Feb 28, 2017

Fuel Storage Tank - Historic: Provincial FSTH

The Fuels Safety Branch of the Ontario Ministry of Consumer and Commercial Relations maintained a database of all registered private fuel storage tanks. Public records of private fuel storage tanks are only available since the registration became effective in September 1989. This information is now collected by the Technical Standards and Safety Authority.

Government Publication Date: Pre-Jan 2010*

Ontario Regulation 347 Waste Generators Summary: Provincial 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.

Government Publication Date: 1986-Mar 31, 2019

Greenhouse Gas Emissions from Large Facilities: Federal GHG

List of greenhouse gas emissions from large facilities made available by Environment Canada. Greenhouse gas emissions in kilotonnes of carbon dioxide equivalents (kt CO2 eq).

Government Publication Date: 2013-Dec 2017

TSSA Historic Incidents: Provincial HINC

List of historic incidences of spills and leaks of diesel, fuel oil, gasoline, natural gas, propane, and hydrogen recorded by the TSSA in their previous incident tracking system. The TSSA's Fuels Safety Program administers the Technical Standards & Safety Act 2000, providing fuel-related safety services associated with the safe transportation, storage, handling and use of fuels such as gasoline, diesel, propane, natural gas and hydrogen. Under this Act, the TSSA regulates fuel suppliers, storage facilities, transport trucks, pipelines, contractors and equipment or appliances that use fuels. Records are not verified for accuracy or completeness. This is not a comprehensive or complete inventory of historical fuel spills and leaks in the province. This listing is a copy of the data captured at one moment in time and is hence limited by the record date provided here.

Government Publication Date: 2006-June 2009*

Indian & Northern Affairs Fuel Tanks: Federal IAFT

The Department of Indian & Northern Affairs Canada (INAC) maintains an inventory of 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.

Government Publication Date: 1950-Aug 2003*

TSSA Incidents: Provincial INC

List of spills and leaks of diesel, fuel oil, gasoline, natural gas, propane, and hydrogen reported to the Spills Action Centre (SAC) and made available by the Technical Standards and Safety Authority (TSSA). Under the Technical Standards & Safety Act (2000), the TSSA regulates fuel suppliers, storage facilities, transport trucks, pipelines, contractors, and equipment or appliances that use fuels. Includes incidents from fuel-related hazards such as spills, fires, and explosions. Records are not verified for accuracy or completeness. This is not a comprehensive or complete inventory of fuel-related leaks, spills, and incidents in the province. The TSSA updates information in its system on an ongoing basis; this listing is hence limited by the record date provided here.

Government Publication Date: Feb 28, 2017

Landfill Inventory Management Ontario: Provincial LIMO

The Landfill Inventory Management Ontario (LIMO) database is updated every year, as the ministry compiles new and updated information. The inventory will include small and large landfills. Additionally, each year the ministry will request operators of the larger landfills complete a landfill data collection form that will be used to update LIMO and will include the following information from the previous operating year. This will include additional information such as estimated amount of total waste received, landfill capacity, estimated total remaining landfill capacity, fill rates, engineering designs, reporting and monitoring details, size of location, service area, approved waste types, leachate of site treatment, contaminant attenuation zone and more. The small landfills will include information such as site owner, site location and certificate of approval # and status.

Government Publication Date: Feb 28, 2019

Canadian Mine Locations: Private 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.

Government Publication Date: 1998-2009*

Mineral Occurrences: Provincial 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 plan metric (X and Y) coordinates of that point with the coordinates of the same point as defined from a source of higher accuracy.

Government Publication Date: 1846-Jan 2019

National Analysis of Trends in Emergencies System (NATES): Federal 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.

Government Publication Date: 1974-1994*

Non-Compliance Reports: Provincial 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.

Government Publication Date: Dec 31, 2017

National Defense & Canadian Forces Fuel Tanks: Federal NDFT

The Department of National Defense 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.

Government Publication Date: Up to May 2001*

National Defense & Canadian Forces Spills: Federal NDSP

The Department of National Defense 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.

Government Publication Date: Mar 1999-Apr 2018

National Defence & Canadian Forces Waste Disposal Sites: Federal 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.

Government Publication Date: 2001-Apr 2007*

National Energy Board Pipeline Incidents: Federal NEBI

Locations of pipeline incidents from 2008 to present, made available by the National Energy Board (NEB). Includes incidents reported under the Onshore Pipeline Regulations and the Processing Plant Regulations related to pipelines under federal jurisdiction, does not include incident data related to pipelines under provincial or territorial jurisdiction.

Government Publication Date: 2008-Dec 31, 2018

National Energy Board Wells: Federal NEBP

The NEBW database contains information on onshore & offshore oil and gas wells that are outside provincial jurisdiction(s) and are thereby regulated by the National Energy Board. Data is provided regarding the operator, well name, well ID No./UWI, status, classification, well depth, spud and release date.

Government Publication Date: 1920-Feb 2003*

National Environmental Emergencies System (NEES): Federal 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 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.

Government Publication Date: 1974-2003*

National PCB Inventory: Federal NPCB

Environment Canada's National PCB inventory includes information on in-use PCB containing equipment in Canada including federal, provincial and private facilities. Federal out-of-service PCB containing equipment and 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. Some addresses provided may be Head Office addresses and are not necessarily the location of where the waste is being used or stored.

Government Publication Date: 1988-2008*

National Pollutant Release Inventory: Federal 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.

Government Publication Date: 1993-May 2017

Oil and Gas Wells: Private OGWE

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 Nickle's database is updated on a daily basis, however, this database is updated on a monthly basis. More information is available at www.nickles.com.

Government Publication Date: 1988-May 31, 2019

Ontario Oil and Gas Wells: Provincial 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, and well cap date, license 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.

Government Publication Date: 1800-May 2018

Inventory of PCB Storage Sites: Provincial 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.

Government Publication Date: 1987-Oct 2004; 2012-Dec 2013

Orders: Provincial ORD

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include all Orders on the registry such as (EPA s. 17) - Order for remedial work, (EPA s. 18) - Order for preventative measures, (EPA s. 43) - Order for removal of waste and restoration of site, (EPA s. 44) - Order for conformity with Act for waste disposal sites, (EPA s. 136) - Order for performance of environmental measures.

Government Publication Date: 1994-Jun 30, 2019

Canadian Pulp and Paper: Private 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.

Government Publication Date: 1999, 2002, 2004, 2005, 2009-2014

Parks Canada Fuel Storage Tanks: Federal PCFT

Canadian Heritage maintains an inventory of 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.

Government Publication Date: 1920-Jan 2005*

Pesticide Register: Provincial PES

The Ontario Ministry of the Environment and Climate Change maintains a database of licensed operators and vendors of registered pesticides.

Government Publication Date: 1988-Mar 2019

TSSA Pipeline Incidents: Provincial PINC

List of pipeline incidents (strikes, leaks, spills) made available by the Technical Standards and Safety Authority (TSSA). Under the Technical Standards & Safety Act (2000), the TSSA regulates fuel suppliers, storage facilities, transport trucks, pipelines, contractors, and equipment or appliances that use fuels. Records are not verified for accuracy or completeness. This is not a comprehensive or complete inventory of pipeline incidents in the province. The TSSA updates information in its system on an ongoing basis; this listing is hence limited by the record date provided here.

Government Publication Date: Feb 28, 2017

Private and Retail Fuel Storage Tanks: Provincial 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).

Government Publication Date: 1989-1996*

Permit to Take Water: Provincial PTTW

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include all PTTW's on the registry such as OWRA s. 34 - Permit to take water.

Government Publication Date: 1994-Jun 30, 2019

Ontario Regulation 347 Waste Receivers Summary: Provincial 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.

Government Publication Date: 1986-2016

Record of Site Condition: Provincial 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.
RSCs filed after July 1, 2011 will also be included as part of the new (O.Reg. 511/09).

Government Publication Date: 1997-Sept 2001, Oct 2004-May 2019

Retail Fuel Storage Tanks: Private 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.

Government Publication Date: 1999-Jan 31, 2019

Scott's Manufacturing Directory: Private SCT

Scott's Directories is a data bank containing information on over 200,000 manufacturers across Canada. Even though Scott's listings are voluntary, it is the most comprehensive database of Canadian manufacturers available. Information concerning a company's address, plant size, and main products are included in this database.

Government Publication Date: 1992-Mar 2011*

Ontario Spills: Provincial 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.

Government Publication Date: 1988-Feb 2019

Wastewater Discharger Registration Database: Provincial 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).

Government Publication Date: 1990-Dec 31, 2017

Anderson's Storage Tanks: Private 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.

Government Publication Date: 1915-1953*

Transport Canada Fuel Storage Tanks: Federal TCFT

List of fuel storage tanks currently or previously owned or operated by Transport Canada. This inventory also includes tanks on The Pickering Lands, which refers to 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, and falls under the Site Management Policy of Transport Canada, but is administered by Public Works and Government Services Canada. This inventory provides information on the site name, location, tank age, capacity and fuel type.

Government Publication Date: 1970-Aug 2018

TSSA Variances for Abandonment of Underground Storage Tanks: Provincial VAR

List of variances granted for abandoned tanks. Under the Technical Standards and Safety Authority (TSSA) Liquid Fuels Handling Code and Fuel Oil Code, all underground storage tanks must be removed within two years of disuse. If removal of a tank is not feasible, an application may be sought for a variance from this code requirement.
Records are not verified for accuracy or completeness. This is not a comprehensive or complete inventory of tank variances in the province. The TSSA updates information in its system on an ongoing basis; this listing is hence limited by the record date provided here.

Government Publication Date: Feb 28, 2017

Waste Disposal Sites - MOE CA Inventory: Provincial 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. All new Environmental Compliance Approvals handed out after Oct 31, 2011 for Waste Disposal Sites will still be found in this database.

Government Publication Date: Oct 2011-Jun 31, 2019

Waste Disposal Sites - MOE 1991 Historical Approval Inventory: Provincial 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.

Government Publication Date: Up to Oct 1990*

Water Well Information System: Provincial 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.

Government Publication Date: Feb 28, 2019

Definitions

Database Descriptions: This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

Detail Report: This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

Distance: The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries. All values are an approximation.

Direction: The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

Elevation: The elevation value is taken from the location at which the records for the site address have been plotted. All values are an approximation. Source: Google Elevation API.

Executive Summary: This portion of the report is divided into 3 sections:

'Report Summary'- Displays a chart indicating how many records fall on the project property and, within the report search radii.

'Site Report Summary'-Project Property'- This section lists all the records which fall on the project property. For more details, see the 'Detail Report' section.

'Site Report Summary-Surrounding Properties'- This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

Map Key: The map key number is assigned according to closest proximity from the project property. Map Key numbers always start at #1. The project property will always have a map key of '1' if records are available. If there is a number in brackets beside the main number, this will indicate the number of records on that specific property. If there is no number in brackets, there is only one record for that property.

The symbol and colour used indicates 'elevation': the red inverted triangle will dictate 'ERIS Sites with Lower Elevation', the yellow triangle will dictate 'ERIS Sites with Higher Elevation' and the orange square will dictate 'ERIS Sites with Same Elevation.'

Unplottables: These are records that could not be mapped due to various reasons, including limited geographic information. These records may or may not be in your study area, and are included as reference.

Appendix E

Ministry of Environment, Conservations and Parks – FOI

Ontario

Ministry of the Environment and Climate Change

Freedom of Information and
Protection of Privacy Office
40 St. Clair Avenue West, 12th Floor
Toronto ON M4V 1M2
Telephone 416 314-4075

Freedom of Information Request

Instructions

Use this form to request records that are in the Ministry's files on environmental concerns related to properties. Our fax number is 416 314-4285.

For Ministry Use Only

FOI Request Number	Date Request Received (yyyy/mm/dd)
Fee Paid	☐ Cheque ☐ VISA/MC ☐ Cash/Money Order

☐ CNR ☐ ER ☐ NOR ☐ SWR ☐ WCR ☐ IEB ☐ EAA ☐ EMR ☐ SCB ☐ SDW

1. Requester Data

Last Name	First Name	Middle Initial
MITZAKOV	ROBERT	
Title	**Company Name**	
PROJECT ENGINEER	SNC-LAVALIN	

Mailing Address

Unit Number	Street Number	Street Name	PO Box
	195	THE WEST MALL	
City/Town	**Province**	**Postal Code**	
TORONTO	ON	M9C 5K1	
Email Address	**Telephone Number**	**Fax Number**	
robert.mitzakov@snclavalin.com	416-635-5862 ext. 55805	416-635-5353	
Project/Reference Number	**Signature of Requester**		
665125	Robert Mitzakov		

2. Request Parameters

Municipal Address (Municipal address mandatory for cities, towns or regions)

Unit Number	Street Number	Street Name	PO Box
	10192	Highway 50	
Lot Number	**Concession**	**Geographic Township**	
12	11	TORONTO GORE	
City/Town/Village	**Province**	**Postal Code**	
BRAMPTON	ON	L6P 0G4	

Present Property

1. Owner — MR. JAMES F. JOHNSTON — Date of Ownership (yyyy/mm/dd): 1993/03/02

Tenant (if applicable)

Previous Property

1. Owner — Date of Ownership (yyyy/mm/dd)

Tenant (if applicable)

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3. Search Parameters

Search Parameters	Specify Year(s) Requested
Environmental concerns (General correspondence, occurrence reports, abatement)	Please provide all years
Orders	
Spills	
Investigations/prosecutions ► Owner and tenant information must be provided	
Waste Generator number/classes	

Files older than 2 years may require $60.00 retrieval cost. There is no guarantee that records responsive to your request will be located.

4. Environmental Compliance Approvals/Certificates of Approval

Environmental Compliance Approvals/Certificates of Approval	SD	Specify Year(s) Requested
air - emissions	☐	
renewable energy	☐	
water - mains, treatment, ground level, standpipes & elevated storage, pumping stations (local & booster)	☐	
sewage - sanitary, storm, treatment, stormwater, leachate & leachate treatment & sewage pump stations	☐	
waste water - industrial discharge	☐	
waste sites - disposal, landfill sites, transfer stations, processing sites, incinerator sites	☐	
waste systems - haulers: sewage, non-hazardous & hazardous waste, mobile waste processing units, PCB destruction	☐	

Proponent information must be provided and Environmental Compliance Approval/Certificate of Approval number(s) (if known). 1985 and prior records are searched manually. Search fees in excess of $300.00 may be incurred, depending on the types and years to be searched. Specify Approval number(s) (if known). If supporting documents are also required, mark SD box and specify type e.g. maps, plans, reports, etc.

Ministry of the Environment, Conservation and Parks

Access and 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, de la Protection de la nature et des Parcs

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

June 20, 2019

Robert Mitzakov
SNC-Lavalin
195 The West Mall
Toronto, ON M9C 5K1

Dear Robert Mitzakov:

RE: ***Freedom of Information and Protection of Privacy Act* Request**
Our File # A-2019-04216, Your Reference 665125

The Ministry is in receipt of your request made pursuant to the *Freedom of Information and Protection of Privacy Act* and has received your payment in the amount of $5.00 (non-refundable application fee), along with your $30.00 deposit.

The search is being conducted on the following: 10192 Highway 50, Brampton. If there is any discrepancy please contact us immediately.

You may expect a reply or additional communication as your request is processed. For your information, the Ministry charges for search, copying and preparation time.

If you have any questions regarding this matter, please contact Victoria Partosa at victoria.partosa@ontario.ca.

Yours truly,

Janet Dadufalza
Manager, Access and Privacy

Ministry of the Environment, Conservation and Parks

Access and 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, de la Protection de la nature et des Parcs

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

Ontario

July 19, 2019

Robert Mitzakov
SNC-Lavalin
195 The West Mall
Toronto, ON M9C 5K1

Dear Robert Mitzakov:

RE: *Freedom of Information and Protection of Privacy Act* Request
Our File #: A-2019-04216, Your Reference #: 665125

This letter is in response to your request made pursuant to the *Freedom of Information and Protection of Privacy Act* relating to 10192 Highway 50, Brampton.

After a thorough search of the Ministry's Halton Peel District Office, Investigations and Enforcement Branch, Environmental Monitoring and Reporting Branch, Sector Compliance Branch and Safe Drinking Water Branch, records were located in response to your request. It is my decision to provide partial access to the attached information as identifying information pertaining to private individuals has been removed to protect privacy (Section 21 of the Act).

In accordance with Section 57 of the *Freedom of Information and Protection of Privacy Act*, detailed below are our charges:

• Search Time 1 hour @ $30/hour	$ 30.00
• Copying 2 pages @ $0.20/page	$ 0.40
• Preparation Time 0.03 hour @ $30/hour	$ 0.90
• Delivery	$ 3.00
• **Total**	**$ 34.30**
• Deposit Received	- $ 30.00
• **BALANCE WAIVED (NOT REQUIRED)**	**$ 4.30**

You may request a review of my decision 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 Erin Nam at 416-325-1664.

Yours truly,

for

Janet Dadufalza
Manager, Access and Privacy

Attachments

Ontario

Ministry of the
Environment

OCCURENCE REPORT

Location of Occurence: BRAMPTON CITY JOANSON FARM HIGHWAY 50, NORTH OF HIGHWAY 7 **Reg:** 3 **Dist:** HP **Municipality:** 21101		**Source:** TRANSPORT TRUCK 8 GOLDEN GATE, SCARBOROUGH 321-2103 **Sector:** TA **Source:** TP **SIC:** 4560 **UTM:** **N:** [] **E:** [] **Zone:** []	
Entered: 1992/11/08 16:10	**ORIS No.** 9230001620	**Abstracts:**	**Diaries:**
Received By: KATHLEEN KLINCK		**Batch:** 757	**I. E. B. No.**
Occurence Type: S	**Subtype:** L	**Occurence Date:**	1992/08/18
Work Plan:		**Occurence Time:**	05:00
[redacted]		**Report to MOE :** 1992/08/18 11:10 **MOE at Scene:** :	
s.21		**Assigned To:**	BRIAN BOUDREAU
Address: [redacted] BRAMPTON **Postal Code:**		**ERP Contacted:** **Callout:** [] **ERP Name:**	**NSP:** [N]

Syn: BACKENTRY - 80 L DIESEL FUEL TO SOIL FROM OVERTURNED TRUCK.

Brief Summary:
CALLER REPORTED 20 GALLONS DIESEL FUEL TO GRAZING LAND FROM OVERTURNED TRUCK. O.P.P., F.D. & MOA AT SCENE. JOE MOORE, PEEL REGION STATED FUEL SPILL RESULT OF ACCIDENT ON ROAD & THAT NO MIGRATION POSSIBLE. FARM OWNER DOES NOT FEEL QUANTITY SIGNIFICANT ENOUGH TO HAVE REMOVED. O.P.P. CONTACT: OFFICER ARCER, 1-800-263-2277.

If there are related reports, record initial/master ORIS No. here >> 9212673

Followup Action: Abatement IEB Other
BF Date:
NO FURTHER ACTION REQUIRED.

File Closed: X **Abatement:** IEB Other
Suspected Violation:

Report Prepared By:	**Date:**	**IEB Investigator:**	**IEB BF Date**
BRIAN BOUDREAU	18/08/92		
Approving Officer	**Date:**	**Reviewing Officer:**	**Date**
ROBERT ADCOCK	02/09/92		

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:**

Material 1: DIESEL FUEL	**Code :** 13
Amount : 80 L	**UN No.:** 1202
Material 2:	**Code :**
Amount :	**UN No.:**
Material 3:	**Code :**

Amount :		UN No.:
Cause. . . . . :		Code. . : 07
Reason. . . . . :		Code. . : 99
Person in Control: UNKNOWN		Waste GenNum :
Owner . . . . . : UNKNOWN		Waste GenNum :
Agencies Involved . . . . : REGION OF PEEL		
Clean up and Restoration Carried out by:		
[v] Controller	[v] Owner	[N] Other REGION OF PEEL
N	N	
% Cleaned up:	Estimated Cost:	
Were Directions or Approval Given Under		
EPA Part X [v]	Regulation 362 [v]	Manifest No.
Waste Class :		Code . . : 000
Hauler :		Code . . :
Disposal Site :		Code . . :
Environmental Impact:	Nature of Impact:	
N	Soil contamination	Code . . : 07
People/Business Damaged		
(Other than to Owner/Controller) : NIL		
Nature of Damage:		Code . . :

Appendix F

Municipal Directories

ERIS

ENVIRONMENTAL RISK INFORMATION SERVICES

CITY DIRECTORY

Environmental Risk Information Services
A division of Glacier Media Inc.

Project Property: *10192 Highway 50, Brampton, ON*
Report Type: *City Directory*
Order No: *20190508200*
Information Source: *Polk's Halton/Peel Regions, ON Criss Cross Directory*
Date Completed: *May 16, 2019*

City Directory Information Source

ERIS

Polk's Halton/Peel Regions, ON Criss Cross Directory

PROJECT NUMBER: 20190508200	
Site Address:	10192 Highway 50, Brampton, ON
Year: 2000	
Site Listing:	-Address Not Listed
Adjacent Properties:	
2 Cadetta Road	-Address Not Listed
9 Cadetta Road	-Address Not Listed
10 Cadetta Road	-Address Not Listed
12 Cadetta Road	-Address Not Listed
14 Cadetta Road	-Address Not Listed
16 Cadetta Road	-Address Not Listed
18 Cadetta Road	-Address Not Listed

20 Cadetta Road	-Address Not Listed
22 Cadetta Road	-Address Not Listed
24 Cadetta Road	-Address Not Listed

PROJECT NUMBER: 20190508200	
Site Address:	10192 Highway 50, Brampton, ON
Year: 1994	
Site Listing:	-Address Not Listed
Adjacent Properties:	
2 Cadetta Road	-Address Not Listed
9 Cadetta Road	-Rexdale Cement Finishers Ltd
10 Cadetta Road	-Alta Cranes Ltd -Maplecrete Construction Co Ltd
12 Cadetta Road	-Cedar Mills Welding & Fabrication Ltd

	-Chemello Contractors -Futuristic Touch Auto Collision -Fred's Repair -Orkel Contracting Ltd -Speed Sport Auto Repair
14 Cadetta Road	-D D Tool & Machine Co -Time & Precision Co Ltd
16 Cadetta Road	-Avenue Structures
18 Cadetta Road	-Tristar Coatings Ltd
20 Cadetta Road	-Delform Construction Ltd -Quality Fabricating & Machining Ltd
22 Cadetta Road	-Pilen Construction Of Canada Ltd
24 Cadetta Road	-Fence All -Roma Fence

Year: 1989	
Site Listing:	-Address Not Listed
Adjacent Properties:	
2 Cadetta Road	-Address Not Listed
9 Cadetta Road	-Rexdale Cement Finishers Ltd -Highpoint Garage Ltd
10 Cadetta Road	-Alta Cranes Ltd -Newcrete Construction Co
12 Cadetta Road	-Address Not Listed
14 Cadetta Road	-D D Tool & Machine Co
16 Cadetta Road	-Address Not Listed
18 Cadetta Road	-Wedgeloc Industries Ltd
20 Cadetta Road	-F & J Sales Co Ltd -Pedrix Technolgies -Quality Fabricating & Machining Ltd

22 Cadetta Road	-Pilen Construction Of Canada Ltd
24 Cadetta Road	-Address Not Listed

PROJECT NUMBER: 20190508200	
Site Address:	10192 Highway 50, Brampton, ON
Year: 1983	
Site Listing:	-Address Not Listed
Adjacent Properties:	
2 Cadetta Road	-Address Not Listed
9 Cadetta Road	-Address Not Listed
10 Cadetta Road	-Address Not Listed
12 Cadetta Road	-Address Not Listed
14 Cadetta Road	-Address Not Listed

16 Cadetta Road	-Address Not Listed
18 Cadetta Road	-Address Not Listed
20 Cadetta Road	-Address Not Listed
22 Cadetta Road	-Address Not Listed
24 Cadetta Road	-Address Not Listed

PROJECT NUMBER: 20190508200	
Site Address:	10192 Highway 50, Brampton, ON
Year: 1977-1978	
Site Listing:	-Address Not Listed
Adjacent Properties:	
2 Cadetta Road	-Address Not Listed
9 Cadetta Road	-Address Not Listed

10 Cadetta Road	-Address Not Listed
12 Cadetta Road	-Address Not Listed
14 Cadetta Road	-Address Not Listed
16 Cadetta Road	-Address Not Listed
18 Cadetta Road	-Address Not Listed
20 Cadetta Road	-Address Not Listed
22 Cadetta Road	-Address Not Listed
24 Cadetta Road	-Address Not Listed

PROJECT NUMBER: 20190508200	
Site Address:	10192 Highway 50, Brampton, ON
Year: 1972-1973	
Site Listing:	-Address Not Listed

Adjacent Properties:	
2 Cadetta Road	-Address Not Listed
9 Cadetta Road	-Address Not Listed
10 Cadetta Road	-Address Not Listed
12 Cadetta Road	-Address Not Listed
14 Cadetta Road	-Address Not Listed
16 Cadetta Road	-Address Not Listed
18 Cadetta Road	-Address Not Listed
20 Cadetta Road	-Address Not Listed
22 Cadetta Road	-Address Not Listed
24 Cadetta Road	-Address Not Listed

PROJECT NUMBER: 20190508200	
Site Address:	10192 Highway 50, Brampton, ON
Year: 1966	
Site Listing:	-Address Not Listed
Adjacent Properties:	
2 Cadetta Road	-Address Not Listed
9 Cadetta Road	-Address Not Listed
10 Cadetta Road	-Address Not Listed
12 Cadetta Road	-Address Not Listed
14 Cadetta Road	-Address Not Listed
16 Cadetta Road	-Address Not Listed
18 Cadetta Road	-Address Not Listed
20 Cadetta Road	-Address Not Listed

22 Cadetta Road	-Address Not Listed
24 Cadetta Road	-Address Not Listed

PROJECT NUMBER: 20190508200	
Site Address:	10192 Highway 50, Brampton, ON
Year: 1958	
Site Listing:	-Address Not Listed
Adjacent Properties:	
2 Cadetta Road	-Address Not Listed
9 Cadetta Road	-Address Not Listed
10 Cadetta Road	-Address Not Listed
12 Cadetta Road	-Address Not Listed
14 Cadetta Road	-Address Not Listed

16 Cadetta Road	-Address Not Listed
18 Cadetta Road	-Address Not Listed
20 Cadetta Road	-Address Not Listed
22 Cadetta Road	-Address Not Listed
24 Cadetta 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 G

Technical Standards & Safety Authority – Correspondence

Mitzakov, Robert

From: Public Information Services <publicinformationservices@tssa.org>
Sent: June 17, 2019 9:40 AM
To: Mitzakov, Robert
Subject: RE: TSSA Database search - 10192 Highway 50, Brampton, ON

Hello Robert,

Thank you for your request for confirmation of public information.

We confirm that there are no records in our database of any fuel storage tanks at the subject addresses.

For a further search in our archives please complete our release of public information form found at https://www.tssa.org/en/about-tssa/release-of-public-information.aspx?_mid_=392 and email the completed form to publicinformationservices@tssa.org or through mail along with a fee of $56.50 (including HST) per location. The fee is payable with credit card (Visa or MasterCard) or with a Cheque made payable to TSSA.

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.

Kind regards,

Yalini

Public Information Agent
Facilities and Business Services
345 Carlingview Drive
Toronto, Ontario M9W 6N9
Tel: +1-416-734-6222 | Fax: +1-416-734-3568 | E-Mail: publicinformationservices@tssa.org
www.tssa.org

From: Mitzakov, Robert <Robert.Mitzakov@snclavalin.com>
Sent: June 14, 2019 3:13 PM
To: Public Information Services <publicinformationservices@tssa.org>
Subject: TSSA Database search - 10192 Highway 50, Brampton, ON

Hello,

I would like to inquire if there are any records in the TSSA database for the following properties:

- 10192 Highway 50, Brampton, ON
- 2 Cadetta Road, Brampton, ON
- 4 Cadetta Road, Brampton, ON
- 6 Cadetta Road, Brampton, ON
- 8 Cadetta Road, Brampton, ON
- 10 Cadetta Road, Brampton, ON

- 12 Cadetta Road, Brampton, ON
- 14 Cadetta Road, Brampton, ON
- 16 Cadetta Road, Brampton, ON
- 20 Cadetta Road, Brampton, ON
- 24 Cadetta Road, Brampton, ON
- 26 Cadetta Road, Brampton, ON

If there are records associated with any of these addresses, could you please provide a quote to obtain the records?

Thank you,

Robert Mitzakov, *M.A.Sc., P.Eng.*
Project Engineer
Environment & Geoscience
Infrastructure

Tel.: +1(416)635-5882 x 55805

SNC-Lavalin
195 The West Mall
Toronto | Ontario | Canada | M9C 5K1

SNC·LAVALIN

BUILD PROUD TO WHAT MATTERS

DE BÂTIR FIERS L'AVENIR

snclavalin.com

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This electronic message and any attached documents are intended only for the named recipients. This communication from the Technical Standards and Safety Authority may contain information that is privileged, confidential or otherwise protected from disclosure and it must not be disclosed, copied, forwarded or distributed without authorization. If you have received this message in error, please notify the sender immediately and delete the original message.

Appendix H

Aerial Photographs

SOURCE(S):
1. ECOLOG ERIS, AERIAL PHOTOGRAPH, A10117-68, 1946

SNC·LAVALIN

Client/Location: CITY OF BRAMPTON 10192 HIGHWAY 50, BRAMPTON, ON		Title: AERIAL PHOTOGRAPH (1946)	
Project No: 665125	Filename: 002FH1_665125	Date: OCTOBER 2019	Dwg No: FIGURE H.1
Drawn: AG	Verified: RM	Project Manager: AY	

PAGE FORMAT: 8.5x11

FILENAME: P:\City of Brampton\Johnston Transit Facility\665125\40_Execution\47_Wrkg_Vers\CAD_GIS\002 (Phase 1)\002FH1_665125.dwg

SOURCE(S):
1. ECOLOG ERIS, AERIAL PHOTOGRAPH, A13118-127, 1951

SNC·LAVALIN

Client/Location: CITY OF BRAMPTON 10192 HIGHWAY 50, BRAMPTON, ON		Title: AERIAL PHOTOGRAPH (1951)	
Project No: 665125	Filename: 002FH2_665125	Date: OCTOBER 2019	Dwg No: FIGURE H.2
Drawn: AG	Verified: RM	Project Manager: AY	

PAGE FORMAT: 8.5x11

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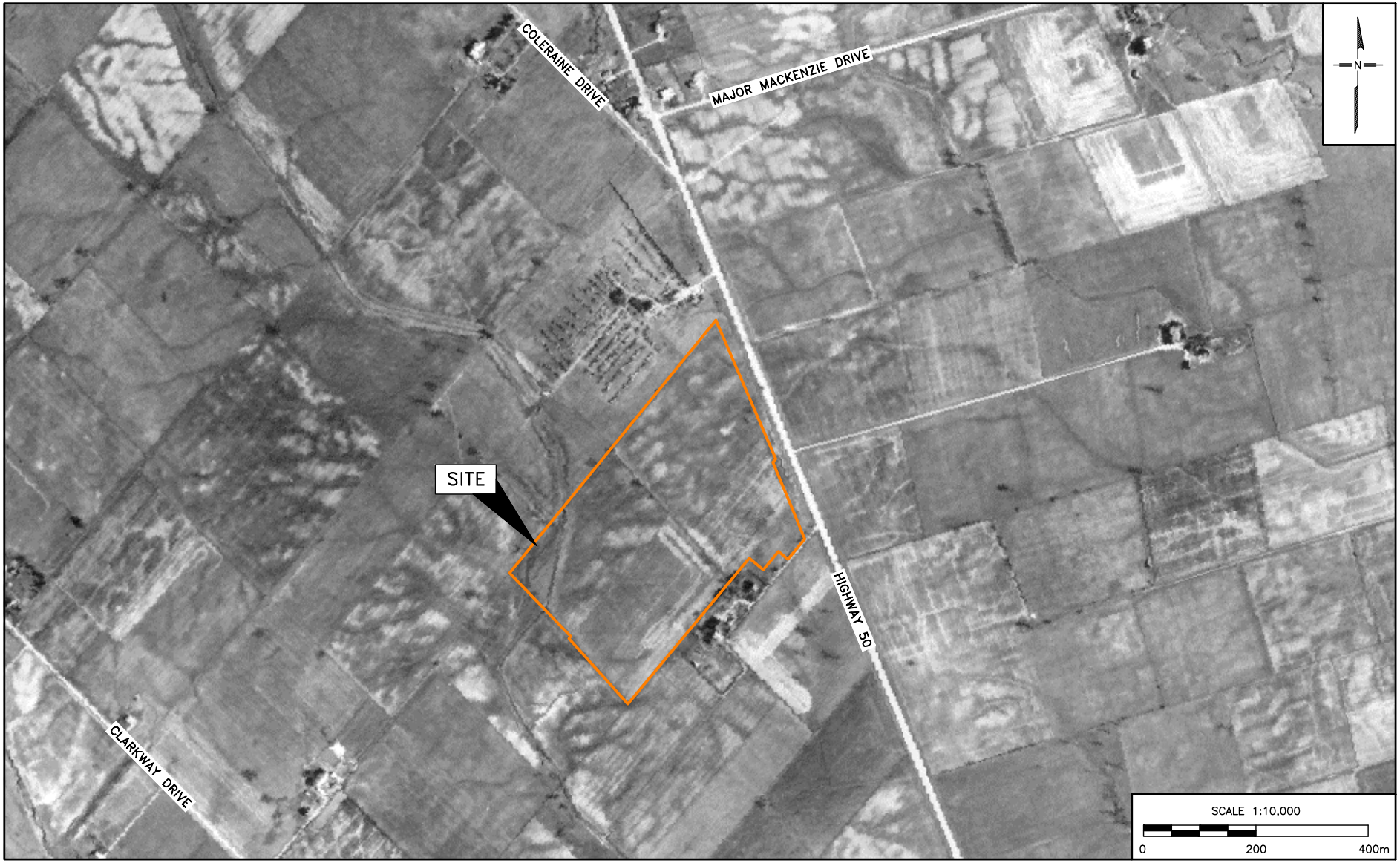


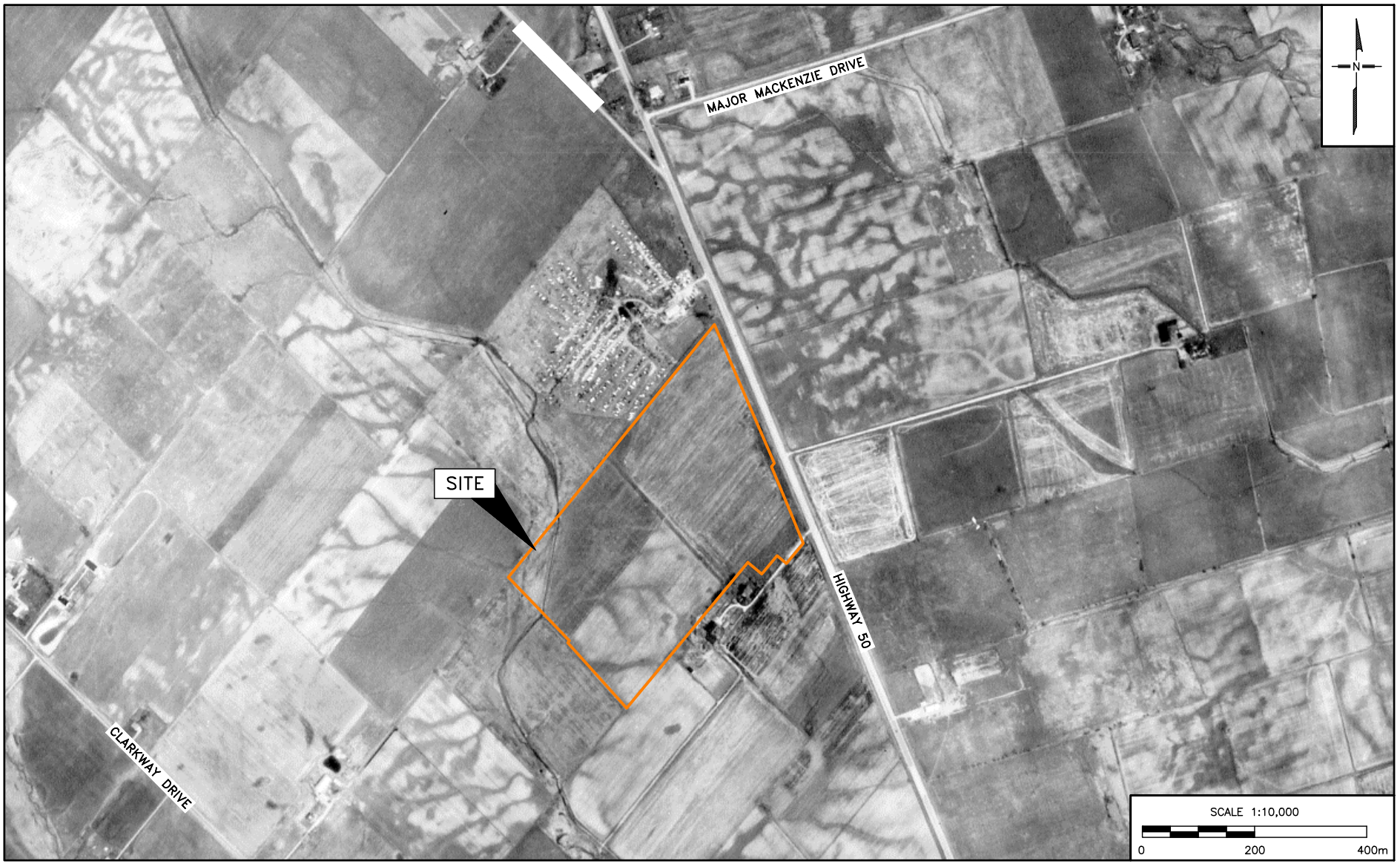
SOURCE(S):
1. ECOLOG ERIS, AERIAL PHOTOGRAPH, A16997-5, 1960

SNC·LAVALIN

Client/Location: CITY OF BRAMPTON 10192 HIGHWAY 50, BRAMPTON, ON		Title: AERIAL PHOTOGRAPH (1960)	
Project No: 665125	Filename: 002FH3_665125	Date: OCTOBER 2019	Dwg No: FIGURE H.3
Drawn: AG	Verified: RM	Project Manager: AY	

PAGE FORMAT: 8.5x11

FILENAME: P:\City of Brampton\Johnston Transit Facility\665125\40_Execution\47_Wrkg_Vers\CAD_GIS\002 (Phase 1)\002FH3_665125.dwg



SOURCE(S):
1. ECOLOG ERIS, AERIAL PHOTOGRAPH, A20263-78, 1969

SNC·LAVALIN

Client/Location: CITY OF BRAMPTON 10192 HIGHWAY 50, BRAMPTON, ON		Title: AERIAL PHOTOGRAPH (1969)	
Project No: 665125	Filename: 002FH4_665125	Date: OCTOBER 2019	Dwg No: FIGURE H.4
Drawn: AG	Verified: RM	Project Manager: AY	

PAGE FORMAT: 8.5x11

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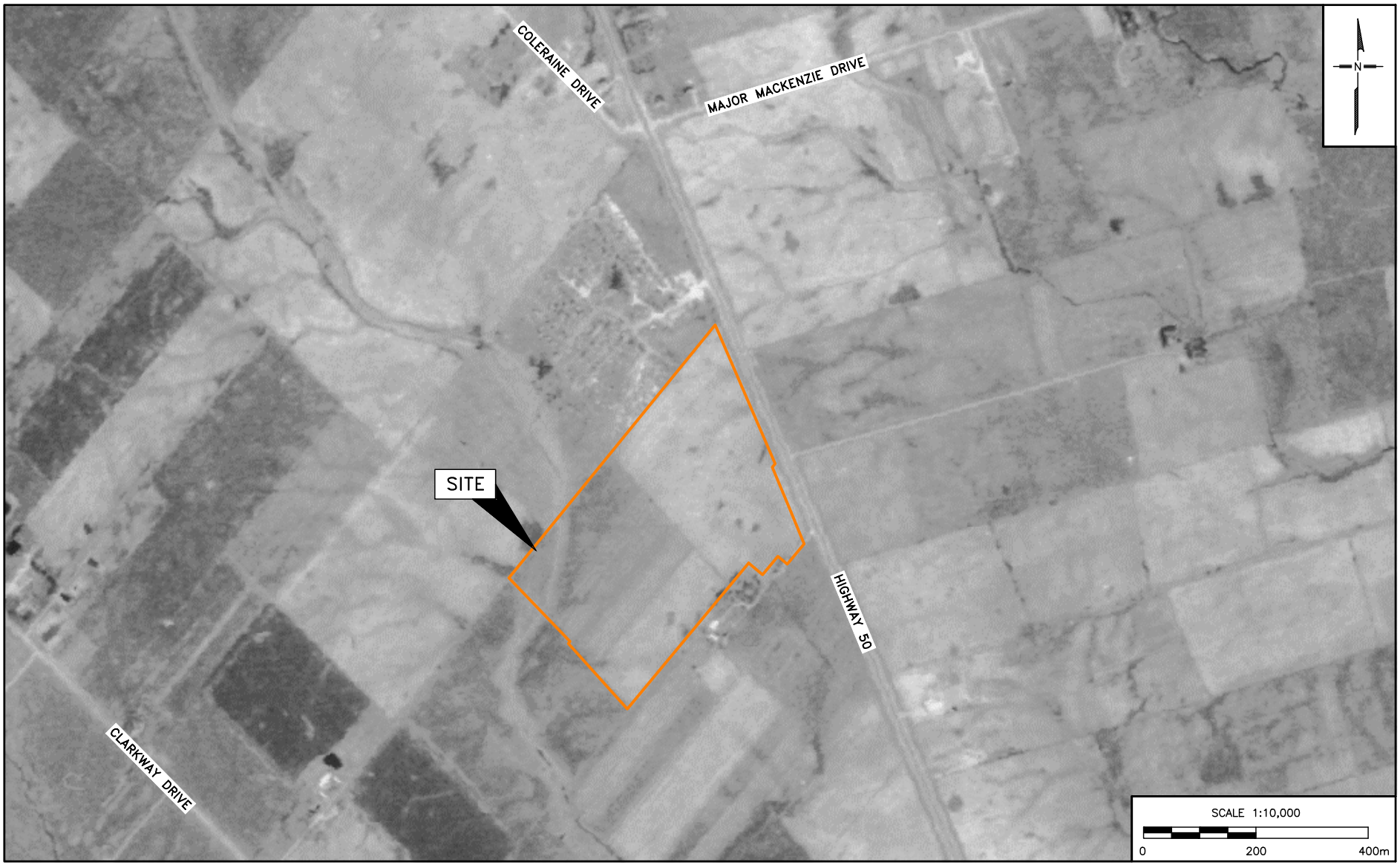


SOURCE(S):
1. ECOLOG ERIS, AERIAL PHOTOGRAPH, A24319-92, 1976

SNC·LAVALIN

Client/Location: CITY OF BRAMPTON 10192 HIGHWAY 50, BRAMPTON, ON		Title: AERIAL PHOTOGRAPH (1976)	
Project No: 665125	Filename: 002FH5_665125	Date: OCTOBER 2019	Dwg No: FIGURE H.5
Drawn: AG	Verified: RM	Project Manager: AY	

PAGE FORMAT: 8.5x11

FILENAME: P:\City of Brampton\Johnston Transit Facility\665125\40_Execution\47_Wrkg_Vers\CAD_GIS\002 (Phase 1)\002FH5_665125.dwg

SOURCE(S):
1. ECOLOG ERIS, AERIAL PHOTOGRAPH, A31404–105, 1985

SNC·LAVALIN

Client/Location: CITY OF BRAMPTON 10192 HIGHWAY 50, BRAMPTON, ON		Title: AERIAL PHOTOGRAPH (1985)	
Project No: 665125	Filename: 002FH6_665125	Date: OCTOBER 2019	Dwg No: FIGURE H.6
Drawn: AG	Verified: RM	Project Manager: AY	

PAGE FORMAT: 8.5x11

FILENAME: P:\City of Brampton\Johnston Transit Facility\665125\40_Execution\47_Wrkg_Vers\CAD_GIS\002 (Phase 1)\002FH6_665125.dwg

SOURCE(S):
1. CITY OF BRAMPTON, ONLINE MAP, AERIAL PHOTOGRAPH, 1994

SNC·LAVALIN

Client/Location: CITY OF BRAMPTON 10192 HIGHWAY 50, BRAMPTON, ON		Title: AERIAL PHOTOGRAPH (1994)	
Project No: 665125	Filename: 002FH7_665125	Date: OCTOBER 2019	Dwg No: FIGURE H.7
Drawn: AG	Verified: RM	Project Manager: AY	

PAGE FORMAT: 8.5x11

FILENAME: P:\City of Brampton\Johnston Transit Facility\665125\40_Execution\47_Wrkg_Vers\CAD_GIS\002 (Phase 1)\002FH7_665125.dwg

SOURCE(S):
1. CITY OF BRAMPTON, ONLINE MAP, AERIAL PHOTOGRAPH, SPRING 2005

SNC·LAVALIN

Client/Location: CITY OF BRAMPTON 10192 HIGHWAY 50, BRAMPTON, ON		Title: AERIAL PHOTOGRAPH (2005)	
Project No: 665125	Filename: 002FH8_665125	Date: OCTOBER 2019	Dwg No: FIGURE H.8
Drawn: AG	Verified: RM	Project Manager: AY	

PAGE FORMAT: 8.5x11

FILENAME: P:\City of Brampton\Johnston Transit Facility\665125\40_Execution\47_Wrkg_Vers\CAD_GIS\002 (Phase 1)\002FH8_665125.dwg

SOURCE(S):
1. CITY OF BRAMPTON, ONLINE MAP, AERIAL PHOTOGRAPH, SPRING 2015

SNC·LAVALIN

Client/Location: CITY OF BRAMPTON 10192 HIGHWAY 50, BRAMPTON, ON		Title: AERIAL PHOTOGRAPH (2015)	
Project No: 665125	Filename: 002FH9_665125	Date: OCTOBER 2019	Dwg No: FIGURE H.9
Drawn: AG	Verified: RM	Project Manager: AY	

PAGE FORMAT: 8.5x11

FILENAME: P:\City of Brampton\Johnston Transit Facility\665125\40_Execution\47_Wrkg_Vers\CAD_GIS\002 (Phase 1)\002FH9_665125.dwg

SOURCE(S):
1. GOOGLE EARTH PRO IMAGE, MARCH 7, 2018

SNC·LAVALIN

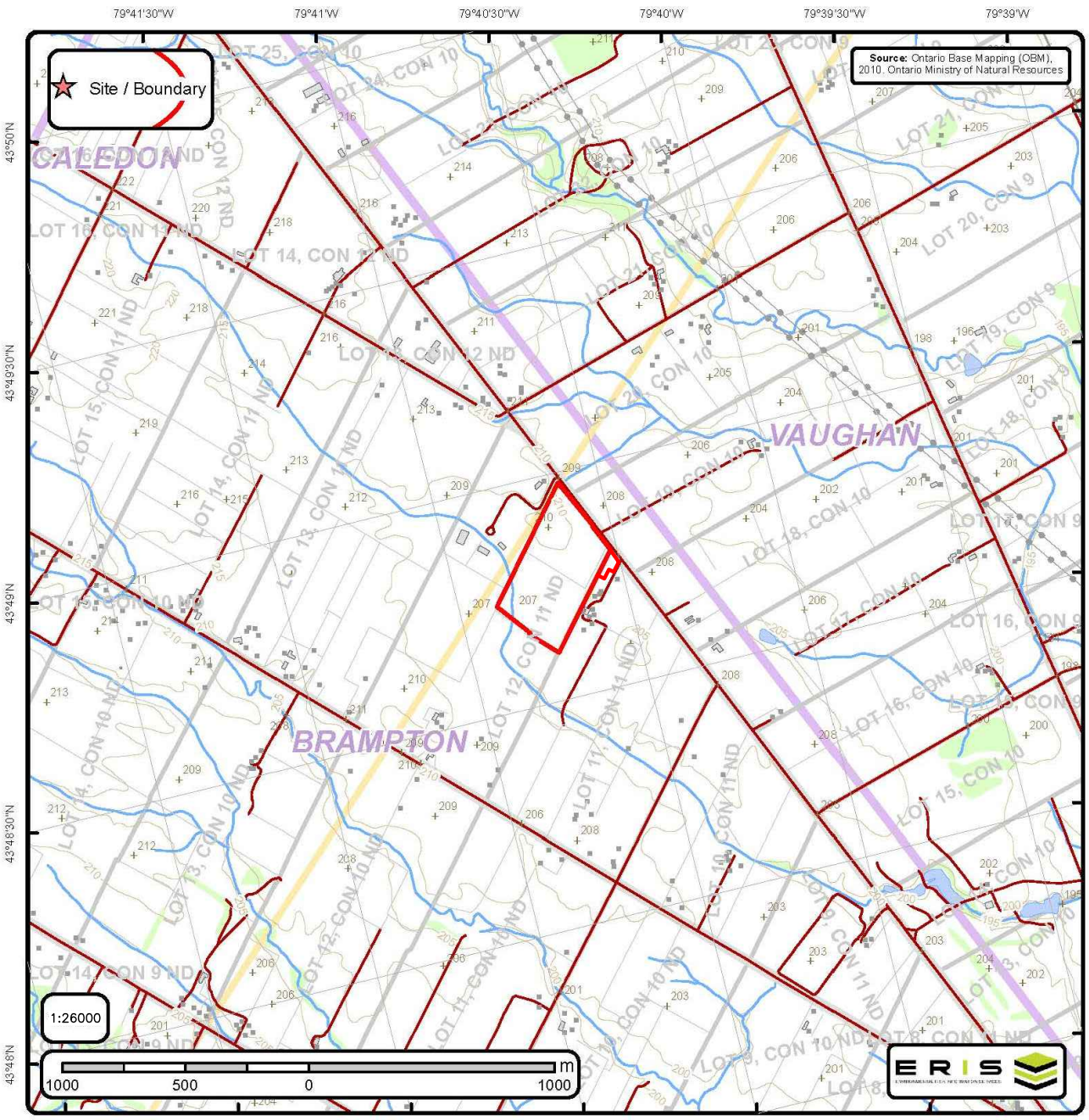
Client/Location: CITY OF BRAMPTON 10192 HIGHWAY 50, BRAMPTON, ON		Title: AERIAL PHOTOGRAPH (2018)	
Project No: 665125	Filename: 002FH10_665125	Date: OCTOBER 2019	Dwg No: FIGURE H.10
Drawn: AG	Verified: RM	Project Manager: AY	

PAGE FORMAT: 8.5x11

FILENAME: P:\City of Brampton\Johnston Transit Facility\665125\40_Execution\47_Wrkg_Vers\CAD_GIS\002 (Phase 1)\002FH10_665125.dwg

Appendix I

Topographic Map and Areas of Natural Significance



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 REPORT, ORDER No.20190508200, MAY 16, 2019

Spot Height (metre)	Transportation Structure	Contour Line	Wooded Area
Building Point	Utility Line	Pit or Quarry	Conservation Authority
Towers	Water Structure	Waterbody	Conservation Area
Utility Site Point	Drainage Line Feature	Wetlands	Municipal Park
Misc. Line	River or Stream	Concession	Provincial Park
Railroads	Airports	Lots	National Park
Roads	Tanks	Municipalitiy	Nature Reserve
Trail	Building to Scale	Land Ownership	

SNC·LAVALIN

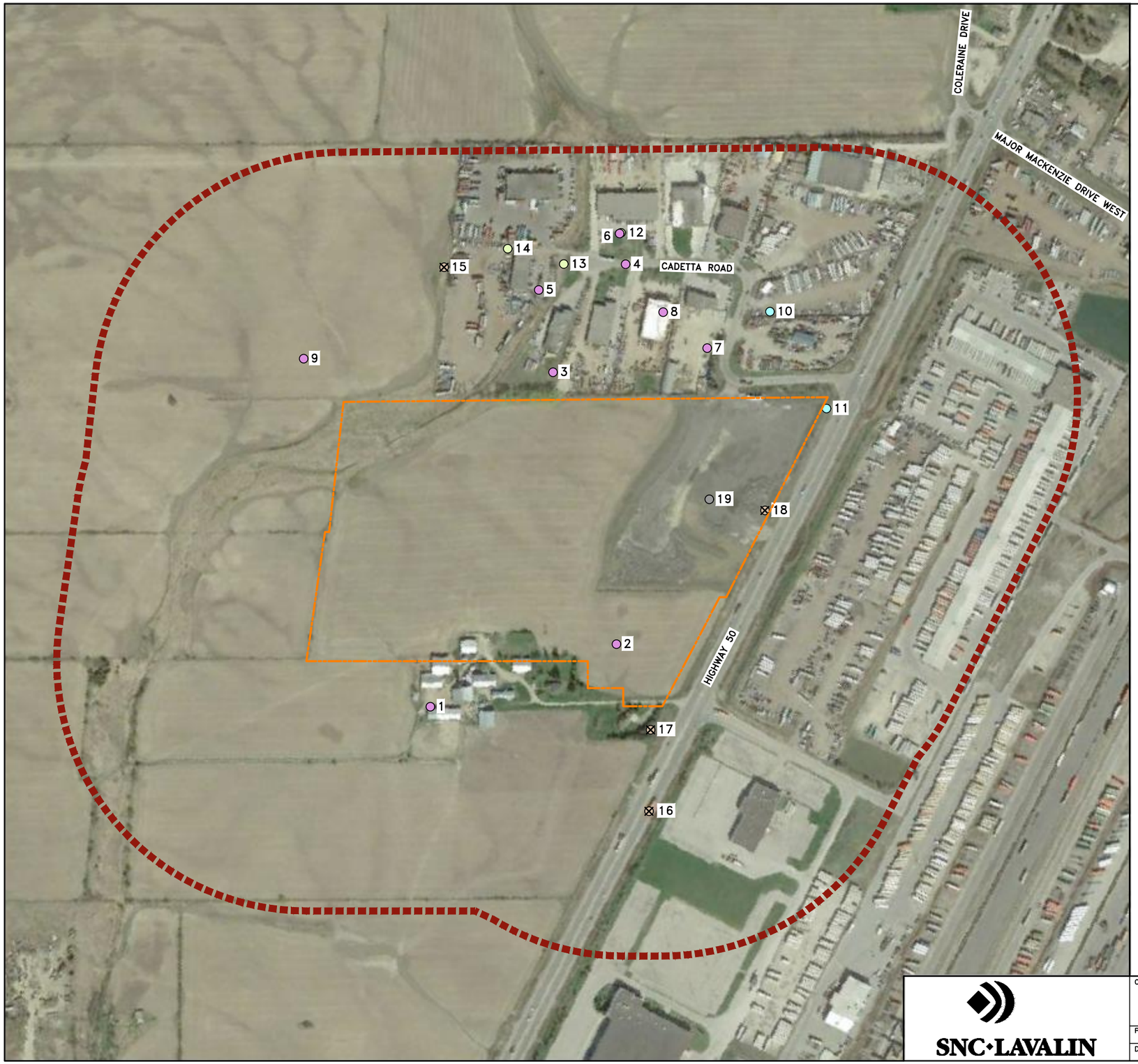
Client/Location: CITY OF BRAMPTON 10192 HIGHWAY 50, BRAMPTON, ON		Title: TOPOGRAPHIC MAP AND AREAS OF NATURAL SIGNIFICANCE	
Project No: 666236	Filename: 002FI1_666236	Date: JULY 2019	Dwg No: FIGURE I.1
Drawn: AG	Verified: RM	Project Manager: AY	

PAGE FORMAT: 8.5x11

FILENAME: P:\City of Brampton\Johnston Transit Facility\665125\40_Execution\47_Wrkg_Vers\CAD_GIS\002 (Phase I)\002FI1_666236.dwg

Appendix J

Ministry of Environment, Conservation and Parks – Water Well Records



DISCUSSION NORTH

TRUE NORTH

WELL LOCATION	WELL NUMBER	ADDRESS	DATE RECEIVED	USE
1	4902862		17-Jan-67	Water Supply
2	4905218		16-Nov-77	Water Supply
3	4905247		07-Dec-77	Water Supply
4	4905769		10-Apr-81	Water Supply
5	4905812		03-Nov-81	Water Supply
6	4905813		03-Nov-81	Water Supply
7	4906179		18-May-84	Water Supply
8	4906478		08-Aug-86	Water Supply
9	4908701		07-Feb-01	Water Supply
10	7241945	4 CORDETTA RD	28-May-15	Observation Wells
11	7282340	HWY 50 SOUTHBOUND LANE SOUTH OF CADETTA RD	28-Feb-17	Observation Wells
12	7166972	12 CADETTA RD	09-Aug-11	Test Hole
13	7178624	16 CADETLA ROAD	29-Mar-12	Test Hole
14	4905768		10-Apr-81	Test Hole
15	7225368	16 CADETTA RD.	12-Aug-14	Abandoned-Supply
16	7249972	HWY 50 ASTLEMORE ROAD-COLERAINE DR.	14-Oct-15	Abandoned-Other
17	7249973	HWY 50 CASTLEMORE RD. & COLERAINE DR.	14-Oct-15	Abandoned-Other
18	7249974	HWY 50 CASTLEMORE RD. & COLERAINE DR.	14-Oct-15	Abandoned-Other
19	7279718		26-Jan-17	Unknown

LEGEND

- 1 — WATER WELL NUMBER
- WATER WELL
- OBSERVATION WELL
- TEST HOLE
- ABANDONED WELL
- UNKNOWN WELL
- PHASE ONE PROPERTY LIMIT
- 300M RADIUS FROM SITE

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. GOOGLE EARTH PRO IMAGE, MARCH 7, 2018
2. MINISTRY OF THE ENVIRONMENT CONSERVATION AND PARKS, WATER WELL DATA SYSTEM AS OF JUNE 2019

SCALE 1:5,000

0 100 200m

SNC·LAVALIN

Client/Location: CITY OF BRAMPTON
10192 HIGHWAY 50,
BRAMPTON, ON

Title: WATER WELL RECORDS

Project No:	Filename:	Date:	Dwg No:
665125	002FJ1_665125	OCTOBER 2019	FIGURE J.1
Drawn: AG	Verified: RM	Project Manager: AY	

PAGE FORMAT: 11x17

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Appendix K

Interview Form

SNC-LAVALIN INC.
235 Lesmill Road
Toronto, Ontario
Canada M3B 2V1

Telephone: +1-416-635-5882

Phase I Interview Questionnaire

Date:	May 16, 2019
Place of interview:	Brampton
Method of interview:	email
Name of the person being interviewed:	Owner James F. Johnston
Reason why the person was identified as someone to interview:	Owner – knowledgeable about the Site

	A. SITE AND SURROUNDING
1	How long has the Site been owned by the Owner?
	1992
2	What was the Site used for: current and historically
	agriculture, growing crops
3	Was fill brought to the Site for grading/elevation purposes?
	no
4	Is the Site currently municipal serviced?
	no
5	Has the Site always been municipally serviced?
	n/a
6	Are you aware of any septic bed located on the Site? none a. If yes, does it have a holding tank

	b. How often is the holding tank emptied and where **c.** If no, was there ever a holding tank and is it decommissioned now?
	none
7	Are you aware if natural gas or hydro currently services the Site? Was the Site previously serviced with heating oil or coal?
	no, none no
8	Are you aware of any potable water well at the Site?
	no
9	Are you aware of any above ground storage tanks and/or underground storage tank associated with the on-site farm vehicle storage building, or anywhere else on the Site, or adjacent properties?
	no
10	Are you aware of any waste drums or chemicals currently or previously been present at the Site?
	no, none
11	Are you aware of any spills or leaks (i.e., petroleum or otherwise) associated with farming operations, that occurred at the Site, or adjacent properties? no

12	Based on your knowledge, can you provide some history of the site & surrounding neighbourhood (ex. residential or always undeveloped)
	– always undeveloped. – "Growing food in 'the Gore' since 1842" is on our farm business card
13	Based on your knowledge, can you provide commentary as to when adjacent properties were developed?
	– dairy farm to the south in family ownership since 1842. – industrial area to north established in 1990's
14	To your knowledge, are you aware of any environmental reports associated with the Site?
	no
Comments:	
	B. ON-SITE BUILDING(S)
15	Any renovation or extension (addition) made to the farm vehicle storage building?
	no

16	To your knowledge, are you aware of any current or previous asbestos containing materials or mould associated with the farm vehicle storage building?
	no
17	Are you aware of any abatement reports associated with the on-site farm vehicle storage building?
	no
18	Has the building ever been used for chemical storage before? (e.g. pesticide/herbicide, farming equipment engine oils, lubricants, or above/underground fuel storage tanks, etc.)
	no used for machinery storage

Comments:

- separate chemical storage and
- above ground fuel tanks on adjacent property
- separate shop for machinery maintenance

Appendix L

Site Photographs

Photograph 1: Regraded area on Parcel A1. Facing southeast.

Photograph 2: Regraded area on Parcel A1. Facing northeast.

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PROJECT No. 665125

PAGE FORMAT: 8.5x11

FILENAME: P:\City of Brampton\Johnston Transit Facility\665125\40_Execution\47_Wrkg_Vers\CAD_GIS\002 (Phase I)\002P01_665125.dwg

Photograph 3: Regraded area on Parcel A1. Facing east.

Photograph 4: View of Parcel A, and north property boundary with industrial businesses located north of the Site. Facing northwest.

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PROJECT No. 665125

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FILENAME: P:\City of Brampton\Johnston Transit Facility\665125\40_Execution\47_Wrkg_Vers\CAD_GIS\002 (Phase I)\002P02_665125.dwg

Photograph 5: View of north property boundary with industrial businesses located north of the Site. Facing northeast.

Photograph 6: View of north property boundary with industrial businesses located north of the Site. Facing north.

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PROJECT No. 665125

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Photograph 7: View of north property boundary with industrial businesses located north of the Site. Facing north.

Photograph 8: View of Rainbow Creek at northwest corner of the Site (on Parcel A). Facing south.

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Photograph 9: View of Rainbow Creek at northwest corner of the Site (on Parcel A). Facing north.

Photograph 10: Exterior view of the metal storage shed on Parcel A. Facing south.

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Photograph 11: Exterior view of the metal storage shed on Parcel A. Facing west.

Photograph 12: Interior view of the metal storage shed. Facing west.

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FILENAME: P:\City of Brampton\Johnston Transit Facility\665125\40_Execution\47_Wrkg_Vers\CAD_GIS\002 (Phase I)\002P06_665125.dwg

Photograph 13: Interior view of the metal storage shed. Facing west.

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FILENAME: P:\City of Brampton\Johnston Transit Facility\665125\40_Execution\47_Wrkg_Vers\CAD_GIS\002 (Phase I)\002P07_665125.dwg

Photograph 14: View of AST located to the south of the metal storage on the remainder of the property having Municipal address 10192 Highway 50, Brampton. Facing southeast.

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FILENAME: P:\City of Brampton\Johnston Transit Facility\665125\40_Execution\47_Wrkg_Vers\CAD_GIS\002 (Phase I)\002P08_665125.dwg

Photograph 15: Close up view of the AST located to the south of the metal storage.

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FILENAME: P:\City of Brampton\Johnston Transit Facility\665125\40_Execution\47_Wrkg_Vers\CAD_GIS\002 (Phase I)\002P09_665125.dwg

Photograph 16: View of the potable water well on the remainder of the property having Municipal address 10192 Highway 50, Brampton. Facing west.

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PAGE FORMAT: 8.5x11

FILENAME: P:\City of Brampton\Johnston Transit Facility\665125\40_Execution\47_Wrkg_Vers\CAD_GIS\002 (Phase I)\002P10_665125.dwg

Photograph 17: View of properties located across Cadetta Road, north of the Site. Facing northeast.

Photograph 18: View of the trucking facility located at 9601 Highway 50, east of the Site. Facing east.

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FILENAME: P:\City of Brampton\Johnston Transit Facility\665125\40_Execution\47_Wrkg_Vers\CAD_GIS\002 (Phase I)\002P11_665125.dwg

Photograph 19: View of the gravel driveway on Parcel B. Facing west.

Photograph 20: View of the farm field on Parcel B. Facing north west.

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PAGE FORMAT: 8.5x11

FILENAME: P:\City of Brampton\Johnston Transit Facility\665125\40_Execution\47_Wrkg_Vers\CAD_GIS\002 (Phase I)\002P12_665125.dwg

Photograph 21: View of the farm field on Parcel B. Facing north.

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PAGE FORMAT: 8.5x11

FILENAME: P:\City of Brampton\Johnston Transit Facility\665125\40_Execution\47_Wrkg_Vers\CAD_GIS\002 (Phase I)\002P13_665125.dwg

Photograph 22: View of the east end of farm field on Parcel B. Highway 50 located immediately east. Facing north.

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SNC·LAVALIN

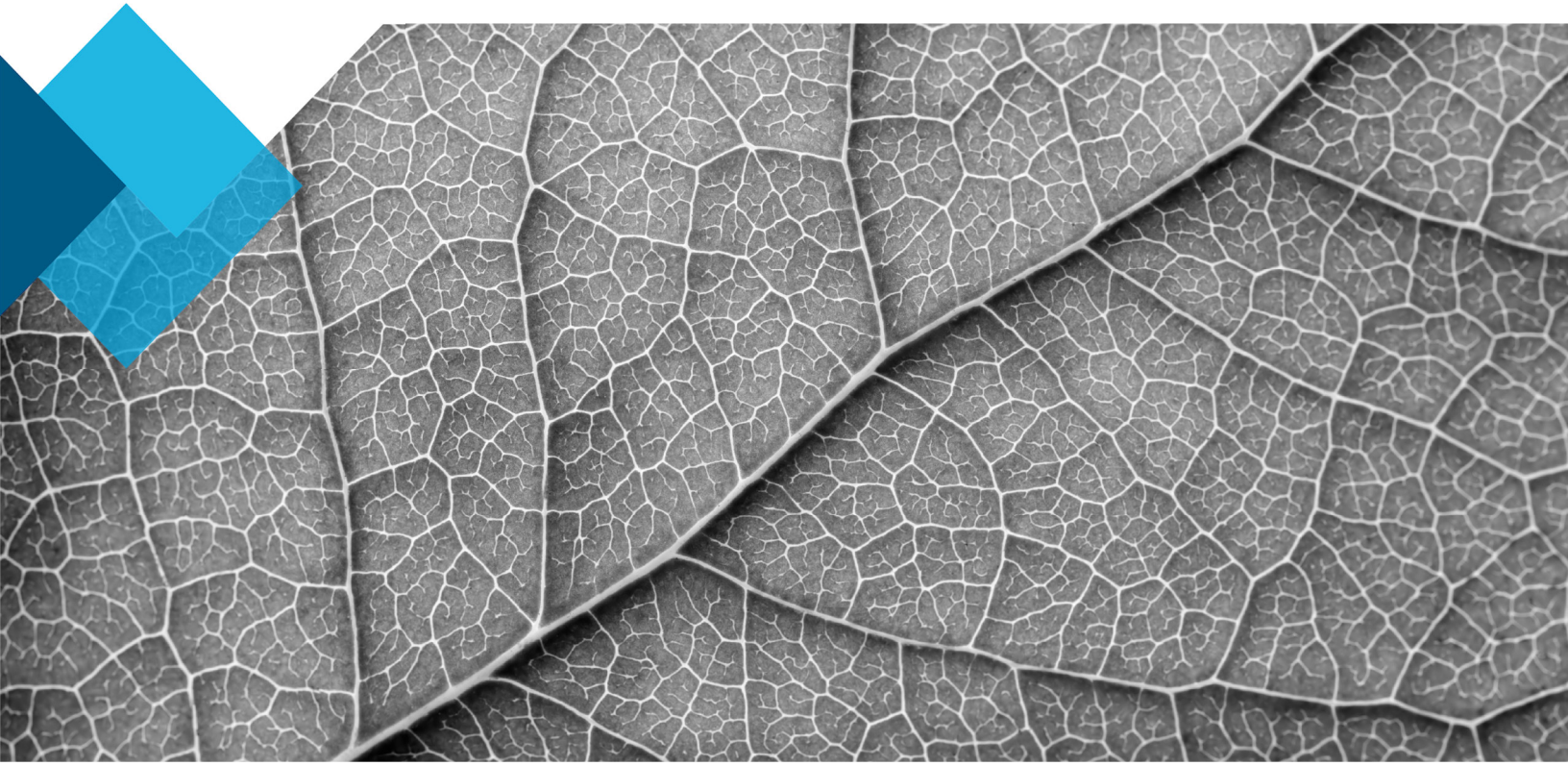
235 Lesmill Rd.
Toronto, Ontario, Canada M3B 2V1
416-635-5882
www.snclavalin.com

SNC·LAVALIN

Phase Two Environmental Site Assessment

10192 Highway 50, Brampton, Ontario

City of Brampton



Environment & Geoscience

FINAL - November 29, 2019

Internal Ref.: 665125

Notice to Reader

This report has been prepared and the work referred to in this report has been undertaken by the Environment & Geoscience business unit of SNC-Lavalin Inc. (SNC-Lavalin) for the exclusive use of City of Brampton (the Client), who has been party to the development of the scope of work and understands its limitations. The methodology, findings, conclusions, and recommendations in this report are based solely upon the scope of work and subject to the time and budgetary considerations described in the proposal and/or contract pursuant to which this report was issued. Any use, reliance on, or decision made by a third party based on this report is the sole responsibility of such third party. SNC-Lavalin accepts no liability or responsibility for any damages that may be suffered or incurred by any third party as a result of the use of, reliance on, or any decision made based on this report.

The findings, conclusions, and recommendations in this report (i) have been developed in a manner consistent with the level of skill normally exercised by professionals currently practicing under similar conditions in the area, and (ii) reflect SNC-Lavalin's best judgment based on information available at the time of preparation of this report. No other warranties, either expressed or implied, are made as to the professional services provided under the terms of our original contract and included in this report. The findings and conclusions contained in this report are valid only as of the date of this report and may be based, in part, upon information provided by others. If any of the information is inaccurate, new information is discovered, site conditions change, or applicable standards are amended, modifications to this report may be necessary. The results of this assessment should in no way be construed as a warranty that the subject site is free from any and all contamination.

Any soil and rock descriptions in this report and associated logs have been made with the intent of providing general information on the subsurface conditions of the site. This information should not be used as geotechnical data for any purpose unless specifically addressed in the text of this report. Groundwater conditions described in this report refer only to those observed at the location and time of observation noted in the report.

This report must be read as a whole, as sections taken out of context may be misleading. If discrepancies occur between the preliminary (draft) and final versions of this report, it is the final version that takes precedence. Nothing in this report is intended to constitute or provide a legal opinion.

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Executive Summary

The Environment & Geoscience business unit of SNC-Lavalin Inc. (SNC-Lavalin) was retained by the City of Brampton (the City) to conduct a Phase Two Environmental Site Assessment (ESA) on the property having municipal address 10192 Highway 50, Brampton, Ontario.

Although the proposed development will not require a filing of a Record of Site Condition (RSC) under Ontario Regulation 153/04 (O. Reg. 153/04, as amended); however, as requested by the City, this Phase Two ESA was completed to meet the RSC requirement.

Field work activities were completed between June and October 2019. The Phase Two ESA program was completed by based on O. Reg. 153/04, as amended (MOE, 2011). The Phase Two ESA work program was based on areas of potential environmental concern (APEC) and the Phase One conceptual site model (CSM) developed in the Phase One ESA completed in November 2019 (SNC Lavalin, 2019).

The media investigated during the Phase Two ESA investigation included soil and groundwater.

Site Description and Background

The Phase Two Property is located on the southwest corner of the intersection of Highway 50 and Cadetta Road, in Brampton, Ontario (Figure 1). It is trapezoidal in shape and measures approximately 16.5 ha (40.8 acres). The City already owns the north portion of the Site that is approximately 8 ha in size (i.e. Part 5 of Plan 43R-33140 [PIN 14213-0276]; identified as Parcel A1 for the purpose of this report) and plans to purchase an additional 8.5 hectares located along the south and west area of the Site (i.e. Parts 1 and 2 of the Concession 11, Plan 43R-33140 [PIN 14213-0300]; identified as Parcels A and B for the purpose of this report). The land use at the Site is currently agricultural. The proposed future development at the property may include commercial/industrial land use including a bus storage and maintenance facility with a two-storey office building and above-surface parking.

The lands comprising the Site consists of two PINs transferred and owned by various individuals and/or corporation over the years. PIN 14213-0276 was owned by private individuals from 1830 to 2010, when it was purchased by the City of Brampton. PIN 14213-0300 has been owned by the same private individuals as PIN 14213-0276 since 1830 to present. A regraded/cleared area at the northeast corner of the Site (i.e., Parcel A1) is being used as a satellite yard by the City's Works Department and was constructed/graded with a layer of crushed stone/asphalt. A storage shed located at the south end of PIN 14213-0300 (i.e., Parcel A) was installed between 2005 and 2015, and has been used to store farm machinery/equipment Previous environmental investigations completed at the Site include a preliminary environmental investigation completed by Trow Associates in 2008 (Trow, 2008a and b) on PIN 14213-0276 (i.e., Parcel A1) consisting of a Phase One ESA and Limited Phase Two ESA.

No structures exist on the Site with the exception of a metal shed used to store farm equipment/ machinery located on Parcel A. A gravel driveway exists along a portion of the southeast edge of the Site, Parcel B and which is associated with remainder the property having the same municipal address of 10192 Highway 50. The northeastern portion of the Site, Parcel A1 (owned by the City), has been re-graded/cleared and backfilled with a layer of crushed stone/asphalt and is being used as a satellite yard by the City's Works Department. A soil berm generated during the regrading of the area is located on the west side of the yard. Two residential dwellings, nine barns for storage and/or livestock and five silos are located south of the

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Site, on the remainder the property having the same municipal address of 10192 Highway 50. The Site is primarily flat with a gentle downward slope to the west. The Site is bounded by Cadetta Road and industrial/commercial properties to the north, Highway 50 and a trucking facility to the east, and farm lands to the south and west.

APEC for the Site identified in the Phase One ESA that are due to both on-Site and off-Site current and historical potential contaminating activities (PCA) and areas of interest (AOI) are presented in the table below. Areas of interest are activities or observations of conditions that may have the potential to adversely affect soil and groundwater conditions at the Site, but do not meet the Ministry of the Environment, Conservation and Parks (MECP) definition of a PCA. Associated potential COC are also included in the table below.

Area of Potential Environmental Concern [1]	Location of Area of Potential Environmental Concern on Phase One Property	Potential Contaminating Activity[2]	Location of PCA (on-site or off-site)	Contaminants of Potential Concern[3]	Media Potentially Impacted (Ground water, soil and/or sediment)
1	General Site area	Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	On-site	Herbicides & Pesticides and Metals/ Inorganics	Soil and Groundwater
2	Northeast corner	Importation of Fill Material of Unknown Quality	On-site	PAHs and Metals/ Inorganics	Soil and Groundwater
3	Along south property boundary (storage of farm machinery/ equipment)	NA	On-site	BTEX, PHC F1-F4, and PAHs	Soil and Groundwater
4	Along east property boundary (commercial business located at 9701 Highway 50 [upgradient] of the Site documented waste generator and spills)	N/A	Off-site	BTEX, PHC F1-F4, VOCs, PAHs and Metals/ Inorganics	Groundwater

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Area of Potential Environmental Concern [1]	Location of Area of Potential Environmental Concern on Phase One Property	Potential Contaminating Activity[2]	Location of PCA (on-site or off-site)	Contaminants of Potential Concern[3]	Media Potentially Impacted (Ground water, soil and/or sediment)
5	Along south property boundary (south of the metal storage shed)	Gasoline and associated products storage in fixed tanks.	Off-site	BTEX, PHC F1-F4, and PAHs	Soil and Groundwater
6	Along north property boundary (waste generators)	N/A	Off-site	BTEX, PHC F1-F4, VOCs, PAHs and Metals/ Inorganics	Soil and Groundwater
7	Along north property boundary	Metal fabrication	Off-site	VOCs and Metals/ Inorganics	Soil and Groundwater

Based on the on-Site and off-Site PCA and AOI, APEC were identified on-Site.

The surrounding properties are predominantly zoned as Agricultural (A) or Industrial (M2). The topography at the Site is generally flat with a slight slope towards the west. The Site elevation is approximately 209 m above mean sea level (a msl). The nearest surface water body is Rainbow Creek that crosses the northwest corner of the Site. Runoff from the Site is directed to towards Rainbow Creek which crosses the northwest corner of the Site.

Current Phase Two ESA Results

The Phase Two ESA work program consisted of advancing fourteen (14) boreholes with ten (10) of the boreholes instrumented with monitoring well installed at depths ranging between 5.6 and 7.2 m below ground surface (bgs). A total of fourteen (14) surface soil samples were collected at a depth of ground surface to 0.6 m bgs.

Based on observations during drilling, the thickness of individual geologic units is generally consistent across the Site, as shown in borehole logs presented in Appendix B. In general, the shallow overburden is comprised silty clay fill to a depth of approximately 1.0 m. This material is underlain by sandy silty clay to approximately 7.5 m bgs. The sandy silty clay is underlain by silty sand layer to the maximum depth of investigation at approximately 9.8 m.

The site condition standards (SCS) in a potable groundwater condition for all or part of a property which lies within 30 m of a surface water body for all property use were selected for comparison with measured soil and groundwater concentrations [Table 8 Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition (MOE, 2011)].

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The results of the current investigation indicated the following:

- Electrical conductivity (EC) exceeded the selected standards in the surface soil samples collected <1.5 m bgs.) in the southeast portion of the Site and in the vicinity of the metal shed near the south-central portion of the site.
- pH was outside the MECP range of 5 to 9 in surface soils (<1.5 m bgs) located in the vicinity of the metal shed in the south-central portion of the Site.
- Molybdenum exceeded the selected standards in groundwater in the southwest portion and north end of the Site. Molybdenum contamination in groundwater are considered likely to be the result of agricultural practices at the Site.

A risk assessment is not planned at this time.

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Table of Contents

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Figures

Tables

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Appendices

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1. Introduction

The Environment & Geoscience business unit of SNC-Lavalin Inc. (SNC-Lavalin) was retained by the City of Brampton (the City) to conduct a Phase Two Environmental Site Assessment (ESA) on the property located at 10192 Highway 50 in Brampton, Ontario. It is understood that the City already owns the northeast portion of this property (approximately 8 hectares [ha] in size; identified as "Parcel A1") and plans to purchase an additional 8.5 ha, consisting of an 8 ha "L" shape parcel located along the south and west area of the property (identified as "Parcel A"); and a 0.5 ha parcel south of the proposed building footprint and west of Highway 50 (identified as "Parcel B"). Collectively, all three Parcels, herein, are referred to as the "Phase Two Property" or the "Site").

Although the proposed development will not require a filing of a Record of Site Condition (RSC) under Ontario Regulation 153/04 (O. Reg. 153/04, as amended); however, as requested by the City, this Phase Two ESA was completed to meet the RSC requirement.

The Phase Two ESA work program was based on areas of potential environmental concern (APEC) and the Phase One conceptual site model (CSM) developed in the Phase One ESA completed in November 2019 (SNC Lavalin, 2019).

1.1 Site Description

The Phase Two Property is located on the southwest corner of the intersection of Highway 50 and Cadetta Road, in Brampton, Ontario (Figure 1). It is trapezoidal in shape and measures approximately 16.5 ha (40.8 acres). The City already owns the north portion of the Site that is approximately 8 ha in size (i.e. Part 5 of Plan 43R-33140 [PIN 14213-0276]; identified as Parcel A1 for the purpose of this report) and plans to purchase an additional 8.5 hectares located along the south and west area of the Site (i.e. Parts 1, 2, 4 & 5 of the Concession 11, Plan 43R-33140 [PIN 14213-0300]; identified as Parcels A and B for the purpose of this report).

No structures exist on the Site with the exception of a metal shed located on Parcel A property used to store farm equipment/machinery. A gravel driveway exists along a portion of the southeast edge of the Site, Parcel B and which is associated with remainder of the property having the same municipal address of 10192 Highway 50. The northeastern portion of the Site, Parcel A1 (owned by the City), has been re-graded/cleared and backfilled with a layer of crushed stone/asphalt and is being used as a satellite yard by the City's Works Department. A soil berm generated during the regrading of the area is located on the west side of the yard. Two residential dwellings, nine barns for storage and/or livestock and five silos are located south of the Site, on the remainder of the property and having the same municipal address of 10192 Highway 50.

The Site is primarily flat with a gentle downward slope to the west. The Site is bounded by Cadetta Road and industrial/commercial properties to the north, Highway 50 and a trucking facility to the east, and farm lands to the south and west. The land use at the Site is currently agricultural.

One Phase One ESA and a limited Phase Two ESA were completed for Parcel A1 in 2008. No other investigations or assessments were completed for the remainder of the Site (i.e., Parcels A and B).

The current layout of the Phase One Property is shown on Figure 2.

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1.2 Property Ownership

Site Owner	Mr. James F. Johnston Authorized Signing Officer 10192 Highway 50, Brampton, Ontario
Person Requesting Phase Two ESA	Ms. Reshma Fazlullah Project Coordinator Building Design and Construction City of Brampton 2 Wellington Street West City Hall – West Tower, 8th Floor Brampton, Ontario L6Y 4R2 Telephone: 416-845-4237

1.3 Current and Proposed Future Uses

The property is currently used for agricultural purposes. The proposed future development at the property may include commercial/industrial land use including a bus storage and maintenance facility with a two-storey office building and above ground parking area. The proposed site layout is shown on Figure 3.

1.4 Applicable Site Condition Standards

Site condition standards (SCS) for use at this Site were selected from the Ontario Ministry of the Environment, Conservation and Parks (MECP; formerly Ministry of the Environment (MOE)) Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act using the approach described by O. Reg. 153/04, as amended. The following Site specific information was used to select the standards for the Site:

- The Site is not considered an environmentally sensitive area as defined by Section 41 of O. Reg. 153/04 since:
  - The Site is not, does not include, is not adjacent to and is not part of an area of natural significance, nor does it include land that is within 30 m of an area of natural significance;
  - With the exception of seven (7) shallow soil samples collected in the vicinity of borehole BH72 at a depth of between 0.0 and 0.6 m with pH values ranging between 9.01 and 11.3, pH values from the remaining soil samples collected from the work program were between 5 and 9;
  - The Site is not a shallow soil property as there is more than 2 m of soil on the Site property;
- There is more than 2 m of soil on the site property. However, the property includes part of a water body (Rainbow Creek crosses the northwest corner of the Site) as defined by Section 43.1.
- The Site is not serviced by a municipal drinking water system, as defined in the Safe Drinking Water Act, 2002. A review of the MECP water well records identified nine (9) domestic/commercial/industrial water supply wells within a 300 m radius of the Site. In addition, one water well (with status of domestic

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water supply) constructed in 1977, on the remainder of the property having municipal address 10192 Highway 50, located south of the Phase Two Property. It is possible that these wells may be used for potable purposes.

- Grain size analysis completed at the Site (Appendix A) indicated that soil at the Site predominantly consists of sandy or clayey silt, which is considered to be medium and fine textured as defined by O. Reg. 153, to the maximum depth of the boreholes.
- During the current Phase Two ESA, the depth to groundwater at the Site generally ranged from approximately 0.11 m to 6.05 m below ground surface (bgs) during the investigation period.
- The current use of the Site is agricultural and the future proposed land use may be industrial/ commercial.

Based upon the information above, the SCS in a potable groundwater condition for all or part of a property which lies within 30 m of a surface water body for all property use were selected for comparison with measured soil and groundwater concentrations [Table 8 Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition (MOE, 2011)].

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2. Background Information

2.1 Physical Setting

The topography at the Site is generally flat with a slight slope towards the west. The Site elevation is approximately 209 m above mean sea level (a msl). The nearest surface water body is Rainbow Creek that crosses the northwest corner of the Site. Surface runoff from the Site is directed to towards Rainbow Creek which crosses the northwest corner of the Site.

There are no areas of natural significance located within 300 m of the Site (SNC-Lavalin, 2019a).

2.2 Past Investigations

A Draft Phase One ESA was completed by SNC-Lavalin for the Site in 2019 (SNC-Lavalin, 2019a).

The Phase One ESA identified the Phase One Property consists of two PINs (14213-0276 [Parcel A1] and a portion [Parcels A and B] of 14213-0300) transferred and owned by various individuals and/or corporation over the years. PIN 14213-0276 was owned by private individuals from 1830 to 2010, when it was purchased by the City of Brampton. PIN 14213-0300 has been owned by the same private individuals as PIN 14213-0276 since 1830 to present. A regraded/cleared area at the northeast corner of the Site (i.e., Parcel A1) is being used as a satellite yard by the City's Works Department and was constructed/graded with a layer of crushed stone/asphalt. A storage shed located at the south end of PIN 14213-0300 (i.e., Parcel A) was installed between 2005 and 2015, and has been used to store farm machinery/equipment.

Previous environmental investigations completed at the Site include a preliminary environmental investigation completed by Trow Associates in 2008 (Trow, 2008a and b) on PIN 14213-0276 (i.e., Parcel A1) consisting of a Phase One ESA and Limited Phase Two ESA. A summary of the key findings from these reports is provided below. The locations of boreholes and monitoring wells discussed below are shown on Figure 2.

- The Phase One ESA recommended that a limited Phase Two ESA be completed to assess topsoil for pesticides, and soil and groundwater testing for chemicals associated with the off-site commercial/industrial activities located adjacent to the north property boundary. The trucking facility to the east (across Highway 50) was considered low environmental risk.
- Four (4) boreholes were advanced to depths of between 5.0 m and 7.5 m bgs., of which two (2) were instrumented as groundwater monitoring wells.
- Stratigraphy was noted to be topsoil to depths of approximately 0.28 m underlain by clayey/silt till to an approximate depth of 3.1 m underlain by a sandy silt till to depths of between 4.9 and 7.8 m bgs.
- The water table depth was noted to be between 2.6 m and 4.0 m bgs.
- Detectable concentrations of selected heavy metals and hydride parameters were noted in three analyzed soil samples, but were below the then Table 2 criteria for agricultural use in a potable groundwater condition.
- Concentrations of organochlorine pesticides (OP) and volatile organic compounds (VOCs) in the analyzed soil samples were below the laboratory method detection limits.
- Concentrations of selected heavy metals, OP and VOCs in the analyzed groundwater samples met the then Table 2 criteria and/or were below the laboratory method detection limits.

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- It was concluded no impacts were identified to soil or groundwater associated with historic site use including potential pesticides, and no indication of adverse impacts to soil and groundwater from the adjacent properties located to the north. It was recommended that a more comprehensive investigation of soil and groundwater be completed in close proximity to the north property boundary to evaluate potential impacts from industrial activities on these adjacent north properties.

This Phase Two ESA was conducted to investigate other APEC identified during the Phase One ESA.

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3. SCOPE OF THE INVESTIGATION

3.1 Overview of Site Investigation

The objective of this work program was to conduct a Phase Two ESA in support of possible filing of an RSC by investigating potential impacts to soil and groundwater related to APEC and associated potential contaminants of concern (PCOC) identified during the completion of a Phase One ESA of the Site (SNC Lavalin, 2019).

To meet the objectives described above, SNC-Lavalin developed a work plan to implement the City's scope of work. The work plan was prepared as part of the geotechnical investigation and was approved by the City. The work plan was completed between June (Parcels A and A1) and October (Parcel B) and included the following:

- Public and private utility locates to confirm the location of subsurface utilities;
- Collecting surface soil samples from the soil berm located on the west side of Parcel A1 and inside the metal shed on Parcel A;
- Borehole drilling and completing selected boreholes as monitoring wells;
- Groundwater monitoring and sampling;
- Laboratory analyses of samples collected;
- Disposal of investigation wastes; and,
- Reporting.

3.2 Media Investigated

3.2.1 Rationale for Media Sampled

The Phase One ESA identified seven (7) on- and off-site APEC. Potentially affected media in each APEC were soil and groundwater. Although Rainbow Creek crosses the northwest corner of the Site, surface water quality nor sediment were investigated as the water body is located within the Toronto Regional Conservation Authority (TRCA) floodplain.

3.2.2 Overview of the Field Investigation

A review of historical soil and groundwater data collected during previous investigations and results of the Phase One ESA were used to develop the objectives of this work program and initial sampling and analysis plan (SAP). The locations of boreholes, monitoring wells and surface soil sampling completed in the work program are shown on Figure 3.

Soil

The soil investigation conducted by SNC-Lavalin included the following activities:

- Drilling fourteen (14) boreholes to depths ranging from 3.7 to 9.8 m bgs;
- Collecting six (6) surface soil samples from the soil berm at depths of 0 to 0.6 m bgs;
- Soil samples were collected at various depths of potential concern and submitted for laboratory analysis of one or more of VOCs, petroleum hydrocarbons (PHC) fractions F1 to F4, herbicides/pesticides, polycyclic aromatic hydrocarbons (PAHs) and metals/inorganics;

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- Collecting eight (8) surface soil samples in the vicinity of borehole BH72 at depths of 0 to 0.6 m bgs and submitted for laboratory analysis of pH; and,
- Collecting and submitting one (1) representative soil sample for waste classification analysis.

Groundwater

The groundwater investigation conducted by SNC-Lavalin included the following activities:

- Instrumenting ten (10) boreholes with monitoring wells with screen lengths ranging from 1.5 m to 4.5 m;
- Monitoring headspace vapour readings and/or measured water levels and presence or absence of light non-aqueous phase liquids (LNAPL); and,
- Well development and collection of groundwater samples from the ten (10) newly installed monitoring wells for laboratory analyses of one (1) or more of benzene, toluene, ethylbenzene, xylenes (collectively referred to as BTEX), PHC F1 to F4, VOCs, PAHs and metals/inorganics (including Cr6+, Hg, free cyanide and chloride).

3.3 Phase One Conceptual Site Model

APEC for the Site identified in the Phase One ESA that are due to both on-Site and off-Site current and historical potential contaminating activities (PCA) and areas of interest (AOI) are presented in the table below. Areas of interest are activities or observations of conditions that may have the potential to adversely affect soil and groundwater conditions at the Site, but do not meet the MECP definition of a PCA. Associated PCOC are also included in the table below.

Area of Potential Environmental Concern [1]	Location of Area of Potential Environmental Concern on Phase One Property	Potential Contaminating Activity[2]	Location of PCA (on-site or off-site)	Contaminants of Potential Concern[3]	Media Potentially Impacted (Ground water, soil and/or sediment)
1	General Site area	Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	On-site	Herbicides & Pesticides and Metals/ Inorganics	Soil and Groundwater
2	Northeast corner	Importation of Fill Material of Unknown Quality	On-site	PAHs and Metals/ Inorganics	Soil and Groundwater
3	Along south property boundary (storage of farm machinery/ equipment)	NA	On-site	BTEX, PHC F1-F4, and PAHs	Soil and Groundwater

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Area of Potential Environmental Concern [1]	Location of Area of Potential Environmental Concern on Phase One Property	Potential Contaminating Activity[2]	Location of PCA (on-site or off-site)	Contaminants of Potential Concern[3]	Media Potentially Impacted (Ground water, soil and/or sediment)
4	Along east property boundary (commercial business located at 9701 Highway 50 [upgradient] of the Site documented waste generator and spills)	N/A	Off-site	BTEX, PHC F1-F4, VOCs, PAHs and Metals/ Inorganics	Groundwater
5	Along south property boundary (south of the metal storage shed)	Gasoline and associated products storage in fixed tanks.	Off-site	BTEX, PHC F1-F4, and PAHs	Soil and Groundwater
6	Along north property boundary (waste generators)	N/A	Off-site	BTEX, PHC F1-F4, VOCs, PAHs and Metals/ Inorganics	Soil and Groundwater
7	Along north property boundary	Metal fabrication	Off-site	VOCs and Metals/ Inorganics	Soil and Groundwater

Figure 4 illustrates the Phase One Conceptual Site Model (CSM) for the Site including APEC and PCA as described above.

The regional surface geology, as interpreted from Map 2556, Quaternary Geology of Ontario, Southern Sheet (Barnett et. al., 1991), comprises Halton till, predominantly silt to silty clay. The bedrock geology in the area belongs to the group of the Georgian Bay Formation; Blue Mountain Formation; Billings Formation; Collingwood Member, and Eastview Member consisting of shale, limestone, dolostone and siltstone (Ontario Geological Survey, 2011).

Utilities are not expected to serve as preferential pathways for contaminant migration, as their locations are generally located away from utilities.

No uncertainties were identified in the Phase One ESA.

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3.4 Deviations from Sampling and Analysis Plan

In general, the investigation was conducted in accordance with the sampling and analysis plan (SAP) provided to the City and is included below.

Borehole Drilling and Monitoring Well Installation

10192 Highway 50, Brampton – Parcel A and A1		
Twelve (12) boreholes, Eight (8) complete with monitoring wells to an anticipated depth of ten (10) metres below grade. At least three (3) boreholes with a monitoring wells are to be installed in the assumed upgradient (groundwater gradient) location to determine and monitor background contaminates concentrations and to determine site hydrogeological conditions. Two (2) of the boreholes (i.e., BH-72 and BH-73) to be advanced inside the metal shed on Parcel A in the areas of observed ground staining.	**Soil** - Twelve (12) - ICP metals - Twelve (12) - PAH - Twelve (12) - VOCs - Twelve (12) - F1-F4 - Twelve (12) - SAR - Twelve (12) - Conductivity - Ten (10) - Herbicides and Pesticides - Two (2)- Grain Size Analysis - One (1)- Ontario Regulation 558 Disposal Characteristics	**Water** - Eight (8) - ICP metals - Eight (8) - PAH - Eight (8) - VOCs - Eight (8) - F1-F4 - Eight (8) - EC & SAR

10192 Highway 50, Brampton – Parcel B		
Two (2) boreholes, considered as "environmental boreholes", both to be completed with monitoring wells to a maximum anticipated depth of six (6) metres below grade.	**Soil** - Two (2) - ICP metals - Two (2) - PAH - Two (2) - VOCs - Two (2) - F1-F4 - Two (2) - SAR - Two (2) - Conductivity - Two (2) - Herbicides and Pesticides	**Water** - Two (2) - ICP metals - Two (2) - PAH - Two (2) - VOCs - Two (2) - F1-F4 - Two (2) - EC & SAR

pH Delineation – Parcel A (metal shed)

› Four (4) samples to be collected within 1 m radius of borehole BH-72 at the same depth as the soil sample with elevated pH (between 0.0 and 0.6 m below ground surface; bgs) and submitted for laboratory analysis of pH; and,
› Four (4) 'step-out' samples (from the samples collected from the 1 m radius) will be collected submitted to the laboratory on hold. These samples will only be analysed for pH if soil pH remains elevated within 1 m from the BH-72.

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Deviations from the SAP are as follows:

- Soil samples collected from Parcel A and A1 were analysed for O. Reg. 153/04 metals and inorganics package, instead if ICP metals scan, EC and SAR;
- Limited groundwater recovery in monitoring well MW-75 resulted in laboratory analysis of a reduced list or parameters (i.e., only VOCs and PHC F1 to F4).

3.5 Impediments

No impediments were encountered during the investigation.

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4. Investigation Method

4.1 General

A Site specific health and safety program was implemented by SNC-Lavalin throughout the work program.

The Phase Two ESA program was completed by SNC-Lavalin field staff using field and laboratory analysis protocols based on O. Reg. 153/04, as amended (MOE, 2011) and standard operating procedures (SOPs) described in the SNC-Lavalin Field Work Guidance Manual (SNC-Lavalin, 2017).

Prior to drilling, public utilities in the planned work area were identified/cleared by various public utility companies at the request of SNC Lavalin. Landshark Drilling (Landshark) of Brantford, Ontario, a drilling company with private utility locating services, was retained by SNC-Lavalin to mark and clear all private utilities and to confirm the locations of public utilities. Drilling locations were finalized based on the location of infrastructure and utilities.

4.2 Drilling and Excavating

A total of fourteen (14) boreholes (BH-02, BH-03, BH-18, BH-22, BH-30, BH-33, BH-35, BH-51, BH-52, BH-70, BH-72, BH-73, BH-74 and BH-75) were drilled at the Site by Landshark between June and October 2019 under SNC-Lavalin supervision. Boreholes BH-02, BH-03, BH-18, BH-22, BH-30, BH-33, BH-35, BH-51, BH-52, BH-70, BH-72 and BH-73 were completed between June 10 and June 20, 2019. Boreholes BH-74 and BH-75 were completed on October 16, 2019. Borehole locations are shown on Figure 3.

Drilling was conducted using a truck-mounted, B57, B48 and CME75, equipped with hollow stem augers and split spoon samplers. Boreholes were advanced using approximately 0.15 and 0.20 m outside diameter (OD) hollow stem augers to depths ranging between 3.7 m and 9.8 m bgs.

Borehole logs are presented in Appendix B.

No excavating was completed during this investigation.

4.3 Soil: Sampling

4.3.1 Borehole Soil Sampling

Soil samples were collected during drilling using either 5.1 cm OD, 76 cm long split spoon samplers advanced ahead of the augers. Split spoon samples were collected approximately every 0.6 or 0.8 m intervals.

Soil samples recovered during drilling were divided into two (2) portions, one (1) for laboratory analysis and the second for field logging/screening. Details of field screening methodology are described in Section 4.4. The portion retained for possible laboratory analysis was bottled in laboratory-supplied sampling containers as described in Section 4.11.1 and submitted for analysis as described in the SAP.

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Borehole logs are presented in Appendix B and discussed in Section 6.1.

4.3.2 Surface Soil Sampling

Six (6) surface soil samples from the soil berm were collected on June 24, 2019 between the berm surface to a depth of 0.6 m below surface following excavation using a hand auger.

Results of the soil sampling program completed in June 2019 as part of the current Phase Two ESA investigation identified a measured pH value of 10.6 in one (1) sample collected from borehole BH-72 completed inside the shed at a depth between 0.0 to 0.6 m bgs. The remaining soil samples collected during the work program ranged between 5 and 9, which is the range considered acceptable for the application of the MECP generic SCS. As a result, eight (8) additional soil samples were collected in October 2019 between ground surface and 0.6 m bgs using a hand auger to further investigate soil pH in the vicinity of borehole BH-72 and included the following:

- Four (4) samples were collected from a 1 m radius around borehole BH-72 and submitted for laboratory analysis of pH; and,
- Four (4) "step-out" samples (from the samples collected from the 1 m radius) were collected and submitted to the laboratory and place on "hold" pending analytical results from the first four samples.

Soil samples were handled as described in Section 4.3.1. Details of field screening methodology are described in Section 4.4. The portion retained for possible laboratory analysis was bottled in laboratory-supplied sampling containers as described in Section 4.11.1 and submitted for analysis of pH. Surface soil sample locations are shown on Figure 3.

4.4 Field Screening Measurements

Soil samples used for field logging/screening were placed in sealable plastic bags and logged in the field for soil type, moisture content, colour, structure, texture and visual evidence of impact by petroleum hydrocarbons. Maximum headspace vapour readings in the sample bags were measured using a RKI Model Eagle-2 (RKI) operated in methane elimination mode after allowing the samples to equilibrate.

