

1184-1196 CUMMINGS AVENUE SERVICING AND STORMWATER MANAGEMENT REPORT

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Prepared for: TCU Development Corporation

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1184-1196 Cummings Avenue Servicing and Stormwater Management Report

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1 Introduction

Stantec Consulting Ltd. has been commissioned by TCU Development Corporation to prepare the following Servicing and Stormwater Management Report in support of a Site Plan Control and a Zoning By-Law Amendment application for the proposed development located at 1184-1196 Cummings Avenue in the City of Ottawa.

The 0.35 ha site is situated along the west side of Cummings Avenue, at the southwest corner of the intersection between Cummings Avenue and Weldon Drive. The site is currently zoned R3Y [708] and contains an existing two-storey residential building and two single-storey residential buildings with sheds, trees, and surface parking. The site is bound by Weldon Drive to the north, Cummings Avenue to the east, an existing commercial development to the south and an existing residential development to the west as shown in **Figure 1-1** below.



Figure 1-1: Key Plan of Site

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The proposed 0.35 ha site comprises of a six-storey medium-rise residential building. Project 1 Studios Ltd. has prepared a site plan dated December 19, 2023, which defines the proposed development (see **Appendix B**), while the unit type breakdown is listed in **Table 1.1** below.

Table 1.1: Unit Type Breakdown

Unit Type	Number
Studio	157
One-bedroom	6
One-bedroom with Den	3
Two-bedroom	23
Total	189

1.1 Objective

This site servicing and stormwater management (SWM) report presents a servicing scheme that is free of conflicts, provides on-site servicing in accordance with City of Ottawa Design Guidelines, and uses the existing municipal infrastructure in accordance with any limitations communicated during consultation with the City of Ottawa staff. Details of the existing infrastructure located within the Cummings Avenue right of way (ROW) were obtained from available as-built drawings and site topographic survey.

Criteria and constraints provided by the City of Ottawa have been used as a basis for the detailed servicing design of the proposed development. Specific and potential development constraints to be addressed are as follows:

- Potable Water Servicing
 - Estimated water demands to characterize the proposed feed(s) for the proposed development which will be serviced from the existing 305 mm diameter watermain within the Cummings Avenue ROW.
 - Watermain servicing for the development is to be able to provide average day and maximum day (including peak hour) demands (i.e., non-emergency conditions) at pressures within the acceptable range of 345 to 552 kPa (50 to 80 psi)
 - Under fire flow (emergency) conditions, the water distribution system is to maintain a minimum pressure greater than 140 kPa (20 psi)
- Wastewater (Sanitary) Servicing
 - Define and size the sanitary service lateral which will be connected to the existing 250 mm diameter sanitary sewer within the Cummings Avenue ROW.
- Storm Sewer Servicing
 - Define major and minor conveyance systems in conjunction with the proposed grading plan.
 - Determine the stormwater management storage requirements to meet the allowable release rate for the site.
 - Define and size the proposed storm service lateral that will be connected to the existing
 600 mm diameter municipal storm sewer within the Cummings Avenue ROW.

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• Prepare a grading plan in accordance with the proposed site plan and existing grades.

Drawing SSP-1 illustrates the proposed internal servicing scheme for the site.

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2 Background

Documents referenced in preparing of this stormwater and servicing report for the 1184 Cummings Avenue development include:

- City of Ottawa Sewer Design Guidelines (SDG), City of Ottawa, October 2012, including all subsequent technical bulletins
- City of Ottawa Design Guidelines Water Distribution, City of Ottawa, July 2010, including all subsequent technical bulletins
- Design Guidelines for Drinking Water Systems, Ministry of the Environment, Conservation, and Parks (MECP), 2008
- Fire Protection Water Supply Guideline for Part 3 in the Ontario Building Code, Office of the Fire Marshal (OFM), October 2020
- Water Supply for Public Fire Protection, Fire Underwriters Survey (FUS), 2020
- Geotechnical Investigation Proposed Multi-Storey, 1184, 1188, and 1196 Cummings Avenue, Ottawa, Ontario, Paterson Group, December 18, 2023
- Phase I Environmental Site Assessment, 1184, 1188 and 1196 Cummings Avenue, Ottawa, Ontario, Paterson Group, March 6, 2023

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3 Water Servicing

3.1 Background

The proposed building is in Pressure Zone 1E of the City of Ottawa's Water Distribution System. The existing dwellings have water service lateral connections to the existing 305 mm diameter watermain on Cummings Avenue. The existing services will be blanked at the main by City forces, as shown in the Existing Conditions and Removals Plan (see **Drawing EX-1**).

3.1 Water Demands

3.1.1 POTABLE (DOMESTIC) WATER DEMANDS

The City of Ottawa Water Distribution Guidelines (July 2010) and ISTB 2021-03 Technical Bulletin were used to determine water demands based on projected population densities for residential areas and associated peaking factors. The population was estimated using an occupancy of 1.4 persons per unit for studio and one-bedroom apartments and 2.1 persons per unit for one-bedroom with den and two-bedroom apartments. Based on the unit type breakdown in **Table 1.1**, the proposed building is estimated to have a total population of 283 persons.

A daily rate of 280 L/cap/day has been used to estimate average daily (AVDY) potable water demand for the residential units. Maximum day (MXDY) demands were determined by multiplying the AVDY demands by a factor of 2.5 for residential areas, while peak hourly (PKHR) demands were determined by multiplying the MXDY by a factor of 2.2 for residential areas. The estimated demand for the proposed residential building is summarized in **Table 3-1** below and detailed in **Appendix A.1**.

Demand Type	Population	AVDY (L/s)	MXDY (L/s)	PKHR (L/s)
Studio	220	0.71	1.78	3.92
1 Bedroom	8	0.03	0.07	0.15
1 Bedroom + Den	6	0.02	0.05	0.11
2 Bedroom	48	0.16	0.39	0.86
Total Site:	283	0.92	2.39	5.04

Table 3-1: Estimated Water Demands

3.1.2 FIRE FLOW DEMANDS

Fire flow requirements were estimated using Fire Underwriters Survey (FUS) methodology, as the estimated fire flow for the site equals or exceeds 9,000 L/min (150.0 L/s) when determined through the Office of the Fire Marshal (OFM) fire protection water supply guidelines under the Ontario Building Code. The FUS estimate is based on a building of ordinary construction type, as a result, the 'gross construction

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area' of all floor areas was used for the purpose of the FUS calculation, as per page 22 of the *Fire Underwriters Survey's Water Supply for Public Fire Protection*, 2020. Additionally, it is anticipated that the building will be equipped with an automatic sprinkler system that is fully supervised and conforms to the NFPA 13 standard. Required fire flows were determined to be 333.3 L/s (20,000 L/min). Detailed fire flow calculations per the FUS methodology are provided in **Appendix A.2**, while correspondence with the architect on the construction type are provided in **Appendix A.3**.

3.2 Level of Servicing

3.2.1 BOUNDARY CONDITIONS

The estimated domestic water and fire flow demands were used to define the level of servicing required for the proposed development from the municipal watermain and hydrants within the Cummings Avenue ROW. **Table 3-2** outlines the boundary conditions provided by the City of Ottawa on June 29, 2023.

	Connection at Cummings Avenue
Min. HGL (m)	110.1
Max. HGL (m)	118.3
Max. Day + Fire Flow (333.3 L/s) HGL (m)	108.7

Table 3-2: Boundary Conditions

3.2.2 ALLOWABLE DOMESTIC PRESSURES

The desired normal operating pressure range in occupied areas as per the City of Ottawa 2010 Water Distribution Design Guidelines is 345 kPa to 552 kPa (50 psi to 80 psi) under a condition of maximum daily flow and no less than 276 kPa (40 psi) under a condition of maximum hourly demand. Furthermore, the maximum pressure at any point in the water distribution should not exceed 689 kPa (100 psi) as per the Ontario Building/Plumbing Code; pressure reducing measures are required to service areas where pressures greater than 552 kPa (80 psi) are anticipated in occupied areas.

The proposed finished floor elevation of the first floor, 71.8 m, will serve as the ground floor elevation for the calculation of the residual pressures at ground level. As per the boundary conditions, the on-site pressures are expected to range from 375.5 kPa to 455.9 kPa (54.4 psi to 66.1 psi) under normal operating conditions, which are within the normal operating pressure range defined by the City of Ottawa design guidelines as within 276 kPa to 552 kPa (40 psi to 80 psi). It is anticipated that booster pumps will be required to service the upper floors of the building.

3.2.3 ALLOWABLE FIRE FLOW PRESSURES

The boundary conditions provided by the City of Ottawa indicate that watermain within Cummings Avenue is expected to maintain a residual pressure of 37 m equivalent to 362.8 kPa (52.6 psi) under the worst-case fire flow conditions. This demonstrates that the watermains and nearby hydrants can provide the required fire flows while maintaining a residual pressure of 20 psi.

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3.2.4 FIRE HYDRANT COVERAGE

The building will be sprinklered and a Siamese (fire department) connection is to be provided to the right of the main entrance. There are six existing hydrants in the proximity of the proposed development site, as shown in **Figure 3-1**. The distance of each hydrant from the proposed building is more than 76 m.

According to the NFPA 1 Table 18.5.4.3 in Appendix I of the City of Ottawa Technical Bulletin ISTB-2018-02, a hydrant situated less than 76 m away from a building can supply a maximum capacity of 5,678 L/min, while a hydrant situated between 76 m and 152 m away from a building can supply a maximum capacity of 3,785 L/min. Given the large fire flow demands from the site, it is proposed that a new fire hydrant be placed within 45 metres from the Siamese connection both to meet requirements of the Ontario Building Code (OBC) and to reduce the number of fire hydrants needed to service the site's fire flow demand. It is suggested that the new hydrant be located in the north end of the site, west of Cummings Avenue as shown on **Drawing SSP-1**. See **Appendix A.6** for fire hydrant coverage table calculations and NFPA Table 18.5.4.3.

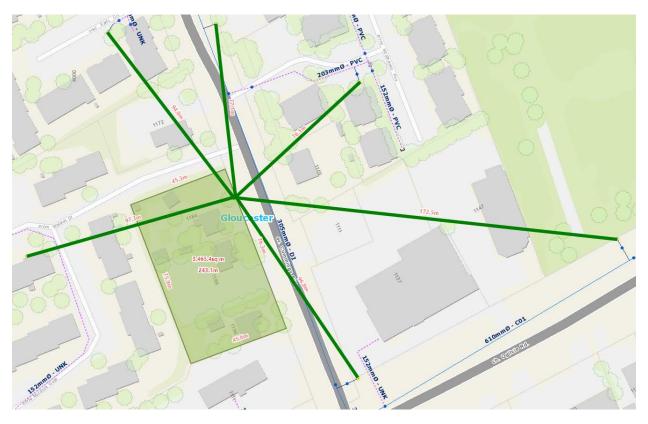


Figure 3-1: Existing Fire Hydrant Coverage Map

3.3 Proposed Water Servicing

The development will be serviced via dual 150 mm building services connecting to the existing 305 mm diameter watermain on Cummings Avenue with a 300 mm main isolation valve and individual 150 mm

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valves on each building service. The sizing of the service connection is to be confirmed by the mechanical consultant.