The RKI was calibrated on a daily basis. The RKI was either calibrated by the supplier (Maxim Environmental of Mississauga) or in the field to hexane standards (15% LEL and 1650 ppmv) for hydrocarbons and isobutylene standards for VOC (100 ppmv). Calibration was acceptable if readings were within 10% of the standard. If results were outside the calibration acceptance criteria of 10%, adjustments were made in the field until the instrument read within 10% of the standard value.

Field screening with the RKI/PID was used to qualitatively identify potential "worst case" samples for potential laboratory submission by identifying the potential presence of contaminants with relatively elevated vapour readings (e.g. VOCs/F1 PHC). Non-volatile parameters (e.g. heavy metals and some heavy organic compounds) cannot be screened using this approach. In addition to field screening with the RKI, sample selections were also based on visible observation of the sample (staining), Site geology/hydrogeology, knowledge of contaminant behavior and knowledge of the Site from previous investigations.

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4.5 Groundwater: Monitoring Well Installation

Ten (10) boreholes (BH-02, BH-03, BH-22, BH-30, BH-33, BH-35, BH-51, BH-70, BH-74 and BH-75) were instrumented as monitoring wells by Landshark and were designated as MW-02, MW-03, MW-22, MW-30, MW-33, MW-35, MW-51, MW-70, MW-74 and MW-75. Monitoring well locations are shown on Figure 3.

The monitoring wells were constructed using 5.1 cm diameter flush threaded PVC piping. With the exception of monitoring wells MW-22, MW-35 and MW-75, all monitoring wells were installed with 3 m long screens. Monitoring wells MW-22 and MW-35 were installed with 4.5 m long screens and MW-75 was installed with a 1.5 m long screen (due to auger refusal at this location). The monitoring wells were installed at depths ranging between 5.6 and 7.2 m bgs. Wells were completed with solid risers with heights ranging between 0.86 m and 1.00 m above ground surface. A clean silica sand pack was placed around each screen and isolated with hydrated bentonite to slightly below grade. The wells were completed with above grade protective steel casings set in concrete. Monitoring wells were also equipped with dedicated sampling equipment including low density polyethylene (LDPE) tubing and inertial foot valves, and capped with j-plugs.

Monitoring well construction details are presented in the borehole logs (Appendix B).

To minimize the potential for cross-contamination during well installation, well supplies (including, screen, riser and dedicated LDPE tubing) were removed from protective packaging only immediately prior to use. Handling was done by workers wearing a new pair of disposable vinyl gloves per well and by avoiding contact with potentially contaminating materials.

As per O. Reg. 903, as amended, monitoring wells completed as part of this investigation were registered with MECP. Copies of well records are provided in Appendix C.

Following installation, newly installed monitoring wells MW-02, MW-03, MW-22, MW-30, MW-33, MW-35, MW-51 and MW-70 were developed between June 21 and 26, 2019 and newly installed monitoring wells MW-74 and MW-75 were developed between October 17 and 22, 2019.

Groundwater monitoring wells were developed by purging involved manually moving the inertial foot valve from the top of the screened area to the bottom to ensure development of the whole screen, occasionally agitating the bottom of the well to stir up and remove any sediment built up. To assess the progress of well development, pH, conductivity and temperature readings were measured using a Hanna Instruments HI 991300 meter calibrated by Maxim Environmental and Safety Inc. or in the field by SNC-Lavalin personnel. Well development was considered to be complete when purged dry once. Measurement of field parameters is discussed in more detail in Section 4.6.

The date of the well development, the time, the purged groundwater volume and the field parameter measurements were recorded in the field log.

4.6 Groundwater: Field Measurement of Water Quality Parameters

To ensure that groundwater samples were representative during low flow groundwater sampling (Section 4.7), purged groundwater was collected in a bucket and a Hanna Instruments Model H I991300 meter was used to measure pH, conductivity and temperature. Purging ceased, and groundwater samples

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were collected when readings stabilized (generally within 10%) and until the water was visually free from silt.

4.7 Groundwater: Sampling

Prior to groundwater sampling, headspace vapour readings in each monitoring well were measured upon removal of the well cap with a RKI Eagle-2 operated in methane elimination mode. The RKI Eagle-2 was calibrated in the field to hexane standards as described in subsection 5.2.4 by either Maxim Environmental or SNC-Lavalin personnel. Water levels in the monitoring wells were measured relative to the top of riser pipe using a Heron Instruments Interface probe. Groundwater monitoring was conducted after well development was completed, and after water levels had at least 24 hours to stabilize. Wells were also examined for the presence of NAPL using the interface probe. Prior to use in each well, the interface probe was washed using Alconox and rinsed with distilled water to minimize the potential for cross-contamination. Groundwater monitoring was completed in June 2019 for wells installed on Parcels A and A1. All groundwater monitoring wells located on the Phase Two Property were monitored in October 2019.

Groundwater sampling was completed as indicated in the SAP. Deviations to the groundwater sampling and analysis plan (if any) are described in Section 3.4.

Groundwater sampling from monitoring wells MW-02, MW-03, MW-22, MW-30, MW-33 MW-35, MW-51 and MW-70 was completed between June 24 and June 27, 2019. Groundwater sampling from monitoring wells MW-74 and MW-75 was completed on October 22, 2019.

Groundwater samples were collected using low-flow purging and sampling techniques including peristaltic pump and single-use tubing. All tubing was changed following sample collection at each monitoring location. During purging, the intake end of tubing was lowered to the approximate mid-point of the wetted screen interval of the monitoring well to facilitate groundwater sampling near the zone of saturated soil impact. The pump was operating at a steady rate of approximately 0.5 litres per minute. To assess the effectiveness of purging, pH, conductivity and temperature readings were measured in purged water using a Hanna Instruments HI 991300 meter (Section 4.6). Purging was stopped when readings stabilized (within 10%) and when the water was visually free from silt.

Samples for metals analysis were field filtered using dedicated inline 0.45 µm filters.

Groundwater samples collected were submitted for laboratory analyses as described in the SAP. Due to limited recovery in monitoring well MW-75, the groundwater sample was only submitted for laboratory analysis VOCs and PHC F1 to F4.

Samples submitted for laboratory analysis were collected in the field following protocols designed to minimize the loss of volatile constituents and using laboratory supplied sampling containers as described in Section 4.11.1.

4.8 Analytical Testing

Laboratory analyses of soil, groundwater and soil vapour samples were completed by AGAT Laboratories (AGAT) of Mississauga, Ontario. AGAT is accredited by the Standards Council of Canada (SCC) and follow analytical protocols outlined in O. Reg. 153/04.

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4.9 Residue Management Procedures

Excess soil generated during drilling was placed/stored in 205 L metal drums at the Site pending off-site disposal.

Purged groundwater generated during well development and sampling were placed/stored in 205 L plastic drums at the Site pending off-Site disposal.

4.10 Elevation Surveying

Newly installed monitoring wells were surveyed by SNC-Lavalin personnel on October 21, 2019 to establish the ground surface, well casing and riser elevations. The ground surface elevations at borehole locations were also surveyed. The survey was completed using a Trimble RX 5800 high precision unit, with elevations relative to geodetic above mean sea level (a msl).

A current legal plan of survey is not available at this time; a draft plan of survey from the Phase Two Site provided in Appendix C.

4.11 Quality Assurance and Quality Control Measures

A quality assurance/quality control (QA/QC) program was implemented to minimize and quantify impacts introduced during sample collection, handling, shipping and analysis. As part of the QA/QC program, sampling protocols included minimizing sample handling; submitting field QA/QC samples; using dedicated sampling equipment; using sample specific identification and labelling procedures; and using chain of custody records.

4.11.1 Sample Containers, Preservation, Labelling and Handling

Soil samples submitted for laboratory analysis were collected in the field following protocols designed to minimize the loss of volatile constituents and using laboratory supplied sampling containers.

Soil samples for analysis of PHC F1 and/or VOCs were collected and placed directly in 40 mL vials equipped with Teflon-lined septum caps and containing pre-weighed methanol. Soil samples for the remaining parameters (PHC F2 to F4, PAHs, metals/inorganics and pesticides/herbicides) were collected and directly placed in 60 mL, 120 mL and/or 250 mL wide mouthed glass jars (with zero headspace) with Teflon-lined lids. Collected samples were placed immediately into coolers with ice to control sample temperature.

Groundwater samples submitted for laboratory analysis were collected in the field following protocols designed to minimize the loss of volatile constituents and using laboratory supplied sampling containers.

Groundwater samples for laboratory analysis of BTEX, PHC F1 and/or VOCs were collected (with zero headspace) and directly placed in 40 mL glass vials equipped with Teflon-lined septum caps and containing sodium bisulphate (NaHSO4) preservative. Groundwater samples for analysis of PHC F2 to F4 were collected in 500 mL amber glass bottles containing HCl preservative. Groundwater samples for analysis of PAHs were collected in 500 mL amber glass bottles without preservative. Groundwater samples for analysis of dissolved metals, hexavalent chromium, and mercury were field filtered using dedicated 0.45 micron filters and collected in laboratory supplies containers charged with preservative. Cyanide was

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collected in a 250 mL plastic bottle containing Sodium Hydroxide (NaOH) preservative. Collected samples were placed immediately into coolers with ice to control sample temperature.

A consistent approach to identifying samples was applied to ensure proper identification of each sample, validity of analytical results and continuity between multiple series of Site investigations. The approach for soil sample labelling was to use a three-component sample name:

1. Sample prefix (i.e. BH);
2. Location number (i.e. BH03); and,
3. Sequential sample number (i.e. BH03-02).

For groundwater labelling, a two-component sample number was used (i.e. MW-03). All water samples collected from the same location, over a period of time, typically have the same sample prefix and location number, with the sampling date used to differentiate between samples.

During the field work, a permanent waterproof marker was used to label the sample containers. A marker, which is free of toluene (i.e. Staedtler Lumocolor permanent marker) was used on the sample containers. Upon sample retrieval, samples for analysis were collected directly into laboratory containers (with or without preservatives depending on analytical suites) and placed into coolers with ice. The requested chemical analyses for the samples were documented in the chain of custody that was placed in the cooler. Prior to shipment, signed and dated custody seals were affixed to the coolers. The coolers were then delivered to the laboratory.

4.11.2 Sample Equipment Cleaning Procedure

The non-dedicated field soil sampling equipment (e.g. hand tools, split spoon) was brushed to remove loose soil and subsequently cleaned with detergent (Alconox) and distilled water between sample collection to minimize the potential for cross-contamination between samples. Dedicated disposable vinyl gloves were worn during the handling of each sample.

Prior to use in each well, the interface probe was washed using detergent (Alconox) and rinsed with distilled water to minimize the potential for cross-contamination.

4.11.3 Field and Laboratory QA/QC Samples

Field duplicate and trip blank samples (where analysed) for soil are presented in Tables 2 to 6 and E.1. Field QA/QC samples for soil sampling included the following:

- Two (2) field duplicate samples were submitted for a total of sixteen (16) soil samples for laboratory analysis of PHC F1 to F4 and VOCs.
- Two (2) field duplicate samples were submitted for a total of twenty-two (22) soil samples for laboratory analysis of metals and inorganics.
- One (1) field duplicate sample was submitted for a total of nine (9) surface soil samples for laboratory analysis of pH.
- One (1) trip blank sample provided by AGAT was submitted for laboratory analysis of VOCs.

Field duplicate and trip blank samples (where analysed) for groundwater are presented in Tables 8 to 11 and F.1. Field QA/QC samples during groundwater sampling included the following:

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- Two (2) field duplicate samples were submitted for a total of twelve (12) samples for laboratory analysis of PHC F1 to F4 and VOCs.
- Two (2) field blank sample was submitted for laboratory analysis of PHC F1 to F4 and VOCs.
- Two (2) trip blank sample was submitted for laboratory analysis of VOCs.

Laboratory QA/QC measures included analysis of laboratory blank, spiked blank, duplicate and matrix spike samples.

4.11.4 Deviations from QA/QC Program

There were no deviations from the QA/QC program.

4.11.5 Data Review and Validation

Sampling data generated for this project was reviewed and verified by SNC-Lavalin personnel to ensure that data conforms to and satisfies project objectives. Data verification included ensuring that calibration of field instruments was satisfactory and field blank and field duplicates meet acceptable criteria. The data verification and reporting process for the laboratory data involved ensuring that the holding times, precision, accuracy, laboratory blanks, and detection limits are within acceptance criteria. If significant variances were identified, the final report was reviewed to determine if the overall project objectives are met and/or if additional investigations or corrective actions are required.

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5. Review and Evaluation

5.1 Geology

Borehole logs are provided in Appendix B.

The regional surface geology, as interpreted from Map 2556, Quaternary Geology of Ontario, Southern Sheet (Barnett et. al., 1991), comprises Halton till, predominantly silt to silty clay. The bedrock geology in the area belongs to the group of the Georgian Bay Formation; Blue Mountain Formation; Billings Formation; Collingwood Member, and Eastview Member consisting of shale, limestone, dolostone and siltstone (Ontario Geological Survey, 2011). Bedrock was not encountered during the investigations. Based on MECP well records, average bedrock depth in the vicinity of the Site is approximately 20 m bgs.

Based on observations during drilling, the thickness of individual geologic units is generally consistent across the Site, as shown in borehole logs presented in Appendix B. In general, the shallow overburden is comprised silty clay to a depth of approximately 1.0 m. This material is underlain by sandy silty clay to approximately 7.5 m bgs. The sandy silty clay is underlain by silty sand layer to the maximum depth of investigation at approximately 9.8 m.

Based on the encountered geology and the measured depth to groundwater (see Section 5.2) only one aquifer was investigated and an aquitard was not identified. Results of soil and groundwater sampling (Sections 5.6 and 5.7) identified contaminants within the single aquifer and it was deemed unnecessary to locate an aquitard below this unit or to investigate other aquifers that may be present at deeper depths.

5.2 Groundwater: Elevations and Flow Direction

Groundwater wells were used to determine groundwater flow direction. These monitoring wells were intended to be screened to straddle the water table, however, shallower groundwater conditions were encountered at the site and groundwater levels were measured above the screen during groundwater monitoring. Nevertheless, this is not expected to affect the interpretation of groundwater flow direction. As only one aquifer was identified, only one groundwater flow direction was determined.

Measured water levels in the monitoring wells from June and October 2019 are summarized in Table 1. Elevations are measured with respect to the local benchmark.

To establish inferred shallow groundwater flow at the site, groundwater elevations from October were used as this monitoring event included all wells installed at the site. The depth to water in the monitoring wells ranged from approximately 0.76 m (MW-22) to 4.41 m bgs (MW-02) bgs on October 21, 2019. Corresponding water elevations in the monitoring wells ranged from 204.68 (MW-75) to 209.46 m amsl (MW-22) on October 21, 2019. The groundwater flow direction was interpreted and depicted on Figure 5. Based on these data, the highest groundwater elevation at the site appears to be centered around monitoring well MW-22 located in the northeast portion of the site. The inferred shallow groundwater flow is interpreted to be from the northeast portion of the site towards to the boundaries of the site.

Groundwater levels at the site is expected to the highest during spring and lower during winter. LNAPL was not encountered in any monitoring wells during the work program.

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Water infiltrates the Site through the ground surface. Influenced by subsurface utilities is expected to be minimal and not expected to influence the direction of groundwater flow.

5.3 Groundwater: Hydraulic Gradients

The horizontal hydraulic gradient at the Site was determined to range between 0.01m/m and 0.05 m/m. Vertical hydraulic gradient was not assessed as part of this investigation, however, it will be included as part of hydrogeological investigation and provided to the City under a separate cover.

5.4 Fine-Medium Soil Texture

Grain size analysis completed at the Site (SNC-Lavalin 2019b) indicated that the overburden would be considered to be medium to fine textured as defined by O.Reg. 153, thus, the standards for fine to medium textured soil were selected.

5.5 Soil: Field Screening and Field Observations

Field observations and results of field screening for soil samples are summarized in the borehole logs provided in Appendix B. OVM readings measured from soil samples collected from all boreholes were less than 5 parts per million by volume (ppmv).

5.6 Soil Quality

Analytical results for borehole soil samples are summarized in Tables 2 to 7. The selected MECP 2011 Table 8 SCS in a potable groundwater condition for all or part of a property which lies within 30 m of a surface water body for all property use are also provided for comparison. Soil analytical results are also summarized in Figure 6. Only parameters that exceeded the selected standards at one or more locations in soil are depicted on the figure. Laboratory Certificates of Analysis for soil samples are provided in Appendix E.

5.6.1 VOCs and PHC F1 to F4

Analytical results for borehole and surface soil samples are shown in Table 2 (BTEX and PHC) and Table 3 (VOCs excluding BTEX).

Where analysed, the concentrations of VOC parameters (including BTEX) and PHC F1 to F4 in boreholes and surface soil samples were less than the laboratory reportable detection limits (RDLs) and below the selected MECP Table 8 standards.

5.6.2 PAHs

Analytical results for borehole and surface soil samples are shown in Table 4.

Where analysed, the concentrations of PAH parameters in boreholes and surface soil samples were less than the laboratory RDLs and below the selected MECP Table 8 standards.

5.6.3 Pesticides and Herbicides

Analytical results for borehole and surface soil samples are shown in Tables 5.

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Where analysed, the concentrations of pesticides and herbicides parameters (including phenols) in boreholes and surface soil samples were less than the laboratory RDLs and below the selected MECP Table 8 standards.

5.6.4 Metals and Inorganics

Analytical results for borehole and surface soil sample are shown in Table 6.

Electrical conductivity (EC) exceeded the selected standards in the soil samples collected at depths ranging between 0.0 m and 1.4 m bgs from boreholes BH-18 and BH-72.

The pH value in the sample collected from borehole BH-72 at a depth ranging between 0.0 m and 0.6 m bgs was outside the MECP Table 8 range of 5 to 9. pH values in six (6) of the eight (8) surface soil samples collected in the vicinity of BH-72 were also outside the MECP Table 8 range and results were between 9.01 and 11.3.

Concentrations of remaining metals and inorganic parameters in the remaining analysed soil samples were below the selected standards.

5.6.5 Waste Classification

Analytical results for the soil sample submitted for O. Reg. 347 waste classification are provided in Table 7. Results indicate that soil removed from the Site during investigation activities may be classified as non-hazardous waste for the purpose of off-Site disposal in the Province of Ontario. Laboratory Certificates of Analysis for the waste classification sample are provided in Appendix E.

5.6.6 Chemical and Biological Transformation of Contaminants

Metals/Inorganics

As both contaminants identified, including EC and pH, are inorganic parameters. Chemical and biological transformation do not pose a concern as degradation products are applicable to these contaminants.

5.6.7 Does Soil Serve as a Contaminant Source for Other Media

The EC and pH exceedances were generally located in the vicinity of boreholes BH-18 and BH-72. Given that these are inorganic parameters, the impacted soil is not considered to serve as contaminant source for other media.

5.6.8 Evaluation of Light or Dense Non-Aqueous Liquids (Soil)

Results do indicate the presence of LNAPL as BTEX, PHCs and VOCs in all analysed soil samples from borehole and surface soil were less than the laboratory reportable detection limits.

5.7 Groundwater Quality

Analytical results for groundwater samples are summarized in Tables 8 to 11, with the selected MECP 2011 Table 8 SCS provided in the tables for comparison. Groundwater analytical results are also summarized in Figure 7. Only parameters where concentrations exceeded the selected standards on one or more occasions groundwater are depicted on the figure.

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Laboratory Certificates of Analysis for groundwater samples are provided in Appendix F.

5.7.1 VOCs and PHC F1 to F4

Analytical results for groundwater are shown in Table 8 (BTEX and PHCs) and Table 9 (VOCs excluding BTEX).

Where analysed, the concentrations of VOC parameters (including BTEX) and PHC F1 to F4 in groundwater samples were less than the RDLs and below the selected MECP Table 8 standards.

5.7.2 PAHs

Analytical results for PAHs are shown in Table 10.

Where analysed, the concentrations of PAH parameters in surface soil were less than the RDLs and below the selected MOE 2011 Table 8 standards.

5.7.3 Metals and Inorganics

Analytical results for metals and inorganics are shown in Table 11.

Concentrations of molybdenum exceeded the Table 8 standards in two (2) monitoring wells (MW-35 and MW-70) during the groundwater sampling event in June 2019. Concentrations of metal and inorganic parameters satisfied the selected standards in the remaining analysed groundwater samples.

5.7.4 Chemical and Biological Transformation of Contaminants

Metals/Inorganics

As the contaminants identified is molybdenum, which is an inorganic parameter. Chemical and biological transformation do not pose a concern as degradation products are applicable to these contaminants.

5.7.5 Evaluation of Light or Dense Non-Aqueous Liquids (Groundwater)

NAPL or sheen was not detected in the on-Site monitoring wells during any of the groundwater monitoring and sampling programs completed at the Site. Furthermore, BTEX, PHCs and VOCs in all groundwater samples were less than the laboratory reportable detection limits.

5.8 Sediment Quality

Sediment sampling was not conducted as part of this Phase Two ESA at the Site.

5.9 Quality Assurance and Quality Control Results

The QA/QC program was implemented to minimize and quantify impacts introduced during sample collection, handling, shipping and analysis.

Laboratory analysis was completed in accordance with Standard Methods (e.g., MOE, 2011a) and generally accepted industry practices. Laboratory QA/QC measures included analysis of laboratory blank, spiked blank, duplicate and matrix spike samples. A certificate of analysis has been received for each sample submitted for analysis and all certificates of analysis have been included in full in Appendices F to I. All

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certificates of analysis received from the contract analytical laboratory comply with sub-section 47(3) of the regulation. A review of the certificates of analysis identified several instances where the analytical laboratory noted that RDLs for some parameters were adjusted as a result of the need to dilute the sample prior to analysis.

For blind field duplicate samples, the relative percent difference (RPD) was calculated to assess correlation between duplicate samples and their analytical pairs. The RPD is calculated by the following formula:

$$RPD = \frac{|X_1 - X_2|}{X_{avg}} \times 100$$

where X1 and X2 are the duplicate sample concentrations and X_{avg} is the mean of X1 and X2. Analytical error increases near the RDL; therefore the RPD is not typically calculated unless the concentrations of the duplicate samples are greater than five (5) times the RDL. Generally accepted RPDs for laboratory duplicates are approximately 40 to 50% for soil and 20 to 40% for groundwater. For field duplicates, acceptable limits for RPDs are 70% for soil inorganic parameters, 100% for soil organic parameters, 100% for soil vapour parameters, 50% for groundwater inorganic parameters and 80% for groundwater organic parameters. If the RPD for a field duplicate sample and its analytical pair did not meet acceptable RPD limits, an explanation is provided below.

The results of the soil field QA/QC analysis of field duplicate, field blank and trip blank samples are discussed and presented in Appendix E (Tables E.1 to E.2).

The results of the groundwater field QA/QC analysis of field duplicate, field blank and trip blank samples are discussed and presented in Appendix F (Tables F.1 to F.2).

Analytical results for field and laboratory soil samples for analysed parameters generally showed acceptable correlation to their corresponding analytical pairs.

Analytical results for field and laboratory groundwater for analysed parameters showed good correlation to their corresponding analytical pairs. Results for the field and trip blank samples in groundwater samples were generally below the laboratory RDLs for all analysed parameters.

Analytical results for field and laboratory soil vapour samples for analysed parameters showed good correlation to their corresponding analytical pairs. Results for the field and trip blank samples in soil vapour samples were generally below the laboratory RDLs for all analysed parameters.

Overall, QA/QC analysis suggests that field sampling/handling and laboratory analytical protocols were acceptable.

5.10 Phase Two Conceptual Site Model

This section to be updated following additional investigations completed on the property adjacent to the southeast of the Site.

5.10.1 Areas Where Potentially Contaminating Activity Has Occurred

See discussion of Phase One ESA findings in Section 3.3 above.

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5.10.2 Physical Setting of Phase Two Property

5.10.2.1 Stratigraphy

Based on the current and previous investigations completed at the Site, the shallow overburden is generally comprised of sandy silty clay to a depth of approximately 7.5 m bgs underlain by a silty sand layer to the maximum depth of investigation (9.8 m bgs).

5.10.2.2 Hydrogeological settings

The topography at the Site is generally flat with a slight slope towards the west. The Site elevation is approximately 209 m amsl. The nearest surface water body is Rainbow Creek that crosses the northwest corner of the Site. Runoff from the Site is directed to towards Rainbow Creek which crosses the northwest corner of the Site.

Based on the encountered geology and the measured depth to groundwater only one aquifer was investigated and an aquitard was not identified. Results of soil and groundwater sampling did not identify contaminants associated with petroleum hydrocarbons. As such, LNAPL is unlikely to be present at the site. These contaminants were delineated within the single identified aquifer and it was deemed unnecessary to locate an aquitard below this unit or to investigate other aquifers that may be present at deeper depths.

Based on groundwater monitoring results from October 2019, the highest groundwater elevation at the site appears to be centered around monitoring well MW-22 located in the northeast portion of the site. The inferred shallow groundwater flow is interpreted to be from the northeast portion of the site towards to the boundaries of the site.

The vertical gradient was not assessed for this investigation.

5.10.2.3 Approximate depth to bedrock

Bedrock was not encountered during investigations completed at the Site. However, regional maps indicate bedrock geology consists of the group of the Georgian Bay Formation; Blue Mountain Formation; Billings Formation; Collingwood Member, and Eastview Member consisting of shale, limestone, dolostone and siltstone. Based on MECP well records, average bedrock depth in the vicinity of the Site is approximately 20 m bgs.

5.10.2.4 Approximate depth to water table

The depth to groundwater at the Site ranged from approximately 0.11 m to 6.05 m bgs. Groundwater levels at the site is expected to the highest during spring and lower during winter.

5.10.2.5 Any respect in which section 41 or 43.1 of the regulation applies to the property

Section 41 (see Section 1.4, Selection of Standards, above) does not apply to the Site as there is a localized area in the vicinity of the metal shed on Parcel A in which the pH of the soil is outside the range of 5 to 9 and is not representative of overall soil conditions at the Site. Section 43.1 applies since the Site is within 30 m of a water body (Rainbow Creek crosses the northwest corner of the Site).

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5.10.2.6 Areas where soil has been brought from another property

Imported fill consisting a layer of crushed stone/asphalt was placed at the northeast corner of the Site in the re-graded portion within Parcel A1. This fill is determined to be adequately characterized and would not be considered fill of unknown quality.

5.10.2.7 Approximate locations of proposed buildings and other structures

No structures exist on the Site with the exception of a metal shed used to store farm equipment/ machinery located on Parcel A. The proposed future development at the property may include commercial/industrial land use including a bus storage and maintenance facility with a two-storey office building and above-surface parking. The proposed site layout is shown on Figure 3.

5.10.3 Areas of Site Where a Contaminant is Present On, In, or Under the Phase Two Property at a Concentration Greater Than the Applicable Site Condition Standards

Areas where contaminants are present above the MECP (2011) Table 8 standards in soil and groundwater are shown in Figures 6 and 7, respectively.

Contaminants Exceeding Applicable Standards and Media Investigated:

- Surface soil (<1.5 m bgs): EC and pH
- Groundwater: Molybdenum

5.10.3.1 Medium Where a Contaminant is Present

Contaminants above the MECP (2011) Table 8 standards are present in surface soil (<1.5 m bgs) and groundwater.

5.10.3.2 Distribution of Contaminants in Each Area

EC and pH:

The areas of EC and pH contamination are shown on Figure 6 and on cross sections in Figure 8. EC exceeded the selected standards in surface soils (<1.5 m bgs) in the southeast portion of the Site and in the vicinity of the metal shed near the south-central portion of the site. pH was outside the MECP SCS range of 5 to 9 in surface soils (<1.5 m bgs) located in the vicinity of the metal shed in the south-central portion of the Site.

EC and pH contamination in surface soil are considered likely to be the result of storage of farm equipment and machinery in the metal shed.

Molybdenum:

The areas of molybdenum contamination are shown on Figure 7 and on cross sections in Figure 9. Molybdenum exceeded the selected standards in groundwater in the southwest portion and north end of the Site. Molybdenum contamination in groundwater are considered likely to be the result of agricultural practices at the Site.

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5.10.4 Migration of Contaminants

EC and pH:

EC and pH impacts in soil are not expected to migrate beyond the area of the metal shed, where farm equipment/machinery is stored.

Molybdenum:

Molybdenum impacts in groundwater is not expected to migrate beyond the area where agricultural products consisting of molybdenum is applied to the Site.

5.10.5 Meteorological and Climatic Considerations

Precipitation events may result in redistribution of contaminants in surface soil and infiltration into the groundwater surface, diluting an/or migrating contaminants in groundwater.

5.10.6 Cross Sections

The lateral and vertical distribution of contaminants in each area where the contaminants is present at concentrations greater than the applicable site condition standard in soil and groundwater, the approximate depth to the water table, and stratigraphy are shown in Figures 6 to 9, as discussed in the previous sections.

No utilities are considered likely to affect contamination distribution and transport.

5.10.7 Potential Exposure Pathways and Receptors

Proposed development of the Site is commercial/industrial. Human receptors include future workers and subsurface workers. The only contaminants of concern (COC) in surface soil are EC and pH, which are not evaluated for human exposure. The COC in groundwater include molybdenum. In the absence of risk management measures, the only complete exposure pathways for future workers are ingestion of groundwater and dermal contact with groundwater. Subsurface workers may be exposed to the COC ingestion of soil, dermal contact with soil, and inhalation of particulate matter. Off-Site human receptors are potentially exposed to the COC via migration of groundwater to surface water.

Ecological receptors include vegetation, soil invertebrates, birds, and mammals. The COC in surface soil are EC and pH. The COC in groundwater include molybdenum. There is a potential for migration of COC in groundwater to surface water.

The human health and ecological conceptual site models, in the absence of risk management measures, are shown on Figure10.

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6. Conclusions

6.1 Inorganic Contamination:

- Soil - EC concentrations exceeded the selected standards in surface soils in the southeast portion of the Site and in the vicinity of the metal shed near the south-central portion of the site. pH was outside the MECP range of 5 to 9 in surface soil in the vicinity of the metal shed on Parcel A.
- Groundwater – molybdenum concentrations exceeded the selected standards in the southwest portion and north end of the Site.

6.2 Summary of Exceedances

Exceedances of the MECP 2011 Table 8 standards identified during the current Phase Two ESA in the following locations on-Site:

Contaminant of Concern		Selected MECP Table 8 Standards		Location of Soil Exceedance (max. concentration)	Location of Groundwater Exceedance (max. concentration)
		Soil	Groundwater		
Metals & Inorganics	pH	5-9	na	SS9 (11.3) SS10 (11.0) SS13 (10.7) BH72-1 (10.6) SS8 (10.8) SS7 (10.3) SS14 (9.01)	na
	EC	700	na	BH72-1 (1,070) BH18-02 (810)	na
	Mo	2	70	na	MW-70 (120) MW-35 (73.2)

EC = electrical conductivity; soil concentrations reported in µS/cm
Mo = molybdenum; soil and groundwater concentrations reported in µg/g and µg/L, respectively
Na = not applicable

A risk assessment is not planned at this time.

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7. Closure

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

Prepared by:

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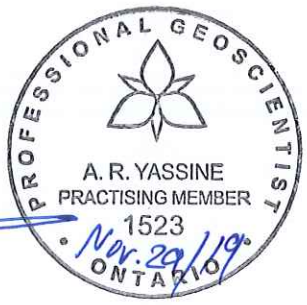
Project Engineer

Reviewed by:



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Senior Geoscientist

Environment & Geoscience
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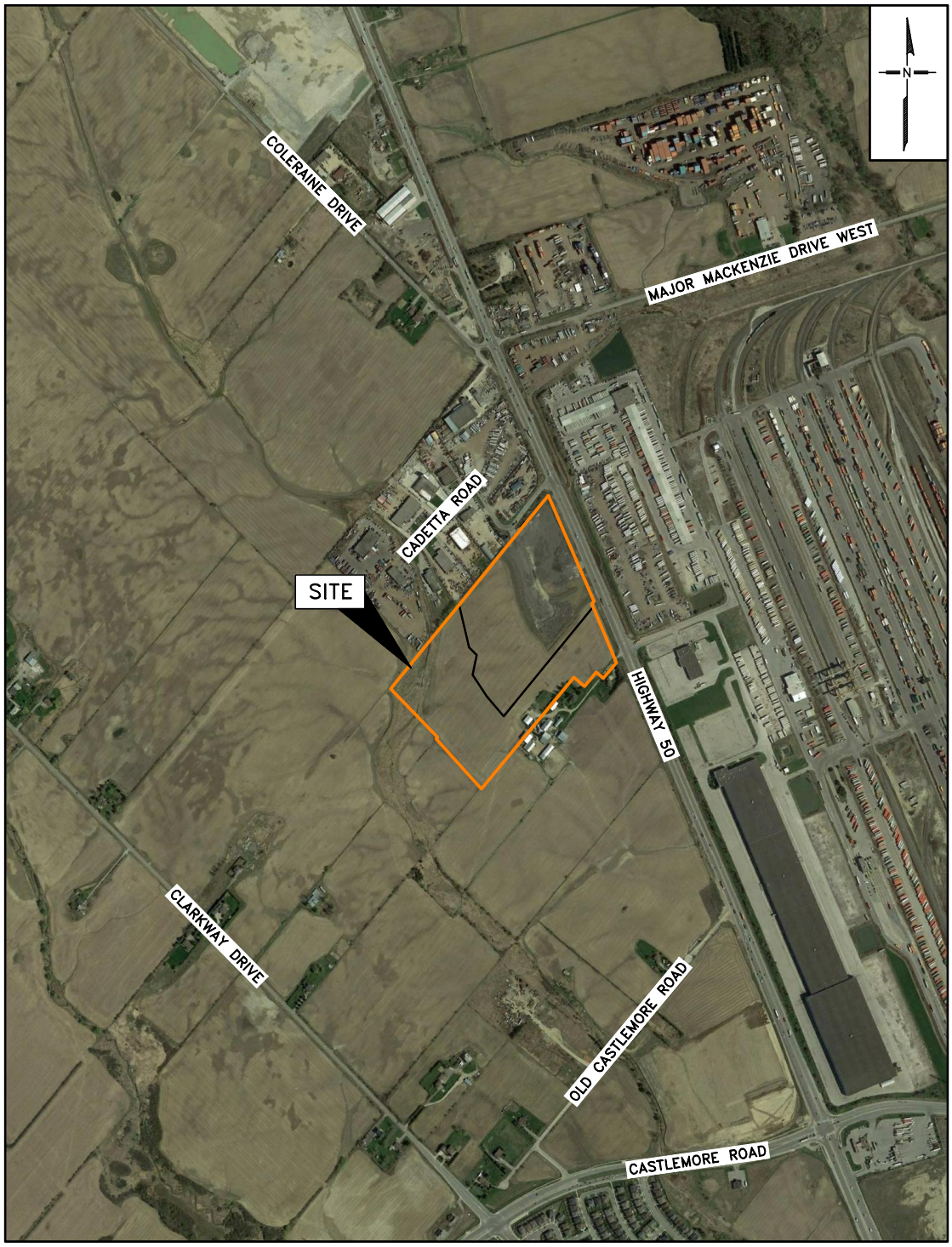
Figures



SOURCE(S):
1. GOOGLE EARTH PRO IMAGE, MARCH 7, 2018

SCALE 1:15,000

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SNC·LAVALIN

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Project No: 665125	Filename: 005F01_665125	Date: NOVEMBER 2019	Dwg No: FIGURE 1
Drawn: AG	Verified: RM	Project Manager: AY	

PAGE FORMAT: 8.5x11

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DISCUSSION NORTH

TRUE NORTH

RAINBOW CREEK

TRCA FLOODPLAIN

BH3

BH2

RE–GRADED/CLEARED AREA

PIN 14213–0276
(PARCEL A1)

BH1

BH4

HIGHWAY 50

PIN 14213–0300
(PARCEL A)

METAL STORAGE SHED

PIN 14213–0300
(PARCEL B)

LEGEND

- BOREHOLE (TROW, 2008)
- MONITORING WELL (TROW, 2008)
- RE–GRADED/CLEARED AREA
- TORONTO AND REGION CONSERVATION AUTHORITY (TRCA) FLOODPLAIN
- SITE PROPERTY LINE
- PROPERTY LINE
- EXISTING BUILDING

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

SCALE 1:2,000

0 40 80m

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Client/Location: CITY OF BRAMPTON 10192 HIGHWAY 50, BRAMPTON, ON		Title: CURRENT SITE LAYOUT	
Project No: 665125	Filename: 005F02_665125	Date: NOVEMBER 2019	Dwg No: FIGURE 2
Drawn: AG	Verified: RM	Project Manager: AY	

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DISCUSSION NORTH

TRUE NORTH

RAINBOW CREEK

SS-4

BH-35 (MW-35)

SS-1

BH-02 (MW-02)

BH3

BH2

A

A'

SS-5

BH-22 (MW-22)

BH1

BH4

BH-03 (MW-03)

HIGHWAY 50

SS-6

BH-33 (MW-33)

SS-2

SS-3

BH-52

BH-18

B

B'

BH-70 (MW-70)

METAL STORAGE SHED

BH-72

BH-73

BH-51 (MW-51)

BH-30 (MW-30)

MW-74

MW-75

SS11

SS10

SS7

SS8

SS14

SS12

SS9

BH-72

SS13

SCALE 1:2,000

0 40 80m

LEGEND

- SHALLOW SOIL SAMPLE (SNC-LAVALIN, 2019)
- BOREHOLE (SNC-LAVALIN, 2019)
- BOREHOLE/MONITORING WELL (SNC-LAVALIN, 2019)
- BOREHOLE (TROW, 2008)
- MONITORING WELL (TROW, 2008)
- CROSS SECTIONAL LINE
- TORONTO AND REGION CONSERVATION AUTHORITY (TRCA) FLOODPLAIN
- SITE PROPERTY LINE
- EXISTING BUILDING
- PROPOSED BUILDING
- PROPOSED INFRASTRUCTURE

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SNC·LAVALIN

Client/Location: CITY OF BRAMPTON 10192 HIGHWAY 50, BRAMPTON, ON		Title: PROPOSED SITE LAYOUT AND BOREHOLE/ MONITORING WELL LOCATION PLAN	
Project No: 665125	Filename: 005F03_665125	Date: NOVEMBER 2019	Dwg No: FIGURE 3
Drawn: AG	Verified: RM	Project Manager: AY	

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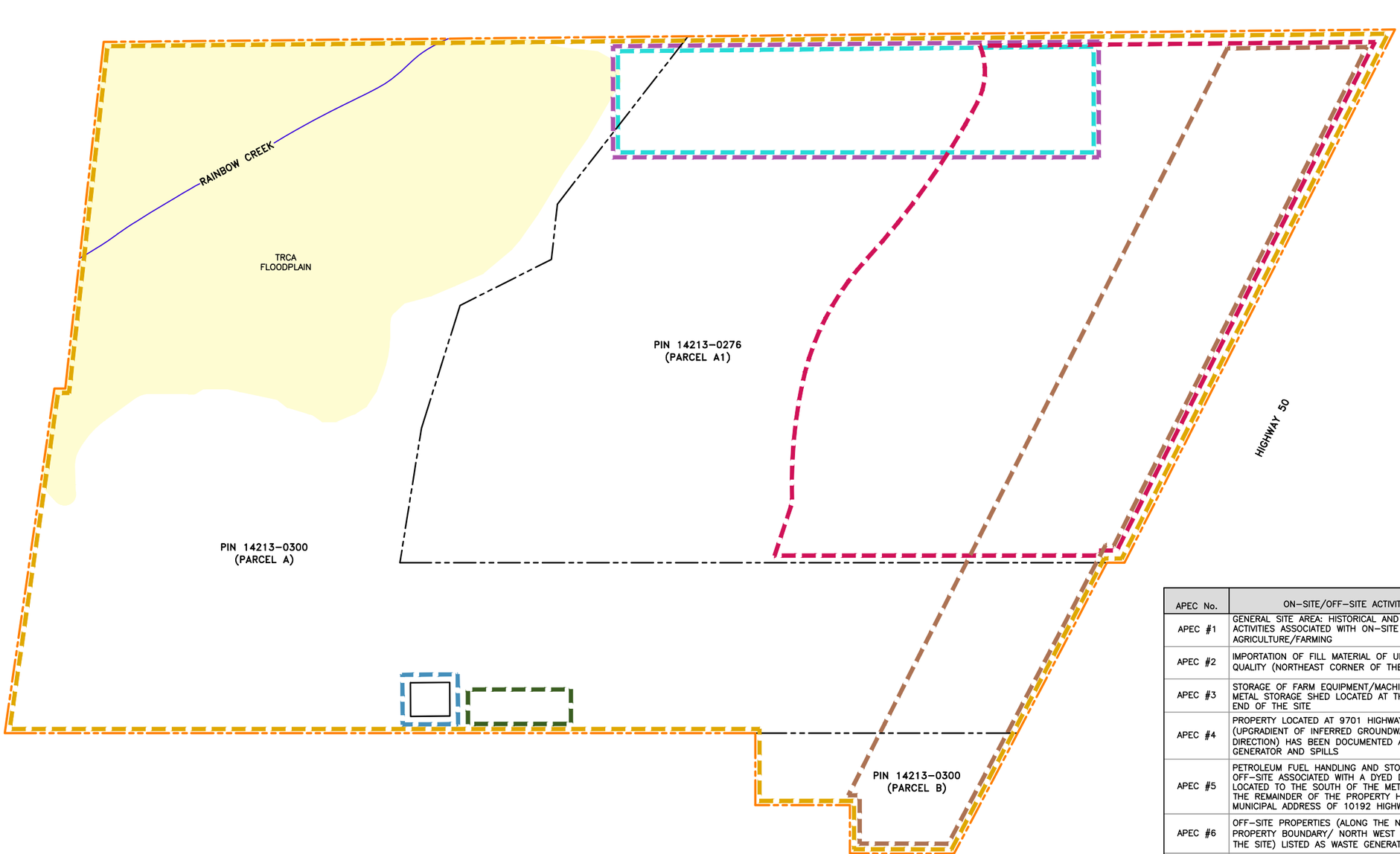

APEC No.	ON-SITE/OFF-SITE ACTIVITIES	PCA No.	POTENTIAL CONTAMINANTS OF CONCERN
APEC #1	GENERAL SITE AREA: HISTORICAL AND CURRENT ACTIVITIES ASSOCIATED WITH ON-SITE AGRICULTURE/FARMING	40	HERBICIDES AND PESTICIDES AND METALS/ INORGANICS
APEC #2	IMPORTATION OF FILL MATERIAL OF UNKNOWN QUALITY (NORTHEAST CORNER OF THE SITE)	30	PAHs AND METALS/ INORGANICS
APEC #3	STORAGE OF FARM EQUIPMENT/MACHINERY IN THE METAL STORAGE SHED LOCATED AT THE SOUTH END OF THE SITE	NA	BTEX, PHC F1-F4, VOCs AND PAHs
APEC #4	PROPERTY LOCATED AT 9701 HIGHWAY 50 (UPGRADIENT OF INFERRED GROUNDWATER FLOW DIRECTION) HAS BEEN DOCUMENTED AS A WASTE GENERATOR AND SPILLS	NA	BTEX, PHC F1-F4, VOCs, PAHs, AND METALS/ INORGANICS
APEC #5	PETROLEUM FUEL HANDLING AND STORAGE OFF-SITE ASSOCIATED WITH A DYED DIESEL AST LOCATED TO THE SOUTH OF THE METAL SHED ON THE REMAINDER OF THE PROPERTY HAVING MUNICIPAL ADDRESS OF 10192 HIGHWAY 50	28	BTEX, PHC F1-F4, VOCs, PAHs, AND METALS/ INORGANICS
APEC #6	OFF-SITE PROPERTIES (ALONG THE NORTH PROPERTY BOUNDARY/ NORTH WEST CORNER OF THE SITE) LISTED AS WASTE GENERATORS	NA	BTEX, PHC F1-F4, VOCs, PAHs, AND METALS/ INORGANICS
APEC #7	OFF-SITE PROPERTIES (ALONG NORTH PROPERTY BOUNDARY OF THE SITE) INVOLVED IN THE MANUFACTURING OF METAL PRODUCTS	34	VOCs AND METALS/ INORGANICS

LEGEND

- TORONTO AND REGION CONSERVATION AUTHORITY (TRCA) FLOODPLAIN
- PHASE ONE PROPERTY LIMIT
- PROPERTY LINE
- EXISTING BUILDING

AREAS OF POTENTIAL ENVIRONMENTAL CONCERN

- APEC #1
- APEC #2
- APEC #3
- APEC #4
- APEC #5
- APEC #6
- APEC #7

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SCALE 1:2,000

0 40 80m

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Client/Location: CITY OF BRAMPTON 10192 HIGHWAY 50, BRAMPTON, ON		Title: PHASE ONE CONCEPTUAL SITE MODEL AREAS OF POTENTIAL ENVIRONMENTAL CONCERN	
Project No: 665125	Filename: 005F04_665125	Date: NOVEMBER 2019	Dwg No: FIGURE 4
Drawn: AG	Verified: RM	Project Manager: AY	

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DISCUSSION NORTH

TRUE NORTH

RAINBOW CREEK

MW-35
206.80

MW-02
205.69

MW-22
209.46

MW-33
208.96

MW-03
205.76

MW-70
205.20

MW-51
206.77

MW-30
205.32

MW-74
205.34

MW-75
204.68

HIGHWAY 50

207

208

209

209

208

207

206

206

205

LEGEND

- MONITORING WELL (SNC-LAVALIN, 2019)
- TORONTO AND REGION CONSERVATION AUTHORITY (TRCA) FLOODPLAIN
- SITE PROPERTY LINE
- EXISTING BUILDING
- PROPOSED BUILDING
- PROPOSED INFRASTRUCTURE
- 206 — INTERPRETED WATER LEVEL ELEVATION CONTOUR (m)
- 206.69 — WATER LEVEL ELEVATION (m) (OCTOBER 21, 2019)
- INTERPRETED SHALLOW HORIZONTAL GROUNDWATER FLOW DIRECTION

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

SCALE 1:2,000

0 40 80m

SNC·LAVALIN

Client/Location: CITY OF BRAMPTON 10192 HIGHWAY 50, BRAMPTON, ON		Title: INTERPRETED SHALLOW HORIZONTAL GROUNDWATER FLOW DIRECTION (OCTOBER 21, 2019)	
Project No: 665125	Filename: 005F05_665125	Date: NOVEMBER 2019	Dwg No: FIGURE 5
Drawn: AG	Verified: RM	Project Manager: AY	

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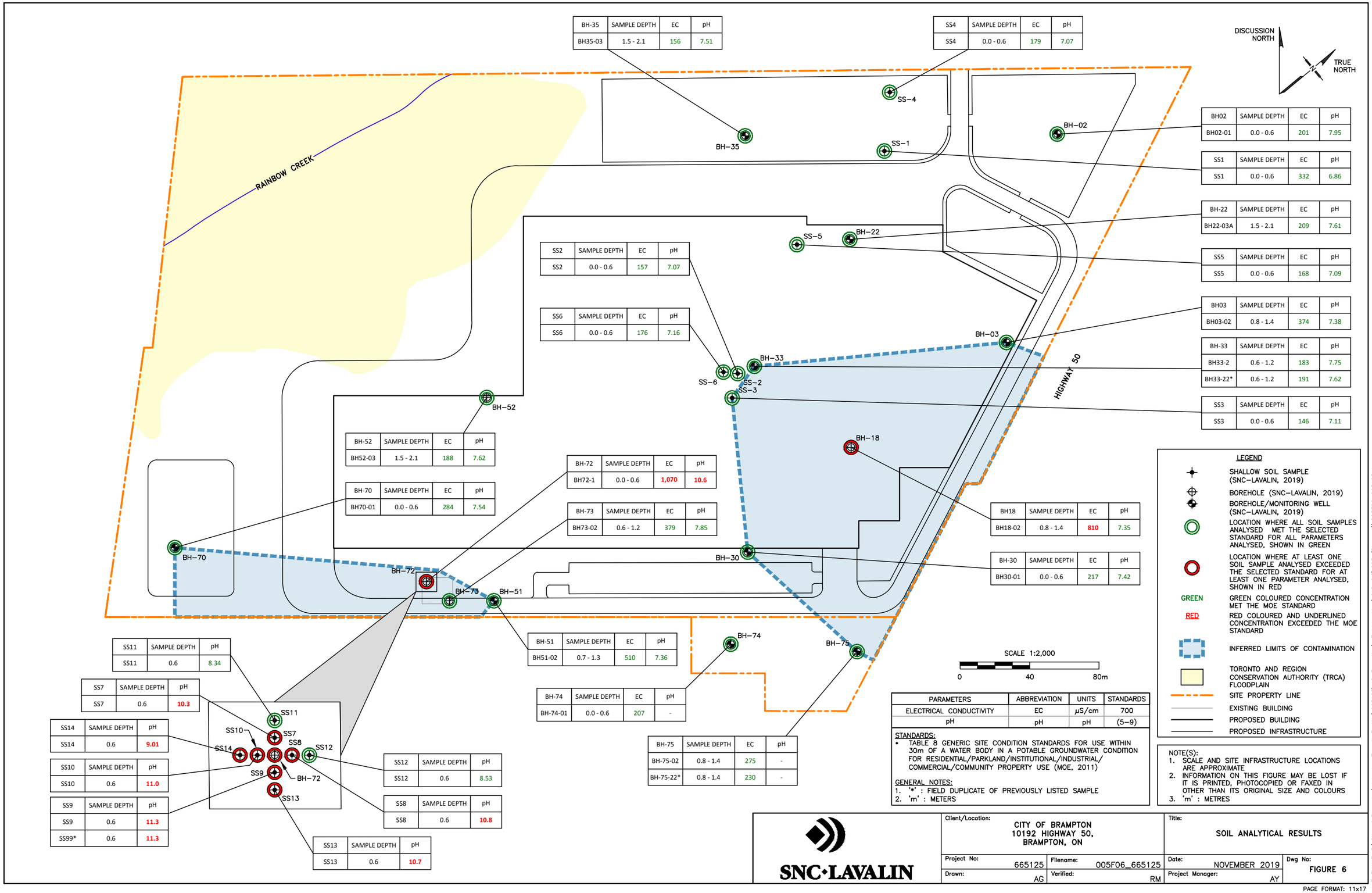
DISCUSSION NORTH
TRUE NORTH
RAINBOW CREEK
HIGHWAY 50
BH-35 | SAMPLE DEPTH | EC | pH
BH35-03 | 1.5 - 2.1 | 156 | 7.51
SS4 | SAMPLE DEPTH | EC | pH
SS4 | 0.0 - 0.6 | 179 | 7.07
BH02 | SAMPLE DEPTH | EC | pH
BH02-01 | 0.0 - 0.6 | 201 | 7.95
SS1 | SAMPLE DEPTH | EC | pH
SS1 | 0.0 - 0.6 | 332 | 6.86
BH-22 | SAMPLE DEPTH | EC | pH
BH22-03A | 1.5 - 2.1 | 209 | 7.61
SS5 | SAMPLE DEPTH | EC | pH
SS5 | 0.0 - 0.6 | 168 | 7.09
BH03 | SAMPLE DEPTH | EC | pH
BH03-02 | 0.8 - 1.4 | 374 | 7.38
BH-33 | SAMPLE DEPTH | EC | pH
BH33-2 | 0.6 - 1.2 | 183 | 7.75
BH33-22* | 0.6 - 1.2 | 191 | 7.62
SS3 | SAMPLE DEPTH | EC | pH
SS3 | 0.0 - 0.6 | 146 | 7.11
SS2 | SAMPLE DEPTH | EC | pH
SS2 | 0.0 - 0.6 | 157 | 7.07
SS6 | SAMPLE DEPTH | EC | pH
SS6 | 0.0 - 0.6 | 176 | 7.16
BH-52 | SAMPLE DEPTH | EC | pH
BH52-03 | 1.5 - 2.1 | 188 | 7.62
BH-70 | SAMPLE DEPTH | EC | pH
BH70-01 | 0.0 - 0.6 | 284 | 7.54
BH-72 | SAMPLE DEPTH | EC | pH
BH72-1 | 0.0 - 0.6 | 1,070 | 10.6
BH-73 | SAMPLE DEPTH | EC | pH
BH73-02 | 0.6 - 1.2 | 379 | 7.85
BH18 | SAMPLE DEPTH | EC | pH
BH18-02 | 0.8 - 1.4 | 810 | 7.35
BH-30 | SAMPLE DEPTH | EC | pH
BH30-01 | 0.0 - 0.6 | 217 | 7.42
BH-51 | SAMPLE DEPTH | EC | pH
BH51-02 | 0.7 - 1.3 | 510 | 7.36
BH-74 | SAMPLE DEPTH | EC | pH
BH-74-01 | 0.0 - 0.6 | 207 | -
BH-75 | SAMPLE DEPTH | EC | pH
BH-75-02 | 0.8 - 1.4 | 275 | -
BH-75-22* | 0.8 - 1.4 | 230 | -
SS11 | SAMPLE DEPTH | pH
SS11 | 0.6 | 8.34
SS7 | SAMPLE DEPTH | pH
SS7 | 0.6 | 10.3
SS14 | SAMPLE DEPTH | pH
SS14 | 0.6 | 9.01
SS10 | SAMPLE DEPTH | pH
SS10 | 0.6 | 11.0
SS9 | SAMPLE DEPTH | pH
SS9 | 0.6 | 11.3
SS99* | 0.6 | 11.3
SS12 | SAMPLE DEPTH | pH
SS12 | 0.6 | 8.53
SS8 | SAMPLE DEPTH | pH
SS8 | 0.6 | 10.8
SS13 | SAMPLE DEPTH | pH
SS13 | 0.6 | 10.7
BH-02
BH-03
BH-18
BH-22
BH-30
BH-33
BH-51
BH-52
BH-70
BH-72
BH-73
BH-74
BH-75
SS-1
SS-2
SS-3
SS-4
SS-5
SS-6
SS7
SS8
SS9
SS10
SS11
SS12
SS13
SS14
SCALE 1:2,000
0
40
80m
LEGEND
SHALLOW SOIL SAMPLE (SNC–LAVALIN, 2019)
BOREHOLE (SNC–LAVALIN, 2019)
BOREHOLE/MONITORING WELL (SNC–LAVALIN, 2019)
LOCATION WHERE ALL SOIL SAMPLES ANALYSED MET THE SELECTED STANDARD FOR ALL PARAMETERS ANALYSED, SHOWN IN GREEN
LOCATION WHERE AT LEAST ONE SOIL SAMPLE ANALYSED EXCEEDED THE SELECTED STANDARD FOR AT LEAST ONE PARAMETER ANALYSED, SHOWN IN RED
GREEN GREEN COLOURED CONCENTRATION MET THE MOE STANDARD
RED RED COLOURED AND UNDERLINED CONCENTRATION EXCEEDED THE MOE STANDARD
INFERRED LIMITS OF CONTAMINATION
TORONTO AND REGION CONSERVATION AUTHORITY (TRCA) FLOODPLAIN
SITE PROPERTY LINE
EXISTING BUILDING
PROPOSED BUILDING
PROPOSED INFRASTRUCTURE
PARAMETERS | ABBREVIATION | UNITS | STANDARDS
ELECTRICAL CONDUCTIVITY | EC | µS/cm | 700
pH | pH | pH | (5–9)
STANDARDS:
• TABLE 8 GENERIC SITE CONDITION STANDARDS FOR USE WITHIN 30m OF A WATER BODY IN A POTABLE GROUNDWATER CONDITION FOR RESIDENTIAL/PARKLAND/INSTITUTIONAL/INDUSTRIAL/ COMMERCIAL/COMMUNITY PROPERTY USE (MOE, 2011)
GENERAL NOTES:
1. '*' : FIELD DUPLICATE OF PREVIOUSLY LISTED SAMPLE
2. 'm' : METERS
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
Client/Location: CITY OF BRAMPTON 10192 HIGHWAY 50, BRAMPTON, ON
Title: SOIL ANALYTICAL RESULTS
Project No: 665125
Filename: 005F06_665125
Date: NOVEMBER 2019
Dwg No: FIGURE 6
Drawn: AG
Verified: RM
Project Manager: AY
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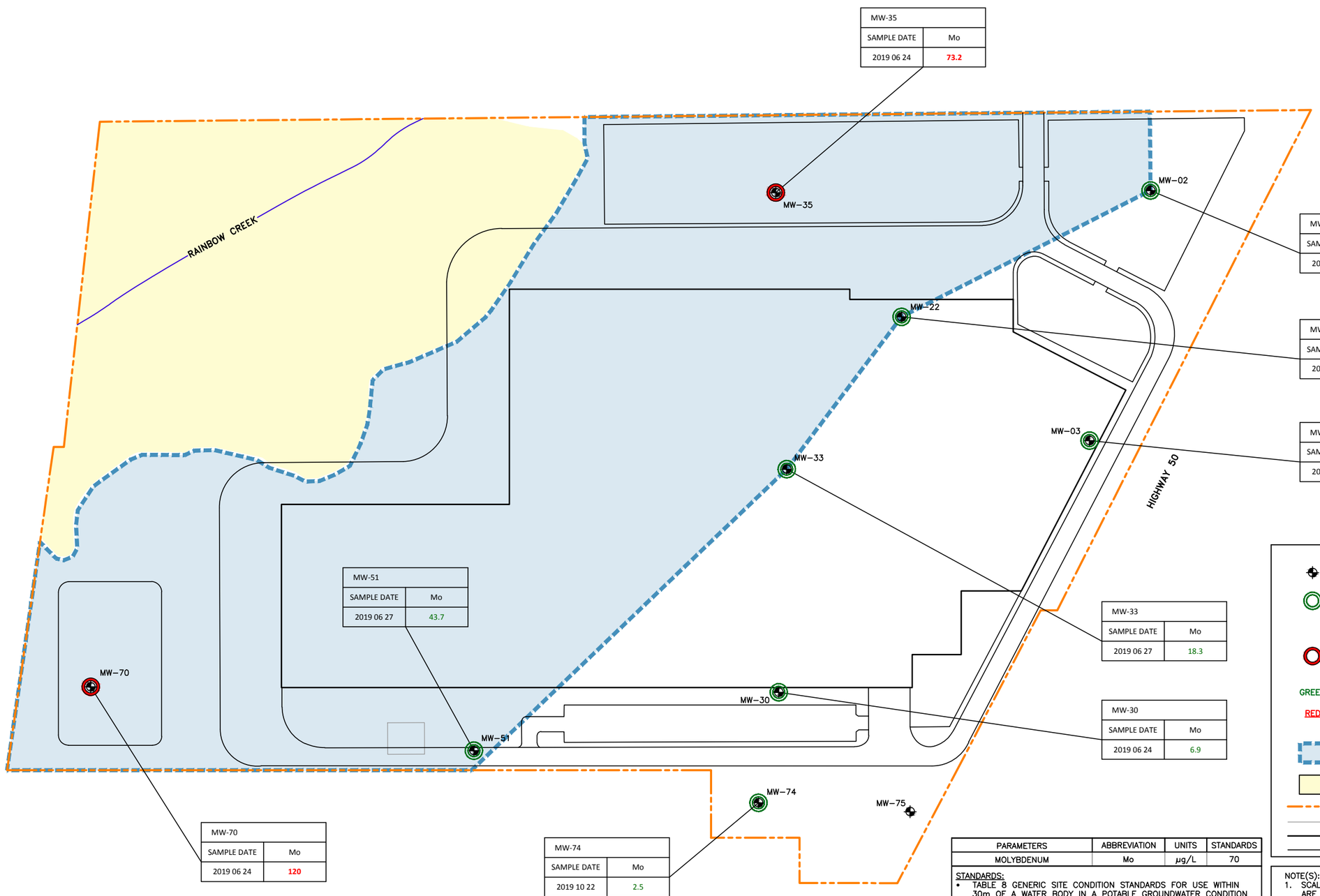

PARAMETERS	ABBREVIATION	UNITS	STANDARDS
MOLYBDENUM	Mo	µg/L	70

STANDARDS:
- TABLE 8 GENERIC SITE CONDITION STANDARDS FOR USE WITHIN 30m OF A WATER BODY IN A POTABLE GROUNDWATER CONDITION FOR ALL TYPES OF PROPERTY USE (MOE, 2011)

GENERAL NOTES:
1. 'm' : METERS

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

Client/Location: CITY OF BRAMPTON 10192 HIGHWAY 50, BRAMPTON, ON

Title: GROUNDWATER ANALYTICAL RESULTS

Project No: 665125 | Filename: 005F07_665125 | Date: NOVEMBER 2019 | Dwg No: FIGURE 7

Drawn: AG | Verified: RM | Project Manager: AY

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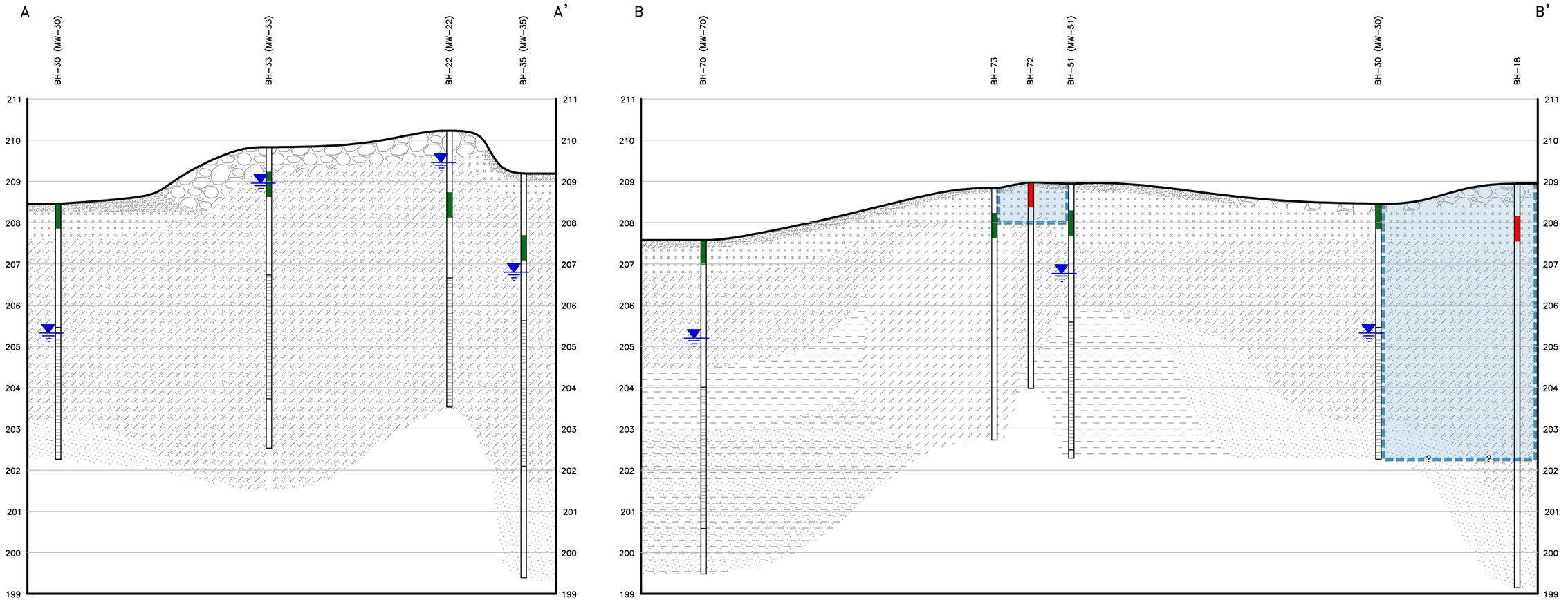

LEGEND

- GROUNDWATER ELEVATIONS (OCTOBER 21, 2019)
- TOPSOIL
- CRUSHED STONE/ASPHALT
- FILL
- NATIVE TILL
- SAND
- SILT
- CLAY
- SILT AND SAND
- BOREHOLE
- MONITORING WELL
- LOCATION WHERE SOIL SAMPLES ANALYSED SATISFIED FEDERAL GUIDELINES FOR ANALYSED PARAMETERS
- LOCATION WHERE AT LEAST ONE SOIL SAMPLE ANALYSED EXCEEDED FEDERAL GUIDELINES FOR AT LEAST ONE PARAMETER ANALYSED
- INFERRED LIMITS OF CONTAMINATION

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

VERTICAL SCALE 1:100

0 2 4m

SCALE 1:2,000

0 40 80m

SNC·LAVALIN

Client/Location: CITY OF BRAMPTON, 10192 HIGHWAY 50, BRAMPTON, ON

Title: GENERALIZED GEOLOGICAL CROSS SECTIONS (A–A' AND B–B') WITH SOIL ANALYTICAL RESULTS FOR METALS/INORGANICS

Project No:	Filename:	Date:	Dwg No:
665125	005F08_665125	NOVEMBER 2019	FIGURE 8
Drawn: AG	Verified: WW	Project Manager: AY	

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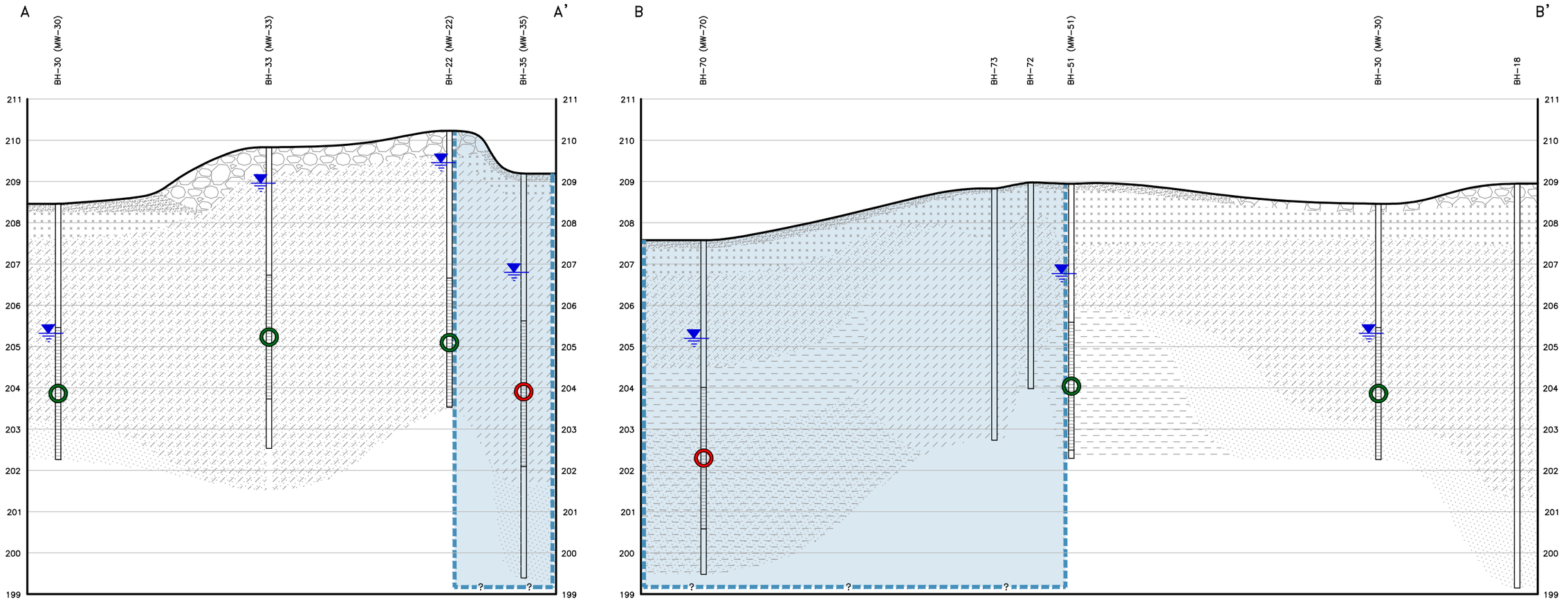

LEGEND

- GROUNDWATER ELEVATIONS (OCTOBER 21, 2019)
- TOPSOIL
- CRUSHED STONE/ASPHALT
- FILL
- NATIVE TILL
- SAND
- SILT
- CLAY
- SILT AND SAND
- BOREHOLE
- MONITORING WELL
- LOCATION WHERE MOST RECENT GROUNDWATER SAMPLE ANALYSED SATISFIED FEDERAL GUIDELINES FOR ANALYSED PARAMETERS
- LOCATION WHERE MOST RECENT GROUNDWATER SAMPLE ANALYSED EXCEEDED FEDERAL GUIDELINES FOR AT LEAST ONE PARAMETER ANALYSED
- INFERRED LIMITS OF CONTAMINATION

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

VERTICAL SCALE 1:100

0 2 4m

SCALE 1:2,000

0 40 80m

SNC·LAVALIN

Client/Location: CITY OF BRAMPTON, 10192 HIGHWAY 50, BRAMPTON, ON

Title: GENERALIZED GEOLOGICAL CROSS SECTIONS (A–A' AND B–B') WITH GROUNDWATER ANALYTICAL RESULTS FOR METALS/INORGANICS

Project No:	Filename:	Date:	Dwg No:
665125	005F09_665125	NOVEMBER 2019	FIGURE 9
Drawn: AG	Verified: WW	Project Manager: AY	

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LEGEND

✓ POTENTIALLY OPERABLE PATHWAY

INOPERABLE PATHWAY

SNC·LAVALIN

Client/Location: CITY OF BRAMPTON 10192 HIGHWAY 50, BRAMPTON, ON		Title: CONCEPTUAL SITE MODEL	
Project No: 665125	Filename: 005F10_660306	Date: NOVEMBER 2019	Dwg No: FIGURE 10
Drawn: DM	Verified: WW	Project Manager: AY	

665125

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Tables

TABLE 1: Groundwater Monitoring Results
10192 Highway 50, Brampton, ON

Monitoring Location	Top of Riser Elevation[1] (m asl)	Ground Surface Elevation (m asl)	Screen Interval (m bgs)	Depth to Bottom (m bgs)	Date (yyyy/mm/dd)	Well Riser Headspace Vapour Reading [2]	Groundwater Depth (m bgs)	Groundwater Elevation (m asl)	
MW-02	211.00	210.10	4.6 - 7.2	7.62	2019-06-27	<5	3.58	206.52	*
					2019-10-21	<5	4.41	205.69	*
MW-03	209.81	208.89	3.0 - 6.1	6.10	2019-06-27	<5	2.32	206.57	*
					2019-10-21	<5	3.13	205.76	
MW-22	211.08	210.22	2.1 - 6.7	6.71	2019-06-27	25	0.33	209.89	*
					2019-10-21	<5	0.76	209.46	*
MW-30	209.36	208.48	3.7 - 6.7	6.71	2019-06-27	880	2.14	206.34	*
					2019-10-21	<5	3.16	205.32	*
MW-33	210.77	209.85	3.0 - 6.1	6.10	2019-06-27	140	2.49	207.36	*
					2019-10-21	<5	0.89	208.96	*
MW-35	210.09	209.19	2.4 - 7.0	7.01	2019-06-27	335	0.64	208.55	*
					2019-10-21	<5	2.39	206.80	*
MW-51	209.94	208.94	3.7 - 6.7	6.71	2019-06-27	1650	6.29	202.65	
					2019-10-21	<5	2.17	206.77	*
MW-70	208.47	207.53	3.4 - 6.7	6.71	2019-06-27	<5	1.36	206.17	*
					2019-10-21	<5	2.33	205.20	*
MW-74	208.82	207.93	2.6 - 5.6	5.60	2019-10-21	<5	2.59	205.34	*
MW-75	208.95	208.09	2.7 - 5.8	5.60	2019-10-21	420	3.41	204.68	

Footnotes:

m asl - metres above sea level
m bgs - metres below ground surface
ppmv - parts per million by volume (relative to hexane)
* - water level above top of well screen
[1] Elevations measured relative to a geodetic benchmark above mean sea level (a msl) using a Trimble RX 5800 high precision unit
[2] Organic Vapour Meter (OVM) readings measured in ppmv unless otherwise noted

TABLE 2: Soil Analytical Results - Petroleum Parameters
10192 Highway 50, Brampton, ON

Sample Location			Table 8[1]	BH02	BH03	BH22	BH30	BH33	BH33	BH35	BH51
Laboratory Sample ID			Standard	265183	265186	275048	268835	294696	294732	275043	268852
SNC-Lavalin Sample ID			RL/PL/IN_CG	BH02-07	BH03-07	BH22-08	BH30-08	BH33-7	BH33-77	BH35-07	BH51-08
Sampling Date (yyyy/mm/dd)				2019/06/10	2019/06/10	2019/06/12	2019/06/11	2019/06/19	2019/06/19	2019/06/12	2019/06/11
Depth Interval (mbgs)				6.1 - 6.7	4.6 - 5.2	5.3 - 5.9	5.3 - 5.9	3.7 - 4.3	3.7 - 4.3	4.6 - 5.2	5.3 - 5.9
Field Screen (ppmv)				<5	<5	<5	<5	<5	<5	<5	<5
									Duplicate of BH33-7		
Parameter	**RDL**	**Units**									
Volatiles											
Benzene	0.02	µg/g	0.02	<	<	<	<	<	<	<	<
Toluene	0.05	µg/g	0.2	<	<	<	<	<	<	<	<
Ethylbenzene	0.05	µg/g	0.05	<	<	<	<	<	<	<	<
Xylenes	0.05	µg/g	0.05	<	<	<	<	<	<	<	<
Hexane (n)	0.05	µg/g	0.05	<	<	<	<	<	<	<	<
Petroleum Hydrocarbon (PHC) Fractions											
PHC F1	5	µg/g	25	<	<	<	<	<	<	<	<
PHC F2	10	µg/g	10	<	<	<	<	<	<	<	<
PHC F3	50	µg/g	240	<	<	<	<	<	<	<	<
PHC F4	50	µg/g	120	<	<	<	<	<	<	<	<

Footnotes:

Additional terms may be defined within the body of SNC-Lavalin's report.
RDL - Reportable Detection Limit, unless otherwise noted
< - Denotes concentration less than indicated detection limit
"-" - Not analyzed
na - Not applicable
mbgs - metres below ground surface
Field Screen - organic vapour meter reading
Conversion factor of 1% LEL = 110 ppmv applied
ppmv - parts per million by volume (relative to hexane)
µg/g - micrograms per gram, dry weight basis

BOLD Concentration greater than Table 8 Standard

[1] Table 8 generic site condition standards for use within 30 m of a water body in a potable groundwater condition for residential/ parkland/ institutional/ industrial/ commercial/ community property use (MOE, 2011)

TABLE 2: Soil Analytical Results - Petroleum Parameters
10192 Highway 50, Brampton, ON

			Sample Location	Table 8[1]	BH72	BH73	BH-74	BH-75	BH-75	SS1	SS3	SS5
			Laboratory Sample ID	Standard	294301	294305	624926	624954	624968	302489	302543	302559
			SNC-Lavalin Sample ID	RL/PL/IN_CG	BH72-8	BH73-07	BH-74-06	BH-75-06	BH-75-66	SS1	SS3	SS5
			Sampling Date (yyyy/mm/dd)		2019/06/20	2019/06/20	2019/10/16	2019/10/16	2019/10/16	2019/06/24	2019/06/24	2019/06/24
			Depth Interval (mbgs)		4.3 - 4.9	3.7 - 4.3	3.8 - 4.4	3.8 - 4.2	3.8 - 4.2	0.0 - 0.6	0.0 - 0.6	0.0 - 0.6
			Field Screen (ppmv)		<5	<5	<5	<5	<5	<5	<5	<5
Parameter	**RDL**	**Units**							Duplicate of BH-75-06			
Volatiles												
Benzene	0.02	µg/g		0.02	<	<	<	<	<	<	<	<
Toluene	0.05	µg/g		0.2	<	<	<	<	<	<	<	<
Ethylbenzene	0.05	µg/g		0.05	<	<	<	<	<	<	<	<
Xylenes	0.05	µg/g		0.05	<	<	<	<	<	<	<	<
Hexane (n)	0.05	µg/g		0.05	<	<	<	<	<	<	<	<
Petroleum Hydrocarbon (PHC) Fractions												
PHC F1	5	µg/g		25	<	<	<	<	<	<	<	<
PHC F2	10	µg/g		10	<	<	<	<	<	<	<	<
PHC F3	50	µg/g		240	<	<	<	<	<	<	<	<
PHC F4	50	µg/g		120	<	<	<	<	<	<	<	<

Footnotes:

Additional terms may be defined within the body of SNC-Lavalin's report.
RDL - Reportable Detection Limit, unless otherwise noted
< - Denotes concentration less than indicated detection limit
"-" - Not analyzed
na - Not applicable
mbgs - metres below ground surface
Field Screen - organic vapour meter reading
Conversion factor of 1% LEL = 110 ppmv applied
ppmv - parts per million by volume (relative to hexane)
µg/g - micrograms per gram, dry weight basis

BOLD Concentration greater than Table 8 Standard

[1] Table 8 generic site condition standards for use within 30 m of a water body in a potable groundwater condition for residential/ parkland/ institutional/ industrial/ commercial/ community property use (MOE, 2011)

TABLE 3: Soil Analytical Results - VOC
10192 Highway 50, Brampton, ON

Sample Location			Table 8[1]	BH02	BH03	BH22	BH30	BH33	BH33	BH35	BH51	BH72	BH73
Laboratory Sample ID			Standard	265183	265186	275048	268835	294696	294732	275043	268852	294301	294305
SNC-Lavalin Sample ID			RL/PL/IN_CG	BH02-07	BH03-07	BH22-08	BH30-08	BH33-7	BH33-77	BH35-07	BH51-08	BH72-8	BH73-07
Sampling Date (yyyy/mm/dd)				2019/06/10	2019/06/10	2019/06/12	2019/06/11	2019/06/19	2019/06/19	2019/06/12	2019/06/11	2019/06/20	2019/06/20
Depth Interval (mbgs)				6.1 - 6.7	4.6 - 5.2	5.3 - 5.9	5.3 - 5.9	3.7 - 4.3	3.7 - 4.3	4.6 - 5.2	5.3 - 5.9	4.3 - 4.9	3.7 - 4.3
Field Screen (ppmv)				<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
									Duplicate of				
Parameter	**RDL**	**Units**							BH33-7				
Volatile Organic Compounds													
Acetone	0.50	µg/g	0.5	<	<	<	<	<	<	<	<	<	<
Bromodichloromethane	0.05	µg/g	0.05	<	<	<	<	<	<	<	<	<	<
Bromoform	0.05	µg/g	0.05	<	<	<	<	<	<	<	<	<	<
Bromomethane	0.05	µg/g	0.05	<	<	<	<	<	<	<	<	<	<
Carbon Tetrachloride	0.05	µg/g	0.05	<	<	<	<	<	<	<	<	<	<
Chlorobenzene	0.05	µg/g	0.05	<	<	<	<	<	<	<	<	<	<
Chloroform	0.04	µg/g	0.05	<	<	<	<	<	<	<	<	<	<
Dibromochloromethane	0.05	µg/g	0.05	<	<	<	<	<	<	<	<	<	<
Dichlorobenzene, 1,2- (o-DCB)	0.05	µg/g	0.05	<	<	<	<	<	<	<	<	<	<
Dichlorobenzene, 1,3- (m-DCB)	0.05	µg/g	0.05	<	<	<	<	<	<	<	<	<	<
Dichlorobenzene, 1,4- (p-DCB)	0.05	µg/g	0.05	<	<	<	<	<	<	<	<	<	<
Dichlorodifluoromethane	0.05	µg/g	0.05	<	<	<	<	<	<	<	<	<	<
Dichloroethane, 1,1-	0.02	µg/g	0.05	<	<	<	<	<	<	<	<	<	<
Dichloroethane, 1,2-	0.03	µg/g	0.05	<	<	<	<	<	<	<	<	<	<
Dichloroethylene, 1,1-	0.05	µg/g	0.05	<	<	<	<	<	<	<	<	<	<
Dichloroethylene, cis-1,2-	0.02	µg/g	0.05	<	<	<	<	<	<	<	<	<	<
Dichloroethylene, trans-1,2-	0.05	µg/g	0.05	<	<	<	<	<	<	<	<	<	<
Dichloropropane, 1,2-	0.03	µg/g	0.05	<	<	<	<	<	<	<	<	<	<
Dichloropropene, 1,3-	0.04	µg/g	0.05	<	<	<	<	<	<	<	<	<	<
Ethylene Dibromide (Dibromoethane, 1,2-)	0.04	µg/g	0.05	<	<	<	<	<	<	<	<	<	<
Methyl Ethyl Ketone	0.50	µg/g	0.5	<	<	<	<	<	<	<	<	<	<
Methyl Isobutyl Ketone	0.50	µg/g	0.5	<	<	<	<	<	<	<	<	<	<
Methyl tert butyl ether (MTBE)	0.05	µg/g	0.05	<	<	<	<	<	<	<	<	<	<
Methylene Chloride	0.05	µg/g	0.05	<	<	<	<	<	<	<	<	<	<
Styrene	0.05	µg/g	0.05	<	<	<	<	<	<	<	<	<	<
Tetrachloroethane, 1,1,1,2-	0.04	µg/g	0.05	<	<	<	<	<	<	<	<	<	<
Tetrachloroethane, 1,1,2,2-	0.05	µg/g	0.05	<	<	<	<	<	<	<	<	<	<
Tetrachloroethylene	0.05	µg/g	0.05	<	<	<	<	<	<	<	<	<	<
Trichloroethane, 1,1,1-	0.05	µg/g	0.05	<	<	<	<	<	<	<	<	<	<
Trichloroethane, 1,1,2-	0.04	µg/g	0.05	<	<	<	<	<	<	<	<	<	<
Trichloroethylene	0.03	µg/g	0.05	<	<	<	<	<	<	<	<	<	<
Trichlorofluoromethane	0.05	µg/g	0.25	<	<	<	<	<	<	<	<	<	<
Vinyl Chloride	0.02	µg/g	0.02	<	<	<	<	<	<	<	<	<	<

See footnotes on last page

TABLE 3: Soil Analytical Results - VOC
10192 Highway 50, Brampton, ON

Sample Location			Table 8[1]	BH-74	BH-75	BH-75	SS1	SS3	SS5
Laboratory Sample ID			Standard	624926	624954	624968	302489	302543	302559
SNC-Lavalin Sample ID			RL/PL/IN_CG	BH-74-06	BH-75-06	BH-75-66	SS1	SS3	SS5
Sampling Date (yyyy/mm/dd)				2019/10/16	2019/10/16	2019/10/16	2019/06/24	2019/06/24	2019/06/24
Depth Interval (mbgs)				3.8 - 4.4	3.8 - 4.2	3.8 - 4.2	0.0 - 0.6	0.0 - 0.6	0.0 - 0.6
Field Screen (ppmv)				<5	<5	<5	<5	<5	<5
						Duplicate of			
Parameter	**RDL**	**Units**				BH-75-06			
Volatile Organic Compounds									
Acetone	0.50	µg/g	0.5	<	<	<	<	<	<
Bromodichloromethane	0.05	µg/g	0.05	<	<	<	<	<	<
Bromoform	0.05	µg/g	0.05	<	<	<	<	<	<
Bromomethane	0.05	µg/g	0.05	<	<	<	<	<	<
Carbon Tetrachloride	0.05	µg/g	0.05	<	<	<	<	<	<
Chlorobenzene	0.05	µg/g	0.05	<	<	<	<	<	<
Chloroform	0.04	µg/g	0.05	<	<	<	<	<	<
Dibromochloromethane	0.05	µg/g	0.05	<	<	<	<	<	<
Dichlorobenzene, 1,2- (o-DCB)	0.05	µg/g	0.05	<	<	<	<	<	<
Dichlorobenzene, 1,3- (m-DCB)	0.05	µg/g	0.05	<	<	<	<	<	<
Dichlorobenzene, 1,4- (p-DCB)	0.05	µg/g	0.05	<	<	<	<	<	<
Dichlorodifluoromethane	0.05	µg/g	0.05	<	<	<	<	<	<
Dichloroethane, 1,1-	0.02	µg/g	0.05	<	<	<	<	<	<
Dichloroethane, 1,2-	0.03	µg/g	0.05	<	<	<	<	<	<
Dichloroethylene, 1,1-	0.05	µg/g	0.05	<	<	<	<	<	<
Dichloroethylene, cis-1,2-	0.02	µg/g	0.05	<	<	<	<	<	<
Dichloroethylene, trans-1,2-	0.05	µg/g	0.05	<	<	<	<	<	<
Dichloropropane, 1,2-	0.03	µg/g	0.05	<	<	<	<	<	<
Dichloropropene, 1,3-	0.04	µg/g	0.05	<	<	<	<	<	<
Ethylene Dibromide (Dibromoethane, 1,2-)	0.04	µg/g	0.05	<	<	<	<	<	<
Methyl Ethyl Ketone	0.50	µg/g	0.5	<	<	<	<	<	<
Methyl Isobutyl Ketone	0.50	µg/g	0.5	<	<	<	<	<	<
Methyl tert butyl ether (MTBE)	0.05	µg/g	0.05	<	<	<	<	<	<
Methylene Chloride	0.05	µg/g	0.05	<	<	<	<	<	<
Styrene	0.05	µg/g	0.05	<	<	<	<	<	<
Tetrachloroethane, 1,1,1,2-	0.04	µg/g	0.05	<	<	<	<	<	<
Tetrachloroethane, 1,1,2,2-	0.05	µg/g	0.05	<	<	<	<	<	<
Tetrachloroethylene	0.05	µg/g	0.05	<	<	<	<	<	<
Trichloroethane, 1,1,1-	0.05	µg/g	0.05	<	<	<	<	<	<
Trichloroethane, 1,1,2-	0.04	µg/g	0.05	<	<	<	<	<	<
Trichloroethylene	0.03	µg/g	0.05	<	<	<	<	<	<
Trichlorofluoromethane	0.05	µg/g	0.25	<	<	<	<	<	<
Vinyl Chloride	0.02	µg/g	0.02	<	<	<	<	<	<

See footnotes on last page

TABLE 3: Soil Analytical Results - VOC
10192 Highway 50, Brampton, ON

Footnotes:

Additional terms may be defined within the body of SNC-Lavalin's report.
RDL - Reportable Detection Limit, unless otherwise noted
< - Denotes concentration less than indicated detection limit
"-" - Not analyzed
na - Not applicable
mbgs - metres below ground surface
Field Screen - organic vapour meter reading
Conversion factor of 1% LEL = 110 ppmv applied
ppmv - parts per million by volume (relative to hexane)
µg/g - micrograms per gram, dry weight basis

BOLD Concentration greater than Table 8 Standard

[1] Table 8 generic site condition standards for use within 30 m of a water body in a potable groundwater condition for residential/ parkland/ institutional/ industrial/ commercial/ community property use (MOE, 2011)

TABLE 4: Soil Analytical Results - PAH
10192 Highway 50, Brampton, ON

Sample Location			Table 8[1]	BH02	BH03	BH22	BH30	BH33	BH51	BH72	BH73	BH-74	BH-75
Laboratory Sample ID			Standard	265182	265185	275045	268831	294694	268851	294299	294303	624922	624941
SNC-Lavalin Sample ID			RL/PL/IN CG	BH02-02	BH03-01	BH22-03	BH30-02	BH33-3	BH51-02	BH72-3	BH73-02	BH-74-01	BH-75-02
Sampling Date (yyyy/mm/dd)				2019/06/10	2019/06/10	2019/06/12	2019/06/11	2019/06/19	2019/06/11	2019/06/20	2019/06/20	2019/10/16	2019/10/16
Depth Interval (mbgs)				0.8 - 1.4	0.0 - 0.6	1.5 - 2.1	0.8 - 1.3	1.2 - 1.8	0.7 - 1.3	1.2 - 1.8	0.6 - 1.2	0.0 - 0.6	0.8 - 1.4
Parameter	**RDL**	**unit**											
Polycyclic Aromatic Hydrocarbons													
Acenaphthene	0.05	µg/g	0.072	<	<	<	<	<	<	<	<	<	<
Acenaphthylene	0.05	µg/g	0.093	<	<	<	<	<	<	<	<	<	<
Anthracene	0.05	µg/g	0.22	<	<	<	<	<	<	<	<	<	<
Benzo(a)anthracene	0.05	µg/g	0.36	<	<	<	<	<	<	<	<	<	<
Benzo(a)pyrene	0.05	µg/g	0.3	<	<	<	<	<	<	<	<	<	<
Benzo(b)fluoranthene	0.05	µg/g	0.47	<	<	<	<	<	<	<	<	<	<
Benzo(g,h,i)perylene	0.05	µg/g	0.68	<	<	<	<	<	<	<	<	<	<
Benzo(k)fluoranthene	0.05	µg/g	0.48	<	<	<	<	<	<	<	<	<	<
Chrysene	0.05	µg/g	2.8	<	<	<	<	<	<	<	<	<	<
Dibenzo(a,h)anthracene	0.05	µg/g	0.1	<	<	<	<	<	<	<	<	<	<
Fluoranthene	0.05	µg/g	0.69	<	<	<	<	<	<	<	<	<	<
Fluorene	0.05	µg/g	0.19	<	<	<	<	<	<	<	<	<	<
Indeno(1,2,3-cd)pyrene	0.05	µg/g	0.23	<	<	<	<	<	<	<	<	<	<
Methylnaphthalene, 1- & 2-	0.05	µg/g	0.59[2]	<	<	<	<	<	<	<	<	<	<
Naphthalene	0.05	µg/g	0.09	<	<	<	<	<	<	<	<	<	<
Phenanthrene	0.05	µg/g	0.69	<	<	<	<	<	<	<	<	<	<
Pyrene	0.05	µg/g	1	<	<	<	<	<	<	<	<	<	<

Footnotes:

Additional terms may be defined within the body of SNC-Lavalin's report.
RDL - Reportable Detection Limit, unless otherwise noted
< - Denotes concentration less than indicated detection limit
"-" - Not analyzed
na - Not applicable
mbgs - metres below ground surface
Field Screen - organic vapour meter reading
Conversion factor of 1% LEL = 110 ppmv applied
ppmv - parts per million by volume (relative to hexane)
µg/g - micrograms per gram, dry weight basis

BOLD Concentration greater than Table 8 Standard

[1] Table 8 generic site condition standards for use within 30 m of a water body in a potable groundwater condition for residential/parkland/institutional/industrial/commercial/community property use (MOE, 2011)

[2] Standard applies to both 1- and 2- methylnaphthalene, with the provision that if both are detected the sum of the two must not exceed the standard.