The proposed water servicing is shown on **Drawing SSP-1**. Based on the City of Ottawa Water Design Guidelines and the provided boundary conditions, the existing 305 mm diameter watermain on Cummings Avenue can provide adequate fire and domestic flows for the subject site.

Booster pumps are required for the building. The mechanical consultant or plumbing contractor will ultimately be responsible to confirm building pressures are adequate to meet building code requirements.

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4 Wastewater Servicing

The site will be serviced from the existing 250 mm diameter asbestos cement sanitary sewer within the Cummings Avenue ROW. The existing dwellings have sanitary service lateral connections to the municipal sewer, which will be decommissioned and abandoned as shown in **Drawing EX-1**.

4.1 Design Criteria

As outlined in the City of Ottawa Sewer Design Guidelines and the MECP Design Guidelines for Sewage Works, the following criteria were used to calculate the estimated wastewater flow rates and to determine the size and location of the sanitary service lateral:

- Minimum velocity = 0.6 m/s (0.8 m/s for upstream sections)
- Maximum velocity = 3.0 m/s
- Manning roughness coefficient for all smooth wall pipes = 0.013
- Minimum size of sanitary sewer service = 135 mm
- Minimum grade of sanitary sewer service = 1.0 % (2.0 % preferred)
- Average wastewater generation = 280 L/person/day (per City Design Guidelines)
- Peak Factor = based on Harmon Equation; maximum of 4.0 (residential)
- Harmon correction factor = 0.8
- Infiltration allowance = 0.33 L/s/ha (per City Design Guidelines)
- Minimum cover for sewer service connections 2.0 m
- Population density for one-bedroom and bachelor apartments 1.4 persons/apartment
- Population density for one-bedroom with den and two-bedroom apartments 2.1 persons/apartment

4.2 Wastewater Generation and Servicing Design

The estimated peak wastewater flow generated are based on the current site plan and unit breakdown as shown in **Table 1.1**. The anticipated wastewater peak flow generated from the proposed development is summarized in **Table 4-1** below.

Table 4-1: Estimated Peak Wastewater Flow

Peak R	esidential Waste	Infiltration	Total Peak	
Population	Peak Factor	Peak Flow (L/s)	Flow (L/s)	Flow (L/s)
283	3.47	3.2	0.1	3.3

Detailed sanitary sewage calculations are included in **Appendix C.1**. A full port backwater valve will be required for the proposed building in accordance with the Sewer Design Guidelines and will be coordinated with the building mechanical engineers.

The anticipated peak wastewater flows for the proposed development were provided to the City of Ottawa staff on August 16th, 2023 (see **Appendix C.2**) to evaluate the adequacy of the receiving municipal



sanitary sewer system in the vicinity of the site and downstream network. The City has confirmed that the 250 mm diameter sanitary sewers in Cummings Avenue has sufficient capacity for the proposed sanitary peak flows; however, the sewers will not have any further capacity should any additional development occur in the 250 mm sanitary sewer area along Cummings Avenue.

4.3 Proposed Sanitary Servicing

A 150 mm diameter sanitary building service, complete with full port backwater valve as per City standard S14.1, is recommended to service the proposed development. Final sizing of the lateral is to be confirmed by the mechanical consultant. The sanitary lateral is be equipped with a sanitary monitor manhole prior to connecting to the existing sewer manhole in Cummings Avenue. The proposed sanitary servicing is shown on **Drawing SSP-1**.

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5 Stormwater Management and Servicing

5.1 Objectives

The goal of this stormwater servicing and stormwater management (SWM) plan is to determine the measures necessary to control the quantity and quality of stormwater released from the proposed development to meet the criteria established during the consultation process with City of Ottawa and Rideau Valley Conservation Authority (RVCA) staff, and to provide sufficient details required for approval.

5.2 Stormwater Management (SWM) Criteria

The Stormwater Management (SWM) criteria were established by combining current design practices outlined by the City of Ottawa Sewer Design Guidelines (SDG) (October 2012), review of project preconsultation notes with the City of Ottawa, and through consultation with City of Ottawa staff. The following summarizes the criteria, with the source of each criterion indicated in brackets:

General

- Use of the dual drainage principle (City of Ottawa SDG)
- Wherever feasible and practical, site-level measures should be used to reduce and control the volume and rate of runoff (City of Ottawa SDG)
- Assess impact of 100-year event outlined in the City of Ottawa Sewer Design Guidelines on the major and minor drainage systems (City of Ottawa SDG)

Storm Sewer & Inlet Controls

- Size storm sewers to convey 5-year storm event.
- Discharge for each storm event to be restricted to a 5-year storm event pre-development rate with a maximum pre-development C coefficient of 0.5 (City of Ottawa pre-consultation, **Appendix F**)
- Peak flows generated from events greater than the 5-year and including the 100-year storm must be detained on site (City of Ottawa pre-consultation, **Appendix F**)
- The preferred stormwater system outlet for this site is the 600 mm diameter storm sewer within Cummings Avenue
- The foundation drainage system is to be pumped to the building site storm service lateral tying to Cummings Avenue.
- Internal roof drainage system shall not be routed through the cistern.
- T_c should be not less than 10 minutes (City of Ottawa SDG).

Surface Storage & Overland Flow

- Building openings to be a minimum of 0.30 m above the 100-year water level (City of Ottawa SDG)
- Maximum depth of flow under either static or dynamic conditions shall be less than 0.35 m (City of Ottawa SDG)

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Provide adequate emergency overflow conveyance off-site with a minimum vertical clearance of 15
cm between the spill elevation and the ground elevation at the building envelope in the proximity of
the flow route or ponding area (City of Ottawa SDG)

5.3 Existing Conditions

The existing site (0.35 ha) consists of two one-story buildings, a two-storey building, vegetated/sodded areas, trees, chain link fencing, and gravel parking and driveway. The existing structures, chain link fence, and some trees will be removed to allow for the proposed development, as shown in the Existing Conditions and Removals Plan (see **Drawing EX-1**).

Three sub-catchments were delineated in the Existing Conditions Storm Drainage Plan (see **Drawing EXSD-1**), consisting of the north, west, and east areas of the site. The catchments are characterized by a mix of gravel, roof, and vegetated areas, as well as the direction of uncontrolled discharge under existing conditions. The EXSD-1 plan was used to establish the overall site pre-development runoff coefficient of C=0.43, as summarized in **Table 5-1** below.

Catchment Areas	С	A (ha)	Outlet
NORTH	0.40	0.07	Weldon ROW
WEST	0.45	0.20	Adjacent property
EAST	0.41	0.08	Cummings ROW
Total	0.43	0.35	-

Table 5-1: Summary of Existing Subcatchment Areas

The pre-development release rates for the site have been determined using the rational method and the drainage characteristics identified above. A time of concentration for the pre-development area was first determined using the FAA method. As calculated time of concentrations were determined to be below 10 minutes, the minimum 10 minute Tc was assigned. The peak pre-development flow rates shown in **Table 5-2** have been calculated using the rational method as follows:

$$Q = 2.78 (C)(I)(A)$$

Where:

Q = peak flow rate, L/s

C = site runoff coefficient

I = rainfall intensity, mm/hr (per City of Ottawa IDF curves)

A = drainage area, ha

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Table 5-2: Peak Pre-Development Flow Rates

Design Storm	Pre-Development Flow Rate (L/s) for C=0.43, A=0.35 ha, t _c = 10 min	
5-year	43.3	

5.4 Stormwater Management Design

The Modified Rational Method was employed to assess the rate and volume of runoff anticipated during post-development rainfall runoff events. The site was subdivided into sub-catchments (subareas) as defined by the proposed grades and the location, nature, or presence/absence of inlet control devices (ICDs). Each sub-catchment was assigned a runoff coefficient based on the proposed finished surface. A summary of subareas and runoff coefficients is provided in **Table 5-3** below. Further details can be found in **Appendix D.1**, while **Drawing SD-1** illustrates the proposed sub-catchments.

Table 5-3: Summary of Subcatchment Areas

Catchment Areas	С	A (ha)	Flow Type	Outlet
BLDG-1	0.90	0.165	Controlled	Cummings Storm Sewer
BLDG-2	0.90	0.003	Controlled	
BLDG-3	0.90	0.001	Controlled	
BLDG-4	0.90	0.001	Controlled	
CB-1	0.69	0.046	Controlled	Cistern
CB-2	0.73	0.027	Controlled	
CB-3	0.70	0.024	Controlled	
RAMP	0.90	0.008	Uncontrolled	
UNC-1	0.20	0.005	Uncontrolled	Adjacent property
UNC-2	0.20	0.020	Uncontrolled	Adjacent property / Weldon Drive
UNC-3	0.20	0.013	Uncontrolled	Weldon Drive
UNC-4	0.46	0.035	Uncontrolled	Cummings ROW
Total Site	0.73	0.348	-	-

5.4.1 ALLOWABLE RELEASE RATE

The pre-development 5-year release rate for the site was determined using the rational method to be 43.3 L/s. Consequently, the target release rate for 1184-1196 Cummings Avenue under all events up to and including the 100-year event will be 43.3 L/s. Runoff coefficient values have been increased by 25 % for the post-development 100-year storm event based on the City of Ottawa SDG.

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5.4.2 QUANTITY CONTROL: STORAGE REQUIREMENTS

The site requires quantity control measures to meet the restrictive stormwater release criteria. It is proposed that rooftop storage via restricted roof release directly to the Cummings Ave. storm sewer while the remaining site drainage be collected through catch basins and routed to an internal cistern to reduce the site peak outflow. A spreadsheet using the Modified Rational Method (MRM) was used to size the roof and cistern storage, as shown in **Appendix D.1.**

5.4.2.1 Rooftop Storage

It is proposed to retain stormwater on the building rooftop by installing restricted flow roof drains. The MRM calculations assume the roof will be equipped with 27 standard Watts model roof drains complete with Adjustable Accutrol Weirs. Discharge from the controlled roof drains will be routed by the mechanical consultant through the building's internal plumbing to the storm service lateral downstream of the proposed cistern.

Watts Drainage Adjustable Accutrol roof drain weir data (see **Appendix D.2**) and the roof plan (see **Appendix B**) has been used to calculate a practical roof release rate and detention storage volume for the rooftop areas, with 80 % of the roof area assumed to be available for storage. It should be noted that the Accutrol weir has been used as an example only, and that other products may be specified for use, provided that:

- the peak roof drain release rate is restricted to match the maximum rate of release indicated in **Table 5-3**,
- sufficient roof storage is provided to meet (or exceed) the required volume of detained stormwater indicated in **Table 5-3**, and
- the maximum ponding depth of 150 mm is not exceeded during a design storm event.

The proposed drain release rates and storage volumes have been calculated based on 21 of the roof drain weirs at 25 % opened setting, and 6 drains at the closed setting. Rooftop storage volumes and controlled release rates are summarized in **Table 5-4**.