TABLE 4: Soil Analytical Results - PAH
10192 Highway 50, Brampton, ON

Sample Location			Table 8[1]	SS2	SS6
Laboratory Sample ID			Standard	302513	302561
SNC-Lavalin Sample ID			RL/PL/IN CG	SS2	SS6
Sampling Date (yyyy/mm/dd)				2019/06/24	2019/06/24
Depth Interval (mbgs)				0.0 - 0.6	0.0 - 0.6
Parameter	**RDL**	**unit**			
Polycyclic Aromatic Hydrocarbons					
Acenaphthene	0.05	µg/g	0.072	<	<
Acenaphthylene	0.05	µg/g	0.093	<	<
Anthracene	0.05	µg/g	0.22	<	<
Benzo(a)anthracene	0.05	µg/g	0.36	<	<
Benzo(a)pyrene	0.05	µg/g	0.3	<	<
Benzo(b)fluoranthene	0.05	µg/g	0.47	<	<
Benzo(g,h,i)perylene	0.05	µg/g	0.68	<	<
Benzo(k)fluoranthene	0.05	µg/g	0.48	<	<
Chrysene	0.05	µg/g	2.8	<	<
Dibenzo(a,h)anthracene	0.05	µg/g	0.1	<	<
Fluoranthene	0.05	µg/g	0.69	<	<
Fluorene	0.05	µg/g	0.19	<	<
Indeno(1,2,3-cd)pyrene	0.05	µg/g	0.23	<	<
Methylnaphthalene, 1- & 2-	0.05	µg/g	0.59[2]	<	<
Naphthalene	0.05	µg/g	0.09	<	<
Phenanthrene	0.05	µg/g	0.69	<	<
Pyrene	0.05	µg/g	1	<	<

Footnotes:

Additional terms may be defined within the body of SNC-Lavalin's report.
RDL - Reportable Detection Limit, unless otherwise noted
< - Denotes concentration less than indicated detection limit
"-" - Not analyzed
na - Not applicable
mbgs - metres below ground surface
Field Screen - organic vapour meter reading
Conversion factor of 1% LEL = 110 ppmv applied
ppmv - parts per million by volume (relative to hexane)
µg/g - micrograms per gram, dry weight basis

BOLD Concentration greater than Table 8 Standard

[1] Table 8 generic site condition standards for use within 30 m of a water bod

[2] Standard applies to both 1- and 2- methylnaphthalene, with the provision th

TABLE 5: Soil Analytical Results - Pesticides and Herbicides
10192 Highway 50, Brampton, ON

			Sample Location	Table 8[1]	BH02	BH03	BH18	BH22	BH30	BH33	BH35
			Laboratory Sample ID	Standard	265181	265184	265187	275045	268398	294694	274941
			SNC-Lavalin Sample ID	RL/PL/IN_CG	BH02-01	BH03-02	BH18-02	BH22-03	BH30-01	BH33-3	BH35-03
			Sampling Date (yyyy/mm/dd)		2019/06/10	2019/06/10	2019/06/10	2019/06/12	2019/06/11	2019/06/19	2019/06/12
			Depth Interval (mbgs)		0.0 - 0.6	0.8 - 1.4	0.8 - 1.4	1.5 - 2.1	0.0 - 0.6	1.2 - 1.8	1.5 - 2.1
Parameter	**RDL**	**Units**									
Organochlorine Pesticides											
Aldrin	0.005	µg/g		0.05	<	<	-	<	<	<	<
Chlordane (Total)	0.007	µg/g		0.05	<	<	-	<	<	<	<
Chlordane, alpha-	0.005	µg/g		na	<	<	-	-	<	-	-
Chlordane, gamma-	0.005	µg/g		na	<	<	-	-	<	-	-
DDD, o,p-	0.005	µg/g		na	<	<	-	-	<	-	-
DDD, p,p-	0.005	µg/g		0.05	<	<	-	-	<	-	-
DDD (Total)	0.007	µg/g		0.05	<	<	-	<	<	<	<
DDE, o,p-	0.005	µg/g		na	<	<	-	-	<	-	-
DDE, p,p-	0.005	µg/g		0.05	<	<	-	-	<	-	-
DDE (Total)	0.007	µg/g		0.05	<	<	-	<	<	<	<
DDT, o,p-	0.005	µg/g		na	<	<	-	-	<	-	-
DDT, p,p-	0.005	µg/g		na	<	<	-	< 0.007	<	< 0.007	< 0.007
DDT (Total)	0.007	µg/g		1.4	<	<	-	-	<	-	-
Dieldrin	0.005	µg/g		0.05	<	<	-	<	<	<	<
Endosulfan (Total)	0.005	µg/g		0.04	< 0.007	< 0.007	-	<	< 0.007	<	<
Endrin	0.005	µg/g		0.04	<	<	-	<	<	<	<
Heptachlor	0.005	µg/g		0.05	<	<	-	<	<	<	<
Heptachlor Epoxide	0.005	µg/g		0.05	<	<	-	<	<	<	<
Hexachlorobenzene	0.005	µg/g		0.02	-	-	-	<	-	<	<
Hexachlorobutadiene	0.01	µg/g		0.01	-	-	-	<	-	<	<
Hexachlorocyclohexane, alpha- (BHC)	0.005	µg/g		na	<	<	-	-	<	-	-
Hexachlorocyclohexane, gamma- (Lindane)	0.005	µg/g		0.01	-	-	-	<	-	<	<
Hexachloroethane	0.01	µg/g		0.01	-	-	-	<	-	<	<
Methoxychlor	0.005	µg/g		0.05	<	<	-	<	<	<	<
Herbicides											
2,4-Dichlorophenoxyacetic Acid	0.10	µg/g		na	< 1.00	<	<	<	<	<	<
2,4,5-Trichlorophenoxyacetic Acid	0.10	µg/g		na	< 1.00	<	<	<	<	<	<
2-(2,4,5-Trichlorophenoxy) propionic acid (Silvex)	0.10	µg/g		na	< 1.00	<	<	<	<	<	<
4-chloro-2-methyl phenoxy acetic acid	1.0	µg/g		na	< 10.0	<	<	<	<	<	<
Bromoxynil	0.5	µg/g		na	< 5.0	<	<	<	<	<	<
Dicamba	0.10	µg/g		na	< 1.00	<	<	<	<	<	<
Diclofop-methyl	0.10	µg/g		na	< 1.00	<	<	<	<	<	<
Dichlorprop	0.10	µg/g		na	< 1.00	<	<	<	<	<	<
Dinoseb	0.10	µg/g		na	< 1.00	<	<	<	<	<	<
Mecoprop	1.0	µg/g		na	< 10.0	<	<	<	<	<	<
Picloram	0.10	µg/g		na	< 1.00	<	<	<	<	<	<

See footnotes on last page

TABLE 5: Soil Analytical Results - Pesticides and Herbicides
10192 Highway 50, Brampton, ON

	Sample Location		Table 8[1]	BH51	BH52	BH70	BH72	SS2	SS6
	Laboratory Sample ID		Standard	268851	275049	268853	294298	302513	302561
	SNC-Lavalin Sample ID		RL/PL/IN_CG	BH51-02	BH52-03	BH70-01	BH72-2	SS2	SS6
	Sampling Date (yyyy/mm/dd)			2019/06/11	2019/06/12	2019/06/11	2019/06/20	2019/06/24	2019/06/24
	Depth Interval (mbgs)			0.7 - 1.3	1.5 - 2.1	0.0 - 0.6	0.6 - 1.2	0.0 - 0.6	0.0 - 0.6
Parameter	**RDL**	**Units**							
Organochlorine Pesticides									
Aldrin	0.005	µg/g	0.05	<	<	<	<	<	<
Chlordane (Total)	0.007	µg/g	0.05	<	<	<	<	<	<
Chlordane, alpha-	0.005	µg/g	na	<	-	<	-	-	-
Chlordane, gamma-	0.005	µg/g	na	<	-	<	-	-	-
DDD, o,p-	0.005	µg/g	na	<	-	<	-	-	-
DDD, p,p-	0.005	µg/g	0.05	<	-	<	-	-	-
DDD (Total)	0.007	µg/g	0.05	<	<	<	<	<	<
DDE, o,p-	0.005	µg/g	na	<	-	<	-	-	-
DDE, p,p-	0.005	µg/g	0.05	<	-	<	-	-	-
DDE (Total)	0.007	µg/g	0.05	<	<	<	<	<	<
DDT, o,p-	0.005	µg/g	na	<	-	<	-	-	-
DDT, p,p-	0.005	µg/g	na	<	< 0.007	<	< 0.007	< 0.007	< 0.007
DDT (Total)	0.007	µg/g	1.4	<	-	<	-	-	-
Dieldrin	0.005	µg/g	0.05	<	<	<	<	<	<
Endosulfan (Total)	0.005	µg/g	0.04	< 0.007	<	< 0.007	<	<	<
Endrin	0.005	µg/g	0.04	<	<	<	<	<	<
Heptachlor	0.005	µg/g	0.05	<	<	<	<	<	<
Heptachlor Epoxide	0.005	µg/g	0.05	<	<	<	<	<	<
Hexachlorobenzene	0.005	µg/g	0.02	-	<	-	<	<	<
Hexachlorobutadiene	0.01	µg/g	0.01	-	<	-	<	<	<
Hexachlorocyclohexane, alpha- (BHC)	0.005	µg/g	na	<	-	<	-	-	-
Hexachlorocyclohexane, gamma- (Lindane)	0.005	µg/g	0.01	-	<	-	<	<	<
Hexachloroethane	0.01	µg/g	0.01	-	<	-	<	<	<
Methoxychlor	0.005	µg/g	0.05	<	<	<	<	<	<
Herbicides									
2,4-Dichlorophenoxyacetic Acid	0.10	µg/g	na	<	<	<	<	<	<
2,4,5-Trichlorophenoxyacetic Acid	0.10	µg/g	na	<	<	<	<	<	<
2-(2,4,5-Trichlorophenoxy) propionic acid (Silvex)	0.10	µg/g	na	<	<	<	<	<	<
4-chloro-2-methyl phenoxy acetic acid	1.0	µg/g	na	<	<	<	<	<	<
Bromoxynil	0.5	µg/g	na	<	<	<	<	<	<
Dicamba	0.10	µg/g	na	<	<	<	<	<	<
Diclofop-methyl	0.10	µg/g	na	<	<	<	<	<	<
Dichlorprop	0.10	µg/g	na	<	<	<	<	<	<
Dinoseb	0.10	µg/g	na	<	<	<	<	<	<
Mecoprop	1.0	µg/g	na	<	<	<	<	<	<
Picloram	0.10	µg/g	na	<	<	<	<	<	<

See footnotes on last page

TABLE 5: Soil Analytical Results - Pesticides and Herbicides
10192 Highway 50, Brampton, ON

Footnotes:

Additional terms may be defined within the body of SNC-Lavalin's report.
RDL - Reportable Detection Limit, unless otherwise noted
< - Denotes concentration less than indicated detection limit
"-" - Not analyzed
na - Not applicable
mbgs - metres below ground surface
µg/g - micrograms per gram, dry weight basis

BOLD Concentration greater than Table 8 Standard

[1] Table 8 generic site condition standards for use within 30 m of a water body in a potable groundwater condition for residential/ parkland/ institutional/ industrial/ commercial/ community property use (MOE, 2011)

TABLE 6: Soil Analytical Results - Metals and General Chemistry
10192 Highway 50, Brampton, ON

Sample Location			Table 8[1]	BH02	BH03	BH18	BH22	BH30	BH33	BH33	BH35	BH51	BH52	BH70
Laboratory Sample ID			Standard	265181	265184	265187	275045	268398	294685	294693	274941	268851	275049	268853
SNC-Lavalin Sample ID			RL/PL/IN_CG	BH02-01	BH03-02	BH18-02	BH22-03	BH30-01	BH33-2	BH33-22	BH35-03	BH51-02	BH52-03	BH70-01
Sampling Date (yyyy/mm/dd)				2019/06/10	2019/06/10	2019/06/10	2019/06/12	2019/06/11	2019/06/19	2019/06/19	2019/06/12	2019/06/11	2019/06/12	2019/06/11
Depth Interval (mbgs)				0.0 - 0.6	0.8 - 1.4	0.8 - 1.4	1.5 - 2.1	0.0 - 0.6	0.6 - 1.2	0.6 - 1.2 Duplicate of BH33	1.5 - 2.1	0.7 - 1.3	1.5 - 2.1	0.0 - 0.6
Parameter	**RDL**	**Units**												
General Chemistry														
Free Cyanide	0.040	µg/g	0.051	<	<	<	<	<	<	<	<	<	<	<
Electrical Conductivity	5	µS/cm	700	151	374	**810**	209	217	183	191	156	510	188	284
pH[2]	-	pH	(5-9)	7.95	7.38	7.35	7.61	7.42	7.75	7.62	7.51	7.36	7.62	7.54
Sodium Adsorption Ratio	-	None	5	0.263	0.834	2.87	0.297	0.424	0.451	0.455	0.281	1.02	0.307	0.414
Total Metals														
Aluminum	50	µg/g	na	-	-	-	-	-	-	-	-	-	-	-
Antimony	0.8	µg/g	1.3	<	<	<	<	<	<	<	<	<	<	<
Arsenic	1	µg/g	18	3	4	3	4	4	4	4	4	4	4	4
Barium	2	µg/g	220	21	158	102	62	93	81	98	58	125	61	176
Beryllium	0.5	µg/g	2.5	<	0.7	0.6	0.5	0.7	<	0.5	0.5	0.9	<	1.1
Bismuth	0.1	µg/g	na	-	-	-	-	-	-	-	-	-	-	-
Boron	5	µg/g	36	5	11	10	<	5	7	8	5	<	5	9
Boron (Hot Water Soluble)	0.10	µg/g	1.5	0.15	0.13	<	<	0.13	<	<	0.12	0.29	0.11	0.14
Cadmium	0.5	µg/g	1.2	<	<	<	<	<	<	<	<	<	<	<
Chromium (total)	2	µg/g	70	8	34	26	17	25	19	22	17	28	17	37
Chromium (VI)	0.2	µg/g	0.66	<	<	<	<	<	<	<	<	<	<	<
Cobalt	0.5	µg/g	22	2.5	12.6	9.6	9.6	10.9	9.1	10.0	9.4	12.3	10.0	14.8
Copper	1	µg/g	92	10	22	17	20	21	18	18	21	23	20	26
Iron	500	µg/g	na	-	-	-	-	-	-	-	-	-	-	-
Lead	1	µg/g	120	34	12	8	8	9	8	9	8	13	8	13
Lithium	0.5	µg/g	na	-	-	-	-	-	-	-	-	-	-	-
Manganese	5	µg/g	na	-	-	-	-	-	-	-	-	-	-	-
Mercury	0.10	µg/g	0.27	<	<	<	<	<	<	<	<	<	<	<
Molybdenum	0.5	µg/g	2	1.1	<	<	<	<	<	<	<	<	<	<
Nickel	1	µg/g	82	14	28	23	20	25	21	24	20	28	20	34
Phosphorous	5	µg/g	na	-	-	-	-	-	-	-	-	-	-	-
Selenium	0.4	µg/g	1.5	0.4	0.4	0.4	<	<	<	<	<	0.5	<	0.4
Silicon	5	µg/g	na	-	-	-	-	-	-	-	-	-	-	-
Silver	0.2	µg/g	0.5	<	<	<	<	<	<	<	<	<	<	<
Strontium	5	µg/g	na	-	-	-	-	-	-	-	-	-	-	-
Thallium	0.4	µg/g	1	<	<	<	<	<	<	<	<	<	<	<
Titanium	50	µg/g	na	-	-	-	-	-	-	-	-	-	-	-
Uranium	0.5	µg/g	2.5	<	0.5	0.5	<	<	<	<	0.5	0.5	0.6	0.6
Vanadium	1	µg/g	86	30	47	35	26	35	29	31	25	39	24	49
Zinc	5	µg/g	290	56	65	47	43	53	46	46	42	66	41	67
Zirconium	0.5	µg/g	na	-	-	-	-	-	-	-	-	-	-	-

See footnotes on last page

TABLE 6: Soil Analytical Results - Metals and General Chen
10192 Highway 50, Brampton, ON

Sample Location			Table 8[1]	BH72	BH73	BH-74	BH-75	BH-75	SS1	SS2	SS3	SS4	SS5	SS6
Laboratory Sample ID			Standard	294297	294303	624922	624941	624953	302489	302513	302543	302549	302559	302561
SNC-Lavalin Sample ID			RL/PL/IN_CG	BH72-1	BH73-02	BH-74-01	BH-75-02	BH-75-22	SS1	SS2	SS3	SS4	SS5	SS6
Sampling Date (yyyy/mm/dd)				2019/06/20	2019/06/20	2019/10/16	2019/10/16	2019/10/16	2019/06/24	2019/06/24	2019/06/24	2019/06/24	2019/06/24	2019/06/24
Depth Interval (mbgs)				0.0 - 0.6	0.6 - 1.2	0.0 - 0.6	0.8 - 1.4	0.8 - 1.4 Duplicate of BH-75	0.0 - 0.6	0.0 - 0.6	0.0 - 0.6	0.0 - 0.6	0.0 - 0.6	0.0 - 0.6
Parameter	**RDL**	**Units**												
General Chemistry														
Free Cyanide	0.040	µg/g	0.051	<	<	-	-	-	<	<	<	<	<	<
Electrical Conductivity	5	µS/cm	700	**1,070**	379	207	275	230	332	157	146	179	168	176
pH[2]	-	pH	(5-9)	**10.6**	7.85	-	-	-	6.86	7.07	7.11	7.07	7.09	7.16
Sodium Adsorption Ratio	-	None	5	0.853	0.544	0.343	0.969	0.822	0.561	0.355	0.180	0.369	0.275	0.440
Total Metals														
Aluminum	50	µg/g	na	-	-	24,600	27,400	17,900	-	-	-	-	-	-
Antimony	0.8	µg/g	1.3	<	<	<	<	<	<	<	<	<	<	<
Arsenic	1	µg/g	18	4	4	4	4	3	5	4	4	4	4	4
Barium	2	µg/g	220	59	117	157	175	113	116	111	119	104	107	116
Beryllium	0.5	µg/g	2.5	<	<	0.9	1.0	0.7	0.8	0.7	0.8	0.7	0.7	0.7
Bismuth	0.1	µg/g	na	-	-	0.2	0.2	0.1	-	-	-	-	-	-
Boron	5	µg/g	36	7	6	7	6	7	5	5	<	<	5	6
Boron (Hot Water Soluble)	0.10	µg/g	1.5	0.47	<	-	-	-	0.37	0.42	0.27	0.23	0.20	0.23
Cadmium	0.5	µg/g	1.2	<	<	<	<	<	<	<	<	<	<	<
Chromium (total)	2	µg/g	70	14	24	34	38	27	28	27	28	27	27	28
Chromium (VI)	0.2	µg/g	0.66	<	<	-	-	-	<	<	<	<	<	<
Cobalt	0.5	µg/g	22	3.9	10.0	13.8	15.2	11.4	13.2	11.8	12.4	11.7	11.7	11.7
Copper	1	µg/g	92	17	21	23	27	20	19	18	18	18	17	17
Iron	500	µg/g	na	-	-	32,200	36,600	25,500	-	-	-	-	-	-
Lead	1	µg/g	120	38	10	16	16	10	20	19	23	20	19	19
Lithium	0.5	µg/g	na	-	-	22.6	24.2	18.0	-	-	-	-	-	-
Manganese	5	µg/g	na	-	-	913	1,070	670	-	-	-	-	-	-
Mercury	0.10	µg/g	0.27	<	<	-	-	-	<	<	<	<	<	<
Molybdenum	0.5	µg/g	2	1.0	<	<	<	<	<	<	<	<	<	<
Nickel	1	µg/g	82	10	23	30	33	25	22	21	22	20	20	21
Phosphorous	5	µg/g	na	-	-	920	813	756	-	-	-	-	-	-
Selenium	0.4	µg/g	1.5	<	0.4	< 0.8	< 0.8	< 0.8	0.6	0.5	0.6	0.5	0.4	0.4
Silicon	5	µg/g	na	-	-	990	881	920	-	-	-	-	-	-
Silver	0.2	µg/g	0.5	<	<	< 0.4	< 0.4	< 0.4	<	<	<	<	<	<
Strontium	5	µg/g	na	-	-	49	31	117	-	-	-	-	-	-
Thallium	0.4	µg/g	1	<	<	<	<	<	<	<	<	<	<	<
Titanium	50	µg/g	na	-	-	270	311	279	-	-	-	-	-	-
Uranium	0.5	µg/g	2.5	0.5	0.5	0.72	0.64	0.63	0.8	0.7	0.8	0.7	0.7	0.7
Vanadium	1	µg/g	86	21	34	44	47	36	45	43	45	42	43	45
Zinc	5	µg/g	290	93	55	84	93	61	78	74	74	72	70	73
Zirconium	0.5	µg/g	na	-	-	3.8	5.7	5.6	-	-	-	-	-	-

See footnotes on last page

TABLE 6: Soil Analytical Results - Metals and General Chen
10192 Highway 50, Brampton, ON

Sample Location			Table 8[1]	SS7	SS8	SS9	SS9	SS10	SS11	SS12	SS13	SS14
Laboratory Sample ID			Standard	624888	624891	624892	624893	624894	624895	624896	624897	624898
SNC-Lavalin Sample ID			RL/PL/IN_CG	SS7	SS8	SS9	SS99	SS10	SS11	SS12	SS13	SS14
Sampling Date (yyyy/mm/dd)				2019/10/16	2019/10/16	2019/10/16	2019/10/16	2019/10/16	2019/10/16	2019/10/16	2019/10/16	2019/10/16
Depth Interval (mbgs)				0.0 - 0.6	0.0 - 0.6	0.0 - 0.6	0.0 - 0.6 Duplicate of SS9	0.0 - 0.6	0.0 - 0.6	0.0 - 0.6	0.0 - 0.6	0.0 - 0.6
Parameter	**RDL**	**Units**										
General Chemistry												
Free Cyanide	0.040	µg/g	0.051	-	-	-	-	-	-	-	-	-
Electrical Conductivity	5	µS/cm	700	-	-	-	-	-	-	-	-	-
pH[2]	-	pH	(5-9)	**10.3**	**10.8**	**11.3**	**11.3**	**11.0**	8.34	8.53	**10.7**	**9.01**
Sodium Adsorption Ratio	-	None	5	-	-	-	-	-	-	-	-	-
Total Metals												
Aluminum	50	µg/g	na	-	-	-	-	-	-	-	-	-
Antimony	0.8	µg/g	1.3	-	-	-	-	-	-	-	-	-
Arsenic	1	µg/g	18	-	-	-	-	-	-	-	-	-
Barium	2	µg/g	220	-	-	-	-	-	-	-	-	-
Beryllium	0.5	µg/g	2.5	-	-	-	-	-	-	-	-	-
Bismuth	0.1	µg/g	na	-	-	-	-	-	-	-	-	-
Boron	5	µg/g	36	-	-	-	-	-	-	-	-	-
Boron (Hot Water Soluble)	0.10	µg/g	1.5	-	-	-	-	-	-	-	-	-
Cadmium	0.5	µg/g	1.2	-	-	-	-	-	-	-	-	-
Chromium (total)	2	µg/g	70	-	-	-	-	-	-	-	-	-
Chromium (VI)	0.2	µg/g	0.66	-	-	-	-	-	-	-	-	-
Cobalt	0.5	µg/g	22	-	-	-	-	-	-	-	-	-
Copper	1	µg/g	92	-	-	-	-	-	-	-	-	-
Iron	500	µg/g	na	-	-	-	-	-	-	-	-	-
Lead	1	µg/g	120	-	-	-	-	-	-	-	-	-
Lithium	0.5	µg/g	na	-	-	-	-	-	-	-	-	-
Manganese	5	µg/g	na	-	-	-	-	-	-	-	-	-
Mercury	0.10	µg/g	0.27	-	-	-	-	-	-	-	-	-
Molybdenum	0.5	µg/g	2	-	-	-	-	-	-	-	-	-
Nickel	1	µg/g	82	-	-	-	-	-	-	-	-	-
Phosphorous	5	µg/g	na	-	-	-	-	-	-	-	-	-
Selenium	0.4	µg/g	1.5	-	-	-	-	-	-	-	-	-
Silicon	5	µg/g	na	-	-	-	-	-	-	-	-	-
Silver	0.2	µg/g	0.5	-	-	-	-	-	-	-	-	-
Strontium	5	µg/g	na	-	-	-	-	-	-	-	-	-
Thallium	0.4	µg/g	1	-	-	-	-	-	-	-	-	-
Titanium	50	µg/g	na	-	-	-	-	-	-	-	-	-
Uranium	0.5	µg/g	2.5	-	-	-	-	-	-	-	-	-
Vanadium	1	µg/g	86	-	-	-	-	-	-	-	-	-
Zinc	5	µg/g	290	-	-	-	-	-	-	-	-	-
Zirconium	0.5	µg/g	na	-	-	-	-	-	-	-	-	-

See footnotes on last page

TABLE 6: Soil Analytical Results - Metals and General Chemistry
10192 Highway 50, Brampton, ON

Footnotes:

Additional terms may be defined within the body of SNC-Lavalin's report.
RDL - Reportable Detection Limit, unless otherwise noted
< - Denotes concentration less than indicated detection limit
"-" - Not analyzed
na - Not applicable
mbgs - metres below ground surface
µg/g - micrograms per gram, dry weight basis
µS/cm - microSiemens per centimetre

BOLD Concentration greater than Table 8 Standard

[1] Table 8 generic site condition standards for use within 30 m of a water body in a potable groundwater condition for residential/parkland/institutional/industrial/commercial/community property use (MOE, 2011)
[2] acceptable pH range for applying generic standards (O. Reg. 153/04, as amended): 5 to 9 for surface soil (0-1.5 mbg); 5 to 11 for subsurface soil (>1.5 mbg)

TABLE : 7 Soil Analytical Results – Waste Characterization
10192 Highway 50, Brampton, ON

	Sample Location		Leachate Quality Criteria[1]	COMP-1
	Laboratory Sample ID			294734
	SNC-Lavalin Sample ID			COMP-1
	Sampling Date (yyyy/mm/dd)			2019/06/19
Parameter	**RDL**	**Units**		
Leachable General Chemistry				
Cyanide	0.05	mg/L	20	<
Fluoride	0.05	mg/L	150	0.24
Nitrate+Nitrite as N	0.70	mg/L	1,000	<
Leachable Metals				
Arsenic	0.010	mg/L	2.5	<
Barium	0.100	mg/L	100	0.524
Boron	0.050	mg/L	500	0.057
Cadmium	0.010	mg/L	0.5	<
Chromium (total)	0.010	mg/L	5	<
Lead	0.010	mg/L	5	<
Mercury	0.01	mg/L	0.1	<
Selenium	0.010	mg/L	1	<
Silver	0.010	mg/L	5	<
Uranium	0.050	mg/L	10	<
Leachable PAHs				
Benzo(a)pyrene	0.001	mg/L	0.001	<
Leachable Organochlorine Pesticides				
Hexachlorobenzene	0.004	mg/L	0.13	<
Hexachlorobutadiene	0.004	mg/L	0.5	<
Hexachloroethane	0.004	mg/L	3	<
Leachable Volatiles				
Benzene	0.020	mg/L	0.5	<
Carbon Tetrachloride	0.020	mg/L	0.5	<
Chlorobenzene	0.010	mg/L	8	<
Chloroform	0.020	mg/L	10	<
1,2-Dichlorobenzene	0.010	mg/L	20	<
1,4-Dichlorobenzene	0.010	mg/L	0.5	<
1,2-Dichloroethane	0.020	mg/L	0.5	<
1,1-Dichloroethylene	0.020	mg/L	1.4	<
Methylene Chloride	0.030	mg/L	5	<
Methyl Ethyl Ketone	0.090	mg/L	200	<
Tetrachloroethylene	0.050	mg/L	3	<
Trichloroethylene	0.020	mg/L	5	<
Vinyl Chloride	0.030	mg/L	0.2	<
Leachable Semi-Volatiles				
Nitrobenzene	0.004	mg/L	2	<
Pyridine	0.010	mg/L	5	<

Footnotes:

Additional terms may be defined within the body of SNC-Lavalin's report.
RDL - Reportable Detection Limit, unless otherwise noted
< - Denotes concentration less than indicated detection limit
"-" - Not analyzed
na - Not applicable
mg/L - milligrams per litre

BOLD Concentration greater than Leachate Quality Criteria

[1] Ontario Regulation 347 as amended. "Waste Management". Schedule 4 Leachate Quality Criteria.

TABLE 8: Groundwater Analytical Results - Petroleum Parameters
10192 Highway 50, Brampton, ON

Sample Location			Table 8[1]	MW-02	MW-03	MW-22	MW-30	MW-33	MW-35	MW-51	MW-51
Laboratory Sample ID			Standard	306302	306131	306303	306340	311532	306309	311538	306337
SNC-Lavalin Sample ID				MW-02	MW-03	MW-22	MW-30	MW-33	MW-35	MW-51	MW-511
Sampling Date (yyyy/mm/dd)				2019/06/24	2019/06/25	2019/06/25	2019/06/24	2019-06-27	2019/06/24	2019/06/24	2019/06/24
Parameter	**RDL**	**Units**									Duplicate of MW-51
Volatiles											
Benzene	0.20	µg/L	5	<	<	<	<	<	<	<	<
Toluene	0.20	µg/L	22	<	<	<	<	<	<	<	<
Ethylbenzene	0.10	µg/L	2.4	<	<	<	<	<	<	<	<
Xylenes	0.20	µg/L	300	<	<	<	<	<	<	<	<
m+p-Xylenes	0.20	µg/L	na	<	<	<	<	<	<	<	<
o-Xylenes	0.10	µg/L	na	<	<	<	<	<	<	<	<
Hexane (n)	0.20	µg/L	51	<	<	<	<	<	<	<	<
Petroleum Hydrocarbon (PHC) Fractions											
PHC F1	25	µg/L	420	<	<	<	<	<	<	<	<
PHC F2	100	µg/L	150	<	<	<	<	<	<	<	-
PHC F3	100	µg/L	500	<	<	<	<	<	<	<	-
PHC F4	100	µg/L	500	<	<	<	<	<	<	<	-

Footnotes:

Additional terms may be defined within the body of SNC-Lavalin's report.
RDL - Reportable Detection Limit, unless otherwise noted
< - Denotes concentration less than indicated detection limit
"-" - Not analyzed
na - Not applicable
µg/L – micrograms per litre

BOLD Concentration greater than Table 8 Standard

[1] Table 8 generic site condition standards for use within 30 m of a water body in a potable groundwater condition for all types of property use (MOE, 2011)

TABLE 8: Groundwater Analytical Results - Petroleum Parameters
10192 Highway 50, Brampton, ON

			Table 8[1]	MW-70	MW-74	MW-75	MW-75
Sample Location			**Standard**				
Laboratory Sample ID				306341	640953	640955	640959
SNC-Lavalin Sample ID				MW-70	MW-74	MW-75	MW-755
Sampling Date (yyyy/mm/dd)				2019/06/24	2019/10/22	2019/10/22	2019/10/22
Parameter	**RDL**	**Units**					Duplicate of MW-75
Volatiles							
Benzene	0.20	µg/L	5	<	<	1.8	2.2
Toluene	0.20	µg/L	22	<	<	1.9	1.7
Ethylbenzene	0.10	µg/L	2.4	<	<	0.23	0.22
Xylenes	0.20	µg/L	300	<	<	0.56	0.54
m+p-Xylenes	0.20	µg/L	na	<	<	0.33	0.31
o-Xylenes	0.10	µg/L	na	<	<	0.23	0.23
Hexane (n)	0.20	µg/L	51	<	<	<	<
Petroleum Hydrocarbon (PHC) Fractions							
PHC F1	25	µg/L	420	<	<	<	<
PHC F2	100	µg/L	150	<	<	<	<
PHC F3	100	µg/L	500	<	<	<	<
PHC F4	100	µg/L	500	<	<	<	<

Footnotes:

Additional terms may be defined within the body of SNC-Lavalin's report.
RDL - Reportable Detection Limit, unless otherwise noted
< - Denotes concentration less than indicated detection limit
"-" - Not analyzed
na - Not applicable
µg/L – micrograms per litre

BOLD Concentration greater than Table 8 Standard

[1] Table 8 generic site condition standards for use within 30 m of a water body in a potable groundwater condition for all types of property use (MOE, 2011)

TABLE 9: Groundwater Analytical Results - VOC
10192 Highway 50, Brampton, ON

Sample Location			Table 8[1]	MW-02	MW-03	MW-22	MW-30	MW-33	MW-35	MW-51	MW-51	MW-70	MW-74	MW-75	MW-75
Laboratory Sample ID			Standard	306302	306131	306303	306340	311532	306309	311538	306337	306341	640953	640955	640959
SNC-Lavalin Sample ID				MW-02	MW-03	MW-22	MW-30	MW-33	MW-35	MW-51	MW-511	MW-70	MW-74	MW-75	MW-755
Sampling Date (yyyy/mm/dd)				2019/06/24	2019/06/25	2019/06/25	2019/06/24	2019-06-27	2019/06/24	2019/06/24	2019/06/24	2019/06/24	2019/10/22	2019/10/22	2019/10/22
											Duplicate of				Duplicate of
Parameter	**RDL**	**Units**									MW-51				MW-75
Volatile Organic Compounds															
Acetone	1.0	µg/L	2,700	<	<	<	<	<	<	<	<	<	<	190	230
Bromodichloromethane	0.20	µg/L	16	<	<	<	<	<	<	<	<	<	<	<	<
Bromoform	0.10	µg/L	25	<	<	<	<	<	<	<	<	<	<	<	<
Bromomethane	0.20	µg/L	0.89	<	<	<	<	<	<	<	<	<	<	<	<
Carbon Tetrachloride	0.20	µg/L	0.79	<	<	<	<	<	<	<	<	<	<	<	<
Chlorobenzene	0.10	µg/L	30	<	<	<	<	<	<	<	<	<	<	<	<
Chloroform	0.20	µg/L	2.4	<	<	<	<	<	<	<	<	<	<	<	<
Dibromochloromethane	0.10	µg/L	25	<	<	<	<	<	<	<	<	<	<	<	<
Dichlorobenzene, 1,2- (o-DCB)	0.10	µg/L	3	<	<	<	<	<	<	<	<	<	<	<	<
Dichlorobenzene, 1,3- (m-DCB)	0.10	µg/L	59	<	<	<	<	<	<	<	<	<	<	<	<
Dichlorobenzene, 1,4- (p-DCB)	0.10	µg/L	1	<	<	<	<	<	<	<	<	<	<	<	<
Dichlorodifluoromethane	0.20	µg/L	590	<	<	<	<	<	<	<	<	<	<	<	<
Dichloroethane, 1,1-	0.30	µg/L	5	<	<	<	<	<	<	<	<	<	<	<	<
Dichloroethane, 1,2-	0.20	µg/L	1.6	<	<	<	<	<	<	<	<	<	<	<	<
Dichloroethylene, 1,1-	0.30	µg/L	1.6	<	<	<	<	<	<	<	<	<	<	<	<
Dichloroethylene, cis-1,2-	0.20	µg/L	1.6	<	<	<	<	<	<	<	<	<	<	<	<
Dichloroethylene, trans-1,2-	0.20	µg/L	1.6	<	<	<	<	<	<	<	<	<	<	<	<
Dichloropropane, 1,2-	0.20	µg/L	5	<	<	<	<	<	<	<	<	<	<	<	<
Dichloropropene, 1,3-	0.30	µg/L	0.5	<	<	<	<	<	<	<	<	<	<	<	<
Ethylene Dibromide	0.10	µg/L	0.2	<	<	<	<	<	<	<	<	<	<	<	<
Methyl Ethyl Ketone	1.0	µg/L	1,800	<	<	<	<	<	<	<	<	<	<	9.7	12
Methyl Isobutyl Ketone	1.0	µg/L	640	<	<	<	<	<	<	<	<	<	<	1.2	1.3
Methyl tert butyl ether (MTBE)	0.20	µg/L	15	<	<	<	<	<	<	<	<	<	<	<	<
Methylene Chloride	0.30	µg/L	50	<	<	<	<	<	<	<	<	<	<	<	<
Styrene	0.10	µg/L	5.4	<	<	<	<	<	<	<	<	<	<	0.98	1.0
Tetrachloroethane, 1,1,1,2-	0.10	µg/L	1.1	<	<	<	<	<	<	<	<	<	<	<	<
Tetrachloroethane, 1,1,2,2-	0.10	µg/L	1	<	<	<	<	<	<	<	<	<	<	<	<
Tetrachloroethylene	0.20	µg/L	1.6	<	<	<	<	<	<	<	<	<	<	<	<
Trichloroethane, 1,1,1-	0.30	µg/L	200	<	<	<	<	<	<	<	<	<	<	<	<
Trichloroethane, 1,1,2-	0.20	µg/L	4.7	<	<	<	<	<	<	<	<	<	<	<	<
Trichloroethylene	0.20	µg/L	1.6	<	<	<	<	<	<	<	<	<	<	<	<
Trichlorofluoromethane	0.40	µg/L	150	<	<	<	<	<	<	<	<	<	<	<	<
Vinyl Chloride	0.17	µg/L	0.5	<	<	<	<	<	<	<	<	<	<	<	<

See footnotes on last page

TABLE 9: Groundwater Analytical Results - VOC
10192 Highway 50, Brampton, ON

Footnotes:

Additional terms may be defined within the body of SNC-Lavalin's report.
RDL - Reportable Detection Limit, unless otherwise noted
< - Denotes concentration less than indicated detection limit
"-" - Not analyzed
na - Not applicable
µg/L – micrograms per litre

BOLD Concentration greater than Table 8 Standard

[1] Table 8 generic site condition standards for use within 30 m of a water body in a potable groundwater condition for all types of property use (MOE, 2011)

TABLE 10: Groundwater Analytical Results - PAH
10192 Highway 50, Brampton, ON

Sample Location			Table 8[1]	MW-02	MW-03	MW-22	MW-30	MW-33	MW-35	MW-70	MW-74
Laboratory Sample ID			Standard	306302	306131	306303	306340	311532	306309	306341	640953
SNC-Lavalin Sample ID				MW-02	MW-03	MW-22	MW-30	MW-33	MW-35	MW-70	MW-74
Sampling Date (yyyy/mm/dd)				2019/06/24	2019/06/25	2019/06/25	2019/06/24	2019-06-27	2019/06/24	2019/06/24	2019/10/22
Parameter	**RDL**	**Units**									
Polycyclic Aromatic Hydrocarbons											
Acenaphthene	0.20	µg/L	4.1	<	<	<	<	<	<	<	<
Acenaphthylene	0.20	µg/L	1	<	<	<	<	<	<	<	<
Anthracene	0.10	µg/L	1	<	<	<	<	<	<	<	<
Benzo(a)anthracene	0.20	µg/L	1	<	<	<	<	<	<	<	<
Benzo(a)pyrene	0.01	µg/L	0.01	<	<	<	<	<	<	<	<
Benzo(b)fluoranthene	0.10	µg/L	0.1	<	<	<	<	<	<	<	<
Benzo(g,h,i)perylene	0.20	µg/L	0.2	<	<	<	<	<	<	<	<
Benzo(k)fluoranthene	0.10	µg/L	0.1	<	<	<	<	<	<	<	<
Chrysene	0.10	µg/L	0.1	<	<	<	<	<	<	<	<
Dibenzo(a,h)anthracene	0.20	µg/L	0.2	<	<	<	<	<	<	<	<
Fluoranthene	0.20	µg/L	0.41	<	<	<	<	<	<	<	<
Fluorene	0.20	µg/L	120	<	<	<	<	<	<	<	<
Indeno(1,2,3-cd)pyrene	0.20	µg/L	0.2	<	<	<	<	<	<	<	<
Methylnaphthalene, 1- & 2-	0.20	µg/L	3.2[2]	<	<	<	<	<	<	<	<
Naphthalene	0.20	µg/L	11	<	<	<	<	<	<	<	<
Phenanthrene	0.10	µg/L	1	<	<	<	<	<	<	<	<
Pyrene	0.20	µg/L	4.1	<	<	<	<	<	<	<	<

Footnotes:

Additional terms may be defined within the body of SNC-Lavalin's report.
RDL - Reportable Detection Limit, unless otherwise noted
< - Denotes concentration less than indicated detection limit
"-" - Not analyzed
na - Not applicable
µg/L – micrograms per litre

BOLD Concentration greater than Table 8 Standard

[1] Table 8 generic site condition standards for use within 30 m of a water body in a potable groundwater condition for all types of property use (MOE, 2011)
[2] Standard applies to both 1- and 2- methylnaphthalene, with the provision that if both are detected the sum of the two must not exceed the standard.

TABLE 11: Groundwater Analytical Results - Metals and General Chemistry
10192 Highway 50, Brampton, ON

Sample Location			Table 8[1]	MW-02	MW-03	MW-22	MW-30	MW-33	MW-35	MW-51	MW-70	MW-74
Laboratory Sample ID			Standard	306302	306131	306303	306340	311532	306309	311538	306341	640953
SNC-Lavalin Sample ID				MW-02	MW-03	MW-22	MW-30	MW-33	MW-35	MW-51	MW-70	MW-74
Sampling Date (yyyy/mm/dd)				2019/06/24	2019/06/25	2019/06/25	2019/06/24	2019-06-27	2019/06/24	2019/06/24	2019/06/24	2019/10/22
Parameter	**RDL**	**Units**										
General Chemistry												
Chloride	0.5	mg/L	790	<	149	25.2	51.2	49.5	10.5	72.4	23.5	39
Cyanide (CN-)	0.002	mg/L	0.052	<	<	<	<	<	<	0.005	<	<
Electrical Conductivity	2	µS/cm	na	953	1,100	1,230	1,040	1,190	1,170	1,160	975	818
pH	-	pH	na	7.82	7.71	7.88	7.84	7.86	8.00	7.85	7.98	7.90
Dissolved Metals												
Antimony	1.0	µg/L	6	-	-	-	-	-	-	-	-	<
Arsenic	1.0	µg/L	25	-	-	-	-	-	-	-	-	1.0
Barium	2.0	µg/L	1,000	131	56.8	79.4	86.4	123	68.0	92.6	67.3	114
Beryllium	0.5	µg/L	4	<	<	<	<	<	<	<	<	<
Boron	10.0	µg/L	5,000	82.3	73.6	53.1	49.5	73.5	68.3	137	155	37.2
Cadmium	0.2	µg/L	2.1	<	<	<	<	<	<	<	<	<
Chromium (Total)	2.0	µg/L	50	<	<	<	<	<	<	<	<	<
Chromium (VI)	5	µg/L	25	<	<	<	<	<	<	<	<	<
Cobalt	0.5	µg/L	3.8	<	1.5	0.9	1.0	0.8	0.6	0.5	<	0.8
Copper	1.0	µg/L	69	<	<	<	<	1.0	2.5	1.6	<	<
Lead	0.5	µg/L	10	<	<	<	<	<	<	<	<	<
Mercury	0.02	µg/L	0.29	<	<	<	<	<	<	<	<	<
Molybdenum	0.5	µg/L	70	7.0	14.9	15.7	6.9	18.3	**73.2**	43.7	**120**	2.5
Nickel	1.0	µg/L	100	<	<	<	<	<	<	<	1.0	1.5
Selenium	1.0	µg/L	10	-	-	-	-	-	-	-	-	<
Silver	0.2	µg/L	1.2	<	<	<	<	<	<	<	<	<
Sodium	500	µg/L	490,000	26,200	83,400	25,400	29,400	28,600	59,300	43,600	93,400	13,400
Thallium	0.3	µg/L	2	<	<	<	<	<	<	<	<	<
Uranium	0.5	µg/L	20	<	1.2	6.7	3.2	7.8	3.8	5.4	2.5	4.3
Vanadium	0.4	µg/L	6.2	<	<	<	<	0.9	<	1.0	<	0.7
Zinc	5.0	µg/L	890	<	<	<	<	12.0	<	10.8	19.7	<

Footnotes:

Additional terms may be defined within the body of SNC-Lavalin's report.
RDL - Reportable Detection Limit, unless otherwise noted
< - Denotes concentration less than indicated detection limit
"-" - Not analyzed
na - Not applicable
µg/L – micrograms per litre
µS/cm - microSiemens per centimetre
mg/L - milligrams per litre

BOLD Concentration greater than Table 8 Standard

[1] Table 8 generic site condition standards for use within 30 m of a water body in a potable groundwater condition for all types of property use (MOE, 2011)

Appendix A

Grain Size Analysis

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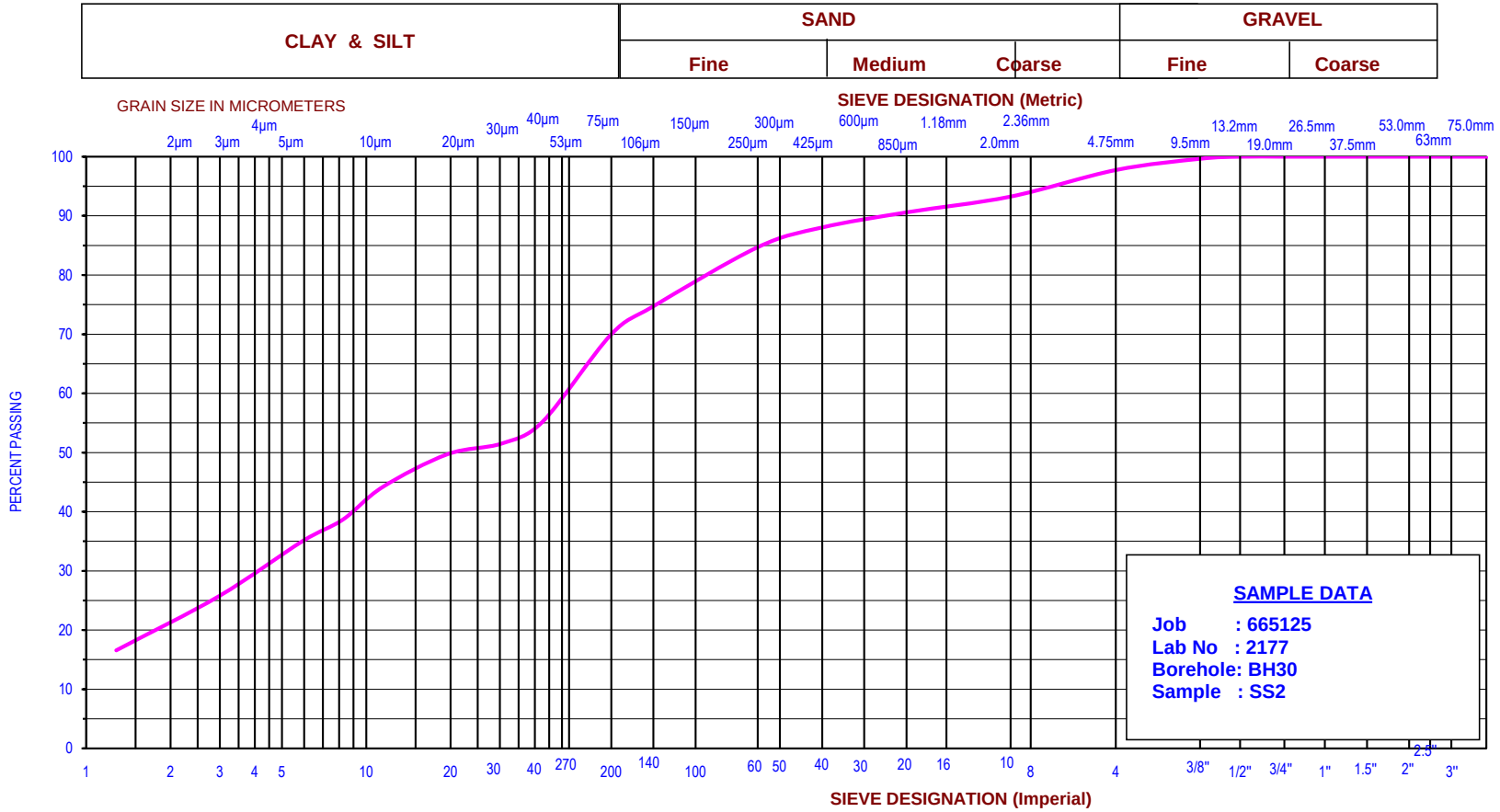
UNIFIED SOIL CLASSIFICATION SYSTEM



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
	0	2	5	5	18	49	21

SNC-Lavalin GEM Ontario Inc.
401 Hanlan Road
Vaughan, Ontario, Canada, L4L 3T1
905.851.0090 905.851.0091

GRAIN SIZE DISTRIBUTION

SANDY/CLAYEY SILT

trace gravel

Client: SNC-Lavalin

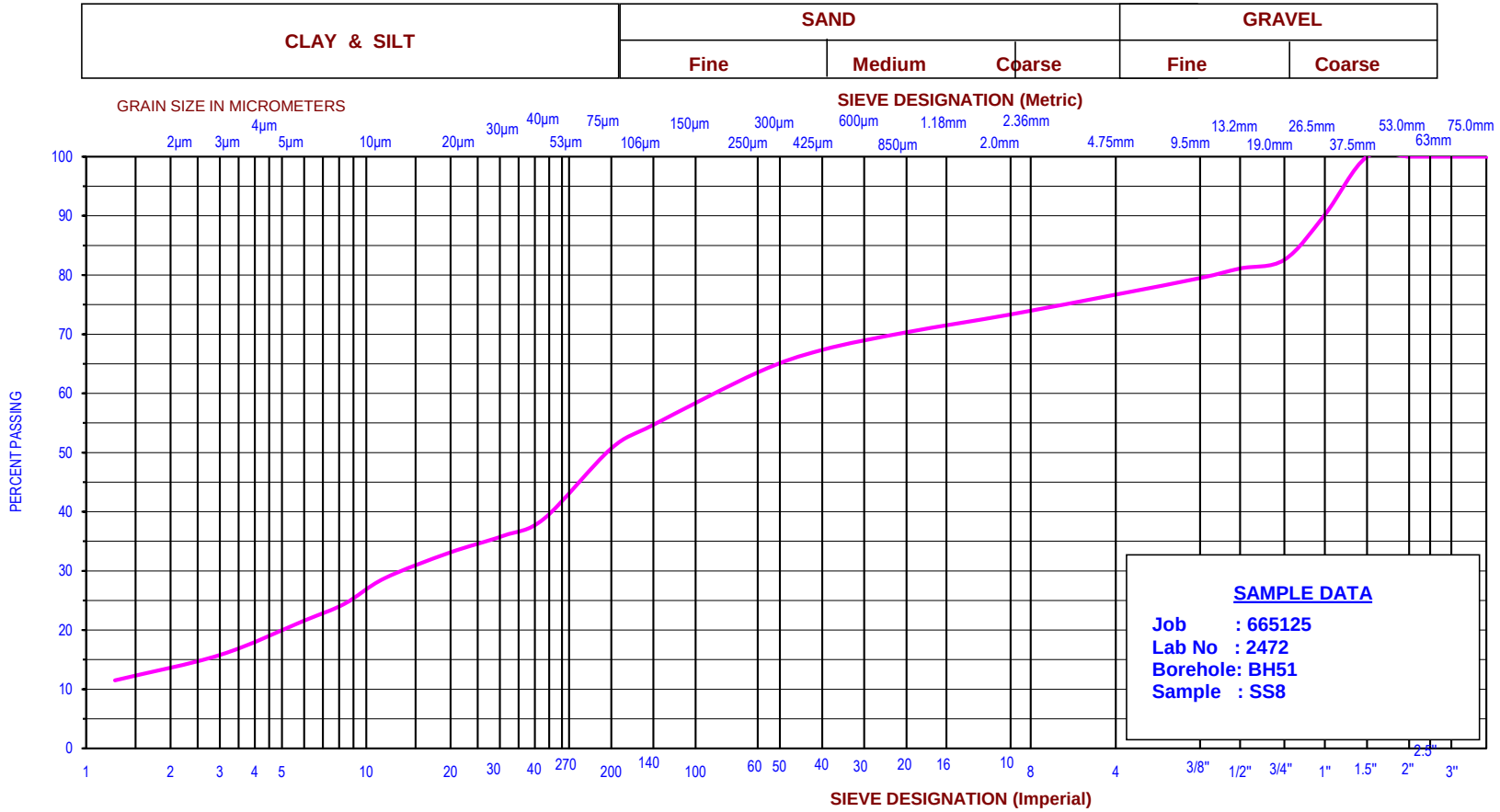
Project : Geo. Inv. Johnston Transit Facility-10192 Hwy 50 Brampton

Location: 10192 Hwy 50, Brampton, ON

Date: June 2019

SNC·LAVALIN

UNIFIED SOIL CLASSIFICATION SYSTEM



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
	17	6	3	6	17	37	14

SNC-Lavalin GEM Ontario Inc.
401 Hanlan Road
Vaughan, Ontario, Canada, L4L 3T1
905.851.0090 905.851.0091

GRAIN SIZE DISTRIBUTION

GRAVELLY / SANDY SILT

some clay

Client: SNC-Lavalin

Project : Geo. Inv. Johnston Transit Facility-10192 Hwy 50 Brampton

Location: 10192 Hwy 50, Brampton, ON

Date: July 2019

Appendix B

Borehole Logs

RECORD OF BOREHOLE No. BH02/MW02

Project Number:	665125	Drilling Location:	As per borehole location plan	Logged by:	MF
Client:	City of Brampton	Drilling Method:	150 mm Hollow Stem Augering	Compiled by:	NT
Project Name:	Phase II Environmental Site Assessment	Drilling Machine:	Track Mounted Drill	Reviewed by:	MT
Location:	10192 Hwy 50, Brampton, ON	Date Started:	Jun 10, 2019 Date Completed: Jun 10, 2019	Revision No.:	0

EASTING: 606377.19
NORTHING: 4852223.96

Lithology Plot	DESCRIPTION (Local Ground Surface Elevation: 210.10 m)	Sample Type	Sample Number	Recovery (%)	SPT 'N' Value	DEPTH (m)	ELEVATION (m)	FIELD TESTING: Penetration Testing (○ SPT ● DCPT; MTO Vane* △ Intact ▲ Remould; Nilcon Vane* ◇ Intact ◆ Remould; * Undrained Shear Strength (kPa) 20 40 60 80)	LAB TESTING (★ Rinse pH Values 2 4 6 8 10 12; Soil Vapour Reading △ parts per million (ppm) 100 200 300 400; ▲ Lower Explosive Limit (LEL); ✱ Passing 75 um (%); ○ Moisture Content (%); Atterberg Limits W_P W_L 20 40 60 80)	INSTRUMENTATION INSTALLATION	Unit Weight (KN/m3)	COMMENTS
	Loose crushed stone / asphalt pieces ~460 mm. 209.7	SS	01	75		0	210					Top of Riser Elevation = 211.00 m; Height of Riser =0.90 m
	FILL 0.5 Brown, firm, silty CLAY, trace to some sand, trace gravel, moist.	SS	02	84	4	1	209		22 24			Sample submitted for laboratory analysis: BH02-01 PP = 1.0 kg/ sq-cm Sample submitted for laboratory analysis: BH02-02
	208.6											
	NATIVE TILL 1.5 Brown, very stiff, sandy silty CLAY, trace gravel, wet.	SS	03	100	19	2	208		16			PP = 3.5 kg/ sq-cm
	becomes oxidized, hard	SS	04	100	62				11			PP = 1.5 kg/ sq-cm
	trace broken cobble pieces	SS	05	100	58	3	207		8			PP = 1.5 kg/ sq-cm
						4	206					
		SS	06	33	39	5	205		9			
						6	204					
		SS	07	100	61				12			Sample submitted for laboratory analysis: BH02-07
	202.5					7	203					
	Grey, compact, SAND to silty SAND, trace gravel, wet. 7.6	SS	08	100	22	8	202		12			
	very dense	SS	09	100	94	9	201		10			PP = 3.0 kg/ sq-cm
	200.4											
	End of borehole. 9.8 Notes: 1. Borehole was found to be caved-in at 9.14 mbgs with freestanding water at 5.64 mbgl upon completion. 2. Water table was measured upon completion of drilling inside the hollow stem auger on June 24 and October 21, 2019. 3. PP = pocket penetrometer.											

Groundwater depth on completion of drilling: 5.64 m

Cave in depth recorded on completion of drilling: 9.14 m.

Groundwater depth observed on 21/10/2019 at a depth of: 4.41 m.

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401 Hanlan Rd
Vaughan, Ontario L4L 3T1
Tel: 905-851-0090

Borehole details as presented, do not constitute a thorough understanding of all potential conditions present and requires interpretative assistance from a qualified Geotechnical Engineer. Also, borehole information should be read in conjunction with the geotechnical report for which it was commisioned and the accompanying'Notes to Record of Boreholes'.

RECORD OF BOREHOLE No. BH03/MW03

Project Number:	665125	Drilling Location:	As per borehole location plan	Logged by:	MF
Client:	City of Brampton	Drilling Method:	150 mm Hollow Stem Augering	Compiled by:	NT
Project Name:	Phase II Environmental Site Assessment	Drilling Machine:	Track Mounted Drill	Reviewed by:	MT
Location:	10192 Hwy 50, Brampton, ON	Date Started:	Jun 10, 2019 Date Completed: Jun 10, 2019	Revision No.:	0

EASTING: 606450.93
NORTHING: 4852124.65

Lithology Plot	DESCRIPTION (Local Ground Surface Elevation: 208.89 m)	Sample Type	Sample Number	Recovery (%)	SPT 'N' Value	DEPTH (m)	ELEVATION (m)	Unit Weight (KN/m3)	COMMENTS
	Loose crushed stone / asphalt pieces~ 460 mm. 208.4	SS	01	75					Top of Riser Elevation = 209.81 m; Height of Riser= 0.92 m
	FILL 0.5 Brown to light brown, stiff, silty CLAY, trace gravel, moist.	SS	02	84	8	1	208		PP = 2.0 kg/ sq-cm Sample submitted for laboratory analysis: BH03-01
	becomes oxidized, some sand. 206.6	SS	03	100	9	2	207		PP = 3.0 kg/ sq-cm Sample submitted for laboratory analysis: BH03-02 PP = 4.0 kg/ sq-cm
	NATIVE TILL 2.3 Brown, hard to very stiff, sandy silty CLAY, trace sand, trace gravel, oxidized, moist.	SS	04	100	40	3	206		PP = 3.0 kg/ sq-cm
	fine sand at bottom. 205.3	SS	05	75	26				PP = 4.5 kg/ sq-cm
	Brown to brownish grey, compact, SAND, 3.6 trace gravel, silty clay seams, moist.	SS	06	75	24	4	205		
	becomes very dense.	SS	07	0	50/ 50 mm	5	204		Sample submitted for laboratory analysis: BH03-07
	becomes compact, wet.	SS	08	75	28	6	203		
	202.2	SS	09	33	17				
	End of borehole. 6.7								Auger refusal.

Notes:

1. Borehole was found to be caved-in at 5.94 mbgs with freestanding water at 4.57 mbgs upon completion.
2. Water table was measured upon completion of drilling inside the hollow stem auger on June 24 and October 21, 2019.
3. PP = pocket penetrometer.

Groundwater depth on completion of drilling: 4.57 m

Cave in depth recorded on completion of drilling: 5.94 m.

Groundwater depth observed on 21/10/2019 at a depth of: 3.13 m.

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Vaughan, Ontario L4L 3T1
Tel: 905-851-0090

Borehole details as presented, do not constitute a thorough understanding of all potential conditions present and requires interpretative assistance from a qualified Geotechnical Engineer. Also, borehole information should be read in conjunction with the geotechnical report for which it was commisioned and the accompanying'Notes to Record of Boreholes'.

RECORD OF BOREHOLE No. BH18

Project Number:	665125	Drilling Location:	As per borehole location plan	Logged by:	MF
Client:	City of Brampton	Drilling Method:	150 mm Hollow Stem Augering	Compiled by:	NT
Project Name:	Phase II Environmental Site Assessment	Drilling Machine:	Track Mounted Drill	Reviewed by:	MT
Location:	10192 Hwy 50, Brampton, ON	Date Started:	Jun 10, 2019 Date Completed: Jun 11, 2019	Revision No.:	0

EASTING: 606440.23
NORTHING: 4852017.03

Lithology Plot	DESCRIPTION (Local Ground Surface Elevation: 208.95 m)	Sample Type	Sample Number	Recovery (%)	SPT 'N' Value	DEPTH (m)	ELEVATION (m)	Unit Weight (KN/m3)	COMMENTS
	Loose crushed stone / asphalt pieces~ 460 mm. 208.5	SS	01	84					PP = 2.5 kg/ sq-cm
	FILL 0.5 Brown, firm, silty CLAY, trace gravel, trace sand, some oxidation, moist.	SS	02	62	7	1	208		PP = 3.0 kg/ sq-cm Sample submitted for laboratory analysis: BH18-02
	207.4								
	NATIVE TILL 1.5 Brown, very stiff, sandy silty CLAY, trace to some gravel, moist.	SS	03	54	25	2	207		PP = 2.5 kg/ sq-cm
	becomes hard	SS	04	67	90				PP = 4.5 kg/ sq-cm
						3	206		
	trace broken cobbles	SS	05	100	65				
	wet sand pockets	SS	06	92	40	4	205		PP = 4.5 kg/ sq-cm
		SS	07	100	30	5	204		PP = 4.0 kg/ sq-cm
						6	203		
	GR: 2%; SA: 13%; SI: 63%; & CL: 22%	SS	08	100	31				PP = 3.5 kg/ sq-cm
	201.3					7	202		
	Grey, very dense, silty SAND, trace clay 7.6 trace gravel moist to wet gravel pockets.	SS	09	100	59	8	201		
						9	200		
	some clay 199.2	SS	10	100	49				
	End of borehole. 9.8 Notes: 1. Borehole was found to caved in at 9.14 mbgs with no freestanding water upon completion. 2. Water table was measured upon completion of drilling inside the hollow stem auger. 3. PP = pocket penetrometer. 4. GR., SA., SI. & CL. denote Gravel, Sand, Silt & Clay respectively.								

FIELD TESTING
Penetration Testing: ○ SPT ● DCPT
MTO Vane*: △ Intact ▲ Remould
Nilcon Vane*: ◇ Intact ◆ Remould
* Undrained Shear Strength (kPa) 20 40 60 80

LAB TESTING
★ Rinse pH Values 2 4 6 8 10 12
Soil Vapour Reading △ parts per million (ppm) 100 200 300 400
▲ Lower Explosive Limit (LEL)
✱ Passing 75 um (%)
○ Moisture Content (%)
Atterberg Limits W_P ○ W_L 20 40 60 80

INSTRUMENTATION INSTALLATION

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401 Hanlan Rd
Vaughan, Ontario L4L 3T1
Tel: 905-851-0090

▽ No freestanding groundwater measured in open borehole upon completion of drilling.

Borehole details as presented, do not constitute a thorough understanding of all potential conditions present and requires interpretative assistance from a qualified Geotechnical Engineer. Also, borehole information should be read in conjunction with the geotechnical report for which it was commisioned and the accompanying'Notes to Record of Boreholes'.

Scale: 1 : 63

RECORD OF BOREHOLE No. BH22/MW22

Project Number:	665125	Drilling Location:	As per borehole location plan	Logged by:	MF
Client:	City of Brampton	Drilling Method:	150 mm Hollow Stem Augering	Compiled by:	NT
Project Name:	Phase II Environmental Site Assessment	Drilling Machine:	Track Mounted Drill	Reviewed by:	MT
Location:	10192 Hwy 50, Brampton, ON	Date Started:	Jun 12, 2019 Date Completed: Jun 12, 2019	Revision No.:	0

EASTING: 606347.46
NORTHING: 4852093.13

Lithology Plot	DESCRIPTION Local Ground Surface Elevation: 210.22 m	Sample Type	Sample Number	Recovery (%)	SPT 'N' Value	DEPTH (m)	ELEVATION (m)	FIELD TESTING Penetration Testing: ○ SPT ● DCPT; MTO Vane* △ Intact ▲ Remould; Nilcon Vane* ◇ Intact ◆ Remould; * Undrained Shear Strength (kPa) 20 40 60 80	LAB TESTING ★ Rinse pH Values 2 4 6 8 10 12; Soil Vapour Reading △ parts per million (ppm) 100 200 300 400; ▲ Lower Explosive Limit (LEL) ✱ Passing 75 um (%); ○ Moisture Content (%); Atterberg Limits W_P 20 40 60 80 W_L	INSTRUMENTATION INSTALLATION	Unit Weight (KN/m3)	COMMENTS
	Loose crushed stone / asphalt pieces ~760 mm. 209.5	SS	01	67								Top of Riser Elevation = 211.08 m; Height of Riser= 0.86 m
	NATIVE TILL 0.8 Brown, stiff, sandy silty CLAY, trace to some gravel, oxidized, moist.	SS	02	75	11	1	209	○				PP = 3.5 kg/ sq-cm
	becomes hard	SS	03	100	31	2	208	○				Sample submitted for laboratory analysis: BH22-03 PP = 4.5 kg/ sq-cm
	trace broken cobbles	SS	04	67	75			○				
		SS	05	100	60	3	207	○				PP = 4.5 kg/ sq-cm
	oxidized cores	SS	06	100	44	4	206	○				PP = 4.5 kg/ sq-cm
	becomes grey, gravelly sand pockets.	SS	07	84	72	5	205	○				PP = 4.5 kg/ sq-cm
	becomes very stiff.	SS	08	100	29	6	204	○				Sample submitted for laboratory analysis: BH22-08
	203.5 End of borehole. 6.7	SS	09	100	27			○				

Notes:

1. Borehole was found to be open with no freestanding water upon completion.
2. Water table was measured upon completion of drilling inside the hollow stem auger on June 24 and October 21, 2019.
3. PP = pocket penetrometer.

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401 Hanlan Rd
Vaughan, Ontario L4L 3T1
Tel: 905-851-0090

▽ No freestanding groundwater measured in open borehole upon completion of drilling.

▼ Groundwater depth observed on 21/10/2019 at a depth of: 0.76m.

Borehole details as presented, do not constitute a thorough understanding of all potential conditions present and requires interpretative assistance from a qualified Geotechnical Engineer. Also, borehole information should be read in conjunction with the geotechnical report for which it was commisioned and the accompanying'Notes to Record of Boreholes'.

RECORD OF BOREHOLE No. BH30/MW30

Project Number:	665125	Drilling Location:	As per borehole location plan	Logged by:	MF
Client:	City of Brampton	Drilling Method:	150 mm Hollow Stem Augering	Compiled by:	NT
Project Name:	Phase II Environmental Site Assessment	Drilling Machine:	Track Mounted Drill	Reviewed by:	MT
Location:	10192 Hwy 50, Brampton, ON	Date Started:	Jun 11, 2019 Date Completed: Jun 11, 2019	Revision No.:	0

EASTING: 606448.57
NORTHING: 4851932.58

Lithology Plot	DESCRIPTION (Local Ground Surface Elevation: 208.48 m)		Sample Type	Sample Number	Recovery (%)	SPT 'N' Value	DEPTH (m)	ELEVATION (m)	Unit Weight (KN/m3)	COMMENTS
	Topsoil ~200 mm.	208.3								
	FILL Brown, firm, silty CLAY, trace gravel, moist.	0.2 207.7	SS	01	84	5		208		Top of Riser Elevation = 209.36 m; Height of Riser=0.88 m Sample submitted for laboratory analysis: BH30-01 PP = 1.5 kg/ sq-cm PP = 2.0 kg/ sq-cm
	NATIVE TILL Brown, stiff, sandy silty CLAY, trace to some gravel, some oxidation, moist. GR: 2%; SA: 28%; SI: 49%; & CL: 21%	0.8	SS	02	100	12	1	207		Sample submitted for laboratory analysis: BH30-02 PP = 3.5 kg/ sq-cm
	becomes hard		SS	03	100	33	2	206		PP = 4.5 kg/ sq-cm
			SS	04	133	50	3	205		PP = 3.5 kg/ sq-cm
			SS	05	100	44	4	204		PP = 4.0 kg/ sq-cm
			SS	06	100	40	5	203		PP = 3.5 kg/ sq-cm
	becomes brownish grey, very stiff.	203.1	SS	07	100	28	6			Sample submitted for laboratory analysis: BH30-08
	Brown, very dense, gravelly SAND to SAND, wet.	5.3 202.3	SS	08	100	50/ 125 mm				
	End of borehole.	6.2	SS	09	94	50/ 75 mm				

Notes:

1. Borehole was found to caved in at 6.10 mbgs with freestanding water at 5.18 mbgs upon completion.
2. Water table was measured upon completion of drilling inside the hollow stem auger on June 24 and October 21, 2019.
3. PP = pocket penetrometer.
4. GR., SA., SI. & CL. denote Gravel, Sand, Silt & Clay respectively.

Groundwater depth on completion of drilling: 5.18 m

Cave in depth recorded on completion of drilling: 6.1 m.

Groundwater depth observed on 21/10/2019 at a depth of: 3.16 m.

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RECORD OF BOREHOLE No. BH33/MW33

Project Number:	665125	Drilling Location:	As per borehole location plan	Logged by:	AB
Client:	City of Brampton	Drilling Method:	200 mm Hollow Stem Augering	Compiled by:	NT
Project Name:	Phase II Environmental Site Assessment	Drilling Machine:	Track Mounted Drill	Reviewed by:	MT
Location:	10192 Hwy 50, Brampton, ON	Date Started:	Jun 12, 2019 Date Completed: Jun 19, 2019	Revision No.:	0

EASTING: 606355.8
NORTHING: 4852008.7

Lithology Plot	DESCRIPTION Local Ground Surface Elevation: 209.85 m	Sample Type	Sample Number	Recovery (%)	SPT 'N' Value	DEPTH (m)	ELEVATION (m)	FIELD TESTING: Penetration Testing (○ SPT ● DCPT; MTO Vane* △ Intact ▲ Remould; Nilcon Vane* ◇ Intact ◆ Remould; * Undrained Shear Strength (kPa) 20 40 60 80)	LAB TESTING: ★ Rinse pH Values 2 4 6 8 10 12; Soil Vapour Reading △ parts per million (ppm) 100 200 300 400; ▲ Lower Explosive Limit (LEL) ✱ Passing 75 um (%) ○ Moisture Content (%); Atterberg Limits W_P 20 40 60 80 W_L	INSTRUMENTATION INSTALLATION	Unit Weight (KN/m3)	COMMENTS
	Loose overbourden asphalt~ 760 mm. 209.2	SS	01	52								Top of Riser Elevation = 210.77 m; Height of Riser =0.92 m
	NATIVE TILL 0.6 Light brown, very stiff, sandy silty CLAY, some silt, moist.	SS	02	64	15	1	209	○				Sample submitted for laboratory analysis: BH33-02
		SS	03	100	17			○				Sample submitted for laboratory analysis: BH33-03
	hard	SS	04	100	37	2	208	○				
		SS	05	100	30			○				
	very stiff	SS	06	85	20	3	207	○				
	becomes hard	SS	07	100	58	4	206	○				Sample submitted for laboratory analysis: BH33-07
		SS	08	72	61			○				
	some sand pockets	SS	09	31	36	5	205	○				
		SS	10	100	33	6	204	○				
	trace to some sand.	SS	11	100	32			○				
	202.5	SS	12	100	58	7	203	○				
	End of borehole. 7.3 Notes: 1. Borehole was found to be open with no freestanding water upon completion. 2.Water table was measured upon completion of drilling inside the hollow stem auger on June 24 and October 21, 2019.											

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▽ No freestanding groundwater measured in open borehole upon completion of drilling.

▼ Groundwater depth observed on 21/10/2019 at a depth of: 0.89 m.

Borehole details as presented, do not constitute a thorough understanding of all potential conditions present and requires interpretative assistance from a qualified Geotechnical Engineer. Also, borehole information should be read in conjunction with the geotechnical report for which it was commisioned and the accompanying'Notes to Record of Boreholes'.

RECORD OF BOREHOLE No. BH35/MW35

Project Number:	665125	Drilling Location:	As per borehole location plan	Logged by:	MF
Client:	City of Brampton	Drilling Method:	150 mm Hollow Stem Augering	Compiled by:	NT
Project Name:	Phase II Environmental Site Assessment	Drilling Machine:	Track Mounted Drill	Reviewed by:	MT
Location:	10192 Hwy 50, Brampton, ON	Date Started:	Jun 12, 2019 Date Completed: Jun 12, 2019	Revision No.:	0

EASTING: 606263.02
NORTHING: 4852084.8

Lithology Plot	DESCRIPTION (Local Ground Surface Elevation: 209.19 m)	Elev.	Depth	Sample Type	Sample Number	Recovery (%)	SPT 'N' Value	Unit Weight (KN/m3)	COMMENTS
	Topsoil ~150 mm.	209.1							Top of Riser Elevation = 210.09m; Height of Riser= 0.90 m
	FILL Brown, soft, silty CLAY, trace gravel, moist.	0.2 / 208.5		SS	01	67	3		PP = 0.5 kg/ sq-cm
	NATIVE TILL Brown, stiff to very stiff, sandy silty CLAY, trace gravel, some oxidation, moist.	0.8	1	SS	02	100	10		PP = 3.0 kg/ sq-cm
				SS	03	100	27		Sample submitted for laboratory analysis: BH35-03 PP = 4.0 kg/ sq-cm
	becomes hard		2	SS	04	100	32		PP = 4.5 kg/ sq-cm
			3	SS	05	100	38		PP = 3.0 kg/ sq-cm
			4	SS	06	0	31		
	becomes brownish grey, stiff.		5	SS	07	100	14		Sample submitted for laboratory analysis: BH35-07
	becomes very stiff.		6	SS	08	0	20		
				SS	09	67	20		PP = 3.5 kg/ sq-cm
		201.6	7						
	Grey, very dense, silty SAND, trace clay broken cobble pieces, moist.	7.6	8	SS	10	67	50/ 150 mm		
		199.5	9	SS	11	100	58		PP = 4.5 kg/ sq-cm
	End of borehole.	9.8							

Notes:

1. Borehole was found to be open with no freestanding water upon completion.
2. Water table was measured upon completion of drilling inside the hollow stem auger on June 24 and October 21, 2019.

No freestanding groundwater measured in open borehole upon completion of drilling.

Groundwater depth observed on 21/10/2019 at a depth of: 2.39 m.

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RECORD OF BOREHOLE No. BH51/MW51

Project Number:	665125	Drilling Location:	As per borehole location plan	Logged by:	MF
Client:	City of Brampton	Drilling Method:	150 mm Hollow Stem Augering	Compiled by:	NT
Project Name:	Phase II Environmental Site Assessment	Drilling Machine:	Track Mounted Drill	Reviewed by:	MT
Location:	10192 Hwy 50, Brampton, ON	Date Started:	Jun 11, 2019 Date Completed: Jun 11, 2019	Revision No.:	0

EASTING: 606376.62
NORTHING: 4851797.58

Lithology Plot	DESCRIPTION Local Ground Surface Elevation: 208.94 m	Sample Type	Sample Number	Recovery (%)	SPT 'N' Value	DEPTH (m)	ELEVATION (m)	FIELD TESTING Penetration Testing: ○ SPT ● DCPT; MTO Vane* △ Intact ▲ Remould; Nilcon Vane* ◇ Intact ◆ Remould; * Undrained Shear Strength (kPa) 20 40 60 80	LAB TESTING ★ Rinse pH Values 2 4 6 8 10 12; Soil Vapour Reading △ parts per million (ppm) 100 200 300 400; ▲ Lower Explosive Limit (LEL) ✱ Passing 75 um (%); ○ Moisture Content (%); Atterberg Limits W_P 20 40 60 80 W_L	INSTRUMENTATION INSTALLATION	Unit Weight (KN/m3)	COMMENTS
	Top Soil ~150 mm. 208.8											
	FILL 0.2 Brown, firm, silty CLAY, trace gravel, trace to some sand, rootlets, moist.	SS	01	84	7							Top of Riser Elevation = 209.94 m; Height of Riser= 1.00 m PP = 2.0 Kg / sq.cm
		SS	02	100	7	1	208					Sample submitted for laboratory analysis: BH51-02 PP = 2.5 Kg / sq.cm
	207.5 NATIVE TILL 1.5 Brown, very stiff, sandy silty CLAY, trace to some gravel, trace sand, oxidised, moist.	SS	03	100	17	2	207					PP = 4.0 Kg / sq.cm
		SS	04	100	17							
	205.9 Brown, dense to very dense, sandy SILT 3.1 trace gravel, trace to some sand, oxidised, moist.	SS	05	100	30	3	206					PP = 4.5 Kg / sq. cm
		SS	06	100	50 / 125 mm	4	205					PP = 4.5 Kg / sq. cm
	some gravel	SS	07	33	48	5	204					
	GR: 23%; SA: 26%; SI: 37%; & CL: 14%	SS	08	25	26							Sample submitted for laboratory analysis: BH51-08 PP = 4.5 Kg / sq. cm
		SS	09	100	38	6	203					
	202.3 End of borehole. 6.7											

Notes:

1. Borehole was found to be caved in at 3.05 mbgs with freestanding water at 4.72 mbgs upon completion.
2. Water table was measured upon completion of drilling inside the hollow stem auger on June 24 and October 21, 2019.
2. PP= Pocket Penetrometer.
4. GR., SA., SI. & CL. denote Gravel, Sand, Silt & Clay respectively.

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Groundwater depth on completion of drilling: 4.72 m

Groundwater depth observed on 21/10/2019 at a depth of: 2.17m.

Borehole details as presented, do not constitute a thorough understanding of all potential conditions present and requires interpretative assistance from a qualified Geotechnical Engineer. Also, borehole information should be read in conjunction with the geotechnical report for which it was commisioned and the accompanying'Notes to Record of Boreholes'.

RECORD OF BOREHOLE No. BH52

Project Number:	665125	Drilling Location:	As per borehole location plan	Logged by:	MF
Client:	City of Brampton	Drilling Method:	150 mm Hollow Stem Augering	Compiled by:	NT
Project Name:	Phase II Environmental Site Assessment	Drilling Machine:	Track Mounted Drill	Reviewed by:	MT
Location:	10192 Hwy 50, Brampton, ON	Date Started:	Jun 12, 2019 Date Completed: Jun 12, 2019	Revision No.:	0

EASTING: 606283.85
NORTHING: 4851873.71

Lithology Plot	DESCRIPTION (Local Ground Surface Elevation: 208.13 m)	Sample Type	Sample Number	Recovery (%)	SPT 'N' Value	DEPTH (m)	ELEVATION (m)	Unit Weight (KN/m3)	COMMENTS
	Topsoil ~ 150 mm. 208.0								
	FILL 0.2 Brown, firm, silty CLAY, trace sand, trace gravel, organics, rootlets, oxidized, moist. 207.4	SS	01	59	5		208		PP = 2.0 Kg / sq.cm
	NATIVE TILL 0.8 Brown, very stiff, sandy silty CLAY, trace gravel, oxidized, moist.	SS	02	67	17	1	207		PP = 4.5 Kg / sq.cm
		SS	03	100	22	2	206		Sample submitted for laboratory analysis: BH52-03 PP = 4.0 Kg / sq.cm
	broken cobble pieces.	SS	04	100	23				PP = 4.5 Kg / sq. cm
	204.5	SS	05	100	28	3	205		
	End of borehole. 3.7								

Notes:

1. Borehole was found to be caved in at 3.05 mbgs with freestanding water at 9.14 mbgs upon completion.
2. Water table was measured inside the hollow stem auger upon completion.
2. PP= Pocket Penetrometer.

No freestanding groundwater measured in open borehole upon completion of drilling.

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RECORD OF BOREHOLE No. BH70/MW70

Project Number:	665125	Drilling Location:	As per borehole location plan	Logged by:	MF
Client:	City of Brampton	Drilling Method:	150 mm Hollow Stem Augering	Compiled by:	NT
Project Name:	Phase II Environmental Site Assessment	Drilling Machine:	Track Mounted Drill	Reviewed by:	MT
Location:	10192 Hwy 50, Brampton, ON	Date Started:	Jun 11, 2019 Date Completed: Jun 11, 2019	Revision No.:	0

EASTING: 606239.26
NORTHING: 4851677.44

Lithology Plot	DESCRIPTION Local Ground Surface Elevation: 207.53 m	Sample Type	Sample Number	Recovery (%)	SPT 'N' Value	DEPTH (m)	ELEVATION (m)	FIELD TESTING Penetration Testing: ○ SPT ● DCPT; MTO Vane* △ Intact ▲ Remould; Nilcon Vane* ◇ Intact ◆ Remould; * Undrained Shear Strength (kPa) 20 40 60 80	LAB TESTING ★ Rinse pH Values 2 4 6 8 10 12; Soil Vapour Reading △ parts per million (ppm) 100 200 300 400; ▲ Lower Explosive Limit (LEL) ✱ Passing 75 um (%) ○ Moisture Content (%); Atterberg Limits W_P 20 40 60 80 W_L	INSTRUMENTATION INSTALLATION	Unit Weight (KN/m3)	COMMENTS
	Top Soil ~150 mm. 207.4											
	FILL 0.2 Brown, firm, silty CLAY, trace gravel, trace sand, rootlets, moist. 206.8	SS	01	100	5							Top of Riser Elevation = 208.47 m; Height of Riser= 0.94 m Sample submitted for laboratory analysis: BH70-01 PP = 2.5 Kg / sq.cm
	NATIVE TILL 0.8 Brown, stiff to very stiff, sandy silty CLAY, some gravel, trace sand, oxidised, moist.	SS	02	16	12	1	207					
		SS	03	100	19	2	206					PP = 4.0 Kg / sq.cm
		SS	04	100	25		205					PP = 4.5 Kg / sq. cm
	204.5 Grey, compact, SILT, trace to some clay, some gravel, trace sand, moist. 3.1	SS	05	100	14	3	204					PP = 3.0 Kg / sq.cm
		SS	06	100	14	4						PP = 3.0 Kg / sq.cm
	203.0 Grey, compact, SILT to silty SAND, trace grael, trace clay, moist 4.6	SS	07	8	20	5	203					
		SS	08	8	29		202					
	very dense	SS	09	80	50 / 100 mm	6	201					
	199.5	SS	10	0	86 / 280 mm	7	200					
	End of borehole. 8.1					8						

Notes:

1. Borehole was found to be open with no freestanding water at 4.42 mbgs upon completion.
2. Water table was measured upon completion of drilling inside the hollow stem auger on June 24 and October 21, 2019.
2. PP= Pocket Penetrometer.

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▽ No freestanding groundwater measured in open borehole upon completion of drilling.

▼ Groundwater depth observed on 21/10/2019 at a depth of: 2.33 m.

Borehole details as presented, do not constitute a thorough understanding of all potential conditions present and requires interpretative assistance from a qualified Geotechnical Engineer. Also, borehole information should be read in conjunction with the geotechnical report for which it was commisioned and the accompanying'Notes to Record of Boreholes'.

RECORD OF BOREHOLE No. BH72

Project Number:	665125	Drilling Location:	As per borehole location plan	Logged by:	AB
Client:	City of Brampton	Drilling Method:	200 mm Hollow Stem Augering	Compiled by:	NT
Project Name:	Phase II Environmental Site Assessment	Drilling Machine:	Track Mounted Drill	Reviewed by:	MT
Location:	10192 Hwy 50, Brampton, ON	Date Started:	Jun 20, 2019 Date Completed: Jun 20, 2019	Revision No.:	0

EASTING: 606359.9
NORTHING: 4851769.6

Lithology Plot	DESCRIPTION (Local Ground Surface Elevation: 208.98 m)	Sample Type	Sample Number	Recovery (%)	SPT 'N' Value	DEPTH (m)	ELEVATION (m)	Unit Weight (KN/m3)	COMMENTS
	Topsoil~ 100 mm. 208.9								
	FILL 0.1 Brown, compact, gravelly SAND, moist. 208.4	SS	01	66	28				Sample submitted for laboratory analysis: BH72-01
	NATIVE TILL 0.6 Light brown, stiff, sandy silty CLAY, thin black seam, moist.	SS	02	82	9	1	208		Sample submitted for laboratory analysis: BH72-02
		SS	03	100	20				
	becomes hard	SS	04	100	33	2	207		Sample submitted for laboratory analysis: BH72-03
		SS	05	66	49				
		SS	06	100	48	3	206		
		SS	07	0	50/ 125 mm				
	204.7					4	205		
	Grey, dense to very dense, sandy SILT, trace clay, moist. 4.3	SS	08	100	49				
	204.0	SS	09	100	50/ 125 mm	5	204		
	End of borehole. 5.0								

Notes:

1. Borehole was found to be open with no freestanding water upon completion.
2. Water table was measured upon completion of drilling inside the hollow stem auger.

No freestanding groundwater measured in open borehole upon completion of drilling.

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RECORD OF BOREHOLE No. BH73

Project Number:	665125	Drilling Location:	As per borehole location plan	Logged by:	AB
Client:	City of Brampton	Drilling Method:	200 mm Hollow Stem Augering	Compiled by:	NT
Project Name:	Phase II Environmental Site Assessment	Drilling Machine:	Track Mounted Drill	Reviewed by:	MT
Location:	10192 Hwy 50, Brampton, ON	Date Started:	Jun 20, 2019 Date Completed: Jun 20, 2019	Revision No.:	0

EASTING: 606362
NORTHING: 4851771.2

Lithology Plot	DESCRIPTION (Local Ground Surface Elevation: 208.83 m)	Sample Type	Sample Number	Recovery (%)	SPT 'N' Value	DEPTH (m)	ELEVATION (m)	Unit Weight (KN/m3)	COMMENTS
	Topsoil~ 100 mm. 208.7								
	FILL 0.1 Brown, compact, gravelly SAND, moist. 208.2	SS	01	100	30				
	NATIVE TILL 0.6 Light brown, stiff, silty CLAY, some sand, trace gravel, moist. 207.6	SS	02	82	11	1	208		Sample submitted for laboratory analysis: BH73-02
	Light brown, very stiff to hard, silty sandy CLAY, trace gravel, moist. 1.2	SS	03	100	25				
	becomes hard	SS	04	100	35	2	207		
		SS	05	66	40				
		SS	06	100	48	3	206		
		SS	07	100	50	4	205		Sample submitted for laboratory analysis: BH73-07
		SS	08	70	50/ 125 mm				
		SS	09	100	52	5	204		
	202.7	SS	10	100	63	6	203		
	End of borehole. 6.1								

Notes:

1. Borehole was found to be open with no freestanding water upon completion.
2. Water table was measured upon completion of drilling inside the hollow stem auger.

FIELD TESTING: Penetration Testing (○ SPT ● DCPT); MTO Vane* (△ Intact ▲ Remould); Nilcon Vane* (◇ Intact ◆ Remould); * Undrained Shear Strength (kPa) 20 40 60 80

LAB TESTING: ★ Rinse pH Values 2 4 6 8 10 12; Soil Vapour Reading △ parts per million (ppm) 100 200 300 400; ▲ Lower Explosive Limit (LEL); ✱ Passing 75 um (%); ○ Moisture Content (%); Atterberg Limits W_P 20 40 60 80 W_L

INSTRUMENTATION INSTALLATION

▽ **No freestanding groundwater measured in open borehole upon completion of drilling.**

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Scale: 1 : 63

RECORD OF BOREHOLE No. BH74/MW74

Project Number:	665125	Drilling Location:	As per borehole location plan	Logged by:	JP
Client:	City of Brampton	Drilling Method:	200 mm Hollow Stem Augering	Compiled by:	NT
Project Name:	Geotechnical Investigation-Johnston Transit Facility	Drilling Machine:	Track Mounted Drill	Reviewed by:	MT
Location:	Brampton	Date Started:	Oct 16, 2019 Date Completed: Oct 16, 2019	Revision No.:	0

EASTING: 606484.167
NORTHING: 4851890.911

Lithology Plot	DESCRIPTION (Local Ground Surface Elevation: 207.93 m)		Sample Type	Sample Number	Recovery (%)	SPT 'N' Value	DEPTH (m)	ELEVATION (m)	Unit Weight (KN/m3)	COMMENTS
	Topsoil ~ 200 mm	207.7								
	FILL Light brown, loose, silty SAND, some clay, moist.	0.2 207.2	SS	01	100	13				Top of Riser = 208.82 m Height of Riser = 0.89 m Sample submitted for laboratory analysis : BH74-01
	NATIVE TILL Light brown, hard, sandy silty CLAY, trace gravel, moist.	0.8	SS	02	100	31	1	207		Sample submitted for laboratory analysis : BH74-02
			SS	03	100	38	2	206		
			SS	04	100	55				
			SS	05	100	70	3	205		Some grey clay mottling.
		204.1								
	Brown to light brownish grey, very dense, silty SAND, trace clay, moist to wet.	3.8 203.4	SS	06	100	70	4	204		Sample submitted for laboratory analysis : BH74-06
	Light greyish brown, very dense, SAND, some silt and gravel, wet.	4.6	SS	07	8	60	5	203		
	becomes compact.	202.0	SS	08	51	16		202		Borehole cave in at 5.64 mbgl due to wet soil.
	End of Borehole.	5.9								

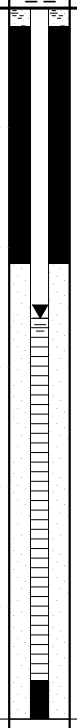
Notes:

1. Borehole was found to cave at 5.64 mbgs and no freestanding water
2. Water table was measured upon completion of drilling inside the hollow stem auger and on October 21,2019.

FIELD TESTING
Penetration Testing: ○ SPT ● DCPT
MTO Vane*: △ Intact ▲ Remould
Nilcon Vane*: ◇ Intact ◆ Remould
* Undrained Shear Strength (kPa) 20 40 60 80

LAB TESTING
★ Rinse pH Values 2 4 6 8 10 12
Soil Vapour Reading △ parts per million (ppm) 100 200 300 400
▲ Lower Explosive Limit (LEL)
✱ Passing 75 um (%)
○ Moisture Content (%)
Atterberg Limits W_P 20 40 60 80 W_L

INSTRUMENTATION INSTALLATION



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▽ No freestanding groundwater measured in open borehole upon completion of drilling.
▼ Groundwater depth observed on 21/10/2019 at a depth of: 2.59 m.

Borehole details as presented, do not constitute a thorough understanding of all potential conditions present and requires interpretative assistance from a qualified Geotechnical Engineer. Also, borehole information should be read in conjunction with the geotechnical report for which it was commisioned and the accompanying'Notes to Record of Boreholes'.

RECORD OF BOREHOLE No. BH75/MW75

Project Number:	665125	Drilling Location:	As per borehole location plan	Logged by:	JP
Client:	City of Brampton	Drilling Method:	200 mm Hollow Stem Augering	Compiled by:	NT
Project Name:	Geotechnical Investigation-Johnston Transit Facility	Drilling Machine:	Track Mounted Drill	Reviewed by:	MT
Location:	Brampton	Date Started:	Oct 16, 2019 Date Completed: Oct 16, 2019	Revision No.:	0

EASTING: 606531.454
NORTHING: 4851945.297

Lithology Plot	DESCRIPTION (Local Ground Surface Elevation: 208.09 m)	Sample Type	Sample Number	Recovery (%)	SPT 'N' Value	DEPTH (m)	ELEVATION (m)	FIELD TESTING: Penetration Testing (○ SPT ● DCPT; MTO Vane* △ Intact ▲ Remould; Nilcon Vane* ◇ Intact ◆ Remould; * Undrained Shear Strength (kPa) 20 40 60 80)	LAB TESTING: ★ Rinse pH Values 2 4 6 8 10 12; Soil Vapour Reading △ parts per million (ppm) 100 200 300 400; ▲ Lower Explosive Limit (LEL); ✱ Passing 75 um (%); ○ Moisture Content (%); Atterberg Limits W_P 20 40 60 80 W_L	INSTRUMENTATION INSTALLATION	Unit Weight (KN/m3)	COMMENTS
	FILL Light brown, very stiff, silty CLAY, trace gravel, moist. 207.3	SS	01	100	16			○	○ 19			Top of Riser = 208.95 m Height of Riser = 0.86 m. Sample submitted for laboratory analysis : BH75-01
	NATIVE STRATA 0.8 Light brown, very stiff, silty CLAY, trace gravel, trace sand, moist.	SS	02	100	18	1	207	○	○ 18			Sample submitted for laboratory analysis : BH75-02
		SS	03	100	33	2	206	○				
	205.8 NATIVE TILL 2.3 Light brown to brownish grey, hard, sandy silty CLAY, moist.	SS	04	100	89 / 255 mm							Some grey clay mottling.
		SS	05	74	72	3	205	○				
	204.3 Light brownish grey, silty CLAY, some sand, moist. 3.8 203.8	SS	06	100	50 / 125 mm	4	204		○ 11			Sample submitted for laboratory analysis : BH76-06
	End of Borehole. 4.3 Notes: 1. Borehole was found to be open and no freestanding water. 2. Water table was measured upon completion of drilling inside the hollow stem auger and on October 21,2019.											Auger to 4.27 and refusal at 4.27 mbgs.

SNC·LAVALIN
401 Hanlan Rd
Vaughan, Ontario L4L 3T1
Tel: 905-851-0090

▽ **No freestanding groundwater measured in open borehole upon completion of drilling.**

▼ **Groundwater depth observed on 21/10/2019 at a depth of: 3.41 m.**

Borehole details as presented, do not constitute a thorough understanding of all potential conditions present and requires interpretative assistance from a qualified Geotechnical Engineer. Also, borehole information should be read in conjunction with the geotechnical report for which it was commisioned and the accompanying'Notes to Record of Boreholes'.

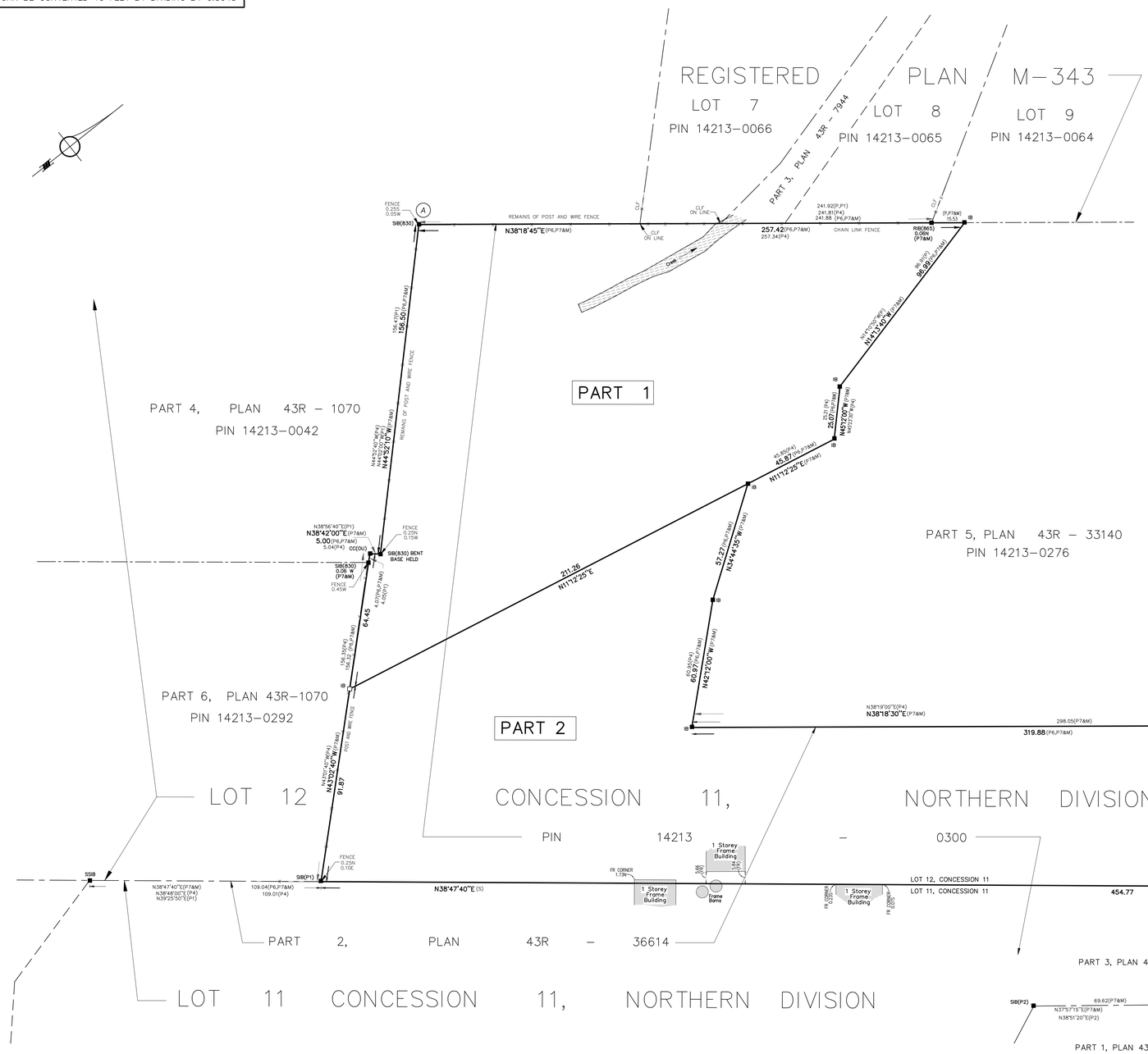
Appendix C

MECP Well Records (Pending)

Appendix D

Legal Survey

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



I REQUIRE THIS PLAN TO BE DEPOSITED UNDER THE LAND TITLES ACT.	Plan 43R- RECEIVED AND DEPOSITED :
DATE : _____,2018	DATE : _____,2018
MICHELE PEARSON ONTARIO LAND SURVEYOR	REPRESENTATIVE FOR THE LAND REGISTRAR FOR THE LAND TITLES DIVISION OF PEEL REGION (No. 43)

Schedule

PART	PART OF LOT	CONCESSION	PART OF PIN	AREA(Sq.m.)
1	LOT 12	11 NORTHERN DIVISION	14213-0300	35215.9
2				45659.9

PLAN OF SURVEY OF
PART OF LOT 12
CONCESSION 11, NORTHERN DIVISION
CITY OF BRAMPTON
REGIONAL MUNICIPALITY OF PEEL
GEOGRAPHIC TOWNSHIP OF TORONTO GORE
COUNTY OF PEEL.

SCALE 1:1000

0 10 20 30 40 50 100 Metres

PEARSON & PEARSON SURVEYING LTD. 2018
Ontario Land Surveyors

Bearing Note

BEARINGS SHOWN HEREON ARE GRID, DERIVED FROM OBSERVED REFERENCE POINTS (ORP'S) A & B BY REAL TIME NETWORK OBSERVATIONS, UTM Zone 17, NAD 83 (CSRS V6) (Epoch 2010.00)

DISTANCES SHOWN ON THE PLAN ARE ADJUSTED GROUND DISTANCES AND CAN BE BE USED TO COMPUTE GRID DISTANCES BY MULTIPLYING BY A COMBINED SCALE FACTOR OF 0.9997135

Integration Data

OBSERVED REFERENCE POINTS (ORP'S) DERIVED FROM GPS OBSERVATIONS USING THE SMARTNET NETWORK SERVICE AND ARE REFERRED TO UTM Zone 17, NAD 83 (CSRS V6) (Epoch 2010.00)

COORDINATE VALUES ARE TO URBAN ACCURACY IN ACCORDANCE WITH SECTION 14(2) OF O.REG. 216/10, AND CANNOT, IN THEMSELVES, BE USED TO RE-ESTABLISH CORNERS OR BOUNDARIES SHOWN ON THIS PLAN.

POINT ID	NORTHING	EASTING
ORP A	4851854.26	606031.62
ORP B	4852058.33	606495.83

Note

PARTS 4 AND 5 PLAN 43R-36614 DEDICATED AS PUBLIC HIGHWAY BY BY-LAW No. 54-2015, INSTRUMENT No. PR1809285.

Legend

□	DENOTES	SURVEY MONUMENT PLANTED
■	DENOTES	SURVEY MONUMENT FOUND
SIB	DENOTES	STANDARD IRON BAR
SSIB	DENOTES	SHORT STANDARD IRON BAR (USED WHERE BURIED UTILITY COULD BE OF CONCERN)
IB	DENOTES	IRON BAR
S	DENOTES	SET
M	DENOTES	MEASURED
OU	DENOTES	ORIGIN UNKNOWN
P	DENOTES	PLAN M-343
P1	DENOTES	PLAN 43R-1070
D	DENOTES	INST. NO. RO1032242
P2	DENOTES	PLAN 43R-5454
P3	DENOTES	EXPROPRIATION PLAN 5543(MTO PLAN P-2804-4)
P4	DENOTES	PLAN 43R-33140
P5	DENOTES	PLAN 43R-36661
P6	DENOTES	PLAN 43R-36525
P7	DENOTES	PLAN 43R-36614
MMM	DENOTES	MMM GROUP
1670	DENOTES	R.G. PEARSON,OLS
865	DENOTES	E.BIASON,OLS
830	DENOTES	E.W.PETZOLD,OLS
1493	DENOTES	J.F.G.YOUNG,OLS
MTO	DENOTES	MINISTRY OF TRANSPORTATION OF ONTARIO
CLF	DENOTES	CHAIN LINK FENCE
N/S/E/W	DENOTES	NORTH/SOUTH/EAST/WEST

ALL FOUND MONUMENTS ARE (1670) UNLESS OTHERWISE NOTED

ALL PROPERTY LINES ARE UNFENCED UNLESS OTHERWISE NOTED

Surveyor's Certificate

I CERTIFY THAT :
1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE LAND TITLES ACT AND THE SURVEYORS ACT AND THE REGULATIONS MADE UNDER THEM.
2. THE SURVEY WAS COMPLETED ON THE DAY OF , 2018

August 31, 2018
Date

Michele Pearson
Ontario Land Surveyor

CITY OF BRAMPTON
10933 JANE STREET, SECOND FLOOR, MAPLE ONTARIO, L6A 1S1
O. : (289) 553-5453
E. : michelepearson@pearsonandpearson.ca
PEARSON + PEARSON SURVEYING LTD.

DRAWING : 1585-Hwy50-10192A-RP.DWG	PROJECT : 1585
CALC. BY: JM	DRAWN BY: TM
CHECKED BY: MP/JM	

Appendix E

Laboratory Certificates of Analysis (Soil)

TABLE E.1: Field Blank QA/QC Results
Soil Samples
10192 Highway 50, Brampton, ON

		Sample Location	**TRIP BLANK**
		Laboratory Sample ID	265188
		SNC-Lavalin Sample ID	Trip Blank
		Sampling Date (yyyy/mm/dd)	2019/06/10
Parameter	**RDL**	**Units**	
Volatile Organic Compounds			
Acetone	0.50	µg/g	<
Benzene	0.02	µg/g	<
Bromodichloromethane	0.05	µg/g	<
Bromoform	0.05	µg/g	<
Bromomethane	0.05	µg/g	<
Carbon Tetrachloride	0.05	µg/g	<
Chlorobenzene	0.05	µg/g	<
Chloroform	0.04	µg/g	<
Dibromochloromethane	0.05	µg/g	<
Dichlorobenzene, 1,2- (o-DCB)	0.05	µg/g	<
Dichlorobenzene, 1,3- (m-DCB)	0.05	µg/g	<
Dichlorobenzene, 1,4- (p-DCB)	0.05	µg/g	<
Dichlorodifluoromethane	0.05	µg/g	<
Dichloroethane, 1,1-	0.02	µg/g	<
Dichloroethane, 1,2-	0.03	µg/g	<
Dichloroethylene, 1,1-	0.05	µg/g	<
Dichloroethylene, cis-1,2-	0.02	µg/g	<
Dichloroethylene, trans-1,2-	0.05	µg/g	<
Dichloropropane, 1,2-	0.03	µg/g	<
Dichloropropene, 1,3-	0.04	µg/g	<
Ethylbenzene	0.05	µg/g	<
Ethylene Dibromide (Dibromoethane, 1,2-)	0.04	µg/g	<
Hexane (n)	0.05	µg/g	<
Methyl Ethyl Ketone (2-Butanone)	0.50	µg/g	<
Methyl Isobutyl Ketone	0.50	µg/g	<
Methyl t-butyl ether (MTBE)	0.05	µg/g	<
Methylene Chloride	0.05	µg/g	<
Styrene	0.05	µg/g	<
Tetrachloroethane, 1,1,1,2-	0.04	µg/g	<
Tetrachloroethane, 1,1,2,2-	0.05	µg/g	<
Tetrachloroethylene	0.05	µg/g	<
Toluene	0.05	µg/g	<
Trichloroethane, 1,1,1-	0.05	µg/g	<
Trichloroethane, 1,1,2-	0.04	µg/g	<
Trichloroethylene	0.03	µg/g	<
Trichlorofluoromethane	0.05	µg/g	<
Vinyl Chloride	0.02	µg/g	<
Xylenes	0.05	µg/g	<
Xylenes, m+p-	0.05	µg/g	<
Xylenes, o-	0.05	µg/g	<

Footnotes:

Additional terms may be defined within the body of SNC-Lavalin's report.
RDL - Reportable Detection Limit, unless otherwise noted
< - Denotes concentration less than indicated detection limit
"-" - Not analyzed
na - Not applicable
mbgs - metres below ground surface

BOLD Concentration greater than Table 8 Standard

[1] Table 9 generic site condition standards for use within 30 m of a water body in a non-potable groundwater condition for residential/ parkland/ institutional/ industrial/ commercial/ community property use (MOE, 2011)

TABLE E.2: Field Duplicate RPD Calculations
Soil Samples
10192 Highway 50, Brampton, ON

Sample Location		RPD	BH33	BH33	RPD	BH33	BH33	RPD	BH-75	BH-75	RPD
Laboratory Sample ID			294685	294693		294696	294732		624941	624953	
SNC-Lavalin Sample ID		Limit	BH33-2	BH33-22		BH33-7	BH33-77		BH-75-02	BH-75-22	
Sampling Date (yyyy/mm/dd)		100%	2019/06/19	2019/06/19		2019/06/19	2019/06/19		2019/10/16	2019/10/16	
Depth Interval (mbgs)			0.6 - 1.2	0.6 - 1.2		3.7 - 4.3	3.7 - 4.3		0.8 - 1.4	0.8 - 1.4	
Field Screen (ppmv)			<5	<5		<5	<5		20	20	
Parameter	Units			Duplicate of BH33-2			Duplicate of BH33-7			Duplicate of BH-75-02	
General Chemistry											
Free Cyanide	µg/g	100%	< 0.040	< 0.040	*	-	-	-	-	-	-
Electrical Conductivity	µS/cm	100%	183	191	4%	-	-	-	275	230	18%
pH	pH	100%	7.75	7.62	*	-	-	-	-	-	-
Sodium Adsorption Ratio	None	100%	0.451	0.455	*	-	-	-	0.969	0.822	*
Total Metals											
Aluminum	µg/g	na	-	-	-	-	-	-	27,400	17,900	42%
Antimony	µg/g	100%	< 0.8	< 0.8	*	-	-	-	< 0.8	< 0.8	*
Arsenic	µg/g	100%	4	4	*	-	-	-	4	3	*
Barium	µg/g	100%	81	98	19%	-	-	-	175	113	43%
Beryllium	µg/g	100%	< 0.5	0.5	*	-	-	-	1	0.7	*
Bismuth	µg/g	na	-	-	-	-	-	-	0.2	0.1	*
Boron	µg/g	100%	7	8	*	-	-	-	6	7	*
Boron (Hot Water Soluble)	µg/g	100%	< 0.10	< 0.10	*	-	-	-	-	-	-
Cadmium	µg/g	100%	< 0.5	< 0.5	*	-	-	-	< 0.5	< 0.5	*
Chromium (total)	µg/g	100%	19	22	15%	-	-	-	38	27	34%
Chromium (VI)	µg/g	100%	< 0.2	< 0.2	*	-	-	-	-	-	-
Cobalt	µg/g	100%	9.1	10	9%	-	-	-	15.2	11.4	29%
Copper	µg/g	100%	18	18	0%	-	-	-	27	20	30%
Iron	µg/g	na	-	-	-	-	-	-	36,600	25,500	36%
Lead	µg/g	100%	8	9	12%	-	-	-	16	10	46%
Lithium	µg/g	na	-	-	-	-	-	-	24.2	18	29%
Manganese	µg/g	na	-	-	-	-	-	-	1,070	670	46%
Mercury	µg/g	100%	< 0.10	< 0.10	*	-	-	-	-	-	-
Molybdenum	µg/g	100%	< 0.5	< 0.5	*	-	-	-	< 0.5	< 0.5	*
Nickel	µg/g	100%	21	24	13%	-	-	-	33	25	28%
Phosphorous	µg/g	na	-	-	-	-	-	-	813	756	7%
Selenium	µg/g	100%	< 0.4	< 0.4	*	-	-	-	< 0.8	< 0.8	*
Silver	µg/g	100%	< 0.2	< 0.2	*	-	-	-	< 0.4	< 0.4	*
Strontium	µg/g	na	-	-	-	-	-	-	31	117	**116%**
Thallium	µg/g	100%	< 0.4	< 0.4	*	-	-	-	< 0.4	< 0.4	*
Titanium	µg/g	na	-	-	-	-	-	-	311	279	11%
Uranium	µg/g	100%	< 0.5	< 0.5	*	-	-	-	0.64	0.63	*
Vanadium	µg/g	100%	29	31	7%	-	-	-	47	36	27%
Zinc	µg/g	100%	46	46	0%	-	-	-	93	61	42%
Zirconium	µg/g	na	-	-	-	-	-	-	5.7	5.6	2%
Petroleum Hydrocarbon (PHC) Fractions											
PHC F1	µg/g	100%	-	-	-	< 5	< 5	*	-	-	-
PHC F2	µg/g	100%	-	-	-	< 10	< 10	*	-	-	-
PHC F3	µg/g	100%	-	-	-	< 50	< 50	*	-	-	-
PHC F4	µg/g	100%	-	-	-	< 50	< 50	*	-	-	-
Volatile Organic Compounds											
Acetone	µg/g	100%	-	-	-	< 0.50	< 0.50	*	-	-	-
Benzene	µg/g	100%	-	-	-	< 0.02	< 0.02	*	-	-	-
Bromodichloromethane	µg/g	100%	-	-	-	< 0.05	< 0.05	*	-	-	-
Bromoform	µg/g	100%	-	-	-	< 0.05	< 0.05	*	-	-	-
Bromomethane	µg/g	100%	-	-	-	< 0.05	< 0.05	*	-	-	-
Carbon Tetrachloride	µg/g	100%	-	-	-	< 0.05	< 0.05	*	-	-	-
Chlorobenzene	µg/g	100%	-	-	-	< 0.05	< 0.05	*	-	-	-
Chloroform	µg/g	100%	-	-	-	< 0.04	< 0.04	*	-	-	-
Dibromochloromethane	µg/g	100%	-	-	-	< 0.05	< 0.05	*	-	-	-
Dichlorobenzene, 1,2- (o-DCB)	µg/g	100%	-	-	-	< 0.05	< 0.05	*	-	-	-
Dichlorobenzene, 1,3- (m-DCB)	µg/g	100%	-	-	-	< 0.05	< 0.05	*	-	-	-
Dichlorobenzene, 1,4- (p-DCB)	µg/g	100%	-	-	-	< 0.05	< 0.05	*	-	-	-
Dichlorodifluoromethane	µg/g	100%	-	-	-	< 0.05	< 0.05	*	-	-	-
Dichloroethane, 1,1-	µg/g	100%	-	-	-	< 0.02	< 0.02	*	-	-	-
Dichloroethane, 1,2-	µg/g	100%	-	-	-	< 0.03	< 0.03	*	-	-	-
Dichloroethylene, 1,1-	µg/g	100%	-	-	-	< 0.05	< 0.05	*	-	-	-
Dichloroethylene, cis-1,2-	µg/g	100%	-	-	-	< 0.02	< 0.02	*	-	-	-
Dichloroethylene, trans-1,2-	µg/g	100%	-	-	-	< 0.05	< 0.05	*	-	-	-
Dichloropropane, 1,2-	µg/g	100%	-	-	-	< 0.03	< 0.03	*	-	-	-
Dichloropropene, 1,3-	µg/g	100%	-	-	-	< 0.04	< 0.04	*	-	-	-
Ethylbenzene	µg/g	100%	-	-	-	< 0.05	< 0.05	*	-	-	-
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/g	100%	-	-	-	< 0.04	< 0.04	*	-	-	-
Hexane (n)	µg/g	100%	-	-	-	< 0.05	< 0.05	*	-	-	-
Methyl Ethyl Ketone (2-Butanone)	µg/g	100%	-	-	-	< 0.50	< 0.50	*	-	-	-
Methyl Isobutyl Ketone	µg/g	100%	-	-	-	< 0.50	< 0.50	*	-	-	-
Methyl t-butyl ether (MTBE)	µg/g	100%	-	-	-	< 0.05	< 0.05	*	-	-	-
Methylene Chloride	µg/g	100%	-	-	-	< 0.05	< 0.05	*	-	-	-
Styrene	µg/g	100%	-	-	-	< 0.05	< 0.05	*	-	-	-
Tetrachloroethane, 1,1,1,2-	µg/g	100%	-	-	-	< 0.04	< 0.04	*	-	-	-
Tetrachloroethane, 1,1,2,2-	µg/g	100%	-	-	-	< 0.05	< 0.05	*	-	-	-
Tetrachloroethylene	µg/g	100%	-	-	-	< 0.05	< 0.05	*	-	-	-
Toluene	µg/g	100%	-	-	-	< 0.05	< 0.05	*	-	-	-
Trichloroethane, 1,1,1-	µg/g	100%	-	-	-	< 0.05	< 0.05	*	-	-	-
Trichloroethane, 1,1,2-	µg/g	100%	-	-	-	< 0.04	< 0.04	*	-	-	-
Trichloroethylene	µg/g	100%	-	-	-	< 0.03	< 0.03	*	-	-	-
Trichlorofluoromethane	µg/g	100%	-	-	-	< 0.05	< 0.05	*	-	-	-
Vinyl Chloride	µg/g	100%	-	-	-	< 0.02	< 0.02	*	-	-	-
Xylenes	µg/g	100%	-	-	-	< 0.05	< 0.05	*	-	-	-

See footnotes on last page.