Table 5-4: Roof Subcatchment (BLDG-1) Stormwater Management

Design Storm	Storage Depth (mm)	Peak Discharge (L/s)	Volume Stored (m³)
5-Year (Roof)	90	17.8	15.1
100-Year (Roof)	128	20.3	41.6

5.4.2.2 Uncontrolled Areas

There are four uncontrolled subcatchment areas, consisting of UNC-1, UNC-2, UNC-3, and UNC-4, which drain to the south and west sides of the site and to the Weldon Drive and Cummings Avenue ROW, respectively. While UNC-1 and UNC-2 will continue to drain as per existing conditions to the neighbouring properties, UNC-3 and UNC-4 will drain to the Weldon Drive and Cummings Avenue ROW via surface



flows and are directed toward the existing roadway catch basins (CBs). The peak post-development release rates from the uncontrolled areas are summarized in **Table 5-5**.

Table 5-5: Peak Post-Development Uncontrolled Surface Release Rates

Design	Release Rate (L/s)								
Storm	UNC-1	UNC-2	UNC-3	UNC-4	Total				
5-Year	0.3	1.2	0.8	4.7	6.3				
100-Year	0.6	2.5	1.6	10.0	13.5				

Table 5-6 compares the pre- and post-development peak stormwater release rates from the north side of the site, which discharges uncontrolled towards Weldon Drive as per existing conditions. The table below demonstrates that by developing the site, the overall stormwater release rate towards Weldon Drive will be reduced by 74 % in the 5-year event and by 69 % in the 100-year event compared to existing conditions.

Table 5-6: Comparison of Uncontrolled Discharge to Weldon Drive Pre- to Post-Development

	A (ha)	С	5-Year (L/s)	5-Year Difference (%)	100-Year (L/s)	100-Year Difference (%)
Pre-development from NORTH	0.07	0.40	7.6	-	13.1	-
Post-development from UNC-3, UNC-2	0.03	0.20	2.0	-	4.1	-
Difference	-0.04	-	-5.6	-74	-9.0	-69

The reverse sloped ramp to the parking garage is to be equipped with a trench drain at the bottom of the ramp to provide an outlet for the driveway area (RAMP subcatchment). As per Section 5.7.6 of the City SDG (as amended), separate stormwater service piping is proposed to connect the trench drain to the cistern, also separate from the foundation drain and will be designed by the mechanical engineer.

5.4.2.3 Stormwater Cistern

As part of the stormwater management design of the site development, a stormwater cistern located in the underground parking area and equipped with a mechanical pump is proposed to attenuate peak flows from the catch basin and ramp drain areas. The final location of the cistern within the proposed building is to be coordinated by the architect with mechanical and structural engineers.

The stormwater cistern is to be designed to provide a minimum active storage volume of 30 m³ with a maximum controlled release rate of 8.3 L/s. The stormwater cistern is to discharge at the specified controlled release rate using a pump. **Table 5-7** summarizes the respective flow rates and volume of retained stormwater in the 5-year and 100-year storm events.

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Table 5-7: Proposed Cistern 5 and 100-Year Storage Requirement

Storm Return Period	Area IDs	Drainage Area (ha)	Q _{release} (L/s)	V _{required} (m ³)	V _{available} (m³)
5-year	CB-1 – CB-3,			8.9	
100-year	RAMP, BLDG-2 – BLDG-4	0.11	8.3	29.6	30.0

5.4.2.4 Results

The proposed stormwater management plan meets the requirements identified during pre-consultation that all stormwater release under all storm events, including the 100-year storm event, are to be controlled to the 5-year pre-development target release rate. **Table 5-8** provides a summary of the peak design discharge rates calculated from the MRM analysis, shown in **Appendix D.1**.

Table 5-8: Summary of Total 5-Year and 100-Year Event Release Rates

Drainage areas	5-year Peak Discharge (L/s)	100-Year Peak Discharge (L/s)
Uncontrolled Areas	6.9	14.7
Roof to Sewer	17.8	20.3
Cistern to Sewer	8.3	8.3
Target (L/s)	43.3	43.3
Total (L/s)	33.0	43.3*

^{*}May not sum exactly due to rounding.

5.4.3 QUALITY CONTROL

Through correspondence with the City of Ottawa, it was confirmed that on-site quality control with a minimum target of 80 % TSS removal be established. As such, an oil/grit separator (OGS) has been specified for this purpose to capture runoff from impervious areas of development. Using a fine particle size distribution and the Stormceptor Sizing Tool, a Stormceptor model EFO4 has been selected for the proposed monitoring manhole at the east property limit near Cummings Avenue and will achieve 92% TSS removal, exceeding the minimum required TSS removal level of 80%. The surface areas and runoff coefficient of which the sizing is based on is tabulated in **Table 5-9** below, while the detailed Stormceptor sizing report is included in **Appendix D.5**.

Table 5-9: Surface Area and Runoff for Stormceptor Sizing

Catchment Areas	С	A (ha)		
CB-1	0.69	0.05		
CB-2	0.73	0.03		
CB-3	0.70	0.02		
RAMP	0.90	0.01		
BLDG-1	0.90	0.17		
BLDG-2	0.90	0.00		
BLDG-3	0.90	0.00		
BLDG-4	0.90	0.00		
Total	0.81	0.29		

The OGS unit has been considered as an example only. Other OGS products or treatment systems with equivalent TSS removal capabilities may also be selected based on the input parameters noted within the Stormceptor sizing report.

5.5 Proposed Stormwater Servicing

One 300 mm diameter stormwater building service, complete with full port backwater valve as per City standard S14.1, is proposed for the storm service lateral, as per **Drawing SSP-1**. A stormwater sump and pump are required for the proposed foundation drain, ramp drain and surface drainage. The roof drains are to be connected to the service lateral downstream of the sump pump and full port backwater valve.

The foundation drain and proposed private storm sewers will outlet to the cistern, which then pumps the discharge at a controlled rate to the existing 600 mm diameter storm sewer within the Cummings Avenue ROW. The lateral is to connect to the main as per City standard S11. The proposed stormwater servicing is shown on **Drawing SSP-1** and **SD-1**.

(

6 Site Grading

The proposed re-development site measures approximately 0.35 ha in area and consists of grassed areas with trees and three existing residential dwellings. The topography across the site generally slopes from the middle towards the northern boundary and the Cummings Avenue ROW at the south. A detailed grading plan (see **Drawing GP-1**) has been provided to satisfy the stormwater management requirements, as detailed in **Section 5**, adhere to any grade raise restrictions for the site, and provide for minimum cover requirements for storm and sanitary sewers where possible.

Site grading has been established to provide emergency overland flow routes required for stormwater management. The overland escape route will follow the south curb line of the site access drive aisle, with overland flow to Cummings Avenue right of way. The elevation of onsite surface ponding will be a minimum of 0.30 m below the elevations at the building openings as shown on the drawings. The proposed development will require a section of retaining wall along the west and south boundary to maintain existing property line ground conditions and to ensure the overland spill route is directed to Cummings Avenue rather than to neighboring parcels.

Pro

7 Utilities

Overhead (OH) hydro-wires run parallel to the south property line with branches servicing the existing buildings from the south. All utilities within the work area will require relocation during construction. The existing utility poles within the public right of way are to be protected during construction.

As the site is surrounded by existing residential and commercial development, Hydro Ottawa, Bell, Rogers, and Enbridge servicing is readily available through existing infrastructure to service this site. The exact size, location, and routing of utilities will be finalized after design circulation. Existing overhead wires and utility plants may need to be temporarily moved/reconfigured to allow sufficient clearance for the movement of heavy machinery required for construction. The relocation of existing utilities will be coordinated with the individual utility providers upon design circulation.

(

8 Approvals

The proposed development lies on a private site under singular ownership; drains to an approved separated sewer outlet; and is not intended to service industrial land or land uses. Therefore, the site is exempt from the Ministry of the Environment, Conservation and Parks (MECP) Environmental Compliance Application (ECA) process under O.Reg. 525/98.

For ground or surface water volumes being pumped during the construction phase, typically between 50,000 to 400,000 L/day, it is required to register on the Environmental Activity and Sector Registry (EASR). It is possible that groundwater may be encountered during the foundation excavation on this site. A minimum of two to four weeks should be allotted for completion of the EASR registration and the preparation of the Water Taking and Discharge Plan by a Qualified Person as stipulated under O.Reg. 63/16. An MECP Permit to Take Water (PTTW), which is required for dewatering volumes exceeding 400,000L/day, is not anticipated for the site.

(

9 Erosion and Sediment Control During Construction

To protect downstream water quality and prevent sediment build-up in catch basins and storm sewers, erosion and sediment control measures must be implemented during construction. The following recommendations will be included in the contract documents and communicated to the Contractor.

- 1. Implement best management practices to provide appropriate protection of the existing and proposed drainage system and the receiving water course(s).
- 2. Limit the extent of the exposed soils at any given time.
- 3. Re-vegetate exposed areas as soon as possible.
- 4. Minimize the area to be cleared and grubbed.
- 5. Protect exposed slopes with geotextiles, geogrid, or synthetic mulches.
- 6. Install silt barriers/fencing around the perimeter of the site as indicated in **Drawing ECDS-1** to prevent the migration of sediment offsite.
- 7. Install trackout control mats (mud mats) at the entrance/egress to prevent migration of sediment into the public ROW.
- 8. Provide sediment traps and basins during dewatering works.
- 9. Install sediment traps (such as SiltSack® by Terrafix) between catch basins and frames.
- 10. Schedule the construction works at times which avoid flooding due to seasonal rains.

The Contractor will also be required to complete inspections and guarantee the proper performance of their erosion and sediment control measures at least after every rainfall. The inspections are to include:

- Verification that water is not flowing under silt barriers.
- Cleaning and changing the sediment traps placed on catch basins.

Refer to **Drawing ECDS-1** for the proposed location of silt fences, sediment traps, and other erosion control measures.

(

10 Geotechnical Investigation

A geotechnical investigation for 1184-1196 Cummings Avenue was completed by Pinchin on March 27, 2023, and revised in December 2023. Field testing consisting of the advancement of four boreholes to a maximum depth of 7.6 m below existing grade was carried out throughout the subject site on March 10, 2023, with previous investigations carried out by Paterson on February 14, 2023 and by others on January 28, 2021. The borehole locations are presented in the geotechnical investigation report included in **Appendix E.1**.

The subsurface profile encountered at the test hole locations consists of topsoil and fill, underlain by a layer of silty sand to sandy silty with gravel and cobbles, overlying bedrock. The fill was noted to consist of a mixture of brown silty sand with gravel and crushed stone, trace clay, some shale, and cobbles. Bedrock was observed to consist of black shale of the Billings formation and is classified as very poor to fair in quality at the top, generally increasing in quality with depth.

Groundwater levels were measured to be at depths ranging from 2.07 m to 2.87 m below ground surface (BGS) at the four boreholes on site. Long term groundwater level is estimated to be at 2 to 3 m BGS, though seasonal variations in the water table should be expected. Clean imported granular fill should be used for grading beneath the building areas, while site-excavated soil and non-specified existing fill can be used for general landscaping fill where settlement of the ground surface is of minor concern.

The subject site is considered suitable for the proposed building, and it is recommended that it be founded using conventional shallow footings placed on clean, surface sounded bedrock. Bedrock removal could be carried out by hoe-ramming, while for sounded bedrock removal, line drilling and controlled blasting may be used, though a pre-blast or pre-construction survey must be carried out, with subsequent blasting operations planned and carried out under the supervision of an experienced blasting consultant who is a licensed professional engineer.