TABLE E.2: Field Duplicate RPD Calculations
Soil Samples
10192 Highway 50, Brampton, ON

Sample Location		RPD	BH-75	BH-75	RPD	SS9	SS9	RPD
Laboratory Sample ID			624954	624968		624892	624893	
SNC-Lavalin Sample ID		Limit	BH-75-06	BH-75-66		SS9	SS99	
Sampling Date (yyyy/mm/dd)		100%	2019/10/16	2019/10/16		2019/10/16	2019/10/16	
Depth Interval (mbgs)			3.0 - 3.7	3.0 - 3.7		0.0 - 0.6	0.0 - 0.6	
Field Screen (ppmv)			<5	<5		-	-	
				Duplicate of			Duplicate of	
Parameter	Units			BH-75-06			SS9	
General Chemistry								
Free Cyanide	µg/g	100%	-	-	-	-	-	-
Electrical Conductivity	µS/cm	100%	-	-	-	-	-	-
pH	pH	100%	-	-	-	11.3	11.3	*
Sodium Adsorption Ratio	None	100%	-	-	-	-	-	-
Total Metals								
Aluminum	µg/g	na	-	-	-	-	-	-
Antimony	µg/g	100%	-	-	-	-	-	-
Arsenic	µg/g	100%	-	-	-	-	-	-
Barium	µg/g	100%	-	-	-	-	-	-
Beryllium	µg/g	100%	-	-	-	-	-	-
Bismuth	µg/g	na	-	-	-	-	-	-
Boron	µg/g	100%	-	-	-	-	-	-
Boron (Hot Water Soluble)	µg/g	100%	-	-	-	-	-	-
Cadmium	µg/g	100%	-	-	-	-	-	-
Chromium (total)	µg/g	100%	-	-	-	-	-	-
Chromium (VI)	µg/g	100%	-	-	-	-	-	-
Cobalt	µg/g	100%	-	-	-	-	-	-
Copper	µg/g	100%	-	-	-	-	-	-
Iron	µg/g	na	-	-	-	-	-	-
Lead	µg/g	100%	-	-	-	-	-	-
Lithium	µg/g	na	-	-	-	-	-	-
Manganese	µg/g	na	-	-	-	-	-	-
Mercury	µg/g	100%	-	-	-	-	-	-
Molybdenum	µg/g	100%	-	-	-	-	-	-
Nickel	µg/g	100%	-	-	-	-	-	-
Phosphorous	µg/g	na	-	-	-	-	-	-
Selenium	µg/g	100%	-	-	-	-	-	-
Silver	µg/g	100%	-	-	-	-	-	-
Strontium	µg/g	na	-	-	-	-	-	-
Thallium	µg/g	100%	-	-	-	-	-	-
Titanium	µg/g	na	-	-	-	-	-	-
Uranium	µg/g	100%	-	-	-	-	-	-
Vanadium	µg/g	100%	-	-	-	-	-	-
Zinc	µg/g	100%	-	-	-	-	-	-
Zirconium	µg/g	na	-	-	-	-	-	-
Petroleum Hydrocarbon (PHC) Fractions								
PHC F1	µg/g	100%	< 5	< 5	*	-	-	-
PHC F2	µg/g	100%	< 10	< 10	*	-	-	-
PHC F3	µg/g	100%	< 50	< 50	*	-	-	-
PHC F4	µg/g	100%	< 50	< 50	*	-	-	-
Volatile Organic Compounds								
Acetone	µg/g	100%	< 0.50	< 0.50	*	-	-	-
Benzene	µg/g	100%	< 0.02	< 0.02	*	-	-	-
Bromodichloromethane	µg/g	100%	< 0.05	< 0.05	*	-	-	-
Bromoform	µg/g	100%	< 0.05	< 0.05	*	-	-	-
Bromomethane	µg/g	100%	< 0.05	< 0.05	*	-	-	-
Carbon Tetrachloride	µg/g	100%	< 0.05	< 0.05	*	-	-	-
Chlorobenzene	µg/g	100%	< 0.05	< 0.05	*	-	-	-
Chloroform	µg/g	100%	< 0.04	< 0.04	*	-	-	-
Dibromochloromethane	µg/g	100%	< 0.05	< 0.05	*	-	-	-
Dichlorobenzene, 1,2- (o-DCB)	µg/g	100%	< 0.05	< 0.05	*	-	-	-
Dichlorobenzene, 1,3- (m-DCB)	µg/g	100%	< 0.05	< 0.05	*	-	-	-
Dichlorobenzene, 1,4- (p-DCB)	µg/g	100%	< 0.05	< 0.05	*	-	-	-
Dichlorodifluoromethane	µg/g	100%	< 0.05	< 0.05	*	-	-	-
Dichloroethane, 1,1-	µg/g	100%	< 0.02	< 0.02	*	-	-	-
Dichloroethane, 1,2-	µg/g	100%	< 0.03	< 0.03	*	-	-	-
Dichloroethylene, 1,1-	µg/g	100%	< 0.05	< 0.05	*	-	-	-
Dichloroethylene, cis-1,2-	µg/g	100%	< 0.02	< 0.02	*	-	-	-
Dichloroethylene, trans-1,2-	µg/g	100%	< 0.05	< 0.05	*	-	-	-
Dichloropropane, 1,2-	µg/g	100%	< 0.03	< 0.03	*	-	-	-
Dichloropropene, 1,3-	µg/g	100%	< 0.04	< 0.04	*	-	-	-
Ethylbenzene	µg/g	100%	< 0.05	< 0.05	*	-	-	-
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/g	100%	< 0.04	< 0.04	*	-	-	-
Hexane (n)	µg/g	100%	< 0.05	< 0.05	*	-	-	-
Methyl Ethyl Ketone (2-Butanone)	µg/g	100%	< 0.50	< 0.50	*	-	-	-
Methyl Isobutyl Ketone	µg/g	100%	< 0.50	< 0.50	*	-	-	-
Methyl t-butyl ether (MTBE)	µg/g	100%	< 0.05	< 0.05	*	-	-	-
Methylene Chloride	µg/g	100%	< 0.05	< 0.05	*	-	-	-
Styrene	µg/g	100%	< 0.05	< 0.05	*	-	-	-
Tetrachloroethane, 1,1,1,2-	µg/g	100%	< 0.04	< 0.04	*	-	-	-
Tetrachloroethane, 1,1,2,2-	µg/g	100%	< 0.05	< 0.05	*	-	-	-
Tetrachloroethylene	µg/g	100%	< 0.05	< 0.05	*	-	-	-
Toluene	µg/g	100%	< 0.05	< 0.05	*	-	-	-
Trichloroethane, 1,1,1-	µg/g	100%	< 0.05	< 0.05	*	-	-	-
Trichloroethane, 1,1,2-	µg/g	100%	< 0.04	< 0.04	*	-	-	-
Trichloroethylene	µg/g	100%	< 0.03	< 0.03	*	-	-	-
Trichlorofluoromethane	µg/g	100%	< 0.05	< 0.05	*	-	-	-
Vinyl Chloride	µg/g	100%	< 0.02	< 0.02	*	-	-	-
Xylenes	µg/g	100%	< 0.05	< 0.05	*	-	-	-

See footnotes on last page.

TABLE E.2: Field Duplicate RPD Calculations
Soil Samples
10192 Highway 50, Brampton, ON

Footnotes:

Additional terms may be defined within the body of SNC-Lavalin's report.
< - Denotes concentration less than indicated detection limit
"-" - Not analyzed
na - Not applicable
mbgs - metres below ground surface
Field Screen - organic vapour meter reading
Conversion factor of 1% LEL = 110 ppmv applied
ppmv - parts per million by volume (relative to hexane)
µg/g - micrograms per gram, dry weight basis
µS/cm - microSiemens per centimetre
* - RPD not calculable
RPD - Relative Percent Difference (not calculated when one or both results are less than or equal to 5X RDL)

BOLD RPD exceeds limit

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CLIENT NAME: SNC LAVALIN INC
235 LESMILL ROAD
TORONTO, ON M3B 2V1
(416) 679-6000

ATTENTION TO: Robert Mitzakov

PROJECT: City of Brampton - Phase II

AGAT WORK ORDER: 19T477958

SOIL ANALYSIS REVIEWED BY: Amanjot Bhela, Inorganic Supervisor

TRACE ORGANICS REVIEWED BY: Pinkal Patel, Report Reviewer

DATE REPORTED: Jun 20, 2019

PAGES (INCLUDING COVER): 24

VERSION*: 3

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

*NOTES

VERSION 3: Revised report with separate ORP package removed - July 17, 2019.
Revised report with sample ID amendment issued on July 12, 2019.

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.

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Western Enviro-Agricultural Laboratory Association (WEALA)
Environmental Services Association of Alberta (ESAA)

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Results relate only to the items tested. Results apply to samples as received.
All reportable information as specified by ISO 17025:2017 is available from AGAT Laboratories upon request

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Certificate of Analysis

AGAT WORK ORDER: 19T477958

PROJECT: City of Brampton - Phase II

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2019-06-10

DATE REPORTED: 2019-06-20

SAMPLE DESCRIPTION:				BH02-01	BH03-02	BH18-02
SAMPLE TYPE:				Soil	Soil	Soil
DATE SAMPLED:				2019-06-10	2019-06-10	2019-06-10
Parameter	Unit	G / S	RDL	265181	265184	265187
Antimony	µg/g	1.3	0.8	<0.8	<0.8	<0.8
Arsenic	µg/g	18	1	3	4	3
Barium	µg/g	220	2	21	158	102
Beryllium	µg/g	2.5	0.5	<0.5	0.7	0.6
Boron	µg/g	36	5	5	11	10
Boron (Hot Water Soluble)	µg/g	1.5	0.10	0.15	0.13	<0.10
Cadmium	µg/g	1.2	0.5	<0.5	<0.5	<0.5
Chromium	µg/g	70	2	8	34	26
Cobalt	µg/g	22	0.5	2.5	12.6	9.6
Copper	µg/g	92	1	10	22	17
Lead	µg/g	120	1	34	12	8
Molybdenum	µg/g	2	0.5	1.1	<0.5	<0.5
Nickel	µg/g	82	1	14	28	23
Selenium	µg/g	1.5	0.4	0.4	0.4	0.4
Silver	µg/g	0.5	0.2	<0.2	<0.2	<0.2
Thallium	µg/g	1	0.4	<0.4	<0.4	<0.4
Uranium	µg/g	2.5	0.5	<0.5	0.5	0.5
Vanadium	µg/g	86	1	30	47	35
Zinc	µg/g	290	5	56	65	47
Chromium VI	µg/g	0.66	0.2	<0.2	<0.2	<0.2
Cyanide	µg/g	0.051	0.040	<0.040	<0.040	<0.040
Mercury	µg/g	0.27	0.10	<0.10	<0.10	<0.10
Electrical Conductivity	mS/cm	0.7	0.005	0.201	0.374	0.810
Sodium Adsorption Ratio	NA	5	NA	0.263	0.834	2.87
pH, 2:1 CaCl2 Extraction	pH Units		NA	7.95	7.38	7.35

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 19T477958

PROJECT: City of Brampton - Phase II

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2019-06-10

DATE REPORTED: 2019-06-20

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

265181-265187 EC was determined on the DI water extract obtained from the 2:1 leaching procedure (2 parts DI water:1 part soil). pH was determined on the 0.01M CaCl2 extract prepared at 2:1 ratio. SAR is a calculated parameter.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: Amanjot Bhela

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AGAT WORK ORDER: 19T477958

PROJECT: City of Brampton - Phase II

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - PAHs (Soil)

DATE RECEIVED: 2019-06-10

DATE REPORTED: 2019-06-20

		SAMPLE DESCRIPTION:		BH02-02	BH03-01
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2019-06-10	2019-06-10
Parameter	Unit	G / S	RDL	265182	265185
Naphthalene	µg/g	0.09	0.05	<0.05	<0.05
Acenaphthylene	µg/g	0.093	0.05	<0.05	<0.05
Acenaphthene	µg/g	0.072	0.05	<0.05	<0.05
Fluorene	µg/g	0.19	0.05	<0.05	<0.05
Phenanthrene	µg/g	0.69	0.05	<0.05	<0.05
Anthracene	µg/g	0.22	0.05	<0.05	<0.05
Fluoranthene	µg/g	0.69	0.05	<0.05	<0.05
Pyrene	µg/g	1	0.05	<0.05	<0.05
Benz(a)anthracene	µg/g	0.36	0.05	<0.05	<0.05
Chrysene	µg/g	2.8	0.05	<0.05	<0.05
Benzo(b)fluoranthene	µg/g	0.47	0.05	<0.05	<0.05
Benzo(k)fluoranthene	µg/g	0.48	0.05	<0.05	<0.05
Benzo(a)pyrene	µg/g	0.3	0.05	<0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.23	0.05	<0.05	<0.05
Dibenz(a,h)anthracene	µg/g	0.1	0.05	<0.05	<0.05
Benzo(g,h,i)perylene	µg/g	0.68	0.05	<0.05	<0.05
2-and 1-methyl Naphthalene	µg/g	0.59	0.05	<0.05	<0.05
Moisture Content	%		0.1	15.7	20.8
Surrogate	Unit	Acceptable Limits			
Chrysene-d12	%	50-140		110	98

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

265182-265185 Results are based on the dry weight of the soil.
Note: The result for Benzo(b)Fluoranthene is the total of the Benzo(b)&j)Fluoranthene isomers because the isomers co-elute on the GC column.
2- and 1-Methyl Naphthalene is a calculated parameter. The calculated value is the sum of 2-Methyl Naphthalene and 1-Methyl Naphthalene.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

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AGAT WORK ORDER: 19T477958

PROJECT: City of Brampton - Phase II

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - PHCs F1 - F4 (-BTEX) (Soil)

DATE RECEIVED: 2019-06-10

DATE REPORTED: 2019-06-20

		SAMPLE DESCRIPTION:		BH02-07	BH03-07
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2019-06-10	2019-06-10
Parameter	Unit	G / S	RDL	265183	265186
F1 (C6 to C10)	µg/g		5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	25	5	<5	<5
F2 (C10 to C16)	µg/g	10	10	<10	<10
F3 (C16 to C34)	µg/g	240	50	<50	<50
F4 (C34 to C50)	µg/g	120	50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g	120	50	NA	NA
Moisture Content	%		0.1	14.2	14.6
Surrogate	Unit	Acceptable Limits			
Terphenyl	%	60-140		108	130

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

265183-265186 Results are based on sample dry weight.
The C6-C10 fraction is calculated using toluene response factor.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6 - C50 results are corrected for BTEX contribution.
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC6 and nC10 response factors are within 30% of Toluene response factor.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 + nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.
Fractions 1-4 are quantified without the contribution of PAHs. Under Ontario Regulation 153, results are considered valid without determining the PAH contribution if not requested by the client.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: Jinkal Patel

Results relate only to the items tested. Results apply to samples as received.

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AGAT WORK ORDER: 19T477958

PROJECT: City of Brampton - Phase II

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - VOCs (MEOH)

DATE RECEIVED: 2019-06-10

DATE REPORTED: 2019-06-20

		SAMPLE DESCRIPTION:		Trip Blank
		SAMPLE TYPE:		Soil
		DATE SAMPLED:		2019-06-10
Parameter	Unit	G / S	RDL	265188
Dichlorodifluoromethane	µg/g	0.05	0.05	<0.05
Vinyl Chloride	ug/g	0.02	0.02	<0.02
Bromomethane	ug/g	0.05	0.05	<0.05
Trichlorofluoromethane	ug/g	0.25	0.05	<0.05
Acetone	ug/g	0.5	0.50	<0.50
1,1-Dichloroethylene	ug/g	0.05	0.05	<0.05
Methylene Chloride	ug/g	0.05	0.05	<0.05
Trans- 1,2-Dichloroethylene	ug/g	0.05	0.05	<0.05
Methyl tert-butyl Ether	ug/g	0.05	0.05	<0.05
1,1-Dichloroethane	ug/g	0.05	0.02	<0.02
Methyl Ethyl Ketone	ug/g	0.5	0.50	<0.50
Cis- 1,2-Dichloroethylene	ug/g	0.05	0.02	<0.02
Chloroform	ug/g	0.05	0.04	<0.04
1,2-Dichloroethane	ug/g	0.05	0.03	<0.03
1,1,1-Trichloroethane	ug/g	0.05	0.05	<0.05
Carbon Tetrachloride	ug/g	0.05	0.05	<0.05
Benzene	ug/g	0.02	0.02	<0.02
1,2-Dichloropropane	ug/g	0.05	0.03	<0.03
Trichloroethylene	ug/g	0.05	0.03	<0.03
Bromodichloromethane	ug/g	0.05	0.05	<0.05
Methyl Isobutyl Ketone	ug/g	0.5	0.50	<0.50
1,1,2-Trichloroethane	ug/g	0.05	0.04	<0.04
Toluene	ug/g	0.2	0.05	<0.05
Dibromochloromethane	ug/g	0.05	0.05	<0.05
Ethylene Dibromide	ug/g	0.05	0.04	<0.04
Tetrachloroethylene	ug/g	0.05	0.05	<0.05
1,1,1,2-Tetrachloroethane	ug/g	0.05	0.04	<0.04
Chlorobenzene	ug/g	0.05	0.05	<0.05
Ethylbenzene	ug/g	0.05	0.05	<0.05
m & p-Xylene	ug/g		0.05	<0.05

Certified By: Pinkal Patel

Results relate only to the items tested. Results apply to samples as received.

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Certificate of Analysis

AGAT WORK ORDER: 19T477958

PROJECT: City of Brampton - Phase II

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - VOCs (MEOH)

DATE RECEIVED: 2019-06-10

DATE REPORTED: 2019-06-20

		SAMPLE DESCRIPTION:		Trip Blank
		SAMPLE TYPE:		Soil
		DATE SAMPLED:		2019-06-10
Parameter	Unit	G / S	RDL	265188
Bromoform	ug/g	0.05	0.05	<0.05
Styrene	ug/g	0.05	0.05	<0.05
1,1,2,2-Tetrachloroethane	ug/g	0.05	0.05	<0.05
o-Xylene	ug/g		0.05	<0.05
1,3-Dichlorobenzene	ug/g	0.05	0.05	<0.05
1,4-Dichlorobenzene	ug/g	0.05	0.05	<0.05
1,2-Dichlorobenzene	ug/g	0.05	0.05	<0.05
Xylene Mixture	ug/g	0.05	0.05	<0.05
1,3-Dichloropropene	µg/g	0.05	0.04	<0.04
n-Hexane	µg/g	0.05	0.05	<0.05
Surrogate	Unit	Acceptable Limits		
Toluene-d8	% Recovery	50-140		104
4-Bromofluorobenzene	% Recovery	50-140		79

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

265188 A small amount of methanol extract was diluted in water and analyzed by purge & trap GC/MS.
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene + o-Xylene.
1,3-Dichloropropene total is a calculated parameter. The calculated value is the sum of Cis-1,3-Dichloropropene and Trans-1,3-Dichloropropene.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

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AGAT WORK ORDER: 19T477958

PROJECT: City of Brampton - Phase II

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - VOCs (Soil)

DATE RECEIVED: 2019-06-10

DATE REPORTED: 2019-06-20

SAMPLE DESCRIPTION:				BH02-07	BH03-07
SAMPLE TYPE:				Soil	Soil
DATE SAMPLED:				2019-06-10	2019-06-10
Parameter	Unit	G / S	RDL	265183	265186
Dichlorodifluoromethane	µg/g	0.05	0.05	<0.05	<0.05
Vinyl Chloride	ug/g	0.02	0.02	<0.02	<0.02
Bromomethane	ug/g	0.05	0.05	<0.05	<0.05
Trichlorofluoromethane	ug/g	0.25	0.05	<0.05	<0.05
Acetone	ug/g	0.5	0.50	<0.50	<0.50
1,1-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05
Methylene Chloride	ug/g	0.05	0.05	<0.05	<0.05
Trans- 1,2-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05
Methyl tert-butyl Ether	ug/g	0.05	0.05	<0.05	<0.05
1,1-Dichloroethane	ug/g	0.05	0.02	<0.02	<0.02
Methyl Ethyl Ketone	ug/g	0.5	0.50	<0.50	<0.50
Cis- 1,2-Dichloroethylene	ug/g	0.05	0.02	<0.02	<0.02
Chloroform	ug/g	0.05	0.04	<0.04	<0.04
1,2-Dichloroethane	ug/g	0.05	0.03	<0.03	<0.03
1,1,1-Trichloroethane	ug/g	0.05	0.05	<0.05	<0.05
Carbon Tetrachloride	ug/g	0.05	0.05	<0.05	<0.05
Benzene	ug/g	0.02	0.02	<0.02	<0.02
1,2-Dichloropropane	ug/g	0.05	0.03	<0.03	<0.03
Trichloroethylene	ug/g	0.05	0.03	<0.03	<0.03
Bromodichloromethane	ug/g	0.05	0.05	<0.05	<0.05
Methyl Isobutyl Ketone	ug/g	0.5	0.50	<0.50	<0.50
1,1,2-Trichloroethane	ug/g	0.05	0.04	<0.04	<0.04
Toluene	ug/g	0.2	0.05	<0.05	<0.05
Dibromochloromethane	ug/g	0.05	0.05	<0.05	<0.05
Ethylene Dibromide	ug/g	0.05	0.04	<0.04	<0.04
Tetrachloroethylene	ug/g	0.05	0.05	<0.05	<0.05
1,1,1,2-Tetrachloroethane	ug/g	0.05	0.04	<0.04	<0.04
Chlorobenzene	ug/g	0.05	0.05	<0.05	<0.05
Ethylbenzene	ug/g	0.05	0.05	<0.05	<0.05
m & p-Xylene	ug/g		0.05	<0.05	<0.05

Certified By: Pinkal Patel

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 19T477958

PROJECT: City of Brampton - Phase II

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - VOCs (Soil)

DATE RECEIVED: 2019-06-10

DATE REPORTED: 2019-06-20

		SAMPLE DESCRIPTION:		BH02-07	BH03-07
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2019-06-10	2019-06-10
Parameter	Unit	G / S	RDL	265183	265186
Bromoform	ug/g	0.05	0.05	<0.05	<0.05
Styrene	ug/g	0.05	0.05	<0.05	<0.05
1,1,2,2-Tetrachloroethane	ug/g	0.05	0.05	<0.05	<0.05
o-Xylene	ug/g		0.05	<0.05	<0.05
1,3-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05
1,4-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05
1,2-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05
Xylene Mixture	ug/g	0.05	0.05	<0.05	<0.05
1,3-Dichloropropene	µg/g	0.05	0.04	<0.04	<0.04
n-Hexane	µg/g	0.05	0.05	<0.05	<0.05
Surrogate	Unit	Acceptable Limits			
Toluene-d8	% Recovery	50-140		109	110
4-Bromofluorobenzene	% Recovery	50-140		78	74

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

265183-265186 The sample was analyzed using the high level technique. The sample was extracted using methanol, a small amount of the methanol extract was diluted in water and the purge & trap GC/MS analysis was performed. Results are based on the dry weight of the soil.
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene + o-Xylene.
1,3-Dichloropropene total is a calculated parameter. The calculated value is the sum of Cis-1,3-Dichloropropene and Trans-1,3-Dichloropropene.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: Pinkal Patel

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Certificate of Analysis

AGAT WORK ORDER: 19T477958

PROJECT: City of Brampton - Phase II

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

OC Pesticides (Soil)

DATE RECEIVED: 2019-06-10

DATE REPORTED: 2019-06-20

		SAMPLE DESCRIPTION:		BH02-01	BH03-02
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2019-06-10	2019-06-10
Parameter	Unit	G / S	RDL	265181	265184
Aldrin	µg/g	0.05	0.005	<0.005	<0.005
alpha - BHC	µg/g		0.005	<0.005	<0.005
gamma-BHC (Lindane)	µg/g	0.01	0.005	<0.005	<0.005
Alpha-Chlordane	µg/g		0.005	<0.005	<0.005
Gamma-Chlordane	µg/g		0.005	<0.005	<0.005
Chlordane (Total)	µg/g	0.05	0.007	<0.007	<0.007
DDD (o,p')	µg/g		0.005	<0.005	<0.005
pp'-DDD	µg/g		0.005	<0.005	<0.005
DDD (o,p' + p,p')	µg/g	0.05	0.007	<0.007	<0.007
op'-DDE	ug/g		0.005	<0.005	<0.005
pp'-DDE	µg/g		0.005	<0.005	<0.005
DDE (Total)	µg/g	0.05	0.007	<0.007	<0.007
op'-DDT	µg/g		0.005	<0.005	<0.005
pp'- DDT	µg/g		0.005	<0.005	<0.005
DDT (Total)	µg/g	1.4	0.007	<0.007	<0.007
Endosulfan (I & II)	µg/g	0.04	0.007	<0.007	<0.007
Dieldrin	µg/g	0.05	0.005	<0.005	<0.005
Endrin	µg/g	0.04	0.005	<0.005	<0.005
Heptachlor	µg/g	0.05	0.005	<0.005	<0.005
Heptachlor Epoxide	µg/g	0.05	0.005	<0.005	<0.005
Methoxychlor	µg/g	0.05	0.005	<0.005	<0.005
Moisture Content	%		0.1	7.6	16.6
OC Pest Extr	NA			Y	Y
Surrogate	Unit	Acceptable Limits			
TCMX	%	60-130		72	77
Decachlorobiphenyl	%	60-130		80	86

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 19T477958

PROJECT: City of Brampton - Phase II

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

OC Pesticides (Soil)

DATE RECEIVED: 2019-06-10

DATE REPORTED: 2019-06-20

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

265181-265184 Results are based on the dry weight of the soil.
DDT total is a calculated parameter. The calculated value is the sum of op'DDT and pp'DDT.
DDD total is a calculated parameter. The calculated value is the sum of op'DDD and pp'DDD.
DDE total is a calculated parameter. The calculated value is the sum of op'DDE and pp'DDE.
Endosulfan total is a calculated parameter. The calculated value is the sum of Endosulfan I and Endosulfan II.
Chlordane total is a calculated parameter. The calculated value is the sum of Alpha-Chlordane and Gamma-Chlordane.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: Pinkal Patel

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AGAT WORK ORDER: 19T477958

PROJECT: City of Brampton - Phase II

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

Phenoxy Acid Herbicides (Soil)

DATE RECEIVED: 2019-06-10

DATE REPORTED: 2019-06-20

SAMPLE DESCRIPTION:				BH02-01		BH03-02	BH18-02
SAMPLE TYPE:				Soil		Soil	Soil
DATE SAMPLED:				2019-06-10		2019-06-10	2019-06-10
Parameter	Unit	G / S	RDL	265181	RDL	265184	265187
2,4-D	ug/g		1.00	<1.00	0.10	<0.10	<0.10
2,4,5-T	ug/g		1.00	<1.00	0.10	<0.10	<0.10
2,4,5-TP (Silvex)	ug/g		1.00	<1.00	0.10	<0.10	<0.10
Dicamba	ug/g		1.00	<1.00	0.10	<0.10	<0.10
Dichlorprop	ug/g		1.00	<1.00	0.10	<0.10	<0.10
Dinoseb	ug/g		1.00	<1.00	0.10	<0.10	<0.10
Picloram	ug/g		1.00	<1.00	0.10	<0.10	<0.10
Diclofop-methyl	ug/g		1.00	<1.00	0.10	<0.10	<0.10
2,3,4,6-Tetrachlorophenol	ug/g		0.50	<0.50	0.05	<0.05	<0.05
2,4-Dichlorophenol	ug/g	0.1	0.10	<0.10	0.05	<0.05	<0.05
2,4,5-Trichlorophenol	ug/g	0.1	0.10	<0.10	0.05	<0.05	<0.05
2,4,6-Trichlorophenol	ug/g	0.1	0.10	<0.10	0.05	<0.05	<0.05
Bromoxynil	ug/g		5.0	<5.0	0.5	<0.5	<0.5
MCPP (Mecoprop)	ug/g		10.0	<10.0	1.0	<1.0	<1.0
MCPA	ug/g		10.0	<10.0	1.0	<1.0	<1.0
Pentachlorophenol	ug/g	0.1	0.10	<0.10	0.05	<0.05	<0.05
Moisture Content	%		1.0	7.6	0.1	16.6	17.1
Phenoxy Extr	NA			Y		Y	Y
Surrogate	Unit	Acceptable Limits					
DCAA	%	50-130		70		70	72

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

265181 Dilution Factor=10
The sample extract was diluted due to the sample nature. The reporting detection limit was adjusted.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

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Guideline Violation

AGAT WORK ORDER: 19T477958

PROJECT: City of Brampton - Phase II

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLEID	SAMPLE TITLE	GUIDELINE	ANALYSIS PACKAGE	PARAMETER	UNIT	GUIDEVALUE	RESULT
265187	BH18-02	ON T9 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Electrical Conductivity	mS/cm	0.7	0.810

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T477958

PROJECT: City of Brampton - Phase II

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

Soil Analysis

RPT Date: Jun 20, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - Metals & Inorganics (Soil)															
Antimony	270807		<0.8	<0.8	NA	< 0.8	119%	70%	130%	102%	80%	120%	88%	70%	130%
Arsenic	270807		4	4	NA	< 1	108%	70%	130%	103%	80%	120%	109%	70%	130%
Barium	270807		51	53	3.8%	< 2	107%	70%	130%	101%	80%	120%	95%	70%	130%
Beryllium	270807		<0.5	<0.5	NA	< 0.5	80%	70%	130%	98%	80%	120%	87%	70%	130%
Boron	270807		6	6	NA	< 5	70%	70%	130%	102%	80%	120%	84%	70%	130%
Boron (Hot Water Soluble)	270866		<0.10	<0.10	NA	< 0.10	114%	60%	140%	109%	70%	130%	102%	60%	140%
Cadmium	270807		0.5	0.5	NA	< 0.5	114%	70%	130%	102%	80%	120%	110%	70%	130%
Chromium	270807		14	14	0.0%	< 2	97%	70%	130%	107%	80%	120%	114%	70%	130%
Cobalt	270807		5.5	5.5	0.0%	< 0.5	95%	70%	130%	102%	80%	120%	101%	70%	130%
Copper	270807		25	25	0.0%	< 1	93%	70%	130%	103%	80%	120%	94%	70%	130%
Lead	270807		133	138	3.7%	< 1	110%	70%	130%	92%	80%	120%	90%	70%	130%
Molybdenum	270807		0.7	0.7	NA	< 0.5	119%	70%	130%	112%	80%	120%	116%	70%	130%
Nickel	270807		14	14	0.0%	< 1	98%	70%	130%	103%	80%	120%	100%	70%	130%
Selenium	270807		<0.4	<0.4	NA	< 0.4	130%	70%	130%	96%	80%	120%	100%	70%	130%
Silver	270807		<0.2	<0.2	NA	< 0.2	120%	70%	130%	105%	80%	120%	100%	70%	130%
Thallium	270807		<0.4	<0.4	NA	< 0.4	103%	70%	130%	101%	80%	120%	99%	70%	130%
Uranium	270807		<0.5	<0.5	NA	< 0.5	102%	70%	130%	103%	80%	120%	109%	70%	130%
Vanadium	270807		24	24	0.0%	< 1	100%	70%	130%	105%	80%	120%	108%	70%	130%
Zinc	270807		97	99	2.0%	< 5	100%	70%	130%	102%	80%	120%	104%	70%	130%
Chromium VI	266332		<0.2	<0.2	NA	< 0.2	110%	70%	130%	100%	80%	120%	101%	70%	130%
Cyanide	265210		<0.040	<0.040	NA	< 0.040	95%	70%	130%	101%	80%	120%	99%	70%	130%
Mercury	270807		<0.10	<0.10	NA	< 0.10	104%	70%	130%	104%	80%	120%	105%	70%	130%
Electrical Conductivity	267591		3.48	3.57	2.6%	< 0.005	101%	90%	110%	NA			NA		
Sodium Adsorption Ratio	267591		39.2	39.6	1.0%	NA	NA			NA			NA		
pH, 2:1 CaCl2 Extraction	265210		7.08	7.10	0.3%	NA	100%	80%	120%	NA			NA		

Comments: NA signifies Not Applicable.
Duplicate Qualifier: As the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL
pH duplicates QA acceptance criteria was met relative as stated in Table 5-15 of Analytical Protocol document.

Certified By:

Amanjot Bhela

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO CHARTERED AMANJOT BHELA CHEMIST

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC
PROJECT: City of Brampton - Phase II
SAMPLING SITE:

AGAT WORK ORDER: 19T477958
ATTENTION TO: Robert Mitzakov
SAMPLED BY:

Trace Organics Analysis

RPT Date: Jun 20, 2019

PARAMETER	Batch	Sample Id	DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
			Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - PAHs (Soil)															
Naphthalene	260637		< 0.05	< 0.05	NA	< 0.05	114%	50%	140%	99%	50%	140%	72%	50%	140%
Acenaphthylene	260637		< 0.05	< 0.05	NA	< 0.05	121%	50%	140%	107%	50%	140%	74%	50%	140%
Acenaphthene	260637		< 0.05	< 0.05	NA	< 0.05	117%	50%	140%	104%	50%	140%	74%	50%	140%
Fluorene	260637		< 0.05	< 0.05	NA	< 0.05	119%	50%	140%	106%	50%	140%	76%	50%	140%
Phenanthrene	260637		< 0.05	< 0.05	NA	< 0.05	120%	50%	140%	103%	50%	140%	82%	50%	140%
Anthracene	260637		< 0.05	< 0.05	NA	< 0.05	117%	50%	140%	109%	50%	140%	89%	50%	140%
Fluoranthene	260637		< 0.05	< 0.05	NA	< 0.05	111%	50%	140%	95%	50%	140%	84%	50%	140%
Pyrene	260637		< 0.05	< 0.05	NA	< 0.05	105%	50%	140%	90%	50%	140%	81%	50%	140%
Benz(a)anthracene	260637		< 0.05	< 0.05	NA	< 0.05	85%	50%	140%	66%	50%	140%	70%	50%	140%
Chrysene	260637		< 0.05	< 0.05	NA	< 0.05	96%	50%	140%	78%	50%	140%	78%	50%	140%
Benzo(b)fluoranthene	260637		< 0.05	< 0.05	NA	< 0.05	99%	50%	140%	62%	50%	140%	62%	50%	140%
Benzo(k)fluoranthene	260637		< 0.05	< 0.05	NA	< 0.05	120%	50%	140%	88%	50%	140%	82%	50%	140%
Benzo(a)pyrene	260637		< 0.05	< 0.05	NA	< 0.05	113%	50%	140%	76%	50%	140%	72%	50%	140%
Indeno(1,2,3-cd)pyrene	260637		< 0.05	< 0.05	NA	< 0.05	110%	50%	140%	71%	50%	140%	63%	50%	140%
Dibenz(a,h)anthracene	260637		< 0.05	< 0.05	NA	< 0.05	114%	50%	140%	80%	50%	140%	67%	50%	140%
Benzo(g,h,i)perylene	260637		< 0.05	< 0.05	NA	< 0.05	117%	50%	140%	72%	50%	140%	66%	50%	140%
Phenoxy Acid Herbicides (Soil)															
2,4-D	268398		< 0.10	< 0.10	NA	< 0.10	100%	50%	130%	98%	50%	130%	100%	50%	130%
2,4,5-T	268398		< 0.10	< 0.10	NA	< 0.10	90%	50%	130%	90%	50%	130%	92%	50%	130%
2,4,5-TP (Silvex)	268398		< 0.10	< 0.10	NA	< 0.10	92%	50%	130%	85%	50%	130%	70%	50%	130%
Dicamba	268398		< 0.10	< 0.10	NA	< 0.10	97%	50%	130%	86%	50%	130%	76%	50%	130%
Dichlorprop	268398		< 0.10	< 0.10	NA	< 0.10	102%	50%	130%	90%	50%	130%	80%	50%	130%
Dinoseb	268398		< 0.10	< 0.10	NA	< 0.10	75%	50%	130%	65%	50%	130%	63%	50%	130%
Picloram	268398		< 0.10	< 0.10	NA	< 0.10	103%	50%	130%	80%	50%	130%	64%	50%	130%
Diclofop-methyl	268398		< 0.10	< 0.10	NA	< 0.10	105%	50%	130%	101%	50%	130%	95%	50%	130%
2,3,4,6-Tetrachlorophenol	268398		< 0.05	< 0.05	NA	< 0.05	117%	50%	130%	101%	50%	130%	97%	50%	130%
2,4-Dichlorophenol	268398		< 0.05	< 0.05	NA	< 0.05	99%	50%	130%	90%	50%	130%	74%	50%	130%
2,4,5-Trichlorophenol	268398		< 0.05	< 0.05	NA	< 0.05	90%	50%	130%	85%	50%	130%	70%	50%	130%
2,4,6-Trichlorophenol	268398		< 0.05	< 0.05	NA	< 0.05	111%	50%	130%	101%	50%	130%	97%	50%	130%
Bromoxynil	268398		< 0.5	< 0.5	NA	< 0.5	98%	60%	130%	95%	60%	130%	94%	60%	130%
MCPP (Mecoprop)	268398		< 1.0	< 1.0	NA	< 1.0	NA	50%	130%	100%	50%	130%	80%	50%	130%
MCPA	268398		< 1.0	< 1.0	NA	< 1.0	NA	50%	130%	98%	50%	130%	90%	50%	130%
Pentachlorophenol	268398		< 0.05	< 0.05	NA	< 0.05	94%	50%	130%	90%	50%	130%	80%	50%	130%
O. Reg. 153(511) - VOCs (MEOH)															
Dichlorodifluoromethane	270262		< 0.05	< 0.05	NA	< 0.05	108%	50%	140%	92%	50%	140%	83%	50%	140%
Vinyl Chloride	270262		< 0.02	< 0.02	NA	< 0.02	90%	50%	140%	91%	50%	140%	106%	50%	140%
Bromomethane	270262		< 0.05	< 0.05	NA	< 0.05	96%	50%	140%	104%	50%	140%	116%	50%	140%
Trichlorofluoromethane	270262		< 0.05	< 0.05	NA	< 0.05	94%	50%	140%	97%	50%	140%	97%	50%	140%

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC
PROJECT: City of Brampton - Phase II
SAMPLING SITE:

AGAT WORK ORDER: 19T477958
ATTENTION TO: Robert Mitzakov
SAMPLED BY:

Trace Organics Analysis (Continued)

RPT Date: Jun 20, 2019

PARAMETER	Batch	Sample Id	DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
			Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Acetone	270262		< 0.50	< 0.50	NA	< 0.50	87%	50%	140%	96%	50%	140%	91%	50%	140%
1,1-Dichloroethylene	270262		< 0.05	< 0.05	NA	< 0.05	102%	50%	140%	97%	60%	130%	83%	50%	140%
Methylene Chloride	270262		< 0.05	< 0.05	NA	< 0.05	99%	50%	140%	97%	60%	130%	89%	50%	140%
Trans- 1,2-Dichloroethylene	270262		< 0.05	< 0.05	NA	< 0.05	98%	50%	140%	102%	60%	130%	88%	50%	140%
Methyl tert-butyl Ether	270262		< 0.05	< 0.05	NA	< 0.05	78%	50%	140%	82%	60%	130%	112%	50%	140%
1,1-Dichloroethane	270262		< 0.02	< 0.02	NA	< 0.02	97%	50%	140%	95%	60%	130%	83%	50%	140%
Methyl Ethyl Ketone	270262		< 0.50	< 0.50	NA	< 0.50	89%	50%	140%	105%	50%	140%	95%	50%	140%
Cis- 1,2-Dichloroethylene	270262		< 0.02	< 0.02	NA	< 0.02	98%	50%	140%	97%	60%	130%	105%	50%	140%
Chloroform	270262		< 0.04	< 0.04	NA	< 0.04	99%	50%	140%	99%	60%	130%	89%	50%	140%
1,2-Dichloroethane	270262		< 0.03	< 0.03	NA	< 0.03	95%	50%	140%	101%	60%	130%	88%	50%	140%
1,1,1-Trichloroethane	270262		< 0.05	< 0.05	NA	< 0.05	105%	50%	140%	81%	60%	130%	100%	50%	140%
Carbon Tetrachloride	270262		< 0.05	< 0.05	NA	< 0.05	84%	50%	140%	91%	60%	130%	93%	50%	140%
Benzene	270262		< 0.02	< 0.02	NA	< 0.02	100%	50%	140%	105%	60%	130%	93%	50%	140%
1,2-Dichloropropane	270262		< 0.03	< 0.03	NA	< 0.03	89%	50%	140%	97%	60%	130%	80%	50%	140%
Trichloroethylene	270262		< 0.03	< 0.03	NA	< 0.03	92%	50%	140%	98%	60%	130%	86%	50%	140%
Bromodichloromethane	270262		< 0.05	< 0.05	NA	< 0.05	76%	50%	140%	83%	60%	130%	93%	50%	140%
Methyl Isobutyl Ketone	270262		< 0.50	< 0.50	NA	< 0.50	79%	50%	140%	102%	50%	140%	91%	50%	140%
1,1,2-Trichloroethane	270262		< 0.04	< 0.04	NA	< 0.04	108%	50%	140%	98%	60%	130%	96%	50%	140%
Toluene	270262		< 0.05	< 0.05	NA	< 0.05	114%	50%	140%	96%	60%	130%	102%	50%	140%
Dibromochloromethane	270262		< 0.05	< 0.05	NA	< 0.05	112%	50%	140%	84%	60%	130%	92%	50%	140%
Ethylene Dibromide	270262		< 0.04	< 0.04	NA	< 0.04	93%	50%	140%	96%	60%	130%	82%	50%	140%
Tetrachloroethylene	270262		< 0.05	< 0.05	NA	< 0.05	105%	50%	140%	106%	60%	130%	95%	50%	140%
1,1,1,2-Tetrachloroethane	270262		< 0.04	< 0.04	NA	< 0.04	75%	50%	140%	82%	60%	130%	93%	50%	140%
Chlorobenzene	270262		< 0.05	< 0.05	NA	< 0.05	112%	50%	140%	100%	60%	130%	105%	50%	140%
Ethylbenzene	270262		< 0.05	< 0.05	NA	< 0.05	112%	50%	140%	97%	60%	130%	105%	50%	140%
m & p-Xylene	270262		< 0.05	< 0.05	NA	< 0.05	115%	50%	140%	73%	60%	130%	109%	50%	140%
Bromoform	270262		< 0.05	< 0.05	NA	< 0.05	86%	50%	140%	112%	60%	130%	112%	50%	140%
Styrene	270262		< 0.05	< 0.05	NA	< 0.05	82%	50%	140%	102%	60%	130%	106%	50%	140%
1,1,2,2-Tetrachloroethane	270262		< 0.05	< 0.05	NA	< 0.05	112%	50%	140%	102%	60%	130%	96%	50%	140%
o-Xylene	270262		< 0.05	< 0.05	NA	< 0.05	119%	50%	140%	113%	60%	130%	114%	50%	140%
1,3-Dichlorobenzene	270262		< 0.05	< 0.05	NA	< 0.05	100%	50%	140%	108%	60%	130%	98%	50%	140%
1,4-Dichlorobenzene	270262		< 0.05	< 0.05	NA	< 0.05	91%	50%	140%	109%	60%	130%	95%	50%	140%
1,2-Dichlorobenzene	270262		< 0.05	< 0.05	NA	< 0.05	95%	50%	140%	102%	60%	130%	93%	50%	140%
1,3-Dichloropropene	270262		< 0.04	< 0.04	NA	< 0.04	101%	50%	140%	83%	60%	130%	103%	50%	140%
n-Hexane	270262		< 0.05	< 0.05	NA	< 0.05	102%	50%	140%	86%	60%	130%	102%	50%	140%
O. Reg. 153(511) - VOCs (Soil)															
Dichlorodifluoromethane	265226		< 0.05	< 0.05	NA	< 0.05	97%	50%	140%	86%	50%	140%	82%	50%	140%
Vinyl Chloride	265226		< 0.02	< 0.02	NA	< 0.02	80%	50%	140%	95%	50%	140%	90%	50%	140%
Bromomethane	265226		< 0.05	< 0.05	NA	< 0.05	114%	50%	140%	116%	50%	140%	112%	50%	140%

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AGAT Laboratories

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC
PROJECT: City of Brampton - Phase II
SAMPLING SITE:

AGAT WORK ORDER: 19T477958
ATTENTION TO: Robert Mitzakov
SAMPLED BY:

Trace Organics Analysis (Continued)

RPT Date: Jun 20, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Trichlorofluoromethane	265226		< 0.05	< 0.05	NA	< 0.05	90%	50%	140%	82%	50%	140%	80%	50%	140%
Acetone	265226		< 0.50	< 0.50	NA	< 0.50	116%	50%	140%	103%	50%	140%	103%	50%	140%
1,1-Dichloroethylene	265226		< 0.05	< 0.05	NA	< 0.05	104%	50%	140%	101%	60%	130%	95%	50%	140%
Methylene Chloride	265226		< 0.05	< 0.05	NA	< 0.05	115%	50%	140%	117%	60%	130%	113%	50%	140%
Trans- 1,2-Dichloroethylene	265226		< 0.05	< 0.05	NA	< 0.05	101%	50%	140%	98%	60%	130%	96%	50%	140%
Methyl tert-butyl Ether	265226		< 0.05	< 0.05	NA	< 0.05	94%	50%	140%	90%	60%	130%	96%	50%	140%
1,1-Dichloroethane	265226		< 0.02	< 0.02	NA	< 0.02	104%	50%	140%	115%	60%	130%	102%	50%	140%
Methyl Ethyl Ketone	265226		< 0.50	< 0.50	NA	< 0.50	90%	50%	140%	88%	50%	140%	87%	50%	140%
Cis- 1,2-Dichloroethylene	265226		< 0.02	< 0.02	NA	< 0.02	96%	50%	140%	85%	60%	130%	94%	50%	140%
Chloroform	265226		< 0.04	< 0.04	NA	< 0.04	103%	50%	140%	90%	60%	130%	96%	50%	140%
1,2-Dichloroethane	265226		< 0.03	< 0.03	NA	< 0.03	90%	50%	140%	85%	60%	130%	92%	50%	140%
1,1,1-Trichloroethane	265226		< 0.05	< 0.05	NA	< 0.05	101%	50%	140%	99%	60%	130%	82%	50%	140%
Carbon Tetrachloride	265226		< 0.05	< 0.05	NA	< 0.05	91%	50%	140%	82%	60%	130%	80%	50%	140%
Benzene	265226		< 0.02	< 0.02	NA	< 0.02	90%	50%	140%	90%	60%	130%	95%	50%	140%
1,2-Dichloropropane	265226		< 0.03	< 0.03	NA	< 0.03	91%	50%	140%	91%	60%	130%	91%	50%	140%
Trichloroethylene	265226		< 0.03	< 0.03	NA	< 0.03	98%	50%	140%	87%	60%	130%	88%	50%	140%
Bromodichloromethane	265226		< 0.05	< 0.05	NA	< 0.05	94%	50%	140%	100%	60%	130%	89%	50%	140%
Methyl Isobutyl Ketone	265226		< 0.50	< 0.50	NA	< 0.50	88%	50%	140%	81%	50%	140%	81%	50%	140%
1,1,2-Trichloroethane	265226		< 0.04	< 0.04	NA	< 0.04	105%	50%	140%	103%	60%	130%	111%	50%	140%
Toluene	265226		< 0.05	< 0.05	NA	< 0.05	116%	50%	140%	108%	60%	130%	111%	50%	140%
Dibromochloromethane	265226		< 0.05	< 0.05	NA	< 0.05	100%	50%	140%	111%	60%	130%	92%	50%	140%
Ethylene Dibromide	265226		< 0.04	< 0.04	NA	< 0.04	97%	50%	140%	99%	60%	130%	102%	50%	140%
Tetrachloroethylene	265226		< 0.05	< 0.05	NA	< 0.05	99%	50%	140%	90%	60%	130%	94%	50%	140%
1,1,1,2-Tetrachloroethane	265226		< 0.04	< 0.04	NA	< 0.04	102%	50%	140%	102%	60%	130%	94%	50%	140%
Chlorobenzene	265226		< 0.05	< 0.05	NA	< 0.05	110%	50%	140%	102%	60%	130%	110%	50%	140%
Ethylbenzene	265226		< 0.05	< 0.05	NA	< 0.05	104%	50%	140%	96%	60%	130%	102%	50%	140%
m & p-Xylene	265226		< 0.05	< 0.05	NA	< 0.05	112%	50%	140%	101%	60%	130%	109%	50%	140%
Bromoform	265226		< 0.05	< 0.05	NA	< 0.05	105%	50%	140%	113%	60%	130%	92%	50%	140%
Styrene	265226		< 0.05	< 0.05	NA	< 0.05	76%	50%	140%	98%	60%	130%	108%	50%	140%
1,1,2,2-Tetrachloroethane	265226		< 0.05	< 0.05	NA	< 0.05	97%	50%	140%	95%	60%	130%	107%	50%	140%
o-Xylene	265226		< 0.05	< 0.05	NA	< 0.05	110%	50%	140%	102%	60%	130%	109%	50%	140%
1,3-Dichlorobenzene	265226		< 0.05	< 0.05	NA	< 0.05	93%	50%	140%	93%	60%	130%	104%	50%	140%
1,4-Dichlorobenzene	265226		< 0.05	< 0.05	NA	< 0.05	92%	50%	140%	87%	60%	130%	99%	50%	140%
1,2-Dichlorobenzene	265226		< 0.05	< 0.05	NA	< 0.05	94%	50%	140%	87%	60%	130%	96%	50%	140%
1,3-Dichloropropene	265226		< 0.04	< 0.04	NA	< 0.04	86%	50%	140%	81%	60%	130%	107%	50%	140%
n-Hexane	265226		< 0.05	< 0.05	NA	< 0.05	98%	50%	140%	92%	60%	130%	91%	50%	140%
O. Reg. 153(511) - PHCs F1 - F4 (-BTEX) (Soil)															
F1 (C6 to C10)	262573		< 5	< 5	NA	< 5	109%	60%	130%	110%	85%	115%	94%	70%	130%
F2 (C10 to C16)	267785		< 10	< 10	NA	< 10	105%	60%	130%	101%	80%	120%	82%	70%	130%

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC
AGAT WORK ORDER: 19T477958
PROJECT: City of Brampton - Phase II
ATTENTION TO: Robert Mitzakov
SAMPLING SITE:
SAMPLED BY:

Trace Organics Analysis (Continued)

RPT Date: Jun 20, 2019

PARAMETER	Batch	Sample Id	DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
			Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
F3 (C16 to C34)	267785		< 50	< 50	NA	< 50	103%	60%	130%	105%	80%	120%	86%	70%	130%
F4 (C34 to C50)	267785		< 50	< 50	NA	< 50	70%	60%	130%	104%	80%	120%	96%	70%	130%
OC Pesticides (Soil)															
Aldrin	268265		< 0.005	< 0.005	NA	< 0.005	87%	60%	140%	94%	60%	140%	87%	60%	140%
alpha - BHC	268265		< 0.005	< 0.005	NA	< 0.005	89%	60%	140%	92%	60%	140%	86%	60%	140%
gamma-BHC (Lindane)	268265		< 0.005	< 0.005	NA	< 0.005	86%	60%	140%	93%	60%	140%	86%	60%	140%
Alpha-Chlordane	268265		< 0.005	< 0.005	NA	< 0.005	91%	60%	140%	89%	60%	140%	89%	60%	140%
Gamma-Chlordane	268265		< 0.005	< 0.005	NA	< 0.005	92%	60%	140%	89%	60%	140%	91%	60%	140%
Chlordane (Total)	268265		< 0.007	< 0.007	NA	< 0.007	92%	60%	140%	89%	60%	140%	90%	60%	140%
DDD (o,p')	268265		< 0.005	< 0.005	NA	< 0.005	97%	60%	140%	82%	60%	140%	81%	60%	140%
pp'-DDD	268265		< 0.005	< 0.005	NA	< 0.005	97%	60%	140%	86%	60%	140%	84%	60%	140%
DDD (o,p' + p,p')	268265		< 0.007	< 0.007	NA	< 0.007	97%	60%	140%	84%	60%	140%	83%	60%	140%
op'-DDE	268265		< 0.005	< 0.005	NA	< 0.005	96%	60%	140%	85%	60%	140%	82%	60%	140%
pp'-DDE	268265		< 0.005	< 0.005	NA	< 0.005	98%	60%	140%	86%	60%	140%	83%	60%	140%
DDE (Total)	268265		< 0.007	< 0.007	NA	< 0.007	97%	60%	140%	86%	60%	140%	83%	60%	140%
op'-DDT	268265		< 0.005	< 0.005	NA	< 0.005	91%	60%	140%	85%	60%	140%	83%	60%	140%
pp'- DDT	268265		< 0.005	< 0.005	NA	< 0.005	92%	60%	140%	86%	60%	140%	83%	60%	140%
DDT (Total)	268265		< 0.007	< 0.007	NA	< 0.007	90%	60%	140%	86%	60%	140%	83%	60%	140%
Endosulfan (I & II)	268265		< 0.007	< 0.007	NA	< 0.007	96%	60%	140%	89%	60%	140%	85%	60%	140%
Dieldrin	268265		< 0.005	< 0.005	NA	< 0.005	91%	60%	140%	88%	60%	140%	84%	60%	140%
Endrin	268265		< 0.005	< 0.005	NA	< 0.005	88%	60%	140%	93%	60%	140%	90%	60%	140%
Heptachlor	268265		< 0.005	< 0.005	NA	< 0.005	82%	60%	140%	95%	60%	140%	80%	60%	140%
Heptachlor Epoxide	268265		< 0.005	< 0.005	NA	< 0.005	90%	60%	140%	94%	60%	140%	89%	60%	140%
Methoxychlor	268265		< 0.005	< 0.005	NA	< 0.005	93%	60%	140%	103%	60%	140%	91%	60%	140%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By: Jinkal Patel

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Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T477958

PROJECT: City of Brampton - Phase II

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
Antimony	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Arsenic	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Barium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Beryllium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron (Hot Water Soluble)	MET-93-6104	EPA SW 846 6010C; MSA, Part 3, Ch.21	ICP/OES
Cadmium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Cobalt	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Copper	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Lead	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Molybdenum	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Nickel	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Selenium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Silver	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Thallium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Uranium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Vanadium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Zinc	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium VI	INOR-93-6029	SM 3500 B; MSA Part 3, Ch. 25	SPECTROPHOTOMETER
Cyanide	INOR-93-6052	MOE CN-3015 & E 3009 A;SM 4500 CN	TECHNICON AUTO ANALYZER
Mercury	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Electrical Conductivity	INOR-93-6036	McKeague 4.12, SM 2510 B	EC METER
Sodium Adsorption Ratio	INOR-93-6007	McKeague 4.12 & 3.26 & EPA SW-846 6010C	ICP/OES
pH, 2:1 CaCl2 Extraction	INOR-93-6031	MSA part 3 & SM 4500-H+ B	PH METER

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Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T477958

PROJECT: City of Brampton - Phase II

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Naphthalene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Acenaphthylene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Acenaphthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Fluorene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Phenanthrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Anthracene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Pyrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benz(a)anthracene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Chrysene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(b)fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(k)fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(a)pyrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Dibenz(a,h)anthracene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(g,h,i)perylene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
2-and 1-methyl Naphthalene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Moisture Content	ORG-91-5106	EPA SW-846 3541 & 8270D	BALANCE
Chrysene-d12	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
F1 (C6 to C10)	VOL-91-5009	CCME Tier 1 Method, SW846 5035	P&T GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	CCME Tier 1 Method, SW846 5035	P&T GC/FID
F2 (C10 to C16)	VOL-91-5009	CCME Tier 1 Method	GC/FID
F3 (C16 to C34)	VOL-91-5009	CCME Tier 1 Method	GC/FID
F4 (C34 to C50)	VOL-91-5009	CCME Tier 1 Method	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5009	CCME Tier 1 Method	BALANCE
Moisture Content	VOL-91-5009	CCME Tier 1 Method	BALANCE
Terphenyl	VOL-91-5009	CCME Tier 1 Method	GC/FID
Dichlorodifluoromethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Vinyl Chloride	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Bromomethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Acetone	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Methylene Chloride	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Trans- 1,2-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Methyl tert-butyl Ether	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Cis- 1,2-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Chloroform	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Benzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Trichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Bromodichloromethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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FAX (905)712-5122
http://www.agatlabs.com

Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T477958

PROJECT: City of Brampton - Phase II

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Toluene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Dibromochloromethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Chlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Ethylbenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
m & p-Xylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Bromoform	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Styrene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
o-Xylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Xylene Mixture	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,3-Dichloropropene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
n-Hexane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Toluene-d8	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Dichlorodifluoromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Vinyl Chloride	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Bromomethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Acetone	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methylene Chloride	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Trans- 1,2-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methyl tert-butyl Ether	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Cis- 1,2-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Chloroform	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Benzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Trichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Bromodichloromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Toluene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Dibromochloromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Chlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Ethylbenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
m & p-Xylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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FAX (905)712-5122
http://www.agatlabs.com

Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T477958

PROJECT: City of Brampton - Phase II

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Bromoform	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Styrene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
o-Xylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Xylene Mixture	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,3-Dichloropropene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
n-Hexane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Toluene-d8	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Aldrin	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
alpha - BHC	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
gamma-BHC (Lindane)	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
Alpha-Chlordane	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
Gamma-Chlordane	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
Chlordane (Total)	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
DDD (o,p')	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
pp'-DDD	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
DDD (o,p' + p,p')	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
op'-DDE	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
pp'-DDE	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
DDE (Total)	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
op'-DDT	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
pp'- DDT	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
DDT (Total)	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
Endosulfan (I & II)	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
Dieldrin	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
Endrin	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
Heptachlor	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
Heptachlor Epoxide	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
Methoxychlor	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
Moisture Content		MOE E3139	BALANCE
TCMX	ORG-91-5112	EPA SW-846 3541 & 8081	GC/ECD
Decachlorobiphenyl	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
OC Pest Extr	ORG-91-5113	EPA SW - 846 3541/8081	N/A
2,4-D	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4,5-T	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4,5-TP (Silvex)	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Dicamba	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Dichlorprop	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Dinoseb	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Picloram	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Diclofop-methyl	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,3,4,6-Tetrachlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4-Dichlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4,5-Trichlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4,6-Trichlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Bromoxynil	ORG-91-5110	EPA SW-846 8151A	GC/ECD

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AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T477958

PROJECT: City of Brampton - Phase II

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
MCPP (Mecoprop)	ORG-91-5110	EPA SW-846 8151A	GC/ECD
MCPA	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Pentachlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD
DCAA	ORG-91-5110	EPA SW-846 8151	GC/ECD
Phenoxy Extr			N/A

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AGAT Laboratories

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Mississauga, Ontario L4Z 1Y2
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webearth.agatlabs.com

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Laboratory Use Only

Work Order #: 19T477958

Cooler Quantity: 1 BIK (ice)

Arrival Temperatures: 15.5 | 15.8 | 19.4

Custody Seal Intact: ☐ Yes ☐ No ☐ N/A

Notes:

Report Information:

Company: SNC-Lavalin Inc
Contact: Robert Mitrakov
Address: 185 The West Mall, Toronto, ON M8C 5K1
Phone: 416 635 5882 x 55885 Fax:
Reports to be sent to:
1. Email: Robert.Mitrakov@snclavalin.com
2. Email: Abed.Yassine@snclavalin.com

Regulatory Requirements:

☐ No Regulatory Requirement

(Please check all applicable boxes)

☒ Regulation 153/04
Table 9 (Indicate One)
☐ Ind/Com
☐ Res/Park
☐ Agriculture
Soil Texture (Check One)
☐ Coarse
☐ Fine

☐ Sewer Use
☐ Sanitary
☐ Storm
Region _____ (Indicate One)
☐ MISA

☐ Regulation 558
☐ CCME
☐ Prov. Water Quality Objectives (PWQO)
☐ Other
_____ (Indicate One)

Is this submission for a **Record of Site Condition?** ☒ Yes ☐ No

Report Guideline on *Certificate of Analysis* ☐ Yes ☐ No

Turnaround Time (TAT) Required:

Regular TAT ☒ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day

OR Date Required (Rush Surcharges May Apply):

_____

Please provide prior notification for rush TAT
**TAT is exclusive of weekends and statutory holidays*

For 'Same Day' analysis, please contact your AGAT CPM

Project Information:

Project: City of Brampton - Phase II
Site Location: 10192 Highway 50, Brampton
Sampled By: Joey Preston
AGAT Quote #: _____ PO: 665125

Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

Bill To Same: Yes ☐ No ☐

Company: SNC-Lavalin Inc
Contact:
Address:
Email: Payables@snclavalin.com

Sample Matrix Legend

B	Biota
GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI (Y/N)	Metals and Inorganics: ☐ All Metals ☐ 153 Metals (excl. Hydrides) ☐ Hydride Metals ☐ 153 Metals (incl. Hydrides)	ORPs: ☐ B-HWS ☐ Cl⁻ ☐ CN ☐ Cr^{6+} ☐ EC ☐ FOC ☐ Hg ☐ pH ☐ SAR	Full Metals Scan	Regulation/Custom Metals	Nutrients: ☐ TP ☐ NH_3 ☐ TKN ☐ NO_3 ☐ NO_2 ☐ NO_3+NO_2	Volatiles: ☐ VOC ☐ BTEX ☐ THM	O. Reg 153: PHCs F1 - F4, VOC	ABNs	PAHs	PCBs: ☐ Total ☐ Aroclors	Organochlorine Pesticides	TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	Sewer Use	O. Reg 558 Metals (Inorganics)	SAR/Conductivity	Herbicides/Pesticides			Potentially Hazardous or High Concentration (Y/N)
BH-02-01	June 10/19	9:00	5	Soil									X		X					X	X	X				
BH-02-02		9:15	2	Soil											X											
BH-02-07		9:40	4	Soil									X													
BH-03-02		11:10	5	Soil	limited Recovery								X							X	X	X				
BH-03-01		11:00	1	Soil											X											
BH-03-07		11:45	4	Soil									X													
BH-18-02	↓	15:25	2	Soil											X					X	X	X				

Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Joseph Preston	June 6/19	5:30	Wei Romnaign	June 10/19	5:43 pm
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time

Page _____ of _____

N°: T 089896

Document ID: DM-75-1511.016

Pink Copy - Client | Yellow Copy - AGAT | White Copy- AGAT

Revision 1.0 - June 2019

AGAT Laboratories

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MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

CLIENT NAME: SNC LAVALIN INC
235 LESMILL ROAD
TORONTO, ON M3B 2V1
(416) 679-6000

ATTENTION TO: Robert Mitzakov

PROJECT: City of Brampton Phase 2

AGAT WORK ORDER: 19T478647

SOIL ANALYSIS REVIEWED BY: Amanjot Bhela, Inorganic Supervisor

TRACE ORGANICS REVIEWED BY: Pinkal Patel, Report Reviewer

DATE REPORTED: Jun 24, 2019

PAGES (INCLUDING COVER): 18

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

*NOTES

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.

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Western Enviro-Agricultural Laboratory Association (WEALA)
Environmental Services Association of Alberta (ESAA)

AGAT Laboratories is accredited to ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA) and/or Standards Council of Canada (SCC) for specific tests listed on the scope of accreditation. AGAT Laboratories (Mississauga) is also accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) for specific drinking water tests. Accreditations are location and parameter specific. A complete listing of parameters for each location is available from www.cala.ca and/or www.scc.ca. The tests in this report may not necessarily be included in the scope of accreditation. Measurement Uncertainty is not taken into consideration when stating conformity with a specified requirement.

Results relate only to the items tested. Results apply to samples as received.
All reportable information as specified by ISO 17025:2017 is available from AGAT Laboratories upon request

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 19T478647

PROJECT: City of Brampton Phase 2

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2019-06-11

DATE REPORTED: 2019-06-24

SAMPLE DESCRIPTION:				BH30-01	BH51-02	BH70-01
SAMPLE TYPE:				Soil	Soil	Soil
DATE SAMPLED:				2019-06-11	2019-06-11	2019-06-11
Parameter	Unit	G / S	RDL	268398	268851	268853
Antimony	µg/g	1.3	0.8	<0.8	<0.8	<0.8
Arsenic	µg/g	18	1	4	4	4
Barium	µg/g	220	2	93	125	176
Beryllium	µg/g	2.5	0.5	0.7	0.9	1.1
Boron	µg/g	36	5	5	<5	9
Boron (Hot Water Soluble)	µg/g	1.5	0.10	0.13	0.29	0.14
Cadmium	µg/g	1.2	0.5	<0.5	<0.5	<0.5
Chromium	µg/g	70	2	25	28	37
Cobalt	µg/g	22	0.5	10.9	12.3	14.8
Copper	µg/g	92	1	21	23	26
Lead	µg/g	120	1	9	13	13
Molybdenum	µg/g	2	0.5	<0.5	<0.5	<0.5
Nickel	µg/g	82	1	25	28	34
Selenium	µg/g	1.5	0.4	<0.4	0.5	0.4
Silver	µg/g	0.5	0.2	<0.2	<0.2	<0.2
Thallium	µg/g	1	0.4	<0.4	<0.4	<0.4
Uranium	µg/g	2.5	0.5	<0.5	0.5	0.6
Vanadium	µg/g	86	1	35	39	49
Zinc	µg/g	290	5	53	66	67
Chromium VI	µg/g	0.66	0.2	<0.2	<0.2	<0.2
Cyanide	µg/g	0.051	0.040	<0.040	<0.040	<0.040
Mercury	µg/g	0.27	0.10	<0.10	<0.10	<0.10
pH, 2:1 CaCl2 Extraction	pH Units		NA	7.42	7.36	7.54

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

268398-268853 pH was determined on the 0.01M CaCl2 extract prepared at 2:1 ratio.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

Results relate only to the items tested. Results apply to samples as received.

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Certificate of Analysis

AGAT WORK ORDER: 19T478647

PROJECT: City of Brampton Phase 2

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - ORPs (Soil)

DATE RECEIVED: 2019-06-11

DATE REPORTED: 2019-06-24

		SAMPLE DESCRIPTION:		BH30-01	BH51-02	BH70-01
		SAMPLE TYPE:		Soil	Soil	Soil
		DATE SAMPLED:		2019-06-11	2019-06-11	2019-06-11
Parameter	Unit	G / S	RDL	268398	268851	268853
Electrical Conductivity	mS/cm	0.7	0.005	0.217	0.510	0.284
Sodium Adsorption Ratio	NA	5	NA	0.424	1.02	0.414

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

268398-268853 EC was determined on the DI water extract obtained from the 2:1 leaching procedure (2 parts DI water:1 part soil). SAR is a calculated parameter.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 19T478647

PROJECT: City of Brampton Phase 2

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - PAHs (Soil)

DATE RECEIVED: 2019-06-11

DATE REPORTED: 2019-06-24

		SAMPLE DESCRIPTION:		BH30-02	BH51-02
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2019-06-11	2019-06-11
Parameter	Unit	G / S	RDL	268831	268851
Naphthalene	µg/g	0.09	0.05	<0.05	<0.05
Acenaphthylene	µg/g	0.093	0.05	<0.05	<0.05
Acenaphthene	µg/g	0.072	0.05	<0.05	<0.05
Fluorene	µg/g	0.19	0.05	<0.05	<0.05
Phenanthrene	µg/g	0.69	0.05	<0.05	<0.05
Anthracene	µg/g	0.22	0.05	<0.05	<0.05
Fluoranthene	µg/g	0.69	0.05	<0.05	<0.05
Pyrene	µg/g	1	0.05	<0.05	<0.05
Benz(a)anthracene	µg/g	0.36	0.05	<0.05	<0.05
Chrysene	µg/g	2.8	0.05	<0.05	<0.05
Benzo(b)fluoranthene	µg/g	0.47	0.05	<0.05	<0.05
Benzo(k)fluoranthene	µg/g	0.48	0.05	<0.05	<0.05
Benzo(a)pyrene	µg/g	0.3	0.05	<0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.23	0.05	<0.05	<0.05
Dibenz(a,h)anthracene	µg/g	0.1	0.05	<0.05	<0.05
Benzo(g,h,i)perylene	µg/g	0.68	0.05	<0.05	<0.05
2-and 1-methyl Naphthalene	µg/g	0.59	0.05	<0.05	<0.05
Surrogate	Unit	Acceptable Limits			
Chrysene-d12	%	50-140		119	106

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

268831-268851 Results are based on the dry weight of the soil.
Note: The result for Benzo(b)Fluoranthene is the total of the Benzo(b)&j)Fluoranthene isomers because the isomers co-elute on the GC column.
2- and 1-Methyl Naphthalene is a calculated parameter. The calculated value is the sum of 2-Methyl Naphthalene and 1-Methyl Naphthalene.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: Pinkal Patel

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Certificate of Analysis

AGAT WORK ORDER: 19T478647

PROJECT: City of Brampton Phase 2

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - PHCs F1 - F4 (-BTEX) (Soil)

DATE RECEIVED: 2019-06-11

DATE REPORTED: 2019-06-24

		SAMPLE DESCRIPTION:		BH30-08	BH51-08
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2019-06-11	2019-06-11
Parameter	Unit	G / S	RDL	268835	268852
F1 (C6 to C10)	µg/g		5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	25	5	<5	<5
F2 (C10 to C16)	µg/g	10	10	<10	<10
F3 (C16 to C34)	µg/g	240	50	<50	<50
F4 (C34 to C50)	µg/g	120	50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g	120	50	NA	NA
Moisture Content	%		0.1	9.4	10.5
Surrogate	Unit	Acceptable Limits			
Terphenyl	%	60-140		115	106

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

268835-268852 Results are based on sample dry weight.
The C6-C10 fraction is calculated using toluene response factor.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6 - C50 results are corrected for BTEX contribution.
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC6 and nC10 response factors are within 30% of Toluene response factor.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 + nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.
Fractions 1-4 are quantified without the contribution of PAHs. Under Ontario Regulation 153, results are considered valid without determining the PAH contribution if not requested by the client.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: Pinkal Patel

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Certificate of Analysis

AGAT WORK ORDER: 19T478647

PROJECT: City of Brampton Phase 2

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - VOCs (Soil)

DATE RECEIVED: 2019-06-11

DATE REPORTED: 2019-06-24

		SAMPLE DESCRIPTION:		BH30-08	BH51-08
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2019-06-11	2019-06-11
Parameter	Unit	G / S	RDL	268835	268852
Dichlorodifluoromethane	µg/g	0.05	0.05	<0.05	<0.05
Vinyl Chloride	ug/g	0.02	0.02	<0.02	<0.02
Bromomethane	ug/g	0.05	0.05	<0.05	<0.05
Trichlorofluoromethane	ug/g	0.25	0.05	<0.05	<0.05
Acetone	ug/g	0.5	0.50	<0.50	<0.50
1,1-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05
Methylene Chloride	ug/g	0.05	0.05	<0.05	<0.05
Trans- 1,2-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05
Methyl tert-butyl Ether	ug/g	0.05	0.05	<0.05	<0.05
1,1-Dichloroethane	ug/g	0.05	0.02	<0.02	<0.02
Methyl Ethyl Ketone	ug/g	0.5	0.50	<0.50	<0.50
Cis- 1,2-Dichloroethylene	ug/g	0.05	0.02	<0.02	<0.02
Chloroform	ug/g	0.05	0.04	<0.04	<0.04
1,2-Dichloroethane	ug/g	0.05	0.03	<0.03	<0.03
1,1,1-Trichloroethane	ug/g	0.05	0.05	<0.05	<0.05
Carbon Tetrachloride	ug/g	0.05	0.05	<0.05	<0.05
Benzene	ug/g	0.02	0.02	<0.02	<0.02
1,2-Dichloropropane	ug/g	0.05	0.03	<0.03	<0.03
Trichloroethylene	ug/g	0.05	0.03	<0.03	<0.03
Bromodichloromethane	ug/g	0.05	0.05	<0.05	<0.05
Methyl Isobutyl Ketone	ug/g	0.5	0.50	<0.50	<0.50
1,1,2-Trichloroethane	ug/g	0.05	0.04	<0.04	<0.04
Toluene	ug/g	0.2	0.05	<0.05	<0.05
Dibromochloromethane	ug/g	0.05	0.05	<0.05	<0.05
Ethylene Dibromide	ug/g	0.05	0.04	<0.04	<0.04
Tetrachloroethylene	ug/g	0.05	0.05	<0.05	<0.05
1,1,1,2-Tetrachloroethane	ug/g	0.05	0.04	<0.04	<0.04
Chlorobenzene	ug/g	0.05	0.05	<0.05	<0.05
Ethylbenzene	ug/g	0.05	0.05	<0.05	<0.05
m & p-Xylene	ug/g		0.05	<0.05	<0.05

Certified By: Pinkal Patel

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Certificate of Analysis

AGAT WORK ORDER: 19T478647

PROJECT: City of Brampton Phase 2

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - VOCs (Soil)

DATE RECEIVED: 2019-06-11

DATE REPORTED: 2019-06-24

		SAMPLE DESCRIPTION:		BH30-08	BH51-08
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2019-06-11	2019-06-11
Parameter	Unit	G / S	RDL	268835	268852
Bromoform	ug/g	0.05	0.05	<0.05	<0.05
Styrene	ug/g	0.05	0.05	<0.05	<0.05
1,1,2,2-Tetrachloroethane	ug/g	0.05	0.05	<0.05	<0.05
o-Xylene	ug/g		0.05	<0.05	<0.05
1,3-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05
1,4-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05
1,2-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05
Xylene Mixture	ug/g	0.05	0.05	<0.05	<0.05
1,3-Dichloropropene	µg/g	0.05	0.04	<0.04	<0.04
n-Hexane	µg/g	0.05	0.05	<0.05	<0.05
Surrogate	Unit	Acceptable Limits			
Toluene-d8	% Recovery	50-140		109	106
4-Bromofluorobenzene	% Recovery	50-140		74	74

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

268835-268852 The sample was analyzed using the high level technique. The sample was extracted using methanol, a small amount of the methanol extract was diluted in water and the purge & trap GC/MS analysis was performed. Results are based on the dry weight of the soil.
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene + o-Xylene.
1,3-Dichloropropene total is a calculated parameter. The calculated value is the sum of Cis-1,3-Dichloropropene and Trans-1,3-Dichloropropene.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

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AGAT WORK ORDER: 19T478647

PROJECT: City of Brampton Phase 2

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

OC Pesticides (Soil)

DATE RECEIVED: 2019-06-11

DATE REPORTED: 2019-06-24

		SAMPLE DESCRIPTION:		BH30-01	BH51-02	BH70-01
		SAMPLE TYPE:		Soil	Soil	Soil
		DATE SAMPLED:		2019-06-11	2019-06-11	2019-06-11
Parameter	Unit	G / S	RDL	268398	268851	268853
Aldrin	µg/g	0.05	0.005	<0.005	<0.005	<0.005
alpha - BHC	µg/g		0.005	<0.005	<0.005	<0.005
gamma-BHC (Lindane)	µg/g	0.01	0.005	<0.005	<0.005	<0.005
Alpha-Chlordane	µg/g		0.005	<0.005	<0.005	<0.005
Gamma-Chlordane	µg/g		0.005	<0.005	<0.005	<0.005
Chlordane (Total)	µg/g	0.05	0.007	<0.007	<0.007	<0.007
DDD (o,p')	µg/g		0.005	<0.005	<0.005	<0.005
pp'-DDD	µg/g		0.005	<0.005	<0.005	<0.005
DDD (o,p' + p,p')	µg/g	0.05	0.007	<0.007	<0.007	<0.007
op'-DDE	ug/g		0.005	<0.005	<0.005	<0.005
pp'-DDE	µg/g		0.005	<0.005	<0.005	<0.005
DDE (Total)	µg/g	0.05	0.007	<0.007	<0.007	<0.007
op'-DDT	µg/g		0.005	<0.005	<0.005	<0.005
pp'- DDT	µg/g		0.005	<0.005	<0.005	<0.005
DDT (Total)	µg/g	1.4	0.007	<0.007	<0.007	<0.007
Endosulfan (I & II)	µg/g	0.04	0.007	<0.007	<0.007	<0.007
Dieldrin	µg/g	0.05	0.005	<0.005	<0.005	<0.005
Endrin	µg/g	0.04	0.005	<0.005	<0.005	<0.005
Heptachlor	µg/g	0.05	0.005	<0.005	<0.005	<0.005
Heptachlor Epoxide	µg/g	0.05	0.005	<0.005	<0.005	<0.005
Methoxychlor	µg/g	0.05	0.005	<0.005	<0.005	<0.005
Moisture Content	%		0.1	20.6	19.9	18.3
OC Pest Extr	NA			Y	Y	Y
Surrogate	Unit	Acceptable Limits				
TCMX	%	60-130		64	67	71
Decachlorobiphenyl	%	60-130		70	87	73

Certified By:

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 19T478647

PROJECT: City of Brampton Phase 2

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

OC Pesticides (Soil)

DATE RECEIVED: 2019-06-11

DATE REPORTED: 2019-06-24

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

268398-268853 Results are based on the dry weight of the soil.
DDT total is a calculated parameter. The calculated value is the sum of op'DDT and pp'DDT.
DDD total is a calculated parameter. The calculated value is the sum of op'DDD and pp'DDD.
DDE total is a calculated parameter. The calculated value is the sum of op'DDE and pp'DDE.
Endosulfan total is a calculated parameter. The calculated value is the sum of Endosulfan I and Endosulfan II.
Chlordane total is a calculated parameter. The calculated value is the sum of Alpha-Chlordane and Gamma-Chlordane.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: Pinkal Patel

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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AGAT WORK ORDER: 19T478647

PROJECT: City of Brampton Phase 2

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

Phenoxy Acid Herbicides (Soil)

DATE RECEIVED: 2019-06-11

DATE REPORTED: 2019-06-24

		SAMPLE DESCRIPTION:		BH30-01	BH51-02	BH70-01
		SAMPLE TYPE:		Soil	Soil	Soil
		DATE SAMPLED:		2019-06-11	2019-06-11	2019-06-11
Parameter	Unit	G / S	RDL	268398	268851	268853
2,4-D	ug/g		0.10	<0.10	<0.10	<0.10
2,4,5-T	ug/g		0.10	<0.10	<0.10	<0.10
2,4,5-TP (Silvex)	ug/g		0.10	<0.10	<0.10	<0.10
Dicamba	ug/g		0.10	<0.10	<0.10	<0.10
Dichlorprop	ug/g		0.10	<0.10	<0.10	<0.10
Dinoseb	ug/g		0.10	<0.10	<0.10	<0.10
Picloram	ug/g		0.10	<0.10	<0.10	<0.10
Diclofop-methyl	ug/g		0.10	<0.10	<0.10	<0.10
2,3,4,6-Tetrachlorophenol	ug/g		0.05	<0.05	<0.05	<0.05
2,4-Dichlorophenol	ug/g	0.1	0.05	<0.05	<0.05	<0.05
2,4,5-Trichlorophenol	ug/g	0.1	0.05	<0.05	<0.05	<0.05
2,4,6-Trichlorophenol	ug/g	0.1	0.05	<0.05	<0.05	<0.05
Bromoxynil	ug/g		0.5	<0.5	<0.5	<0.5
MCPP (Mecoprop)	ug/g		1.0	<1.0	<1.0	<1.0
MCPA	ug/g		1.0	<1.0	<1.0	<1.0
Pentachlorophenol	ug/g	0.1	0.05	<0.05	<0.05	<0.05
Moisture Content	%		0.1	20.6	19.9	18.3
Phenoxy Extr	NA			Y	Y	Y
Surrogate	Unit	Acceptable Limits				
DCAA	%	50-130		106	104	108

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: Pinkal Patel

Results relate only to the items tested. Results apply to samples as received.

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC
PROJECT: City of Brampton Phase 2
SAMPLING SITE:

AGAT WORK ORDER: 19T478647
ATTENTION TO: Robert Mitzakov
SAMPLED BY:

Soil Analysis

RPT Date: Jun 24, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - ORPs (Soil)															
Electrical Conductivity	267591		3.48	3.57	2.6%	< 0.005	101%	90%	110%	NA			NA		
Sodium Adsorption Ratio	267591		39.2	39.6	1.0%	NA	NA			NA			NA		
O. Reg. 153(511) - Metals & Inorganics (Soil)															
Antimony	272447		<0.8	<0.8	NA	< 0.8	102%	70%	130%	90%	80%	120%	70%	70%	130%
Arsenic	272447		6	6	0.0%	< 1	100%	70%	130%	103%	80%	120%	104%	70%	130%
Barium	272447		61	61	0.0%	< 2	100%	70%	130%	100%	80%	120%	89%	70%	130%
Beryllium	272447		0.6	0.5	NA	< 0.5	104%	70%	130%	99%	80%	120%	98%	70%	130%
Boron	272447		<5	<5	NA	< 5	72%	70%	130%	99%	80%	120%	83%	70%	130%
Boron (Hot Water Soluble)	272447		1.13	1.13	0.0%	< 0.10	109%	60%	140%	104%	70%	130%	103%	60%	140%
Cadmium	272447		<0.5	<0.5	NA	< 0.5	112%	70%	130%	101%	80%	120%	104%	70%	130%
Chromium	272447		16	17	6.1%	< 2	90%	70%	130%	100%	80%	120%	103%	70%	130%
Cobalt	272447		5.4	5.4	0.0%	< 0.5	99%	70%	130%	103%	80%	120%	103%	70%	130%
Copper	272447		22	22	0.0%	< 1	96%	70%	130%	100%	80%	120%	97%	70%	130%
Lead	272447		40	40	0.0%	< 1	96%	70%	130%	94%	80%	120%	99%	70%	130%
Molybdenum	272447		0.5	0.5	NA	< 0.5	102%	70%	130%	101%	80%	120%	105%	70%	130%
Nickel	272447		12	13	8.0%	< 1	97%	70%	130%	104%	80%	120%	104%	70%	130%
Selenium	272447		0.6	0.6	NA	< 0.4	95%	70%	130%	100%	80%	120%	101%	70%	130%
Silver	272447		<0.2	<0.2	NA	< 0.2	95%	70%	130%	99%	80%	120%	98%	70%	130%
Thallium	272447		<0.4	<0.4	NA	< 0.4	100%	70%	130%	104%	80%	120%	102%	70%	130%
Uranium	272447		0.7	0.7	NA	< 0.5	100%	70%	130%	102%	80%	120%	102%	70%	130%
Vanadium	272447		24	24	0.0%	< 1	99%	70%	130%	102%	80%	120%	104%	70%	130%
Zinc	272447		146	147	0.7%	< 5	99%	70%	130%	100%	80%	120%	104%	70%	130%
Chromium VI	274932		<0.2	<0.2	NA	< 0.2	105%	70%	130%	99%	80%	120%	100%	70%	130%
Cyanide	274628		<0.040	<0.040	NA	< 0.040	91%	70%	130%	105%	80%	120%	106%	70%	130%
Mercury	272447		<0.10	<0.10	NA	< 0.10	106%	70%	130%	99%	80%	120%	100%	70%	130%
pH, 2:1 CaCl2 Extraction	274628		7.70	7.71	0.1%	NA	101%	80%	120%	NA			NA		

Comments: NA signifies Not Applicable.
Duplicate Qualifier: As the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL
pH duplicates QA acceptance criteria was met relative as stated in Table 5-15 of Analytical Protocol document.

Certified By:

Amanjot Bhela

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
AMANJOT BHELA
CHEMIST

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC
PROJECT: City of Brampton Phase 2
SAMPLING SITE:

AGAT WORK ORDER: 19T478647
ATTENTION TO: Robert Mitzakov
SAMPLED BY:

Trace Organics Analysis

RPT Date: Jun 24, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Phenoxy Acid Herbicides (Soil)															
2,4-D	268398	268398	< 0.10	< 0.10	NA	< 0.10	100%	50%	130%	98%	50%	130%	100%	50%	130%
2,4,5-T	268398	268398	< 0.10	< 0.10	NA	< 0.10	90%	50%	130%	90%	50%	130%	92%	50%	130%
2,4,5-TP (Silvex)	268398	268398	< 0.10	< 0.10	NA	< 0.10	92%	50%	130%	85%	50%	130%	70%	50%	130%
Dicamba	268398	268398	< 0.10	< 0.10	NA	< 0.10	97%	50%	130%	86%	50%	130%	76%	50%	130%
Dichlorprop	268398	268398	< 0.10	< 0.10	NA	< 0.10	102%	50%	130%	90%	50%	130%	80%	50%	130%
Dinoseb	268398	268398	< 0.10	< 0.10	NA	< 0.10	75%	50%	130%	65%	50%	130%	63%	50%	130%
Picloram	268398	268398	< 0.10	< 0.10	NA	< 0.10	103%	50%	130%	80%	50%	130%	64%	50%	130%
Diclofop-methyl	268398	268398	< 0.10	< 0.10	NA	< 0.10	105%	50%	130%	101%	50%	130%	95%	50%	130%
2,3,4,6-Tetrachlorophenol	268398	268398	< 0.05	< 0.05	NA	< 0.05	117%	50%	130%	101%	50%	130%	97%	50%	130%
2,4-Dichlorophenol	268398	268398	< 0.05	< 0.05	NA	< 0.05	99%	50%	130%	90%	50%	130%	74%	50%	130%
2,4,5-Trichlorophenol	268398	268398	< 0.05	< 0.05	NA	< 0.05	90%	50%	130%	85%	50%	130%	70%	50%	130%
2,4,6-Trichlorophenol	268398	268398	< 0.05	< 0.05	NA	< 0.05	111%	50%	130%	101%	50%	130%	97%	50%	130%
Bromoxynil	268398	268398	< 0.5	< 0.5	NA	< 0.5	98%	60%	130%	95%	60%	130%	94%	60%	130%
MCPP (Mecoprop)	268398	268398	< 1.0	< 1.0	NA	< 1.0	NA	50%	130%	100%	50%	130%	80%	50%	130%
MCPA	268398	268398	< 1.0	< 1.0	NA	< 1.0	NA	50%	130%	98%	50%	130%	90%	50%	130%
Pentachlorophenol	268398	268398	< 0.05	< 0.05	NA	< 0.05	94%	50%	130%	90%	50%	130%	80%	50%	130%
O. Reg. 153(511) - PAHs (Soil)															
Naphthalene	268851	268851	< 0.05	< 0.05	NA	< 0.05	93%	50%	140%	65%	50%	140%	73%	50%	140%
Acenaphthylene	268851	268851	< 0.05	< 0.05	NA	< 0.05	106%	50%	140%	65%	50%	140%	70%	50%	140%
Acenaphthene	268851	268851	< 0.05	< 0.05	NA	< 0.05	106%	50%	140%	62%	50%	140%	72%	50%	140%
Fluorene	268851	268851	< 0.05	< 0.05	NA	< 0.05	108%	50%	140%	65%	50%	140%	74%	50%	140%
Phenanthrene	268851	268851	< 0.05	< 0.05	NA	< 0.05	114%	50%	140%	74%	50%	140%	74%	50%	140%
Anthracene	268851	268851	< 0.05	< 0.05	NA	< 0.05	115%	50%	140%	76%	50%	140%	79%	50%	140%
Fluoranthene	268851	268851	< 0.05	< 0.05	NA	< 0.05	118%	50%	140%	79%	50%	140%	94%	50%	140%
Pyrene	268851	268851	< 0.05	< 0.05	NA	< 0.05	117%	50%	140%	81%	50%	140%	95%	50%	140%
Benz(a)anthracene	268851	268851	< 0.05	< 0.05	NA	< 0.05	113%	50%	140%	86%	50%	140%	104%	50%	140%
Chrysene	268851	268851	< 0.05	< 0.05	NA	< 0.05	119%	50%	140%	95%	50%	140%	102%	50%	140%
Benzo(b)fluoranthene	268851	268851	< 0.05	< 0.05	NA	< 0.05	97%	50%	140%	78%	50%	140%	73%	50%	140%
Benzo(k)fluoranthene	268851	268851	< 0.05	< 0.05	NA	< 0.05	107%	50%	140%	69%	50%	140%	66%	50%	140%
Benzo(a)pyrene	268851	268851	< 0.05	< 0.05	NA	< 0.05	116%	50%	140%	68%	50%	140%	68%	50%	140%
Indeno(1,2,3-cd)pyrene	268851	268851	< 0.05	< 0.05	NA	< 0.05	111%	50%	140%	62%	50%	140%	66%	50%	140%
Dibenz(a,h)anthracene	268851	268851	< 0.05	< 0.05	NA	< 0.05	116%	50%	140%	72%	50%	140%	70%	50%	140%
Benzo(g,h,i)perylene	268851	268851	< 0.05	< 0.05	NA	< 0.05	111%	50%	140%	63%	50%	140%	64%	50%	140%
OC Pesticides (Soil)															
Aldrin	268265		< 0.005	< 0.005	NA	< 0.005	87%	60%	140%	94%	60%	140%	87%	60%	140%
alpha - BHC	268265		< 0.005	< 0.005	NA	< 0.005	89%	60%	140%	92%	60%	140%	86%	60%	140%
gamma-BHC (Lindane)	268265		< 0.005	< 0.005	NA	< 0.005	86%	60%	140%	93%	60%	140%	86%	60%	140%
Alpha-Chlordane	268265		< 0.005	< 0.005	NA	< 0.005	91%	60%	140%	89%	60%	140%	89%	60%	140%

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC
PROJECT: City of Brampton Phase 2
SAMPLING SITE:

AGAT WORK ORDER: 19T478647
ATTENTION TO: Robert Mitzakov
SAMPLED BY:

Trace Organics Analysis (Continued)

RPT Date: Jun 24, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Gamma-Chlordane	268265		< 0.005	< 0.005	NA	< 0.005	92%	60%	140%	89%	60%	140%	91%	60%	140%
Chlordane (Total)	268265		< 0.007	< 0.007	NA	< 0.007	92%	60%	140%	89%	60%	140%	90%	60%	140%
DDD (o,p')	268265		< 0.005	< 0.005	NA	< 0.005	97%	60%	140%	82%	60%	140%	81%	60%	140%
pp'-DDD	268265		< 0.005	< 0.005	NA	< 0.005	97%	60%	140%	86%	60%	140%	84%	60%	140%
DDD (o,p' + p,p')	268265		< 0.007	< 0.007	NA	< 0.007	97%	60%	140%	84%	60%	140%	83%	60%	140%
op'-DDE	268265		< 0.005	< 0.005	NA	< 0.005	96%	60%	140%	85%	60%	140%	82%	60%	140%
pp'-DDE	268265		< 0.005	< 0.005	NA	< 0.005	98%	60%	140%	86%	60%	140%	83%	60%	140%
DDE (Total)	268265		< 0.007	< 0.007	NA	< 0.007	97%	60%	140%	86%	60%	140%	83%	60%	140%
op'-DDT	268265		< 0.005	< 0.005	NA	< 0.005	91%	60%	140%	85%	60%	140%	83%	60%	140%
pp'- DDT	268265		< 0.005	< 0.005	NA	< 0.005	92%	60%	140%	86%	60%	140%	83%	60%	140%
DDT (Total)	268265		< 0.007	< 0.007	NA	< 0.007	90%	60%	140%	86%	60%	140%	83%	60%	140%
Endosulfan (I & II)	268265		< 0.007	< 0.007	NA	< 0.007	96%	60%	140%	89%	60%	140%	85%	60%	140%
Dieldrin	268265		< 0.005	< 0.005	NA	< 0.005	91%	60%	140%	88%	60%	140%	84%	60%	140%
Endrin	268265		< 0.005	< 0.005	NA	< 0.005	88%	60%	140%	93%	60%	140%	90%	60%	140%
Heptachlor	268265		< 0.005	< 0.005	NA	< 0.005	82%	60%	140%	95%	60%	140%	80%	60%	140%
Heptachlor Epoxide	268265		< 0.005	< 0.005	NA	< 0.005	90%	60%	140%	94%	60%	140%	89%	60%	140%
Methoxychlor	268265		< 0.005	< 0.005	NA	< 0.005	93%	60%	140%	103%	60%	140%	91%	60%	140%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By:

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Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T478647

PROJECT: City of Brampton Phase 2

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
Antimony	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Arsenic	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Barium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Beryllium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron (Hot Water Soluble)	MET-93-6104	EPA SW 846 6010C; MSA, Part 3, Ch.21	ICP/OES
Cadmium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Cobalt	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Copper	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Lead	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Molybdenum	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Nickel	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Selenium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Silver	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Thallium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Uranium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Vanadium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Zinc	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium VI	INOR-93-6029	SM 3500 B; MSA Part 3, Ch. 25	SPECTROPHOTOMETER
Cyanide	INOR-93-6052	MOE CN-3015 & E 3009 A;SM 4500 CN	TECHNICON AUTO ANALYZER
Mercury	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
pH, 2:1 CaCl2 Extraction	INOR-93-6031	MSA part 3 & SM 4500-H+ B	PH METER
Electrical Conductivity	INOR-93-6036	McKeague 4.12, SM 2510 B	EC METER
Sodium Adsorption Ratio	INOR-93-6007	McKeague 4.12 & 3.26 & EPA SW-846 6010C	ICP/OES

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Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T478647

PROJECT: City of Brampton Phase 2

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Naphthalene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Acenaphthylene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Acenaphthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Fluorene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Phenanthrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Anthracene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Pyrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benz(a)anthracene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Chrysene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(b)fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(k)fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(a)pyrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Dibenz(a,h)anthracene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(g,h,i)perylene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
2-and 1-methyl Naphthalene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Chrysene-d12	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
F1 (C6 to C10)	VOL-91-5009	CCME Tier 1 Method, SW846 5035	P&T GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	CCME Tier 1 Method, SW846 5035	P&T GC/FID
F2 (C10 to C16)	VOL-91-5009	CCME Tier 1 Method	GC/FID
F3 (C16 to C34)	VOL-91-5009	CCME Tier 1 Method	GC/FID
F4 (C34 to C50)	VOL-91-5009	CCME Tier 1 Method	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5009	CCME Tier 1 Method	BALANCE
Moisture Content	VOL-91-5009	CCME Tier 1 Method	BALANCE
Terphenyl	VOL-91-5009	CCME Tier 1 Method	GC/FID
Dichlorodifluoromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Vinyl Chloride	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Bromomethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Acetone	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methylene Chloride	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Trans- 1,2-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methyl tert-butyl Ether	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Cis- 1,2-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Chloroform	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Benzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Trichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Bromodichloromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Toluene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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http://www.agatlabs.com

Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T478647

PROJECT: City of Brampton Phase 2

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Dibromochloromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Chlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Ethylbenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
m & p-Xylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Bromoform	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Styrene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
o-Xylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Xylene Mixture	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,3-Dichloropropene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
n-Hexane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Toluene-d8	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Aldrin	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
alpha - BHC	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
gamma-BHC (Lindane)	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
Alpha-Chlordane	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
Gamma-Chlordane	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
Chlordane (Total)	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
DDD (o,p')	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
pp'-DDD	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
DDD (o,p' + p,p')	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
op'-DDE	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
pp'-DDE	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
DDE (Total)	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
op'-DDT	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
pp'- DDT	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
DDT (Total)	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
Endosulfan (I & II)	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
Dieldrin	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
Endrin	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
Heptachlor	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
Heptachlor Epoxide	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
Methoxychlor	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
Moisture Content		MOE E3139	BALANCE
TCMX	ORG-91-5112	EPA SW-846 3541 & 8081	GC/ECD
Decachlorobiphenyl	ORG-91-5113	EPA SW - 846 3541/8081	GC/ECD
OC Pest Extr	ORG-91-5113	EPA SW - 846 3541/8081	N/A
2,4-D	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4,5-T	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4,5-TP (Silvex)	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Dicamba	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Dichlorprop	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Dinoseb	ORG-91-5110	EPA SW-846 8151A	GC/ECD

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Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T478647

PROJECT: City of Brampton Phase 2

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Picloram	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Diclofop-methyl	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,3,4,6-Tetrachlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4-Dichlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4,5-Trichlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4,6-Trichlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Bromoxynil	ORG-91-5110	EPA SW-846 8151A	GC/ECD
MCPP (Mecoprop)	ORG-91-5110	EPA SW-846 8151A	GC/ECD
MCPA	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Pentachlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD
DCAA	ORG-91-5110	EPA SW-846 8151	GC/ECD
Phenoxy Extr			N/A

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AGAT Laboratories

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webearth.agatlabs.com

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Laboratory Use Only

Work Order #: 19T478647

Cooler Quantity:

Arrival Temperatures: 11.5 | 14.5 | 14.8

Custody Seal Intact: ☐ Yes ☐ No ☐ N/A

Notes: with ice

Report Information:

Company: SNC-Lavalin Inc
Contact: Robert Mitzakov
Address: 195 The West Mall, Toronto, ON M9C 5K1
Phone: 416 635 5882 Fax: Ext. 55885
Reports to be sent to:
1. Email: Robert.Mitzakov@snclavalin.com
2. Email: Abdel.Yassine@snclavalin.com

Regulatory Requirements:

☐ No Regulatory Requirement
(Please check all applicable boxes)

☒ Regulation 153/04
Table 9 (Indicate One)
☐ Ind/Com
☐ Res/Park
☐ Agriculture
Soil Texture (Check One)
☐ Coarse
☐ Fine

☐ Sewer Use
☐ Sanitary
☐ Storm
Region _____ (Indicate One)
☐ MISA

☐ Regulation 558
☐ CCME
☐ Prov. Water Quality Objectives (PWQO)
☐ Other
_____ (Indicate One)

Is this submission for a **Record of Site Condition?** ☒ Yes ☐ No

Report Guideline on Certificate of Analysis ☐ Yes ☐ No

Turnaround Time (TAT) Required:

Regular TAT ☒ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day

OR Date Required (Rush Surcharges May Apply): _____

Please provide prior notification for rush TAT
*TAT is exclusive of weekends and statutory holidays

For 'Same Day' analysis, please contact your AGAT CPM

Project Information:

Project: City of Brampton - Phase II
Site Location: 10AE Highway 50, Brampton
Sampled By: Joey Preston
AGAT Quote #: _____ PO: 665125
Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

Bill To Same: Yes ☐ No ☐

Company: SNC-Lavalin Inc
Contact:
Address:
Email: Payables@snclavalin.com

Sample Matrix Legend

B Biota
GW Ground Water
O Oil
P Paint
S Soil
SD Sediment
SW Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y / N	Field Filtered - Metals, Hg, CrVI	O. Reg 153: Metals and Inorganics	O. Reg 153: All Metals ☐ 153 Metals (excl. Hydrides)	O. Reg 153: Hydride Metals ☐ 153 Metals (Incl. Hydrides)	O. Reg 153: ORPs: ☐ B-HWS ☐ Cl⁻ ☐ CN	O. Reg 153: ☐ Cr⁶⁺ ☐ EC ☐ FOC ☐ Hg	O. Reg 153: ☐ pH ☐ SAR	Full Metals Scan	Regulation/Custom Metals	Nutrients: ☐ TP ☐ NH_3 ☐ TKN ☐ NO_3 ☐ NO_2 ☐ NO_3+NO_2	Volatiles: ☐ VOC ☐ BTEX ☐ THM	PHCs F1 - F4, VOC's	ABNs	PAHs	PCBs: ☐ Total ☐ Aroclors	Organochlorine Pesticides	TCLP: ☐ M&I ☐ vOCs ☐ ABNs ☐ B(a)P ☐ PCBs	Sewer Use	O Reg 558 Metals / Inorganics	SAR / Conductivity	Herbicides / Pesticides	Potentially Hazardous or High Concentration (Y/N)
BH 30-01	June 11/19	9:15	2	Soil																					X	X	X	
BH 30-02		9:25	4	Soil														X		X								
BH 30-08		10:40	2	Soil	Limited Recovery													X										
BH 51-01		12:30	2	Soil	Limited Recovery													X		X								
BH 51-02		12:40	2	Soil																					X	X	X	
BH 52-08		13:45	2	Soil														X										
BH 70-01		15:15	2	Soil																					X	X	X	
BH 70-06		15:40	2	Soil														X										

Samples Relinquished By (Print Name and Sign)	Date	Time	Samples Received By (Print Name and Sign)	Date	Time
Joseph Preston	June 11/19	18:30	[illegible]	Jun/11/2019	6:45 PM
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time

Page 1 of 1

Document ID: DIV-78-1511.016

AGAT Laboratories

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CLIENT NAME: SNC LAVALIN INC
235 LESMILL ROAD
TORONTO, ON M3B 2V1
(416) 679-6000

ATTENTION TO: Robert Mitzakov

PROJECT: City of Brampton - Phase II

AGAT WORK ORDER: 19T479815

SOIL ANALYSIS REVIEWED BY: Amanjot Bhela, Inorganic Supervisor

TRACE ORGANICS REVIEWED BY: Oksana Gushyla, Trace Organics Lab Supervisor

DATE REPORTED: Jun 25, 2019

PAGES (INCLUDING COVER): 18

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

*NOTES

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.