The pavement structure for the parking and access driveway is provided as follows in **Table 10-1**: Pavement Structure:

Table 10-1: Pavement Structure

Material	Thickness (mm)						
	Parking Areas	Driveways	Underground Parking				
Rigid Concrete Pavement – 32 MPa concrete with air entrainment	-	•	125				
Wear Course – HL-3 or Superpave 12.5 Asphaltic Concrete	50	40	-				
Binder – HL-8 or Superpave 19.0 Asphaltic Concrete	-	50	-				
Base – OPSS Granular A Crushed Stone	150	150	300				
Sub-Base – OPSS Granular B Type II	300	400	-				

(

11 Conclusions

11.1 Water Servicing

Based on the supplied boundary conditions for existing watermains and calculated domestic and fire flow demands for the subject site, the adjacent watermain on Cummings Avenue has sufficient capacity to sustain both the required domestic and emergency fire flow demands for the development. Booster pumps are required to provide adequate pressures to the building's upper stories. The proposed development requires a 150 mm diameter water service lateral, which will be connected to the existing 305 mm diameter watermain in the Cummings Avenue ROW, and a new fire hydrant to be located within the public road right of way. Sizing of the water service and requirements for booster pump(s) are to be confirmed by the mechanical consultant.

11.2 Sanitary Servicing

The proposed sanitary sewer service will consist of a 150 mm diameter sanitary service lateral, a sanitary sump pit, a monitor manhole, and sump pump directing wastewater to the existing 250 mm diameter sanitary sewer on Cummings Avenue. Existing connections are to be abandoned and full port backwater valves installed on the proposed sanitary service within the site to prevent any surcharge from the downstream sewer main from impacting the proposed property. A sump pump will be required for sewage discharge from the mechanical room. Sizing of the service lateral, sump pit, and sump pump are to be confirmed by the mechanical consultant.

11.3 Stormwater Servicing and Management

Rooftop storage and a cistern have been proposed to limit the stormwater discharge rate for all rainfall events up to and including the 100-year event to a peak 5-year predevelopment release rate. The remaining site area drains uncontrolled, with the east and north sides drain uncontrolled to the Cummings Avenue ROW and Weldon Drive, while the south and west landscaped sides of the site drain uncontrolled to the neighbouring properties as per existing conditions. While the proposed land use and site surfacing is not expected to be a significant source of particulates or pollutants, it is recommended that the site provides Enhanced level of stormwater quality control (80 % TSS removal).

A single 300 mm diameter storm service lateral is proposed for the building's foundation drain, ramp drain and storm sewer system, which is to be mechanically pumped at a controlled rate through the service lateral and the backwater valve to the 600 mm diameter municipal storm sewer in the Cummings Avenue ROW. The roof drains are to be connected independently to the storm service lateral. Sizing of the service lateral, cistern, and foundation drain pump are to be confirmed by the mechanical consultant.

3

11.4 Grading

Site grading has been designed to provide an adequate emergency overland flow route. The east and north sides drain uncontrolled to the Cummings Avenue and Weldon Drive ROWs, while the south and west sides drain uncontrolled to the neighbouring properties as per existing conditions.

11.5 Erosion and Sediment Control During Construction

Erosion and sediment control measures and best management practices outlined in this report and included in the drawing set will be implemented during construction to reduce the impact on adjacent properties, the public ROW, and existing facilities.

11.6 Geotechnical Investigation

Based on the geotechnical investigation, the site is considered suitable for the proposed building, and it is recommended that it be founded using conventional shallow footings placed on clean, surface sounded bedrock. Long term groundwater level is estimated to be at 2 to 3 m BGS, though seasonal variations in the water table should be expected.

11.7 Utilities

The site is situated within an established neighbourhood, hence existing utility infrastructure is readily available to service the proposed development.

11.8 Approvals

This site is exempt from the Ministry of the Environment, Conservation and Parks (MECP) Environmental Compliance Application (ECA) process under O.Reg. 525/98. For the expected dewatering needs of 50,000 to 400,000 L/day, the proponent will need to register on the MECP's Environmental Activity and Sector Registry (EASR). A Permit to Take Water, for dewatering needs in excess of 400,000 L/day, is not anticipated for this site.

APPENDICES

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Appendix A Water Demands

A.1 Domestic Water Demands



Project Number: 160401787

A-1

1184-1196 Cummings Avenue - Domestic Water Demand Estimates

Site Plan provided by Project 1 Studios (2023-12-19) Project Number: 160401787

Population densities as per MECP Guidelines:						
Bachelor	1.4	ppu				
1 Bedroom	1.4	ppu				
2 Bedroom	2.1	ppu				



Demand conversion factors as per MECP Guidelines and Ottawa Design Guidelines - Water Distribution⁵:

Residential 280 L/cap/day

Building ID	Number of	Estimated Daily Rate of		Avg. Day Demand		Max. Day	y Demand ¹	Peak Hour Demand 1	
	Apt Units ²	Population	Demand ⁴	(L/min)	(L/s)	(L/min)	(L/s)	(L/min)	(L/s)
Studio	157	220	280	42.7	0.71	106.8	1.78	235.1	3.92
1-Bedroom	6	8	280	1.6	0.03	4.1	0.07	9.0	0.15
1-Bedroom+Den ³	3	6	280	1.2	0.02	3.1	0.05	6.7	0.11
2-Bedroom	23	48	280	9.4	0.16	23.5	0.39	51.7	0.86
Total Site :	189	283		54.99	0.92	137.47	2.29	302.44	5.04

Notes:

1 Water demand criteria used to estimate peak demand rates for residential areas are as follows:

maximum day demand rate = 2.5 x average day demand rate

peak hour demand rate = 2.2 x maximum day demand rate (as per Technical Bulletin ISD-2010-02)

- 2 Number of apartment units counted as per Project1 Studios Suite Plan (December 19, 2023).
- 3 Assumption that "1 bedroom with den" has density of 2.1 ppu
- 4 As per Table 4-2 from the City of Ottawa Water Design Guidelines and Technical Bulletin ISTB-2021-03, the average daily rate of water demand for residential areas: 280 L/cap/day

A.2 Fire Flow Demands (FUS 2020)



Stantec

FUS Fire Flow Calculation Sheet - 2020 FUS Guidelines

Stantec Project #: 160401787 Project Name: 1184-1196 Cummings Avenue Date: 2024-01-10 Fire Flow Calculation #: 1

Description: 6-storey residential apartment building

Notes: Site Plan provided by Project 1 Studio on December 19, 2023

Step	Task		Notes								Value Used	Req'd Fire Flow (L/min)	
1	Determine Type of Construction		Type III - Ordinary Construction / Type IV-C - Mass Timber Construction									1	-
2	Determine Effective		Sum	of All Floor	Areas							-	-
	Floor Area	2071	1623	1639	1621	1610	1439	1433				11436	-
3	Determine Required Fire Flow				(F = 220 x C	x A ^{1/2}). Rour	nd to nearest	1000 L/min				-	24000
4	Determine Occupancy Charae					Limited Co	mbustible					-15%	20400
						Conforms	to NFPA 13					-30%	
5	Determine Sprinkler	mine Sprinkler Standard Water Supply							-10%	-10200			
	Reduction	Fully Supervised									-10%	-10200	
			% Coverage of Sprinkler System								100%		
		Direction	Direction Exposure Exposed Length (m) Exposed Height Focior (mx stories) Exposed Height Stories Exposed Height Focior (mx stories) Exposed Height Focior					red ?	-	-			
	Determine Increase	North	10.1 to 20	37	1	21-49	Тур	e V		NO		11%	
6	for Exposures (Max. 75%)	East	20.1 to 30	63	2	> 100	Тур	e V		NO		10%	9588
	7.6761	South	10.1 to 20	37	1	21-49	Тур	e V		NO		11%	7300
		West 10.1 to 20 63 2 > 100 Type V NO							15%				
			Total Required Fire Flow in L/min, Rounded to Nearest 1000L/min							20000			
7	Determine Final									333.3			
	Required Fire Flow					Required	Duration of I	Fire Flow (hr	s)				4.50
						Required	l Volume of F	ire Flow (m ³	3)				5400

A.3 Correspondence with Architect on Construction Type



A-3

Wu, Michael

Please consider the environment before printing this email.

From: Sent: To: Cc: Subject:	Ryan Koolwine <koolwine@project1studio.ca> Monday, 27 March, 2023 15:44 Moir, Tyler Kilborn, Kris; Wu, Michael RE: 2231 - 1184 Cummings</koolwine@project1studio.ca>								
Hi Tyler,									
The building will be sprinklered.	he building will be sprinklered.								
have a 1hr FRR and so will demis	The building is to be wood framed. That said, every exterior wall will have a fire resistance rating of 1hr, the floors will have a 1hr FRR and so will demising walls. We would propose that the building be considered 'ordinary construction' for the purpose of the FUS calculation.								
Ryan Koolwine									
project1studio 613 884-3939 x1									
From: Moir, Tyler <tyler.moir@st Sent: March 27, 2023 3:03 PM To: Ryan Koolwine <koolwine@pr Cc: Kilborn, Kris <kris.kilborn@sta Subject: RE: 2231 - 1184 Cummin</kris.kilborn@sta </koolwine@pr </tyler.moir@st 	roject1studio.ca> Intec.com>; Wu, Michael <michael.wu@stantec.com></michael.wu@stantec.com>								
Hi Ryan,									
	ons request for the 1184 Cummings Ave project, we will need to confirm the proposed afirm that the building is sprinklered. Can you provide this information at your earliest								
Thanks, Tyler									
Tyler Moir P.Eng. Project Manager, Community Develop	oment								
Direct: 902 620-0250 Mobile: 902 388-0100 Tyler.Moir@stantec.com									
Stantec 165 Maple Hills Avenue Charlottetown PE C1C 1N9	165 Maple Hills Avenue								
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From: Ryan Koolwine <koolwine@project1studio.ca>

Sent: Thursday, March 16, 2023 8:19 AM
To: Kilborn, Kris <kris.kilborn@stantec.com>
Cc: Moir, Tyler <Tyler.Moir@stantec.com>

Subject: RE: 2231 - 1184 Cummings

Hi Kris,

Odd... just tried it an it worked. Either way, I've attached the two files.

Ryan Koolwine

project1studio | 613 884-3939 x1

From: Kilborn, Kris < kris.kilborn@stantec.com>

Sent: March 16, 2023 7:02 AM

To: Ryan Koolwine < koolwine@project1studio.ca>

Cc: Moir, Tyler < Tyler.Moir@stantec.com > Subject: RE: 2231 - 1184 Cummings

Good morning Ryan

I clicked the attached link and it indicates that the files do not exist. Could you try resending or resetting the link

Sincerely

Kris Kilborn

Principal, Community Development Business Center Practice Leader

Mobile: 613 297-0571 Fax: 613 722-2799 kris.kilborn@stantec.com Stantec 300 - 1331 Clyde Avenue Ottawa ON K2C 3G4

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The Ottawa office is open however many staff are working remotely. To contact me please use email, or my mobile and leave a message.

Please note our reception is on the 3rd floor.

From: Ryan Koolwine < koolwine@project1studio.ca>

Sent: Wednesday, March 15, 2023 5:52 PM

To: Kilborn, Kris < kris < kris < kris.kilborn@stantec.com; Mike Lennox < ml@jbla.ca; James Lennox < jl@jbla.ca; Timothy Beed

<<u>beed@fotenn.com</u>>

Cc: Dylan Desjardins <D.Desjardins@tcudevcorp.com>; Bailey Haskins <haskins@project1studio.ca>

Subject: 2231 - 1184 Cummings

Hi All,

Please see the link below for the current version of the site plan in PDF and CAD. https://www.dropbox.com/home/NASRevit/2231%20-%201184%20Cummings/Sent/230315%20Site%20Plan

Cheers,

Ryan Koolwine

Principal

project1studio

260 St. Patrick Street - Suite 300 | project1studio.ca | 613 884-3939 x1



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A.4 Boundary Conditions



Project Number: 160401787

A-4

Wu, Michael

From: Moir, Tyler

Sent: June 29, 2023 11:58

To: Wu, Michael

Subject: FW: Application D02-02-23-0031/D07-12-23-0044 Address 1184,1188, 1196

Cummings - 1st Review Comments

Attachments: Memo to File Lead - Preliminary Comments 1184-1196 Cummings SPC.docx;

D02-02-23-0031 and D07-12-23-0044 2023-06-16 09-20-24.pdf;

D02-02-23-0031 and D07-12-23-0044 2023-06-16 09-20-01.pdf; Cummings, 1184_D07-12-23-0044_UD Comments 1.docx; Cummings, 1184_D07-12-23-0044 _UD Comments 1.docx; D07-12-23-0044 - 1184-1196 Cummings Avenue.pdf;

2023-05-16 - Application Summary - D02-02-23-0031.pdf

Importance: High

Kris just sent me this. I will review and give you a call to discuss.

Tyler Moir P.Eng.

Project Manager, Community Development

Direct: 902 620-0250 Mobile: 902 388-0100 Tyler.Moir@stantec.com

Stantec

165 Maple Hills Avenue Charlottetown PE C1C 1N9





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Please consider the environment before printing this email.

From: Kilborn, Kris <kris.kilborn@stantec.com>
Sent: Thursday, June 29, 2023 12:50 PM
To: Moir, Tyler <Tyler.Moir@stantec.com>

Subject: FW: Application D02-02-23-0031/D07-12-23-0044 Address 1184,1188, 1196 Cummings - 1st Review

Comments Importance: High

Fyi attached and below

From: Thomas Freeman < freeman@fotenn.com >

Sent: Thursday, June 29, 2023 10:54 AM **To:** Kilborn, Kris kris.kilborn@stantec.com

Cc: Ryan Koolwine koolwine@project1studio.ca; Timothy Beed koolwine@project1studio.ca

<D.Desjardins@tcudevcorp.com>

Subject: FW: Application D02-02-23-0031/ D07-12-23-0044 Address 1184,1188, 1196 Cummings - 1st Review

1

Comments

Importance: High

Hi Kris,

Are you able to provide the water modeling data for 1184 Cummings. The City planner says if they do not receive it today, we will be bumped to the August 16 PHC meeting.

Can you please confirm ASAP.

Thanks,

Thomas Freeman, B.URPL

Planner

From: Belan, Steve < Steve. Belan@ottawa.ca > Sent: Wednesday, June 28, 2023 5:00 PM

To: Timothy Beed < beed@fotenn.com >; Thomas Freeman < freeman@fotenn.com >

Cc: Wildman, Geraldine < Geraldine. Wildman@ottawa.ca >; Elsby, Cam < Cam. Elsby@ottawa.ca >; Giampa, Mike

< Mike. Giampa@ottawa.ca>

Subject: Application D02-02-23-0031/D07-12-23-0044 Address 1184,1188, 1196 Cummings - 1st Review Comments

CAUTION: This email is from an external sender. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Tim,

We agreed to place the zoning report on the agenda, provided that servicing for the site was confirmed. At this time, it still has not be confirmed that there is sufficient water to service this site. Given that, we are looking to defer the zoning to the next available Planning and Housing Committee. Please have your engineer provide the modeling using the Project Managers Boundary Conditions below. We will need confirmation of the water in the next couple of days to make this committee date.

Here are the remainder of the comments from the circulation which ended on June 14.

Please find attached here consolidated comments from the 1st review of the above noted application.

Engineering

Water service still needs to be modeled. Please fine that following information to assist you

The following are boundary conditions, HGL, for hydraulic analysis at 1184-1196 Cumming Avenue (zone 1E) assumed to be connected to the 305 mm watermain on Cummings Avenue (see attached PDF for location).

Min HGL: 110.1 m Max HGL: 118.3 m

Max Day + Fire Flow (333.3 L/s): 108.7 m

These are for current conditions and are based on computer model simulation.

Disclaimer: The boundary condition information is based on current operation of the city water distribution system. The computer model simulation is based on the best information available at the time. The operation of the water distribution system can change on a regular basis, resulting in a variation in boundary conditions. The physical properties of watermains deteriorate over time, as such must be assumed in the absence of actual field test data. The variation in physical watermain properties can therefore alter the results of the computer model simulation.

Other engineering comments are attached in the memo. Feel free to contact the Infrastructure Project Manager, Cam Elsby at Cam. Elsby@ottawa.ca, for follow-up questions

Transportation Engineering Services

Section 2.3.1 Planned Conditions

Section 2.3.1 states that, "In the Active Transportation project List (April 2022), cycling facilities are identified along Cummings Avenue between Donald Street and Cyrville Road. Based on the Cyrville TOD Plan area, it is assumed that this cycling facility would be a shared-use lane". Please note that the Cyrville TOD Plan is outdated in this regard. The active transportation project is more likely to involve unidirectional cycling facilities on each side of the road, such as painted bike lanes or cycle tracks (consistent with Section 4.1.2 of the Official Plan).

Section 8.1 Design for Sustainable Modes

Within the Element 4.1.1 of the TIA (Design for Sustainable Modes), please reference and discuss the TDM-Supportive Development Design and Infrastructure Checklist.

Section 8.2 Circulation and Access

Provide swept path turning analysis for garbage collection vehicles and describe where/how garbage collection will occur.

Section 11.1 Location and Design of Access:

While the text of the TIA notes that the access will comply with the City of Ottawa standard drawing SC7.1, the site plan and grading plan currently show the curb return continuing across the sidewalk (noted on the site plan as #9, depressed curb). SC7.1 no longer includes a depressed curb return across the sidewalk. Weldon Drive to the north of the site is a good example of an access that does not include a depressed curb return across the sidewalk. Please correct the access design in the site plan and grading plan.

Traffic analysis presented in Section 7 of the TIA indicates that the southbound left-turn movement at Ogilvie Road and Cummings Avenue experiences extended queues (>75m) during the PM peak hour. In addition, the 95th percentile southbound through queue at this intersection is estimated to extend 64m and 57m during the AM and PM peak hours, respectively. The proposed access is only approximately 35m north of the intersection. Therefore, site generated traffic may have difficulty safely turning northbound left into the site or eastbound left out of the site during the PM peak hour. It is highly recommended that the site layout is "flipped" so that the access is located near the north edge of the site. This would place the access approximately 105m away from the Ogilvie Road and Cummings Avenue intersection and outside of the typical extent of the southbound left-turn queue.

The Private Approach By-Law states that no person shall construct a private approach within 3 metres of any property line measured at the highway line and at the curb or the edge of the roadway. The curb return of the proposed access extends into the adjacent property to the south, essentially providing 0 metres of off-set). The off-set is below the

absolute minimum of 0.3 metres, does not meet the conditions of the Private Approach By-Law, and therefore should not be permitted in its current location.

Section 14.2.2 Network Intersection MMLOS:

Transportation Engineering Services respectfully requests CGH to stop writing the following statement within their TIAs: "Pedestrian delay LOS is not considered in the PLOS calculation as it is not a suitable metric for the assessment of pedestrian LOS as formulated. This exclusion is consistent with City direction since 2015, and no alternative methodology has been provided for its assessment." This is not true, and CGH has not provided any evidence of the supposed City direction provided in 2015.

Traffic Signal Design

No comments for this current circulation. Traffic Signal Design Unit reserves the right to make future comments based on subsequent submissions.

If there are any future proposed changes in the existing roadway geometry that would require the installation of a pedestrian crossover (Type B or Type C), the signalization of an intersection or modifications to an existing signalized intersection, the City of Ottawa Traffic Signal Design Unit would be required to complete a traffic signal plant design and would need to be engaged in reviews during the functional design stage.

Traffic Engineering

The location of the full movement access in relation to the intersection of Ogilvie Road & Cummings Avenue is not supported. Alternatives (move, right-in/right-out) should be considered.

Streetlighting

No comments with the TIA for this circulation. Street lighting reserves the right to make future comments based on subsequent submissions.

Future considerations are as follows:

If there are any proposed changes to the existing roadway geometry, the City of Ottawa Street Light Asset Management Group is required to provide a full street light design. Upon completion of proposed roadway geometry design changes, please submit digital Micro Station drawings with proposed roadway geometry changes to the Street Lighting Department, so that we may proceed with the detailed street light design and coordination with the Street Light maintenance provider and all necessary parties. Be advised that the applicant will be 100% responsible for all costs associated with any Street Light design as a result of the roadway geometry change.

Alterations and /or repairs are required where the existing street light plant is directly, indirectly or adversely affected by the scope of work under this circulation, due to the proposed road reconstruction process. All street light plant alterations

Solid Waste

After reviewing this site plan the city will collect the garbage and recycling at this building ,I do not see any issues at this location but I would need the sqF of the garbage room. This is what they will need for containers:

Garbage: 5x4 yard bins

Fiber: 2x3 yard bin

Glass metal plastic: 1x3 yard bins

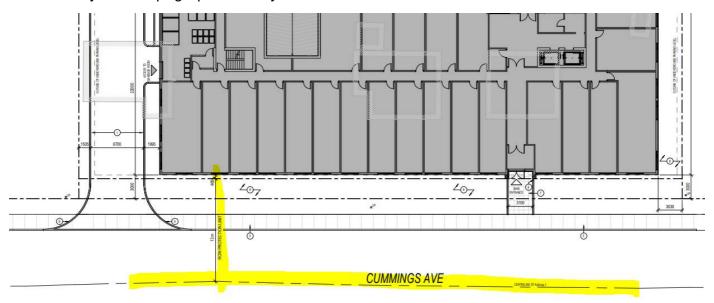
Organics: 3 x240L carts

City Surveyor

Just wondering how the CL of Cummings Ave has been captured or calculated on the site plan. The legal survey in the submission package does not show the CL!

If the CL location has not been calculated correctly according to the OP then the distance shown to the development limit could be changed.

Is there any other topographic survey?



Community Benefit Contribution

The Site is subject to CBC and will be conditioned in the Site Plan Agreement

City Parks

Cash in lieu of parkland will be required in accordance with the City's By-laws

Noise

The building will need to be serviced with air conditioning to allow for window to remain closed to protect from road noise. Location of air handling units will need to be located away from neighbouring properties.

Environmental

No reference to the Bird-Safe Design Guidelines in the design brief or the elevation drawings; while they have avoided monolithic expanses of glass, there are still concerns here from a bird-safe perspective. The glass balcony railings are a design trap and should be treated; this would also help reduce the risk posed by the glass doors/windows behind the railings. I note that they are proposing to have fritted railings for some units as a design feature, this is a great start – all railings should be fritted or etched to render them bird-safe.