Member of: Association of Professional Engineers and Geoscientists of Alberta (APEGA)
Western Enviro-Agricultural Laboratory Association (WEALA)
Environmental Services Association of Alberta (ESAA)

AGAT Laboratories is accredited to ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA) and/or Standards Council of Canada (SCC) for specific tests listed on the scope of accreditation. AGAT Laboratories (Mississauga) is also accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) for specific drinking water tests. Accreditations are location and parameter specific. A complete listing of parameters for each location is available from www.cala.ca and/or www.scc.ca. The tests in this report may not necessarily be included in the scope of accreditation. Measurement Uncertainty is not taken into consideration when stating conformity with a specified requirement.

Results relate only to the items tested. Results apply to samples as received.
All reportable information as specified by ISO 17025:2017 is available from AGAT Laboratories upon request

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 19T479815

PROJECT: City of Brampton - Phase II

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2019-06-13

DATE REPORTED: 2019-06-25

SAMPLE DESCRIPTION:				BH35-03	BH22-03A	BH52-03
SAMPLE TYPE:				Soil	Soil	Soil
DATE SAMPLED:				2019-06-12	2019-06-12	2019-06-12
Parameter	Unit	G / S	RDL	274941	275045	275049
Antimony	µg/g	1.3	0.8	<0.8	<0.8	<0.8
Arsenic	µg/g	18	1	4	4	4
Barium	µg/g	220	2	58	62	61
Beryllium	µg/g	2.5	0.5	0.5	0.5	<0.5
Boron	µg/g	36	5	5	<5	5
Boron (Hot Water Soluble)	µg/g	1.5	0.10	0.12	<0.10	0.11
Cadmium	µg/g	1.2	0.5	<0.5	<0.5	<0.5
Chromium	µg/g	70	2	17	17	17
Cobalt	µg/g	22	0.5	9.4	9.6	10.0
Copper	µg/g	92	1	21	20	20
Lead	µg/g	120	1	8	8	8
Molybdenum	µg/g	2	0.5	<0.5	<0.5	<0.5
Nickel	µg/g	82	1	20	20	20
Selenium	µg/g	1.5	0.4	<0.4	<0.4	<0.4
Silver	µg/g	0.5	0.2	<0.2	<0.2	<0.2
Thallium	µg/g	1	0.4	<0.4	<0.4	<0.4
Uranium	µg/g	2.5	0.5	0.5	<0.5	0.6
Vanadium	µg/g	86	1	25	26	24
Zinc	µg/g	290	5	42	43	41
Chromium VI	µg/g	0.66	0.2	<0.2	<0.2	<0.2
Cyanide	µg/g	0.051	0.040	<0.040	<0.040	<0.040
Mercury	µg/g	0.27	0.10	<0.10	<0.10	<0.10
Electrical Conductivity	mS/cm	0.7	0.005	0.156	0.209	0.188
Sodium Adsorption Ratio	NA	5	NA	0.281	0.297	0.307
pH, 2:1 CaCl2 Extraction	pH Units		NA	7.51	7.61	7.62

Certified By:

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 19T479815

PROJECT: City of Brampton - Phase II

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2019-06-13

DATE REPORTED: 2019-06-25

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

274941-275049 EC was determined on the DI water extract obtained from the 2:1 leaching procedure (2 parts DI water:1 part soil). pH was determined on the 0.01M CaCl2 extract prepared at 2:1 ratio. SAR is a calculated parameter.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

Amanjot Bhela

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
AMANJOT BHELA
CHEMIST

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 19T479815

PROJECT: City of Brampton - Phase II

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - OC Pesticides (Soil)

DATE RECEIVED: 2019-06-13

DATE REPORTED: 2019-06-25

SAMPLE DESCRIPTION:				BH35-03	BH22-03A	BH52-03
SAMPLE TYPE:				Soil	Soil	Soil
DATE SAMPLED:				2019-06-12	2019-06-12	2019-06-12
Parameter	Unit	G / S	RDL	274941	275045	275049
Hexachloroethane	µg/g	0.01	0.01	<0.01	<0.01	<0.01
Gamma-Hexachlorocyclohexane	µg/g	0.01	0.005	<0.005	<0.005	<0.005
Heptachlor	µg/g	0.05	0.005	<0.005	<0.005	<0.005
Aldrin	µg/g	0.05	0.005	<0.005	<0.005	<0.005
Heptachlor Epoxide	µg/g	0.05	0.005	<0.005	<0.005	<0.005
Endosulfan	µg/g	0.04	0.005	<0.005	<0.005	<0.005
Chlordane	µg/g	0.05	0.007	<0.007	<0.007	<0.007
DDE	µg/g	0.05	0.007	<0.007	<0.007	<0.007
DDD	µg/g	0.05	0.007	<0.007	<0.007	<0.007
DDT	µg/g	1.4	0.007	<0.007	<0.007	<0.007
Dieldrin	µg/g	0.05	0.005	<0.005	<0.005	<0.005
Endrin	µg/g	0.04	0.005	<0.005	<0.005	<0.005
Methoxychlor	µg/g	0.05	0.005	<0.005	<0.005	<0.005
Hexachlorobenzene	µg/g	0.02	0.005	<0.005	<0.005	<0.005
Hexachlorobutadiene	µg/g	0.01	0.01	<0.01	<0.01	<0.01
Moisture Content	%		0.1	7.1	9.3	9.9
Surrogate	Unit	Acceptable Limits				
TCMX	%	50-140		74	72	68
Decachlorobiphenyl	%	60-130		96	82	76

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

274941-275049 Results are based on the dry weight of the soil.
DDT total is a calculated parameter. The calculated value is the sum of op'DDT and pp'DDT.
DDD total is a calculated parameter. The calculated value is the sum of op'DDD and pp'DDD.
DDE total is a calculated parameter. The calculated value is the sum of op'DDE and pp'DDE.
Endosulfan total is a calculated parameter. The calculated value is the sum of Endosulfan I and Endosulfan II.
Chlordane total is a calculated parameter. The calculated value is the sum of Alpha-Chlordane and Gamma-Chlordane.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 19T479815

PROJECT: City of Brampton - Phase II

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - PAHs (Soil)

DATE RECEIVED: 2019-06-13

DATE REPORTED: 2019-06-25

		SAMPLE DESCRIPTION:		BH22-03A
		SAMPLE TYPE:		Soil
		DATE SAMPLED:		2019-06-12
Parameter	Unit	G / S	RDL	275045
Naphthalene	µg/g	0.09	0.05	<0.05
Acenaphthylene	µg/g	0.093	0.05	<0.05
Acenaphthene	µg/g	0.072	0.05	<0.05
Fluorene	µg/g	0.19	0.05	<0.05
Phenanthrene	µg/g	0.69	0.05	<0.05
Anthracene	µg/g	0.22	0.05	<0.05
Fluoranthene	µg/g	0.69	0.05	<0.05
Pyrene	µg/g	1	0.05	<0.05
Benz(a)anthracene	µg/g	0.36	0.05	<0.05
Chrysene	µg/g	2.8	0.05	<0.05
Benzo(b)fluoranthene	µg/g	0.47	0.05	<0.05
Benzo(k)fluoranthene	µg/g	0.48	0.05	<0.05
Benzo(a)pyrene	µg/g	0.3	0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.23	0.05	<0.05
Dibenz(a,h)anthracene	µg/g	0.1	0.05	<0.05
Benzo(g,h,i)perylene	µg/g	0.68	0.05	<0.05
2-and 1-methyl Naphthalene	µg/g	0.59	0.05	<0.05
Surrogate	Unit	Acceptable Limits		
Chrysene-d12	%	50-140		76

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

275045 Results are based on the dry weight of the soil.
Note: The result for Benzo(b)Fluoranthene is the total of the Benzo(b)&j)Fluoranthene isomers because the isomers co-elute on the GC column.
2- and 1-Methyl Naphthalene is a calculated parameter. The calculated value is the sum of 2-Methyl Naphthalene and 1-Methyl Naphthalene.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
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http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 19T479815

PROJECT: City of Brampton - Phase II

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - PHCs F1 - F4 (-BTEX) (Soil)

DATE RECEIVED: 2019-06-13

DATE REPORTED: 2019-06-25

		SAMPLE DESCRIPTION:		BH35-07	BH22-08A
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2019-06-12	2019-06-12
Parameter	Unit	G / S	RDL	275043	275048
F1 (C6 to C10)	µg/g		5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	25	5	<5	<5
F2 (C10 to C16)	µg/g	10	10	<10	<10
F3 (C16 to C34)	µg/g	240	50	<50	<50
F4 (C34 to C50)	µg/g	120	50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g	120	50	NA	NA
Moisture Content	%		0.1	9.2	8.0
Surrogate	Unit	Acceptable Limits			
Terphenyl	%	60-140		80	110

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

275043-275048 Results are based on sample dry weight.
The C6-C10 fraction is calculated using toluene response factor.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6 - C50 results are corrected for BTEX contribution.
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC6 and nC10 response factors are within 30% of Toluene response factor.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 + nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.
Fractions 1-4 are quantified without the contribution of PAHs. Under Ontario Regulation 153, results are considered valid without determining the PAH contribution if not requested by the client.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

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AGAT WORK ORDER: 19T479815

PROJECT: City of Brampton - Phase II

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - VOCs (Soil)

DATE RECEIVED: 2019-06-13

DATE REPORTED: 2019-06-25

		SAMPLE DESCRIPTION:		BH35-07	BH22-08A
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2019-06-12	2019-06-12
Parameter	Unit	G / S	RDL	275043	275048
Dichlorodifluoromethane	µg/g	0.05	0.05	<0.05	<0.05
Vinyl Chloride	ug/g	0.02	0.02	<0.02	<0.02
Bromomethane	ug/g	0.05	0.05	<0.05	<0.05
Trichlorofluoromethane	ug/g	0.25	0.05	<0.05	<0.05
Acetone	ug/g	0.5	0.50	<0.50	<0.50
1,1-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05
Methylene Chloride	ug/g	0.05	0.05	<0.05	<0.05
Trans- 1,2-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05
Methyl tert-butyl Ether	ug/g	0.05	0.05	<0.05	<0.05
1,1-Dichloroethane	ug/g	0.05	0.02	<0.02	<0.02
Methyl Ethyl Ketone	ug/g	0.5	0.50	<0.50	<0.50
Cis- 1,2-Dichloroethylene	ug/g	0.05	0.02	<0.02	<0.02
Chloroform	ug/g	0.05	0.04	<0.04	<0.04
1,2-Dichloroethane	ug/g	0.05	0.03	<0.03	<0.03
1,1,1-Trichloroethane	ug/g	0.05	0.05	<0.05	<0.05
Carbon Tetrachloride	ug/g	0.05	0.05	<0.05	<0.05
Benzene	ug/g	0.02	0.02	<0.02	<0.02
1,2-Dichloropropane	ug/g	0.05	0.03	<0.03	<0.03
Trichloroethylene	ug/g	0.05	0.03	<0.03	<0.03
Bromodichloromethane	ug/g	0.05	0.05	<0.05	<0.05
Methyl Isobutyl Ketone	ug/g	0.5	0.50	<0.50	<0.50
1,1,2-Trichloroethane	ug/g	0.05	0.04	<0.04	<0.04
Toluene	ug/g	0.2	0.05	<0.05	<0.05
Dibromochloromethane	ug/g	0.05	0.05	<0.05	<0.05
Ethylene Dibromide	ug/g	0.05	0.04	<0.04	<0.04
Tetrachloroethylene	ug/g	0.05	0.05	<0.05	<0.05
1,1,1,2-Tetrachloroethane	ug/g	0.05	0.04	<0.04	<0.04
Chlorobenzene	ug/g	0.05	0.05	<0.05	<0.05
Ethylbenzene	ug/g	0.05	0.05	<0.05	<0.05
m & p-Xylene	ug/g		0.05	<0.05	<0.05

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AGAT WORK ORDER: 19T479815

PROJECT: City of Brampton - Phase II

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - VOCs (Soil)

DATE RECEIVED: 2019-06-13

DATE REPORTED: 2019-06-25

		SAMPLE DESCRIPTION:		BH35-07	BH22-08A
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2019-06-12	2019-06-12
Parameter	Unit	G / S	RDL	275043	275048
Bromoform	ug/g	0.05	0.05	<0.05	<0.05
Styrene	ug/g	0.05	0.05	<0.05	<0.05
1,1,2,2-Tetrachloroethane	ug/g	0.05	0.05	<0.05	<0.05
o-Xylene	ug/g		0.05	<0.05	<0.05
1,3-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05
1,4-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05
1,2-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05
Xylene Mixture	ug/g	0.05	0.05	<0.05	<0.05
1,3-Dichloropropene	µg/g	0.05	0.04	<0.04	<0.04
n-Hexane	µg/g	0.05	0.05	<0.05	<0.05
Surrogate	Unit	Acceptable Limits			
Toluene-d8	% Recovery	50-140		107	109
4-Bromofluorobenzene	% Recovery	50-140		80	77

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
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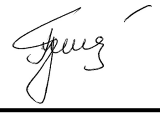
275043-275048 The sample was analyzed using the high level technique. The sample was extracted using methanol, a small amount of the methanol extract was diluted in water and the purge & trap GC/MS analysis was performed. Results are based on the dry weight of the soil.
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene + o-Xylene.
1,3-Dichloropropene total is a calculated parameter. The calculated value is the sum of Cis-1,3-Dichloropropene and Trans-1,3-Dichloropropene.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:



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Certificate of Analysis

AGAT WORK ORDER: 19T479815

PROJECT: City of Brampton - Phase II

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

Phenoxy Acid Herbicides (Soil)

DATE RECEIVED: 2019-06-13

DATE REPORTED: 2019-06-25

		SAMPLE DESCRIPTION:		BH35-03	BH22-03A	BH52-03
		SAMPLE TYPE:		Soil	Soil	Soil
		DATE SAMPLED:		2019-06-12	2019-06-12	2019-06-12
Parameter	Unit	G / S	RDL	274941	275045	275049
2,4-D	ug/g		0.10	<0.10	<0.10	<0.10
2,4,5-T	ug/g		0.10	<0.10	<0.10	<0.10
2,4,5-TP (Silvex)	ug/g		0.10	<0.10	<0.10	<0.10
Dicamba	ug/g		0.10	<0.10	<0.10	<0.10
Dichlorprop	ug/g		0.10	<0.10	<0.10	<0.10
Dinoseb	ug/g		0.10	<0.10	<0.10	<0.10
Picloram	ug/g		0.10	<0.10	<0.10	<0.10
Diclofop-methyl	ug/g		0.10	<0.10	<0.10	<0.10
2,3,4,6-Tetrachlorophenol	ug/g		0.05	<0.05	<0.05	<0.05
2,4-Dichlorophenol	ug/g		0.05	<0.05	<0.05	<0.05
2,4,5-Trichlorophenol	ug/g		0.05	<0.05	<0.05	<0.05
2,4,6-Trichlorophenol	ug/g		0.05	<0.05	<0.05	<0.05
Bromoxynil	ug/g		0.5	<0.5	<0.5	<0.5
MCPP (Mecoprop)	ug/g		1.0	<1.0	<1.0	<1.0
MCPA	ug/g		1.0	<1.0	<1.0	<1.0
Pentachlorophenol	ug/g		0.05	<0.05	<0.05	<0.05
Phenoxy Extr	NA			Y	Y	Y
Surrogate	Unit	Acceptable Limits				
DCAA	%	50-130		66	70	66

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T479815

PROJECT: City of Brampton - Phase II

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

Soil Analysis

RPT Date: Jun 25, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - Metals & Inorganics (Soil)															
Antimony	272447		<0.8	<0.8	NA	< 0.8	102%	70%	130%	90%	80%	120%	70%	70%	130%
Arsenic	272447		6	6	0.0%	< 1	100%	70%	130%	103%	80%	120%	104%	70%	130%
Barium	272447		61	61	0.0%	< 2	100%	70%	130%	100%	80%	120%	89%	70%	130%
Beryllium	272447		0.6	0.5	NA	< 0.5	104%	70%	130%	99%	80%	120%	98%	70%	130%
Boron	272447		<5	<5	NA	< 5	72%	70%	130%	99%	80%	120%	83%	70%	130%
Boron (Hot Water Soluble)	272447		1.13	1.13	0.0%	< 0.10	109%	60%	140%	104%	70%	130%	103%	60%	140%
Cadmium	272447		<0.5	<0.5	NA	< 0.5	112%	70%	130%	101%	80%	120%	104%	70%	130%
Chromium	272447		16	17	6.1%	< 2	90%	70%	130%	100%	80%	120%	103%	70%	130%
Cobalt	272447		5.4	5.4	0.0%	< 0.5	99%	70%	130%	103%	80%	120%	103%	70%	130%
Copper	272447		22	22	0.0%	< 1	96%	70%	130%	100%	80%	120%	97%	70%	130%
Lead	272447		40	40	0.0%	< 1	96%	70%	130%	94%	80%	120%	99%	70%	130%
Molybdenum	272447		0.5	0.5	NA	< 0.5	102%	70%	130%	101%	80%	120%	105%	70%	130%
Nickel	272447		12	13	8.0%	< 1	97%	70%	130%	104%	80%	120%	104%	70%	130%
Selenium	272447		0.6	0.6	NA	< 0.4	95%	70%	130%	100%	80%	120%	101%	70%	130%
Silver	272447		<0.2	<0.2	NA	< 0.2	95%	70%	130%	99%	80%	120%	98%	70%	130%
Thallium	272447		<0.4	<0.4	NA	< 0.4	100%	70%	130%	104%	80%	120%	102%	70%	130%
Uranium	272447		0.7	0.7	NA	< 0.5	100%	70%	130%	102%	80%	120%	102%	70%	130%
Vanadium	272447		24	24	0.0%	< 1	99%	70%	130%	102%	80%	120%	104%	70%	130%
Zinc	272447		146	147	0.7%	< 5	99%	70%	130%	100%	80%	120%	104%	70%	130%
Chromium VI	276200		<0.2	<0.2	NA	< 0.2	106%	70%	130%	94%	80%	120%	83%	70%	130%
Cyanide	267593		<0.040	<0.040	NA	< 0.040	90%	70%	130%	101%	80%	120%	101%	70%	130%
Mercury	272447		<0.10	<0.10	NA	< 0.10	106%	70%	130%	99%	80%	120%	100%	70%	130%
Electrical Conductivity	272447		0.223	0.225	0.9%	< 0.005	101%	90%	110%	NA			NA		
Sodium Adsorption Ratio	272447		0.115	0.115	0.0%	NA	NA			NA			NA		
pH, 2:1 CaCl2 Extraction	267591		7.56	7.55	0.1%	NA	100%	80%	120%	NA			NA		

Comments: NA signifies Not Applicable.
Duplicate Qualifier: As the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL
pH duplicates QA acceptance criteria was met relative as stated in Table 5-15 of Analytical Protocol document.

Certified By:

Amanjot Bhela

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO CHARTERED AMANJOT BHELA CHEMIST

AGAT Laboratories is accredited to ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA) and/or Standards Council of Canada (SCC) for specific tests listed on the scope of accreditation. AGAT Laboratories (Mississauga) is also accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) for specific drinking water tests. Accreditations are location and parameter specific. A complete listing of parameters for each location is available from www.cala.ca and/or www.scc.ca. The tests in this report may not necessarily be included in the scope of accreditation. RPDs calculated using raw data. The RPD may not be reflective of duplicate values shown, due to rounding of final results.

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC
PROJECT: City of Brampton - Phase II
SAMPLING SITE:

AGAT WORK ORDER: 19T479815
ATTENTION TO: Robert Mitzakov
SAMPLED BY:

Trace Organics Analysis

RPT Date: Jun 25, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - PHCs F1 - F4 (-BTEX) (Soil)															
F1 (C6 to C10)	274909		< 5	< 5	NA	< 5	114%	60%	130%	101%	85%	115%	88%	70%	130%
F2 (C10 to C16)	247073		< 10	< 10	NA	< 10	102%	60%	130%	107%	80%	120%	86%	70%	130%
F3 (C16 to C34)	247073		< 50	< 50	NA	< 50	103%	60%	130%	117%	80%	120%	91%	70%	130%
F4 (C34 to C50)	247073		< 50	< 50	NA	< 50	94%	60%	130%	119%	80%	120%	118%	70%	130%
O. Reg. 153(511) - VOCs (Soil)															
Dichlorodifluoromethane	270262		< 0.05	< 0.05	NA	< 0.05	108%	50%	140%	92%	50%	140%	83%	50%	140%
Vinyl Chloride	270262		< 0.02	< 0.02	NA	< 0.02	90%	50%	140%	91%	50%	140%	106%	50%	140%
Bromomethane	270262		< 0.05	< 0.05	NA	< 0.05	96%	50%	140%	104%	50%	140%	116%	50%	140%
Trichlorofluoromethane	270262		< 0.05	< 0.05	NA	< 0.05	94%	50%	140%	97%	50%	140%	97%	50%	140%
Acetone	270262		< 0.50	< 0.50	NA	< 0.50	87%	50%	140%	96%	50%	140%	91%	50%	140%
1,1-Dichloroethylene	270262		< 0.05	< 0.05	NA	< 0.05	102%	50%	140%	97%	60%	130%	83%	50%	140%
Methylene Chloride	270262		< 0.05	< 0.05	NA	< 0.05	99%	50%	140%	97%	60%	130%	89%	50%	140%
Trans- 1,2-Dichloroethylene	270262		< 0.05	< 0.05	NA	< 0.05	98%	50%	140%	102%	60%	130%	88%	50%	140%
Methyl tert-butyl Ether	270262		< 0.05	< 0.05	NA	< 0.05	78%	50%	140%	82%	60%	130%	112%	50%	140%
1,1-Dichloroethane	270262		< 0.02	< 0.02	NA	< 0.02	97%	50%	140%	95%	60%	130%	83%	50%	140%
Methyl Ethyl Ketone	270262		< 0.50	< 0.50	NA	< 0.50	89%	50%	140%	105%	50%	140%	95%	50%	140%
Cis- 1,2-Dichloroethylene	270262		< 0.02	< 0.02	NA	< 0.02	98%	50%	140%	97%	60%	130%	105%	50%	140%
Chloroform	270262		< 0.04	< 0.04	NA	< 0.04	99%	50%	140%	99%	60%	130%	89%	50%	140%
1,2-Dichloroethane	270262		< 0.03	< 0.03	NA	< 0.03	95%	50%	140%	101%	60%	130%	88%	50%	140%
1,1,1-Trichloroethane	270262		< 0.05	< 0.05	NA	< 0.05	105%	50%	140%	81%	60%	130%	100%	50%	140%
Carbon Tetrachloride	270262		< 0.05	< 0.05	NA	< 0.05	84%	50%	140%	91%	60%	130%	93%	50%	140%
Benzene	270262		< 0.02	< 0.02	NA	< 0.02	100%	50%	140%	105%	60%	130%	93%	50%	140%
1,2-Dichloropropane	270262		< 0.03	< 0.03	NA	< 0.03	89%	50%	140%	97%	60%	130%	80%	50%	140%
Trichloroethylene	270262		< 0.03	< 0.03	NA	< 0.03	92%	50%	140%	98%	60%	130%	86%	50%	140%
Bromodichloromethane	270262		< 0.05	< 0.05	NA	< 0.05	76%	50%	140%	83%	60%	130%	93%	50%	140%
Methyl Isobutyl Ketone	270262		< 0.50	< 0.50	NA	< 0.50	79%	50%	140%	102%	50%	140%	91%	50%	140%
1,1,2-Trichloroethane	270262		< 0.04	< 0.04	NA	< 0.04	108%	50%	140%	98%	60%	130%	96%	50%	140%
Toluene	270262		< 0.05	< 0.05	NA	< 0.05	114%	50%	140%	96%	60%	130%	102%	50%	140%
Dibromochloromethane	270262		< 0.05	< 0.05	NA	< 0.05	112%	50%	140%	84%	60%	130%	92%	50%	140%
Ethylene Dibromide	270262		< 0.04	< 0.04	NA	< 0.04	93%	50%	140%	96%	60%	130%	82%	50%	140%
Tetrachloroethylene	270262		< 0.05	< 0.05	NA	< 0.05	105%	50%	140%	106%	60%	130%	95%	50%	140%
1,1,1,2-Tetrachloroethane	270262		< 0.04	< 0.04	NA	< 0.04	75%	50%	140%	82%	60%	130%	93%	50%	140%
Chlorobenzene	270262		< 0.05	< 0.05	NA	< 0.05	112%	50%	140%	100%	60%	130%	105%	50%	140%
Ethylbenzene	270262		< 0.05	< 0.05	NA	< 0.05	112%	50%	140%	97%	60%	130%	105%	50%	140%
m & p-Xylene	270262		< 0.05	< 0.05	NA	< 0.05	115%	50%	140%	73%	60%	130%	109%	50%	140%
Bromoform	270262		< 0.05	< 0.05	NA	< 0.05	86%	50%	140%	112%	60%	130%	112%	50%	140%
Styrene	270262		< 0.05	< 0.05	NA	< 0.05	82%	50%	140%	102%	60%	130%	106%	50%	140%
1,1,2,2-Tetrachloroethane	270262		< 0.05	< 0.05	NA	< 0.05	112%	50%	140%	102%	60%	130%	96%	50%	140%
o-Xylene	270262		< 0.05	< 0.05	NA	< 0.05	119%	50%	140%	113%	60%	130%	114%	50%	140%

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http://www.agatlabs.com

Quality Assurance

CLIENT NAME: SNC LAVALIN INC
PROJECT: City of Brampton - Phase II
SAMPLING SITE:

AGAT WORK ORDER: 19T479815
ATTENTION TO: Robert Mitzakov
SAMPLED BY:

Trace Organics Analysis (Continued)

RPT Date: Jun 25, 2019

PARAMETER	Batch	Sample Id	DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
			Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
1,3-Dichlorobenzene	270262		< 0.05	< 0.05	NA	< 0.05	100%	50%	140%	108%	60%	130%	98%	50%	140%
1,4-Dichlorobenzene	270262		< 0.05	< 0.05	NA	< 0.05	91%	50%	140%	109%	60%	130%	95%	50%	140%
1,2-Dichlorobenzene	270262		< 0.05	< 0.05	NA	< 0.05	95%	50%	140%	102%	60%	130%	93%	50%	140%
1,3-Dichloropropene	270262		< 0.04	< 0.04	NA	< 0.04	101%	50%	140%	83%	60%	130%	103%	50%	140%
n-Hexane	270262		< 0.05	< 0.05	NA	< 0.05	102%	50%	140%	86%	60%	130%	102%	50%	140%
O. Reg. 153(511) - PAHs (Soil)															
Naphthalene	267783		< 0.05	< 0.05	NA	< 0.05	93%	50%	140%	65%	50%	140%	73%	50%	140%
Acenaphthylene	267783		< 0.05	< 0.05	NA	< 0.05	106%	50%	140%	65%	50%	140%	70%	50%	140%
Acenaphthene	267783		< 0.05	< 0.05	NA	< 0.05	106%	50%	140%	62%	50%	140%	72%	50%	140%
Fluorene	267783		< 0.05	< 0.05	NA	< 0.05	108%	50%	140%	65%	50%	140%	74%	50%	140%
Phenanthrene	267783		< 0.05	< 0.05	NA	< 0.05	114%	50%	140%	74%	50%	140%	74%	50%	140%
Anthracene	267783		< 0.05	< 0.05	NA	< 0.05	115%	50%	140%	76%	50%	140%	79%	50%	140%
Fluoranthene	267783		< 0.05	< 0.05	NA	< 0.05	118%	50%	140%	79%	50%	140%	94%	50%	140%
Pyrene	267783		< 0.05	< 0.05	NA	< 0.05	117%	50%	140%	81%	50%	140%	95%	50%	140%
Benz(a)anthracene	267783		< 0.05	< 0.05	NA	< 0.05	113%	50%	140%	86%	50%	140%	104%	50%	140%
Chrysene	267783		< 0.05	< 0.05	NA	< 0.05	119%	50%	140%	95%	50%	140%	102%	50%	140%
Benzo(b)fluoranthene	267783		< 0.05	< 0.05	NA	< 0.05	97%	50%	140%	78%	50%	140%	73%	50%	140%
Benzo(k)fluoranthene	267783		< 0.05	< 0.05	NA	< 0.05	107%	50%	140%	69%	50%	140%	66%	50%	140%
Benzo(a)pyrene	267783		< 0.05	< 0.05	NA	< 0.05	116%	50%	140%	68%	50%	140%	68%	50%	140%
Indeno(1,2,3-cd)pyrene	267783		< 0.05	< 0.05	NA	< 0.05	111%	50%	140%	62%	50%	140%	66%	50%	140%
Dibenz(a,h)anthracene	267783		< 0.05	< 0.05	NA	< 0.05	116%	50%	140%	72%	50%	140%	70%	50%	140%
Benzo(g,h,i)perylene	267783		< 0.05	< 0.05	NA	< 0.05	111%	50%	140%	63%	50%	140%	64%	50%	140%
O. Reg. 153(511) - OC Pesticides (Soil)															
Hexachloroethane	268265		< 0.01	< 0.01	NA	< 0.01	91%	50%	140%	84%	50%	140%	96%	50%	140%
Gamma-Hexachlorocyclohexane	268265		< 0.005	< 0.005	NA	< 0.005	86%	50%	140%	93%	50%	140%	86%	50%	140%
Heptachlor	268265		< 0.005	< 0.005	NA	< 0.005	82%	50%	140%	95%	50%	140%	80%	50%	140%
Aldrin	268265		< 0.005	< 0.005	NA	< 0.005	87%	50%	140%	94%	50%	140%	87%	50%	140%
Heptachlor Epoxide	268265		< 0.005	< 0.005	NA	< 0.005	90%	50%	140%	94%	50%	140%	89%	50%	140%
Endosulfan	268265		< 0.005	< 0.005	NA	< 0.005	93%	50%	140%	94%	50%	140%	96%	50%	140%
Chlordane	268265		< 0.007	< 0.007	NA	< 0.007	92%	50%	140%	89%	50%	140%	90%	50%	140%
DDE	268265		< 0.007	< 0.007	NA	< 0.007	97%	50%	140%	86%	50%	140%	83%	50%	140%
DDD	268265		< 0.007	< 0.007	NA	< 0.007	97%	50%	140%	84%	50%	140%	83%	50%	140%
DDT	268265		< 0.007	< 0.007	NA	< 0.007	90%	50%	140%	86%	50%	140%	83%	50%	140%
Dieldrin	268265		< 0.005	< 0.005	NA	< 0.005	91%	50%	140%	88%	50%	140%	84%	50%	140%
Endrin	268265		< 0.005	< 0.005	NA	< 0.005	88%	50%	140%	93%	50%	140%	90%	50%	140%
Methoxychlor	268265		< 0.005	< 0.005	NA	< 0.005	93%	50%	140%	103%	50%	140%	91%	50%	140%
Hexachlorobenzene	268265		< 0.005	< 0.005	NA	< 0.005	94%	50%	140%	98%	50%	140%	96%	50%	140%
Hexachlorobutadiene	268265		< 0.01	< 0.01	NA	< 0.01	96%	50%	140%	89%	50%	140%	82%	50%	140%

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T479815

PROJECT: City of Brampton - Phase II

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

Trace Organics Analysis (Continued)

RPT Date: Jun 25, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Phenoxy Acid Herbicides (Soil)															
2,4-D	268398		< 0.10	< 0.10	NA	< 0.10	100%	50%	130%	98%	50%	130%	100%	50%	130%
2,4,5-T	268398		< 0.10	< 0.10	NA	< 0.10	90%	50%	130%	90%	50%	130%	92%	50%	130%
2,4,5-TP (Silvex)	268398		< 0.10	< 0.10	NA	< 0.10	92%	50%	130%	85%	50%	130%	70%	50%	130%
Dicamba	268398		< 0.10	< 0.10	NA	< 0.10	97%	50%	130%	86%	50%	130%	76%	50%	130%
Dichlorprop	268398		< 0.10	< 0.10	NA	< 0.10	102%	50%	130%	90%	50%	130%	80%	50%	130%
Dinoseb	268398		< 0.10	< 0.10	NA	< 0.10	75%	50%	130%	65%	50%	130%	63%	50%	130%
Picloram	268398		< 0.10	< 0.10	NA	< 0.10	103%	50%	130%	80%	50%	130%	64%	50%	130%
Diclofop-methyl	268398		< 0.10	< 0.10	NA	< 0.10	105%	50%	130%	101%	50%	130%	95%	50%	130%
2,3,4,6-Tetrachlorophenol	268398		< 0.05	< 0.05	NA	< 0.05	117%	50%	130%	101%	50%	130%	97%	50%	130%
2,4-Dichlorophenol	268398		< 0.05	< 0.05	NA	< 0.05	99%	50%	130%	90%	50%	130%	74%	50%	130%
2,4,5-Trichlorophenol	268398		< 0.05	< 0.05	NA	< 0.05	90%	50%	130%	85%	50%	130%	70%	50%	130%
2,4,6-Trichlorophenol	268398		< 0.05	< 0.05	NA	< 0.05	111%	50%	130%	101%	50%	130%	97%	50%	130%
Bromoxynil	268398		< 0.5	< 0.5	NA	< 0.5	98%	60%	130%	95%	60%	130%	94%	60%	130%
MCPP (Mecoprop)	268398		< 1.0	< 1.0	NA	< 1.0	NA	50%	130%	100%	50%	130%	80%	50%	130%
MCPA	268398		< 1.0	< 1.0	NA	< 1.0	NA	50%	130%	98%	50%	130%	90%	50%	130%
Pentachlorophenol	268398		< 0.05	< 0.05	NA	< 0.05	94%	50%	130%	90%	50%	130%	80%	50%	130%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By:

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Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T479815

PROJECT: City of Brampton - Phase II

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
Antimony	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Arsenic	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Barium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Beryllium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron (Hot Water Soluble)	MET-93-6104	EPA SW 846 6010C; MSA, Part 3, Ch.21	ICP/OES
Cadmium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Cobalt	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Copper	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Lead	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Molybdenum	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Nickel	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Selenium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Silver	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Thallium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Uranium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Vanadium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Zinc	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium VI	INOR-93-6029	SM 3500 B; MSA Part 3, Ch. 25	SPECTROPHOTOMETER
Cyanide	INOR-93-6052	MOE CN-3015 & E 3009 A;SM 4500 CN	TECHNICON AUTO ANALYZER
Mercury	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Electrical Conductivity	INOR-93-6036	McKeague 4.12, SM 2510 B	EC METER
Sodium Adsorption Ratio	INOR-93-6007	McKeague 4.12 & 3.26 & EPA SW-846 6010C	ICP/OES
pH, 2:1 CaCl2 Extraction	INOR-93-6031	MSA part 3 & SM 4500-H+ B	PH METER

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Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T479815

PROJECT: City of Brampton - Phase II

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Hexachloroethane	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Gamma-Hexachlorocyclohexane	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Heptachlor	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Aldrin	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Heptachlor Epoxide	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Endosulfan	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Chlordane	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
DDE	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
DDD	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
DDT	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Dieldrin	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Endrin	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Methoxychlor	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Hexachlorobenzene	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Hexachlorobutadiene	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
TCMX	ORG-91-5112	EPA SW-846 3541,3620 & 8081	GC/ECD
Decachlorobiphenyl	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Moisture Content		MOE E3139	BALANCE
Naphthalene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Acenaphthylene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Acenaphthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Fluorene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Phenanthrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Anthracene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Pyrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benz(a)anthracene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Chrysene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(b)fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(k)fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(a)pyrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Dibenz(a,h)anthracene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(g,h,i)perylene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
2-and 1-methyl Naphthalene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Chrysene-d12	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
F1 (C6 to C10)	VOL-91-5009	CCME Tier 1 Method, SW846 5035	P&T GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	CCME Tier 1 Method, SW846 5035	P&T GC/FID
F2 (C10 to C16)	VOL-91-5009	CCME Tier 1 Method	GC/FID
F3 (C16 to C34)	VOL-91-5009	CCME Tier 1 Method	GC/FID
F4 (C34 to C50)	VOL-91-5009	CCME Tier 1 Method	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5009	CCME Tier 1 Method	BALANCE
Moisture Content	VOL-91-5009	CCME Tier 1 Method	BALANCE
Terphenyl	VOL-91-5009	CCME Tier 1 Method	GC/FID
Dichlorodifluoromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Vinyl Chloride	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Bromomethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Acetone	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS

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Method Summary

CLIENT NAME: SNC LAVALIN INC
AGAT WORK ORDER: 19T479815
PROJECT: City of Brampton - Phase II
ATTENTION TO: Robert Mitzakov
SAMPLING SITE:
SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
1,1-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methylene Chloride	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Trans- 1,2-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methyl tert-butyl Ether	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Cis- 1,2-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Chloroform	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Benzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Trichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Bromodichloromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Toluene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Dibromochloromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Chlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Ethylbenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
m & p-Xylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Bromoform	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Styrene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
o-Xylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Xylene Mixture	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,3-Dichloropropene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
n-Hexane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Toluene-d8	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
2,4-D	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4,5-T	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4,5-TP (Silvex)	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Dicamba	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Dichlorprop	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Dinoseb	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Picloram	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Diclofop-methyl	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,3,4,6-Tetrachlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4-Dichlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4,5-Trichlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4,6-Trichlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Bromoxynil	ORG-91-5110	EPA SW-846 8151A	GC/ECD

Results relate only to the items tested. Results apply to samples as received.

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Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T479815

PROJECT: City of Brampton - Phase II

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
MCPP (Mecoprop)	ORG-91-5110	EPA SW-846 8151A	GC/ECD
MCPA	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Pentachlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD
DCAA	ORG-91-5110	EPA SW-846 8151	GC/ECD
Phenoxy Extr			N/A

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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webearth.agatlabs.com

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Laboratory Use Only

Work Order #: 19T479815

Cooler Quantity: 1 Blk (1 ice)

Arrival Temperatures: 2.7 | 3.6 | 2.8 | (1 ice)

Custody Seal Intact: ☐ Yes ☐ No ☐ N/A

Notes:

Report Information:

Company: SNC-Lavalin Inc

Contact: 195 The West Mall, Toronto, ON

Address: M9C 5K1

Phone: 416 695 5822 Ext 55815 Fax:

Reports to be sent to:

1. Email: Robert.Mitcalfou@snclavalin.com
2. Email: Abed.Yassin@snclavalin.com

Regulatory Requirements: ☐ No Regulatory Requirement

(Please check all applicable boxes)

☒ Regulation 153/04
Table 9 (Indicate One)
☐ Ind/Com
☐ Res/Park
☐ Agriculture

Soil Texture (Check One)
☐ Coarse
☐ Fine

☐ Sewer Use
☐ Sanitary
☐ Storm

Region _____ (Indicate One)
☐ MISA

☐ Regulation 558
☐ CCME
☐ Prov. Water Quality Objectives (PWQO)
☐ Other

_____ (Indicate One)

Is this submission for a **Record of Site Condition?** ☒ Yes ☐ No

Report Guideline on *Certificate of Analysis* ☐ Yes ☐ No

Turnaround Time (TAT) Required:

Regular TAT ☒ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day

OR Date Required (Rush Surcharges May Apply): _____

Please provide prior notification for rush TAT
TAT is exclusive of weekends and statutory holidays

For 'Same Day' analysis, please contact your AGAT CPM

Project Information:

Project: City of Brampton - Phase II

Site Location: 10192 Highway 50, Brampton, ON

Sampled By: Joey Preston

AGAT Quote #: _____ PO: 665123

Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

Bill To Same: Yes ☐ No ☐

Company:

Contact:

Address:

Email:

Sample Matrix Legend

B	Biota
GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI (Y/N)	Metals and Inorganics	O. Reg 153	Full Metals Scan	Regulation/Custom Metals	Nutrients	Volatiles	PHCs F1 - F4, VOCs	ABNs	PAHs	PCBs	Organochlorine Pesticides	TCLP	Sewer Use	ORPs, Metals/Inorganics	SAR/Conductivity	Herbicides/Pesticides	Potentially Hazardous or High Concentration (Y/N)
BH35-03	June 12/19	8:50	1	Soil	Limited Recovery								X							X		X	
BH35-07	↓	9:40	2	Soil									X								SAR		
BH22-03A		12:10	2	Soil											X					X		X	
BH22-08A		13:45	2	Soil									X										
BH52-03	↓	16:45	2	Soil																X		X	

Samples Relinquished By (Print Name and Sign)	Date	Time	Samples Received By (Print Name and Sign)	Date	Time
Joey Preston	June 12/19	17:00	Neil Ramnarain	June 12/19	6:52 pm

Page _____ of _____

N°: T 090357

AGAT Laboratories

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http://www.agatlabs.com

CLIENT NAME: SNC LAVALIN INC
235 LESMILL ROAD
TORONTO, ON M3B 2V1
(416) 679-6000

ATTENTION TO: Robert Mitzakov

PROJECT: City of Brampton Phase 2 ESA

AGAT WORK ORDER: 19T483045

SOIL ANALYSIS REVIEWED BY: Amanjot Bhela, Inorganic Supervisor

TRACE ORGANICS REVIEWED BY: Neli Popnikolova, Senior Chemist

DATE REPORTED: Jun 28, 2019

PAGES (INCLUDING COVER): 24

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

*NOTES

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.

Member of: Association of Professional Engineers and Geoscientists of Alberta (APEGA)
Western Enviro-Agricultural Laboratory Association (WEALA)
Environmental Services Association of Alberta (ESAA)

AGAT Laboratories is accredited to ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA) and/or Standards Council of Canada (SCC) for specific tests listed on the scope of accreditation. AGAT Laboratories (Mississauga) is also accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) for specific drinking water tests. Accreditations are location and parameter specific. A complete listing of parameters for each location is available from www.cala.ca and/or www.scc.ca. The tests in this report may not necessarily be included in the scope of accreditation. Measurement Uncertainty is not taken into consideration when stating conformity with a specified requirement.

Results relate only to the items tested. Results apply to samples as received.
All reportable information as specified by ISO 17025:2017 is available from AGAT Laboratories upon request

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Certificate of Analysis

AGAT WORK ORDER: 19T483045

PROJECT: City of Brampton Phase 2 ESA

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2019-06-21

DATE REPORTED: 2019-06-28

SAMPLE DESCRIPTION:				BH33-2	BH33-22
SAMPLE TYPE:				Soil	Soil
DATE SAMPLED:				2019-06-19	2019-06-19
Parameter	Unit	G / S	RDL	294685	294693
Antimony	µg/g	1.3	0.8	<0.8	<0.8
Arsenic	µg/g	18	1	4	4
Barium	µg/g	220	2	81	98
Beryllium	µg/g	2.5	0.5	<0.5	0.5
Boron	µg/g	36	5	7	8
Boron (Hot Water Soluble)	µg/g	1.5	0.10	<0.10	<0.10
Cadmium	µg/g	1.2	0.5	<0.5	<0.5
Chromium	µg/g	70	2	19	22
Cobalt	µg/g	22	0.5	9.1	10.0
Copper	µg/g	92	1	18	18
Lead	µg/g	120	1	8	9
Molybdenum	µg/g	2	0.5	<0.5	<0.5
Nickel	µg/g	82	1	21	24
Selenium	µg/g	1.5	0.4	<0.4	<0.4
Silver	µg/g	0.5	0.2	<0.2	<0.2
Thallium	µg/g	1	0.4	<0.4	<0.4
Uranium	µg/g	2.5	0.5	<0.5	<0.5
Vanadium	µg/g	86	1	29	31
Zinc	µg/g	290	5	46	46
Chromium VI	µg/g	0.66	0.2	<0.2	<0.2
Cyanide	µg/g	0.051	0.040	<0.040	<0.040
Mercury	µg/g	0.27	0.10	<0.10	<0.10
Electrical Conductivity	mS/cm	0.7	0.005	0.183	0.191
Sodium Adsorption Ratio	NA	5	NA	0.451	0.455
pH, 2:1 CaCl2 Extraction	pH Units		NA	7.75	7.62

Certified By:

Amanjot Bhela

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
AMANJOT BHELA
CHEMIST

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AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 19T483045

PROJECT: City of Brampton Phase 2 ESA

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2019-06-21

DATE REPORTED: 2019-06-28

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

294685-294693 EC was determined on the DI water extract obtained from the 2:1 leaching procedure (2 parts DI water:1 part soil). pH was determined on the 0.01M CaCl2 extract prepared at 2:1 ratio. SAR is a calculated parameter.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: Amanjot Bhela

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 19T483045

PROJECT: City of Brampton Phase 2 ESA

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 558 Metals and Inorganics

DATE RECEIVED: 2019-06-21

DATE REPORTED: 2019-06-28

		SAMPLE DESCRIPTION:		COMP-1
		SAMPLE TYPE:		Soil
		DATE SAMPLED:		2019-06-19
Parameter	Unit	G / S	RDL	294734
Arsenic Leachate	mg/L	2.5	0.010	<0.010
Barium Leachate	mg/L	100	0.100	0.524
Boron Leachate	mg/L	500	0.050	0.057
Cadmium Leachate	mg/L	0.5	0.010	<0.010
Chromium Leachate	mg/L	5	0.010	<0.010
Lead Leachate	mg/L	5	0.010	<0.010
Mercury Leachate	mg/L	0.1	0.01	<0.01
Selenium Leachate	mg/L	1	0.010	<0.010
Silver Leachate	mg/L	5	0.010	<0.010
Uranium Leachate	mg/L	10	0.050	<0.050
Fluoride Leachate	mg/L	150	0.05	0.24
Cyanide Leachate	mg/L	20	0.05	<0.05
(Nitrate + Nitrite) as N Leachate	mg/L	1000	0.70	<0.70

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to O. Reg. 558 - Schedule IV Leachate Quality Criteria
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: Amanjot Bhela

CHARTERED AMANJOT BHELA CHEMIST

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 19T483045

PROJECT: City of Brampton Phase 2 ESA

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - OC Pesticides (Soil)

DATE RECEIVED: 2019-06-21

DATE REPORTED: 2019-06-28

		SAMPLE DESCRIPTION:		BH33-3
		SAMPLE TYPE:		Soil
		DATE SAMPLED:		2019-06-19
Parameter	Unit	G / S	RDL	294694
Hexachloroethane	µg/g	0.01	0.01	<0.01
Gamma-Hexachlorocyclohexane	µg/g	0.01	0.005	<0.005
Heptachlor	µg/g	0.05	0.005	<0.005
Aldrin	µg/g	0.05	0.005	<0.005
Heptachlor Epoxide	µg/g	0.05	0.005	<0.005
Endosulfan	µg/g	0.04	0.005	<0.005
Chlordane	µg/g	0.05	0.007	<0.007
DDE	µg/g	0.05	0.007	<0.007
DDD	µg/g	0.05	0.007	<0.007
DDT	µg/g	1.4	0.007	<0.007
Dieldrin	µg/g	0.05	0.005	<0.005
Endrin	µg/g	0.04	0.005	<0.005
Methoxychlor	µg/g	0.05	0.005	<0.005
Hexachlorobenzene	µg/g	0.02	0.005	<0.005
Hexachlorobutadiene	µg/g	0.01	0.01	<0.01
Moisture Content	%		0.1	13.9
Surrogate	Unit	Acceptable Limits		
TCMX	%	50-140		70
Decachlorobiphenyl	%	60-130		78

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

294694 Results are based on the dry weight of the soil.
DDT total is a calculated parameter. The calculated value is the sum of op'DDT and pp'DDT.
DDD total is a calculated parameter. The calculated value is the sum of op'DDD and pp'DDD.
DDE total is a calculated parameter. The calculated value is the sum of op'DDE and pp'DDE.
Endosulfan total is a calculated parameter. The calculated value is the sum of Endosulfan I and Endosulfan II.
Chlordane total is a calculated parameter. The calculated value is the sum of Alpha-Chlordane and Gamma-Chlordane.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: NPopowkolof

Results relate only to the items tested. Results apply to samples as received.

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Certificate of Analysis

AGAT WORK ORDER: 19T483045

PROJECT: City of Brampton Phase 2 ESA

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - PAHs (Soil)

DATE RECEIVED: 2019-06-21

DATE REPORTED: 2019-06-28

		SAMPLE DESCRIPTION:		BH33-3
		SAMPLE TYPE:		Soil
		DATE SAMPLED:		2019-06-19
Parameter	Unit	G / S	RDL	294694
Naphthalene	µg/g	0.09	0.05	<0.05
Acenaphthylene	µg/g	0.093	0.05	<0.05
Acenaphthene	µg/g	0.072	0.05	<0.05
Fluorene	µg/g	0.19	0.05	<0.05
Phenanthrene	µg/g	0.69	0.05	<0.05
Anthracene	µg/g	0.22	0.05	<0.05
Fluoranthene	µg/g	0.69	0.05	<0.05
Pyrene	µg/g	1	0.05	<0.05
Benz(a)anthracene	µg/g	0.36	0.05	<0.05
Chrysene	µg/g	2.8	0.05	<0.05
Benzo(b)fluoranthene	µg/g	0.47	0.05	<0.05
Benzo(k)fluoranthene	µg/g	0.48	0.05	<0.05
Benzo(a)pyrene	µg/g	0.3	0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.23	0.05	<0.05
Dibenz(a,h)anthracene	µg/g	0.1	0.05	<0.05
Benzo(g,h,i)perylene	µg/g	0.68	0.05	<0.05
2-and 1-methyl Naphthalene	µg/g	0.59	0.05	<0.05
Surrogate	Unit	Acceptable Limits		
Chrysene-d12	%	50-140		73

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

294694 Results are based on the dry weight of the soil.
Note: The result for Benzo(b)Fluoranthene is the total of the Benzo(b)&j)Fluoranthene isomers because the isomers co-elute on the GC column.
2- and 1-Methyl Naphthalene is a calculated parameter. The calculated value is the sum of 2-Methyl Naphthalene and 1-Methyl Naphthalene.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: NPopowkolof

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 19T483045

PROJECT: City of Brampton Phase 2 ESA

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - PHCs F1 - F4 (-BTEX) (Soil)

DATE RECEIVED: 2019-06-21

DATE REPORTED: 2019-06-28

		SAMPLE DESCRIPTION:		BH33-7	BH33-77
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2019-06-19	2019-06-19
Parameter	Unit	G / S	RDL	294696	294732
F1 (C6 to C10)	µg/g		5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	25	5	<5	<5
F2 (C10 to C16)	µg/g	10	10	<10	<10
F3 (C16 to C34)	µg/g	240	50	<50	<50
F4 (C34 to C50)	µg/g	120	50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g	120	50	NA	NA
Moisture Content	%		0.1	9.4	8.5
Surrogate	Unit	Acceptable Limits			
Terphenyl	%	60-140		91	110

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

294696-294732 Results are based on sample dry weight.
The C6-C10 fraction is calculated using toluene response factor.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6 - C50 results are corrected for BTEX contribution.
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC6 and nC10 response factors are within 30% of Toluene response factor.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 + nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.
Fractions 1-4 are quantified without the contribution of PAHs. Under Ontario Regulation 153, results are considered valid without determining the PAH contribution if not requested by the client.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: NPopowkolof

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 19T483045

PROJECT: City of Brampton Phase 2 ESA

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - VOCs (Soil)

DATE RECEIVED: 2019-06-21

DATE REPORTED: 2019-06-28

		SAMPLE DESCRIPTION:		BH33-7	BH33-77
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2019-06-19	2019-06-19
Parameter	Unit	G / S	RDL	294696	294732
Dichlorodifluoromethane	µg/g	0.05	0.05	<0.05	<0.05
Vinyl Chloride	ug/g	0.02	0.02	<0.02	<0.02
Bromomethane	ug/g	0.05	0.05	<0.05	<0.05
Trichlorofluoromethane	ug/g	0.25	0.05	<0.05	<0.05
Acetone	ug/g	0.5	0.50	<0.50	<0.50
1,1-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05
Methylene Chloride	ug/g	0.05	0.05	<0.05	<0.05
Trans- 1,2-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05
Methyl tert-butyl Ether	ug/g	0.05	0.05	<0.05	<0.05
1,1-Dichloroethane	ug/g	0.05	0.02	<0.02	<0.02
Methyl Ethyl Ketone	ug/g	0.5	0.50	<0.50	<0.50
Cis- 1,2-Dichloroethylene	ug/g	0.05	0.02	<0.02	<0.02
Chloroform	ug/g	0.05	0.04	<0.04	<0.04
1,2-Dichloroethane	ug/g	0.05	0.03	<0.03	<0.03
1,1,1-Trichloroethane	ug/g	0.05	0.05	<0.05	<0.05
Carbon Tetrachloride	ug/g	0.05	0.05	<0.05	<0.05
Benzene	ug/g	0.02	0.02	<0.02	<0.02
1,2-Dichloropropane	ug/g	0.05	0.03	<0.03	<0.03
Trichloroethylene	ug/g	0.05	0.03	<0.03	<0.03
Bromodichloromethane	ug/g	0.05	0.05	<0.05	<0.05
Methyl Isobutyl Ketone	ug/g	0.5	0.50	<0.50	<0.50
1,1,2-Trichloroethane	ug/g	0.05	0.04	<0.04	<0.04
Toluene	ug/g	0.2	0.05	<0.05	<0.05
Dibromochloromethane	ug/g	0.05	0.05	<0.05	<0.05
Ethylene Dibromide	ug/g	0.05	0.04	<0.04	<0.04
Tetrachloroethylene	ug/g	0.05	0.05	<0.05	<0.05
1,1,1,2-Tetrachloroethane	ug/g	0.05	0.04	<0.04	<0.04
Chlorobenzene	ug/g	0.05	0.05	<0.05	<0.05
Ethylbenzene	ug/g	0.05	0.05	<0.05	<0.05
m & p-Xylene	ug/g		0.05	<0.05	<0.05

Certified By: N Popnikolof

Results relate only to the items tested. Results apply to samples as received.

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Certificate of Analysis

AGAT WORK ORDER: 19T483045

PROJECT: City of Brampton Phase 2 ESA

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - VOCs (Soil)

DATE RECEIVED: 2019-06-21

DATE REPORTED: 2019-06-28

		SAMPLE DESCRIPTION:		BH33-7	BH33-77
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2019-06-19	2019-06-19
Parameter	Unit	G / S	RDL	294696	294732
Bromoform	ug/g	0.05	0.05	<0.05	<0.05
Styrene	ug/g	0.05	0.05	<0.05	<0.05
1,1,2,2-Tetrachloroethane	ug/g	0.05	0.05	<0.05	<0.05
o-Xylene	ug/g		0.05	<0.05	<0.05
1,3-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05
1,4-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05
1,2-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05
Xylene Mixture	ug/g	0.05	0.05	<0.05	<0.05
1,3-Dichloropropene	µg/g	0.05	0.04	<0.04	<0.04
n-Hexane	µg/g	0.05	0.05	<0.05	<0.05
Surrogate	Unit	Acceptable Limits			
Toluene-d8	% Recovery	50-140		109	108
4-Bromofluorobenzene	% Recovery	50-140		80	79

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

294696-294732 The sample was analyzed using the high level technique. The sample was extracted using methanol, a small amount of the methanol extract was diluted in water and the purge & trap GC/MS analysis was performed. Results are based on the dry weight of the soil.
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene + o-Xylene.
1,3-Dichloropropene total is a calculated parameter. The calculated value is the sum of Cis-1,3-Dichloropropene and Trans-1,3-Dichloropropene.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: N Popnikolof

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Certificate of Analysis

AGAT WORK ORDER: 19T483045

PROJECT: City of Brampton Phase 2 ESA

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 558 - SVOCs

DATE RECEIVED: 2019-06-21

DATE REPORTED: 2019-06-28

		SAMPLE DESCRIPTION:		COMP-1
		SAMPLE TYPE:		Soil
		DATE SAMPLED:		2019-06-19
Parameter	Unit	G / S	RDL	294734
Pyridine	mg/L	5.0	0.010	<0.010
Cresols	mg/L	200	0.012	<0.012
Ortho-Cresol	mg/L	200	0.004	<0.004
Meta & Para-Cresol	mg/L	200	0.008	<0.008
Hexachloroethane	mg/L	3	0.004	<0.004
Nitrobenzene	mg/L	2.0	0.004	<0.004
Hexachlorobutadiene	mg/L	0.5	0.004	<0.004
2,4,6-Trichlorophenol	mg/L	0.5	0.05	<0.05
2,4,5-Trichlorophenol	mg/L	400	0.004	<0.004
2,4-Dinitrotoluene	mg/L	0.13	0.004	<0.004
2,3,4,6-Tetrachlorophenol	mg/L	10	0.004	<0.004
Hexachlorobenzene	mg/L	0.13	0.004	<0.004
Dinoseb	mg/L	1	0.004	<0.004
Benzo(a)pyrene	mg/L	0.001	0.001	<0.001
BNA Extr	NA			Y
Surrogate	Unit	Acceptable Limits		
Chrysene-d12	%	50-130		101

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to O. Reg. 558 - Schedule IV Leachate Quality Criteria
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

294734 The sample was leached according to Regulation 558 protocol. Analysis was performed on the leachate.
Cresols total is a calculated parameter. The calculated value is the sum o-Cresol and m&p-Cresol.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: N Popnikolof

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Certificate of Analysis

AGAT WORK ORDER: 19T483045

PROJECT: City of Brampton Phase 2 ESA

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 558 - VOCs

DATE RECEIVED: 2019-06-21

DATE REPORTED: 2019-06-28

		SAMPLE DESCRIPTION:		COMP-1
		SAMPLE TYPE:		Soil
		DATE SAMPLED:		2019-06-19
Parameter	Unit	G / S	RDL	294734
Vinyl Chloride	mg/L	0.2	0.030	<0.030
1,1 Dichloroethene	mg/L	1.4	0.020	<0.020
Dichloromethane	mg/L	5.0	0.030	<0.030
Methyl Ethyl Ketone	mg/L	200	0.090	<0.090
Chloroform	mg/L	10.0	0.020	<0.020
1,2-Dichloroethane	mg/L	0.5	0.020	<0.020
Carbon Tetrachloride	mg/L	0.5	0.020	<0.020
Benzene	mg/L	0.5	0.020	<0.020
Trichloroethene	mg/L	5.0	0.020	<0.020
Tetrachloroethene	mg/L	3.0	0.050	<0.050
Chlorobenzene	mg/L	8.0	0.010	<0.010
1,2-Dichlorobenzene	mg/L	20.0	0.010	<0.010
1,4-Dichlorobenzene	mg/L	0.5	0.010	<0.010
Surrogate	Unit	Acceptable Limits		
Toluene-d8	% Recovery	60-130		91

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to O. Reg. 558 - Schedule IV Leachate Quality Criteria
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

294734 Sample was prepared using Regulation 558 protocol and a zero headspace extractor.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 19T483045

PROJECT: City of Brampton Phase 2 ESA

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

Phenoxy Acid Herbicides (Soil)

DATE RECEIVED: 2019-06-21

DATE REPORTED: 2019-06-28

		SAMPLE DESCRIPTION:		BH33-3
		SAMPLE TYPE:		Soil
		DATE SAMPLED:		2019-06-19
Parameter	Unit	G / S	RDL	294694
2,4-D	ug/g		0.10	<0.10
2,4,5-T	ug/g		0.10	<0.10
2,4,5-TP (Silvex)	ug/g		0.10	<0.10
Dicamba	ug/g		0.10	<0.10
Dichlorprop	ug/g		0.10	<0.10
Dinoseb	ug/g		0.10	<0.10
Picloram	ug/g		0.10	<0.10
Diclofop-methyl	ug/g		0.10	<0.10
2,3,4,6-Tetrachlorophenol	ug/g		0.05	<0.05
2,4-Dichlorophenol	ug/g		0.05	<0.05
2,4,5-Trichlorophenol	ug/g		0.05	<0.05
2,4,6-Trichlorophenol	ug/g		0.05	<0.05
Bromoxynil	ug/g		0.5	<0.5
MCPP (Mecoprop)	ug/g		1.0	<1.0
MCPA	ug/g		1.0	<1.0
Pentachlorophenol	ug/g		0.05	<0.05
Phenoxy Extr	NA			Y
Surrogate	Unit	Acceptable Limits		
DCAA	%	50-130		65

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: N Popnikolof

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Certificate of Analysis

AGAT WORK ORDER: 19T483045

PROJECT: City of Brampton Phase 2 ESA

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

Total PCBs (soil)

DATE RECEIVED: 2019-06-21

DATE REPORTED: 2019-06-28

		SAMPLE DESCRIPTION:		COMP-1
		SAMPLE TYPE:		Soil
		DATE SAMPLED:		2019-06-19
Parameter	Unit	G / S	RDL	294734
PCBs	µg/g	0.3	0.1	<0.1
Moisture Content	%		0.1	5.9
Surrogate	Unit	Acceptable Limits		
Decachlorobiphenyl	%	60-130		120

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

294734 Results are based on the dry weight of soil extracted.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: N Popnikolof

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC
PROJECT: City of Brampton Phase 2 ESA
SAMPLING SITE:

AGAT WORK ORDER: 19T483045
ATTENTION TO: Robert Mitzakov
SAMPLED BY:

Soil Analysis

RPT Date: Jun 28, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - Metals & Inorganics (Soil)															
Antimony	300433		<0.8	<0.8	NA	< 0.8	127%	70%	130%	99%	80%	120%	88%	70%	130%
Arsenic	300433		3	3	NA	< 1	105%	70%	130%	100%	80%	120%	97%	70%	130%
Barium	300433		256	249	2.8%	< 2	108%	70%	130%	103%	80%	120%	98%	70%	130%
Beryllium	300433		1.3	1.3	NA	< 0.5	73%	70%	130%	118%	80%	120%	82%	70%	130%
Boron	300433		<5	<5	NA	< 5	88%	70%	130%	111%	80%	120%	113%	70%	130%
Boron (Hot Water Soluble)	300433		0.14	0.16	NA	< 0.10	118%	60%	140%	107%	70%	130%	104%	60%	140%
Cadmium	300433		<0.5	<0.5	NA	< 0.5	110%	70%	130%	103%	80%	120%	105%	70%	130%
Chromium	300433		35	37	5.6%	< 2	90%	70%	130%	104%	80%	120%	117%	70%	130%
Cobalt	300433		10.8	11.3	4.5%	< 0.5	93%	70%	130%	104%	80%	120%	100%	70%	130%
Copper	300433		30	31	3.3%	< 1	89%	70%	130%	105%	80%	120%	95%	70%	130%
Lead	300433		14	14	0.0%	< 1	107%	70%	130%	94%	80%	120%	92%	70%	130%
Molybdenum	300433		<0.5	<0.5	NA	< 0.5	105%	70%	130%	103%	80%	120%	99%	70%	130%
Nickel	300433		35	36	2.8%	< 1	96%	70%	130%	109%	80%	120%	104%	70%	130%
Selenium	300433		0.4	0.5	NA	< 0.4	110%	70%	130%	99%	80%	120%	93%	70%	130%
Silver	300433		<0.2	<0.2	NA	< 0.2	102%	70%	130%	103%	80%	120%	101%	70%	130%
Thallium	300433		<0.4	<0.4	NA	< 0.4	87%	70%	130%	100%	80%	120%	99%	70%	130%
Uranium	300433		1.1	1.1	NA	< 0.5	92%	70%	130%	86%	80%	120%	87%	70%	130%
Vanadium	300433		46	48	4.3%	< 1	91%	70%	130%	100%	80%	120%	109%	70%	130%
Zinc	300433		58	59	1.7%	< 5	97%	70%	130%	105%	80%	120%	110%	70%	130%
Chromium VI	294607		<0.2	<0.2	NA	< 0.2	105%	70%	130%	99%	80%	120%	102%	70%	130%
Cyanide	300023		<0.040	<0.040	NA	< 0.040	95%	70%	130%	94%	80%	120%	98%	70%	130%
Mercury	300433		<0.10	<0.10	NA	< 0.10	106%	70%	130%	102%	80%	120%	103%	70%	130%
Electrical Conductivity	300433		0.321	0.322	0.3%	< 0.005	100%	90%	110%	NA			NA		
Sodium Adsorption Ratio	300433		0.418	0.409	2.2%	NA	NA			NA			NA		
pH, 2:1 CaCl2 Extraction	295482		7.60	7.61	0.1%	NA	103%	80%	120%	NA			NA		

Comments: NA signifies Not Applicable.
Duplicate Qualifier: As the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL
pH duplicates QA acceptance criteria was met relative as stated in Table 5-15 of Analytical Protocol document.

O. Reg. 558 Metals and Inorganics															
Arsenic Leachate	300086		<0.010	<0.010	NA	< 0.010	100%	90%	110%	105%	80%	120%	114%	70%	130%
Barium Leachate	300086		0.199	0.219	NA	< 0.100	102%	90%	110%	107%	80%	120%	113%	70%	130%
Boron Leachate	300086		0.058	0.054	NA	< 0.050	104%	90%	110%	110%	80%	120%	78%	70%	130%
Cadmium Leachate	300086		<0.010	<0.010	NA	< 0.010	100%	90%	110%	99%	80%	120%	98%	70%	130%
Chromium Leachate	300086		<0.010	<0.010	NA	< 0.010	95%	90%	110%	109%	80%	120%	91%	70%	130%
Lead Leachate	300086		<0.010	<0.010	NA	< 0.010	105%	90%	110%	117%	80%	120%	110%	70%	130%
Mercury Leachate	300086		<0.01	<0.01	NA	< 0.01	100%	90%	110%	92%	80%	120%	90%	70%	130%
Selenium Leachate	300086		<0.010	<0.010	NA	< 0.010	99%	90%	110%	105%	80%	120%	114%	70%	130%
Silver Leachate	300086		<0.010	<0.010	NA	< 0.010	99%	90%	110%	101%	80%	120%	89%	70%	130%

AGAT Laboratories is accredited to ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA) and/or Standards Council of Canada (SCC) for specific tests listed on the scope of accreditation. AGAT Laboratories (Mississauga) is also accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) for specific drinking water tests. Accreditations are location and parameter specific. A complete listing of parameters for each location is available from www.cala.ca and/or www.scc.ca. The tests in this report may not necessarily be included in the scope of accreditation. RPDs calculated using raw data. The RPD may not be reflective of duplicate values shown, due to rounding of final results.

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T483045

PROJECT: City of Brampton Phase 2 ESA

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

Soil Analysis (Continued)

RPT Date: Jun 28, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Uranium Leachate	300086		<0.050	<0.050	NA	< 0.050	102%	90%	110%	103%	80%	120%	107%	70%	130%
Fluoride Leachate	300086		0.17	0.17	NA	< 0.05	102%	90%	110%	106%	90%	110%	97%	70%	130%
Cyanide Leachate	300086		<0.05	<0.05	NA	< 0.05	95%	90%	110%	94%	90%	110%	103%	70%	130%
(Nitrate + Nitrite) as N Leachate	300086		<0.70	<0.70	NA	< 0.70	98%	80%	120%	97%	80%	120%	106%	70%	130%

Comments: NA signifies Not Applicable.
Duplicate Qualifier: As the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL

Certified By:

Amanjot Bhela

CHARTERED CHEMIST AMANJOT BHELA — ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC
PROJECT: City of Brampton Phase 2 ESA
SAMPLING SITE:

AGAT WORK ORDER: 19T483045
ATTENTION TO: Robert Mitzakov
SAMPLED BY:

Trace Organics Analysis

RPT Date: Jun 28, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - PAHs (Soil)															
Naphthalene	294694	294694	< 0.05	< 0.05	NA	< 0.05	112%	50%	140%	88%	50%	140%	72%	50%	140%
Acenaphthylene	294694	294694	< 0.05	< 0.05	NA	< 0.05	113%	50%	140%	92%	50%	140%	73%	50%	140%
Acenaphthene	294694	294694	< 0.05	< 0.05	NA	< 0.05	108%	50%	140%	92%	50%	140%	74%	50%	140%
Fluorene	294694	294694	< 0.05	< 0.05	NA	< 0.05	112%	50%	140%	89%	50%	140%	75%	50%	140%
Phenanthrene	294694	294694	< 0.05	< 0.05	NA	< 0.05	107%	50%	140%	80%	50%	140%	67%	50%	140%
Anthracene	294694	294694	< 0.05	< 0.05	NA	< 0.05	94%	50%	140%	81%	50%	140%	67%	50%	140%
Fluoranthene	294694	294694	< 0.05	< 0.05	NA	< 0.05	119%	50%	140%	98%	50%	140%	79%	50%	140%
Pyrene	294694	294694	< 0.05	< 0.05	NA	< 0.05	116%	50%	140%	99%	50%	140%	77%	50%	140%
Benz(a)anthracene	294694	294694	< 0.05	< 0.05	NA	< 0.05	62%	50%	140%	101%	50%	140%	68%	50%	140%
Chrysene	294694	294694	< 0.05	< 0.05	NA	< 0.05	112%	50%	140%	101%	50%	140%	73%	50%	140%
Benzo(b)fluoranthene	294694	294694	< 0.05	< 0.05	NA	< 0.05	111%	50%	140%	70%	50%	140%	72%	50%	140%
Benzo(k)fluoranthene	294694	294694	< 0.05	< 0.05	NA	< 0.05	116%	50%	140%	70%	50%	140%	65%	50%	140%
Benzo(a)pyrene	294694	294694	< 0.05	< 0.05	NA	< 0.05	108%	50%	140%	78%	50%	140%	61%	50%	140%
Indeno(1,2,3-cd)pyrene	294694	294694	< 0.05	< 0.05	NA	< 0.05	74%	50%	140%	86%	50%	140%	69%	50%	140%
Dibenz(a,h)anthracene	294694	294694	< 0.05	< 0.05	NA	< 0.05	66%	50%	140%	85%	50%	140%	66%	50%	140%
Benzo(g,h,i)perylene	294694	294694	< 0.05	< 0.05	NA	< 0.05	105%	50%	140%	88%	50%	140%	71%	50%	140%
O. Reg. 153(511) - OC Pesticides (Soil)															
Hexachloroethane	294132		< 0.01	< 0.01	NA	< 0.01	85%	50%	140%	84%	50%	140%	94%	50%	140%
Gamma-Hexachlorocyclohexane	294132		< 0.005	< 0.005	NA	< 0.005	86%	50%	140%	93%	50%	140%	86%	50%	140%
Heptachlor	294132		< 0.005	< 0.005	NA	< 0.005	82%	50%	140%	95%	50%	140%	80%	50%	140%
Aldrin	294132		< 0.005	< 0.005	NA	< 0.005	87%	50%	140%	94%	50%	140%	87%	50%	140%
Heptachlor Epoxide	294132		< 0.005	< 0.005	NA	< 0.005	90%	50%	140%	94%	50%	140%	89%	50%	140%
Endosulfan	294132		< 0.005	< 0.005	NA	< 0.005	93%	50%	140%	92%	50%	140%	91%	50%	140%
Chlordane	294132		< 0.007	< 0.007	NA	< 0.007	92%	50%	140%	89%	50%	140%	90%	50%	140%
DDE	294132		< 0.007	< 0.007	NA	< 0.007	97%	50%	140%	86%	50%	140%	83%	50%	140%
DDD	294132		< 0.007	< 0.007	NA	< 0.007	97%	50%	140%	84%	50%	140%	83%	50%	140%
DDT	294132		< 0.007	< 0.007	NA	< 0.007	90%	50%	140%	86%	50%	140%	83%	50%	140%
Dieldrin	294132		< 0.005	< 0.005	NA	< 0.005	91%	50%	140%	88%	50%	140%	84%	50%	140%
Endrin	294132		< 0.005	< 0.005	NA	< 0.005	88%	50%	140%	93%	50%	140%	90%	50%	140%
Methoxychlor	294132		< 0.005	< 0.005	NA	< 0.005	93%	50%	140%	103%	50%	140%	91%	50%	140%
Hexachlorobenzene	294132		< 0.005	< 0.005	NA	< 0.005	90%	50%	140%	98%	50%	140%	92%	50%	140%
Hexachlorobutadiene	294132		< 0.01	< 0.01	NA	< 0.01	86%	50%	140%	92%	50%	140%	100%	50%	140%
Phenoxy Acid Herbicides (Soil)															
2,4-D	268398		< 0.10	< 0.10	NA	< 0.10	100%	50%	130%	98%	50%	130%	100%	50%	130%
2,4,5-T	268398		< 0.10	< 0.10	NA	< 0.10	90%	50%	130%	90%	50%	130%	92%	50%	130%
2,4,5-TP (Silvex)	268398		< 0.10	< 0.10	NA	< 0.10	92%	50%	130%	85%	50%	130%	70%	50%	130%
Dicamba	268398		< 0.10	< 0.10	NA	< 0.10	97%	50%	130%	86%	50%	130%	76%	50%	130%
Dichlorprop	268398		< 0.10	< 0.10	NA	< 0.10	102%	50%	130%	90%	50%	130%	80%	50%	130%

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC
AGAT WORK ORDER: 19T483045
PROJECT: City of Brampton Phase 2 ESA
ATTENTION TO: Robert Mitzakov
SAMPLING SITE:
SAMPLED BY:

Trace Organics Analysis (Continued)

RPT Date: Jun 28, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Dinoseb	268398		< 0.10	< 0.10	NA	< 0.10	75%	50%	130%	65%	50%	130%	63%	50%	130%
Picloram	268398		< 0.10	< 0.10	NA	< 0.10	103%	50%	130%	80%	50%	130%	64%	50%	130%
Diclofop-methyl	268398		< 0.10	< 0.10	NA	< 0.10	105%	50%	130%	101%	50%	130%	95%	50%	130%
2,3,4,6-Tetrachlorophenol	268398		< 0.05	< 0.05	NA	< 0.05	117%	50%	130%	101%	50%	130%	97%	50%	130%
2,4-Dichlorophenol	268398		< 0.05	< 0.05	NA	< 0.05	99%	50%	130%	90%	50%	130%	74%	50%	130%
2,4,5-Trichlorophenol	268398		< 0.05	< 0.05	NA	< 0.05	90%	50%	130%	85%	50%	130%	70%	50%	130%
2,4,6-Trichlorophenol	268398		< 0.05	< 0.05	NA	< 0.05	111%	50%	130%	101%	50%	130%	97%	50%	130%
Bromoxynil	268398		< 0.5	< 0.5	NA	< 0.5	98%	60%	130%	95%	60%	130%	94%	60%	130%
MCPP (Mecoprop)	268398		< 1.0	< 1.0	NA	< 1.0	NA	50%	130%	100%	50%	130%	80%	50%	130%
MCPA	268398		< 1.0	< 1.0	NA	< 1.0	NA	50%	130%	98%	50%	130%	90%	50%	130%
Pentachlorophenol	268398		< 0.05	< 0.05	NA	< 0.05	94%	50%	130%	90%	50%	130%	80%	50%	130%
O. Reg. 153(511) - PHCs F1 - F4 (-BTEX) (Soil)															
F1 (C6 to C10)	300201		< 5	< 5	NA	< 5	113%	60%	130%	104%	85%	115%	95%	70%	130%
F2 (C10 to C16)	247073		< 10	< 10	NA	< 10	102%	60%	130%	107%	80%	120%	86%	70%	130%
F3 (C16 to C34)	247073		< 50	< 50	NA	< 50	103%	60%	130%	117%	80%	120%	91%	70%	130%
F4 (C34 to C50)	247073		< 50	< 50	NA	< 50	94%	60%	130%	119%	80%	120%	118%	70%	130%
O. Reg. 153(511) - VOCs (Soil)															
Dichlorodifluoromethane	291666		< 0.05	< 0.05	NA	< 0.05	85%	50%	140%	88%	50%	140%	88%	50%	140%
Vinyl Chloride	291666		< 0.02	< 0.02	NA	< 0.02	99%	50%	140%	99%	50%	140%	102%	50%	140%
Bromomethane	291666		< 0.05	< 0.05	NA	< 0.05	103%	50%	140%	117%	50%	140%	111%	50%	140%
Trichlorofluoromethane	291666		< 0.05	< 0.05	NA	< 0.05	96%	50%	140%	95%	50%	140%	102%	50%	140%
Acetone	291666		< 0.50	< 0.50	NA	< 0.50	96%	50%	140%	95%	50%	140%	92%	50%	140%
1,1-Dichloroethylene	291666		< 0.05	< 0.05	NA	< 0.05	78%	50%	140%	99%	60%	130%	102%	50%	140%
Methylene Chloride	291666		< 0.05	< 0.05	NA	< 0.05	106%	50%	140%	83%	60%	130%	105%	50%	140%
Trans- 1,2-Dichloroethylene	291666		< 0.05	< 0.05	NA	< 0.05	91%	50%	140%	115%	60%	130%	105%	50%	140%
Methyl tert-butyl Ether	291666		< 0.05	< 0.05	NA	< 0.05	118%	50%	140%	96%	60%	130%	80%	50%	140%
1,1-Dichloroethane	291666		< 0.02	< 0.02	NA	< 0.02	90%	50%	140%	113%	60%	130%	97%	50%	140%
Methyl Ethyl Ketone	291666		< 0.50	< 0.50	NA	< 0.50	96%	50%	140%	97%	50%	140%	92%	50%	140%
Cis- 1,2-Dichloroethylene	291666		< 0.02	< 0.02	NA	< 0.02	88%	50%	140%	119%	60%	130%	102%	50%	140%
Chloroform	291666		< 0.04	< 0.04	NA	< 0.04	81%	50%	140%	116%	60%	130%	111%	50%	140%
1,2-Dichloroethane	291666		< 0.03	< 0.03	NA	< 0.03	95%	50%	140%	87%	60%	130%	81%	50%	140%
1,1,1-Trichloroethane	291666		< 0.05	< 0.05	NA	< 0.05	78%	50%	140%	103%	60%	130%	90%	50%	140%
Carbon Tetrachloride	291666		< 0.05	< 0.05	NA	< 0.05	85%	50%	140%	92%	60%	130%	95%	50%	140%
Benzene	291666		< 0.02	< 0.02	NA	< 0.02	88%	50%	140%	109%	60%	130%	115%	50%	140%
1,2-Dichloropropane	291666		< 0.03	< 0.03	NA	< 0.03	97%	50%	140%	84%	60%	130%	86%	50%	140%
Trichloroethylene	291666		< 0.03	< 0.03	NA	< 0.03	86%	50%	140%	108%	60%	130%	115%	50%	140%
Bromodichloromethane	291666		< 0.05	< 0.05	NA	< 0.05	90%	50%	140%	80%	60%	130%	83%	50%	140%
Methyl Isobutyl Ketone	291666		< 0.50	< 0.50	NA	< 0.50	105%	50%	140%	82%	50%	140%	80%	50%	140%
1,1,2-Trichloroethane	291666		< 0.04	< 0.04	NA	< 0.04	78%	50%	140%	98%	60%	130%	105%	50%	140%

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC
PROJECT: City of Brampton Phase 2 ESA
SAMPLING SITE:

AGAT WORK ORDER: 19T483045
ATTENTION TO: Robert Mitzakov
SAMPLED BY:

Trace Organics Analysis (Continued)

RPT Date: Jun 28, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Toluene	291666		< 0.05	< 0.05	NA	< 0.05	114%	50%	140%	89%	60%	130%	111%	50%	140%
Dibromochloromethane	291666		< 0.05	< 0.05	NA	< 0.05	83%	50%	140%	75%	60%	130%	80%	50%	140%
Ethylene Dibromide	291666		< 0.04	< 0.04	NA	< 0.04	94%	50%	140%	98%	60%	130%	86%	50%	140%
Tetrachloroethylene	291666		< 0.05	< 0.05	NA	< 0.05	95%	50%	140%	100%	60%	130%	107%	50%	140%
1,1,1,2-Tetrachloroethane	291666		< 0.04	< 0.04	NA	< 0.04	83%	50%	140%	97%	60%	130%	86%	50%	140%
Chlorobenzene	291666		< 0.05	< 0.05	NA	< 0.05	107%	50%	140%	95%	60%	130%	101%	50%	140%
Ethylbenzene	291666		< 0.05	< 0.05	NA	< 0.05	104%	50%	140%	109%	60%	130%	86%	50%	140%
m & p-Xylene	291666		< 0.05	< 0.05	NA	< 0.05	122%	50%	140%	99%	60%	130%	98%	50%	140%
Bromoform	291666		< 0.05	< 0.05	NA	< 0.05	86%	50%	140%	76%	60%	130%	86%	50%	140%
Styrene	291666		< 0.05	< 0.05	NA	< 0.05	80%	50%	140%	81%	60%	130%	114%	50%	140%
1,1,2,2-Tetrachloroethane	291666		< 0.05	< 0.05	NA	< 0.05	71%	50%	140%	112%	60%	130%	98%	50%	140%
o-Xylene	291666		< 0.05	< 0.05	NA	< 0.05	111%	50%	140%	114%	60%	130%	100%	50%	140%
1,3-Dichlorobenzene	291666		< 0.05	< 0.05	NA	< 0.05	94%	50%	140%	110%	60%	130%	119%	50%	140%
1,4-Dichlorobenzene	291666		< 0.05	< 0.05	NA	< 0.05	95%	50%	140%	80%	60%	130%	115%	50%	140%
1,2-Dichlorobenzene	291666		< 0.05	< 0.05	NA	< 0.05	87%	50%	140%	84%	60%	130%	112%	50%	140%
1,3-Dichloropropene	291666		< 0.04	< 0.04	NA	< 0.04	86%	50%	140%	81%	60%	130%	84%	50%	140%
n-Hexane	291666		< 0.05	< 0.05	NA	< 0.05	98%	50%	140%	117%	60%	130%	104%	50%	140%
O. Reg. 558 - SVOCs															
Pyridine	263544		< 0.010	< 0.010	NA	< 0.010	100%	30%	100%	97%	30%	100%	NA	30%	100%
Cresols	263544		< 0.012	< 0.012	NA	< 0.012	84%	60%	130%	105%	35%	110%	NA	30%	130%
Ortho-Cresol	263544		< 0.004	< 0.004	NA	< 0.004	81%	50%	130%	101%	50%	130%	NA	50%	130%
Meta & Para-Cresol	263544		< 0.008	< 0.008	NA	< 0.008	86%	50%	130%	108%	50%	130%	NA	50%	130%
Hexachloroethane	263544		< 0.004	< 0.004	NA	< 0.004	105%	60%	130%	103%	60%	130%	NA	60%	130%
Nitrobenzene	263544		< 0.004	< 0.004	NA	< 0.004	101%	60%	130%	110%	60%	130%	NA	60%	130%
Hexachlorobutadiene	263544		< 0.004	< 0.004	NA	< 0.004	110%	60%	130%	75%	60%	130%	NA	60%	130%
2,4,6-Trichlorophenol	263544		< 0.05	< 0.05	NA	< 0.05	119%	60%	130%	66%	60%	130%	NA	60%	130%
2,4,5-Trichlorophenol	263544		< 0.004	< 0.004	NA	< 0.004	101%	60%	130%	106%	60%	130%	NA	60%	130%
2,4-Dinitrotoluene	263544		< 0.004	< 0.004	NA	< 0.004	113%	60%	130%	112%	60%	130%	NA	60%	130%
2,3,4,6-Tetrachlorophenol	263544		< 0.004	< 0.004	NA	< 0.004	90%	60%	140%	121%	60%	140%	NA	60%	140%
Hexachlorobenzene	263544		< 0.004	< 0.004	NA	< 0.004	112%	60%	130%	110%	60%	130%	NA	60%	130%
Dinoseb	263544		< 0.004	< 0.004	NA	< 0.004	92%	60%	140%	93%	40%	130%	NA	30%	150%
Benzo(a)pyrene	263544		< 0.001	< 0.001	NA	< 0.001	108%	60%	130%	101%	60%	130%	NA	60%	130%
O. Reg. 558 - VOCs															
Vinyl Chloride	300766		< 0.030	< 0.030	NA	< 0.030	99%	60%	140%	92%	60%	140%	103%	60%	140%
1,1 Dichloroethene	300766		< 0.020	< 0.020	NA	< 0.020	106%	70%	130%	87%	70%	130%	107%	60%	140%
Dichloromethane	300766		< 0.030	< 0.030	NA	< 0.030	97%	70%	130%	85%	70%	130%	102%	60%	140%
Methyl Ethyl Ketone	300766		< 0.090	< 0.090	NA	< 0.090	87%	70%	130%	106%	70%	130%	116%	60%	140%
Chloroform	300766		< 0.020	< 0.020	NA	< 0.020	88%	70%	130%	87%	70%	130%	87%	60%	140%
1,2-Dichloroethane	300766		< 0.020	< 0.020	NA	< 0.020	102%	70%	130%	88%	70%	130%	85%	60%	140%

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC
AGAT WORK ORDER: 19T483045
PROJECT: City of Brampton Phase 2 ESA
ATTENTION TO: Robert Mitzakov
SAMPLING SITE:
SAMPLED BY:

Trace Organics Analysis (Continued)

RPT Date: Jun 28, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Carbon Tetrachloride	300766		< 0.020	< 0.020	NA	< 0.020	111%	70%	130%	95%	70%	130%	104%	60%	140%
Benzene	300766		< 0.020	< 0.020	NA	< 0.020	105%	70%	130%	91%	70%	130%	100%	60%	140%
Trichloroethene	300766		< 0.020	< 0.020	NA	< 0.020	85%	70%	130%	97%	70%	130%	111%	60%	140%
Tetrachloroethene	300766		< 0.050	< 0.050	NA	< 0.050	78%	70%	130%	83%	70%	130%	84%	60%	140%
Chlorobenzene	300766		< 0.010	< 0.010	NA	< 0.010	102%	70%	130%	92%	70%	130%	99%	60%	140%
1,2-Dichlorobenzene	300766		< 0.010	< 0.010	NA	< 0.010	79%	70%	130%	109%	70%	130%	81%	60%	140%
1,4-Dichlorobenzene	300766		< 0.010	< 0.010	NA	< 0.010	80%	70%	130%	93%	70%	130%	79%	60%	140%
Toluene-d8	300766		<	<	0.0%	<		70%	130%		130%	130%		70%	130%
Total PCBs (soil)															
PCBs	303098		< 0.1	< 0.1	NA	< 0.1	99%	60%	140%	107%	60%	140%	108%	60%	140%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By: N Popnikolof

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MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T483045

PROJECT: City of Brampton Phase 2 ESA

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
Antimony	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Arsenic	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Barium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Beryllium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron (Hot Water Soluble)	MET-93-6104	EPA SW 846 6010C; MSA, Part 3, Ch.21	ICP/OES
Cadmium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Cobalt	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Copper	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Lead	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Molybdenum	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Nickel	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Selenium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Silver	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Thallium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Uranium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Vanadium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Zinc	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium VI	INOR-93-6029	SM 3500 B; MSA Part 3, Ch. 25	SPECTROPHOTOMETER
Cyanide	INOR-93-6052	MOE CN-3015 & E 3009 A;SM 4500 CN	TECHNICON AUTO ANALYZER
Mercury	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Electrical Conductivity	INOR-93-6036	McKeague 4.12, SM 2510 B	EC METER
Sodium Adsorption Ratio	INOR-93-6007	McKeague 4.12 & 3.26 & EPA SW-846 6010C	ICP/OES
pH, 2:1 CaCl2 Extraction	INOR-93-6031	MSA part 3 & SM 4500-H+ B	PH METER
Arsenic Leachate	MET-93-6103	EPA SW-846 1311 & 3010A & 6020A	ICP-MS
Barium Leachate	MET-93-6103	EPA SW-846 1311 & 3010A & 6020A	ICP-MS
Boron Leachate	MET-93-6103	EPA SW-846 1311 & 3010A & 6020A	ICP-MS
Cadmium Leachate	MET-93-6103	EPA SW-846 1311 & 3010A & 6020A	ICP-MS
Chromium Leachate	MET-93-6103	EPA SW-846 1311 & 3010A & 6020A	ICP-MS
Lead Leachate	MET-93-6103	EPA SW-846 1311 & 3010A & 6020A	ICP-MS
Mercury Leachate	MET-93-6103	EPA SW-846 1311 & 3010A & 6020A	ICP-MS
Selenium Leachate	MET-93-6103	EPA SW-846 1311 & 3010A & 6020A	ICP-MS
Silver Leachate	MET-93-6103	EPA SW-846 1311 & 3010A & 6020A	ICP-MS
Uranium Leachate	MET-93-6103	EPA SW-846 1311 & 3010A & 6020A	ICP-MS
Fluoride Leachate	INOR-93-6018	EPA SW-846-1311 & SM4500-F- C	ION SELECTIVE ELECTRODE
Cyanide Leachate	INOR-93-6052	EPA SW-846-1311 & MOE 3015 & SM 4500 CN- I	TECHNICON AUTO ANALYZER
(Nitrate + Nitrite) as N Leachate	INOR-93-6053	EPA SW 846-1311 & SM 4500 - NO3- I	LACHAT FIA

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories
5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
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Method Summary

CLIENT NAME: SNC LAVALIN INC
AGAT WORK ORDER: 19T483045
PROJECT: City of Brampton Phase 2 ESA
ATTENTION TO: Robert Mitzakov
SAMPLING SITE:
SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Hexachloroethane	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Gamma-Hexachlorocyclohexane	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Heptachlor	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Aldrin	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Heptachlor Epoxide	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Endosulfan	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Chlordane	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
DDE	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
DDD	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
DDT	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Dieldrin	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Endrin	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Methoxychlor	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Hexachlorobenzene	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Hexachlorobutadiene	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
TCMX	ORG-91-5112	EPA SW-846 3541,3620 & 8081	GC/ECD
Decachlorobiphenyl	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Moisture Content		MOE E3139	BALANCE
Naphthalene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Acenaphthylene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Acenaphthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Fluorene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Phenanthrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Anthracene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Pyrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benz(a)anthracene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Chrysene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(b)fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(k)fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(a)pyrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Dibenz(a,h)anthracene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(g,h,i)perylene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
2-and 1-methyl Naphthalene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Chrysene-d12	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
F1 (C6 to C10)	VOL-91-5009	CCME Tier 1 Method, SW846 5035	P&T GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	CCME Tier 1 Method, SW846 5035	P&T GC/FID
F2 (C10 to C16)	VOL-91-5009	CCME Tier 1 Method	GC/FID
F3 (C16 to C34)	VOL-91-5009	CCME Tier 1 Method	GC/FID
F4 (C34 to C50)	VOL-91-5009	CCME Tier 1 Method	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5009	CCME Tier 1 Method	BALANCE
Moisture Content	VOL-91-5009	CCME Tier 1 Method	BALANCE
Terphenyl	VOL-91-5009	CCME Tier 1 Method	GC/FID
Dichlorodifluoromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Vinyl Chloride	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Bromomethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Acetone	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS

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Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T483045

PROJECT: City of Brampton Phase 2 ESA

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
1,1-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methylene Chloride	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Trans- 1,2-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methyl tert-butyl Ether	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Cis- 1,2-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Chloroform	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Benzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Trichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Bromodichloromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Toluene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Dibromochloromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Chlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Ethylbenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
m & p-Xylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Bromoform	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Styrene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
o-Xylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Xylene Mixture	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,3-Dichloropropene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
n-Hexane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Toluene-d8	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Pyridine	ORG-91-5114	EPA SW846 3510C & 8270	GC/MS
Cresols	ORG-91-5114	EPA SW846 3510C & 8270	GC/MS
Ortho-Cresol	ORG-91-5114	EPA SW846 3510C & 8270	GC/MS
Meta & Para-Cresol	ORG-91-5114	EPA SW846 3510C & 8270	GC/MS
Hexachloroethane	ORG-91-5114	EPA SW846 3510C & 8270	GC/MS
Nitrobenzene	ORG-91-5114	EPA SW846 3510C & 8270	GC/MS
Hexachlorobutadiene	ORG-91-5114	EPA SW846 3510C & 8270	GC/MS
2,4,6-Trichlorophenol	ORG-91-5114	EPA SW846 3510C & 8270	GC/MS
2,4,5-Trichlorophenol	ORG-91-5114	EPA SW846 3510C & 8270	GC/MS
2,4-Dinitrotoluene	ORG-91-5114	EPA SW846 3510C & 8270	GC/MS
2,3,4,6-Tetrachlorophenol	ORG-91-5114	EPA SW846 3510C & 8270	GC/MS
Hexachlorobenzene	ORG-91-5114	EPA SW846 3510C & 8270	GC/MS
Dinoseb	ORG-91-5114	EPA SW846 3510C & 8270	GC/MS

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T483045

PROJECT: City of Brampton Phase 2 ESA

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Benzo(a)pyrene	ORG-91-5114	EPA SW846 3510C & 8270	GC/MS
Chrysene-d12	ORG-91-5114	EPA SW846 3510C & 8270	GC/MS
BNA Extr	ORG-91-5114	EPA SW846 3510C & 8270	N/A
Vinyl Chloride	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1 Dichloroethene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Dichloromethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Chloroform	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Benzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Trichloroethene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Tetrachloroethene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Chlorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Toluene-d8	VOL-91-5001	EPA SW-846 5230B & 8260	(P&T)GC/MS
2,4-D	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4,5-T	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4,5-TP (Silvex)	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Dicamba	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Dichlorprop	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Dinoseb	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Picloram	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Diclofop-methyl	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,3,4,6-Tetrachlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4-Dichlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4,5-Trichlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4,6-Trichlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Bromoxynil	ORG-91-5110	EPA SW-846 8151A	GC/ECD
MCPP (Mecoprop)	ORG-91-5110	EPA SW-846 8151A	GC/ECD
MCPA	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Pentachlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD
DCAA	ORG-91-5110	EPA SW-846 8151	GC/ECD
Phenoxy Extr			N/A
PCBs	ORG-91-5113	EPA SW-846 3541 & 8082	GC/ECD
Decachlorobiphenyl	ORG-91-5113	EPA SW-846 3541 & 8082	GC/ECD

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

15m

5835 Coopers Avenue
Mississauga, Ontario L4Z 1Y2
Ph: 905.712.5100 Fax: 905.712.5122
webearth.agatlabs.com

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Laboratory Use Only

Work Order #: 19T483045

Cooler Quantity:

Arrival Temperatures: 4.6 | 3.9 | 4.1

Custody Seal Intact: ☐ Yes ☐ No ☐ N/A

Notes: on ice

Report Information:

Company: SNC-Lavalin Inc.
Contact: Robert Mitzakov
Address: 195 The West Mall
Toronto, ON M9C 5K1
Phone: Fax:
Reports to be sent to:
1. Email: robert.mitzakov@snclavalin.com
2. Email: abed.yassine@snclavalin.com

Regulatory Requirements:

☐ No Regulatory Requirement

(Please check all applicable boxes)

☑ Regulation 153/04
Table 9 (Indicate One)
☑ Ind/Com
☑ Res/Park
☐ Agriculture

Soil Texture (Check One)
☐ Coarse
☐ Fine

☐ Sewer Use
☐ Sanitary
☐ Storm

Region _____ (Indicate One)

☐ MISA

☐ Regulation 558
☐ CCME
☐ Prov. Water Quality Objectives (PWQO)
☐ Other _____ (Indicate One)

Is this submission for a **Record of Site Condition?** ☐ Yes ☐ No

Report Guideline on *Certificate of Analysis* ☐ Yes ☐ No

Turnaround Time (TAT) Required:

Regular TAT ☑ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day

OR Date Required (Rush Surcharges May Apply): _____

Please provide prior notification for rush TAT
**TAT is exclusive of weekends and statutory holidays*

For 'Same Day' analysis, please contact your AGAT CPM

Project Information:

Project: City of Brampton - Phase II ESA
Site Location: 10192 Hwy 50, Brampton, ON
Sampled By: Ariel Barr-Keating → PN: 665125
AGAT Quote #: PO:
Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

Bill To Same: Yes ☐ No ☐

Company:
Contact:
Address:
Email:

Sample Matrix Legend

B	Biota
GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI (Y/N)	O. Reg 153: Metals and Inorganics; All Metals ☐ 153 Metals (excl. Hydrides) ☐ Hydride Metals ☐ 153 Metals (Incl. Hydrides)	ORPs: ☐ B-HWS ☐ Cl ☐ CN ☐ Cr6+ ☐ EC ☐ FOC ☐ Hg ☐ pH ☐ SAR	Full Metals Scan	Regulation/Custom Metals	Nutrients: ☐ TP ☐ NH_3 ☐ TKN ☐ NO_3 ☐ NO_2 ☐ NO_2+NO_3	Volatiles: ☐ VOC ☐ BTEX ☐ THM	PHCs F1 - F4, VOC's	ABNs	PAHs	PCBs: ☐ Total ☐ Aroclors	Organochlorine Pesticides	TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	Sewer Use	O. Reg 153 metals + inorganics	Herbicide/Pesticide	TCLP VOC + S VOC	TCLP Inorganics + Bulk PCB	Potentially Hazardous or High Concentration (Y/N)
BH33-2	06/19/19	9AM	1	Soil														✓					
BH33-12		9AM	1															✓					
BH33-3		9:15am	2											✓					✓				
BH33-7		9:50 am	4										✓										
BH33-77		9:50 am	4										✓										
COMP-1	↓	2PM	4	↓																			

Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Ariel Barr-Keating / ABK	06/19/19		Sima	19/6/21	8:43
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time

Page _____ of _____

N°: T 090354

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

CLIENT NAME: SNC LAVALIN INC
235 LESMILL ROAD
TORONTO, ON M3B 2V1
(416) 679-6000

ATTENTION TO: Robert Mitzakov

PROJECT: City Of Brampton Phase 2 ESA

AGAT WORK ORDER: 19T483131

SOIL ANALYSIS REVIEWED BY: Amanjot Bhela, Inorganic Supervisor

TRACE ORGANICS REVIEWED BY: Inga Kuzmina, Trace Organics Lab Manager

DATE REPORTED: Jun 27, 2019

PAGES (INCLUDING COVER): 19

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

*NOTES

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.

Member of: Association of Professional Engineers and Geoscientists of Alberta (APEGA)
Western Enviro-Agricultural Laboratory Association (WEALA)
Environmental Services Association of Alberta (ESAA)

AGAT Laboratories is accredited to ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA) and/or Standards Council of Canada (SCC) for specific tests listed on the scope of accreditation. AGAT Laboratories (Mississauga) is also accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) for specific drinking water tests. Accreditations are location and parameter specific. A complete listing of parameters for each location is available from www.cala.ca and/or www.scc.ca. The tests in this report may not necessarily be included in the scope of accreditation. Measurement Uncertainty is not taken into consideration when stating conformity with a specified requirement.

Results relate only to the items tested. Results apply to samples as received.
All reportable information as specified by ISO 17025:2017 is available from AGAT Laboratories upon request

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 19T483131

PROJECT: City Of Brampton Phase 2 ESA

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2019-06-21

DATE REPORTED: 2019-06-27

		SAMPLE DESCRIPTION:		BH72-1	BH73-02
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2019-06-20	2019-06-20
Parameter	Unit	G / S	RDL	294297	294303
Antimony	µg/g	1.3	0.8	<0.8	<0.8
Arsenic	µg/g	18	1	4	4
Barium	µg/g	220	2	59	117
Beryllium	µg/g	2.5	0.5	<0.5	<0.5
Boron	µg/g	36	5	7	6
Boron (Hot Water Soluble)	µg/g	1.5	0.10	0.47	<0.10
Cadmium	µg/g	1.2	0.5	<0.5	<0.5
Chromium	µg/g	70	2	14	24
Cobalt	µg/g	22	0.5	3.9	10.0
Copper	µg/g	92	1	17	21
Lead	µg/g	120	1	38	10
Molybdenum	µg/g	2	0.5	1.0	<0.5
Nickel	µg/g	82	1	10	23
Selenium	µg/g	1.5	0.4	<0.4	0.4
Silver	µg/g	0.5	0.2	<0.2	<0.2
Thallium	µg/g	1	0.4	<0.4	<0.4
Uranium	µg/g	2.5	0.5	0.5	0.5
Vanadium	µg/g	86	1	21	34
Zinc	µg/g	290	5	93	55
Chromium VI	µg/g	0.66	0.2	<0.2	<0.2
Cyanide	µg/g	0.051	0.040	<0.040	<0.040
Mercury	µg/g	0.27	0.10	<0.10	<0.10
Electrical Conductivity	mS/cm	0.7	0.005	1.07	0.379
Sodium Adsorption Ratio	NA	5	NA	0.853	0.544
pH, 2:1 CaCl2 Extraction	pH Units		NA	10.6	7.85

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 19T483131

PROJECT: City Of Brampton Phase 2 ESA

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2019-06-21

DATE REPORTED: 2019-06-27

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

294297-294303 EC was determined on the DI water extract obtained from the 2:1 leaching procedure (2 parts DI water:1 part soil). pH was determined on the 0.01M CaCl2 extract prepared at 2:1 ratio. SAR is a calculated parameter.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: Amanjot Bhela

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AGAT WORK ORDER: 19T483131

PROJECT: City Of Brampton Phase 2 ESA

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - OC Pesticides (Soil)

DATE RECEIVED: 2019-06-21

DATE REPORTED: 2019-06-27

		SAMPLE DESCRIPTION:		BH72-2
		SAMPLE TYPE:		Soil
		DATE SAMPLED:		2019-06-20
Parameter	Unit	G / S	RDL	294298
Hexachloroethane	µg/g	0.01	0.01	<0.01
Gamma-Hexachlorocyclohexane	µg/g	0.01	0.005	<0.005
Heptachlor	µg/g	0.05	0.005	<0.005
Aldrin	µg/g	0.05	0.005	<0.005
Heptachlor Epoxide	µg/g	0.05	0.005	<0.005
Endosulfan	µg/g	0.04	0.005	<0.005
Chlordane	µg/g	0.05	0.007	<0.007
DDE	µg/g	0.05	0.007	<0.007
DDD	µg/g	0.05	0.007	<0.007
DDT	µg/g	1.4	0.007	<0.007
Dieldrin	µg/g	0.05	0.005	<0.005
Endrin	µg/g	0.04	0.005	<0.005
Methoxychlor	µg/g	0.05	0.005	<0.005
Hexachlorobenzene	µg/g	0.02	0.005	<0.005
Hexachlorobutadiene	µg/g	0.01	0.01	<0.01
Moisture Content	%		0.1	20.1
Surrogate	Unit	Acceptable Limits		
TCMX	%	50-140		72
Decachlorobiphenyl	%	60-130		76

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

294298 Results are based on the dry weight of the soil.
DDT total is a calculated parameter. The calculated value is the sum of op'DDT and pp'DDT.
DDD total is a calculated parameter. The calculated value is the sum of op'DDD and pp'DDD.
DDE total is a calculated parameter. The calculated value is the sum of op'DDE and pp'DDE.
Endosulfan total is a calculated parameter. The calculated value is the sum of Endosulfan I and Endosulfan II.
Chlordane total is a calculated parameter. The calculated value is the sum of Alpha-Chlordane and Gamma-Chlordane.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 19T483131

PROJECT: City Of Brampton Phase 2 ESA

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - PAHs (Soil)

DATE RECEIVED: 2019-06-21

DATE REPORTED: 2019-06-27

		SAMPLE DESCRIPTION:		BH72-3	BH73-02
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2019-06-20	2019-06-20
Parameter	Unit	G / S	RDL	294299	294303
Naphthalene	µg/g	0.09	0.05	<0.05	<0.05
Acenaphthylene	µg/g	0.093	0.05	<0.05	<0.05
Acenaphthene	µg/g	0.072	0.05	<0.05	<0.05
Fluorene	µg/g	0.19	0.05	<0.05	<0.05
Phenanthrene	µg/g	0.69	0.05	<0.05	<0.05
Anthracene	µg/g	0.22	0.05	<0.05	<0.05
Fluoranthene	µg/g	0.69	0.05	<0.05	<0.05
Pyrene	µg/g	1	0.05	<0.05	<0.05
Benz(a)anthracene	µg/g	0.36	0.05	<0.05	<0.05
Chrysene	µg/g	2.8	0.05	<0.05	<0.05
Benzo(b)fluoranthene	µg/g	0.47	0.05	<0.05	<0.05
Benzo(k)fluoranthene	µg/g	0.48	0.05	<0.05	<0.05
Benzo(a)pyrene	µg/g	0.3	0.05	<0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.23	0.05	<0.05	<0.05
Dibenz(a,h)anthracene	µg/g	0.1	0.05	<0.05	<0.05
Benzo(g,h,i)perylene	µg/g	0.68	0.05	<0.05	<0.05
2-and 1-methyl Naphthalene	µg/g	0.59	0.05	<0.05	<0.05
Moisture Content	%		0.1	14.0	17.8
Surrogate	Unit	Acceptable Limits			
Chrysene-d12	%	50-140		71	79

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

294299-294303 Results are based on the dry weight of the soil.
Note: The result for Benzo(b)Fluoranthene is the total of the Benzo(b)&j)Fluoranthene isomers because the isomers co-elute on the GC column.
2- and 1-Methyl Naphthalene is a calculated parameter. The calculated value is the sum of 2-Methyl Naphthalene and 1-Methyl Naphthalene.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 19T483131

PROJECT: City Of Brampton Phase 2 ESA

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - PHCs F1 - F4 (-BTEX) (Soil)

DATE RECEIVED: 2019-06-21

DATE REPORTED: 2019-06-27

		SAMPLE DESCRIPTION:		BH72-8	BH73-07
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2019-06-20	2019-06-20
Parameter	Unit	G / S	RDL	294301	294305
F1 (C6 to C10)	µg/g		5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	25	5	<5	<5
F2 (C10 to C16)	µg/g	10	10	<10	<10
F3 (C16 to C34)	µg/g	240	50	<50	<50
F4 (C34 to C50)	µg/g	120	50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g	120	50	NA	NA
Moisture Content	%		0.1	9.0	7.9
Surrogate	Unit	Acceptable Limits			
Terphenyl	%	60-140		71	60

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

294301-294305 Results are based on sample dry weight.
The C6-C10 fraction is calculated using toluene response factor.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6 - C50 results are corrected for BTEX contribution.
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC6 and nC10 response factors are within 30% of Toluene response factor.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 + nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.
Fractions 1-4 are quantified without the contribution of PAHs. Under Ontario Regulation 153, results are considered valid without determining the PAH contribution if not requested by the client.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 19T483131

PROJECT: City Of Brampton Phase 2 ESA

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - VOCs (Soil)

DATE RECEIVED: 2019-06-21

DATE REPORTED: 2019-06-27

		SAMPLE DESCRIPTION:		BH72-8	BH73-07
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2019-06-20	2019-06-20
Parameter	Unit	G / S	RDL	294301	294305
Dichlorodifluoromethane	µg/g	0.05	0.05	<0.05	<0.05
Vinyl Chloride	ug/g	0.02	0.02	<0.02	<0.02
Bromomethane	ug/g	0.05	0.05	<0.05	<0.05
Trichlorofluoromethane	ug/g	0.25	0.05	<0.05	<0.05
Acetone	ug/g	0.5	0.50	<0.50	<0.50
1,1-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05
Methylene Chloride	ug/g	0.05	0.05	<0.05	<0.05
Trans- 1,2-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05
Methyl tert-butyl Ether	ug/g	0.05	0.05	<0.05	<0.05
1,1-Dichloroethane	ug/g	0.05	0.02	<0.02	<0.02
Methyl Ethyl Ketone	ug/g	0.5	0.50	<0.50	<0.50
Cis- 1,2-Dichloroethylene	ug/g	0.05	0.02	<0.02	<0.02
Chloroform	ug/g	0.05	0.04	<0.04	<0.04
1,2-Dichloroethane	ug/g	0.05	0.03	<0.03	<0.03
1,1,1-Trichloroethane	ug/g	0.05	0.05	<0.05	<0.05
Carbon Tetrachloride	ug/g	0.05	0.05	<0.05	<0.05
Benzene	ug/g	0.02	0.02	<0.02	<0.02
1,2-Dichloropropane	ug/g	0.05	0.03	<0.03	<0.03
Trichloroethylene	ug/g	0.05	0.03	<0.03	<0.03
Bromodichloromethane	ug/g	0.05	0.05	<0.05	<0.05
Methyl Isobutyl Ketone	ug/g	0.5	0.50	<0.50	<0.50
1,1,2-Trichloroethane	ug/g	0.05	0.04	<0.04	<0.04
Toluene	ug/g	0.2	0.05	<0.05	<0.05
Dibromochloromethane	ug/g	0.05	0.05	<0.05	<0.05
Ethylene Dibromide	ug/g	0.05	0.04	<0.04	<0.04
Tetrachloroethylene	ug/g	0.05	0.05	<0.05	<0.05
1,1,1,2-Tetrachloroethane	ug/g	0.05	0.04	<0.04	<0.04
Chlorobenzene	ug/g	0.05	0.05	<0.05	<0.05
Ethylbenzene	ug/g	0.05	0.05	<0.05	<0.05
m & p-Xylene	ug/g		0.05	<0.05	<0.05

Certified By:

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AGAT WORK ORDER: 19T483131

PROJECT: City Of Brampton Phase 2 ESA

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - VOCs (Soil)

DATE RECEIVED: 2019-06-21

DATE REPORTED: 2019-06-27

		SAMPLE DESCRIPTION:		BH72-8	BH73-07
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2019-06-20	2019-06-20
Parameter	Unit	G / S	RDL	294301	294305
Bromoform	ug/g	0.05	0.05	<0.05	<0.05
Styrene	ug/g	0.05	0.05	<0.05	<0.05
1,1,2,2-Tetrachloroethane	ug/g	0.05	0.05	<0.05	<0.05
o-Xylene	ug/g		0.05	<0.05	<0.05
1,3-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05
1,4-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05
1,2-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05
Xylene Mixture	ug/g	0.05	0.05	<0.05	<0.05
1,3-Dichloropropene	µg/g	0.05	0.04	<0.04	<0.04
n-Hexane	µg/g	0.05	0.05	<0.05	<0.05
Surrogate	Unit	Acceptable Limits			
Toluene-d8	% Recovery	50-140		109	108
4-Bromofluorobenzene	% Recovery	50-140		76	76

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
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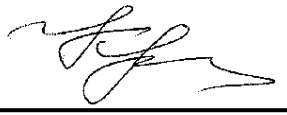
294301-294305 The sample was analyzed using the high level technique. The sample was extracted using methanol, a small amount of the methanol extract was diluted in water and the purge & trap GC/MS analysis was performed. Results are based on the dry weight of the soil.
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene + o-Xylene.
1,3-Dichloropropene total is a calculated parameter. The calculated value is the sum of Cis-1,3-Dichloropropene and Trans-1,3-Dichloropropene.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:



Results relate only to the items tested. Results apply to samples as received.

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Certificate of Analysis

AGAT WORK ORDER: 19T483131

PROJECT: City Of Brampton Phase 2 ESA

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

Phenoxy Acid Herbicides (Soil)

DATE RECEIVED: 2019-06-21

DATE REPORTED: 2019-06-27

		SAMPLE DESCRIPTION:		BH72-2
		SAMPLE TYPE:		Soil
		DATE SAMPLED:		2019-06-20
Parameter	Unit	G / S	RDL	294298
2,4-D	ug/g		0.10	<0.10
2,4,5-T	ug/g		0.10	<0.10
2,4,5-TP (Silvex)	ug/g		0.10	<0.10
Dicamba	ug/g		0.10	<0.10
Dichlorprop	ug/g		0.10	<0.10
Dinoseb	ug/g		0.10	<0.10
Picloram	ug/g		0.10	<0.10
Diclofop-methyl	ug/g		0.10	<0.10
2,3,4,6-Tetrachlorophenol	ug/g		0.05	<0.05
2,4-Dichlorophenol	ug/g	0.1	0.05	<0.05
2,4,5-Trichlorophenol	ug/g	0.1	0.05	<0.05
2,4,6-Trichlorophenol	ug/g	0.1	0.05	<0.05
Bromoxynil	ug/g		0.5	<0.5
MCPP (Mecoprop)	ug/g		1.0	<1.0
MCPA	ug/g		1.0	<1.0
Pentachlorophenol	ug/g	0.1	0.05	<0.05
Phenoxy Extr	NA			Y
Surrogate	Unit	Acceptable Limits		
DCAA	%	50-130		80

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

Results relate only to the items tested. Results apply to samples as received.

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Guideline Violation

AGAT WORK ORDER: 19T483131

PROJECT: City Of Brampton Phase 2 ESA

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLEID	SAMPLE TITLE	GUIDELINE	ANALYSIS PACKAGE	PARAMETER	UNIT	GUIDEVALUE	RESULT
294297	BH72-1	ON T9 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Electrical Conductivity	mS/cm	0.7	1.07

Results relate only to the items tested. Results apply to samples as received.

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T483131

PROJECT: City Of Brampton Phase 2 ESA

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

Soil Analysis

RPT Date: Jun 27, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - Metals & Inorganics (Soil)															
Antimony	299837		<0.8	<0.8	NA	< 0.8	126%	70%	130%	102%	80%	120%	102%	70%	130%
Arsenic	299837		1	1	NA	< 1	105%	70%	130%	101%	80%	120%	106%	70%	130%
Barium	299837		10	10	0.0%	< 2	100%	70%	130%	102%	80%	120%	105%	70%	130%
Beryllium	299837		<0.5	<0.5	NA	< 0.5	71%	70%	130%	101%	80%	120%	95%	70%	130%
Boron	299837		<5	<5	NA	< 5	83%	70%	130%	105%	80%	120%	102%	70%	130%
Boron (Hot Water Soluble)	299837		<0.10	<0.10	NA	< 0.10	102%	60%	140%	96%	70%	130%	97%	60%	140%
Cadmium	299837		<0.5	<0.5	NA	< 0.5	102%	70%	130%	101%	80%	120%	101%	70%	130%
Chromium	299837		4	4	NA	< 2	85%	70%	130%	103%	80%	120%	109%	70%	130%
Cobalt	299837		1.5	1.6	NA	< 0.5	92%	70%	130%	102%	80%	120%	104%	70%	130%
Copper	299837		6	6	0.0%	< 1	91%	70%	130%	112%	80%	120%	103%	70%	130%
Lead	299837		5	5	0.0%	< 1	102%	70%	130%	106%	80%	120%	102%	70%	130%
Molybdenum	299837		<0.5	<0.5	NA	< 0.5	103%	70%	130%	104%	80%	120%	107%	70%	130%
Nickel	299837		4	4	NA	< 1	95%	70%	130%	104%	80%	120%	103%	70%	130%
Selenium	299837		<0.4	<0.4	NA	< 0.4	113%	70%	130%	99%	80%	120%	100%	70%	130%
Silver	299837		<0.2	<0.2	NA	< 0.2	95%	70%	130%	99%	80%	120%	96%	70%	130%
Thallium	299837		<0.4	<0.4	NA	< 0.4	95%	70%	130%	98%	80%	120%	96%	70%	130%
Uranium	299837		<0.5	<0.5	NA	< 0.5	108%	70%	130%	98%	80%	120%	100%	70%	130%
Vanadium	299837		8	9	11.8%	< 1	92%	70%	130%	101%	80%	120%	109%	70%	130%
Zinc	299837		26	26	0.0%	< 5	95%	70%	130%	110%	80%	120%	113%	70%	130%
Chromium VI	292932		<0.2	<0.2	NA	< 0.2	107%	70%	130%	98%	80%	120%	94%	70%	130%
Cyanide	300435		<0.040	<0.040	NA	< 0.040	95%	70%	130%	107%	80%	120%	100%	70%	130%
Mercury	299837		<0.10	<0.10	NA	< 0.10	91%	70%	130%	98%	80%	120%	97%	70%	130%
Electrical Conductivity	299837		0.325	0.333	2.4%	< 0.005	102%	90%	110%	NA			NA		
Sodium Adsorption Ratio	299837		4.85	4.85	0.0%	NA	NA			NA			NA		
pH, 2:1 CaCl2 Extraction	294297	294297	10.6	10.6	0.0%	NA	103%	80%	120%	NA			NA		

Comments: NA signifies Not Applicable.
Duplicate Qualifier: As the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL
pH duplicates QA acceptance criteria was met relative as stated in Table 5-15 of Analytical Protocol document.

Certified By:

Amanjot Bhela

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO CHARTERED AMANJOT BHELA CHEMIST

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC
AGAT WORK ORDER: 19T483131
PROJECT: City Of Brampton Phase 2 ESA
ATTENTION TO: Robert Mitzakov
SAMPLING SITE:
SAMPLED BY:

Trace Organics Analysis

RPT Date: Jun 27, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Phenoxy Acid Herbicides (Soil)															
2,4-D	268398		< 0.10	< 0.10	NA	< 0.10	100%	50%	130%	98%	50%	130%	100%	50%	130%
2,4,5-T	268398		< 0.10	< 0.10	NA	< 0.10	90%	50%	130%	90%	50%	130%	92%	50%	130%
2,4,5-TP (Silvex)	268398		< 0.10	< 0.10	NA	< 0.10	92%	50%	130%	85%	50%	130%	70%	50%	130%
Dicamba	268398		< 0.10	< 0.10	NA	< 0.10	97%	50%	130%	86%	50%	130%	76%	50%	130%
Dichlorprop	268398		< 0.10	< 0.10	NA	< 0.10	102%	50%	130%	90%	50%	130%	80%	50%	130%
Dinoseb	268398		< 0.10	< 0.10	NA	< 0.10	75%	50%	130%	65%	50%	130%	63%	50%	130%
Picloram	268398		< 0.10	< 0.10	NA	< 0.10	103%	50%	130%	80%	50%	130%	64%	50%	130%
Diclofop-methyl	268398		< 0.10	< 0.10	NA	< 0.10	105%	50%	130%	101%	50%	130%	95%	50%	130%
2,3,4,6-Tetrachlorophenol	268398		< 0.05	< 0.05	NA	< 0.05	117%	50%	130%	101%	50%	130%	97%	50%	130%
2,4-Dichlorophenol	268398		< 0.05	< 0.05	NA	< 0.05	99%	50%	130%	90%	50%	130%	74%	50%	130%
2,4,5-Trichlorophenol	268398		< 0.05	< 0.05	NA	< 0.05	90%	50%	130%	85%	50%	130%	70%	50%	130%
2,4,6-Trichlorophenol	268398		< 0.05	< 0.05	NA	< 0.05	111%	50%	130%	101%	50%	130%	97%	50%	130%
Bromoxynil	268398		< 0.5	< 0.5	NA	< 0.5	98%	60%	130%	95%	60%	130%	94%	60%	130%
MCPP (Mecoprop)	268398		< 1.0	< 1.0	NA	< 1.0	NA	50%	130%	100%	50%	130%	80%	50%	130%
MCPA	268398		< 1.0	< 1.0	NA	< 1.0	NA	50%	130%	98%	50%	130%	90%	50%	130%
Pentachlorophenol	268398		< 0.05	< 0.05	NA	< 0.05	94%	50%	130%	90%	50%	130%	80%	50%	130%
O. Reg. 153(511) - PAHs (Soil)															
Naphthalene	292180		< 0.05	< 0.05	NA	< 0.05	112%	50%	140%	88%	50%	140%	72%	50%	140%
Acenaphthylene	292180		< 0.05	< 0.05	NA	< 0.05	113%	50%	140%	92%	50%	140%	73%	50%	140%
Acenaphthene	292180		< 0.05	< 0.05	NA	< 0.05	108%	50%	140%	92%	50%	140%	74%	50%	140%
Fluorene	292180		< 0.05	< 0.05	NA	< 0.05	112%	50%	140%	89%	50%	140%	75%	50%	140%
Phenanthrene	292180		< 0.05	< 0.05	NA	< 0.05	107%	50%	140%	80%	50%	140%	67%	50%	140%
Anthracene	292180		< 0.05	< 0.05	NA	< 0.05	94%	50%	140%	81%	50%	140%	67%	50%	140%
Fluoranthene	292180		< 0.05	< 0.05	NA	< 0.05	119%	50%	140%	98%	50%	140%	79%	50%	140%
Pyrene	292180		< 0.05	< 0.05	NA	< 0.05	116%	50%	140%	99%	50%	140%	77%	50%	140%
Benz(a)anthracene	292180		< 0.05	< 0.05	NA	< 0.05	62%	50%	140%	101%	50%	140%	68%	50%	140%
Chrysene	292180		< 0.05	< 0.05	NA	< 0.05	112%	50%	140%	101%	50%	140%	73%	50%	140%
Benzo(b)fluoranthene	292180		< 0.05	< 0.05	NA	< 0.05	111%	50%	140%	70%	50%	140%	72%	50%	140%
Benzo(k)fluoranthene	292180		< 0.05	< 0.05	NA	< 0.05	116%	50%	140%	70%	50%	140%	65%	50%	140%
Benzo(a)pyrene	292180		< 0.05	< 0.05	NA	< 0.05	108%	50%	140%	78%	50%	140%	61%	50%	140%
Indeno(1,2,3-cd)pyrene	292180		< 0.05	< 0.05	NA	< 0.05	74%	50%	140%	86%	50%	140%	69%	50%	140%
Dibenz(a,h)anthracene	292180		< 0.05	< 0.05	NA	< 0.05	66%	50%	140%	85%	50%	140%	66%	50%	140%
Benzo(g,h,i)perylene	292180		< 0.05	< 0.05	NA	< 0.05	105%	50%	140%	88%	50%	140%	71%	50%	140%
O. Reg. 153(511) - VOCs (Soil)															
Dichlorodifluoromethane	291666		< 0.05	< 0.05	NA	< 0.05	85%	50%	140%	88%	50%	140%	88%	50%	140%
Vinyl Chloride	291666		< 0.02	< 0.02	NA	< 0.02	99%	50%	140%	99%	50%	140%	102%	50%	140%
Bromomethane	291666		< 0.05	< 0.05	NA	< 0.05	103%	50%	140%	117%	50%	140%	111%	50%	140%
Trichlorofluoromethane	291666		< 0.05	< 0.05	NA	< 0.05	96%	50%	140%	95%	50%	140%	102%	50%	140%

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC
AGAT WORK ORDER: 19T483131
PROJECT: City Of Brampton Phase 2 ESA
ATTENTION TO: Robert Mitzakov
SAMPLING SITE:
SAMPLED BY:

Trace Organics Analysis (Continued)

RPT Date: Jun 27, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Acetone	291666		< 0.50	< 0.50	NA	< 0.50	96%	50%	140%	95%	50%	140%	92%	50%	140%
1,1-Dichloroethylene	291666		< 0.05	< 0.05	NA	< 0.05	78%	50%	140%	99%	60%	130%	102%	50%	140%
Methylene Chloride	291666		< 0.05	< 0.05	NA	< 0.05	106%	50%	140%	83%	60%	130%	105%	50%	140%
Trans- 1,2-Dichloroethylene	291666		< 0.05	< 0.05	NA	< 0.05	91%	50%	140%	115%	60%	130%	105%	50%	140%
Methyl tert-butyl Ether	291666		< 0.05	< 0.05	NA	< 0.05	118%	50%	140%	96%	60%	130%	80%	50%	140%
1,1-Dichloroethane	291666		< 0.02	< 0.02	NA	< 0.02	90%	50%	140%	113%	60%	130%	97%	50%	140%
Methyl Ethyl Ketone	291666		< 0.50	< 0.50	NA	< 0.50	96%	50%	140%	97%	50%	140%	92%	50%	140%
Cis- 1,2-Dichloroethylene	291666		< 0.02	< 0.02	NA	< 0.02	88%	50%	140%	119%	60%	130%	102%	50%	140%
Chloroform	291666		< 0.04	< 0.04	NA	< 0.04	81%	50%	140%	116%	60%	130%	111%	50%	140%
1,2-Dichloroethane	291666		< 0.03	< 0.03	NA	< 0.03	95%	50%	140%	87%	60%	130%	81%	50%	140%
1,1,1-Trichloroethane	291666		< 0.05	< 0.05	NA	< 0.05	78%	50%	140%	103%	60%	130%	90%	50%	140%
Carbon Tetrachloride	291666		< 0.05	< 0.05	NA	< 0.05	85%	50%	140%	92%	60%	130%	95%	50%	140%
Benzene	291666		< 0.02	< 0.02	NA	< 0.02	88%	50%	140%	109%	60%	130%	115%	50%	140%
1,2-Dichloropropane	291666		< 0.03	< 0.03	NA	< 0.03	97%	50%	140%	84%	60%	130%	86%	50%	140%
Trichloroethylene	291666		< 0.03	< 0.03	NA	< 0.03	86%	50%	140%	108%	60%	130%	115%	50%	140%
Bromodichloromethane	291666		< 0.05	< 0.05	NA	< 0.05	90%	50%	140%	80%	60%	130%	83%	50%	140%
Methyl Isobutyl Ketone	291666		< 0.50	< 0.50	NA	< 0.50	105%	50%	140%	82%	50%	140%	80%	50%	140%
1,1,2-Trichloroethane	291666		< 0.04	< 0.04	NA	< 0.04	78%	50%	140%	98%	60%	130%	105%	50%	140%
Toluene	291666		< 0.05	< 0.05	NA	< 0.05	114%	50%	140%	89%	60%	130%	111%	50%	140%
Dibromochloromethane	291666		< 0.05	< 0.05	NA	< 0.05	83%	50%	140%	75%	60%	130%	80%	50%	140%
Ethylene Dibromide	291666		< 0.04	< 0.04	NA	< 0.04	94%	50%	140%	98%	60%	130%	86%	50%	140%
Tetrachloroethylene	291666		< 0.05	< 0.05	NA	< 0.05	95%	50%	140%	100%	60%	130%	107%	50%	140%
1,1,1,2-Tetrachloroethane	291666		< 0.04	< 0.04	NA	< 0.04	83%	50%	140%	97%	60%	130%	86%	50%	140%
Chlorobenzene	291666		< 0.05	< 0.05	NA	< 0.05	107%	50%	140%	95%	60%	130%	101%	50%	140%
Ethylbenzene	291666		< 0.05	< 0.05	NA	< 0.05	104%	50%	140%	109%	60%	130%	86%	50%	140%
m & p-Xylene	291666		< 0.05	< 0.05	NA	< 0.05	122%	50%	140%	99%	60%	130%	98%	50%	140%
Bromoform	291666		< 0.05	< 0.05	NA	< 0.05	86%	50%	140%	76%	60%	130%	86%	50%	140%
Styrene	291666		< 0.05	< 0.05	NA	< 0.05	80%	50%	140%	81%	60%	130%	114%	50%	140%
1,1,2,2-Tetrachloroethane	291666		< 0.05	< 0.05	NA	< 0.05	71%	50%	140%	112%	60%	130%	98%	50%	140%
o-Xylene	291666		< 0.05	< 0.05	NA	< 0.05	111%	50%	140%	114%	60%	130%	100%	50%	140%
1,3-Dichlorobenzene	291666		< 0.05	< 0.05	NA	< 0.05	94%	50%	140%	110%	60%	130%	119%	50%	140%
1,4-Dichlorobenzene	291666		< 0.05	< 0.05	NA	< 0.05	95%	50%	140%	80%	60%	130%	115%	50%	140%
1,2-Dichlorobenzene	291666		< 0.05	< 0.05	NA	< 0.05	87%	50%	140%	84%	60%	130%	112%	50%	140%
1,3-Dichloropropene	291666		< 0.04	< 0.04	NA	< 0.04	86%	50%	140%	81%	60%	130%	84%	50%	140%
n-Hexane	291666		< 0.05	< 0.05	NA	< 0.05	98%	50%	140%	117%	60%	130%	104%	50%	140%
O. Reg. 153(511) - PHCs F1 - F4 (-BTEX) (Soil)															
F1 (C6 to C10)	300201		< 5	< 5	NA	< 5	113%	60%	130%	104%	85%	115%	95%	70%	130%
F2 (C10 to C16)	247073		< 10	< 10	NA	< 10	102%	60%	130%	107%	80%	120%	86%	70%	130%
F3 (C16 to C34)	247073		< 50	< 50	NA	< 50	103%	60%	130%	117%	80%	120%	91%	70%	130%

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T483131

PROJECT: City Of Brampton Phase 2 ESA

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

Trace Organics Analysis (Continued)

RPT Date: Jun 27, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
F4 (C34 to C50)	247073		< 50	< 50	NA	< 50	94%	60%	130%	119%	80%	120%	118%	70%	130%
O. Reg. 153(511) - OC Pesticides (Soil)															
Hexachloroethane	294132		< 0.01	< 0.01	NA	< 0.01	85%	50%	140%	84%	50%	140%	94%	50%	140%
Gamma-Hexachlorocyclohexane	294132		< 0.005	< 0.005	NA	< 0.005	86%	50%	140%	93%	50%	140%	86%	50%	140%
Heptachlor	294132		< 0.005	< 0.005	NA	< 0.005	82%	50%	140%	95%	50%	140%	80%	50%	140%
Aldrin	294132		< 0.005	< 0.005	NA	< 0.005	87%	50%	140%	94%	50%	140%	87%	50%	140%
Heptachlor Epoxide	294132		< 0.005	< 0.005	NA	< 0.005	90%	50%	140%	94%	50%	140%	89%	50%	140%
Endosulfan	294132		< 0.005	< 0.005	NA	< 0.005	93%	50%	140%	92%	50%	140%	91%	50%	140%
Chlordane	294132		< 0.007	< 0.007	NA	< 0.007	92%	50%	140%	89%	50%	140%	90%	50%	140%
DDE	294132		< 0.007	< 0.007	NA	< 0.007	97%	50%	140%	86%	50%	140%	83%	50%	140%
DDD	294132		< 0.007	< 0.007	NA	< 0.007	97%	50%	140%	84%	50%	140%	83%	50%	140%
DDT	294132		< 0.007	< 0.007	NA	< 0.007	90%	50%	140%	86%	50%	140%	83%	50%	140%
Dieldrin	294132		< 0.005	< 0.005	NA	< 0.005	91%	50%	140%	88%	50%	140%	84%	50%	140%
Endrin	294132		< 0.005	< 0.005	NA	< 0.005	88%	50%	140%	93%	50%	140%	90%	50%	140%
Methoxychlor	294132		< 0.005	< 0.005	NA	< 0.005	93%	50%	140%	103%	50%	140%	91%	50%	140%
Hexachlorobenzene	294132		< 0.005	< 0.005	NA	< 0.005	90%	50%	140%	98%	50%	140%	92%	50%	140%
Hexachlorobutadiene	294132		< 0.01	< 0.01	NA	< 0.01	86%	50%	140%	92%	50%	140%	100%	50%	140%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

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Method Summary

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AGAT WORK ORDER: 19T483131

PROJECT: City Of Brampton Phase 2 ESA

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
Antimony	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Arsenic	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Barium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Beryllium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron (Hot Water Soluble)	MET-93-6104	EPA SW 846 6010C; MSA, Part 3, Ch.21	ICP/OES
Cadmium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Cobalt	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Copper	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Lead	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Molybdenum	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Nickel	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Selenium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Silver	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Thallium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Uranium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Vanadium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Zinc	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium VI	INOR-93-6029	SM 3500 B; MSA Part 3, Ch. 25	SPECTROPHOTOMETER
Cyanide	INOR-93-6052	MOE CN-3015 & E 3009 A;SM 4500 CN	TECHNICON AUTO ANALYZER
Mercury	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Electrical Conductivity	INOR-93-6036	McKeague 4.12, SM 2510 B	EC METER
Sodium Adsorption Ratio	INOR-93-6007	McKeague 4.12 & 3.26 & EPA SW-846 6010C	ICP/OES
pH, 2:1 CaCl2 Extraction	INOR-93-6031	MSA part 3 & SM 4500-H+ B	PH METER

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T483131

PROJECT: City Of Brampton Phase 2 ESA

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Hexachloroethane	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Gamma-Hexachlorocyclohexane	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Heptachlor	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Aldrin	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Heptachlor Epoxide	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Endosulfan	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Chlordane	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
DDE	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
DDD	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
DDT	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Dieldrin	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Endrin	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Methoxychlor	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Hexachlorobenzene	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Hexachlorobutadiene	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
TCMX	ORG-91-5112	EPA SW-846 3541,3620 & 8081	GC/ECD
Decachlorobiphenyl	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Moisture Content		MOE E3139	BALANCE
Naphthalene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Acenaphthylene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Acenaphthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Fluorene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Phenanthrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Anthracene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Pyrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benz(a)anthracene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Chrysene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(b)fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(k)fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(a)pyrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Dibenz(a,h)anthracene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(g,h,i)perylene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
2-and 1-methyl Naphthalene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Moisture Content	ORG-91-5106	EPA SW-846 3541 & 8270D	BALANCE
Chrysene-d12	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
F1 (C6 to C10)	VOL-91-5009	CCME Tier 1 Method, SW846 5035	P&T GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	CCME Tier 1 Method, SW846 5035	P&T GC/FID
F2 (C10 to C16)	VOL-91-5009	CCME Tier 1 Method	GC/FID
F3 (C16 to C34)	VOL-91-5009	CCME Tier 1 Method	GC/FID
F4 (C34 to C50)	VOL-91-5009	CCME Tier 1 Method	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5009	CCME Tier 1 Method	BALANCE
Moisture Content	VOL-91-5009	CCME Tier 1 Method	BALANCE
Terphenyl	VOL-91-5009	CCME Tier 1 Method	GC/FID
Dichlorodifluoromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Vinyl Chloride	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Bromomethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS

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http://www.agatlabs.com

Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T483131

PROJECT: City Of Brampton Phase 2 ESA

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Acetone	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methylene Chloride	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Trans- 1,2-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methyl tert-butyl Ether	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Cis- 1,2-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Chloroform	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Benzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Trichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Bromodichloromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Toluene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Dibromochloromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Chlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Ethylbenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
m & p-Xylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Bromoform	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Styrene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
o-Xylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Xylene Mixture	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,3-Dichloropropene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
n-Hexane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Toluene-d8	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
2,4-D	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4,5-T	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4,5-TP (Silvex)	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Dicamba	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Dichlorprop	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Dinoseb	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Picloram	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Diclofop-methyl	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,3,4,6-Tetrachlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4-Dichlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4,5-Trichlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4,6-Trichlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD

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Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T483131

PROJECT: City Of Brampton Phase 2 ESA

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Bromoxynil	ORG-91-5110	EPA SW-846 8151A	GC/ECD
MCPP (Mecoprop)	ORG-91-5110	EPA SW-846 8151A	GC/ECD
MCPA	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Pentachlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD
DCAA	ORG-91-5110	EPA SW-846 8151	GC/ECD
Phenoxy Extr			N/A

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AGAT Laboratories

5835 Coopers Avenue
Mississauga, Ontario L4Z 1Y2
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webearth.agatlabs.com

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Laboratory Use Only

Work Order #: 19T483131

Cooler Quantity:

Arrival Temperatures: 2.6 | 2.9 | 3.1 (on ice)

Custody Seal Intact: ☐ Yes ☐ No ☐ N/A

Notes:

Report Information:

Company: SNC-Lavalin Inc.
Contact: 195 The West Mall, Toronto, ON
Address: M9C 5K1
Robert Mitzakov
Phone: 416-635-5882 Fax: x55805
Reports to be sent to:
1. Email: robert.mitzakov@snclavalin.com
2. Email: abed.yassine@snclavalin.com

Regulatory Requirements:

☐ No Regulatory Requirement

(Please check all applicable boxes)

☑ Regulation 153/04
Table 9 (Indicate One)
☑ Ind/Com
☐ Res/Park
☐ Agriculture
Soil Texture (Check One)
☐ Coarse
☐ Fine

☐ Sewer Use
☐ Sanitary
☐ Storm
Region ____ (Indicate One)
☐ MISA

☐ Regulation 558
☐ CCME
☐ Prov. Water Quality Objectives (PWQO)
☐ Other
____ (Indicate One)

Turnaround Time (TAT) Required:

Regular TAT ☑ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day

OR Date Required (Rush Surcharges May Apply):

Please provide prior notification for rush TAT
**TAT is exclusive of weekends and statutory holidays*

For 'Same Day' analysis, please contact your AGAT CPM

Project Information:

Project: City of Brampton - Phase II ESA
Site Location: 10192 Hwy 50, Brampton, ON
Sampled By: Ariel Barr-Keating
AGAT Quote #: ____ PO: PO: 665175
Please note: If quotation number is not provided, client will be billed full price for analysis.

Is this submission for a **Record of Site Condition?** ☑ Yes ☐ No

Report Guideline on *Certificate of Analysis* ☑ Yes ☐ No

Invoice Information:

Bill To Same: Yes ☐ No ☐

Company:
Contact:
Address:
Email:

Sample Matrix Legend

B	Biota
GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI (Y/N)	O. Reg 153: Metals and Inorganics (All Metals ☐ 153 Metals (excl. Hydrides) ☐ Hydride Metals ☐ 153 Metals (Incl. Hydrides))	O. Reg 153: ORPs: ☐ B-HWS ☐ Cl ☐ CN ☐ Cr^{6+} ☐ EC ☐ FOC ☐ Hg ☐ pH ☐ SAR	O. Reg 153: Full Metals Scan	O. Reg 153: Regulation/Custom Metals	O. Reg 153: Nutrients: ☐ TP ☐ NH_3 ☐ TKN ☐ NO_3 ☐ NO_2 ☐ NO_3+NO_2	O. Reg 153: Volatiles: ☐ VOC ☐ BTEX ☐ THM	O. Reg 153: PHCs F1 - F4, VOC's	O. Reg 153: ABNs	O. Reg 153: PAHs	O. Reg 153: PCBs: ☐ Total ☐ Aroclors	O. Reg 153: Organochlorine Pesticides	O. Reg 153: TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	O. Reg 153: Sewer Use	O. Reg 153 metals+Inorganics	Herbicides / Pesticides	Potentially Hazardous or High Concentration (Y/N)
BH72-1	06/20/19	11:50am	1	S															✓		
BH72-2	"	11:55am	1	"											✓					✓	
BH72-3	"	12:00pm	1	"																	
BH72-8	"	1:05pm	4	"									✓								
BH73-02		2:30pm	2											X					X		
BH73-07		3:15pm	3										X								

Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Ariel Barr-Keating / ABK	06/20/19	2pm	Sharmin	June 21/19	9:25am
Joseph Preston	06/21/19	9:00			

Page 1 of 1

Nº: T 090564

Document ID: DW-TS-3511-016

Pink Copy - Client | Yellow Copy - AGAT | White Copy- AGAT

AGAT Laboratories

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CANADA L4Z 1Y2
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http://www.agatlabs.com

CLIENT NAME: SNC LAVALIN INC
235 LESMILL ROAD
TORONTO, ON M3B 2V1
(416) 679-6000

ATTENTION TO: Robert Mitzakov

PROJECT: 665125

AGAT WORK ORDER: 19H484181

SOIL ANALYSIS REVIEWED BY: Nivine Basily, Inorganics Report Writer

TRACE ORGANICS REVIEWED BY: Neli Popnikolova, Senior Chemist

DATE REPORTED: Jul 03, 2019

PAGES (INCLUDING COVER): 18

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

*NOTES

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.

Member of: Association of Professional Engineers and Geoscientists of Alberta (APEGA)
Western Enviro-Agricultural Laboratory Association (WEALA)
Environmental Services Association of Alberta (ESAA)

AGAT Laboratories is accredited to ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA) and/or Standards Council of Canada (SCC) for specific tests listed on the scope of accreditation. AGAT Laboratories (Mississauga) is also accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) for specific drinking water tests. Accreditations are location and parameter specific. A complete listing of parameters for each location is available from www.cala.ca and/or www.scc.ca. The tests in this report may not necessarily be included in the scope of accreditation. Measurement Uncertainty is not taken into consideration when stating conformity with a specified requirement.

Results relate only to the items tested. Results apply to samples as received.
All reportable information as specified by ISO 17025:2017 is available from AGAT Laboratories upon request

AGAT Laboratories

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MISSISSAUGA, ONTARIO
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FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 19H484181

PROJECT: 665125

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10182 Highway 50, Brampton ON,10182 Highway 50, Brampton ON

SAMPLED BY:Brial Poole,Brian Poole

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2019-06-25

DATE REPORTED: 2019-07-03

		SAMPLE DESCRIPTION:		SS1	SS2	SS3	SS4	SS5	SS6
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2019-06-24	2019-06-24	2019-06-24	2019-06-24	2019-06-24	2019-06-24
Parameter	Unit	G / S	RDL	302489	302513	302543	302549	302559	302561
Antimony	µg/g	1.3	0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Arsenic	µg/g	18	1	5	4	4	4	4	4
Barium	µg/g	220	2	116	111	119	104	107	116
Beryllium	µg/g	2.5	0.5	0.8	0.7	0.8	0.7	0.7	0.7
Boron	µg/g	36	5	5	5	<5	<5	5	6
Boron (Hot Water Soluble)	µg/g	1.5	0.10	0.37	0.42	0.27	0.23	0.20	0.23
Cadmium	µg/g	1.2	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	µg/g	70	2	28	27	28	27	27	28
Cobalt	µg/g	22	0.5	13.2	11.8	12.4	11.7	11.7	11.7
Copper	µg/g	92	1	19	18	18	18	17	17
Lead	µg/g	120	1	20	19	23	20	19	19
Molybdenum	µg/g	2	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nickel	µg/g	82	1	22	21	22	20	20	21
Selenium	µg/g	1.5	0.4	0.6	0.5	0.6	0.5	0.4	0.4
Silver	µg/g	0.5	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Thallium	µg/g	1	0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Uranium	µg/g	2.5	0.5	0.8	0.7	0.8	0.7	0.7	0.7
Vanadium	µg/g	86	1	45	43	45	42	43	45
Zinc	µg/g	290	5	78	74	74	72	70	73
Chromium VI	µg/g	0.66	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Cyanide	µg/g	0.051	0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Mercury	µg/g	0.27	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Electrical Conductivity	mS/cm	0.7	0.005	0.332	0.157	0.146	0.179	0.168	0.176
Sodium Adsorption Ratio	NA	5	NA	0.561	0.355	0.180	0.369	0.275	0.440
pH, 2:1 CaCl2 Extraction	pH Units		NA	6.86	7.07	7.11	7.07	7.09	7.16

Certified By: Vivine Basily

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Certificate of Analysis

AGAT WORK ORDER: 19H484181

PROJECT: 665125

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10182 Highway 50, Brampton ON,10182 Highway 50, Brampton ON

SAMPLED BY:Brial Poole,Brian Poole

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2019-06-25

DATE REPORTED: 2019-07-03

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

302489-302561 EC was determined on the DI water extract obtained from the 2:1 leaching procedure (2 parts DI water:1 part soil). pH was determined on the 0.01M CaCl2 extract prepared at 2:1 ratio. SAR is a calculated parameter.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: Vivine Basily

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 19H484181

PROJECT: 665125

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10182 Highway 50, Brampton ON,10182 Highway 50, Brampton ON

SAMPLED BY:Brial Poole,Brian Poole

O. Reg. 153(511) - OC Pesticides (Soil)

DATE RECEIVED: 2019-06-25

DATE REPORTED: 2019-07-03

		SAMPLE DESCRIPTION:		SS2	SS6
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2019-06-24	2019-06-24
Parameter	Unit	G / S	RDL	302513	302561
Hexachloroethane	µg/g	0.01	0.01	<0.01	<0.01
Gamma-Hexachlorocyclohexane	µg/g	0.01	0.005	<0.005	<0.005
Heptachlor	µg/g	0.05	0.005	<0.005	<0.005
Aldrin	µg/g	0.05	0.005	<0.005	<0.005
Heptachlor Epoxide	µg/g	0.05	0.005	<0.005	<0.005
Endosulfan	µg/g	0.04	0.005	<0.005	<0.005
Chlordane	µg/g	0.05	0.007	<0.007	<0.007
DDE	µg/g	0.05	0.007	<0.007	<0.007
DDD	µg/g	0.05	0.007	<0.007	<0.007
DDT	µg/g	1.4	0.007	<0.007	<0.007
Dieldrin	µg/g	0.05	0.005	<0.005	<0.005
Endrin	µg/g	0.04	0.005	<0.005	<0.005
Methoxychlor	µg/g	0.05	0.005	<0.005	<0.005
Hexachlorobenzene	µg/g	0.02	0.005	<0.005	<0.005
Hexachlorobutadiene	µg/g	0.01	0.01	<0.01	<0.01
Moisture Content	%		0.1	9.5	10.5
Surrogate	Unit	Acceptable Limits			
TCMX	%	50-140		74	62
Decachlorobiphenyl	%	60-130		88	74

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

302513-302561 Results are based on the dry weight of the soil.
DDT total is a calculated parameter. The calculated value is the sum of op'DDT and pp'DDT.
DDD total is a calculated parameter. The calculated value is the sum of op'DDD and pp'DDD.
DDE total is a calculated parameter. The calculated value is the sum of op'DDE and pp'DDE.
Endosulfan total is a calculated parameter. The calculated value is the sum of Endosulfan I and Endosulfan II.
Chlordane total is a calculated parameter. The calculated value is the sum of Alpha-Chlordane and Gamma-Chlordane.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: NPopowkolof

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Certificate of Analysis

AGAT WORK ORDER: 19H484181

PROJECT: 665125

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10182 Highway 50, Brampton ON,10182 Highway 50, Brampton ON

SAMPLED BY:Brial Poole,Brian Poole

O. Reg. 153(511) - PAHs (Soil)

DATE RECEIVED: 2019-06-25

DATE REPORTED: 2019-07-03

SAMPLE DESCRIPTION:				SS2	SS6
SAMPLE TYPE:				Soil	Soil
DATE SAMPLED:				2019-06-24	2019-06-24
Parameter	Unit	G / S	RDL	302513	302561
Naphthalene	µg/g	0.09	0.05	<0.05	<0.05
Acenaphthylene	µg/g	0.093	0.05	<0.05	<0.05
Acenaphthene	µg/g	0.072	0.05	<0.05	<0.05
Fluorene	µg/g	0.19	0.05	<0.05	<0.05
Phenanthrene	µg/g	0.69	0.05	<0.05	<0.05
Anthracene	µg/g	0.22	0.05	<0.05	<0.05
Fluoranthene	µg/g	0.69	0.05	<0.05	<0.05
Pyrene	µg/g	1	0.05	<0.05	<0.05
Benz(a)anthracene	µg/g	0.36	0.05	<0.05	<0.05
Chrysene	µg/g	2.8	0.05	<0.05	<0.05
Benzo(b)fluoranthene	µg/g	0.47	0.05	<0.05	<0.05
Benzo(k)fluoranthene	µg/g	0.48	0.05	<0.05	<0.05
Benzo(a)pyrene	µg/g	0.3	0.05	<0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.23	0.05	<0.05	<0.05
Dibenz(a,h)anthracene	µg/g	0.1	0.05	<0.05	<0.05
Benzo(g,h,i)perylene	µg/g	0.68	0.05	<0.05	<0.05
2-and 1-methyl Naphthalene	µg/g	0.59	0.05	<0.05	<0.05
Moisture Content	%		0.1	9.5	10.5
Surrogate	Unit	Acceptable Limits			
Chrysene-d12	%	50-140		74	95

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

302513-302561 Results are based on the dry weight of the soil.
Note: The result for Benzo(b)Fluoranthene is the total of the Benzo(b)&j)Fluoranthene isomers because the isomers co-elute on the GC column.
2- and 1-Methyl Naphthalene is a calculated parameter. The calculated value is the sum of 2-Methyl Naphthalene and 1-Methyl Naphthalene.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: NPopnikolof

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Certificate of Analysis

AGAT WORK ORDER: 19H484181

PROJECT: 665125

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10182 Highway 50, Brampton ON,10182 Highway 50, Brampton ON

SAMPLED BY:Brial Poole,Brian Poole

O. Reg. 153(511) - PHCs F1 - F4 (-BTEX) (Soil)

DATE RECEIVED: 2019-06-25

DATE REPORTED: 2019-07-03

		SAMPLE DESCRIPTION:		SS1	SS3	SS5
		SAMPLE TYPE:		Soil	Soil	Soil
		DATE SAMPLED:		2019-06-24	2019-06-24	2019-06-24
Parameter	Unit	G / S	RDL	302489	302543	302559
F1 (C6 to C10)	µg/g		5	<5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	25	5	<5	<5	<5
F2 (C10 to C16)	µg/g	10	10	<10	<10	<10
F3 (C16 to C34)	µg/g	240	50	<50	<50	<50
F4 (C34 to C50)	µg/g	120	50	<50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g	120	50	NA	NA	NA
Moisture Content	%		0.1	16.9	17.0	12.7
Surrogate	Unit	Acceptable Limits				
Terphenyl	%	60-140		101	95	94

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

302489-302559 Results are based on sample dry weight.
The C6-C10 fraction is calculated using toluene response factor.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6 - C50 results are corrected for BTEX contribution.
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC6 and nC10 response factors are within 30% of Toluene response factor.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 + nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.
Fractions 1-4 are quantified without the contribution of PAHs. Under Ontario Regulation 153, results are considered valid without determining the PAH contribution if not requested by the client.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: NPopnikolof

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Certificate of Analysis

AGAT WORK ORDER: 19H484181

PROJECT: 665125

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10182 Highway 50, Brampton ON,10182 Highway 50, Brampton ON

SAMPLED BY:Brial Poole,Brian Poole

O. Reg. 153(511) - VOCs (Soil)

DATE RECEIVED: 2019-06-25

DATE REPORTED: 2019-07-03

SAMPLE DESCRIPTION:				SS1	SS3	SS5
SAMPLE TYPE:				Soil	Soil	Soil
DATE SAMPLED:				2019-06-24	2019-06-24	2019-06-24
Parameter	Unit	G / S	RDL	302489	302543	302559
Dichlorodifluoromethane	µg/g	0.05	0.05	<0.05	<0.05	<0.05
Vinyl Chloride	ug/g	0.02	0.02	<0.02	<0.02	<0.02
Bromomethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05
Trichlorofluoromethane	ug/g	0.25	0.05	<0.05	<0.05	<0.05
Acetone	ug/g	0.5	0.50	<0.50	<0.50	<0.50
1,1-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05	<0.05
Methylene Chloride	ug/g	0.05	0.05	<0.05	<0.05	<0.05
Trans- 1,2-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05	<0.05
Methyl tert-butyl Ether	ug/g	0.05	0.05	<0.05	<0.05	<0.05
1,1-Dichloroethane	ug/g	0.05	0.02	<0.02	<0.02	<0.02
Methyl Ethyl Ketone	ug/g	0.5	0.50	<0.50	<0.50	<0.50
Cis- 1,2-Dichloroethylene	ug/g	0.05	0.02	<0.02	<0.02	<0.02
Chloroform	ug/g	0.05	0.04	<0.04	<0.04	<0.04
1,2-Dichloroethane	ug/g	0.05	0.03	<0.03	<0.03	<0.03
1,1,1-Trichloroethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05
Carbon Tetrachloride	ug/g	0.05	0.05	<0.05	<0.05	<0.05
Benzene	ug/g	0.02	0.02	<0.02	<0.02	<0.02
1,2-Dichloropropane	ug/g	0.05	0.03	<0.03	<0.03	<0.03
Trichloroethylene	ug/g	0.05	0.03	<0.03	<0.03	<0.03
Bromodichloromethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05
Methyl Isobutyl Ketone	ug/g	0.5	0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	ug/g	0.05	0.04	<0.04	<0.04	<0.04
Toluene	ug/g	0.2	0.05	<0.05	<0.05	<0.05
Dibromochloromethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05
Ethylene Dibromide	ug/g	0.05	0.04	<0.04	<0.04	<0.04
Tetrachloroethylene	ug/g	0.05	0.05	<0.05	<0.05	<0.05
1,1,1,2-Tetrachloroethane	ug/g	0.05	0.04	<0.04	<0.04	<0.04
Chlorobenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05
Ethylbenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05
m & p-Xylene	ug/g		0.05	<0.05	<0.05	<0.05

Certified By: NPopnikolof

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Certificate of Analysis

AGAT WORK ORDER: 19H484181

PROJECT: 665125

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10182 Highway 50, Brampton ON,10182 Highway 50, Brampton ON

SAMPLED BY:Brial Poole,Brian Poole

O. Reg. 153(511) - VOCs (Soil)

DATE RECEIVED: 2019-06-25

DATE REPORTED: 2019-07-03

		SAMPLE DESCRIPTION:		SS1	SS3	SS5
		SAMPLE TYPE:		Soil	Soil	Soil
		DATE SAMPLED:		2019-06-24	2019-06-24	2019-06-24
Parameter	Unit	G / S	RDL	302489	302543	302559
Bromoform	ug/g	0.05	0.05	<0.05	<0.05	<0.05
Styrene	ug/g	0.05	0.05	<0.05	<0.05	<0.05
1,1,2,2-Tetrachloroethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05
o-Xylene	ug/g		0.05	<0.05	<0.05	<0.05
1,3-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05
1,4-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05
1,2-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05
Xylene Mixture	ug/g	0.05	0.05	<0.05	<0.05	<0.05
1,3-Dichloropropene	µg/g	0.05	0.04	<0.04	<0.04	<0.04
n-Hexane	µg/g	0.05	0.05	<0.05	<0.05	<0.05
Surrogate	Unit	Acceptable Limits				
Toluene-d8	% Recovery	50-140		106	105	103
4-Bromofluorobenzene	% Recovery	50-140		102	96	96

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

302489-302559 The sample was analyzed using the high level technique. The sample was extracted using methanol, a small amount of the methanol extract was diluted in water and the purge & trap GC/MS analysis was performed. Results are based on the dry weight of the soil.
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene + o-Xylene.
1,3-Dichloropropene total is a calculated parameter. The calculated value is the sum of Cis-1,3-Dichloropropene and Trans-1,3-Dichloropropene.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

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AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 19H484181

PROJECT: 665125

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10182 Highway 50, Brampton ON,10182 Highway 50, Brampton ON

SAMPLED BY:Brial Poole,Brian Poole

Phenoxy Acid Herbicides (Soil)

DATE RECEIVED: 2019-06-25

DATE REPORTED: 2019-07-03

SAMPLE DESCRIPTION:				SS2	SS6
SAMPLE TYPE:				Soil	Soil
DATE SAMPLED:				2019-06-24	2019-06-24
Parameter	Unit	G / S	RDL	302513	302561
2,4-D	ug/g		0.10	<0.10	<0.10
2,4,5-T	ug/g		0.10	<0.10	<0.10
2,4,5-TP (Silvex)	ug/g		0.10	<0.10	<0.10
Dicamba	ug/g		0.10	<0.10	<0.10
Dichlorprop	ug/g		0.10	<0.10	<0.10
Dinoseb	ug/g		0.10	<0.10	<0.10
Picloram	ug/g		0.10	<0.10	<0.10
Diclofop-methyl	ug/g		0.10	<0.10	<0.10
2,3,4,6-Tetrachlorophenol	ug/g		0.05	<0.05	<0.05
2,4-Dichlorophenol	ug/g		0.05	<0.05	<0.05
2,4,5-Trichlorophenol	ug/g		0.05	<0.05	<0.05
2,4,6-Trichlorophenol	ug/g		0.05	<0.05	<0.05
Bromoxynil	ug/g		0.5	<0.5	<0.5
MCPP (Mecoprop)	ug/g		1.0	<1.0	<1.0
MCPA	ug/g		1.0	<1.0	<1.0
Pentachlorophenol	ug/g		0.05	<0.05	<0.05
Phenoxy Extr	NA			Y	Y
Surrogate	Unit	Acceptable Limits			
DCAA	%	50-130		72	75

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: NPopowkolof

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC
AGAT WORK ORDER: 19H484181
PROJECT: 665125
ATTENTION TO: Robert Mitzakov
SAMPLING SITE:10182 Highway 50, Brampton ON,10182 Highway 50, Brampton ON
SAMPLED BY:Brial Poole,Brian Poole

Soil Analysis

RPT Date: Jul 03, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - Metals & Inorganics (Soil)															
Antimony	302489	302489	<0.8	<0.8	NA	< 0.8	122%	70%	130%	98%	80%	120%	93%	70%	130%
Arsenic	302489	302489	5	5	0.0%	< 1	106%	70%	130%	102%	80%	120%	102%	70%	130%
Barium	302489	302489	116	112	3.5%	< 2	99%	70%	130%	98%	80%	120%	95%	70%	130%
Beryllium	302489	302489	0.8	0.7	NA	< 0.5	82%	70%	130%	110%	80%	120%	88%	70%	130%
Boron	302489	302489	5	5	NA	< 5	79%	70%	130%	101%	80%	120%	98%	70%	130%
Boron (Hot Water Soluble)	302489	302489	0.37	0.36	NA	< 0.10	109%	60%	140%	105%	70%	130%	107%	60%	140%
Cadmium	302489	302489	<0.5	<0.5	NA	< 0.5	104%	70%	130%	102%	80%	120%	103%	70%	130%
Chromium	302489	302489	28	28	0.0%	< 2	89%	70%	130%	104%	80%	120%	101%	70%	130%
Cobalt	302489	302489	13.2	12.6	4.7%	< 0.5	107%	70%	130%	105%	80%	120%	116%	70%	130%
Copper	302489	302489	19	18	5.4%	< 1	86%	70%	130%	105%	80%	120%	94%	70%	130%
Lead	302489	302489	20	20	0.0%	< 1	100%	70%	130%	117%	80%	120%	114%	70%	130%
Molybdenum	302489	302489	<0.5	<0.5	NA	< 0.5	104%	70%	130%	108%	80%	120%	105%	70%	130%
Nickel	302489	302489	22	21	4.7%	< 1	93%	70%	130%	103%	80%	120%	98%	70%	130%
Selenium	302489	302489	0.6	0.4	NA	< 0.4	112%	70%	130%	107%	80%	120%	103%	70%	130%
Silver	302489	302489	<0.2	<0.2	NA	< 0.2	95%	70%	130%	104%	80%	120%	101%	70%	130%
Thallium	302489	302489	<0.4	<0.4	NA	< 0.4	113%	70%	130%	97%	80%	120%	97%	70%	130%
Uranium	302489	302489	0.8	0.7	NA	< 0.5	117%	70%	130%	100%	80%	120%	102%	70%	130%
Vanadium	302489	302489	45	44	2.2%	< 1	106%	70%	130%	114%	80%	120%	111%	70%	130%
Zinc	302489	302489	78	74	5.3%	< 5	82%	70%	130%	106%	80%	120%	108%	70%	130%
Chromium VI	311451		<0.2	<0.2	NA	< 0.2	110%	70%	130%	104%	80%	120%	106%	70%	130%
Cyanide	303077		<0.040	<0.040	NA	< 0.040	94%	70%	130%	102%	80%	120%	94%	70%	130%
Mercury	302489	302489	<0.10	<0.10	NA	< 0.10	97%	70%	130%	96%	80%	120%	107%	70%	130%
Electrical Conductivity	302489	302489	0.332	0.327	1.5%	< 0.005	101%	90%	110%						
Sodium Adsorption Ratio	302489	302489	0.561	0.605	7.5%	NA									
pH, 2:1 CaCl2 Extraction	311451		7.17	7.15	0.3%	NA	101%	80%	120%						

Comments: NA signifies Not Applicable.
Duplicate Qualifier: As the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL
pH duplicates QA acceptance criteria was met relative as stated in Table 5-15 of Analytical Protocol document.

Certified By: Nivine Basily

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC
AGAT WORK ORDER: 19H484181
PROJECT: 665125
ATTENTION TO: Robert Mitzakov
SAMPLING SITE:10182 Highway 50, Brampton ON,10182 Highway 50, Brampton ON
SAMPLED BY:Brial Poole,Brian Poole

Trace Organics Analysis

RPT Date: Jul 03, 2019

PARAMETER	Batch	Sample Id	DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
			Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - VOCs (Soil)															
Dichlorodifluoromethane	309697		< 0.05	< 0.05	NA	< 0.05	84%	50%	140%	75%	50%	140%	85%	50%	140%
Vinyl Chloride	309697		< 0.02	< 0.02	NA	< 0.02	87%	50%	140%	88%	50%	140%	78%	50%	140%
Bromomethane	309697		< 0.05	< 0.05	NA	< 0.05	91%	50%	140%	86%	50%	140%	77%	50%	140%
Trichlorofluoromethane	309697		< 0.05	< 0.05	NA	< 0.05	84%	50%	140%	80%	50%	140%	82%	50%	140%
Acetone	309697		< 0.50	< 0.50	NA	< 0.50	76%	50%	140%	77%	50%	140%	104%	50%	140%
1,1-Dichloroethylene	309697		< 0.05	< 0.05	NA	< 0.05	89%	50%	140%	84%	60%	130%	80%	50%	140%
Methylene Chloride	309697		< 0.05	< 0.05	NA	< 0.05	110%	50%	140%	110%	60%	130%	88%	50%	140%
Trans- 1,2-Dichloroethylene	309697		< 0.05	< 0.05	NA	< 0.05	73%	50%	140%	72%	60%	130%	78%	50%	140%
Methyl tert-butyl Ether	309697		< 0.05	< 0.05	NA	< 0.05	82%	50%	140%	76%	60%	130%	80%	50%	140%
1,1-Dichloroethane	309697		< 0.02	< 0.02	NA	< 0.02	78%	50%	140%	88%	60%	130%	75%	50%	140%
Methyl Ethyl Ketone	309697		< 0.50	< 0.50	NA	< 0.50	87%	50%	140%	70%	50%	140%	90%	50%	140%
Cis- 1,2-Dichloroethylene	309697		< 0.02	< 0.02	NA	< 0.02	87%	50%	140%	83%	60%	130%	84%	50%	140%
Chloroform	309697		< 0.04	< 0.04	NA	< 0.04	73%	50%	140%	73%	60%	130%	75%	50%	140%
1,2-Dichloroethane	309697		< 0.03	< 0.03	NA	< 0.03	71%	50%	140%	76%	60%	130%	82%	50%	140%
1,1,1-Trichloroethane	309697		< 0.05	< 0.05	NA	< 0.05	84%	50%	140%	72%	60%	130%	82%	50%	140%
Carbon Tetrachloride	309697		< 0.05	< 0.05	NA	< 0.05	104%	50%	140%	88%	60%	130%	85%	50%	140%
Benzene	309697		< 0.02	< 0.02	NA	< 0.02	81%	50%	140%	79%	60%	130%	81%	50%	140%
1,2-Dichloropropane	309697		< 0.03	< 0.03	NA	< 0.03	80%	50%	140%	78%	60%	130%	71%	50%	140%
Trichloroethylene	309697		< 0.03	< 0.03	NA	< 0.03	74%	50%	140%	74%	60%	130%	78%	50%	140%
Bromodichloromethane	309697		< 0.05	< 0.05	NA	< 0.05	79%	50%	140%	70%	60%	130%	78%	50%	140%
Methyl Isobutyl Ketone	309697		< 0.50	< 0.50	NA	< 0.50	88%	50%	140%	76%	50%	140%	103%	50%	140%
1,1,2-Trichloroethane	309697		< 0.04	< 0.04	NA	< 0.04	100%	50%	140%	105%	60%	130%	120%	50%	140%
Toluene	309697		< 0.05	< 0.05	NA	< 0.05	104%	50%	140%	101%	60%	130%	99%	50%	140%
Dibromochloromethane	309697		< 0.05	< 0.05	NA	< 0.05	75%	50%	140%	110%	60%	130%	77%	50%	140%
Ethylene Dibromide	309697		< 0.04	< 0.04	NA	< 0.04	75%	50%	140%	72%	60%	130%	91%	50%	140%
Tetrachloroethylene	309697		< 0.05	< 0.05	NA	< 0.05	75%	50%	140%	76%	60%	130%	81%	50%	140%
1,1,1,2-Tetrachloroethane	309697		< 0.04	< 0.04	NA	< 0.04	80%	50%	140%	109%	60%	130%	75%	50%	140%
Chlorobenzene	309697		< 0.05	< 0.05	NA	< 0.05	106%	50%	140%	104%	60%	130%	107%	50%	140%
Ethylbenzene	309697		< 0.05	< 0.05	NA	< 0.05	93%	50%	140%	90%	60%	130%	92%	50%	140%
m & p-Xylene	309697		< 0.05	< 0.05	NA	< 0.05	103%	50%	140%	99%	60%	130%	99%	50%	140%
Bromoform	309697		< 0.05	< 0.05	NA	< 0.05	110%	50%	140%	78%	60%	130%	76%	50%	140%
Styrene	309697		< 0.05	< 0.05	NA	< 0.05	70%	50%	140%	98%	60%	130%	107%	50%	140%
1,1,2,2-Tetrachloroethane	309697		< 0.05	< 0.05	NA	< 0.05	105%	50%	140%	105%	60%	130%	128%	50%	140%
o-Xylene	309697		< 0.05	< 0.05	NA	< 0.05	106%	50%	140%	103%	60%	130%	105%	50%	140%
1,3-Dichlorobenzene	309697		< 0.05	< 0.05	NA	< 0.05	109%	50%	140%	120%	60%	130%	121%	50%	140%
1,4-Dichlorobenzene	309697		< 0.05	< 0.05	NA	< 0.05	105%	50%	140%	107%	60%	130%	107%	50%	140%
1,2-Dichlorobenzene	309697		< 0.05	< 0.05	NA	< 0.05	108%	50%	140%	112%	60%	130%	117%	50%	140%
1,3-Dichloropropene	309697		< 0.04	< 0.04	NA	< 0.04	95%	50%	140%	84%	60%	130%	81%	50%	140%
n-Hexane	309697		< 0.05	< 0.05	NA	< 0.05	84%	50%	140%	76%	60%	130%	83%	50%	140%

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC
AGAT WORK ORDER: 19H484181
PROJECT: 665125
ATTENTION TO: Robert Mitzakov
SAMPLING SITE:10182 Highway 50, Brampton ON,10182 Highway 50, Brampton ON
SAMPLED BY:Brial Poole,Brian Poole

Trace Organics Analysis (Continued)

RPT Date: Jul 03, 2019

PARAMETER	Batch	Sample Id	DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
			Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - PHCs F1 - F4 (-BTEX) (Soil)															
F1 (C6 to C10)	303509		< 5	< 5	NA	< 5	97%	60%	130%	97%	85%	115%	85%	70%	130%
F2 (C10 to C16)	301086		< 10	< 10	NA	< 10	91%	60%	130%	89%	80%	120%	77%	70%	130%
F3 (C16 to C34)	301086		< 50	< 50	NA	< 50	92%	60%	130%	97%	80%	120%	94%	70%	130%
F4 (C34 to C50)	301086		< 50	< 50	NA	< 50	76%	60%	130%	86%	80%	120%	94%	70%	130%
O. Reg. 153(511) - PAHs (Soil)															
Naphthalene	305507		< 0.05	< 0.05	NA	< 0.05	112%	50%	140%	88%	50%	140%	72%	50%	140%
Acenaphthylene	305507		< 0.05	< 0.05	NA	< 0.05	113%	50%	140%	92%	50%	140%	73%	50%	140%
Acenaphthene	305507		< 0.05	< 0.05	NA	< 0.05	108%	50%	140%	92%	50%	140%	74%	50%	140%
Fluorene	305507		< 0.05	< 0.05	NA	< 0.05	112%	50%	140%	89%	50%	140%	75%	50%	140%
Phenanthrene	305507		< 0.05	< 0.05	NA	< 0.05	107%	50%	140%	80%	50%	140%	67%	50%	140%
Anthracene	305507		< 0.05	< 0.05	NA	< 0.05	94%	50%	140%	81%	50%	140%	67%	50%	140%
Fluoranthene	305507		< 0.05	< 0.05	NA	< 0.05	119%	50%	140%	98%	50%	140%	79%	50%	140%
Pyrene	305507		< 0.05	< 0.05	NA	< 0.05	116%	50%	140%	99%	50%	140%	77%	50%	140%
Benz(a)anthracene	305507		< 0.05	< 0.05	NA	< 0.05	62%	50%	140%	101%	50%	140%	68%	50%	140%
Chrysene	305507		< 0.05	< 0.05	NA	< 0.05	112%	50%	140%	101%	50%	140%	73%	50%	140%
Benzo(b)fluoranthene	305507		< 0.05	< 0.05	NA	< 0.05	111%	50%	140%	70%	50%	140%	72%	50%	140%
Benzo(k)fluoranthene	305507		< 0.05	< 0.05	NA	< 0.05	116%	50%	140%	70%	50%	140%	65%	50%	140%
Benzo(a)pyrene	305507		< 0.05	< 0.05	NA	< 0.05	108%	50%	140%	78%	50%	140%	61%	50%	140%
Indeno(1,2,3-cd)pyrene	305507		< 0.05	< 0.05	NA	< 0.05	74%	50%	140%	86%	50%	140%	69%	50%	140%
Dibenz(a,h)anthracene	305507		< 0.05	< 0.05	NA	< 0.05	66%	50%	140%	85%	50%	140%	66%	50%	140%
Benzo(g,h,i)perylene	305507		< 0.05	< 0.05	NA	< 0.05	105%	50%	140%	88%	50%	140%	71%	50%	140%
Phenoxy Acid Herbicides (Soil)															
2,4-D	268398		< 0.10	< 0.10	NA	< 0.10	100%	50%	130%	98%	50%	130%	100%	50%	130%
2,4,5-T	268398		< 0.10	< 0.10	NA	< 0.10	90%	50%	130%	90%	50%	130%	92%	50%	130%
2,4,5-TP (Silvex)	268398		< 0.10	< 0.10	NA	< 0.10	92%	50%	130%	85%	50%	130%	70%	50%	130%
Dicamba	268398		< 0.10	< 0.10	NA	< 0.10	97%	50%	130%	86%	50%	130%	76%	50%	130%
Dichlorprop	268398		< 0.10	< 0.10	NA	< 0.10	102%	50%	130%	90%	50%	130%	80%	50%	130%
Dinoseb	268398		< 0.10	< 0.10	NA	< 0.10	75%	50%	130%	65%	50%	130%	63%	50%	130%
Picloram	268398		< 0.10	< 0.10	NA	< 0.10	103%	50%	130%	80%	50%	130%	64%	50%	130%
Diclofop-methyl	268398		< 0.10	< 0.10	NA	< 0.10	105%	50%	130%	101%	50%	130%	95%	50%	130%
2,3,4,6-Tetrachlorophenol	268398		< 0.05	< 0.05	NA	< 0.05	117%	50%	130%	101%	50%	130%	97%	50%	130%
2,4-Dichlorophenol	268398		< 0.05	< 0.05	NA	< 0.05	99%	50%	130%	90%	50%	130%	74%	50%	130%
2,4,5-Trichlorophenol	268398		< 0.05	< 0.05	NA	< 0.05	90%	50%	130%	85%	50%	130%	70%	50%	130%
2,4,6-Trichlorophenol	268398		< 0.05	< 0.05	NA	< 0.05	111%	50%	130%	101%	50%	130%	97%	50%	130%
Bromoxynil	268398		< 0.5	< 0.5	NA	< 0.5	98%	60%	130%	95%	60%	130%	94%	60%	130%
MCPP (Mecoprop)	268398		< 1.0	< 1.0	NA	< 1.0	NA	50%	130%	100%	50%	130%	80%	50%	130%
MCPA	268398		< 1.0	< 1.0	NA	< 1.0	NA	50%	130%	98%	50%	130%	90%	50%	130%

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC
AGAT WORK ORDER: 19H484181
PROJECT: 665125
ATTENTION TO: Robert Mitzakov
SAMPLING SITE:10182 Highway 50, Brampton ON,10182 Highway 50, Brampton ON
SAMPLED BY:Brial Poole,Brian Poole

Trace Organics Analysis (Continued)

RPT Date: Jul 03, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Pentachlorophenol	268398		< 0.05	< 0.05	NA	< 0.05	94%	50%	130%	90%	50%	130%	80%	50%	130%
O. Reg. 153(511) - OC Pesticides (Soil)															
Hexachloroethane	294132		< 0.01	< 0.01	NA	< 0.01	103%	50%	140%	89%	50%	140%	98%	50%	140%
Gamma-Hexachlorocyclohexane	294132		< 0.005	< 0.005	NA	< 0.005	105%	50%	140%	107%	50%	140%	90%	50%	140%
Heptachlor	294132		< 0.005	< 0.005	NA	< 0.005	95%	50%	140%	105%	50%	140%	98%	50%	140%
Aldrin	294132		< 0.005	< 0.005	NA	< 0.005	107%	50%	140%	107%	50%	140%	108%	50%	140%
Heptachlor Epoxide	294132		< 0.005	< 0.005	NA	< 0.005	109%	50%	140%	105%	50%	140%	102%	50%	140%
Endosulfan	294132		< 0.005	< 0.005	NA	< 0.005	107%	50%	140%	101%	50%	140%	95%	50%	140%
Chlordane	294132		< 0.007	< 0.007	NA	< 0.007	106%	50%	140%	109%	50%	140%	98%	50%	140%
DDE	294132		< 0.007	< 0.007	NA	< 0.007	104%	50%	140%	106%	50%	140%	109%	50%	140%
DDD	294132		< 0.007	< 0.007	NA	< 0.007	99%	50%	140%	106%	50%	140%	102%	50%	140%
DDT	294132		< 0.007	< 0.007	NA	< 0.007	101%	50%	140%	94%	50%	140%	102%	50%	140%
Dieldrin	294132		< 0.005	< 0.005	NA	< 0.005	103%	50%	140%	102%	50%	140%	100%	50%	140%
Endrin	294132		< 0.005	< 0.005	NA	< 0.005	103%	50%	140%	101%	50%	140%	104%	50%	140%
Methoxychlor	294132		< 0.005	< 0.005	NA	< 0.005	85%	50%	140%	104%	50%	140%	108%	50%	140%
Hexachlorobenzene	294132		< 0.005	< 0.005	NA	< 0.005	106%	50%	140%	100%	50%	140%	106%	50%	140%
Hexachlorobutadiene	294132		< 0.01	< 0.01	NA	< 0.01	105%	50%	140%	101%	50%	140%	102%	50%	140%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By: N Popnikolof

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Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19H484181

PROJECT: 665125

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10182 Highway 50, Brampton ON,10182 Highway 50, Brampton ON

SAMPLED BY:Brial Poole,Brian Poole

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
Antimony	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Arsenic	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Barium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Beryllium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron (Hot Water Soluble)	MET-93-6104	EPA SW 846 6010C; MSA, Part 3, Ch.21	ICP/OES
Cadmium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Cobalt	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Copper	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Lead	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Molybdenum	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Nickel	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Selenium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Silver	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Thallium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Uranium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Vanadium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Zinc	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium VI	INOR-93-6029	SM 3500 B; MSA Part 3, Ch. 25	SPECTROPHOTOMETER
Cyanide	INOR-93-6052	MOE CN-3015 & E 3009 A;SM 4500 CN	TECHNICON AUTO ANALYZER
Mercury	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Electrical Conductivity	INOR-93-6036	McKeague 4.12, SM 2510 B	EC METER
Sodium Adsorption Ratio	INOR-93-6007	McKeague 4.12 & 3.26 & EPA SW-846 6010C	ICP/OES
pH, 2:1 CaCl2 Extraction	INOR-93-6031	MSA part 3 & SM 4500-H+ B	PH METER

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Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19H484181

PROJECT: 665125

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10182 Highway 50, Brampton ON,10182 Highway 50, Brampton ON

SAMPLED BY:Brial Poole,Brian Poole

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Hexachloroethane	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Gamma-Hexachlorocyclohexane	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Heptachlor	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Aldrin	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Heptachlor Epoxide	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Endosulfan	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Chlordane	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
DDE	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
DDD	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
DDT	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Dieldrin	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Endrin	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Methoxychlor	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Hexachlorobenzene	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Hexachlorobutadiene	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
TCMX	ORG-91-5112	EPA SW-846 3541,3620 & 8081	GC/ECD
Decachlorobiphenyl	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Moisture Content		MOE E3139	BALANCE
Naphthalene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Acenaphthylene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Acenaphthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Fluorene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Phenanthrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Anthracene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Pyrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benz(a)anthracene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Chrysene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(b)fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(k)fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(a)pyrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Dibenz(a,h)anthracene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Benzo(g,h,i)perylene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
2-and 1-methyl Naphthalene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
Moisture Content	ORG-91-5106	EPA SW-846 3541 & 8270D	BALANCE
Chrysene-d12	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS
F1 (C6 to C10)	VOL-91-5009	CCME Tier 1 Method, SW846 5035	P&T GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	CCME Tier 1 Method, SW846 5035	P&T GC/FID
F2 (C10 to C16)	VOL-91-5009	CCME Tier 1 Method	GC/FID
F3 (C16 to C34)	VOL-91-5009	CCME Tier 1 Method	GC/FID
F4 (C34 to C50)	VOL-91-5009	CCME Tier 1 Method	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5009	CCME Tier 1 Method	BALANCE
Moisture Content	VOL-91-5009	CCME Tier 1 Method	BALANCE
Terphenyl	VOL-91-5009	CCME Tier 1 Method	GC/FID
Dichlorodifluoromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Vinyl Chloride	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Bromomethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS

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AGAT Laboratories

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http://www.agatlabs.com

Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19H484181

PROJECT: 665125

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10182 Highway 50, Brampton ON,10182 Highway 50, Brampton ON

SAMPLED BY:Brial Poole,Brian Poole

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Acetone	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methylene Chloride	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Trans- 1,2-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methyl tert-butyl Ether	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Cis- 1,2-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Chloroform	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Benzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Trichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Bromodichloromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Toluene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Dibromochloromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Chlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Ethylbenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
m & p-Xylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Bromoform	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Styrene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
o-Xylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Xylene Mixture	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,3-Dichloropropene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
n-Hexane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Toluene-d8	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
2,4-D	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4,5-T	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4,5-TP (Silvex)	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Dicamba	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Dichlorprop	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Dinoseb	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Picloram	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Diclofop-methyl	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,3,4,6-Tetrachlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4-Dichlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4,5-Trichlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4,6-Trichlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD

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http://www.agatlabs.com

Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19H484181

PROJECT: 665125

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10182 Highway 50, Brampton ON,10182 Highway 50, Brampton ON

SAMPLED BY:Brial Poole,Brian Poole

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Bromoxynil	ORG-91-5110	EPA SW-846 8151A	GC/ECD
MCPP (Mecoprop)	ORG-91-5110	EPA SW-846 8151A	GC/ECD
MCPA	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Pentachlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD
DCAA	ORG-91-5110	EPA SW-846 8151	GC/ECD
Phenoxy Extr			N/A

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AGAT Laboratories

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Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Laboratory Use Only

Work Order #: 19H154181

Cooler Quantity: LG cooler

Arrival Temperatures: 8.0 | 7.9 | 7.8
6.9 | 7 | 6.8

Custody Seal Intact: ☐ Yes ☐ No ☐ N/A

Notes: ON ICE

Report Information:

Company: SNC-Lavalin Inc
Contact: Robert Mitzakov
Address: 195 The West Mall, Toronto, ON M9C 5K1
Phone: 416-635-5882 x 55805 Fax:
Reports to be sent to:
1. Email: robert.mitzakov@snclavalin.com
2. Email: brian.poole@snclavalin.com

Regulatory Requirements: ☐ No Regulatory Requirement

(Please check all applicable boxes)

☑ Regulation 153/04
Table 9 *Indicate One*
☑ Ind/Com
☑ Res/Park
☐ Agriculture
Soil Texture *(Check One)*
☑ Coarse
☐ Fine

☐ Sewer Use
☐ Sanitary
☐ Storm
Region *Indicate One*
☐ MISA

☐ Regulation 558
☐ CCME
☐ Prov. Water Quality Objectives (PWQO)
☐ Other
Indicate One

Is this submission for a **Record of Site Condition?** ☐ Yes ☑ No

Report Guideline on *Certificate of Analysis* ☑ Yes ☐ No

Turnaround Time (TAT) Required:

Regular TAT ☑ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day

OR Date Required (Rush Surcharges May Apply):

Please provide prior notification for rush TAT
**TAT is exclusive of weekends and statutory holidays*

For 'Same Day' analysis, please contact your AGAT CPM

Project Information:

Project: 665125
Site Location: 10182 Highway 50, Brampton ON
Sampled By: Brian Poole
AGAT Quote #: PO:
Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

Bill To Same: Yes ☐ No ☐

Company: SNC-Lavalin Inc.
Contact: Accounts Payable
Address:
Email: payables@snclavalin.com

Sample Matrix Legend

B	Biota
GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI (Y/N)	O. Reg 153: Metals and Inorganics (☐ All Metals ☐ 153 Metals (excl. Hydrides) ☐ Hydride Metals ☐ 153 Metals (Incl. Hydrides))	O. Reg 153: ORPs: ☐ B-HWS ☐ Cl⁻ ☐ CN⁻ ☐ Cr^{6+} ☐ EC ☐ FOC ☐ Hg ☐ pH ☐ SAR	O. Reg 153: Full Metals Scan	O. Reg 153: Regulation/Custom Metals	O. Reg 153: Nutrients: ☐ TP ☐ NH_3 ☐ TKN ☐ NO_3 ☐ NO_2 ☐ NO_2+NO_3	O. Reg 153: Volatiles: ☑ VOC ☑ BTEX ☐ THM	O. Reg 153: PHCs F1 - F4	O. Reg 153: ABNs	O. Reg 153: PAHs	O. Reg 153: PCBs: ☐ Total ☐ Aroclors	O. Reg 153: Organochlorine Pesticides	O. Reg 153: TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	O. Reg 153: Sewer Use	Metal and Inorganics	Herbicides and Pesticides				Potentially Hazardous or High Concentration (Y/N)
SS1	June 24/19	AM 10:30	6	Soil								☑	☑							☑						
SS2	June 24/19	AM 10:45	7	Soil											☑					☑	☑					
SS3	June 24/19	AM 11:00	7	Soil								☑	☑							☑						
SS4	June 24/19	AM 11:45	6	Soil																☑						
SS5	June 24/19	AM 11:15	9	Soil								☑	☑							☑						
SS6	June 24/19	AM 11:30	6	Soil											☑					☑	☑					

Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Brian Poole Brian Poole	June 24, 2019	12:00 pm	Daniella Jaic	June 25/19	11:30am
Daniella Jaic	June 25/19	4:20pm	John Chypyha	June 25	3:45
			John Chypyha	June 25	5:45

Page 1 of 1

N°:

AGAT Laboratories

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http://www.agatlabs.com

CLIENT NAME: SNC LAVALIN INC
235 LESMILL ROAD
TORONTO, ON M3B 2V1
(416) 679-6000

ATTENTION TO: Robert Mitzakov

PROJECT: City Of Brampton Drilling &Soil Sampling

AGAT WORK ORDER: 19T531714

SOIL ANALYSIS REVIEWED BY: Amanjot Bhela, Inorganic Supervisor

TRACE ORGANICS REVIEWED BY: Oksana Gushyla, Trace Organics Lab Supervisor

DATE REPORTED: Oct 25, 2019

PAGES (INCLUDING COVER): 20

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

*NOTES

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.

Member of: Association of Professional Engineers and Geoscientists of Alberta (APEGA)
Western Enviro-Agricultural Laboratory Association (WEALA)
Environmental Services Association of Alberta (ESAA)

AGAT Laboratories is accredited to ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA) and/or Standards Council of Canada (SCC) for specific tests listed on the scope of accreditation. AGAT Laboratories (Mississauga) is also accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) for specific drinking water tests. Accreditations are location and parameter specific. A complete listing of parameters for each location is available from www.cala.ca and/or www.scc.ca. The tests in this report may not necessarily be included in the scope of accreditation. Measurement Uncertainty is not taken into consideration when stating conformity with a specified requirement.

Results relate only to the items tested. Results apply to samples as received.
All reportable information as specified by ISO 17025:2017 is available from AGAT Laboratories upon request

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 19T531714

PROJECT: City Of Brampton Drilling &Soil Sampling

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10192 Hwy 50, Brampton, ON

SAMPLED BY:Joey Preston

Metals - Full Metal Scan in Soil

DATE RECEIVED: 2019-10-17

DATE REPORTED: 2019-10-25

		SAMPLE DESCRIPTION:		BH-74-01	BH-75-02	BH-75-22
		SAMPLE TYPE:		Soil	Soil	Soil
		DATE SAMPLED:		2019-10-16	2019-10-16	2019-10-16
Parameter	Unit	G / S	RDL	624922	624941	624953
Aluminum	µg/g		50	24600	27400	17900
Antimony	µg/g	1.3	0.8	<0.8	<0.8	<0.8
Arsenic	µg/g	18	1	4	4	3
Barium	µg/g	220	2	157	175	113
Beryllium	µg/g	2.5	0.5	0.9	1.0	0.7
Bismuth	µg/g		0.1	0.2	0.2	0.1
Boron	µg/g	36	5	7	6	7
Cadmium	µg/g	1.2	0.5	<0.5	<0.5	<0.5
Chromium	µg/g	70	2	34	38	27
Cobalt	µg/g	22	0.5	13.8	15.2	11.4
Copper	µg/g	92	1	23	27	20
Iron	µg/g		500	32200	36600	25500
Lead	µg/g	120	1	16	16	10
Lithium	µg/g		0.5	22.6	24.2	18.0
Manganese	µg/g		5	913	1070	670
Molybdenum	µg/g	2	0.5	<0.5	<0.5	<0.5
Nickel	µg/g	82	1	30	33	25
Phosphorus	µg/g		5	920	813	756
Selenium	µg/g	1.5	0.8	<0.8	<0.8	<0.8
Silicon	µg/g		5	990	881	920
Silver	µg/g	0.5	0.4	<0.4	<0.4	<0.4
Strontium	µg/g		5	49	31	117
Thallium	µg/g	1	0.4	<0.4	<0.4	<0.4
Tin	µg/g		1	<1	<1	<1
Titanium	µg/g		50	270	311	279
Uranium	µg/g	2.5	0.50	0.72	0.64	0.63
Vanadium	µg/g	86	1	44	47	36
Zinc	µg/g	290	5	84	93	61
Zirconium	µg/g		0.5	3.8	5.7	5.6

Certified By:

Amanjot Bhela

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
AMANJOT BHELA
CHEMIST

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 19T531714

PROJECT: City Of Brampton Drilling &Soil Sampling

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10192 Hwy 50, Brampton, ON

SAMPLED BY:Joey Preston

Metals - Full Metal Scan in Soil

DATE RECEIVED: 2019-10-17

DATE REPORTED: 2019-10-25

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

624922-624953 Elevated RDL indicates the degree of sample dilution prior to the analysis in order to keep analytes within the calibration range of the instrument and to reduce matrix interference.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

Amanjot Bhela

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
AMANJOT BHELA
CHEMIST

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 19T531714

PROJECT: City Of Brampton Drilling &Soil Sampling

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10192 Hwy 50, Brampton, ON

SAMPLED BY:Joey Preston

O. Reg. 153(511) - ORPs (Soil)

DATE RECEIVED: 2019-10-17

DATE REPORTED: 2019-10-25

		SAMPLE DESCRIPTION:		BH-74-01	BH-75-02	BH-75-22
		SAMPLE TYPE:		Soil	Soil	Soil
		DATE SAMPLED:		2019-10-16	2019-10-16	2019-10-16
Parameter	Unit	G / S	RDL	624922	624941	624953
Electrical Conductivity	mS/cm	0.7	0.005	0.207	0.275	0.230
Sodium Adsorption Ratio	NA	5	NA	0.343	0.969	0.822

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

624922-624953 EC was determined on the DI water extract obtained from the 2:1 leaching procedure (2 parts DI water:1 part soil). SAR is a calculated parameter.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 19T531714

PROJECT: City Of Brampton Drilling &Soil Sampling

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10192 Hwy 50, Brampton, ON

SAMPLED BY:Joey Preston

O. Reg. 153(511) - OC Pesticides (Soil)

DATE RECEIVED: 2019-10-17

DATE REPORTED: 2019-10-25

		SAMPLE DESCRIPTION:		BH-74-02	BH-75-01
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2019-10-16	2019-10-16
Parameter	Unit	G / S	RDL	624924	624940
Hexachloroethane	µg/g	0.01	0.01	<0.01	<0.01
Gamma-Hexachlorocyclohexane	µg/g	0.01	0.005	<0.005	<0.005
Heptachlor	µg/g	0.05	0.005	<0.005	<0.005
Aldrin	µg/g	0.05	0.005	<0.005	<0.005
Heptachlor Epoxide	µg/g	0.05	0.005	<0.005	<0.005
Endosulfan	µg/g	0.04	0.005	<0.005	<0.005
Chlordane	µg/g	0.05	0.007	<0.007	<0.007
DDE	µg/g	0.05	0.007	<0.007	<0.007
DDD	µg/g	0.05	0.007	<0.007	<0.007
DDT	µg/g	1.4	0.007	<0.007	<0.007
Dieldrin	µg/g	0.05	0.005	<0.005	<0.005
Endrin	µg/g	0.04	0.005	<0.005	<0.005
Methoxychlor	µg/g	0.05	0.005	<0.005	<0.005
Hexachlorobenzene	µg/g	0.02	0.005	<0.005	<0.005
Hexachlorobutadiene	µg/g	0.01	0.01	<0.01	<0.01
Moisture Content	%		0.1	11.0	18.9
Surrogate	Unit	Acceptable Limits			
TCMX	%	50-140		65	69
Decachlorobiphenyl	%	60-130		70	73

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

624924-624940 Results are based on the dry weight of the soil.
DDT total is a calculated parameter. The calculated value is the sum of op'DDT and pp'DDT.
DDD total is a calculated parameter. The calculated value is the sum of op'DDD and pp'DDD.
DDE total is a calculated parameter. The calculated value is the sum of op'DDE and pp'DDE.
Endosulfan total is a calculated parameter. The calculated value is the sum of Endosulfan I and Endosulfan II.
Chlordane total is a calculated parameter. The calculated value is the sum of Alpha-Chlordane and Gamma-Chlordane.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 19T531714

PROJECT: City Of Brampton Drilling &Soil Sampling

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10192 Hwy 50, Brampton, ON

SAMPLED BY:Joey Preston

O. Reg. 153(511) - PAHs (Soil)

DATE RECEIVED: 2019-10-17

DATE REPORTED: 2019-10-25

		SAMPLE DESCRIPTION:		BH-74-01	BH-75-02
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2019-10-16	2019-10-16
Parameter	Unit	G / S	RDL	624922	624941
Naphthalene	µg/g	0.09	0.05	<0.05	<0.05
Acenaphthylene	µg/g	0.093	0.05	<0.05	<0.05
Acenaphthene	µg/g	0.072	0.05	<0.05	<0.05
Fluorene	µg/g	0.19	0.05	<0.05	<0.05
Phenanthrene	µg/g	0.69	0.05	<0.05	<0.05
Anthracene	µg/g	0.22	0.05	<0.05	<0.05
Fluoranthene	µg/g	0.69	0.05	<0.05	<0.05
Pyrene	µg/g	1	0.05	<0.05	<0.05
Benz(a)anthracene	µg/g	0.36	0.05	<0.05	<0.05
Chrysene	µg/g	2.8	0.05	<0.05	<0.05
Benzo(b)fluoranthene	µg/g	0.47	0.05	<0.05	<0.05
Benzo(k)fluoranthene	µg/g	0.48	0.05	<0.05	<0.05
Benzo(a)pyrene	µg/g	0.3	0.05	<0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.23	0.05	<0.05	<0.05
Dibenz(a,h)anthracene	µg/g	0.1	0.05	<0.05	<0.05
Benzo(g,h,i)perylene	µg/g	0.68	0.05	<0.05	<0.05
2-and 1-methyl Naphthalene	µg/g	0.59	0.05	<0.05	<0.05
Moisture Content	%		0.1	18.3	17.6
Surrogate	Unit	Acceptable Limits			
Chrysene-d12	%	50-140		92	89

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

624922-624941 Results are based on the dry weight of the soil.
Note: The result for Benzo(b)Fluoranthene is the total of the Benzo(b)&j)Fluoranthene isomers because the isomers co-elute on the GC column.
2- and 1-Methyl Naphthalene is a calculated parameter. The calculated value is the sum of 2-Methyl Naphthalene and 1-Methyl Naphthalene.