Trees and Forestry

TCR

• The tree removal permit will be issued upon site plan approval. Please reach out to the Planning Forester for more information on obtaining the permit (hayley.murray@ottawa.ca)

- Please ensure all adjacently owned trees with CRZs extending into the development site were accounted for.
- Section 4.8.2 (3,d) of the Official Plan states, when considering impacts on individual trees, planning and development decisions, including Committee of Adjustment decisions, shall give priority to the retention and protection of large, healthy trees over replacement plantings and compensation; 32 trees are planned for removed and only 12 are shown as replacements.
 - o Why can a design that limits the large extent of the drive aisle not be proposed? The rear drive aisle in combination with the underground parking and the mid-rise apartment forces extensive tree removal and significantly limits opportunities for tree planting. Can the site not be oriented to decrease the size of the drive aisle, providing more space for replacement tree planting?
 - Has a retention solution been explored for the row of maples (in good health) bordering
 Weldon Drive?
 - Please investigate alternative designs that allow for more tree retention or increase space available for tree planting.
- Explain why the city owned eastern white cedar tree requires removal. If justified, monetary and replacement planting compensation would be required.

Landscape Plan

- Can an additional tree or two be planted in the northeast corner of the property where open sod is shown?
- Columnar varieties do not contribute to the urban canopy. Please replace the GP with medium or large canopy tree species.
- HA, JL and SB are small canopy trees that should only be planted when there are restrictions. Unless justified, please replace these species in the ROW with larger canopy species.
- Have adequate soil volumes been provided? Please label the volumes provided on the plan.
- Incorporating a landscape buffer with trees would contribute to the urban canopy cover that's being lost on this site and would also benefit the existing homes backing onto this property.
- Deciduous tree stock should be 50 mm in caliper. Larger or smaller stock has shown to have less success.

CPTED

No issues

Urban Design

This application should proceed to the UDRP prior to being rezoned. The remainder of the comments are attached in the UD_Comments above.

RVCA

The RVCA has reviewed the above noted Zoning By-law Amendment and Site Plan Control applications to permit a six-storey apartment building consisting of 188 dwelling units, 184 bicycle parking spaces and 56 vehicle parking spaces and have no objections.

parking spaces and 56 vehicle parking spaces and have no objections.
School Board
Attached
Utilities

Telus

Attached

TELUS has no underground infrastructure in the area of your proposed work. Permit expires six (6) months from approval date.

Rogers Communications

Rogers has no comment or concerns regarding this circulation. Please contact Aubrey Macmillan at Aubrey.Macmillan@rci.rogers.com or JoAnn.Zorzi@rci.rogers.com for Rogers Site Servicing if approved, or if you required additional information

In order to achieve the target review and approval timeline, please provide the next submission in 5/3 weeks, by July 26 date. Otherwise, the application will be placed on-hold.

The development review team will be happy to meet you to discuss comments and resolve issues. We highly recommend holding the comments review meeting within one week from the date of this letter. Please contact me at your earliest convenience to confirm the meeting date, time, format and location.

Please do not hesitate to contact me if you have any questions.

Regards,

Steve Belan, MCIP, RPP

Planner Planning Services, Development Review Services
Planning, Corporate Peal Estate and Economic Development department (PRED)
City of Ottawa / Ville d'Ottawa
110 Laurier Avenue West, 4th Floor / 110, avenue Laurier Ouest, 4e étage
Ottawa, ON K1P1J1

Telephone / tél.: 613-580-2424 ext./poste 27591

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A.5 Hydraulic Analysis



Project Number: 160401787

A-5



Project:	1184-1196 Cummings	No. 160401787
	SITE PLAN HYDRAULI	C ANALYSIS
Revision:	01	Prepared By: MW
Revision Date:	30-Aug-2023	Checked By:

BOUNDARY CONDITIONS (BC)						
Connection at Cummings Avenue						
Site Plan Revision Date 31-Mar-2023						
Min. HGL (m)	110.1					
Max. HGL (m)	118.3					
Max. Day + Fire Flow (333 L/s)	108.7					

Ground Floor Elevation (GFE) (Level 01) (m)	71.8
---	------

GROUND FLOOR (GF) PRESSURE RANGE						
	GF HGL (m)	GF Pressure (kPa)	GF Pressure (psi)	Outcome		
	= BC HGL (m) - FFE (m)	= GF HGL (m) x 9.804 (kPa/m)	= GF Pressure (kPA) x 0.145 (psi/kPa)	If min <50 psi: booster pump If max >100 psi: pressure reducer		
Minimum Normal	38.3	375.5	54.4	No Booster Pump Required		
Maximum Normal	46.5	455.9	66.1	No Pressure Reducer Required		

Number of Floors Above Ground	6
Approximate Height of One Storey (m)	3
Pressure Drop Per Floor (kPa)	29.4
Pressure Drop Per Floor (psi)	4.3

F	RESIDUAL PRESSURE RANGE IN MULTI-LEVEL BUILDINGS						
	Residual Pressure (kPa)	Residual Pressure (psi)	Outcome				
Top Floor Min	228.4	33.1					
Top Floor Max	308.8	44.8					
Maximum Number of Floors Above Ground at Minimum Pressure	3		Booster Pump Required				

RESIDUAL PRESSURE UNDER FIRE FLOW CONDITIONS							
	Residual HGL (m) Residual Pressure (kPa) Residual Pressure (psi)						
Ground Floor	36.9	361.8	52.5				
Top Floor	21.9	214.7	31.1				

PRESSURE CHECK							
	Pressure	Pressure					
	(kPa)	(psi)					
UNDER NORMAL OPERATING CONDITIONS							
Pressure Below Minimum	<276	<40					
Pressure Below Normal	276-345	40-50					
Pressure Within Normal Range	345-552	50-80					
Pressure Above Normal Range	552-690	80-100					
Pressure Above Maximum	>690	>100					
UNDER FIRE FLO	UNDER FIRE FLOW CONDITIONS						
Pressure Below Minimum	<140	<20					
Acceptable Pressure	≥140	≥20					

A.6 Fire Hydrant Coverage Calculations



Project Number: 160401787 A-6



Project:	1184	-1196 Cummings Avenue			160401787
		FIRE H	==	ABLE 1: COVERAGE TABLE	
Revision:	1	Prepared By:	MW		
Revision Date:		2023-04-18 Checked By:			

	Hydrants ¹					Total Available	Total Required	
Description	HYD-01 HYD-02 HYD-03 HYD-04 HYD-05 HYD-06						Fire Flow (L/min)	Fire Flow ² (L/min)
1184-1196 Cummings Avenue								
Distance from building (m)	97.3	94.0	77.1	76.1	172.5	96.8	-	-
Maximum fire flow capacity ³ (L/min)	3,785	3,785	3,785	3,785	2,839	3,785	21,764	20,000

NFPA 1 Table 18.5.4.3					
Distance to	Maximum				
Building	Capacity				
(m)	(L/min)				
≤ 76	5,678				
> 76 and ≤ 152	3,785				
> 152 and ≤ 305	2,839				

Notes:

- 1. Hydrant locations as per GeoOttawa accessed April 18, 2023. Refer to fire hydrant coverage sketch (Figure 3-1).
- 2. See OBC Calculations, Appendix A.2 for fire flow requirements.
- 3. See NFPA 1 Table 18.5.4.3 (and Appendix I of ISTB-2018-02 Technical Bulletin) for maxiumim fire flow capacity of hydrants by distance to building.

1184-1196 Cummings Avenue Servicing and Stormwater Management Report Site Plan by Project 1 Studios Inc.

Appendix B Site Plan by Project 1 Studios Inc.