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Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 19T531714

PROJECT: City Of Brampton Drilling &Soil Sampling

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10192 Hwy 50, Brampton, ON

SAMPLED BY:Joey Preston

O. Reg. 153(511) - PHCs F1 - F4 (-BTEX) (Soil)

DATE RECEIVED: 2019-10-17

DATE REPORTED: 2019-10-25

		SAMPLE DESCRIPTION:		BH-74-06	BH-75-06	BH-75-66
		SAMPLE TYPE:		Soil	Soil	Soil
		DATE SAMPLED:		2019-10-16	2019-10-16	2019-10-16
Parameter	Unit	G / S	RDL	624926	624954	624968
F1 (C6 to C10)	µg/g		5	<5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	25	5	<5	<5	<5
F2 (C10 to C16)	µg/g	10	10	<10	<10	<10
F3 (C16 to C34)	µg/g	240	50	<50	<50	<50
F4 (C34 to C50)	µg/g	120	50	<50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g	120	50	NA	NA	NA
Moisture Content	%		0.1	10.9	11.4	11.3
Surrogate	Unit	Acceptable Limits				
Terphenyl	%	60-140		114	77	66

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

624926-624968 Results are based on sample dry weight.
The C6-C10 fraction is calculated using toluene response factor.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6 - C50 results are corrected for BTEX contribution.
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC6 and nC10 response factors are within 30% of Toluene response factor.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 + nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.
Fractions 1-4 are quantified without the contribution of PAHs. Under Ontario Regulation 153, results are considered valid without determining the PAH contribution if not requested by the client.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 19T531714

PROJECT: City Of Brampton Drilling &Soil Sampling

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10192 Hwy 50, Brampton, ON

SAMPLED BY:Joey Preston

O. Reg. 153(511) - VOCs (Soil)

DATE RECEIVED: 2019-10-17

DATE REPORTED: 2019-10-25

SAMPLE DESCRIPTION:				BH-74-06	BH-75-06	BH-75-66
SAMPLE TYPE:				Soil	Soil	Soil
DATE SAMPLED:				2019-10-16	2019-10-16	2019-10-16
Parameter	Unit	G / S	RDL	624926	624954	624968
Dichlorodifluoromethane	µg/g	0.05	0.05	<0.05	<0.05	<0.05
Vinyl Chloride	ug/g	0.02	0.02	<0.02	<0.02	<0.02
Bromomethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05
Trichlorofluoromethane	ug/g	0.25	0.05	<0.05	<0.05	<0.05
Acetone	ug/g	0.5	0.50	<0.50	<0.50	<0.50
1,1-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05	<0.05
Methylene Chloride	ug/g	0.05	0.05	<0.05	<0.05	<0.05
Trans- 1,2-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05	<0.05
Methyl tert-butyl Ether	ug/g	0.05	0.05	<0.05	<0.05	<0.05
1,1-Dichloroethane	ug/g	0.05	0.02	<0.02	<0.02	<0.02
Methyl Ethyl Ketone	ug/g	0.5	0.50	<0.50	<0.50	<0.50
Cis- 1,2-Dichloroethylene	ug/g	0.05	0.02	<0.02	<0.02	<0.02
Chloroform	ug/g	0.05	0.04	<0.04	<0.04	<0.04
1,2-Dichloroethane	ug/g	0.05	0.03	<0.03	<0.03	<0.03
1,1,1-Trichloroethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05
Carbon Tetrachloride	ug/g	0.05	0.05	<0.05	<0.05	<0.05
Benzene	ug/g	0.02	0.02	<0.02	<0.02	<0.02
1,2-Dichloropropane	ug/g	0.05	0.03	<0.03	<0.03	<0.03
Trichloroethylene	ug/g	0.05	0.03	<0.03	<0.03	<0.03
Bromodichloromethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05
Methyl Isobutyl Ketone	ug/g	0.5	0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	ug/g	0.05	0.04	<0.04	<0.04	<0.04
Toluene	ug/g	0.2	0.05	<0.05	<0.05	<0.05
Dibromochloromethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05
Ethylene Dibromide	ug/g	0.05	0.04	<0.04	<0.04	<0.04
Tetrachloroethylene	ug/g	0.05	0.05	<0.05	<0.05	<0.05
1,1,1,2-Tetrachloroethane	ug/g	0.05	0.04	<0.04	<0.04	<0.04
Chlorobenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05
Ethylbenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05
m & p-Xylene	ug/g		0.05	<0.05	<0.05	<0.05

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 19T531714

PROJECT: City Of Brampton Drilling &Soil Sampling

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10192 Hwy 50, Brampton, ON

SAMPLED BY:Joey Preston

O. Reg. 153(511) - VOCs (Soil)

DATE RECEIVED: 2019-10-17

DATE REPORTED: 2019-10-25

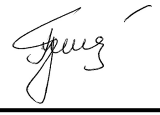
				SAMPLE DESCRIPTION:	BH-74-06	BH-75-06	BH-75-66
				SAMPLE TYPE:	Soil	Soil	Soil
				DATE SAMPLED:	2019-10-16	2019-10-16	2019-10-16
Parameter	Unit	G / S	RDL		624926	624954	624968
Bromoform	ug/g	0.05	0.05		<0.05	<0.05	<0.05
Styrene	ug/g	0.05	0.05		<0.05	<0.05	<0.05
1,1,2,2-Tetrachloroethane	ug/g	0.05	0.05		<0.05	<0.05	<0.05
o-Xylene	ug/g		0.05		<0.05	<0.05	<0.05
1,3-Dichlorobenzene	ug/g	0.05	0.05		<0.05	<0.05	<0.05
1,4-Dichlorobenzene	ug/g	0.05	0.05		<0.05	<0.05	<0.05
1,2-Dichlorobenzene	ug/g	0.05	0.05		<0.05	<0.05	<0.05
Xylene Mixture	ug/g	0.05	0.05		<0.05	<0.05	<0.05
1,3-Dichloropropene	µg/g	0.05	0.04		<0.04	<0.04	<0.04
n-Hexane	µg/g	0.05	0.05		<0.05	<0.05	<0.05
Surrogate	Unit	Acceptable Limits					
Toluene-d8	% Recovery	50-140			99	101	100
4-Bromofluorobenzene	% Recovery	50-140			88	93	87

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

624926-624968 The sample was analyzed using the high level technique. The sample was extracted using methanol, a small amount of the methanol extract was diluted in water and the purge & trap GC/MS analysis was performed. Results are based on the dry weight of the soil.
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene + o-Xylene.
1,3-Dichloropropene total is a calculated parameter. The calculated value is the sum of Cis-1,3-Dichloropropene and Trans-1,3-Dichloropropene.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:



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Certificate of Analysis

AGAT WORK ORDER: 19T531714

PROJECT: City Of Brampton Drilling &Soil Sampling

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10192 Hwy 50, Brampton, ON

SAMPLED BY:Joey Preston

Phenoxy Acid Herbicides (Soil)

DATE RECEIVED: 2019-10-17

DATE REPORTED: 2019-10-25

		SAMPLE DESCRIPTION:		BH-74-02	BH-75-01
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2019-10-16	2019-10-16
Parameter	Unit	G / S	RDL	624924	624940
2,4-D	ug/g		0.10	<0.10	<0.10
2,4,5-T	ug/g		0.10	<0.10	<0.10
2,4,5-TP (Silvex)	ug/g		0.10	<0.10	<0.10
Dicamba	ug/g		0.10	<0.10	<0.10
Dichlorprop	ug/g		0.10	<0.10	<0.10
Dinoseb	ug/g		0.10	<0.10	<0.10
Picloram	ug/g		0.10	<0.10	<0.10
Diclofop-methyl	ug/g		0.10	<0.10	<0.10
2,3,4,6-Tetrachlorophenol	ug/g		0.05	<0.05	<0.05
2,4-Dichlorophenol	ug/g	0.1	0.05	<0.05	<0.05
2,4,5-Trichlorophenol	ug/g	0.1	0.05	<0.05	<0.05
2,4,6-Trichlorophenol	ug/g	0.1	0.05	<0.05	<0.05
Bromoxynil	ug/g		0.5	<0.5	<0.5
MCPP (Mecoprop)	ug/g		1.0	<1.0	<1.0
MCPA	ug/g		1.0	<1.0	<1.0
Pentachlorophenol	ug/g	0.1	0.05	<0.05	<0.05
Phenoxy Extr	NA			Y	Y
Surrogate	Unit	Acceptable Limits			
DCAA	%	50-130		72	72

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC
PROJECT: City Of Brampton Drilling &Soil Sampling
SAMPLING SITE:10192 Hwy 50, Brampton, ON

AGAT WORK ORDER: 19T531714
ATTENTION TO: Robert Mitzakov
SAMPLED BY:Joey Preston

Soil Analysis

RPT Date: Oct 25, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Metals - Full Metal Scan in Soil															
Aluminum	624922	624922	24600	23800	3.3%	< 5	104%	70%	130%	116%	80%	120%	101%	70%	130%
Antimony	624922	624922	<0.8	<0.8	NA	< 0.8	101%	70%	130%	100%	80%	120%	92%	70%	130%
Arsenic	624922	624922	4	4	NA	< 1	110%	70%	130%	108%	80%	120%	103%	70%	130%
Barium	624922	624922	157	147	6.6%	< 2	109%	70%	130%	101%	80%	120%	97%	70%	130%
Beryllium	624922	624922	0.9	0.9	NA	< 0.5	106%	70%	130%	115%	80%	120%	105%	70%	130%
Bismuth	624922	624922	0.2	0.2	NA	< 0.1	103%	70%	130%	105%	80%	120%	98%	70%	130%
Boron	624922	624922	7	7	NA	< 5	79%	70%	130%	106%	80%	120%	103%	70%	130%
Cadmium	624922	624922	<0.5	<0.5	NA	< 0.5	114%	70%	130%	101%	80%	120%	100%	70%	130%
Chromium	624922	624922	34	33	3.0%	< 2	99%	70%	130%	102%	80%	120%	102%	70%	130%
Cobalt	624922	624922	13.8	13.1	5.2%	< 0.5	99%	70%	130%	106%	80%	120%	98%	70%	130%
Copper	624922	624922	23	22	4.4%	< 1	99%	70%	130%	103%	80%	120%	99%	70%	130%
Iron	624922	624922	32200	31100	3.5%	< 50	109%	70%	130%	113%	80%	120%	107%	70%	130%
Lead	624922	624922	16	15	6.5%	< 1	111%	70%	130%	106%	80%	120%	100%	70%	130%
Lithium	624922	624922	22.6	21.5	5.0%	< 0.5	95%	70%	130%	110%	80%	120%	105%	70%	130%
Manganese	624922	624922	913	850	7.1%	< 5	105%	70%	130%	110%	80%	120%	107%	70%	130%
Molybdenum	624922	624922	<0.5	<0.5	NA	< 0.5	113%	70%	130%	102%	80%	120%	103%	70%	130%
Nickel	624922	624922	30	29	3.4%	< 1	101%	70%	130%	108%	80%	120%	98%	70%	130%
Phosphorus	624922	624922	920	898	2.4%	< 5	104%	80%	120%	99%	80%	120%	102%	70%	130%
Selenium	624922	624922	<0.8	<0.8	NA	< 0.8	114%	70%	130%	110%	80%	120%	106%	70%	130%
Silicon	624922	624922	990	989	0.1%	< 5	95%	70%	130%	94%	80%	120%	98%	70%	130%
Silver	624922	624922	<0.4	<0.4	NA	< 0.4	104%	70%	130%	104%	80%	120%	102%	70%	130%
Strontium	624922	624922	49	48	2.1%	< 5	99%	70%	130%	110%	80%	120%	102%	70%	130%
Thallium	624922	624922	<0.4	<0.4	NA	< 0.4	99%	70%	130%	109%	80%	120%	100%	70%	130%
Tin	624922	624922	<1	<1	NA	< 1	115%	70%	130%	112%	80%	120%	99%	70%	130%
Titanium	624922	624922	270	258	4.5%	< 5	83%	70%	130%	108%	80%	120%	102%	70%	130%
Uranium	624922	624922	0.72	0.69	NA	< 0.50	112%	70%	130%	106%	80%	120%	98%	70%	130%
Vanadium	624922	624922	44	42	4.7%	< 1	100%	70%	130%	106%	80%	120%	98%	70%	130%
Zinc	624922	624922	84	81	3.6%	< 5	101%	70%	130%	104%	80%	120%	104%	70%	130%
Zirconium	624922	624922	3.8	3.9	2.6%	< 0.5	96%	70%	130%	95%	80%	120%	98%	70%	130%
O. Reg. 153(511) - ORPs (Soil)															
Electrical Conductivity	624922	624922	0.207	0.204	1.5%	< 0.005	101%	90%	110%						
Sodium Adsorption Ratio	624922	624922	0.343	0.358	4.3%	NA									

Comments: NA signifies Not Applicable.
Duplicate Qualifier: As the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL

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http://www.agatlabs.com

Quality Assurance

CLIENT NAME: SNC LAVALIN INC

PROJECT: City Of Brampton Drilling &Soil Sampling

SAMPLING SITE:10192 Hwy 50, Brampton, ON

AGAT WORK ORDER: 19T531714

ATTENTION TO: Robert Mitzakov

SAMPLED BY:Joey Preston

Soil Analysis (Continued)

RPT Date: Oct 25, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper

Certified By:

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC
AGAT WORK ORDER: 19T531714
PROJECT: City Of Brampton Drilling &Soil Sampling
ATTENTION TO: Robert Mitzakov
SAMPLING SITE:10192 Hwy 50, Brampton, ON
SAMPLED BY:Joey Preston

Trace Organics Analysis

RPT Date: Oct 25, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - PAHs (Soil)															
Naphthalene	624941	924941	< 0.05	< 0.05	NA	< 0.05	99%	50%	140%	106%	50%	140%	109%	50%	140%
Acenaphthylene	624941	924941	< 0.05	< 0.05	NA	< 0.05	108%	50%	140%	97%	50%	140%	108%	50%	140%
Acenaphthene	624941	924941	< 0.05	< 0.05	NA	< 0.05	107%	50%	140%	94%	50%	140%	108%	50%	140%
Fluorene	624941	924941	< 0.05	< 0.05	NA	< 0.05	99%	50%	140%	91%	50%	140%	101%	50%	140%
Phenanthrene	624941	924941	< 0.05	< 0.05	NA	< 0.05	88%	50%	140%	76%	50%	140%	94%	50%	140%
Anthracene	624941	924941	< 0.05	< 0.05	NA	< 0.05	112%	50%	140%	100%	50%	140%	105%	50%	140%
Fluoranthene	624941	924941	< 0.05	< 0.05	NA	< 0.05	101%	50%	140%	85%	50%	140%	105%	50%	140%
Pyrene	624941	924941	< 0.05	< 0.05	NA	< 0.05	103%	50%	140%	78%	50%	140%	106%	50%	140%
Benz(a)anthracene	624941	924941	< 0.05	< 0.05	NA	< 0.05	102%	50%	140%	75%	50%	140%	82%	50%	140%
Chrysene	624941	924941	< 0.05	< 0.05	NA	< 0.05	108%	50%	140%	77%	50%	140%	102%	50%	140%
Benzo(b)fluoranthene	624941	924941	< 0.05	< 0.05	NA	< 0.05	85%	50%	140%	98%	50%	140%	77%	50%	140%
Benzo(k)fluoranthene	624941	924941	< 0.05	< 0.05	NA	< 0.05	101%	50%	140%	105%	50%	140%	85%	50%	140%
Benzo(a)pyrene	624941	924941	< 0.05	< 0.05	NA	< 0.05	114%	50%	140%	99%	50%	140%	107%	50%	140%
Indeno(1,2,3-cd)pyrene	624941	924941	< 0.05	< 0.05	NA	< 0.05	100%	50%	140%	73%	50%	140%	84%	50%	140%
Dibenz(a,h)anthracene	624941	924941	< 0.05	< 0.05	NA	< 0.05	96%	50%	140%	77%	50%	140%	81%	50%	140%
Benzo(g,h,i)perylene	624941	924941	< 0.05	< 0.05	NA	< 0.05	98%	50%	140%	77%	50%	140%	79%	50%	140%
O. Reg. 153(511) - OC Pesticides (Soil)															
Hexachloroethane	625016		< 0.01	< 0.01	NA	< 0.01	81%	50%	140%	88%	50%	140%	78%	50%	140%
Gamma-Hexachlorocyclohexane	625016		< 0.005	< 0.005	NA	< 0.005	83%	50%	140%	87%	50%	140%	83%	50%	140%
Heptachlor	625016		< 0.005	< 0.005	NA	< 0.005	86%	50%	140%	88%	50%	140%	87%	50%	140%
Aldrin	625016		< 0.005	< 0.005	NA	< 0.005	92%	50%	140%	94%	50%	140%	93%	50%	140%
Heptachlor Epoxide	625016		< 0.005	< 0.005	NA	< 0.005	86%	50%	140%	87%	50%	140%	89%	50%	140%
Endosulfan	625016		< 0.005	< 0.005	NA	< 0.005	96%	50%	140%	89%	50%	140%	84%	50%	140%
Chlordane	625016		< 0.007	< 0.007	NA	< 0.007	86%	50%	140%	89%	50%	140%	88%	50%	140%
DDE	625016		< 0.007	< 0.007	NA	< 0.007	94%	50%	140%	88%	50%	140%	94%	50%	140%
DDD	625016		< 0.007	< 0.007	NA	< 0.007	95%	50%	140%	83%	50%	140%	92%	50%	140%
DDT	625016		< 0.007	< 0.007	NA	< 0.007	106%	50%	140%	94%	50%	140%	89%	50%	140%
Dieldrin	625016		< 0.005	< 0.005	NA	< 0.005	88%	50%	140%	83%	50%	140%	96%	50%	140%
Endrin	625016		< 0.005	< 0.005	NA	< 0.005	98%	50%	140%	85%	50%	140%	88%	50%	140%
Methoxychlor	625016		< 0.005	< 0.005	NA	< 0.005	103%	50%	140%	89%	50%	140%	91%	50%	140%
Hexachlorobenzene	625016		< 0.005	< 0.005	NA	< 0.005	92%	50%	140%	91%	50%	140%	91%	50%	140%
Hexachlorobutadiene	625016		< 0.01	< 0.01	NA	< 0.01	85%	50%	140%	81%	50%	140%	86%	50%	140%
Phenoxy Acid Herbicides (Soil)															
2,4-D	610597		< 0.10	< 0.10	NA	< 0.10	103%	50%	130%	106%	50%	130%	72%	50%	130%
2,4,5-T	610597		< 0.10	< 0.10	NA	< 0.10	106%	50%	130%	114%	50%	130%	74%	50%	130%
2,4,5-TP (Silvex)	610597		< 0.10	< 0.10	NA	< 0.10	101%	50%	130%	112%	50%	130%	68%	50%	130%
Dicamba	610597		< 0.10	< 0.10	NA	< 0.10	103%	50%	130%	106%	50%	130%	72%	50%	130%
Dichlorprop	610597		< 0.10	< 0.10	NA	< 0.10	109%	50%	130%	75%	50%	130%	85%	50%	130%

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC
AGAT WORK ORDER: 19T531714
PROJECT: City Of Brampton Drilling &Soil Sampling
ATTENTION TO: Robert Mitzakov
SAMPLING SITE:10192 Hwy 50, Brampton, ON
SAMPLED BY:Joey Preston

Trace Organics Analysis (Continued)

RPT Date: Oct 25, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Dinoseb	610597		< 0.10	< 0.10	NA	< 0.10	102%	50%	130%	106%	50%	130%	81%	50%	130%
Picloram	610597		< 0.10	< 0.10	NA	< 0.10	113%	50%	130%	88%	50%	130%	95%	50%	130%
Diclofop-methyl	610597		< 0.10	< 0.10	NA	< 0.10	103%	50%	130%	103%	50%	130%	83%	50%	130%
2,3,4,6-Tetrachlorophenol	610597		< 0.05	< 0.05	NA	< 0.05	104%	50%	130%	104%	50%	130%	97%	50%	130%
2,4-Dichlorophenol	610597		< 0.05	< 0.05	NA	< 0.05	106%	50%	130%	86%	50%	130%	74%	50%	130%
2,4,5-Trichlorophenol	610597		< 0.05	< 0.05	NA	< 0.05	101%	50%	130%	114%	50%	130%	70%	50%	130%
2,4,6-Trichlorophenol	610597		< 0.05	< 0.05	NA	< 0.05	103%	50%	130%	102%	50%	130%	97%	50%	130%
Bromoxynil	610597		< 0.5	< 0.5	NA	< 0.5	100%	60%	130%	97%	60%	130%	94%	60%	130%
MCPP (Mecoprop)	610597		< 1.0	< 1.0	NA	< 1.0	NA	50%	130%	94%	50%	130%	80%	50%	130%
MCPA	610597		< 1.0	< 1.0	NA	< 1.0	NA	50%	130%	92%	50%	130%	90%	50%	130%
Pentachlorophenol	610597		< 0.05	< 0.05	NA	< 0.05	100%	50%	130%	101%	50%	130%	80%	50%	130%
O. Reg. 153(511) - PHCs F1 - F4 (-BTEX) (Soil)															
F1 (C6 to C10)	624926	624926	< 5	< 5	NA	< 5	89%	60%	130%	96%	85%	115%	94%	70%	130%
F2 (C10 to C16)	610597		< 10	< 10	NA	< 10	93%	60%	130%	88%	80%	120%	80%	70%	130%
F3 (C16 to C34)	610597		< 50	< 50	NA	< 50	93%	60%	130%	87%	80%	120%	76%	70%	130%
F4 (C34 to C50)	610597		< 50	< 50	NA	< 50	71%	60%	130%	111%	80%	120%	104%	70%	130%
O. Reg. 153(511) - VOCs (Soil)															
Dichlorodifluoromethane	620323		< 0.05	< 0.05	NA	< 0.05	96%	50%	140%	95%	50%	140%	102%	50%	140%
Vinyl Chloride	620323		< 0.02	< 0.02	NA	< 0.02	102%	50%	140%	106%	50%	140%	102%	50%	140%
Bromomethane	620323		< 0.05	< 0.05	NA	< 0.05	86%	50%	140%	73%	50%	140%	97%	50%	140%
Trichlorofluoromethane	620323		< 0.05	< 0.05	NA	< 0.05	88%	50%	140%	91%	50%	140%	102%	50%	140%
Acetone	620323		< 0.50	< 0.50	NA	< 0.50	91%	50%	140%	91%	50%	140%	86%	50%	140%
1,1-Dichloroethylene	620323		< 0.05	< 0.05	NA	< 0.05	72%	50%	140%	88%	60%	130%	83%	50%	140%
Methylene Chloride	620323		< 0.05	< 0.05	NA	< 0.05	103%	50%	140%	91%	60%	130%	90%	50%	140%
Trans- 1,2-Dichloroethylene	620323		< 0.05	< 0.05	NA	< 0.05	75%	50%	140%	88%	60%	130%	85%	50%	140%
Methyl tert-butyl Ether	620323		< 0.05	< 0.05	NA	< 0.05	108%	50%	140%	85%	60%	130%	102%	50%	140%
1,1-Dichloroethane	620323		< 0.02	< 0.02	NA	< 0.02	92%	50%	140%	86%	60%	130%	90%	50%	140%
Methyl Ethyl Ketone	620323		< 0.50	< 0.50	NA	< 0.50	101%	50%	140%	101%	50%	140%	81%	50%	140%
Cis- 1,2-Dichloroethylene	620323		< 0.02	< 0.02	NA	< 0.02	82%	50%	140%	88%	60%	130%	88%	50%	140%
Chloroform	620323		< 0.04	< 0.04	NA	< 0.04	83%	50%	140%	87%	60%	130%	85%	50%	140%
1,2-Dichloroethane	620323		< 0.03	< 0.03	NA	< 0.03	80%	50%	140%	86%	60%	130%	88%	50%	140%
1,1,1-Trichloroethane	620323		< 0.05	< 0.05	NA	< 0.05	91%	50%	140%	91%	60%	130%	102%	50%	140%
Carbon Tetrachloride	620323		< 0.05	< 0.05	NA	< 0.05	111%	50%	140%	102%	60%	130%	90%	50%	140%
Benzene	620323		< 0.02	< 0.02	NA	< 0.02	81%	50%	140%	90%	60%	130%	87%	50%	140%
1,2-Dichloropropane	620323		< 0.03	< 0.03	NA	< 0.03	93%	50%	140%	85%	60%	130%	84%	50%	140%
Trichloroethylene	620323		< 0.03	< 0.03	NA	< 0.03	111%	50%	140%	84%	60%	130%	91%	50%	140%
Bromodichloromethane	620323		< 0.05	< 0.05	NA	< 0.05	99%	50%	140%	93%	60%	130%	90%	50%	140%
Methyl Isobutyl Ketone	620323		< 0.50	< 0.50	NA	< 0.50	102%	50%	140%	100%	50%	140%	82%	50%	140%
1,1,2-Trichloroethane	620323		< 0.04	< 0.04	NA	< 0.04	111%	50%	140%	111%	60%	130%	85%	50%	140%

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Quality Assurance

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PROJECT: City Of Brampton Drilling &Soil Sampling
SAMPLING SITE:10192 Hwy 50, Brampton, ON

AGAT WORK ORDER: 19T531714
ATTENTION TO: Robert Mitzakov
SAMPLED BY:Joey Preston

Trace Organics Analysis (Continued)

RPT Date: Oct 25, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Toluene	620323		< 0.05	< 0.05	NA	< 0.05	91%	50%	140%	91%	60%	130%	82%	50%	140%
Dibromochloromethane	620323		< 0.05	< 0.05	NA	< 0.05	111%	50%	140%	111%	60%	130%	92%	50%	140%
Ethylene Dibromide	620323		< 0.04	< 0.04	NA	< 0.04	83%	50%	140%	91%	60%	130%	113%	50%	140%
Tetrachloroethylene	620323		< 0.05	< 0.05	NA	< 0.05	90%	50%	140%	89%	60%	130%	86%	50%	140%
1,1,1,2-Tetrachloroethane	620323		< 0.04	< 0.04	NA	< 0.04	110%	50%	140%	111%	60%	130%	102%	50%	140%
Chlorobenzene	620323		< 0.05	< 0.05	NA	< 0.05	91%	50%	140%	91%	60%	130%	90%	50%	140%
Ethylbenzene	620323		< 0.05	< 0.05	NA	< 0.05	111%	50%	140%	112%	60%	130%	110%	50%	140%
m & p-Xylene	620323		< 0.05	< 0.05	NA	< 0.05	106%	50%	140%	95%	60%	130%	90%	50%	140%
Bromoform	620323		< 0.05	< 0.05	NA	< 0.05	111%	50%	140%	91%	60%	130%	90%	50%	140%
Styrene	620323		< 0.05	< 0.05	NA	< 0.05	91%	50%	140%	113%	60%	130%	110%	50%	140%
1,1,2,2-Tetrachloroethane	620323		< 0.05	< 0.05	NA	< 0.05	103%	50%	140%	80%	60%	130%	88%	50%	140%
o-Xylene	620323		< 0.05	< 0.05	NA	< 0.05	91%	50%	140%	86%	60%	130%	83%	50%	140%
1,3-Dichlorobenzene	620323		< 0.05	< 0.05	NA	< 0.05	87%	50%	140%	77%	60%	130%	82%	50%	140%
1,4-Dichlorobenzene	620323		< 0.05	< 0.05	NA	< 0.05	110%	50%	140%	77%	60%	130%	84%	50%	140%
1,2-Dichlorobenzene	620323		< 0.05	< 0.05	NA	< 0.05	90%	50%	140%	90%	60%	130%	84%	50%	140%
1,3-Dichloropropene	620323		< 0.04	< 0.04	NA	< 0.04	95%	50%	140%	99%	60%	130%	100%	50%	140%
n-Hexane	620323		< 0.05	< 0.05	NA	< 0.05	109%	50%	140%	105%	60%	130%	84%	50%	140%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By:

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Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T531714

PROJECT: City Of Brampton Drilling &Soil Sampling

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10192 Hwy 50, Brampton, ON

SAMPLED BY:Joey Preston

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
Aluminum	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Antimony	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Arsenic	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Barium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Beryllium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Bismuth	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Cadmium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Cobalt	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Copper	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Iron	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Lead	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Lithium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Manganese	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Molybdenum	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Nickel	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Phosphorus	MET-93-6103	EPA SW 846-3050B & 6020A	ICP-MS
Selenium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Silicon	MET-93-6105	EPA SW 846-3050B & 6010C	ICP/OES
Silver	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Strontium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Thallium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Tin	MET-93-6103	EPA SW 846 3050B & 6020A	ICP-MS
Titanium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Uranium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Vanadium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Zinc	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Zirconium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Electrical Conductivity	INOR-93-6036	McKeague 4.12, SM 2510 B	EC METER
Sodium Adsorption Ratio	INOR-93-6007	McKeague 4.12 & 3.26 & EPA SW-846 6010C	ICP/OES

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T531714

PROJECT: City Of Brampton Drilling &Soil Sampling

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10192 Hwy 50, Brampton, ON

SAMPLED BY:Joey Preston

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Hexachloroethane	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Gamma-Hexachlorocyclohexane	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Heptachlor	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Aldrin	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Heptachlor Epoxide	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Endosulfan	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Chlordane	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
DDE	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
DDD	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
DDT	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Dieldrin	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Endrin	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Methoxychlor	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Hexachlorobenzene	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Hexachlorobutadiene	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
TCMX	ORG-91-5112	EPA SW-846 3541,3620 & 8081	GC/ECD
Decachlorobiphenyl	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Moisture Content		MOE E3139	BALANCE
Naphthalene	ORG-91-5106	EPA SW846 3541 & 8270E	GC/MS
Acenaphthylene	ORG-91-5106	EPA SW846 3541 & 8270E	GC/MS
Acenaphthene	ORG-91-5106	EPA SW846 3541 & 8270E	GC/MS
Fluorene	ORG-91-5106	EPA SW846 3541 & 8270E	GC/MS
Phenanthrene	ORG-91-5106	EPA SW846 3541 & 8270E	GC/MS
Anthracene	ORG-91-5106	EPA SW846 3541 & 8270E	GC/MS
Fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270E	GC/MS
Pyrene	ORG-91-5106	EPA SW846 3541 & 8270E	GC/MS
Benz(a)anthracene	ORG-91-5106	EPA SW846 3541 & 8270E	GC/MS
Chrysene	ORG-91-5106	EPA SW846 3541 & 8270E	GC/MS
Benzo(b)fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270E	GC/MS
Benzo(k)fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270E	GC/MS
Benzo(a)pyrene	ORG-91-5106	EPA SW846 3541 & 8270E	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5106	EPA SW846 3541 & 8270E	GC/MS
Dibenz(a,h)anthracene	ORG-91-5106	EPA SW846 3541 & 8270E	GC/MS
Benzo(g,h,i)perylene	ORG-91-5106	EPA SW846 3541 & 8270E	GC/MS
2-and 1-methyl Naphthalene	ORG-91-5106	EPA SW846 3541 & 8270E	GC/MS
Moisture Content	ORG-91-5106	EPA SW-846 3541 & 8270E	BALANCE
Chrysene-d12	ORG-91-5106	EPA SW846 3541 & 8270E	GC/MS
F1 (C6 to C10)	VOL-91-5009	CCME Tier 1 Method, SW846 5035	P&T GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	CCME Tier 1 Method, SW846 5035	P&T GC/FID
F2 (C10 to C16)	VOL-91-5009	CCME Tier 1 Method	GC/FID
F3 (C16 to C34)	VOL-91-5009	CCME Tier 1 Method	GC/FID
F4 (C34 to C50)	VOL-91-5009	CCME Tier 1 Method	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5009	CCME Tier 1 Method	BALANCE
Moisture Content	VOL-91-5009	CCME Tier 1 Method	BALANCE
Terphenyl	VOL-91-5009	CCME Tier 1 Method	GC/FID
Dichlorodifluoromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Vinyl Chloride	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Bromomethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS

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Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T531714

PROJECT: City Of Brampton Drilling &Soil Sampling

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10192 Hwy 50, Brampton, ON

SAMPLED BY:Joey Preston

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Acetone	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methylene Chloride	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Trans- 1,2-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methyl tert-butyl Ether	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Cis- 1,2-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Chloroform	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Benzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Trichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Bromodichloromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Toluene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Dibromochloromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Chlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Ethylbenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
m & p-Xylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Bromoform	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Styrene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
o-Xylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Xylene Mixture	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,3-Dichloropropene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
n-Hexane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
Toluene-d8	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS
2,4-D	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4,5-T	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4,5-TP (Silvex)	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Dicamba	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Dichlorprop	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Dinoseb	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Picloram	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Diclofop-methyl	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,3,4,6-Tetrachlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4-Dichlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4,5-Trichlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD
2,4,6-Trichlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD

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Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T531714

PROJECT: City Of Brampton Drilling &Soil Sampling

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10192 Hwy 50, Brampton, ON

SAMPLED BY:Joey Preston

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Bromoxynil	ORG-91-5110	EPA SW-846 8151A	GC/ECD
MCPP (Mecoprop)	ORG-91-5110	EPA SW-846 8151A	GC/ECD
MCPA	ORG-91-5110	EPA SW-846 8151A	GC/ECD
Pentachlorophenol	ORG-91-5110	EPA SW-846 8151A	GC/ECD
DCAA	ORG-91-5110	EPA SW-846 8151	GC/ECD
Phenoxy Extr			N/A

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AGAT Laboratories 1 Large

5835 Coopers Avenue
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webearth.agatlabs.com

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Laboratory Use Only 1/1

Work Order #: 19TS31714

Cooler Quantity:

Arrival Temperatures: 2.1 | 2.2 | 2.4

Custody Seal Intact: ☐Yes ☐No ☐N/A

Notes: on ice

Report Information:

Company: SNC-Lavalin Inc
Contact: Robert Mitzakov
Address: 195 The West Mall, Toronto, ON M9C 5K1
Phone: 416-635-5882 X 55805 Fax:
Reports to be sent to:
1. Email: Robert.Mitzakov@snclavalin.com
2. Email: Abed.Yassine@snclavalin.com

Regulatory Requirements: ☐ No Regulatory Requirement

(Please check all applicable boxes)

☒ Regulation 153/04 — MECP Table 9
Table 9 (Indicate One)
☒ Ind/Com
☒ Res/Park
☐ Agriculture

Soil Texture (Check One)
☒ Coarse
☐ Fine

☐ Sewer Use
☐ Sanitary
☐ Storm
Region ________ (Indicate One)
☐ MISA

☐ Regulation 558
☐ CCME
☐ Prov. Water Quality Objectives (PWQO)
☐ Other ________ (Indicate One)

Is this submission for a **Record of Site Condition?** ☐ Yes ☐ No

Report Guideline on Certificate of Analysis ☐ Yes ☐ No

Turnaround Time (TAT) Required:

Regular TAT ☒ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)
☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day

OR Date Required (Rush Surcharges May Apply): ________

Please provide prior notification for rush TAT
**TAT is exclusive of weekends and statutory holidays*

For 'Same Day' analysis, please contact your AGAT CPM

Project Information:

Project: City of Brampton, Drilling and Soil Sampling
Site Location: 10192 HWY 50, Brampton, ON
Sampled By: Joey Preston
AGAT Quote #: ________ PO: 665125

Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

Bill To Same: Yes ☐ No ☐

Company: SNC-Lavalin Inc
Contact:
Address:
Email: Payables@snclavalin.com

Sample Matrix Legend

B	Biota
GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI (Y/N)	O. Reg 153: Metals and Inorganics (SAR/Cond)	☐ All Metals ☐ 153 Metals (excl. Hydrides)	☐ Hydride Metals ☐ 153 Metals (incl. Hydrides)	ORPs: ☐ B-HWS ☐ Cl ☐ CN ☐ Cr6+ ☐ EC ☐ FOC ☐ Hg ☐ pH ☐ SAR	Full Metals Scan	Regulation/Custom Metals	Nutrients: ☐ TP ☐ NH3 ☐ TKN ☐ NO3 ☐ NO2 ☐ NO3+NO2	Volatiles: ☐ VOC ☐ BTEX ☐ THM	PHCs F1 - F4 (VOCs ~Moisture)	ABNs	PAHs	PCBs: ☐ Total ☐ Aroclors	Organochlorine Pesticides and Herbicides	TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	Sewer Use	ICP Metals/Inorganics	SAR/Conductivity				Potentially Hazardous or High Concentration (Y/N)
BH-74-01	Oct 16/19	10:15	2	Soil			X										X					X	X				
BH-74-02	↓	10:20	1	↓															X								
BH-74-06		10:40	4												X												
BH-75-01		12:45	1																X								
BH-75-02		12:55	2		limited Recovery		X										X					X	X				
BH-75-22		12:55	1				X															X	X				
BH-75-06		14:15	5												X												
BH-75-66	↓	14:15	3	↓	limited Recovery										X												

Samples Relinquished By (Print Name and Sign): Joseph Preston [signature]	Date Oct 17/19	Time 13:00	Samples Received By (Print Name and Sign): [illegible] [signature]	Date Oct 17/2019	Time 1:25
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time

Page ____ of ____

Nº: T096243

AGAT Laboratories

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CLIENT NAME: SNC LAVALIN INC
235 LESMILL ROAD
TORONTO, ON M3B 2V1
(416) 679-6000

ATTENTION TO: Robert Mitzakov

PROJECT: City Of Brampton Drilling & Soil Sampling

AGAT WORK ORDER: 19T531731

SOIL ANALYSIS REVIEWED BY: Nivine Basily, Inorganics Report Writer

DATE REPORTED: Oct 29, 2019

PAGES (INCLUDING COVER): 5

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

*NOTES

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.

Member of: Association of Professional Engineers and Geoscientists of Alberta (APEGA)
Western Enviro-Agricultural Laboratory Association (WEALA)
Environmental Services Association of Alberta (ESAA)

AGAT Laboratories is accredited to ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA) and/or Standards Council of Canada (SCC) for specific tests listed on the scope of accreditation. AGAT Laboratories (Mississauga) is also accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) for specific drinking water tests. Accreditations are location and parameter specific. A complete listing of parameters for each location is available from www.cala.ca and/or www.scc.ca. The tests in this report may not necessarily be included in the scope of accreditation. Measurement Uncertainty is not taken into consideration when stating conformity with a specified requirement.

Results relate only to the items tested. Results apply to samples as received.
All reportable information as specified by ISO 17025:2017 is available from AGAT Laboratories upon request

AGAT Laboratories

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http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 19T531731

PROJECT: City Of Brampton Drilling & Soil Sampling

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - ORPs (Soil)

DATE RECEIVED: 2019-10-17

DATE REPORTED: 2019-10-29

		SAMPLE DESCRIPTION:		SS7	SS8	SS9	SS99	SS10	SS11	SS12	SS13
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2019-10-16	2019-10-16	2019-10-16	2019-10-16	2019-10-16	2019-10-16	2019-10-16	2019-10-16
Parameter	Unit	G / S	RDL	624888	624891	624892	624893	624894	624895	624896	624897
pH, 2:1 CaCl2 Extraction	pH Units		NA	10.3	10.8	11.3	11.3	11.0	8.34	8.53	10.7

		SAMPLE DESCRIPTION:		SS14
		SAMPLE TYPE:		Soil
		DATE SAMPLED:		2019-10-16
Parameter	Unit	G / S	RDL	624898
pH, 2:1 CaCl2 Extraction	pH Units		NA	9.01

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 8: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Ground Water Condition - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

624888-624898 pH was determined on the 0.01M CaCl2 extract obtained from 2:1 leaching procedure (2 parts extraction fluid:1 part wet soil).

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: Vivine Basily

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AGAT Laboratories

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T531731

PROJECT: City Of Brampton Drilling & Soil Sampling

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

Soil Analysis

RPT Date: Oct 29, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - ORPs (Soil)															
pH, 2:1 CaCl2 Extraction	624888	624888	10.3	10.3	0.2%	NA	100%	90%	110%						

Comments: NA signifies Not Applicable.
pH duplicates QA acceptance criteria was met relative as stated in Table 5-15 of Analytical Protocol document.

O. Reg. 153(511) - ORPs (Soil)															
pH, 2:1 CaCl2 Extraction	650517		7.51	7.49	0.3%	NA	100%	90%	110%						

Comments: NA signifies Not Applicable.
pH duplicates QA acceptance criteria was met relative as stated in Table 5-15 of Analytical Protocol document.

Certified By: Nivine Basily

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Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T531731

PROJECT: City Of Brampton Drilling & Soil Sampling

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
pH, 2:1 CaCl2 Extraction	INOR-93-6031	MSA part 3 & SM 4500-H+ B	pH METER

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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Ph: 905.712.5100 Fax: 905.712.5122
webearth.agatlabs.com

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Laboratory Use Only
Work Order #: 19T531731

Cooler Quantity:
Arrival Temperatures: 2.1 | 2.2 | 2.4
Custody Seal Intact: ☐Yes ☐No ☐N/A
Notes: On ice

Report Information:
Company: SNC-Lavalin Inc
Contact: Robert Mitzakov
Address: 455 The West Mall
Toronto, ON M9C 5K1
Phone: 416-635-5882 Fax: 55805
Reports to be sent to:
1. Email: Robert.Mitzakov@snclavalin.com
2. Email: Abed.Yassine@snclavalin.com

Regulatory Requirements:
(Please check all applicable boxes) ☐ No Regulatory Requirement

☑ Regulation 153/04
Table 7 (Indicate One)
☑ Ind/Com
☑ Res/Park
☐ Agriculture
Soil Texture (Check One)
☑ Coarse
☐ Fine

☐ Sewer Use
☐ Sanitary
☐ Storm
Region ____ (Indicate One)
☐ MISA

☐ Regulation 558
☐ CCME
☐ Prov. Water Quality Objectives (PWQO)
☐ Other
____ (Indicate One)

Turnaround Time (TAT) Required:
Regular TAT ☑ 5 to 7 Business Days
Rush TAT (Rush Surcharges Apply)
☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day
OR Date Required (Rush Surcharges May Apply): ____
Please provide prior notification for rush TAT
*TAT is exclusive of weekends and statutory holidays
For 'Same Day' analysis, please contact your AGAT CPM

Project Information:
Project: City of Brampton Drilling of Sol Supply
Site Location: 10192 Hwy 50, Brampton ON
Sampled By: Jacob Preston
AGAT Quote #: ____ PO: 665125
Please note: If quotation number is not provided, client will be billed full price for analysis.

Is this submission for a **Record of Site Condition?** ☐ Yes ☐ No

Report Guideline on *Certificate of Analysis* ☐ Yes ☐ No

Invoice Information:
Bill To Same: Yes ☐ No ☐
Company: SNC-Lavalin Inc
Contact:
Address:
Email: Payables@snclavalin.com

Sample Matrix Legend
B Biota
GW Ground Water
O Oil
P Paint
S Soil
SD Sediment
SW Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI (Y/N)	O. Reg 153: Metals and Inorganics	Full Metals Scan	Regulation/Custom Metals	Nutrients	Volatiles	PHCs F1 - F4	ABNs	PAHs	PCBs	Organochlorine Pesticides	TCLP	Sewer Use	pH						Potentially Hazardous or High Concentration (Y/N)
SS-01 SS7	Oct 16/19	15:05	1	Soil															X						
SS-02 SS8		15:05	1																X						
SS-03 SS9		15:10	1																X						
SS-33 SS99		15:10	1																X						
SS-4 SS10		15:15	1																X						
SS-5 SS11		15:25	1		On hold														X						
SS-6 SS12		15:35	1		On hold														X						
SS-7 SS13		15:45	1		On hold														X						
SS-8 SS14	↓	15:55	1	↓	On hold														X						

Samples Relinquished By (Print Name and Sign)	Date	Time	Samples Received By (Print Name and Sign)	Date	Time
Jacob Preston	Oct 17/19	13:05		Oct/17/19	1:25
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time

Page ____ of ____
N°: T096041

Document ID: DIV 78 1511 010
Pink Copy - Client | Yellow Copy - AGAT | White Copy - AGAT
Date: Page 5 of 5. 2019

AGAT Laboratories

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FAX (905)712-5122
http://www.agatlabs.com

CLIENT NAME: SNC LAVALIN INC
235 LESMILL ROAD
TORONTO, ON M3B 2V1
(416) 679-6000

ATTENTION TO: Robert Mitzakov

PROJECT: City Of Brampton Drilling & Soil Sampling

AGAT WORK ORDER: 19T531736

TRACE ORGANICS REVIEWED BY: Navdeep Kaur Kansera, Senior Lab Technician

DATE REPORTED: Oct 23, 2019

PAGES (INCLUDING COVER): 8

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

*NOTES

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.

Member of: Association of Professional Engineers and Geoscientists of Alberta (APEGA)
Western Enviro-Agricultural Laboratory Association (WEALA)
Environmental Services Association of Alberta (ESAA)

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Results relate only to the items tested. Results apply to samples as received.
All reportable information as specified by ISO 17025:2017 is available from AGAT Laboratories upon request

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 19T531736

PROJECT: City Of Brampton Drilling & Soil Sampling

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - PHCs F1/BTEX (Water)

DATE RECEIVED: 2019-10-17

DATE REPORTED: 2019-10-23

		SAMPLE DESCRIPTION:		Trip Blank
		SAMPLE TYPE:		Water
		DATE SAMPLED:		2019-10-16
Parameter	Unit	G / S	RDL	624923
F1 (C6-C10)	µg/L		25	<25
F1 (C6 to C10) minus BTEX	µg/L	420	25	<25

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 8: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Ground Water Condition - Ground Water - All Types of Property Uses
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

624923 The C6-C10 fraction is calculated using Toluene response factor.
Total C6-C10 results are corrected for BTEX contributions.
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC6 and nC10 response factors are within 30% of Toluene response factor.
Extraction and holding times were met for this sample.
NA = Not Applicable

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: Navdeep Kansera

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Certificate of Analysis

AGAT WORK ORDER: 19T531736

PROJECT: City Of Brampton Drilling & Soil Sampling

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - VOCs (Water)

DATE RECEIVED: 2019-10-17

DATE REPORTED: 2019-10-23

		SAMPLE DESCRIPTION:		Trip Blank
		SAMPLE TYPE:		Water
		DATE SAMPLED:		2019-10-16
Parameter	Unit	G / S	RDL	624923
Dichlorodifluoromethane	µg/L	590	0.20	<0.20
Vinyl Chloride	µg/L	0.5	0.17	<0.17
Bromomethane	µg/L	0.89	0.20	<0.20
Trichlorofluoromethane	µg/L	150	0.40	<0.40
Acetone	µg/L	2700	1.0	<1.0
1,1-Dichloroethylene	µg/L	1.6	0.30	<0.30
Methylene Chloride	µg/L	50	0.30	<0.30
trans- 1,2-Dichloroethylene	µg/L	1.6	0.20	<0.20
Methyl tert-butyl ether	µg/L	15	0.20	<0.20
1,1-Dichloroethane	µg/L	5	0.30	<0.30
Methyl Ethyl Ketone	µg/L	1800	1.0	<1.0
cis- 1,2-Dichloroethylene	µg/L	1.6	0.20	<0.20
Chloroform	µg/L	2.4	0.20	<0.20
1,2-Dichloroethane	µg/L	1.6	0.20	<0.20
1,1,1-Trichloroethane	µg/L	200	0.30	<0.30
Carbon Tetrachloride	µg/L	0.79	0.20	<0.20
Benzene	µg/L	5	0.20	<0.20
1,2-Dichloropropane	µg/L	5	0.20	<0.20
Trichloroethylene	µg/L	1.6	0.20	<0.20
Bromodichloromethane	µg/L	16	0.20	<0.20
Methyl Isobutyl Ketone	µg/L	640	1.0	<1.0
1,1,2-Trichloroethane	µg/L	4.7	0.20	<0.20
Toluene	µg/L	22	0.20	<0.20
Dibromochloromethane	µg/L	25	0.10	<0.10
Ethylene Dibromide	µg/L	0.2	0.10	<0.10
Tetrachloroethylene	µg/L	1.6	0.20	<0.20
1,1,1,2-Tetrachloroethane	µg/L	1.1	0.10	<0.10
Chlorobenzene	µg/L	30	0.10	<0.10
Ethylbenzene	µg/L	2.4	0.10	<0.10
m & p-Xylene	µg/L		0.20	<0.20

Certified By: Navdeep Kansera

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Certificate of Analysis

AGAT WORK ORDER: 19T531736

PROJECT: City Of Brampton Drilling & Soil Sampling

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - VOCs (Water)

DATE RECEIVED: 2019-10-17

DATE REPORTED: 2019-10-23

		SAMPLE DESCRIPTION:		Trip Blank
		SAMPLE TYPE:		Water
		DATE SAMPLED:		2019-10-16
Parameter	Unit	G / S	RDL	624923
Bromoform	µg/L	25	0.10	<0.10
Styrene	µg/L	5.4	0.10	<0.10
1,1,2,2-Tetrachloroethane	µg/L	1	0.10	<0.10
o-Xylene	µg/L		0.10	<0.10
1,3-Dichlorobenzene	µg/L	59	0.10	<0.10
1,4-Dichlorobenzene	µg/L	1	0.10	<0.10
1,2-Dichlorobenzene	µg/L	3	0.10	<0.10
1,3-Dichloropropene	µg/L	0.5	0.30	<0.30
Xylene Mixture	µg/L	300	0.20	<0.20
n-Hexane	µg/L	51	0.20	<0.20
Surrogate	Unit	Acceptable Limits		
Toluene-d8	% Recovery	50-140		106
4-Bromofluorobenzene	% Recovery	50-140		91

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 8: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Ground Water Condition - Ground Water - All Types of Property Uses
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

624923 Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.
1,3-Dichloropropene total is a calculated parameter. The calculated value is the sum of Cis-1,3-Dichloropropene and Trans-1,3-Dichloropropene.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: Navdeep Kansera

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC
AGAT WORK ORDER: 19T531736
PROJECT: City Of Brampton Drilling & Soil Sampling
ATTENTION TO: Robert Mitzakov
SAMPLING SITE:
SAMPLED BY:

Trace Organics Analysis

RPT Date: Oct 23, 2019

PARAMETER	Batch	Sample Id	DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
			Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - VOCs (Water)															
Dichlorodifluoromethane	623574		< 0.20	< 0.20	NA	< 0.20	82%	50%	140%	73%	50%	140%	78%	50%	140%
Vinyl Chloride	623574		< 0.17	< 0.17	NA	< 0.17	77%	50%	140%	122%	50%	140%	105%	50%	140%
Bromomethane	623574		< 0.20	< 0.20	NA	< 0.20	93%	50%	140%	113%	50%	140%	87%	50%	140%
Trichlorofluoromethane	623574		< 0.40	< 0.40	NA	< 0.40	83%	50%	140%	82%	50%	140%	81%	50%	140%
Acetone	623574		< 1.0	< 1.0	NA	< 1.0	112%	50%	140%	104%	50%	140%	112%	50%	140%
1,1-Dichloroethylene	623574		< 0.30	< 0.30	NA	< 0.30	79%	50%	140%	76%	60%	130%	96%	50%	140%
Methylene Chloride	623574		< 0.30	< 0.30	NA	< 0.30	105%	50%	140%	101%	60%	130%	103%	50%	140%
trans- 1,2-Dichloroethylene	623574		< 0.20	< 0.20	NA	< 0.20	79%	50%	140%	89%	60%	130%	93%	50%	140%
Methyl tert-butyl ether	623574		< 0.20	< 0.20	NA	< 0.20	91%	50%	140%	94%	60%	130%	107%	50%	140%
1,1-Dichloroethane	623574		< 0.30	< 0.30	NA	< 0.30	94%	50%	140%	84%	60%	130%	98%	50%	140%
Methyl Ethyl Ketone	623574		< 1.0	< 1.0	NA	< 1.0	110%	50%	140%	89%	50%	140%	104%	50%	140%
cis- 1,2-Dichloroethylene	623574		< 0.20	< 0.20	NA	< 0.20	86%	50%	140%	100%	60%	130%	98%	50%	140%
Chloroform	623574		< 0.20	< 0.20	NA	< 0.20	102%	50%	140%	84%	60%	130%	98%	50%	140%
1,2-Dichloroethane	623574		< 0.20	< 0.20	NA	< 0.20	93%	50%	140%	103%	60%	130%	108%	50%	140%
1,1,1-Trichloroethane	623574		< 0.30	< 0.30	NA	< 0.30	84%	50%	140%	86%	60%	130%	90%	50%	140%
Carbon Tetrachloride	623574		< 0.20	< 0.20	NA	< 0.20	73%	50%	140%	80%	60%	130%	74%	50%	140%
Benzene	623574		< 0.20	< 0.20	NA	< 0.20	101%	50%	140%	85%	60%	130%	101%	50%	140%
1,2-Dichloropropane	623574		< 0.20	< 0.20	NA	< 0.20	82%	50%	140%	89%	60%	130%	81%	50%	140%
Trichloroethylene	623574		< 0.20	< 0.20	NA	< 0.20	77%	50%	140%	96%	60%	130%	95%	50%	140%
Bromodichloromethane	623574		< 0.20	< 0.20	NA	< 0.20	84%	50%	140%	81%	60%	130%	83%	50%	140%
Methyl Isobutyl Ketone	623574		< 1.0	< 1.0	NA	< 1.0	90%	50%	140%	102%	50%	140%	87%	50%	140%
1,1,2-Trichloroethane	623574		< 0.20	< 0.20	NA	< 0.20	97%	50%	140%	110%	60%	130%	84%	50%	140%
Toluene	623574		< 0.20	< 0.20	NA	< 0.20	115%	50%	140%	90%	60%	130%	110%	50%	140%
Dibromochloromethane	623574		< 0.10	< 0.10	NA	< 0.10	112%	50%	140%	94%	60%	130%	103%	50%	140%
Ethylene Dibromide	623574		< 0.10	< 0.10	NA	< 0.10	107%	50%	140%	117%	60%	130%	117%	50%	140%
Tetrachloroethylene	623574		< 0.20	< 0.20	NA	< 0.20	107%	50%	140%	84%	60%	130%	107%	50%	140%
1,1,1,2-Tetrachloroethane	623574		< 0.10	< 0.10	NA	< 0.10	111%	50%	140%	95%	60%	130%	104%	50%	140%
Chlorobenzene	623574		< 0.10	< 0.10	NA	< 0.10	112%	50%	140%	94%	60%	130%	108%	50%	140%
Ethylbenzene	623574		< 0.10	< 0.10	NA	< 0.10	105%	50%	140%	84%	60%	130%	103%	50%	140%
m & p-Xylene	623574		< 0.20	< 0.20	NA	< 0.20	105%	50%	140%	87%	60%	130%	83%	50%	140%
Bromoform	623574		< 0.10	< 0.10	NA	< 0.10	113%	50%	140%	103%	60%	130%	106%	50%	140%
Styrene	623574		< 0.10	< 0.10	NA	< 0.10	86%	50%	140%	104%	60%	130%	100%	50%	140%
1,1,2,2-Tetrachloroethane	623574		< 0.10	< 0.10	NA	< 0.10	108%	50%	140%	102%	60%	130%	95%	50%	140%
o-Xylene	623574		< 0.10	< 0.10	NA	< 0.10	111%	50%	140%	93%	60%	130%	109%	50%	140%
1,3-Dichlorobenzene	623574		< 0.10	< 0.10	NA	< 0.10	115%	50%	140%	92%	60%	130%	115%	50%	140%
1,4-Dichlorobenzene	623574		< 0.10	< 0.10	NA	< 0.10	109%	50%	140%	94%	60%	130%	111%	50%	140%
1,2-Dichlorobenzene	623574		< 0.10	< 0.10	NA	< 0.10	113%	50%	140%	97%	60%	130%	111%	50%	140%
1,3-Dichloropropene	623574		< 0.30	< 0.30	NA	< 0.30	80%	50%	140%	93%	60%	130%	83%	50%	140%
n-Hexane	623574		< 0.20	< 0.20	NA	< 0.20	78%	50%	140%	84%	60%	130%	80%	50%	140%

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Results relate only to the items tested. Results apply to samples as received.

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC
AGAT WORK ORDER: 19T531736
PROJECT: City Of Brampton Drilling & Soil Sampling
ATTENTION TO: Robert Mitzakov
SAMPLING SITE:
SAMPLED BY:

Trace Organics Analysis (Continued)

RPT Date: Oct 23, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - PHCs F1/BTEX (Water)															
F1 (C6-C10)	607594		< 25	< 25	NA	< 25	95%	60%	140%	89%	60%	140%	93%	60%	140%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By: Navdeep Kansera

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Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T531736

PROJECT: City Of Brampton Drilling & Soil Sampling

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
F1 (C6-C10)	VOL-91- 5010	MOE E3421	(P&T)GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5010	MOE PHC-E3421	P&T GC/FID
Dichlorodifluoromethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Vinyl Chloride	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Bromomethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Acetone	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Methylene Chloride	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
trans- 1,2-Dichloroethylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Methyl tert-butyl ether	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
cis- 1,2-Dichloroethylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Chloroform	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Benzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Trichloroethylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Bromodichloromethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Toluene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Dibromochloromethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Chlorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Ethylbenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
m & p-Xylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Bromoform	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Styrene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
o-Xylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,3-Dichloropropene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Xylene Mixture	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
n-Hexane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Toluene-d8	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

1 Page

5835 Coopers Avenue
Mississauga, Ontario L4Z 1Y2
Ph: 905.712.5100 Fax: 905.712.5122
webearth.agatlabs.com

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Laboratory Use Only

Work Order #: 19T531736

Cooler Quantity:

Arrival Temperatures: 2.1 | 2.2 | 2.4

Custody Seal Intact: ☐ Yes ☐ No ☐ N/A

Notes: On ice

Report Information:

Company: SNC Lavalin Inc
Contact: Robert Mitzakov
Address: 195 The West Mall
Toronto ON, M9C 5K1
Phone: 416 635 5885 x 55845 Fax:
Reports to be sent to:
1. Email: Robert.Mitzakov@snclavalin.com
2. Email: Abdel.Yassine@snclavalin.com

Regulatory Requirements:

☐ No Regulatory Requirement

(Please check all applicable boxes)

☑ Regulation 153/04
Table 9 (Indicate One)
☑ Ind/Com
☑ Res/Park
☐ Agriculture

Soil Texture (Check One)
☑ Coarse
☐ Fine

☐ Sewer Use
☐ Sanitary
☐ Storm

Region _____ (Indicate One)
☐ MISA

☐ Regulation 558
☐ CCME
☐ Prov. Water Quality Objectives (PWQO)
☐ Other _____ (Indicate One)

Is this submission for a **Record of Site Condition?** ☐ Yes ☐ No

Report Guideline on *Certificate of Analysis* ☐ Yes ☐ No

Turnaround Time (TAT) Required:

Regular TAT ☑ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day

OR Date Required (Rush Surcharges May Apply):

Please provide prior notification for rush TAT
**TAT is exclusive of weekends and statutory holidays*

For 'Same Day' analysis, please contact your AGAT CPM

Project Information:

Project: City of Brampton Drilling and Soil Sampling
Site Location: 8192 Hwy 50 Brampton ON
Sampled By: Joey Preston
AGAT Quote #: _____ PO: 65125

Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

Bill To Same: Yes ☐ No ☐

Company: City of Brampton, Drilling and Soil Sampling
Contact: SNC-Lavalin Inc
Address:
Email: Payables@snclavalin.com

Sample Matrix Legend

B	Biota
GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI (Y/N)	O. Reg 153: Metals and Inorganics (☐ All Metals ☐ 153 Metals (excl. Hydrides) ☐ Hydride Metals ☐ 153 Metals (Incl. Hydrides))	O. Reg 153: ORPs: ☐ B-HWS ☐ Cr ☐ CN ☐ Cr^{6+} ☐ EC ☐ FOC ☐ Hg ☐ pH ☐ SAR	O. Reg 153: Full Metals Scan	O. Reg 153: Regulation/Custom Metals	O. Reg 153: Nutrients: ☐ TP ☐ NH_3 ☐ TKN ☐ NO_3 ☐ NO_2 ☐ NO_3+NO_2	O. Reg 153: Volatiles: ☐ VOC ☐ BTEX ☐ THM	O. Reg 153: PHCs F1 - F4	O. Reg 153: ABNs	O. Reg 153: PAHs	O. Reg 153: PCBs: ☐ Total ☐ Aroclors	O. Reg 153: Organochlorine Pesticides	O. Reg 153: TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	O. Reg 153: Sewer Use		FL, VOCs				Potentially Hazardous or High Concentration (Y/N)
Trip Blank	Oct 16/19	—	3	—																			X			

Samples Relinquished By (Print Name and Sign): Joseph Preston	Date Oct 17/19	Time 13:00	Samples Received By (Print Name and Sign):	Date Oct 17/19	Time 1:25		
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time	Page _____ of _____	
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time	Nº: T096042	

Appendix F

Laboratory Certificates of Analysis (Groundwater)

TABLE F.1: Field Blank QA/QC Results
Groundwater Samples
10192 Highway 50, Brampton, ON

	Sample Location		FIELD BLANK	FIELD BLANK	TRIP BLANK	TRIP BLANK
	Laboratory Sample ID		306345	640960	306348	624923
	SNC-Lavalin Sample ID		Field Blank	Field Blank	Trip Blank	Trip Blank
	Sampling Date (yyyy/mm/dd)		2019/06/24	2019/10/22	2019/06/24	2019/10/16
Parameter	**RDL**	**Units**				
Petroleum Hydrocarbon (PHC) Fractions						
PHC F1	25	µg/L	< 25	< 25	-	< 25
PHC F2	100	µg/L	< 100	< 100	-	-
PHC F3	100	µg/L	< 100	< 100	-	-
PHC F4	100	µg/L	< 100	< 100	-	-
Volatile Organic Compounds						
Acetone	1.0	µg/L	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	0.20	µg/L	< 0.20	< 0.20	< 0.20	< 0.20
Bromodichloromethane	0.20	µg/L	< 0.20	< 0.20	< 0.20	< 0.20
Bromoform	0.10	µg/L	< 0.10	< 0.10	< 0.10	< 0.10
Bromomethane	0.20	µg/L	< 0.20	< 0.20	< 0.20	< 0.20
Carbon Tetrachloride	0.20	µg/L	< 0.20	< 0.20	< 0.20	< 0.20
Chlorobenzene	0.10	µg/L	< 0.10	< 0.10	< 0.10	< 0.10
Chloroform	0.20	µg/L	< 0.20	< 0.20	< 0.20	< 0.20
Dibromochloromethane	0.10	µg/L	< 0.10	< 0.10	< 0.10	< 0.10
Dichlorobenzene, 1,2- (o-DCB)	0.10	µg/L	< 0.10	< 0.10	< 0.10	< 0.10
Dichlorobenzene, 1,3- (m-DCB)	0.10	µg/L	< 0.10	< 0.10	< 0.10	< 0.10
Dichlorobenzene, 1,4- (p-DCB)	0.10	µg/L	< 0.10	< 0.10	< 0.10	< 0.10
Dichlorodifluoromethane	0.20	µg/L	< 0.20	< 0.20	< 0.20	< 0.20
Dichloroethane, 1,1-	0.30	µg/L	< 0.30	< 0.30	< 0.30	< 0.30
Dichloroethane, 1,2-	0.20	µg/L	< 0.20	< 0.20	< 0.20	< 0.20
Dichloroethylene, 1,1-	0.30	µg/L	< 0.30	< 0.30	< 0.30	< 0.30
Dichloroethylene, cis-1,2-	0.20	µg/L	< 0.20	< 0.20	< 0.20	< 0.20
Dichloroethylene, trans-1,2-	0.20	µg/L	< 0.20	< 0.20	< 0.20	< 0.20
Dichloropropane, 1,2-	0.20	µg/L	< 0.20	< 0.20	< 0.20	< 0.20
Dichloropropene, 1,3-	0.30	µg/L	< 0.30	< 0.30	< 0.30	< 0.30
Ethylbenzene	0.10	µg/L	< 0.10	< 0.10	< 0.10	< 0.10
Ethylene Dibromide (Dibromoethane, 1,2-)	0.10	µg/L	< 0.10	< 0.10	< 0.10	< 0.10
Hexane (n)	0.20	µg/L	< 0.20	< 0.20	< 0.20	< 0.20
Methyl Ethyl Ketone	1.0	µg/L	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Isobutyl Ketone	1.0	µg/L	< 1.0	< 1.0	< 1.0	< 1.0
Methyl t-butyl ether (MTBE)	0.20	µg/L	< 0.20	< 0.20	< 0.20	< 0.20
Methylene Chloride	0.30	µg/L	< 0.30	< 0.30	< 0.30	< 0.30
Styrene	0.10	µg/L	< 0.10	< 0.10	< 0.10	< 0.10
Tetrachloroethane, 1,1,1,2-	0.10	µg/L	< 0.10	< 0.10	< 0.10	< 0.10
Tetrachloroethane, 1,1,2,2-	0.10	µg/L	< 0.10	< 0.10	< 0.10	< 0.10
Tetrachloroethylene	0.20	µg/L	< 0.20	< 0.20	< 0.20	< 0.20
Toluene	0.20	µg/L	< 0.20	0.31	< 0.20	< 0.20
Trichloroethane, 1,1,1-	0.30	µg/L	< 0.30	< 0.30	< 0.30	< 0.30
Trichloroethane, 1,1,2-	0.20	µg/L	< 0.20	< 0.20	< 0.20	< 0.20
Trichloroethylene	0.20	µg/L	< 0.20	< 0.20	< 0.20	< 0.20
Trichlorofluoromethane	0.40	µg/L	< 0.40	< 0.40	< 0.40	< 0.40
Vinyl Chloride	0.17	µg/L	< 0.17	< 0.17	< 0.17	< 0.17
Xylenes	0.20	µg/L	< 0.20	< 0.20	< 0.20	< 0.20
Xylenes, m+p-	0.20	µg/L	< 0.20	< 0.20	< 0.20	< 0.20
Xylenes, o-	0.10	µg/L	< 0.10	< 0.10	< 0.10	< 0.10

Footnotes:

Additional terms may be defined within the body of SNC-Lavalin's report.
RDL - Reportable Detection Limit, unless otherwise noted
< - Denotes concentration less than indicated detection limit
"-" - Not analyzed
na - Not applicable
µg/L – micrograms per litre

TABLE : F.2 Field Duplicate RPD Calculations
Groundwater Samples
10192 Highway 50, Brampton, ON

Sample Location		RPD	MW-51	MW-51	RPD	MW-75	MW-75	RPD
Laboratory Sample ID			311538	306337		640955	640959	
SNC-Lavalin Sample ID		Limit	MW-51	MW-511		MW-75	MW-755	
Sampling Date (yyyy/mm/dd)		80%	2019/06/24	2019/06/24		2019/10/22	2019/10/22	
				Duplicate of			Duplicate of	
Parameter	**Units**			MW-51			MW-75	
Petroleum Hydrocarbon (PHC) Fractions								
PHC F1	µg/L	80%	< 25	< 25	*	< 25	< 25	*
PHC F2	µg/L	80%	< 100	-	-	< 100	< 100	*
PHC F3	µg/L	80%	< 100	-	-	< 100	< 100	*
PHC F4	µg/L	80%	< 100	-	-	< 100	< 100	*
Volatile Organic Compounds								
Acetone	µg/L	80%	< 1.0	< 1.0	*	190	230	19%
Benzene	µg/L	80%	< 0.20	< 0.20	*	1.8	2.2	20%
Bromodichloromethane	µg/L	80%	< 0.20	< 0.20	*	< 0.20	< 0.20	*
Bromoform	µg/L	80%	< 0.10	< 0.10	*	< 0.10	< 0.10	*
Bromomethane	µg/L	80%	< 0.20	< 0.20	*	< 0.20	< 0.20	*
Carbon Tetrachloride	µg/L	80%	< 0.20	< 0.20	*	< 0.20	< 0.20	*
Chlorobenzene	µg/L	80%	< 0.10	< 0.10	*	< 0.10	< 0.10	*
Chloroform	µg/L	80%	< 0.20	< 0.20	*	< 0.20	< 0.20	*
Dibromochloromethane	µg/L	80%	< 0.10	< 0.10	*	< 0.10	< 0.10	*
Dichlorobenzene, 1,2- (o-DCB)	µg/L	80%	< 0.10	< 0.10	*	< 0.10	< 0.10	*
Dichlorobenzene, 1,3- (m-DCB)	µg/L	80%	< 0.10	< 0.10	*	< 0.10	< 0.10	*
Dichlorobenzene, 1,4- (p-DCB)	µg/L	80%	< 0.10	< 0.10	*	< 0.10	< 0.10	*
Dichlorodifluoromethane	µg/L	80%	< 0.20	< 0.20	*	< 0.20	< 0.20	*
Dichloroethane, 1,1-	µg/L	80%	< 0.30	< 0.30	*	< 0.30	< 0.30	*
Dichloroethane, 1,2-	µg/L	80%	< 0.20	< 0.20	*	< 0.20	< 0.20	*
Dichloroethylene, 1,1-	µg/L	80%	< 0.30	< 0.30	*	< 0.30	< 0.30	*
Dichloroethylene, cis-1,2-	µg/L	80%	< 0.20	< 0.20	*	< 0.20	< 0.20	*
Dichloroethylene, trans-1,2-	µg/L	80%	< 0.20	< 0.20	*	< 0.20	< 0.20	*
Dichloropropane, 1,2-	µg/L	80%	< 0.20	< 0.20	*	< 0.20	< 0.20	*
Dichloropropene, 1,3-	µg/L	80%	< 0.30	< 0.30	*	< 0.30	< 0.30	*
Ethylbenzene	µg/L	80%	< 0.10	< 0.10	*	0.23	0.22	*
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/L	80%	< 0.10	< 0.10	*	< 0.10	< 0.10	*
Hexane (n)	µg/L	80%	< 0.20	< 0.20	*	< 0.20	< 0.20	*
Methyl Ethyl Ketone	µg/L	80%	< 1.0	< 1.0	*	9.7	12	21%
Methyl Isobutyl Ketone	µg/L	80%	< 1.0	< 1.0	*	1.2	1.3	*
Methyl t-butyl ether (MTBE)	µg/L	80%	< 0.20	< 0.20	*	< 0.20	< 0.20	*
Methylene Chloride	µg/L	80%	< 0.30	< 0.30	*	< 0.30	< 0.30	*
Styrene	µg/L	80%	< 0.10	< 0.10	*	0.98	1	2%
Tetrachloroethane, 1,1,1,2-	µg/L	80%	< 0.10	< 0.10	*	< 0.10	< 0.10	*
Tetrachloroethane, 1,1,2,2-	µg/L	80%	< 0.10	< 0.10	*	< 0.10	< 0.10	*
Tetrachloroethylene	µg/L	80%	< 0.20	< 0.20	*	< 0.20	< 0.20	*
Toluene	µg/L	80%	< 0.20	< 0.20	*	1.9	1.7	11%
Trichloroethane, 1,1,1-	µg/L	80%	< 0.30	< 0.30	*	< 0.30	< 0.30	*
Trichloroethane, 1,1,2-	µg/L	80%	< 0.20	< 0.20	*	< 0.20	< 0.20	*
Trichloroethylene	µg/L	80%	< 0.20	< 0.20	*	< 0.20	< 0.20	*
Trichlorofluoromethane	µg/L	80%	< 0.40	< 0.40	*	< 0.40	< 0.40	*
Vinyl Chloride	µg/L	80%	< 0.17	< 0.17	*	< 0.17	< 0.17	*
Xylenes	µg/L	80%	< 0.20	< 0.20	*	0.56	0.54	*
Xylenes, m+p-	µg/L	80%	< 0.20	< 0.20	*	0.33	0.31	*
Xylenes, o-	µg/L	80%	< 0.10	< 0.10	*	0.23	0.23	*

Footnotes:

Additional terms may be defined within the body of SNC-Lavalin's report.
< - Denotes concentration less than indicated detection limit
"-" - Not analyzed
na - Not applicable
µg/L – micrograms per litre
µS/cm - microSiemens per centimetre
mg/L - milligrams per litre
* - RPD not calculable
RPD - Relative Percent Difference (not calculated when one or both results are less than or equal to 5X RDL)

BOLD RPD exceeds limit

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

CLIENT NAME: SNC LAVALIN INC
235 LESMILL ROAD
TORONTO, ON M3B 2V1
(416) 679-6000

ATTENTION TO: Robert Mitzakov

PROJECT: 665125

AGAT WORK ORDER: 19T484919

TRACE ORGANICS REVIEWED BY: Neli Popnikolova, Senior Chemist

WATER ANALYSIS REVIEWED BY: Parvathi Malemath, Data Reviewer

DATE REPORTED: Jul 05, 2019

PAGES (INCLUDING COVER): 19

VERSION*: 2

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

*NOTES
VERSION 2: Revised report with sample ID amendment issued on July 12, 2019.

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.

Member of: Association of Professional Engineers and Geoscientists of Alberta (APEGA)
Western Enviro-Agricultural Laboratory Association (WEALA)
Environmental Services Association of Alberta (ESAA)

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Results relate only to the items tested. Results apply to samples as received.
All reportable information as specified by ISO 17025:2017 is available from AGAT Laboratories upon request

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
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FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 19T484919
PROJECT: 665125

CLIENT NAME: SNC LAVALIN INC
SAMPLING SITE:10192 Hwy 50, Brampton, ON

ATTENTION TO: Robert Mitzakov
SAMPLED BY:Sara Akib

O. Reg. 153(511) - PAHs (Water)

DATE RECEIVED: 2019-06-26

DATE REPORTED: 2019-07-05

		SAMPLE DESCRIPTION:		MW-03	MW-02	MW-22	MW-35	MW-30	MW-70
		SAMPLE TYPE:		Water	Water	Water	Water	Water	Water
		DATE SAMPLED:		2019-06-25	2019-06-24	2019-06-25	2019-06-24	2019-06-24	2019-06-24
Parameter	Unit	G / S	RDL	306131	306302	306303	306309	306340	306341
Naphthalene	µg/L	1400	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Acenaphthylene	µg/L	1.4	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Acenaphthene	µg/L	600	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Fluorene	µg/L	290	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Phenanthrene	µg/L	380	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Anthracene	µg/L	1	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Fluoranthene	µg/L	73	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Pyrene	µg/L	5.7	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Benz(a)anthracene	µg/L	1.8	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Chrysene	µg/L	0.7	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Benzo(b)fluoranthene	µg/L	0.75	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Benzo(k)fluoranthene	µg/L	0.4	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Benzo(a)pyrene	µg/L	0.81	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Indeno(1,2,3-cd)pyrene	µg/L	0.2	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dibenz(a,h)anthracene	µg/L	0.4	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Benzo(g,h,i)perylene	µg/L	0.2	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
2-and 1-methyl Naphthalene	µg/L	1500	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Surrogate	Unit	Acceptable Limits							
Chrysene-d12	%	50-140		106	106	94	83	95	85

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Ground Water - All Types of Property Uses
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

306131-306341 Note: The result for Benzo(b)Fluoranthene is the total of the Benzo(b)&(j)Fluoranthene isomers because the isomers co-elute on the GC column.
2- and 1-Methyl Naphthalene is a calculated parameter. The calculated value is the sum of 2-Methyl Naphthalene and 1-Methyl Naphthalene.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: NPopnikolof

Results relate only to the items tested. Results apply to samples as received.

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Certificate of Analysis

AGAT WORK ORDER: 19T484919

PROJECT: 665125

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10192 Hwy 50, Brampton, ON

SAMPLED BY:Sara Akib

O. Reg. 153(511) - PHCs F1 - F4 (-BTEX) (Water)

DATE RECEIVED: 2019-06-26

DATE REPORTED: 2019-07-05

		SAMPLE DESCRIPTION:		MW-51	Field Blank
		SAMPLE TYPE:		Water	Water
		DATE SAMPLED:		2019-06-24	2019-06-24
Parameter	Unit	G / S	RDL	306316	306345
F1 (C6 - C10)	µg/L		25	<25	<25
F1 (C6 to C10) minus BTEX	µg/L	420	25	<25	<25
F2 (C10 to C16)	µg/L	150	100	<100	<100
F3 (C16 to C34)	µg/L	500	100	<100	<100
F4 (C34 to C50)	µg/L	500	100	<100	<100
Gravimetric Heavy Hydrocarbons	µg/L	500	500	NA	NA
Surrogate	Unit	Acceptable Limits			
Terphenyl	%	60-140		69	67

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Ground Water - All Types of Property Uses
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

306316-306345 The C6-C10 fraction is calculated using Toluene response factor.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and nC34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16 - C50 and are only determined if the chromatogram of the C34 - C50 Hydrocarbons indicated that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6-C50 results are corrected for BTEX contribution.
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC6 and nC10 response factors are within 30% of Toluene response factor.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.
Fractions 1-4 are quantified with the contribution of PAHs. Under Ontario Regulation 153, results are considered valid without determining the PAH contribution if not requested by the client.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: N Popnikolof

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AGAT WORK ORDER: 19T484919

PROJECT: 665125

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10192 Hwy 50, Brampton, ON

SAMPLED BY:Sara Akib

O. Reg. 153(511) - PHCs F1 - F4 (with PAHs and VOC) (Water)

DATE RECEIVED: 2019-06-26

DATE REPORTED: 2019-07-05

		SAMPLE DESCRIPTION:		MW-03	MW-02	MW-22	MW-35	MW-30	MW-70
		SAMPLE TYPE:		Water	Water	Water	Water	Water	Water
		DATE SAMPLED:		2019-06-25	2019-06-24	2019-06-25	2019-06-24	2019-06-24	2019-06-24
Parameter	Unit	G / S	RDL	306131	306302	306303	306309	306340	306341
F1 (C6-C10)	µg/L		25	<25	<25	<25	<25	<25	<25
F1 (C6 to C10) minus BTEX	µg/L	420	25	<25	<25	<25	<25	<25	<25
F2 (C10 to C16)	µg/L	150	100	<100	<100	<100	<100	<100	<100
F2 (C10 to C16) minus Naphthalene	µg/L		100	<100	<100	<100	<100	<100	<100
F3 (C16 to C34)	µg/L	500	100	<100	<100	<100	<100	<100	<100
F3 (C16 to C34) minus PAHs	µg/L		100	<100	<100	<100	<100	<100	<100
F4 (C34 to C50)	µg/L	500	100	<100	<100	<100	<100	<100	<100
Gravimetric Heavy Hydrocarbons	µg/L	500	500	NA	NA	NA	NA	NA	NA
Surrogate	Unit	Acceptable Limits							
Terphenyl	%	60-140		77	112	89	110	83	72

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Ground Water - All Types of Property Uses
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

306131-306341 The C6-C10 fraction is calculated using toluene response factor.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6 - C50 results are corrected for BTEX and PAH contributions.
C>10 – C16 (F2- Naphthalene) is a calculated parameter. The calculated value is F2 - Naphthalene.
C>16 - C34 (F3-PAH) is a calculated parameter. The calculated value is F3-PAH (PAH: sum of Phenanthrene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-c,d)pyrene and Pyrene).
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 + nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: N Popnikolof

Results relate only to the items tested. Results apply to samples as received.

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AGAT WORK ORDER: 19T484919

PROJECT: 665125

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10192 Hwy 50, Brampton, ON

SAMPLED BY:Sara Akib

O. Reg. 153(511) - PHCs F1/BTEX (Water)

DATE RECEIVED: 2019-06-26

DATE REPORTED: 2019-07-05

			SAMPLE DESCRIPTION:	MW-511
			SAMPLE TYPE:	Water
			DATE SAMPLED:	2019-06-24
Parameter	Unit	G / S	RDL	306337
F1 (C6-C10)	µg/L		25	<25
F1 (C6 to C10) minus BTEX	µg/L	420	25	<25

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Ground Water - All Types of Property Uses
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

306337 The C6-C10 fraction is calculated using Toluene response factor.
Total C6-C10 results are corrected for BTEX contributions.
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC6 and nC10 response factors are within 30% of Toluene response factor.
Extraction and holding times were met for this sample.
NA = Not Applicable

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

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AGAT WORK ORDER: 19T484919

PROJECT: 665125

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10192 Hwy 50, Brampton, ON

SAMPLED BY:Sara Akib

O. Reg. 153(511) - VOCs (Water)

DATE RECEIVED: 2019-06-26

DATE REPORTED: 2019-07-05

		SAMPLE DESCRIPTION:		MW-03	MW-02	MW-22	MW-35	MW-51	MW-511	MW-30	MW-70
		SAMPLE TYPE:		Water	Water	Water	Water	Water	Water	Water	Water
		DATE SAMPLED:		2019-06-25	2019-06-24	2019-06-25	2019-06-24	2019-06-24	2019-06-24	2019-06-24	2019-06-24
Parameter	Unit	G / S	RDL	306131	306302	306303	306309	306316	306337	306340	306341
Dichlorodifluoromethane	µg/L	3500	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Vinyl Chloride	µg/L	0.5	0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Bromomethane	µg/L	5.6	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Trichlorofluoromethane	µg/L	2000	0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Acetone	µg/L	100000	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethylene	µg/L	1.6	0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Methylene Chloride	µg/L	610	0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
trans- 1,2-Dichloroethylene	µg/L	1.6	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Methyl tert-butyl ether	µg/L	190	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,1-Dichloroethane	µg/L	320	0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Methyl Ethyl Ketone	µg/L	470000	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis- 1,2-Dichloroethylene	µg/L	1.6	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Chloroform	µg/L	2.4	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,2-Dichloroethane	µg/L	1.6	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,1,1-Trichloroethane	µg/L	640	0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Carbon Tetrachloride	µg/L	0.79	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Benzene	µg/L	44	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,2-Dichloropropane	µg/L	16	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Trichloroethylene	µg/L	1.6	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Bromodichloromethane	µg/L	67000	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Methyl Isobutyl Ketone	µg/L	140000	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	µg/L	4.7	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	µg/L	14000	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dibromochloromethane	µg/L	65000	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Ethylene Dibromide	µg/L	0.25	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Tetrachloroethylene	µg/L	1.6	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,1,1,2-Tetrachloroethane	µg/L	3.3	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorobenzene	µg/L	500	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Ethylbenzene	µg/L	1800	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
m & p-Xylene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20

Certified By: N Popnikolof

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Certificate of Analysis

AGAT WORK ORDER: 19T484919

PROJECT: 665125

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10192 Hwy 50, Brampton, ON

SAMPLED BY:Sara Akib

O. Reg. 153(511) - VOCs (Water)

DATE RECEIVED: 2019-06-26

DATE REPORTED: 2019-07-05

		SAMPLE DESCRIPTION:		MW-03	MW-02	MW-22	MW-35	MW-51	MW-511	MW-30	MW-70
		SAMPLE TYPE:		Water	Water	Water	Water	Water	Water	Water	Water
		DATE SAMPLED:		2019-06-25	2019-06-24	2019-06-25	2019-06-24	2019-06-24	2019-06-24	2019-06-24	2019-06-24
Parameter	Unit	G / S	RDL	306131	306302	306303	306309	306316	306337	306340	306341
Bromoform	µg/L	380	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Styrene	µg/L	1300	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1,1,2,2-Tetrachloroethane	µg/L	3.2	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
o-Xylene	µg/L		0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1,3-Dichlorobenzene	µg/L	7600	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1,4-Dichlorobenzene	µg/L	8	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1,2-Dichlorobenzene	µg/L	4600	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1,3-Dichloropropene	µg/L	5.2	0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Xylene Mixture	µg/L	3300	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
n-Hexane	µg/L	51	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Surrogate	Unit	Acceptable Limits									
Toluene-d8	% Recovery	50-140		83	82	92	92	90	82	84	87
4-Bromofluorobenzene	% Recovery	50-140		75	73	88	83	88	75	76	82

Certified By:

Results relate only to the items tested. Results apply to samples as received.

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AGAT WORK ORDER: 19T484919

PROJECT: 665125

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10192 Hwy 50, Brampton, ON

SAMPLED BY:Sara Akib

O. Reg. 153(511) - VOCs (Water)

DATE RECEIVED: 2019-06-26

DATE REPORTED: 2019-07-05

		SAMPLE DESCRIPTION:		Field Blank	Trip Blank
		SAMPLE TYPE:		Water	Water
		DATE SAMPLED:		2019-06-24	2019-06-24
Parameter	Unit	G / S	RDL	306345	306348
Dichlorodifluoromethane	µg/L	3500	0.20	<0.20	<0.20
Vinyl Chloride	µg/L	0.5	0.17	<0.17	<0.17
Bromomethane	µg/L	5.6	0.20	<0.20	<0.20
Trichlorofluoromethane	µg/L	2000	0.40	<0.40	<0.40
Acetone	µg/L	100000	1.0	<1.0	<1.0
1,1-Dichloroethylene	µg/L	1.6	0.30	<0.30	<0.30
Methylene Chloride	µg/L	610	0.30	<0.30	<0.30
trans- 1,2-Dichloroethylene	µg/L	1.6	0.20	<0.20	<0.20
Methyl tert-butyl ether	µg/L	190	0.20	<0.20	<0.20
1,1-Dichloroethane	µg/L	320	0.30	<0.30	<0.30
Methyl Ethyl Ketone	µg/L	470000	1.0	<1.0	<1.0
cis- 1,2-Dichloroethylene	µg/L	1.6	0.20	<0.20	<0.20
Chloroform	µg/L	2.4	0.20	<0.20	<0.20
1,2-Dichloroethane	µg/L	1.6	0.20	<0.20	<0.20
1,1,1-Trichloroethane	µg/L	640	0.30	<0.30	<0.30
Carbon Tetrachloride	µg/L	0.79	0.20	<0.20	<0.20
Benzene	µg/L	44	0.20	<0.20	<0.20
1,2-Dichloropropane	µg/L	16	0.20	<0.20	<0.20
Trichloroethylene	µg/L	1.6	0.20	<0.20	<0.20
Bromodichloromethane	µg/L	67000	0.20	<0.20	<0.20
Methyl Isobutyl Ketone	µg/L	140000	1.0	<1.0	<1.0
1,1,2-Trichloroethane	µg/L	4.7	0.20	<0.20	<0.20
Toluene	µg/L	14000	0.20	<0.20	<0.20
Dibromochloromethane	µg/L	65000	0.10	<0.10	<0.10
Ethylene Dibromide	µg/L	0.25	0.10	<0.10	<0.10
Tetrachloroethylene	µg/L	1.6	0.20	<0.20	<0.20
1,1,1,2-Tetrachloroethane	µg/L	3.3	0.10	<0.10	<0.10
Chlorobenzene	µg/L	500	0.10	<0.10	<0.10
Ethylbenzene	µg/L	1800	0.10	<0.10	<0.10
m & p-Xylene	µg/L		0.20	<0.20	<0.20

Certified By: N Popnikolof

Results relate only to the items tested. Results apply to samples as received.

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AGAT WORK ORDER: 19T484919

PROJECT: 665125

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10192 Hwy 50, Brampton, ON

SAMPLED BY:Sara Akib

O. Reg. 153(511) - VOCs (Water)

DATE RECEIVED: 2019-06-26

DATE REPORTED: 2019-07-05

		SAMPLE DESCRIPTION:		Field Blank	Trip Blank
		SAMPLE TYPE:		Water	Water
		DATE SAMPLED:		2019-06-24	2019-06-24
Parameter	Unit	G / S	RDL	306345	306348
Bromoform	µg/L	380	0.10	<0.10	<0.10
Styrene	µg/L	1300	0.10	<0.10	<0.10
1,1,2,2-Tetrachloroethane	µg/L	3.2	0.10	<0.10	<0.10
o-Xylene	µg/L		0.10	<0.10	<0.10
1,3-Dichlorobenzene	µg/L	7600	0.10	<0.10	<0.10
1,4-Dichlorobenzene	µg/L	8	0.10	<0.10	<0.10
1,2-Dichlorobenzene	µg/L	4600	0.10	<0.10	<0.10
1,3-Dichloropropene	µg/L	5.2	0.30	<0.30	<0.30
Xylene Mixture	µg/L	3300	0.20	<0.20	<0.20
n-Hexane	µg/L	51	0.20	<0.20	<0.20
Surrogate	Unit	Acceptable Limits			
Toluene-d8	% Recovery	50-140		83	89
4-Bromofluorobenzene	% Recovery	50-140		74	76

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Ground Water - All Types of Property Uses
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

306131-306348 Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.
1,3-Dichloropropene total is a calculated parameter. The calculated value is the sum of Cis-1,3-Dichloropropene and Trans-1,3-Dichloropropene.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

5835 COOPERS AVENUE
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http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 19T484919

PROJECT: 665125

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10192 Hwy 50, Brampton, ON

SAMPLED BY:Sara Akib

O. Reg. 153(511) - Metals & Inorganics (Water)

DATE RECEIVED: 2019-06-26

DATE REPORTED: 2019-07-05

		SAMPLE DESCRIPTION:		MW-03	MW-02	MW-22	MW-35	MW-30	MW-70
		SAMPLE TYPE:		Water	Water	Water	Water	Water	Water
		DATE SAMPLED:		2019-06-25	2019-06-24	2019-06-25	2019-06-24	2019-06-24	2019-06-24
Parameter	Unit	G / S	RDL	306131	306302	306303	306309	306340	306341
Barium	µg/L	23000	2.0	56.8	131	79.4	68.0	86.4	67.3
Beryllium	µg/L	53	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Boron	µg/L	36000	10.0	73.6	82.3	53.1	68.3	49.5	155
Cadmium	µg/L	2.1	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chromium	µg/L	640	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Cobalt	µg/L	52	0.5	1.5	<0.5	0.9	0.6	1.0	<0.5
Copper	µg/L	69	1.0	<1.0	<1.0	<1.0	2.5	<1.0	<1.0
Lead	µg/L	20	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Molybdenum	µg/L	7300	0.5	14.9	7.0	15.7	73.2	6.9	120
Nickel	µg/L	390	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0
Silver	µg/L	1.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	400	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Uranium	µg/L	330	0.5	1.2	<0.5	6.7	3.8	3.2	2.5
Vanadium	µg/L	200	0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Zinc	µg/L	890	5.0	<5.0	<5.0	<5.0	<5.0	<5.0	19.7
Mercury	µg/L		0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Chromium VI	µg/L	110	5	<5	<5	<5	<5	<5	<5
Cyanide	µg/L	52	2	<2	<2	<2	<2	<2	<2
Sodium	µg/L	1800000	1000	83400	26200	25400	59300	29400	93400
Chloride	µg/L	1800000	500	149000	<500	25200	10500	51200	23500
Electrical Conductivity	uS/cm	NA	2	1100	953	1230	1170	1040	975
pH	pH Units		NA	7.71	7.82	7.88	8.00	7.84	7.98

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Ground Water - All Types of Property Uses
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

306131-306341 Elevated RDLs indicate the degree of sample dilutions prior to analyses to keep analytes within the calibration range, reduce matrix interference and to avoid contaminating the instruments.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC
PROJECT: 665125
SAMPLING SITE:10192 Hwy 50, Brampton, ON

AGAT WORK ORDER: 19T484919
ATTENTION TO: Robert Mitzakov
SAMPLED BY:Sara Akib

Trace Organics Analysis

RPT Date: Jul 05, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - VOCs (Water)															
Dichlorodifluoromethane	306345	306345	< 0.20	< 0.20	NA	< 0.20	92%	50%	140%	85%	50%	140%	85%	50%	140%
Vinyl Chloride	306345	306345	< 0.17	< 0.17	NA	< 0.17	85%	50%	140%	102%	50%	140%	101%	50%	140%
Bromomethane	306345	306345	< 0.20	< 0.20	NA	< 0.20	93%	50%	140%	95%	50%	140%	102%	50%	140%
Trichlorofluoromethane	306345	306345	< 0.40	< 0.40	NA	< 0.40	112%	50%	140%	110%	50%	140%	85%	50%	140%
Acetone	306345	306345	< 1.0	< 1.0	NA	< 1.0	112%	50%	140%	105%	50%	140%	91%	50%	140%
1,1-Dichloroethylene	306345	306345	< 0.30	< 0.30	NA	< 0.30	77%	50%	140%	87%	60%	130%	83%	50%	140%
Methylene Chloride	306345	306345	< 0.30	< 0.30	NA	< 0.30	102%	50%	140%	85%	60%	130%	100%	50%	140%
trans- 1,2-Dichloroethylene	306345	306345	< 0.20	< 0.20	NA	< 0.20	83%	50%	140%	103%	60%	130%	83%	50%	140%
Methyl tert-butyl ether	306345	306345	< 0.20	< 0.20	NA	< 0.20	104%	50%	140%	108%	60%	130%	78%	50%	140%
1,1-Dichloroethane	306345	306345	< 0.30	< 0.30	NA	< 0.30	91%	50%	140%	109%	60%	130%	86%	50%	140%
Methyl Ethyl Ketone	306345	306345	< 1.0	< 1.0	NA	< 1.0	96%	50%	140%	107%	50%	140%	80%	50%	140%
cis- 1,2-Dichloroethylene	306345	306345	< 0.20	< 0.20	NA	< 0.20	90%	50%	140%	105%	60%	130%	78%	50%	140%
Chloroform	306345	306345	< 0.20	< 0.20	NA	< 0.20	89%	50%	140%	100%	60%	130%	80%	50%	140%
1,2-Dichloroethane	306345	306345	< 0.20	< 0.20	NA	< 0.20	118%	50%	140%	100%	60%	130%	88%	50%	140%
1,1,1-Trichloroethane	306345	306345	< 0.30	< 0.30	NA	< 0.30	77%	50%	140%	91%	60%	130%	82%	50%	140%
Carbon Tetrachloride	306345	306345	< 0.20	< 0.20	NA	< 0.20	74%	50%	140%	77%	60%	130%	90%	50%	140%
Benzene	306345	306345	< 0.20	< 0.20	NA	< 0.20	98%	50%	140%	112%	60%	130%	77%	50%	140%
1,2-Dichloropropane	306345	306345	< 0.20	< 0.20	NA	< 0.20	107%	50%	140%	117%	60%	130%	94%	50%	140%
Trichloroethylene	306345	306345	< 0.20	< 0.20	NA	< 0.20	86%	50%	140%	100%	60%	130%	122%	50%	140%
Bromodichloromethane	306345	306345	< 0.20	< 0.20	NA	< 0.20	96%	50%	140%	114%	60%	130%	76%	50%	140%
Methyl Isobutyl Ketone	306345	306345	< 1.0	< 1.0	NA	< 1.0	122%	50%	140%	103%	50%	140%	120%	50%	140%
1,1,2-Trichloroethane	306345	306345	< 0.20	< 0.20	NA	< 0.20	102%	50%	140%	99%	60%	130%	111%	50%	140%
Toluene	306345	306345	< 0.20	< 0.20	NA	< 0.20	87%	50%	140%	83%	60%	130%	95%	50%	140%
Dibromochloromethane	306345	306345	< 0.10	< 0.10	NA	< 0.10	84%	50%	140%	86%	60%	130%	77%	50%	140%
Ethylene Dibromide	306345	306345	< 0.10	< 0.10	NA	< 0.10	95%	50%	140%	96%	60%	130%	108%	50%	140%
Tetrachloroethylene	306345	306345	< 0.20	< 0.20	NA	< 0.20	82%	50%	140%	82%	60%	130%	88%	50%	140%
1,1,1,2-Tetrachloroethane	306345	306345	< 0.10	< 0.10	NA	< 0.10	85%	50%	140%	85%	60%	130%	80%	50%	140%
Chlorobenzene	306345	306345	< 0.10	< 0.10	NA	< 0.10	90%	50%	140%	86%	60%	130%	96%	50%	140%
Ethylbenzene	306345	306345	< 0.10	< 0.10	NA	< 0.10	80%	50%	140%	76%	60%	130%	88%	50%	140%
m & p-Xylene	306345	306345	< 0.20	< 0.20	NA	< 0.20	85%	50%	140%	82%	60%	130%	81%	50%	140%
Bromoform	306345	306345	< 0.10	< 0.10	NA	< 0.10	81%	50%	140%	81%	60%	130%	86%	50%	140%
Styrene	306345	306345	< 0.10	< 0.10	NA	< 0.10	74%	50%	140%	82%	60%	130%	83%	50%	140%
1,1,2,2-Tetrachloroethane	306345	306345	< 0.10	< 0.10	NA	< 0.10	102%	50%	140%	95%	60%	130%	82%	50%	140%
o-Xylene	306345	306345	< 0.10	< 0.10	NA	< 0.10	84%	50%	140%	79%	60%	130%	90%	50%	140%
1,3-Dichlorobenzene	306345	306345	< 0.10	< 0.10	NA	< 0.10	84%	50%	140%	82%	60%	130%	91%	50%	140%
1,4-Dichlorobenzene	306345	306345	< 0.10	< 0.10	NA	< 0.10	84%	50%	140%	80%	60%	130%	93%	50%	140%
1,2-Dichlorobenzene	306345	306345	< 0.10	< 0.10	NA	< 0.10	89%	50%	140%	85%	60%	130%	98%	50%	140%
1,3-Dichloropropene	306345	306345	< 0.30	< 0.30	NA	< 0.30	85%	50%	140%	98%	60%	130%	86%	50%	140%
n-Hexane	306345	306345	< 0.20	< 0.20	NA	< 0.20	89%	50%	140%	85%	60%	130%	83%	50%	140%

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC
PROJECT: 665125
SAMPLING SITE:10192 Hwy 50, Brampton, ON

AGAT WORK ORDER: 19T484919
ATTENTION TO: Robert Mitzakov
SAMPLED BY:Sara Akib

Trace Organics Analysis (Continued)

RPT Date: Jul 05, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - PHCs F1 - F4 (with PAHs and VOC) (Water)															
F1 (C6-C10)	304227		< 25	< 25	NA	< 25	93%	60%	140%	95%	60%	140%	92%	60%	140%
F2 (C10 to C16)		TW	< 100	< 100	NA	< 100	112%	60%	140%	81%	60%	140%	80%	60%	140%
F3 (C16 to C34)		TW	< 100	< 100	NA	< 100	110%	60%	140%	118%	60%	140%	118%	60%	140%
F4 (C34 to C50)		TW	< 100	< 100	NA	< 100	108%	60%	140%	87%	60%	140%	88%	60%	140%
O. Reg. 153(511) - PAHs (Water)															
Naphthalene		TW	< 0.20	< 0.20	NA	< 0.20	113%	50%	140%	86%	50%	140%	87%	50%	140%
Acenaphthylene		TW	< 0.20	< 0.20	NA	< 0.20	115%	50%	140%	87%	50%	140%	87%	50%	140%
Acenaphthene		TW	< 0.20	< 0.20	NA	< 0.20	113%	50%	140%	88%	50%	140%	88%	50%	140%
Fluorene		TW	< 0.20	< 0.20	NA	< 0.20	116%	50%	140%	90%	50%	140%	92%	50%	140%
Phenanthrene		TW	< 0.10	< 0.10	NA	< 0.10	112%	50%	140%	87%	50%	140%	89%	50%	140%
Anthracene		TW	< 0.10	< 0.10	NA	< 0.10	108%	50%	140%	87%	50%	140%	87%	50%	140%
Fluoranthene		TW	< 0.20	< 0.20	NA	< 0.20	113%	50%	140%	96%	50%	140%	97%	50%	140%
Pyrene		TW	< 0.20	< 0.20	NA	< 0.20	110%	50%	140%	96%	50%	140%	97%	50%	140%
Benz(a)anthracene		TW	< 0.20	< 0.20	NA	< 0.20	91%	50%	140%	83%	50%	140%	84%	50%	140%
Chrysene		TW	< 0.10	< 0.10	NA	< 0.10	92%	50%	140%	80%	50%	140%	81%	50%	140%
Benzo(b)fluoranthene		TW	< 0.10	< 0.10	NA	< 0.10	111%	50%	140%	102%	50%	140%	103%	50%	140%
Benzo(k)fluoranthene		TW	< 0.10	< 0.10	NA	< 0.10	116%	50%	140%	102%	50%	140%	101%	50%	140%
Benzo(a)pyrene		TW	< 0.01	< 0.01	NA	< 0.01	116%	50%	140%	97%	50%	140%	105%	50%	140%
Indeno(1,2,3-cd)pyrene		TW	< 0.20	< 0.20	NA	< 0.20	101%	50%	140%	89%	50%	140%	85%	50%	140%
Dibenz(a,h)anthracene		TW	< 0.20	< 0.20	NA	< 0.20	101%	50%	140%	90%	50%	140%	89%	50%	140%
Benzo(g,h,i)perylene		TW	< 0.20	< 0.20	NA	< 0.20	102%	50%	140%	94%	50%	140%	85%	50%	140%

Comments: Tap water analysis has been performed as QC sample testing for duplicate and matrix spike due to insufficient sample volume.
When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By: N Popowkolof

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC

PROJECT: 665125

SAMPLING SITE:10192 Hwy 50, Brampton, ON

AGAT WORK ORDER: 19T484919

ATTENTION TO: Robert Mitzakov

SAMPLED BY:Sara Akib

Water Analysis

RPT Date: Jul 05, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - Metals & Inorganics (Water)															
Barium	306131	306131	56.8	54.9	3.4%	< 2.0	101%	70%	130%	100%	80%	120%	100%	70%	130%
Beryllium	306131	306131	< 0.5	<0.5	NA	< 0.5	104%	70%	130%	104%	80%	120%	104%	70%	130%
Boron	306131	306131	73.6	74.5	1.2%	< 10.0	101%	70%	130%	109%	80%	120%	105%	70%	130%
Cadmium	306131	306131	< 0.2	<0.2	NA	< 0.2	100%	70%	130%	100%	80%	120%	106%	70%	130%
Chromium	306131	306131	< 2.0	<2.0	NA	< 2.0	101%	70%	130%	105%	80%	120%	104%	70%	130%
Cobalt	306131	306131	1.5	1.5	NA	< 0.5	103%	70%	130%	105%	80%	120%	101%	70%	130%
Copper	306131	306131	< 1.0	<1.0	NA	< 1.0	101%	70%	130%	103%	80%	120%	96%	70%	130%
Lead	306131	306131	< 0.5	<0.5	NA	< 0.5	98%	70%	130%	102%	80%	120%	98%	70%	130%
Molybdenum	306131	306131	14.9	15.0	0.7%	< 0.5	100%	70%	130%	103%	80%	120%	111%	70%	130%
Nickel	306131	306131	< 1.0	<1.0	NA	< 1.0	102%	70%	130%	103%	80%	120%	97%	70%	130%
Silver	306131	306131	< 0.2	<0.2	NA	< 0.2	101%	70%	130%	107%	80%	120%	94%	70%	130%
Thallium	306131	306131	< 0.3	<0.3	NA	< 0.3	101%	70%	130%	107%	80%	120%	102%	70%	130%
Uranium	306131	306131	1.2	1.2	NA	< 0.5	100%	70%	130%	105%	80%	120%	104%	70%	130%
Vanadium	306131	306131	< 0.4	<0.4	NA	< 0.4	95%	70%	130%	100%	80%	120%	100%	70%	130%
Zinc	306131	306131	< 5.0	<5.0	NA	< 5.0	101%	70%	130%	96%	80%	120%	96%	70%	130%
Mercury	306131	306131	<0.02	<0.02	NA	< 0.02	104%	70%	130%	100%	80%	120%	97%	70%	130%
Chromium VI	303908		<5	<5	NA	< 5	101%	70%	130%	101%	80%	120%	101%	70%	130%
Cyanide	301574		<2	<2	NA	< 2	94%	70%	130%	101%	80%	120%	96%	70%	130%
Sodium	301575		42100	41600	1.2%	< 500	97%	70%	130%	97%	80%	120%	98%	70%	130%
Chloride	306131	306131	149000	144000	3.4%	< 100	107%	70%	130%	93%	70%	130%	106%	70%	130%
Electrical Conductivity	306131	306131	1100	1100	0.0%	< 2	96%	90%	110%						
pH	306131	306131	7.71	7.66	0.7%	NA	101%	90%	110%						

Comments: NA signifies Not Applicable.
Duplicate Qualifier: For duplicates as the measured result approaches the Reporting Limit (RL), the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

Certified By:

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Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T484919

PROJECT: 665125

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10192 Hwy 50, Brampton, ON

SAMPLED BY:Sara Akib

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Naphthalene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Acenaphthylene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Acenaphthene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Fluorene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Phenanthrene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Anthracene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Fluoranthene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Pyrene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Benz(a)anthracene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Chrysene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Benzo(b)fluoranthene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Benzo(k)fluoranthene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Benzo(a)pyrene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Dibenz(a,h)anthracene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Benzo(g,h,i)perylene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
2-and 1-methyl Naphthalene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Chrysene-d12	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
F1 (C6 - C10)	VOL-91- 5010	MOE PHC E3421	(P&T)GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5010	MOE PHC E3421	(P&T)GC/FID
F2 (C10 to C16)	VOL-91-5010	MOE PHC E3421	GC / FID
F3 (C16 to C34)	VOL-91-5010	MOE PHC E3421	GC / FID
F4 (C34 to C50)	VOL-91-5010	MOE PHC E3421	GC / FID
Gravimetric Heavy Hydrocarbons	VOL-91-5010	MOE PHC E3421	BALANCE
Terphenyl	VOL-91-5010		GC/FID
F1 (C6-C10)	VOL-91- 5010	MOE PHC-E3421	P&T GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5010	MOE PHC E3421	P&T GC/FID
F2 (C10 to C16)	VOL-91-5010	MOE PHC E3421	GC/FID
F2 (C10 to C16) minus Naphthalene	VOL-91-5010	MOE PHC E3421	GC/FID
F3 (C16 to C34)	VOL-91-5010	MOE PHC E3421	GC/FID
F3 (C16 to C34) minus PAHs	VOL-91-5010	MOE PHC E3421	GC/FID
F4 (C34 to C50)	VOL-91-5010	MOE PHC E3421	GC/FID
F1 (C6-C10)	VOL-91- 5010	MOE E3421	(P&T)GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5010	MOE PHC-E3421	P&T GC/FID
Dichlorodifluoromethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Vinyl Chloride	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Bromomethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Acetone	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Methylene Chloride	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
trans- 1,2-Dichloroethylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Methyl tert-butyl ether	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
cis- 1,2-Dichloroethylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Chloroform	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS

Results relate only to the items tested. Results apply to samples as received.