Project Number: 160401787 A-7

	_	IAL UNIT SCH	-	
LEVEL T.O. LEVEL 1 SLAB	NUMBER	UNIT TYPE	BEDS	AREA
T.O. LEVEL 1 SLAB	101	TYPE D-BF	STUDIO	36.28 m²
T.O. LEVEL 1 SLAB	102	TYPE D-BF	STUDIO	35.35 m²
T.O. LEVEL 1 SLAB	103	TYPE CA	STUDIO	35.35 m ²
T.O. LEVEL 1 SLAB T.O. LEVEL 1 SLAB	104 105	TYPE CA TYPE N	STUDIO STUDIO	35.35 m ² 58.72 m ²
T.O. LEVEL 1 SLAB	105	TYPE M	STUDIO	51.98 m ²
T.O. LEVEL 1 SLAB	107	TYPE S	1-BED	51.43 m²
T.O. LEVEL 1 SLAB	108	TYPE L1	2-BED	69.99 m²
T.O. LEVEL 1 SLAB	109	TYPE KB	STUDIO	42.07 m²
T.O. LEVEL 1 SLAB T.O. LEVEL 1 SLAB	110	TYPE KE TYPE KB	STUDIO STUDIO	42.07 m ² 42.07 m ²
T.O. LEVEL 1 SLAB	112	TYPE KB	STUDIO	42.07 m ²
T.O. LEVEL 1 SLAB	113	TYPE KB	STUDIO	42.07 m²
T.O. LEVEL 1 SLAB	114	TYPE KB	STUDIO	42.07 m²
T.O. LEVEL 1 SLAB	115	TYPE KB	STUDIO	42.07 m²
T.O. LEVEL 1 SLAB T.O. LEVEL 1 SLAB	116 117	TYPE KB TYPE KE	STUDIO STUDIO	42.07 m ² 42.07 m ²
T.O. LEVEL 1 SLAB	118	TYPE KB	STUDIO	42.07 m ²
T.O. LEVEL 1 SLAB	119	TYPE KD	STUDIO	44.30 m²
T.O. LEVEL 1 SLAB	120	TYPE KD	STUDIO	44.33 m²
T.O. LEVEL 1 SLAB	121	TYPE KB	STUDIO	42.07 m²
T.O. LEVEL 1 SLAB	122	TYPE KB	STUDIO	42.04 m ²
T.O. LEVEL 1 SLAB T.O. LEVEL 1 SLAB	123 124	TYPE J1 TYPE IC-BF	2-BED STUDIO	75.33 m ² 35.56 m ²
T.O. LEVEL 1 SLAB	125	TYPE IA-BF	STUDIO	35.55 m ²
T.O. LEVEL 1 SLAB	126	TYPE IA-BF	STUDIO	35.55 m²
T.O. LEVEL 1 SLAB	127	TYPE P	1-BED	53.98 m²
T.O. LEVEL 1 SLAB	128	TYPE 0	STUDIO	48.10 m²
T.O. LEVEL 2 STRUCT. T.O. LEVEL 2 STRUCT.	201	TYPE E2	1 DED . DEN	75 54 2
T.O. LEVEL 2 STRUCT.	201	TYPE E2	1-BED + DEN STUDIO	75.51 m ² 33.78 m ²
T.O. LEVEL 2 STRUCT.	203	TYPE D-BF	STUDIO	33.18 m ²
T.O. LEVEL 2 STRUCT.	204	TYPE CA	STUDIO	33.18 m²
T.O. LEVEL 2 STRUCT.	205	TYPE CA	STUDIO	33.18 m²
T.O. LEVEL 2 STRUCT.	206	TYPE C	STUDIO	33.18 m²
T.O. LEVEL 2 STRUCT. T.O. LEVEL 2 STRUCT.	207	TYPE C TYPE C	STUDIO STUDIO	33.18 m ² 33.18 m ²
T.O. LEVEL 2 STRUCT.	209	TYPE B	STUDIO	32.62 m ²
T.O. LEVEL 2 STRUCT.	210	TYPE A2	2-BED	64.43 m²
T.O. LEVEL 2 STRUCT.	211	TYPE L2	2-BED	67.50 m²
T.O. LEVEL 2 STRUCT.	212	TYPE KB	STUDIO	42.07 m²
T.O. LEVEL 2 STRUCT.	213 214	TYPE KC TYPE KB	STUDIO	40.70 m ²
T.O. LEVEL 2 STRUCT. T.O. LEVEL 2 STRUCT.	214	TYPE KB	STUDIO STUDIO	42.07 m ² 42.07 m ²
T.O. LEVEL 2 STRUCT.	216	TYPE KB	STUDIO	42.07 m ²
T.O. LEVEL 2 STRUCT.	217	TYPE KA	STUDIO	40.70 m²
T.O. LEVEL 2 STRUCT.	218	TYPE KB	STUDIO	42.07 m²
T.O. LEVEL 2 STRUCT.	219	TYPE KA	STUDIO	40.70 m ²
T.O. LEVEL 2 STRUCT. T.O. LEVEL 2 STRUCT.	220 221	TYPE KE TYPE KB	STUDIO STUDIO	42.07 m ² 42.07 m ²
T.O. LEVEL 2 STRUCT.	222	TYPE KB	STUDIO	42.07 m ²
T.O. LEVEL 2 STRUCT.	223	TYPE KA	STUDIO	41.11 m²
T.O. LEVEL 2 STRUCT.	224	TYPE KB	STUDIO	42.07 m²
T.O. LEVEL 2 STRUCT.	225	TYPE KB	STUDIO	42.07 m²
T.O. LEVEL 2 STRUCT.	226 227	TYPE KA TYPE J2	STUDIO 2-BED	40.67 m ²
T.O. LEVEL 2 STRUCT. T.O. LEVEL 2 STRUCT.	228	TYPE JZ	STUDIO	73.55 m ² 35.52 m ²
T.O. LEVEL 2 STRUCT.	229	TYPE IA-BF	STUDIO	35.55 m ²
T.O. LEVEL 2 STRUCT.	230	TYPE IA-BF	STUDIO	35.56 m²
T.O. LEVEL 2 STRUCT.	231	TYPE H2-BF	2-BED	69.09 m²
T.O. LEVEL 2 STRUCT.	232	TYPE G2-BF	2-BED	76.07 m ²
T.O. LEVEL 2 STRUCT. T.O. LEVEL 3 STRUCT.	233	TYPE F	STUDIO	56.14 m²
T.O. LEVEL 3 STRUCT.	301	TYPE E	1-BED + DEN	60.75 m²
T.O. LEVEL 3 STRUCT.	302	TYPE D-BF	STUDIO	35.57 m ²
T.O. LEVEL 3 STRUCT.	303	TYPE D-BF	STUDIO	35.35 m²
T.O. LEVEL 3 STRUCT.	304	TYPE CA	STUDIO	35.35 m²
T.O. LEVEL 3 STRUCT. T.O. LEVEL 3 STRUCT.	305 306	TYPE CA TYPE C	STUDIO STUDIO	35.35 m ² 35.35 m ²
T.O. LEVEL 3 STRUCT.	307	TYPE C	STUDIO	35.35 m²
T.O. LEVEL 3 STRUCT.	308	TYPE C	STUDIO	35.35 m ²
T.O. LEVEL 3 STRUCT.	309	TYPE B	STUDIO	33.69 m²
T.O. LEVEL 3 STRUCT.	310	TYPE A	2-BED	63.09 m²
T.O. LEVEL 3 STRUCT. T.O. LEVEL 3 STRUCT.	311 312	TYPE L TYPE KB	2-BED STUDIO	64.90 m ² 42.07 m ²
T.O. LEVEL 3 STRUCT.	313	TYPE KC	STUDIO	42.07 m ²
T.O. LEVEL 3 STRUCT.	314	TYPE KB	STUDIO	42.07 m ²
T.O. LEVEL 3 STRUCT.	315	TYPE KA	STUDIO	40.70 m²
T.O. LEVEL 3 STRUCT.	316	TYPE KB	STUDIO	42.07 m²
T.O. LEVEL 3 STRUCT.	317	TYPE KA	STUDIO	40.70 m ²
T.O. LEVEL 3 STRUCT. T.O. LEVEL 3 STRUCT.	318 319	TYPE KB TYPE KA	STUDIO STUDIO	42.07 m ² 40.70 m ²
T.O. LEVEL 3 STRUCT.	320	TYPE KC	STUDIO	40.70 m ²
T.O. LEVEL 3 STRUCT.	321	TYPE KB	STUDIO	42.07 m ²
T.O. LEVEL 3 STRUCT.	322	TYPE KB	STUDIO	42.07 m²
T.O. LEVEL 3 STRUCT.	323	TYPE KA	STUDIO	40.70 m²
T.O. LEVEL 3 STRUCT.	324	TYPE KB	STUDIO	42.07 m²
T.O. LEVEL 3 STRUCT. T.O. LEVEL 3 STRUCT.	325 326	TYPE KB TYPE KA	STUDIO STUDIO	42.07 m ² 40.67 m ²
T.O. LEVEL 3 STRUCT.	326	TYPE KA	2-BED	40.67 m ² 72.06 m ²
T.O. LEVEL 3 STRUCT.	328	TYPE IC-BF	STUDIO	35.97 m ²
T.O. LEVEL 3 STRUCT.	329	TYPE IB-BF	STUDIO	33.48 m²
T.O. LEVEL 3 STRUCT.	330	TYPE IA-BF	STUDIO	35.92 m²
T.O. LEVEL 3 STRUCT.	331	TYPE H	2-BED	68.72 m²
T.O. LEVEL 3 STRUCT.	332	TYPE G-BF	2-BED	74.02 m ²

T.O. LEVEL 4 STRUCT.	NUMBER	UNIT TYPE	BEDS	AREA
T.O. LEVEL 4 STRUCT.	401	TYPE E	1-BED + DEN	206.72 m
T.O. LEVEL 4 STRUCT.	402	TYPE D-BF	STUDIO	33.18 m²
T.O. LEVEL 4 STRUCT. T.O. LEVEL 4 STRUCT.	403 404	TYPE D-BF TYPE CA	STUDIO STUDIO	33.18 m ² 33.18 m ²
T.O. LEVEL 4 STRUCT.	405	TYPE CA	STUDIO	33.18 m²
T.O. LEVEL 4 STRUCT. T.O. LEVEL 4 STRUCT.	406 407	TYPE C	STUDIO STUDIO	33.18 m ² 33.18 m ²
T.O. LEVEL 4 STRUCT.	407	TYPE C	STUDIO	33.18 m ²
T.O. LEVEL 4 STRUCT.	409	TYPE B	STUDIO	32.62 m²
T.O. LEVEL 4 STRUCT.	410	TYPE A	2-BED	63.05 m²
T.O. LEVEL 4 STRUCT. T.O. LEVEL 4 STRUCT.	411	TYPE L TYPE KB	2-BED STUDIO	64.56 m² 42.07 m²
T.O. LEVEL 4 STRUCT.	413	TYPE KC	STUDIO	40.70 m ²
T.O. LEVEL 4 STRUCT.	414	TYPE KA	STUDIO	40.70 m²
T.O. LEVEL 4 STRUCT. T.O. LEVEL 4 STRUCT.	415 416	TYPE KA TYPE KB	STUDIO STUDIO	40.70 m ² 42.07 m ²
T.O. LEVEL 4 STRUCT.	417	TYPE KA	STUDIO	40.70 m ²
T.O. LEVEL 4 STRUCT.	418	TYPE KB	STUDIO	42.07 m²
T.O. LEVEL 4 STRUCT. T.O. LEVEL 4 STRUCT.	419 420	TYPE KA TYPE KC	STUDIO STUDIO	40.70 m ² 40.70 m ²
T.O. LEVEL 4 STRUCT.	421	TYPE KB	STUDIO	42.07 m ²
T.O. LEVEL 4 STRUCT.	422	TYPE KA	STUDIO	40.70 m²
T.O. LEVEL 4 STRUCT. T.O. LEVEL 4 STRUCT.	423 424	TYPE KA TYPE KA	STUDIO STUDIO	40.70 m ² 40.70 m ²
T.O. LEVEL 4 STRUCT.	425	TYPE KB	STUDIO	42.07 m ²
T.O. LEVEL 4 STRUCT.	426	TYPE KA	STUDIO	40.67 m²
T.O. LEVEL 4 STRUCT.	427	TYPE JA	2-BED	70.36 m ²
T.O. LEVEL 4 STRUCT. T.O. LEVEL 4 STRUCT.	428 429	TYPE ID-BF TYPE IB-BF	STUDIO STUDIO	33.51 m ² 33.71 m ²
T.O. LEVEL 4 STRUCT.	430	TYPE IA-BF	STUDIO	35.55 m²
T.O. LEVEL 4 STRUCT.	431	TYPE H4	2-BED	67.27 m²
T.O. LEVEL 4 STRUCT. T.O. LEVEL 4 STRUCT.	432 433	TYPE G-BF TYPE F4	2-BED STUDIO	74.53 m² 54.40 m²
T.O. LEVEL 5 STRUCT.	100	12	010010	01.10111
T.O. LEVEL 5 STRUCT.	501	TYPE E5	STUDIO	Redundant A
T.O. LEVEL 5 STRUCT. T.O. LEVEL 5 STRUCT.	502 503	TYPE D-BF	STUDIO STUDIO	35.35 m ² 35.35 m ²
T.O. LEVEL 5 STRUCT.	504	TYPE CA	STUDIO	35.35 m²
T.O. LEVEL 5 STRUCT.	505	TYPE CA	STUDIO	35.35 m²
T.O. LEVEL 5 STRUCT. T.O. LEVEL 5 STRUCT.	506 507	TYPE C	STUDIO STUDIO	35.35 m ² 35.35 m ²
T.O. LEVEL 5 STRUCT.	508	TYPE C	STUDIO	35.35 m ²
T.O. LEVEL 5 STRUCT.	509	TYPE B	STUDIO	33.69 m²
T.O. LEVEL 5 STRUCT.	510	TYPE A5	2-BED	61.48 m²
T.O. LEVEL 5 STRUCT. T.O. LEVEL 5 STRUCT.	511 512	TYPE L5 TYPE KA	2-BED STUDIO	62.09 m ² 40.70 m ²
T.O. LEVEL 5 STRUCT.	513	TYPE KC	STUDIO	40.70 m²
T.O. LEVEL 5 STRUCT.	514	TYPE KA	STUDIO	40.70 m²
T.O. LEVEL 5 STRUCT. T.O. LEVEL 5 STRUCT.	515 516	TYPE KA TYPE KA	STUDIO STUDIO	40.60 m ² 40.60 m ²
T.O. LEVEL 5 STRUCT.	517	TYPE KA	STUDIO	40.70 m²
T.O. LEVEL 5 STRUCT.	518	TYPE KA	STUDIO	40.70 m²
T.O. LEVEL 5 STRUCT. T.O. LEVEL 5 STRUCT.	519 520	TYPE KA TYPE KC	STUDIO STUDIO	40.60 m ² 40.60 m ²
T.O. LEVEL 5 STRUCT.	521	TYPE KA	STUDIO	40.00 m ²
T.O. LEVEL 5 STRUCT.	522	TYPE KA	STUDIO	40.60 m²
T.O. LEVEL 5 STRUCT. T.O. LEVEL 5 STRUCT.	523 524	TYPE KA TYPE KA	STUDIO STUDIO	40.60 m ² 40.70 m ²
T.O. LEVEL 5 STRUCT.	525	TYPE KA	STUDIO	40.70 m ²
T.O. LEVEL 5 STRUCT.	526	TYPE KA	STUDIO	40.57 m²
T.O. LEVEL 5 STRUCT. T.O. LEVEL 5 STRUCT.	527 528	TYPE J5 TYPE ID-BF	2-BED STUDIO	67.23 m ² 33.65 m ²
T.O. LEVEL 5 STRUCT.	529	TYPE ID-BF	STUDIO	33.37 m ²
T.O. LEVEL 5 STRUCT.	530	TYPE R	1-BED	52.86 m²
T.O. LEVEL 5 STRUCT. T.O. LEVEL 6 STRUCT.	531	TYPE Q	1-BED	213.12 m²
T.O. LEVEL 6 STRUCT.	601	TYPE E5	STUDIO	50.12 m²
T.O. LEVEL 6 STRUCT.	602	TYPE D-BF	STUDIO	35.35 m ²
T.O. LEVEL 6 STRUCT.	603	TYPE D-BF	STUDIO	35.35 m²
T.O. LEVEL 6 STRUCT. T.O. LEVEL 6 STRUCT.	604 605	TYPE CA TYPE CA	STUDIO STUDIO	35.35 m ² 35.35 m ²
T.O. LEVEL 6 STRUCT.	606	TYPE C	STUDIO	35.35 m ²
T.O. LEVEL 6 STRUCT.	607	TYPE C	STUDIO	35.35 m²
T.O. LEVEL 6 STRUCT. T.O. LEVEL 6 STRUCT.	608	TYPE C TYPE B	STUDIO STUDIO	35.35 m ² 33.69 m ²
T.O. LEVEL 6 STRUCT.	610	TYPE A5	2-BED	61.07 m ²
T.O. LEVEL 6 STRUCT.	611	TYPE L5	2-BED	61.54 m²
T.O. LEVEL 6 STRUCT. T.O. LEVEL 6 STRUCT.	612 613	TYPE KA TYPE KC	STUDIO STUDIO	40.50 m ² 40.50 m ²
T.O. LEVEL 6 STRUCT.	614	TYPE KA	STUDIO	40.50 m²
T.O. LEVEL 6 STRUCT.	615	TYPE KA	STUDIO	40.50 m²
T.O. LEVEL 6 STRUCT. T.O. LEVEL 6 STRUCT.	616 617	TYPE KA TYPE KA	STUDIO STUDIO	40.50 m ² 40.50 m ²
T.O. LEVEL 6 STRUCT.	618	TYPE KA	STUDIO	40.50 m ² 40.50 m ²
T.O. LEVEL 6 STRUCT.	619	TYPE KA	STUDIO	40.50 m²
T.O. LEVEL 6 STRUCT.	620	TYPE KC	STUDIO	40.50 m ²
T.O. LEVEL 6 STRUCT. T.O. LEVEL 6 STRUCT.	621 622	TYPE KA TYPE KA	STUDIO STUDIO	40.50 m ² 40.50 m ²
T.O. LEVEL 6 STRUCT.	623	TYPE KA	STUDIO	40.50 m ²
T.O. LEVEL 6 STRUCT.	624	TYPE KA	STUDIO	40.50 m²
T.O. LEVEL 6 STRUCT. T.O. LEVEL 6 STRUCT.	625 626	TYPE KA TYPE KA	STUDIO STUDIO	40.50 m ² 40.46 m ²
T.O. LEVEL 6 STRUCT.	627	TYPE KA	2-BED	40.46 m² 66.99 m²
T.O. LEVEL 6 STRUCT.	628	TYPE ID-BF	STUDIO	33.61 m²
T.O. LEVEL 6 STRUCT.	629	TYPE IE-BF	STUDIO 1-BED	33.11 m ²
T.O. LEVEL 6 STRUCT. T.O. LEVEL 6 STRUCT.	630	TYPE R6 TYPE Q	1-BED 1-BED	50.40 m ² 64.85 m ²
	,	«		8509.65 m