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
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FAX (905)712-5122
http://www.agatlabs.com

Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T484919

PROJECT: 665125

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10192 Hwy 50, Brampton, ON

SAMPLED BY:Sara Akib

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Carbon Tetrachloride	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Benzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Trichloroethylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Bromodichloromethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Toluene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Dibromochloromethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Chlorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Ethylbenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
m & p-Xylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Bromoform	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Styrene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
o-Xylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,3-Dichloropropene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Xylene Mixture	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
n-Hexane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Toluene-d8	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS

Results relate only to the items tested. Results apply to samples as received.

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FAX (905)712-5122
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Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T484919

PROJECT: 665125

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10192 Hwy 50, Brampton, ON

SAMPLED BY:Sara Akib

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Water Analysis			
Barium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Beryllium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Boron	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Cadmium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Chromium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Cobalt	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Copper	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Lead	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Molybdenum	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Nickel	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Silver	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Thallium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Uranium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Vanadium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Zinc	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Mercury	MET-93-6100	EPA SW 846 7470 & 245.1	CVAAS
Chromium VI	INOR-93-6034	SM 3500-Cr B	SPECTROPHOTOMETER
Cyanide	INOR-93-6052	MOE METHOD CN- 3015 & SM 4500 CN- I	TECHNICON AUTO ANALYZER
Sodium	MET-93-6105	EPA SW-846 6010C & 200.7	ICP/OES
Chloride	INOR-93-6004	SM 4110 B	ION CHROMATOGRAPH
Electrical Conductivity	INOR-93-6000	SM 2510 B	PC TITRATE
pH	INOR-93-6000	SM 4500-H+ B	PC TITRATE

Results relate only to the items tested. Results apply to samples as received.

1 of 2

2 coolers

AGAT Laboratories

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webearth.agatlabs.com

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Report Information:

Company: SNC Lavalin
Contact: Robert Mitzakov
Address: 235 Leslie Street
Toronto, ON
Phone: 416-635-5882 Fax: 55802
Reports to be sent to:
1. Email: Robert.Mitzakov@SNClavalin.com
2. Email:

Project Information:

Project: 665125
Site Location: 10192 Hwy 50, Brampton, ON
Sampled By: Sara Akib
AGAT Quote #: PO:
Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

Bill To Same: Yes ☐ No ☐

Company: SNC lavalin
Contact:
Address:
Email: Payable@SNClavalin.com

Regulatory Requirements:

☐ No Regulatory Requirement
(Please check all applicable boxes)

☐ Regulation 153/04
Table ____ *Indicate One*
☐ Ind/Com
☐ Res/Park
☐ Agriculture
Soil Texture *(Check One)*
☐ Coarse
☐ Fine

☐ Sewer Use
☐ Sanitary
☐ Storm
Region ____ *Indicate One*
☐ MISA

☐ Regulation 558
☐ CCME
☐ Prov. Water Quality Objectives (PWQO)
☐ Other
____ *Indicate One*

Is this submission for a **Record of Site Condition?** ☑ Yes ☐ No

Report Guideline on *Certificate of Analysis* ☐ Yes ☐ No

Laboratory Use Only

Work Order #: 19T484919
Cooler Quantity:
Arrival Temperatures: SEE ATTACHED
Custody Seal Intact: ☐Yes ☐No ☐N/A
Notes:

Turnaround Time (TAT) Required:

Regular TAT ☑ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day

OR Date Required (Rush Surcharges May Apply):

Please provide prior notification for rush TAT
**TAT is exclusive of weekends and statutory holidays*

For 'Same Day' analysis, please contact your AGAT CPM

Sample Matrix Legend

B	Biota
GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI (Y/N)	O. Reg 153: Metals and Inorganics; All Metals ☐ 153 Metals (excl. Hydrides) ☐ Hydride Metals ☐ 153 Metals (Incl. Hydrides)	ORPs: ☐ B-HWS ☐ Cl ☐ CN ☐ Cr^{6+} ☐ EC ☐ FOC ☐ Hg ☐ pH ☐ SAR	Full Metals Scan	Regulation/Custom Metals	Nutrients: ☐ TP ☐ NH_3 ☐ TKN ☐ NO_3 ☐ NO_2 ☐ NO_2+NO_3	Volatiles: ☑ VOC ☐ BTEX ☐ THM	PHCs F1 - F4	ABNs	PAHs	PCBs: ☐ Total ☐ Aroclors	Organochlorine Pesticides	TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	Sewer Use	Potentially Hazardous or High Concentration (Y/N)
Freld blank	24/06/19	5:00pm	4									✓	✓						
trip blank	25		3									✓							

Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Sara Akib	25/06/19	10:50	MANOS JOHN	JUNE 26/19	8:45

Page ____ of ____

N°: T 090356

2012

3 coolers

AGAT Laboratories

5835 Coopers Avenue
Mississauga, Ontario L4Z 1Y2
Ph: 905.712.5100 Fax: 905.712.5122
webearth.agatlabs.com

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Laboratory Use Only

Work Order #: 19T484919

Cooler Quantity:

Arrival Temperatures:

Custody Seal Intact: ☐ Yes ☐ No ☐ N/A

Notes:

Report Information:

Company: SNC Lavalin
Contact: Robert Mitzakov
Address: 235 Leslie Street
Toronto, ON
Phone: 416-635-5882 Fax: 55802
Reports to be sent to:
1. Email: Robert.Mitzakov@SNClavalin.com
2. Email:

Regulatory Requirements: ☐ No Regulatory Requirement

(Please check all applicable boxes)

☑ Regulation 153/04
Table 9 (Indicate One)
☐ Ind/Com ☐ Res/Park ☐ Agriculture
Soil Texture (Check One) ☐ Coarse ☐ Fine

☐ Sewer Use
☐ Sanitary ☐ Storm
Region (Indicate One)
☐ MISA

☐ Regulation 558
☐ CCME
☐ Prov. Water Quality Objectives (PWQO)
☐ Other
(Indicate One)

Is this submission for a **Record of Site Condition?** ☑ Yes ☐ No

Report Guideline on *Certificate of Analysis* ☑ Yes ☐ No

Turnaround Time (TAT) Required:

Regular TAT ☑ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day

OR Date Required (Rush Surcharges May Apply):

Please provide prior notification for rush TAT
**TAT is exclusive of weekends and statutory holidays*

For 'Same Day' analysis, please contact your AGAT CPM

Project Information:

Project: 665125
Site Location: 10192 Hwy 50, Brampton, ON
Sampled By: Sara Akib
AGAT Quote #: PO:
Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

Bill To Same: Yes ☐ No ☐

Company: SNC lavalin
Contact:
Address:
Email: Payable@SNClavalin.com

Sample Matrix Legend

B	Biota
GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI (Y/N)	O. Reg 153: Metals and Inorganics (☐ All Metals ☐ 153 Metals (excl. Hydrides) ☐ Hydride Metals ☑ 153 Metals (incl. Hydrides))	ORPs: ☐ B-HWS ☐ Cl ☐ CN ☐ Cr^{6+} ☐ EC ☐ FOC ☐ Hg ☐ pH ☐ SAR	Full Metals Scan	Regulation/Custom Metals	Nutrients: ☐ TP ☐ NH_3 ☐ TKN ☐ NO_3 ☐ NO_2 ☐ NO_3+NO_2	Volatiles: ☐ VOC ☐ BTEX ☐ THM	PHCs F1 - F4	ABNs	PAHs	PCBs: ☐ Total ☐ Aroclors	Organochlorine Pesticides	☐ VOC ☐ ABNs ☐ BaP ☐ PCBs	Sewer Use	Potentially Hazardous or High Concentration (Y/N)
MW-03	25/06/19		13				✓					✓	✓		✓			✓	✓	
MW-02A	24/06/19	2:22pm	13				✓					✓	✓		✓			✓	✓	
MW-22	25/06/19	9:10	13				✓					✓	✓		✓			✓	✓	
~~MW-30~~	~~24/06/19~~																			
MW-35	24/06/19	1:17pm	13				✓					✓	✓		✓			✓	✓	
MW-51A	24/06/19	9:40am	7				✓					✓	✓		✓			✓	✓	
MW-51A	24/06/19	9:45am	6				✓					✓	✓		✓			✓	✓	
MW-30	24/06/19	12:05pm	13				✓					✓	✓		✓			✓	✓	
MW-70	24/06/19	10:50am	13				✓					✓	✓		✓			✓	✓	

Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Sara Akib	25/06/2019		~~Sara Akib~~	~~25/06/19~~	
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign): MANOS JOHN	Date JUNE 26/19	Time 8:45
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time

Page ____ of ____

Nº: T 090355

AGAT Laboratories

Sample Temperature Log

Client: SNC LAVALIN

COC# or Work Order #: _____

# of Coolers: 3

# of Submissions: _____

Arrival Temperatures - Branch/Driver

Cooler #1:	7.0	5.3	7.1
Cooler #2:	6.2	6.7	6.3
Cooler #3:	5.3	6.1	5.9
Cooler #4:			
Cooler #5:			
Cooler #6:			
Cooler #7:			
Cooler #8			
Cooler #9:			
Cooler #10:			

IR Gun ID: _____

Taken By: MANOJ JOHN

Date (yyyy/mm/dd): 2019/06/26 **Time:** 8 : 45 AM / PM

Arrival Temperatures - Laboratory

Cooler #1:			
Cooler #2:			
Cooler #3:			
Cooler #4:			
Cooler #5:			
Cooler #6:			
Cooler #7:			
Cooler #8			
Cooler #9:			
Cooler #10:			

IR Gun ID: _____

Taken By: _____

Date (yyyy/mm/dd): _____ **Time:** ____ : ____ AM / PM

Instructions for use of this form: 1) complete all fields of info including total # of coolers and # of submissions rec'd, 2) photocopy and place in each submission prior to giving a WO#, 3) Proceed as normal, write the WO# and scan (please make sure to scan along with the COC)

Document ID: SR-78-9511.003
Date Issued: 2017-2-23

Page:_____ of _____

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
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FAX (905)712-5122
http://www.agatlabs.com

CLIENT NAME: SNC LAVALIN INC
235 LESMILL ROAD
TORONTO, ON M3B 2V1
(416) 679-6000

ATTENTION TO: Robert Mitzakov

PROJECT: 665125

AGAT WORK ORDER: 19T485836

TRACE ORGANICS REVIEWED BY: Oksana Gushyla, Trace Organics Lab Supervisor

WATER ANALYSIS REVIEWED BY: Nivine Basily, Inorganics Report Writer

DATE REPORTED: Jul 05, 2019

PAGES (INCLUDING COVER): 12

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

*NOTES

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.

Member of: Association of Professional Engineers and Geoscientists of Alberta (APEGA)
Western Enviro-Agricultural Laboratory Association (WEALA)
Environmental Services Association of Alberta (ESAA)

AGAT Laboratories is accredited to ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA) and/or Standards Council of Canada (SCC) for specific tests listed on the scope of accreditation. AGAT Laboratories (Mississauga) is also accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) for specific drinking water tests. Accreditations are location and parameter specific. A complete listing of parameters for each location is available from www.cala.ca and/or www.scc.ca. The tests in this report may not necessarily be included in the scope of accreditation. Measurement Uncertainty is not taken into consideration when stating conformity with a specified requirement.

Results relate only to the items tested. Results apply to samples as received.
All reportable information as specified by ISO 17025:2017 is available from AGAT Laboratories upon request

AGAT Laboratories

5835 COOPERS AVENUE
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http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 19T485836

PROJECT: 665125

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10192 Hwy 50, Brampton, ON

SAMPLED BY:Sara Akib

O. Reg. 153(511) - PAHs (Water)

DATE RECEIVED: 2019-06-27

DATE REPORTED: 2019-07-05

		SAMPLE DESCRIPTION:		MW-33
		SAMPLE TYPE:		Water
		DATE SAMPLED:		2019-06-27
Parameter	Unit	G / S	RDL	311532
Naphthalene	µg/L	1400	0.20	<0.20
Acenaphthylene	µg/L	1.4	0.20	<0.20
Acenaphthene	µg/L	600	0.20	<0.20
Fluorene	µg/L	290	0.20	<0.20
Phenanthrene	µg/L	380	0.10	<0.10
Anthracene	µg/L	1	0.10	<0.10
Fluoranthene	µg/L	73	0.20	<0.20
Pyrene	µg/L	5.7	0.20	<0.20
Benz(a)anthracene	µg/L	1.8	0.20	<0.20
Chrysene	µg/L	0.7	0.10	<0.10
Benzo(b)fluoranthene	µg/L	0.75	0.10	<0.10
Benzo(k)fluoranthene	µg/L	0.4	0.10	<0.10
Benzo(a)pyrene	µg/L	0.81	0.01	<0.01
Indeno(1,2,3-cd)pyrene	µg/L	0.2	0.20	<0.20
Dibenz(a,h)anthracene	µg/L	0.4	0.20	<0.20
Benzo(g,h,i)perylene	µg/L	0.2	0.20	<0.20
2-and 1-methyl Naphthalene	µg/L	1500	0.20	<0.20
Surrogate	Unit	Acceptable Limits		
Chrysene-d12	%	50-140		69

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Ground Water - All Types of Property Uses
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

311532 Note: The result for Benzo(b)Fluoranthene is the total of the Benzo(b)&(j)Fluoranthene isomers because the isomers co-elute on the GC column.
2- and 1-Methyl Naphthalene is a calculated parameter. The calculated value is the sum of 2-Methyl Naphthalene and 1-Methyl Naphthalene.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
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http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 19T485836

PROJECT: 665125

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10192 Hwy 50, Brampton, ON

SAMPLED BY:Sara Akib

O. Reg. 153(511) - PHCs F1 - F4 (with PAHs and VOC) (Water)

DATE RECEIVED: 2019-06-27

DATE REPORTED: 2019-07-05

		SAMPLE DESCRIPTION:		MW-33
		SAMPLE TYPE:		Water
		DATE SAMPLED:		2019-06-27
Parameter	Unit	G / S	RDL	311532
F1 (C6-C10)	µg/L		25	<25
F1 (C6 to C10) minus BTEX	µg/L	420	25	<25
F2 (C10 to C16)	µg/L	150	100	<100
F2 (C10 to C16) minus Naphthalene	µg/L		100	<100
F3 (C16 to C34)	µg/L	500	100	<100
F3 (C16 to C34) minus PAHs	µg/L		100	<100
F4 (C34 to C50)	µg/L	500	100	<100
Gravimetric Heavy Hydrocarbons	µg/L	500	500	NA
Surrogate	Unit	Acceptable Limits		
Terphenyl	%	60-140		95

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Ground Water - All Types of Property Uses
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

311532 The C6-C10 fraction is calculated using toluene response factor.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6 - C50 results are corrected for BTEX and PAH contributions.
C>10 – C16 (F2- Naphthalene) is a calculated parameter. The calculated value is F2 - Naphthalene.
C>16 - C34 (F3-PAH) is a calculated parameter. The calculated value is F3-PAH (PAH: sum of Phenanthrene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-c,d)pyrene and Pyrene).
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 + nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

Results relate only to the items tested. Results apply to samples as received.

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Certificate of Analysis

AGAT WORK ORDER: 19T485836

PROJECT: 665125

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10192 Hwy 50, Brampton, ON

SAMPLED BY:Sara Akib

O. Reg. 153(511) - VOCs (Water)

DATE RECEIVED: 2019-06-27

DATE REPORTED: 2019-07-05

		SAMPLE DESCRIPTION:		MW-33
		SAMPLE TYPE:		Water
		DATE SAMPLED:		2019-06-27
Parameter	Unit	G / S	RDL	311532
Dichlorodifluoromethane	µg/L	3500	0.20	<0.20
Vinyl Chloride	µg/L	0.5	0.17	<0.17
Bromomethane	µg/L	5.6	0.20	<0.20
Trichlorofluoromethane	µg/L	2000	0.40	<0.40
Acetone	µg/L	100000	1.0	<1.0
1,1-Dichloroethylene	µg/L	1.6	0.30	<0.30
Methylene Chloride	µg/L	610	0.30	<0.30
trans- 1,2-Dichloroethylene	µg/L	1.6	0.20	<0.20
Methyl tert-butyl ether	µg/L	190	0.20	<0.20
1,1-Dichloroethane	µg/L	320	0.30	<0.30
Methyl Ethyl Ketone	µg/L	470000	1.0	<1.0
cis- 1,2-Dichloroethylene	µg/L	1.6	0.20	<0.20
Chloroform	µg/L	2.4	0.20	<0.20
1,2-Dichloroethane	µg/L	1.6	0.20	<0.20
1,1,1-Trichloroethane	µg/L	640	0.30	<0.30
Carbon Tetrachloride	µg/L	0.79	0.20	<0.20
Benzene	µg/L	44	0.20	<0.20
1,2-Dichloropropane	µg/L	16	0.20	<0.20
Trichloroethylene	µg/L	1.6	0.20	<0.20
Bromodichloromethane	µg/L	67000	0.20	<0.20
Methyl Isobutyl Ketone	µg/L	140000	1.0	<1.0
1,1,2-Trichloroethane	µg/L	4.7	0.20	<0.20
Toluene	µg/L	14000	0.20	<0.20
Dibromochloromethane	µg/L	65000	0.10	<0.10
Ethylene Dibromide	µg/L	0.25	0.10	<0.10
Tetrachloroethylene	µg/L	1.6	0.20	<0.20
1,1,1,2-Tetrachloroethane	µg/L	3.3	0.10	<0.10
Chlorobenzene	µg/L	500	0.10	<0.10
Ethylbenzene	µg/L	1800	0.10	<0.10
m & p-Xylene	µg/L		0.20	<0.20

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 19T485836

PROJECT: 665125

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10192 Hwy 50, Brampton, ON

SAMPLED BY:Sara Akib

O. Reg. 153(511) - VOCs (Water)

DATE RECEIVED: 2019-06-27

DATE REPORTED: 2019-07-05

				SAMPLE DESCRIPTION:	MW-33
				SAMPLE TYPE:	Water
				DATE SAMPLED:	2019-06-27
Parameter	Unit	G / S	RDL		311532
Bromoform	µg/L	380	0.10		<0.10
Styrene	µg/L	1300	0.10		<0.10
1,1,2,2-Tetrachloroethane	µg/L	3.2	0.10		<0.10
o-Xylene	µg/L		0.10		<0.10
1,3-Dichlorobenzene	µg/L	7600	0.10		<0.10
1,4-Dichlorobenzene	µg/L	8	0.10		<0.10
1,2-Dichlorobenzene	µg/L	4600	0.10		<0.10
1,3-Dichloropropene	µg/L	5.2	0.30		<0.30
Xylene Mixture	µg/L	3300	0.20		<0.20
n-Hexane	µg/L	51	0.20		<0.20
Surrogate	Unit	Acceptable Limits			
Toluene-d8	% Recovery	50-140			80
4-Bromofluorobenzene	% Recovery	50-140			72

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Ground Water - All Types of Property Uses
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

311532 Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.
1,3-Dichloropropene total is a calculated parameter. The calculated value is the sum of Cis-1,3-Dichloropropene and Trans-1,3-Dichloropropene.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 19T485836

PROJECT: 665125

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10192 Hwy 50, Brampton, ON

SAMPLED BY:Sara Akib

O. Reg. 153(511) - Metals & Inorganics (Water)

DATE RECEIVED: 2019-06-27

DATE REPORTED: 2019-07-05

		SAMPLE DESCRIPTION:		MW-33	MW-51A
		SAMPLE TYPE:		Water	Water
		DATE SAMPLED:		2019-06-27	2019-06-27
Parameter	Unit	G / S	RDL	311532	311538
Barium	µg/L	23000	2.0	123	92.6
Beryllium	µg/L	53	0.5	<0.5	<0.5
Boron	µg/L	36000	10.0	73.5	137
Cadmium	µg/L	2.1	0.2	<0.2	<0.2
Chromium	µg/L	640	2.0	<2.0	<2.0
Cobalt	µg/L	52	0.5	0.8	0.5
Copper	µg/L	69	1.0	1.0	1.6
Lead	µg/L	20	0.5	<0.5	<0.5
Molybdenum	µg/L	7300	0.5	18.3	43.7
Nickel	µg/L	390	1.0	<1.0	<1.0
Silver	µg/L	1.2	0.2	<0.2	<0.2
Thallium	µg/L	400	0.3	<0.3	<0.3
Uranium	µg/L	330	0.5	7.8	5.4
Vanadium	µg/L	200	0.4	0.9	1.0
Zinc	µg/L	890	5.0	12.0	10.8
Mercury	µg/L		0.02	<0.02	<0.02
Chromium VI	µg/L	110	5	<5	<5
Cyanide	µg/L	52	2	<2	5
Sodium	µg/L	1800000	1000	28600	43600
Chloride	µg/L	1800000	500	49500	72400
Electrical Conductivity	uS/cm	NA	2	1190	1160
pH	pH Units		NA	7.86	7.85

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 9: Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-Potable Ground Water Condition - Ground Water - All Types of Property Uses
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311532-311538 Elevated RDL indicates the degree of sample dilution prior to the analysis in order to keep analytes within the calibration range of the instrument and to reduce matrix interference.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: Divine Basily

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC
PROJECT: 665125
SAMPLING SITE:10192 Hwy 50, Brampton, ON

AGAT WORK ORDER: 19T485836
ATTENTION TO: Robert Mitzakov
SAMPLED BY:Sara Akib

Trace Organics Analysis

RPT Date: Jul 05, 2019

PARAMETER	Batch	Sample Id	DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
			Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - VOCs (Water)															
Dichlorodifluoromethane	303954		< 0.20	< 0.20	NA	< 0.20	92%	50%	140%	85%	50%	140%	85%	50%	140%
Vinyl Chloride	303954		< 0.17	< 0.17	NA	< 0.17	85%	50%	140%	102%	50%	140%	101%	50%	140%
Bromomethane	303954		< 0.20	< 0.20	NA	< 0.20	93%	50%	140%	95%	50%	140%	102%	50%	140%
Trichlorofluoromethane	303954		< 0.40	< 0.40	NA	< 0.40	112%	50%	140%	110%	50%	140%	85%	50%	140%
Acetone	303954		< 1.0	< 1.0	NA	< 1.0	112%	50%	140%	105%	50%	140%	91%	50%	140%
1,1-Dichloroethylene	303954		< 0.30	< 0.30	NA	< 0.30	77%	50%	140%	87%	60%	130%	83%	50%	140%
Methylene Chloride	303954		< 0.30	< 0.30	NA	< 0.30	102%	50%	140%	85%	60%	130%	100%	50%	140%
trans- 1,2-Dichloroethylene	303954		< 0.20	< 0.20	NA	< 0.20	83%	50%	140%	103%	60%	130%	83%	50%	140%
Methyl tert-butyl ether	303954		< 0.20	< 0.20	NA	< 0.20	104%	50%	140%	108%	60%	130%	78%	50%	140%
1,1-Dichloroethane	303954		< 0.30	< 0.30	NA	< 0.30	91%	50%	140%	109%	60%	130%	86%	50%	140%
Methyl Ethyl Ketone	303954		< 1.0	< 1.0	NA	< 1.0	96%	50%	140%	107%	50%	140%	80%	50%	140%
cis- 1,2-Dichloroethylene	303954		< 0.20	< 0.20	NA	< 0.20	90%	50%	140%	105%	60%	130%	78%	50%	140%
Chloroform	303954		< 0.20	< 0.20	NA	< 0.20	89%	50%	140%	100%	60%	130%	80%	50%	140%
1,2-Dichloroethane	303954		< 0.20	< 0.20	NA	< 0.20	118%	50%	140%	100%	60%	130%	88%	50%	140%
1,1,1-Trichloroethane	303954		< 0.30	< 0.30	NA	< 0.30	77%	50%	140%	91%	60%	130%	82%	50%	140%
Carbon Tetrachloride	303954		< 0.20	< 0.20	NA	< 0.20	74%	50%	140%	77%	60%	130%	90%	50%	140%
Benzene	303954		< 0.20	< 0.20	NA	< 0.20	98%	50%	140%	112%	60%	130%	77%	50%	140%
1,2-Dichloropropane	303954		< 0.20	< 0.20	NA	< 0.20	107%	50%	140%	117%	60%	130%	94%	50%	140%
Trichloroethylene	303954		< 0.20	< 0.20	NA	< 0.20	86%	50%	140%	100%	60%	130%	122%	50%	140%
Bromodichloromethane	303954		< 0.20	< 0.20	NA	< 0.20	96%	50%	140%	114%	60%	130%	76%	50%	140%
Methyl Isobutyl Ketone	303954		< 1.0	< 1.0	NA	< 1.0	122%	50%	140%	103%	50%	140%	120%	50%	140%
1,1,2-Trichloroethane	303954		< 0.20	< 0.20	NA	< 0.20	102%	50%	140%	99%	60%	130%	111%	50%	140%
Toluene	303954		< 0.20	< 0.20	NA	< 0.20	87%	50%	140%	83%	60%	130%	95%	50%	140%
Dibromochloromethane	303954		< 0.10	< 0.10	NA	< 0.10	84%	50%	140%	86%	60%	130%	77%	50%	140%
Ethylene Dibromide	303954		< 0.10	< 0.10	NA	< 0.10	95%	50%	140%	96%	60%	130%	108%	50%	140%
Tetrachloroethylene	303954		< 0.20	< 0.20	NA	< 0.20	82%	50%	140%	82%	60%	130%	88%	50%	140%
1,1,1,2-Tetrachloroethane	303954		< 0.10	< 0.10	NA	< 0.10	85%	50%	140%	85%	60%	130%	80%	50%	140%
Chlorobenzene	303954		< 0.10	< 0.10	NA	< 0.10	90%	50%	140%	86%	60%	130%	96%	50%	140%
Ethylbenzene	303954		< 0.10	< 0.10	NA	< 0.10	80%	50%	140%	76%	60%	130%	88%	50%	140%
m & p-Xylene	303954		< 0.20	< 0.20	NA	< 0.20	85%	50%	140%	82%	60%	130%	81%	50%	140%
Bromoform	303954		< 0.10	< 0.10	NA	< 0.10	81%	50%	140%	81%	60%	130%	86%	50%	140%
Styrene	303954		< 0.10	< 0.10	NA	< 0.10	74%	50%	140%	82%	60%	130%	83%	50%	140%
1,1,2,2-Tetrachloroethane	303954		< 0.10	< 0.10	NA	< 0.10	102%	50%	140%	95%	60%	130%	82%	50%	140%
o-Xylene	303954		< 0.10	< 0.10	NA	< 0.10	84%	50%	140%	79%	60%	130%	90%	50%	140%
1,3-Dichlorobenzene	303954		< 0.10	< 0.10	NA	< 0.10	84%	50%	140%	82%	60%	130%	91%	50%	140%
1,4-Dichlorobenzene	303954		< 0.10	< 0.10	NA	< 0.10	84%	50%	140%	80%	60%	130%	93%	50%	140%
1,2-Dichlorobenzene	303954		< 0.10	< 0.10	NA	< 0.10	89%	50%	140%	85%	60%	130%	98%	50%	140%
1,3-Dichloropropene	303954		< 0.30	< 0.30	NA	< 0.30	85%	50%	140%	98%	60%	130%	86%	50%	140%
n-Hexane	303954		< 0.20	< 0.20	NA	< 0.20	89%	50%	140%	85%	60%	130%	83%	50%	140%

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Results relate only to the items tested. Results apply to samples as received.

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC
PROJECT: 665125
SAMPLING SITE:10192 Hwy 50, Brampton, ON

AGAT WORK ORDER: 19T485836
ATTENTION TO: Robert Mitzakov
SAMPLED BY:Sara Akib

Trace Organics Analysis (Continued)

RPT Date: Jul 05, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - PHCs F1 - F4 (with PAHs and VOC) (Water)															
F1 (C6-C10)	311511		< 25	< 25	NA	< 25	106%	60%	140%	104%	60%	140%	95%	60%	140%
F2 (C10 to C16)		TW	< 100	< 100	NA	< 100	105%	60%	140%	89%	60%	140%	104%	60%	140%
F3 (C16 to C34)		TW	< 100	< 100	NA	< 100	101%	60%	140%	93%	60%	140%	118%	60%	140%
F4 (C34 to C50)		TW	< 100	< 100	NA	< 100	74%	60%	140%	86%	60%	140%	96%	60%	140%
O. Reg. 153(511) - PAHs (Water)															
Naphthalene		TW	< 0.20	< 0.20	NA	< 0.20	107%	50%	140%	102%	50%	140%	75%	50%	140%
Acenaphthylene		TW	< 0.20	< 0.20	NA	< 0.20	115%	50%	140%	115%	50%	140%	87%	50%	140%
Acenaphthene		TW	< 0.20	< 0.20	NA	< 0.20	112%	50%	140%	112%	50%	140%	84%	50%	140%
Fluorene		TW	< 0.20	< 0.20	NA	< 0.20	116%	50%	140%	119%	50%	140%	90%	50%	140%
Phenanthrene		TW	<0.10	<0.10	NA	< 0.10	116%	50%	140%	118%	50%	140%	89%	50%	140%
Anthracene		TW	< 0.10	< 0.10	NA	< 0.10	114%	50%	140%	117%	50%	140%	90%	50%	140%
Fluoranthene		TW	< 0.20	< 0.20	NA	< 0.20	111%	50%	140%	112%	50%	140%	87%	50%	140%
Pyrene		TW	< 0.20	< 0.20	NA	< 0.20	105%	50%	140%	107%	50%	140%	84%	50%	140%
Benz(a)anthracene		TW	< 0.20	< 0.20	NA	< 0.20	83%	50%	140%	92%	50%	140%	72%	50%	140%
Chrysene		TW	< 0.10	< 0.10	NA	< 0.10	96%	50%	140%	92%	50%	140%	75%	50%	140%
Benzo(b)fluoranthene		TW	< 0.10	< 0.10	NA	< 0.10	106%	50%	140%	98%	50%	140%	73%	50%	140%
Benzo(k)fluoranthene		TW	< 0.10	< 0.10	NA	< 0.10	116%	50%	140%	100%	50%	140%	78%	50%	140%
Benzo(a)pyrene		TW	< 0.01	< 0.01	NA	< 0.01	112%	50%	140%	97%	50%	140%	76%	50%	140%
Indeno(1,2,3-cd)pyrene		TW	< 0.20	< 0.20	NA	< 0.20	113%	50%	140%	94%	50%	140%	74%	50%	140%
Dibenz(a,h)anthracene		TW	< 0.20	< 0.20	NA	< 0.20	118%	50%	140%	97%	50%	140%	78%	50%	140%
Benzo(g,h,i)perylene		TW	< 0.20	< 0.20	NA	< 0.20	119%	50%	140%	94%	50%	140%	75%	50%	140%

Comments: Tap water analysis has been performed as QC sample testing for duplicate and matrix spike due to insufficient sample volume.
When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By:

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC

PROJECT: 665125

SAMPLING SITE:10192 Hwy 50, Brampton, ON

AGAT WORK ORDER: 19T485836

ATTENTION TO: Robert Mitzakov

SAMPLED BY:Sara Akib

Water Analysis

RPT Date: Jul 05, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - Metals & Inorganics (Water)															
Barium	311511		77.5	88.5	13.3%	< 2.0	98%	70%	130%	97%	80%	120%	100%	70%	130%
Beryllium	311511		<0.5	<0.5	NA	< 0.5	100%	70%	130%	100%	80%	120%	98%	70%	130%
Boron	311511		26.1	26.1	NA	< 10.0	102%	70%	130%	107%	80%	120%	104%	70%	130%
Cadmium	311511		<0.2	<0.2	NA	< 0.2	102%	70%	130%	103%	80%	120%	115%	70%	130%
Chromium	311511		<2.0	<2.0	NA	< 2.0	103%	70%	130%	103%	80%	120%	101%	70%	130%
Cobalt	311511		7.1	7.1	0.0%	< 0.5	105%	70%	130%	104%	80%	120%	96%	70%	130%
Copper	311511		<1.0	<1.0	NA	< 1.0	105%	70%	130%	105%	80%	120%	95%	70%	130%
Lead	311511		<0.5	<0.5	NA	< 0.5	97%	70%	130%	102%	80%	120%	93%	70%	130%
Molybdenum	311511		2.6	2.6	0.0%	< 0.5	100%	70%	130%	99%	80%	120%	111%	70%	130%
Nickel	311511		3.5	3.0	NA	< 1.0	106%	70%	130%	105%	80%	120%	93%	70%	130%
Silver	311511		<0.2	<0.2	NA	< 0.2	101%	70%	130%	109%	80%	120%	105%	70%	130%
Thallium	311511		<0.3	<0.3	NA	< 0.3	101%	70%	130%	107%	80%	120%	98%	70%	130%
Uranium	311511		2.7	2.7	0.0%	< 0.5	99%	70%	130%	103%	80%	120%	98%	70%	130%
Vanadium	311511		<0.4	<0.4	NA	< 0.4	96%	70%	130%	98%	80%	120%	97%	70%	130%
Zinc	311511		5.5	12.7	NA	< 5.0	107%	70%	130%	106%	80%	120%	102%	70%	130%
Mercury	320847		<0.02	<0.02	NA	< 0.02	101%	70%	130%	96%	80%	120%	97%	70%	130%
Chromium VI	311511		<5	<5	NA	< 5	101%	70%	130%	101%	80%	120%	98%	70%	130%
Cyanide	311372		<2	<2	NA	< 2	102%	70%	130%	91%	80%	120%	103%	70%	130%
Sodium	311511		151000	153000	1.3%	< 500	95%	70%	130%	96%	80%	120%	97%	70%	130%
Chloride	317769		112000	108000	3.6%	< 100	93%	70%	130%	103%	70%	130%	105%	70%	130%
Electrical Conductivity	312765		2150	2180	1.4%	< 2	97%	90%	110%						
pH	312765		7.77	7.70	0.9%	NA	100%	90%	110%						

Comments: NA signifies Not Applicable.
Duplicate Qualifier: As the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

Certified By: Nivine Basily

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Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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http://www.agatlabs.com

Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T485836

PROJECT: 665125

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10192 Hwy 50, Brampton, ON

SAMPLED BY:Sara Akib

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Naphthalene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Acenaphthylene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Acenaphthene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Fluorene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Phenanthrene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Anthracene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Fluoranthene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Pyrene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Benz(a)anthracene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Chrysene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Benzo(b)fluoranthene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Benzo(k)fluoranthene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Benzo(a)pyrene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Dibenz(a,h)anthracene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Benzo(g,h,i)perylene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
2-and 1-methyl Naphthalene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Chrysene-d12	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
F1 (C6-C10)	VOL-91- 5010	MOE PHC-E3421	P&T GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5010	MOE PHC E3421	P&T GC/FID
F2 (C10 to C16)	VOL-91-5010	MOE PHC E3421	GC/FID
F2 (C10 to C16) minus Naphthalene	VOL-91-5010	MOE PHC E3421	GC/FID
F3 (C16 to C34)	VOL-91-5010	MOE PHC E3421	GC/FID
F3 (C16 to C34) minus PAHs	VOL-91-5010	MOE PHC E3421	GC/FID
F4 (C34 to C50)	VOL-91-5010	MOE PHC E3421	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5010	MOE PHC E3421	BALANCE
Terphenyl	VOL-91-5010		GC/FID
Dichlorodifluoromethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Vinyl Chloride	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Bromomethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Acetone	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Methylene Chloride	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
trans- 1,2-Dichloroethylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Methyl tert-butyl ether	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
cis- 1,2-Dichloroethylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Chloroform	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Benzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Trichloroethylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Bromodichloromethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS

Results relate only to the items tested. Results apply to samples as received.

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FAX (905)712-5122
http://www.agatlabs.com

Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T485836

PROJECT: 665125

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:10192 Hwy 50, Brampton, ON

SAMPLED BY:Sara Akib

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Toluene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Dibromochloromethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Chlorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Ethylbenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
m & p-Xylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Bromoform	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Styrene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
o-Xylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,3-Dichloropropene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Xylene Mixture	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
n-Hexane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Toluene-d8	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Water Analysis			
Barium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Beryllium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Boron	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Cadmium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Chromium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Cobalt	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Copper	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Lead	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Molybdenum	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Nickel	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Silver	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Thallium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Uranium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Vanadium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Zinc	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Mercury	MET-93-6100	EPA SW 846 7470 & 245.1	CVAAS
Chromium VI	INOR-93-6034	SM 3500-Cr B	SPECTROPHOTOMETER
Cyanide	INOR-93-6052	MOE METHOD CN- 3015 & SM 4500 CN- I	TECHNICON AUTO ANALYZER
Sodium	MET-93-6105	EPA SW-846 6010C & 200.7	ICP/OES
Chloride	INOR-93-6004	SM 4110 B	ION CHROMATOGRAPH
Electrical Conductivity	INOR-93-6000	SM 2510 B	PC TITRATE
pH	INOR-93-6000	SM 4500-H+ B	PC TITRATE

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

5835 Coopers Avenue
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webearth.agatlabs.com

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Laboratory Use Only

Work Order #: 19T455836

Cooler Quantity: 1 Orange blue

Arrival Temperatures: 7.7 | 8.0 | 7.6

Custody Seal Intact: ☐ Yes ☐ No ☐ N/A

Notes: Ice

Report Information:

Company: SNC Lavalin
Contact: Robert Mitzakov
Address: 235 Leslie street
Toronto, ON
Phone: 416-613-5588 Fax:

Reports to be sent to:
1. Email: Robert.Mitzakov@snclavalin.com
2. Email: Abed.Yassine@snclavalin.com

Regulatory Requirements:

☐ No Regulatory Requirement

(Please check all applicable boxes)

☑ Regulation 153/04
Table 9 (Indicate One)
☐ Ind/Com
☐ Res/Park
☐ Agriculture
Soil Texture (Check One)
☐ Coarse
☐ Fine

☐ Sewer Use
☐ Sanitary
☐ Storm
Region _____ (Indicate One)
☐ MISA

☐ Regulation 558
☐ CCME
☐ Prov. Water Quality Objectives (PWQO)
☐ Other
_____ (Indicate One)

Is this submission for a **Record of Site Condition?** ☒ Yes ☐ No

Report Guideline on *Certificate of Analysis* ☐ Yes ☐ No

Turnaround Time (TAT) Required:

Regular TAT ☒ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day

OR Date Required (Rush Surcharges May Apply): _____

Please provide prior notification for rush TAT
**TAT is exclusive of weekends and statutory holidays*

For 'Same Day' analysis, please contact your AGAT CPM

Project Information:

Project: 665125
Site Location: 10192 Hwy 50, Brampton, ON
Sampled By: Sara Akib
AGAT Quote #: _____ PO: 665125

Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

Bill To Same: Yes ☐ No ☐

Company:
Contact:
Address:
Email: Payable@snclavalin.com

Sample Matrix Legend

B	Biota
GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI (Y/N)	O. Reg 153: Metals and Inorganics (☐ All Metals ☐ 153 Metals (excl. Hydrides) ☑ 153 Metals (Incl. Hydrides) ☐ Hydride Metals)	O. Reg 153: ORPs: ☐ B-HWS ☐ Cl ☐ CN ☐ Cr^{6+} ☐ EC ☐ FOC ☐ Hg ☐ pH ☐ SAR	O. Reg 153: Full Metals Scan	O. Reg 153: Regulation/Custom Metals	O. Reg 153: Nutrients: ☐ TP ☐ NH_3 ☐ TKN ☐ NO_3 ☐ NO_2 ☐ NO_3+NO_2	O. Reg 153: Volatiles: ☐ VOC ☐ BTEX ☐ THM	O. Reg 153: PHCs F1 - F4	O. Reg 153: ABNs	O. Reg 153: PAHs	O. Reg 153: PCBs: ☐ Total ☐ Arocolors	O. Reg 153: Organochlorine Pesticides	O. Reg 153: TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	O. Reg 153: Sewer Use	Potentially Hazardous or High Concentration (Y/N)
MW-33	27/06/19	8:15 am	13	GW	PAHs: limited sample VOCs/BTEX: trace of sediment		✓					✓	✓		✓				
MW-51A	27/06/19	10:51 am	5	GW			✓												

Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Sara Akib	27/06/19	12:30pm	Jorge A	June 27/19	4:52 PM

Page _____ of _____

No: T 090874

AGAT Laboratories

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CLIENT NAME: SNC LAVALIN INC
235 LESMILL ROAD
TORONTO, ON M3B 2V1
(416) 679-6000

ATTENTION TO: Robert Mitzakov

PROJECT: City Of Brampton Drilling & Soil Sampling

AGAT WORK ORDER: 19T531736

TRACE ORGANICS REVIEWED BY: Navdeep Kaur Kansera, Senior Lab Technician

DATE REPORTED: Oct 23, 2019

PAGES (INCLUDING COVER): 8

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

*NOTES

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.

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Western Enviro-Agricultural Laboratory Association (WEALA)
Environmental Services Association of Alberta (ESAA)

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Results relate only to the items tested. Results apply to samples as received.
All reportable information as specified by ISO 17025:2017 is available from AGAT Laboratories upon request

AGAT Laboratories

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FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 19T531736

PROJECT: City Of Brampton Drilling & Soil Sampling

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - PHCs F1/BTEX (Water)

DATE RECEIVED: 2019-10-17

DATE REPORTED: 2019-10-23

		SAMPLE DESCRIPTION:		Trip Blank
		SAMPLE TYPE:		Water
		DATE SAMPLED:		2019-10-16
Parameter	Unit	G / S	RDL	624923
F1 (C6-C10)	µg/L		25	<25
F1 (C6 to C10) minus BTEX	µg/L	420	25	<25

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 8: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Ground Water Condition - Ground Water - All Types of Property Uses
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

624923 The C6-C10 fraction is calculated using Toluene response factor.
Total C6-C10 results are corrected for BTEX contributions.
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC6 and nC10 response factors are within 30% of Toluene response factor.
Extraction and holding times were met for this sample.
NA = Not Applicable

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: Navdeep Kansera

Results relate only to the items tested. Results apply to samples as received.

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Certificate of Analysis

AGAT WORK ORDER: 19T531736

PROJECT: City Of Brampton Drilling & Soil Sampling

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - VOCs (Water)

DATE RECEIVED: 2019-10-17

DATE REPORTED: 2019-10-23

		SAMPLE DESCRIPTION:		Trip Blank
		SAMPLE TYPE:		Water
		DATE SAMPLED:		2019-10-16
Parameter	Unit	G / S	RDL	624923
Dichlorodifluoromethane	µg/L	590	0.20	<0.20
Vinyl Chloride	µg/L	0.5	0.17	<0.17
Bromomethane	µg/L	0.89	0.20	<0.20
Trichlorofluoromethane	µg/L	150	0.40	<0.40
Acetone	µg/L	2700	1.0	<1.0
1,1-Dichloroethylene	µg/L	1.6	0.30	<0.30
Methylene Chloride	µg/L	50	0.30	<0.30
trans- 1,2-Dichloroethylene	µg/L	1.6	0.20	<0.20
Methyl tert-butyl ether	µg/L	15	0.20	<0.20
1,1-Dichloroethane	µg/L	5	0.30	<0.30
Methyl Ethyl Ketone	µg/L	1800	1.0	<1.0
cis- 1,2-Dichloroethylene	µg/L	1.6	0.20	<0.20
Chloroform	µg/L	2.4	0.20	<0.20
1,2-Dichloroethane	µg/L	1.6	0.20	<0.20
1,1,1-Trichloroethane	µg/L	200	0.30	<0.30
Carbon Tetrachloride	µg/L	0.79	0.20	<0.20
Benzene	µg/L	5	0.20	<0.20
1,2-Dichloropropane	µg/L	5	0.20	<0.20
Trichloroethylene	µg/L	1.6	0.20	<0.20
Bromodichloromethane	µg/L	16	0.20	<0.20
Methyl Isobutyl Ketone	µg/L	640	1.0	<1.0
1,1,2-Trichloroethane	µg/L	4.7	0.20	<0.20
Toluene	µg/L	22	0.20	<0.20
Dibromochloromethane	µg/L	25	0.10	<0.10
Ethylene Dibromide	µg/L	0.2	0.10	<0.10
Tetrachloroethylene	µg/L	1.6	0.20	<0.20
1,1,1,2-Tetrachloroethane	µg/L	1.1	0.10	<0.10
Chlorobenzene	µg/L	30	0.10	<0.10
Ethylbenzene	µg/L	2.4	0.10	<0.10
m & p-Xylene	µg/L		0.20	<0.20

Certified By: Navdeep Kansera

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

5835 COOPERS AVENUE
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TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 19T531736

PROJECT: City Of Brampton Drilling & Soil Sampling

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - VOCs (Water)

DATE RECEIVED: 2019-10-17

DATE REPORTED: 2019-10-23

		SAMPLE DESCRIPTION:		Trip Blank
		SAMPLE TYPE:		Water
		DATE SAMPLED:		2019-10-16
Parameter	Unit	G / S	RDL	624923
Bromoform	µg/L	25	0.10	<0.10
Styrene	µg/L	5.4	0.10	<0.10
1,1,2,2-Tetrachloroethane	µg/L	1	0.10	<0.10
o-Xylene	µg/L		0.10	<0.10
1,3-Dichlorobenzene	µg/L	59	0.10	<0.10
1,4-Dichlorobenzene	µg/L	1	0.10	<0.10
1,2-Dichlorobenzene	µg/L	3	0.10	<0.10
1,3-Dichloropropene	µg/L	0.5	0.30	<0.30
Xylene Mixture	µg/L	300	0.20	<0.20
n-Hexane	µg/L	51	0.20	<0.20
Surrogate	Unit	Acceptable Limits		
Toluene-d8	% Recovery	50-140		106
4-Bromofluorobenzene	% Recovery	50-140		91

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 8: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Ground Water Condition - Ground Water - All Types of Property Uses
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

624923 Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.
1,3-Dichloropropene total is a calculated parameter. The calculated value is the sum of Cis-1,3-Dichloropropene and Trans-1,3-Dichloropropene.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: Navdeep Kansera

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC
AGAT WORK ORDER: 19T531736
PROJECT: City Of Brampton Drilling & Soil Sampling
ATTENTION TO: Robert Mitzakov
SAMPLING SITE:
SAMPLED BY:

Trace Organics Analysis

RPT Date: Oct 23, 2019

PARAMETER	Batch	Sample Id	DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
			Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - VOCs (Water)															
Dichlorodifluoromethane	623574		< 0.20	< 0.20	NA	< 0.20	82%	50%	140%	73%	50%	140%	78%	50%	140%
Vinyl Chloride	623574		< 0.17	< 0.17	NA	< 0.17	77%	50%	140%	122%	50%	140%	105%	50%	140%
Bromomethane	623574		< 0.20	< 0.20	NA	< 0.20	93%	50%	140%	113%	50%	140%	87%	50%	140%
Trichlorofluoromethane	623574		< 0.40	< 0.40	NA	< 0.40	83%	50%	140%	82%	50%	140%	81%	50%	140%
Acetone	623574		< 1.0	< 1.0	NA	< 1.0	112%	50%	140%	104%	50%	140%	112%	50%	140%
1,1-Dichloroethylene	623574		< 0.30	< 0.30	NA	< 0.30	79%	50%	140%	76%	60%	130%	96%	50%	140%
Methylene Chloride	623574		< 0.30	< 0.30	NA	< 0.30	105%	50%	140%	101%	60%	130%	103%	50%	140%
trans- 1,2-Dichloroethylene	623574		< 0.20	< 0.20	NA	< 0.20	79%	50%	140%	89%	60%	130%	93%	50%	140%
Methyl tert-butyl ether	623574		< 0.20	< 0.20	NA	< 0.20	91%	50%	140%	94%	60%	130%	107%	50%	140%
1,1-Dichloroethane	623574		< 0.30	< 0.30	NA	< 0.30	94%	50%	140%	84%	60%	130%	98%	50%	140%
Methyl Ethyl Ketone	623574		< 1.0	< 1.0	NA	< 1.0	110%	50%	140%	89%	50%	140%	104%	50%	140%
cis- 1,2-Dichloroethylene	623574		< 0.20	< 0.20	NA	< 0.20	86%	50%	140%	100%	60%	130%	98%	50%	140%
Chloroform	623574		< 0.20	< 0.20	NA	< 0.20	102%	50%	140%	84%	60%	130%	98%	50%	140%
1,2-Dichloroethane	623574		< 0.20	< 0.20	NA	< 0.20	93%	50%	140%	103%	60%	130%	108%	50%	140%
1,1,1-Trichloroethane	623574		< 0.30	< 0.30	NA	< 0.30	84%	50%	140%	86%	60%	130%	90%	50%	140%
Carbon Tetrachloride	623574		< 0.20	< 0.20	NA	< 0.20	73%	50%	140%	80%	60%	130%	74%	50%	140%
Benzene	623574		< 0.20	< 0.20	NA	< 0.20	101%	50%	140%	85%	60%	130%	101%	50%	140%
1,2-Dichloropropane	623574		< 0.20	< 0.20	NA	< 0.20	82%	50%	140%	89%	60%	130%	81%	50%	140%
Trichloroethylene	623574		< 0.20	< 0.20	NA	< 0.20	77%	50%	140%	96%	60%	130%	95%	50%	140%
Bromodichloromethane	623574		< 0.20	< 0.20	NA	< 0.20	84%	50%	140%	81%	60%	130%	83%	50%	140%
Methyl Isobutyl Ketone	623574		< 1.0	< 1.0	NA	< 1.0	90%	50%	140%	102%	50%	140%	87%	50%	140%
1,1,2-Trichloroethane	623574		< 0.20	< 0.20	NA	< 0.20	97%	50%	140%	110%	60%	130%	84%	50%	140%
Toluene	623574		< 0.20	< 0.20	NA	< 0.20	115%	50%	140%	90%	60%	130%	110%	50%	140%
Dibromochloromethane	623574		< 0.10	< 0.10	NA	< 0.10	112%	50%	140%	94%	60%	130%	103%	50%	140%
Ethylene Dibromide	623574		< 0.10	< 0.10	NA	< 0.10	107%	50%	140%	117%	60%	130%	117%	50%	140%
Tetrachloroethylene	623574		< 0.20	< 0.20	NA	< 0.20	107%	50%	140%	84%	60%	130%	107%	50%	140%
1,1,1,2-Tetrachloroethane	623574		< 0.10	< 0.10	NA	< 0.10	111%	50%	140%	95%	60%	130%	104%	50%	140%
Chlorobenzene	623574		< 0.10	< 0.10	NA	< 0.10	112%	50%	140%	94%	60%	130%	108%	50%	140%
Ethylbenzene	623574		< 0.10	< 0.10	NA	< 0.10	105%	50%	140%	84%	60%	130%	103%	50%	140%
m & p-Xylene	623574		< 0.20	< 0.20	NA	< 0.20	105%	50%	140%	87%	60%	130%	83%	50%	140%
Bromoform	623574		< 0.10	< 0.10	NA	< 0.10	113%	50%	140%	103%	60%	130%	106%	50%	140%
Styrene	623574		< 0.10	< 0.10	NA	< 0.10	86%	50%	140%	104%	60%	130%	100%	50%	140%
1,1,2,2-Tetrachloroethane	623574		< 0.10	< 0.10	NA	< 0.10	108%	50%	140%	102%	60%	130%	95%	50%	140%
o-Xylene	623574		< 0.10	< 0.10	NA	< 0.10	111%	50%	140%	93%	60%	130%	109%	50%	140%
1,3-Dichlorobenzene	623574		< 0.10	< 0.10	NA	< 0.10	115%	50%	140%	92%	60%	130%	115%	50%	140%
1,4-Dichlorobenzene	623574		< 0.10	< 0.10	NA	< 0.10	109%	50%	140%	94%	60%	130%	111%	50%	140%
1,2-Dichlorobenzene	623574		< 0.10	< 0.10	NA	< 0.10	113%	50%	140%	97%	60%	130%	111%	50%	140%
1,3-Dichloropropene	623574		< 0.30	< 0.30	NA	< 0.30	80%	50%	140%	93%	60%	130%	83%	50%	140%
n-Hexane	623574		< 0.20	< 0.20	NA	< 0.20	78%	50%	140%	84%	60%	130%	80%	50%	140%

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Results relate only to the items tested. Results apply to samples as received.

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC
AGAT WORK ORDER: 19T531736
PROJECT: City Of Brampton Drilling & Soil Sampling
ATTENTION TO: Robert Mitzakov
SAMPLING SITE:
SAMPLED BY:

Trace Organics Analysis (Continued)

RPT Date: Oct 23, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - PHCs F1/BTEX (Water)															
F1 (C6-C10)	607594		< 25	< 25	NA	< 25	95%	60%	140%	89%	60%	140%	93%	60%	140%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By: Navdeep Kansera

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Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T531736

PROJECT: City Of Brampton Drilling & Soil Sampling

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
F1 (C6-C10)	VOL-91- 5010	MOE E3421	(P&T)GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5010	MOE PHC-E3421	P&T GC/FID
Dichlorodifluoromethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Vinyl Chloride	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Bromomethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Acetone	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Methylene Chloride	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
trans- 1,2-Dichloroethylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Methyl tert-butyl ether	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
cis- 1,2-Dichloroethylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Chloroform	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Benzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Trichloroethylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Bromodichloromethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Toluene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Dibromochloromethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Chlorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Ethylbenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
m & p-Xylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Bromoform	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Styrene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
o-Xylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,3-Dichloropropene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Xylene Mixture	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
n-Hexane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Toluene-d8	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS

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AGAT Laboratories

1 Page

5835 Coopers Avenue
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Ph: 905.712.5100 Fax: 905.712.5122
webearth.agatlabs.com

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Laboratory Use Only

Work Order #: 19T531736

Cooler Quantity:

Arrival Temperatures: 2.1 | 2.2 | 2.4

Custody Seal Intact: ☐ Yes ☐ No ☐ N/A

Notes: On ice

Report Information:

Company: SNC Lavalin Inc
Contact: Robert Mitzakov
Address: 195 The West Mall
Toronto ON, M9C 5K1
Phone: 416 635 5885 x 55845 Fax:
Reports to be sent to:
1. Email: Robert.Mitzakov@snclavalin.com
2. Email: Abdel.Yassine@snclavalin.com

Regulatory Requirements:

☐ No Regulatory Requirement

(Please check all applicable boxes)

☑ Regulation 153/04
Table 9 (Indicate One)
☑ Ind/Com
☑ Res/Park
☐ Agriculture

Soil Texture (Check One)
☑ Coarse
☐ Fine

☐ Sewer Use
☐ Sanitary
☐ Storm

Region _____ (Indicate One)
☐ MISA

☐ Regulation 558
☐ CCME
☐ Prov. Water Quality Objectives (PWQO)
☐ Other _____ (Indicate One)

Is this submission for a **Record of Site Condition?** ☐ Yes ☐ No

Report Guideline on *Certificate of Analysis* ☐ Yes ☐ No

Turnaround Time (TAT) Required:

Regular TAT ☑ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day

OR Date Required (Rush Surcharges May Apply):

Please provide prior notification for rush TAT
**TAT is exclusive of weekends and statutory holidays*

For 'Same Day' analysis, please contact your AGAT CPM

Project Information:

Project: City of Brampton Drilling and Soil Sampling
Site Location: 8192 Hwy 50 Brampton ON
Sampled By: Joey Preston
AGAT Quote #: _____ PO: 65125

Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

Bill To Same: Yes ☐ No ☐

Company: City of Brampton, Drilling and Soil Sampling
Contact: SNC-Lavalin Inc
Address:
Email: Payables@snclavalin.com

Sample Matrix Legend

B	Biota
GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI (Y/N)	O. Reg 153: Metals and Inorganics (☐ All Metals ☐ 153 Metals (excl. Hydrides) ☐ Hydride Metals ☐ 153 Metals (Incl. Hydrides))	O. Reg 153: ORPs: ☐ B-HWS ☐ Cr ☐ CN ☐ Cr^{6+} ☐ EC ☐ FOC ☐ Hg ☐ pH ☐ SAR	O. Reg 153: Full Metals Scan	O. Reg 153: Regulation/Custom Metals	O. Reg 153: Nutrients: ☐ TP ☐ NH_3 ☐ TKN ☐ NO_3 ☐ NO_2 ☐ NO_3+NO_2	O. Reg 153: Volatiles: ☐ VOC ☐ BTEX ☐ THM	O. Reg 153: PHCs F1 - F4	O. Reg 153: ABNs	O. Reg 153: PAHs	O. Reg 153: PCBs: ☐ Total ☐ Aroclors	O. Reg 153: Organochlorine Pesticides	O. Reg 153: TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	O. Reg 153: Sewer Use		FL, VOCs				Potentially Hazardous or High Concentration (Y/N)
Trip Blank	Oct 16/19	—	3	—																			X			

Samples Relinquished By (Print Name and Sign): Joseph Preston	Date Oct 17/19	Time 13:00	Samples Received By (Print Name and Sign):	Date Oct 17/19	Time 1:25		
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time	Page _____ of _____	
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time	Nº: T096042	

AGAT Laboratories

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http://www.agatlabs.com

CLIENT NAME: SNC LAVALIN INC
235 LESMILL ROAD
TORONTO, ON M3B 2V1
(416) 679-6000

ATTENTION TO: Robert Mitzakov

PROJECT: City of Brampton - 665125

AGAT WORK ORDER: 19T533749

TRACE ORGANICS REVIEWED BY: Neli Popnikolova, Senior Chemist

WATER ANALYSIS REVIEWED BY: Jacky Zhu, Spectroscopy Technician

DATE REPORTED: Oct 29, 2019

PAGES (INCLUDING COVER): 14

VERSION*: 2

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

*NOTES
VERSION 2: Complete report issued on October 29, 2019.

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.

Member of: Association of Professional Engineers and Geoscientists of Alberta (APEGA)
Western Enviro-Agricultural Laboratory Association (WEALA)
Environmental Services Association of Alberta (ESAA)

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Results relate only to the items tested. Results apply to samples as received.
All reportable information as specified by ISO 17025:2017 is available from AGAT Laboratories upon request

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http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 19T533749

PROJECT: City of Brampton - 665125

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - PAHs (Water)

DATE RECEIVED: 2019-10-22

DATE REPORTED: 2019-10-29

		SAMPLE DESCRIPTION:		MW-74
		SAMPLE TYPE:		Water
		DATE SAMPLED:		2019-10-22
Parameter	Unit	G / S	RDL	640953
Naphthalene	µg/L	11	0.20	<0.20
Acenaphthylene	µg/L	1	0.20	<0.20
Acenaphthene	µg/L	4.1	0.20	<0.20
Fluorene	µg/L	120	0.20	<0.20
Phenanthrene	µg/L	1	0.10	<0.10
Anthracene	µg/L	1	0.10	<0.10
Fluoranthene	µg/L	0.41	0.20	<0.20
Pyrene	µg/L	4.1	0.20	<0.20
Benz(a)anthracene	µg/L	1	0.20	<0.20
Chrysene	µg/L	0.1	0.10	<0.10
Benzo(b)fluoranthene	µg/L	0.1	0.10	<0.10
Benzo(k)fluoranthene	µg/L	0.1	0.10	<0.10
Benzo(a)pyrene	µg/L	0.01	0.01	<0.01
Indeno(1,2,3-cd)pyrene	µg/L	0.2	0.20	<0.20
Dibenz(a,h)anthracene	µg/L	0.2	0.20	<0.20
Benzo(g,h,i)perylene	µg/L	0.2	0.20	<0.20
2-and 1-methyl Naphthalene	µg/L	3.2	0.20	<0.20
Surrogate	Unit	Acceptable Limits		
Chrysene-d12	%	50-140		106

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 8: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Ground Water Condition - Ground Water - All Types of Property Uses
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

640953 Note: The result for Benzo(b)Fluoranthene is the total of the Benzo(b)&(j)Fluoranthene isomers because the isomers co-elute on the GC column.
2- and 1-Methyl Naphthalene is a calculated parameter. The calculated value is the sum of 2-Methyl Naphthalene and 1-Methyl Naphthalene.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: NPopowkolof

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Certificate of Analysis

AGAT WORK ORDER: 19T533749

PROJECT: City of Brampton - 665125

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - PHCs F1 - F4 (-BTEX) (Water)

DATE RECEIVED: 2019-10-22

DATE REPORTED: 2019-10-29

		SAMPLE DESCRIPTION:		MW-75	MW-755	Field Blank
		SAMPLE TYPE:		Water	Water	Water
		DATE SAMPLED:		2019-10-22	2019-10-22	2019-10-22
Parameter	Unit	G / S	RDL	640955	640959	640960
F1 (C6 - C10)	µg/L		25	<25	<25	<25
F1 (C6 to C10) minus BTEX	µg/L	420	25	<25	<25	<25
F2 (C10 to C16)	µg/L	150	100	<100	<100	<100
F3 (C16 to C34)	µg/L	500	100	<100	<100	<100
F4 (C34 to C50)	µg/L	500	100	<100	<100	<100
Gravimetric Heavy Hydrocarbons	µg/L	500	500	NA	NA	NA
Surrogate	Unit	Acceptable Limits				
Terphenyl	%	60-140		104	98	103

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 8: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Ground Water Condition - Ground Water - All Types of Property Uses
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

640955-640960 The C6-C10 fraction is calculated using Toluene response factor.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and nC34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16 - C50 and are only determined if the chromatogram of the C34 - C50 Hydrocarbons indicated that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6-C50 results are corrected for BTEX contribution.
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC6 and nC10 response factors are within 30% of Toluene response factor.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.
Fractions 1-4 are quantified with the contribution of PAHs. Under Ontario Regulation 153, results are considered valid without determining the PAH contribution if not requested by the client.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: N Popnikolof

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Certificate of Analysis

AGAT WORK ORDER: 19T533749

PROJECT: City of Brampton - 665125

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - PHCs F1 - F4 (with PAHs and VOC) (Water)

DATE RECEIVED: 2019-10-22

DATE REPORTED: 2019-10-29

		SAMPLE DESCRIPTION:		MW-74
		SAMPLE TYPE:		Water
		DATE SAMPLED:		2019-10-22
Parameter	Unit	G / S	RDL	640953
F1 (C6-C10)	µg/L		25	<25
F1 (C6 to C10) minus BTEX	µg/L	420	25	<25
F2 (C10 to C16)	µg/L	150	100	<100
F2 (C10 to C16) minus Naphthalene	µg/L		100	<100
F3 (C16 to C34)	µg/L	500	100	<100
F3 (C16 to C34) minus PAHs	µg/L		100	<100
F4 (C34 to C50)	µg/L	500	100	<100
Gravimetric Heavy Hydrocarbons	µg/L	500	500	NA
Surrogate	Unit	Acceptable Limits		
Terphenyl	%	60-140		106

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 8: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Ground Water Condition - Ground Water - All Types of Property Uses
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

640953 The C6-C10 fraction is calculated using toluene response factor.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6 - C50 results are corrected for BTEX and PAH contributions.
C>10 – C16 (F2- Naphthalene) is a calculated parameter. The calculated value is F2 - Naphthalene.
C>16 - C34 (F3-PAH) is a calculated parameter. The calculated value is F3-PAH (PAH: sum of Phenanthrene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-c,d)pyrene and Pyrene).
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 + nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: NPopowkolof

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Certificate of Analysis

AGAT WORK ORDER: 19T533749

PROJECT: City of Brampton - 665125

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - VOCs (Water)

DATE RECEIVED: 2019-10-22

DATE REPORTED: 2019-10-29

		SAMPLE DESCRIPTION:		MW-74	MW-75	MW-755	Field Blank
		SAMPLE TYPE:		Water	Water	Water	Water
		DATE SAMPLED:		2019-10-22	2019-10-22	2019-10-22	2019-10-22
Parameter	Unit	G / S	RDL	640953	640955	640959	640960
Dichlorodifluoromethane	µg/L	590	0.20	<0.20	<0.20	<0.20	<0.20
Vinyl Chloride	µg/L	0.5	0.17	<0.17	<0.17	<0.17	<0.17
Bromomethane	µg/L	0.89	0.20	<0.20	<0.20	<0.20	<0.20
Trichlorofluoromethane	µg/L	150	0.40	<0.40	<0.40	<0.40	<0.40
Acetone	µg/L	2700	1.0	<1.0	190	230	<1.0
1,1-Dichloroethylene	µg/L	1.6	0.30	<0.30	<0.30	<0.30	<0.30
Methylene Chloride	µg/L	50	0.30	<0.30	<0.30	<0.30	<0.30
trans- 1,2-Dichloroethylene	µg/L	1.6	0.20	<0.20	<0.20	<0.20	<0.20
Methyl tert-butyl ether	µg/L	15	0.20	<0.20	<0.20	<0.20	<0.20
1,1-Dichloroethane	µg/L	5	0.30	<0.30	<0.30	<0.30	<0.30
Methyl Ethyl Ketone	µg/L	1800	1.0	<1.0	9.7	12	<1.0
cis- 1,2-Dichloroethylene	µg/L	1.6	0.20	<0.20	<0.20	<0.20	<0.20
Chloroform	µg/L	2.4	0.20	<0.20	<0.20	<0.20	<0.20
1,2-Dichloroethane	µg/L	1.6	0.20	<0.20	<0.20	<0.20	<0.20
1,1,1-Trichloroethane	µg/L	200	0.30	<0.30	<0.30	<0.30	<0.30
Carbon Tetrachloride	µg/L	0.79	0.20	<0.20	<0.20	<0.20	<0.20
Benzene	µg/L	5	0.20	<0.20	1.8	2.2	<0.20
1,2-Dichloropropane	µg/L	5	0.20	<0.20	<0.20	<0.20	<0.20
Trichloroethylene	µg/L	1.6	0.20	<0.20	<0.20	<0.20	<0.20
Bromodichloromethane	µg/L	16	0.20	<0.20	<0.20	<0.20	<0.20
Methyl Isobutyl Ketone	µg/L	640	1.0	<1.0	1.2	1.3	<1.0
1,1,2-Trichloroethane	µg/L	4.7	0.20	<0.20	<0.20	<0.20	<0.20
Toluene	µg/L	22	0.20	<0.20	1.9	1.7	0.31
Dibromochloromethane	µg/L	25	0.10	<0.10	<0.10	<0.10	<0.10
Ethylene Dibromide	µg/L	0.2	0.10	<0.10	<0.10	<0.10	<0.10
Tetrachloroethylene	µg/L	1.6	0.20	<0.20	<0.20	<0.20	<0.20
1,1,1,2-Tetrachloroethane	µg/L	1.1	0.10	<0.10	<0.10	<0.10	<0.10
Chlorobenzene	µg/L	30	0.10	<0.10	<0.10	<0.10	<0.10
Ethylbenzene	µg/L	2.4	0.10	<0.10	0.23	0.22	<0.10
m & p-Xylene	µg/L		0.20	<0.20	0.33	0.31	<0.20

Certified By: N Popnikolof

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AGAT WORK ORDER: 19T533749

PROJECT: City of Brampton - 665125

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - VOCs (Water)

DATE RECEIVED: 2019-10-22

DATE REPORTED: 2019-10-29

		SAMPLE DESCRIPTION:		MW-74	MW-75	MW-755	Field Blank
		SAMPLE TYPE:		Water	Water	Water	Water
		DATE SAMPLED:		2019-10-22	2019-10-22	2019-10-22	2019-10-22
Parameter	Unit	G / S	RDL	640953	640955	640959	640960
Bromoform	µg/L	25	0.10	<0.10	<0.10	<0.10	<0.10
Styrene	µg/L	5.4	0.10	<0.10	0.98	1.0	<0.10
1,1,2,2-Tetrachloroethane	µg/L	1	0.10	<0.10	<0.10	<0.10	<0.10
o-Xylene	µg/L		0.10	<0.10	0.23	0.23	<0.10
1,3-Dichlorobenzene	µg/L	59	0.10	<0.10	<0.10	<0.10	<0.10
1,4-Dichlorobenzene	µg/L	1	0.10	<0.10	<0.10	<0.10	<0.10
1,2-Dichlorobenzene	µg/L	3	0.10	<0.10	<0.10	<0.10	<0.10
1,3-Dichloropropene	µg/L	0.5	0.30	<0.30	<0.30	<0.30	<0.30
Xylene Mixture	µg/L	300	0.20	<0.20	0.56	0.54	<0.20
n-Hexane	µg/L	51	0.20	<0.20	<0.20	<0.20	<0.20
Surrogate	Unit	Acceptable Limits					
Toluene-d8	% Recovery	50-140		90	103	103	105
4-Bromofluorobenzene	% Recovery	50-140		87	96	99	88

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 8: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Ground Water Condition - Ground Water - All Types of Property Uses
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

640953-640960 Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.
1,3-Dichloropropene total is a calculated parameter. The calculated value is the sum of Cis-1,3-Dichloropropene and Trans-1,3-Dichloropropene.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: NPopowich

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Certificate of Analysis

AGAT WORK ORDER: 19T533749

PROJECT: City of Brampton - 665125

CLIENT NAME: SNC LAVALIN INC

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - Metals & Inorganics (Water)

DATE RECEIVED: 2019-10-22

DATE REPORTED: 2019-10-29

		SAMPLE DESCRIPTION:		MW-74
		SAMPLE TYPE:		Water
		DATE SAMPLED:		2019-10-22
Parameter	Unit	G / S	RDL	640953
Antimony	µg/L	6	1.0	<1.0
Arsenic	µg/L	25	1.0	1.0
Barium	µg/L	1000	2.0	114
Beryllium	µg/L	4	0.5	<0.5
Boron	µg/L	5000	10.0	37.2
Cadmium	µg/L	2.1	0.2	<0.2
Chromium	µg/L	50	2.0	<2.0
Cobalt	µg/L	3.8	0.5	0.8
Copper	µg/L	69	1.0	<1.0
Lead	µg/L	10	0.5	<0.5
Molybdenum	µg/L	70	0.5	2.5
Nickel	µg/L	100	1.0	1.5
Selenium	µg/L	10	1.0	<1.0
Silver	µg/L	1.2	0.2	<0.2
Thallium	µg/L	2	0.3	<0.3
Uranium	µg/L	20	0.5	4.3
Vanadium	µg/L	6.2	0.4	0.7
Zinc	µg/L	890	5.0	<5.0
Mercury	µg/L		0.02	<0.02
Chromium VI	µg/L	25	5	<5
Cyanide	µg/L	52	2	<2
Sodium	µg/L	490000	500	13400
Chloride	µg/L	790000	500	39000
Electrical Conductivity	uS/cm		2	818
pH	pH Units		NA	7.90

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 8: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Ground Water Condition - Ground Water - All Types of Property Uses
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

640953 Elevated RDL indicates the degree of sample dilution prior to the analysis in order to keep analytes within the calibration range of the instrument and to reduce matrix interference.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

Results relate only to the items tested. Results apply to samples as received.

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC
PROJECT: City of Brampton - 665125
SAMPLING SITE:

AGAT WORK ORDER: 19T533749
ATTENTION TO: Robert Mitzakov
SAMPLED BY:

Trace Organics Analysis

RPT Date: Oct 29, 2019

PARAMETER	Batch	Sample Id	DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
			Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - PAHs (Water)															
Naphthalene		TW	< 0.20	< 0.20	NA	< 0.20	104%	50%	140%	83%	50%	140%	80%	50%	140%
Acenaphthylene		TW	< 0.20	< 0.20	NA	< 0.20	102%	50%	140%	83%	50%	140%	78%	50%	140%
Acenaphthene		TW	< 0.20	< 0.20	NA	< 0.20	101%	50%	140%	81%	50%	140%	75%	50%	140%
Fluorene		TW	< 0.20	< 0.20	NA	< 0.20	98%	50%	140%	82%	50%	140%	77%	50%	140%
Phenanthrene		TW	< 0.10	< 0.10	NA	< 0.10	82%	50%	140%	73%	50%	140%	74%	50%	140%
Anthracene		TW	< 0.10	< 0.10	NA	< 0.10	107%	50%	140%	84%	50%	140%	82%	50%	140%
Fluoranthene		TW	< 0.20	< 0.20	NA	< 0.20	97%	50%	140%	74%	50%	140%	71%	50%	140%
Pyrene		TW	< 0.20	< 0.20	NA	< 0.20	97%	50%	140%	71%	50%	140%	77%	50%	140%
Benz(a)anthracene		TW	< 0.20	< 0.20	NA	< 0.20	81%	50%	140%	70%	50%	140%	78%	50%	140%
Chrysene		TW	< 0.10	< 0.10	NA	< 0.10	104%	50%	140%	75%	50%	140%	78%	50%	140%
Benzo(b)fluoranthene		TW	< 0.10	< 0.10	NA	< 0.10	88%	50%	140%	89%	50%	140%	75%	50%	140%
Benzo(k)fluoranthene		TW	< 0.10	< 0.10	NA	< 0.10	99%	50%	140%	113%	50%	140%	92%	50%	140%
Benzo(a)pyrene		TW	< 0.01	< 0.01	NA	< 0.01	105%	50%	140%	83%	50%	140%	102%	50%	140%
Indeno(1,2,3-cd)pyrene		TW	< 0.20	< 0.20	NA	< 0.20	88%	50%	140%	71%	50%	140%	82%	50%	140%
Dibenz(a,h)anthracene		TW	< 0.20	< 0.20	NA	< 0.20	92%	50%	140%	98%	50%	140%	93%	50%	140%
Benzo(g,h,i)perylene		TW	< 0.20	< 0.20	NA	< 0.20	94%	50%	140%	100%	50%	140%	102%	50%	140%
O. Reg. 153(511) - PHCs F1 - F4 (with PAHs and VOC) (Water)															
F1 (C6-C10)	627432		< 25	< 25	NA	< 25	104%	60%	140%	110%	60%	140%	92%	60%	140%
F2 (C10 to C16)		TW	< 100	< 100	NA	< 100	99%	60%	140%	90%	60%	140%	92%	60%	140%
F3 (C16 to C34)		TW	< 100	< 100	NA	< 100	110%	60%	140%	107%	60%	140%	87%	60%	140%
F4 (C34 to C50)		TW	< 100	< 100	NA	< 100	111%	60%	140%	84%	60%	140%	119%	60%	140%
O. Reg. 153(511) - VOCs (Water)															
Dichlorodifluoromethane	640960	640960	< 0.20	< 0.20	NA	< 0.20	88%	50%	140%	84%	50%	140%	89%	50%	140%
Vinyl Chloride	640960	640960	< 0.17	< 0.17	NA	< 0.17	85%	50%	140%	110%	50%	140%	107%	50%	140%
Bromomethane	640960	640960	< 0.20	< 0.20	NA	< 0.20	86%	50%	140%	96%	50%	140%	87%	50%	140%
Trichlorofluoromethane	640960	640960	< 0.40	< 0.40	NA	< 0.40	91%	50%	140%	105%	50%	140%	106%	50%	140%
Acetone	640960	640960	< 1.0	< 1.0	NA	< 1.0	107%	50%	140%	104%	50%	140%	118%	50%	140%
1,1-Dichloroethylene	640960	640960	< 0.30	< 0.30	NA	< 0.30	79%	50%	140%	83%	60%	130%	92%	50%	140%
Methylene Chloride	640960	640960	< 0.30	< 0.30	NA	< 0.30	90%	50%	140%	107%	60%	130%	90%	50%	140%
trans- 1,2-Dichloroethylene	640960	640960	< 0.20	< 0.20	NA	< 0.20	79%	50%	140%	85%	60%	130%	79%	50%	140%
Methyl tert-butyl ether	640960	640960	< 0.20	< 0.20	NA	< 0.20	79%	50%	140%	76%	60%	130%	94%	50%	140%
1,1-Dichloroethane	640960	640960	< 0.30	< 0.30	NA	< 0.30	84%	50%	140%	89%	60%	130%	96%	50%	140%
Methyl Ethyl Ketone	640960	640960	< 1.0	< 1.0	NA	< 1.0	82%	50%	140%	95%	50%	140%	99%	50%	140%
cis- 1,2-Dichloroethylene	640960	640960	< 0.20	< 0.20	NA	< 0.20	97%	50%	140%	92%	60%	130%	97%	50%	140%
Chloroform	640960	640960	< 0.20	< 0.20	NA	< 0.20	102%	50%	140%	97%	60%	130%	104%	50%	140%
1,2-Dichloroethane	640960	640960	< 0.20	< 0.20	NA	< 0.20	110%	50%	140%	113%	60%	130%	117%	50%	140%
1,1,1-Trichloroethane	640960	640960	< 0.30	< 0.30	NA	< 0.30	94%	50%	140%	81%	60%	130%	95%	50%	140%
Carbon Tetrachloride	640960	640960	< 0.20	< 0.20	NA	< 0.20	81%	50%	140%	86%	60%	130%	81%	50%	140%

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http://www.agatlabs.com

Quality Assurance

CLIENT NAME: SNC LAVALIN INC
PROJECT: City of Brampton - 665125
SAMPLING SITE:

AGAT WORK ORDER: 19T533749
ATTENTION TO: Robert Mitzakov
SAMPLED BY:

Trace Organics Analysis (Continued)

RPT Date: Oct 29, 2019

PARAMETER	Batch	Sample Id	DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
			Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Benzene	640960	640960	< 0.20	< 0.20	NA	< 0.20	101%	50%	140%	97%	60%	130%	101%	50%	140%
1,2-Dichloropropane	640960	640960	< 0.20	< 0.20	NA	< 0.20	105%	50%	140%	93%	60%	130%	82%	50%	140%
Trichloroethylene	640960	640960	< 0.20	< 0.20	NA	< 0.20	105%	50%	140%	111%	60%	130%	103%	50%	140%
Bromodichloromethane	640960	640960	< 0.20	< 0.20	NA	< 0.20	90%	50%	140%	108%	60%	130%	90%	50%	140%
Methyl Isobutyl Ketone	640960	640960	< 1.0	< 1.0	NA	< 1.0	100%	50%	140%	113%	50%	140%	115%	50%	140%
1,1,2-Trichloroethane	640960	640960	< 0.20	< 0.20	NA	< 0.20	119%	50%	140%	98%	60%	130%	111%	50%	140%
Toluene	640960	640960	0.31	0.28	NA	< 0.20	82%	50%	140%	117%	60%	130%	114%	50%	140%
Dibromochloromethane	640960	640960	< 0.10	< 0.10	NA	< 0.10	97%	50%	140%	118%	60%	130%	110%	50%	140%
Ethylene Dibromide	640960	640960	< 0.10	< 0.10	NA	< 0.10	115%	50%	140%	105%	60%	130%	105%	50%	140%
Tetrachloroethylene	640960	640960	< 0.20	< 0.20	NA	< 0.20	73%	50%	140%	112%	60%	130%	109%	50%	140%
1,1,1,2-Tetrachloroethane	640960	640960	< 0.10	< 0.10	NA	< 0.10	87%	50%	140%	117%	60%	130%	114%	50%	140%
Chlorobenzene	640960	640960	< 0.10	< 0.10	NA	< 0.10	89%	50%	140%	97%	60%	130%	115%	50%	140%
Ethylbenzene	640960	640960	< 0.10	< 0.10	NA	< 0.10	75%	50%	140%	109%	60%	130%	107%	50%	140%
m & p-Xylene	640960	640960	< 0.20	< 0.20	NA	< 0.20	79%	50%	140%	113%	60%	130%	112%	50%	140%
Bromoform	640960	640960	< 0.10	< 0.10	NA	< 0.10	108%	50%	140%	93%	60%	130%	115%	50%	140%
Styrene	640960	640960	< 0.10	< 0.10	NA	< 0.10	79%	50%	140%	106%	60%	130%	104%	50%	140%
1,1,2,2-Tetrachloroethane	640960	640960	< 0.10	< 0.10	NA	< 0.10	101%	50%	140%	106%	60%	130%	99%	50%	140%
o-Xylene	640960	640960	< 0.10	< 0.10	NA	< 0.10	87%	50%	140%	119%	60%	130%	117%	50%	140%
1,3-Dichlorobenzene	640960	640960	< 0.10	< 0.10	NA	< 0.10	99%	50%	140%	116%	60%	130%	88%	50%	140%
1,4-Dichlorobenzene	640960	640960	< 0.10	< 0.10	NA	< 0.10	100%	50%	140%	108%	60%	130%	90%	50%	140%
1,2-Dichlorobenzene	640960	640960	< 0.10	< 0.10	NA	< 0.10	105%	50%	140%	90%	60%	130%	95%	50%	140%
1,3-Dichloropropene	640960	640960	< 0.30	< 0.30	NA	< 0.30	90%	50%	140%	90%	60%	130%	84%	50%	140%
n-Hexane	640960	640960	< 0.20	< 0.20	NA	< 0.20	93%	50%	140%	103%	60%	130%	95%	50%	140%

Comments: Tap water analysis has been performed as QC sample testing for duplicate and matrix spike due to insufficient sample volume.
When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By: N Popnikolof

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Quality Assurance

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T533749

PROJECT: City of Brampton - 665125

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

Water Analysis

RPT Date: Oct 29, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - Metals & Inorganics (Water)															
Antimony	641656		<5.0	<5.0	NA	< 1.0	101%	70%	130%	92%	80%	120%	93%	70%	130%
Arsenic	641656		<5.0	<5.0	NA	< 1.0	93%	70%	130%	94%	80%	120%	100%	70%	130%
Barium	641656		22.7	21.7	4.5%	< 2.0	92%	70%	130%	96%	80%	120%	90%	70%	130%
Beryllium	641656		<2.5	<2.5	NA	< 0.5	93%	70%	130%	98%	80%	120%	100%	70%	130%
Boron	641656		102	96.9	5.1%	< 10.0	99%	70%	130%	103%	80%	120%	107%	70%	130%
Cadmium	641656		<1.0	<1.0	NA	< 0.2	99%	70%	130%	101%	80%	120%	113%	70%	130%
Chromium	641656		<10.0	<10.0	NA	< 2.0	99%	70%	130%	95%	80%	120%	97%	70%	130%
Cobalt	641656		<2.5	<2.5	NA	< 0.5	98%	70%	130%	98%	80%	120%	99%	70%	130%
Copper	641656		<5.0	<5.0	NA	< 1.0	95%	70%	130%	99%	80%	120%	95%	70%	130%
Lead	641656		<2.5	<2.5	NA	< 0.5	96%	70%	130%	100%	80%	120%	94%	70%	130%
Molybdenum	641656		2.7	<2.5	NA	< 0.5	99%	70%	130%	99%	80%	120%	100%	70%	130%
Nickel	641656		<5.0	<5.0	NA	< 1.0	100%	70%	130%	100%	80%	120%	100%	70%	130%
Selenium	641656		(-207)	(-167)	NA	< 1.0	100%	70%	130%	98%	80%	120%	106%	70%	130%
Silver	641656		<1.0	<1.0	NA	< 0.2	99%	70%	130%	108%	80%	120%	105%	70%	130%
Thallium	641656		<1.5	<1.5	NA	< 0.3	97%	70%	130%	100%	80%	120%	95%	70%	130%
Uranium	641656		<2.5	<2.5	NA	< 0.5	91%	70%	130%	95%	80%	120%	93%	70%	130%
Vanadium	641656		52.4	44.0	17.4%	< 0.4	94%	70%	130%	92%	80%	120%	96%	70%	130%
Zinc	641656		<25.0	<25.0	NA	< 5.0	100%	70%	130%	98%	80%	120%	102%	70%	130%
Mercury	640953	640953	<0.02	<0.02	NA	< 0.02	99%	70%	130%	101%	80%	120%	105%	70%	130%
Chromium VI	630821		<5	<5	NA	< 5	100%	70%	130%	101%	80%	120%	98%	70%	130%
Cyanide	647384		<2	<2	NA	< 2	98%	70%	130%	104%	80%	120%	100%	70%	130%
Sodium	642901		8600	8750	1.7%	< 500	95%	70%	130%	95%	80%	120%	96%	70%	130%
Chloride	642782		295000	294000	0.3%	< 100	92%	70%	130%	103%	70%	130%	100%	70%	130%
Electrical Conductivity	639002		283	283	0.0%	< 2	96%	90%	110%						
pH	639002		7.63	7.60	0.4%	NA	100%	90%	110%						

Comments: NA signifies Not Applicable.
Duplicate Qualifier: As the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

Certified By:

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http://www.agatlabs.com

Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T533749

PROJECT: City of Brampton - 665125

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Naphthalene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Acenaphthylene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Acenaphthene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Fluorene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Phenanthrene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Anthracene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Fluoranthene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Pyrene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Benz(a)anthracene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Chrysene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Benzo(b)fluoranthene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Benzo(k)fluoranthene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Benzo(a)pyrene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Dibenz(a,h)anthracene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Benzo(g,h,i)perylene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
2-and 1-methyl Naphthalene	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
Chrysene-d12	ORG-91-5105	EPA SW-846 3510 & 8270D	GC/MS
F1 (C6 - C10)	VOL-91- 5010	MOE PHC E3421	(P&T)GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5010	MOE PHC E3421	(P&T)GC/FID
F2 (C10 to C16)	VOL-91-5010	MOE PHC E3421	GC / FID
F3 (C16 to C34)	VOL-91-5010	MOE PHC E3421	GC / FID
F4 (C34 to C50)	VOL-91-5010	MOE PHC E3421	GC / FID
Gravimetric Heavy Hydrocarbons	VOL-91-5010	MOE PHC E3421	BALANCE
Terphenyl	VOL-91-5010		GC/FID
F1 (C6-C10)	VOL-91- 5010	MOE PHC-E3421	P&T GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5010	MOE PHC E3421	P&T GC/FID
F2 (C10 to C16)	VOL-91-5010	MOE PHC E3421	GC/FID
F2 (C10 to C16) minus Naphthalene	VOL-91-5010	MOE PHC E3421	GC/FID
F3 (C16 to C34)	VOL-91-5010	MOE PHC E3421	GC/FID
F3 (C16 to C34) minus PAHs	VOL-91-5010	MOE PHC E3421	GC/FID
F4 (C34 to C50)	VOL-91-5010	MOE PHC E3421	GC/FID
Dichlorodifluoromethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Vinyl Chloride	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Bromomethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Acetone	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Methylene Chloride	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
trans- 1,2-Dichloroethylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Methyl tert-butyl ether	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
cis- 1,2-Dichloroethylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Chloroform	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Benzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS

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Method Summary

CLIENT NAME: SNC LAVALIN INC
AGAT WORK ORDER: 19T533749
PROJECT: City of Brampton - 665125
ATTENTION TO: Robert Mitzakov
SAMPLING SITE:
SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
1,2-Dichloropropane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Trichloroethylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Bromodichloromethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Toluene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Dibromochloromethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Chlorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Ethylbenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
m & p-Xylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Bromoform	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Styrene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
o-Xylene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,3-Dichloropropene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Xylene Mixture	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
n-Hexane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
Toluene-d8	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS

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Method Summary

CLIENT NAME: SNC LAVALIN INC

AGAT WORK ORDER: 19T533749

PROJECT: City of Brampton - 665125

ATTENTION TO: Robert Mitzakov

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Water Analysis			
Antimony	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Arsenic	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Barium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Beryllium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Boron	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Cadmium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Chromium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Cobalt	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Copper	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Lead	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Molybdenum	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Nickel	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Selenium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Silver	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Thallium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Uranium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Vanadium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Zinc	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Mercury	MET-93-6100	EPA SW 846 7470 & 245.1	CVAAS
Chromium VI	INOR-93-6034	SM 3500-Cr B	SPECTROPHOTOMETER
Cyanide	INOR-93-6052	MOE METHOD CN- 3015 & SM 4500 CN- I	TECHNICON AUTO ANALYZER
Sodium	MET-93-6105	EPA SW-846 6010C & 200.7	ICP/OES
Chloride	INOR-93-6004	SM 4110 B	ION CHROMATOGRAPH
Electrical Conductivity	INOR-93-6000	SM 2510 B	PC TITRATE
pH	INOR-93-6000	SM 4500-H+ B	PC TITRATE

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AGAT Laboratories

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Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Laboratory Use Only
Work Order #: 19T533749
Cooler Quantity:
Arrival Temperatures: 8.6 | 9.8 | 8.4
Custody Seal Intact: ☐ Yes ☐ No ☐ N/A
Notes: ice

Report Information:
Company: SNC-Lavalin
Contact: Robert Mitrakos
Address: 195 The West Mall, Toronto, ON M9C 5K1
Phone: 416-8[illegible] Fax: 416 635 5882 x 5595
Reports to be sent to:
1. Email: Robert.Mitrakos@snclavalin.com
2. Email:

Regulatory Requirements: ☐ No Regulatory Requirement
(Please check all applicable boxes)

☒ Regulation 153/04
Table 3 (Indicate One)
☒ Ind/Com
☒ Res/Park
☐ Agriculture
Soil Texture (Check One)
☐ Coarse
☐ Fine

☐ Sewer Use
☐ Sanitary
☐ Storm
Region ____ (Indicate One)
☐ MISA

☐ Regulation 558
☒ CCME
☐ Prov. Water Quality Objectives (PWQO)
☐ Other
(Indicate One)

Is this submission for a **Record of Site Condition?** ☐ Yes ☐ No

Report Guideline on *Certificate of Analysis* ☐ Yes ☐ No

Turnaround Time (TAT) Required:
Regular TAT ☒ 5 to 7 Business Days
Rush TAT (Rush Surcharges Apply)
☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day
OR Date Required (Rush Surcharges May Apply):
Please provide prior notification for rush TAT
*TAT is exclusive of weekends and statutory holidays
For 'Same Day' analysis, please contact your AGAT CPM

Project Information:
Project: City of Brampton - 665125
Site Location: 10692 Hwy 50, Brampton
Sampled By: Joey Poston
AGAT Quote #: PO: 665125
Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:
Bill To Same: Yes ☐ No ☐
Company: SNC-Lavalin Inc
Contact:
Address:
Email: Payables@Snclavalin.com

Sample Matrix Legend
B Biota
~~GW~~ Ground Water
O Oil
P Paint
S Soil
SD Sediment
SW Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y/N
~~[illegible]~~ MW-74	Oct 22/19	12:00	13	G.W		Y
MW-75	"	13:00	4	G.W	Limited Recovery	
MW-75S	"	13:00	4	G.W	Limited Recovery	

O. Reg 153 | Field Filtered - Metals, Hg, CrVI | Metals and Inorganics (☐ All Metals ☐ 153 Metals (excl. Hydrides) ☐ Hydride Metals ☐ 153 Metals (Incl. Hydrides)) | ORPs: ☐ B-HWS ☐ Cl ☐ CN ☐ Cr^{6+} ☐ EC ☐ FOC ☐ Hg ☐ pH ☐ SAR | Full Metals Scan | Regulation/Custom Metals | Nutrients: ☐ TP ☐ NH_3 ☐ TKN ☐ NO_3 ☐ NO_2 ☐ NO_3+NO_2 | Volatiles: ☐ VOC ☐ BTEX ☐ THM | PHCs F1 - F4 | ABNs | PAHs | PCBs: ☐ Total ☐ Aroclors | Organochlorine Pesticides | TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs | Sewer Use | Metals, Cyanide | Hexavalent Chromium | Mercury | CCME F1-F4/BTEX/MOE | Volatiles, Inorganics | Potentially Hazardous or High Concentration (Y/N)

															X									
															X									
																						X		
																						X		
																						X		

Samples Relinquished By (Print Name and Sign): Joey Poston — Date: Oct 22/19 — Time: 14:45
Samples Received By (Print Name and Sign): Simon — Date: 19/10/22 — Time: 3:40
Samples Relinquished By (Print Name and Sign): — Date — Time
Samples Received By (Print Name and Sign): — Date — Time
Samples Relinquished By (Print Name and Sign): — Date — Time
Samples Received By (Print Name and Sign): — Date — Time

Page ____ of ____
Nº: T096335

Pink Copy - Client | Yellow Copy - AGAT | White Copy - AGAT

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