RESIDENTIAL UNIT SCHEDULE

			UNIT	COUNT				
BEDS	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	TOTAL	%
1-BED	1	0	0	0	2	2	6	3%
1-BED + DEN	0	1	1	1	0	0	3	2%
2-BED	2	5	5	5	3	3	23	12%
STUDIO	24	27	27	27	26	26	157	84%
TOTAL	27	33	33	33	31	31	189	100%

AMENITY AREAS (COMMUNAL)					
LEVEL	NAME	AREA (M)	AREA (SF)		
T.O. LEVEL P1 SLAB	FITNESS ROOM	133.82 m²	1440.38 ft²		
T.O. LEVEL 1 SLAB	UNIVERSAL W.C.	7.73 m²	83.18 ft²		
T.O. LEVEL 1 SLAB	AMENITY ROOM	66.81 m²	719.14 ft²		
T.O. LEVEL 1 SLAB	OUTDOOR AMENITY AREA 1	73.03 m ²	786.04 ft²		
T.O. LEVEL 1 SLAB	OUTDOOR AMENITY AREA 2	104.48 m²	1124.61 ft²		
T.O. PENTHOUSE SLAB	ROOFTOP TERRACE	493.36 m²	5310.43 ft²		
TOTAL	· ·	870 22 m²	0/163 RU #2		

		<u> </u>			
PARKING SCH. (BICYCLE)	A	MENITY AREA	S (PRIVAT	ΓΕ)
	COUNT	LEVEL		AREA (M)	AR
VEL P1 SLAB	188	T.O. LEVEL 1 SL	.AB	23.21 m²	24
	188	T.O. LEVEL 2 S	TRUCT.	38.11 m²	41
		T.O. LEVEL 3 S	TRUCT.	42.83 m²	46
		T.O. LEVEL 4 S	TRUCT.	41.51 m²	44
PARKING SCH. (VEHICI EI	T.O. LEVEL 5 S	TRUCT.	56.03 m ²	60
PAINNING SCH. (VLI IIOLE)	TO LEVEL 6 C	TDUCT	2E CO m2	20

T.O. LEVEL P1 SLAB

10200

10200

LEVEL	AREA (M)	AREA (SF
T.O. LEVEL 1 SLAB	23.21 m²	249.82 ft ²
T.O. LEVEL 2 STRUCT.	38.11 m²	410.22 ft ²
T.O. LEVEL 3 STRUCT.	42.83 m²	461.02 ft ²
T.O. LEVEL 4 STRUCT.	41.51 m²	446.86 ft ²
T.O. LEVEL 5 STRUCT.	56.03 m²	603.06 ft ²
T.O. LEVEL 6 STRUCT.	35.68 m²	384.11 ft²
TOTAL	237.38 m²	2555.10 ft ²

LEVEL	AREA	AREA (SF
T.O. LEVEL 1 SLAB	1252.01 m²	13477 SF
T.O. LEVEL 2 STRUCT.	1479.02 m²	15920 SF
T.O. LEVEL 3 STRUCT.	1467.73 m²	15799 SF
T.O. LEVEL 4 STRUCT.	1585.89 m²	17070 SF
T.O. LEVEL 5 STRUCT.	1414.71 m²	15228 SF
T.O. LEVEL 6 STRUCT.	1310.29 m²	14104 SF
TOTAL	8509.65 m²	91597 SF

GROSS FLOOR AREA				
LEVEL	AREA	AREA (SF		
T.O. LEVEL P1 SLAB	2071.27 m²	22295 SF		
T.O. LEVEL 1 SLAB	1622.78 m²	17468 SF		
T.O. LEVEL 2 STRUCT.	1638.51 m²	17637 SF		
T.O. LEVEL 3 STRUCT.	1621.24 m²	17451 SF		
T.O. LEVEL 4 STRUCT.	1609.91 m²	17329 SF		
T.O. LEVEL 5 STRUCT.	1439.19 m²	15491 SF		
T.O. LEVEL 6 STRUCT.	1433.12 m²	15426 SF		
T.O. ROOF STRUCT.	286.96 m²	3089 SF		
TOTAL	11722.98 m²	126185 SF		

Current Zoning Designation:	TD1 (Transit Oriented Development Zone)
Lot Width:	76.2m
Total Lot Area:	3487.7m ²
Average Existing Grade:	71.600
Gross Floor Area:	11723.0m ²
Building Area:	1657.6m ²
Floor Space Index:	3.36

No. of units 189 Units		
Zoning Mechanism	Required	Provided
Minimum Lot Width 195(b)	No Minimum	76.2m
Minimum Lot Area 195(a)	No Minimum	3487.7m ²
Min. Front Yard Setback 195(c)(ii)	2m	3m
Corner Side Yard Setback 195(c)(i)	3m	3m
Min. Interior Side Yard Setback 195(d)(iii)	No Minimum	1.5m
Min. Rear Yard Setback 195(e)(i)	6m	6m
Maximum Building Height 195(g)(ii)	20m	18.62m
Min. Residential Units per Hectare Section 196(14)(a)(i)	52 Units 150 units / hectare	189 Units
Parking Space Rates (Residents) Zoning By-Law 2023-344	36 Spaces 0.19 spaces * 189 units	36 Spaces
Minimum Visitor Parking Rates 102(2)(Area X) Table 102	18 Spaces No Parking for 12 units, then 0.1 spaces * 177 units	18 Spaces (11 at grade + 7 underground)
Bicycle Parking Rates (Residents) Table 111A 111(11)	94 Spaces 0.5 spaces * 189 units	188 Spaces
Outdoor Communal Space at Grade Section 195(8)	69.75m ² (2% of total lot area)	193.72m ²
Total Amenity Area Table 137(4)(II)	1128m ² 6m ² / unit for 188 units	1130m ²

Min. 50% of Total Amenity Area

	SITE & PROJEC	
(3 \	SILE & PROJEC	<u> </u>
SP-02	SCALE: 1:1	
0, 02	OOMEE. T. T	

Communal Amenity Area Table 137(4)(III)



1	LOCATION PLAN
SP-02	SCALE: NTS

ltem	Ontario Bui	Iding Code	Matrix Parts 3 & 9		OBC Referen	ce
1	Project Description:	√] New	Part 11	✓ Part 3	Part 9
			Addition		[A] 1.1.2.	[A] 1.1.2.
	☐ Change	of Use	Alteration			
2	Major Occupancy(s) GROUP C -	RESIDENTIAL			3.1.2.1.(1)	9.10.2
3	Building Area (m²) Existing 0	.00 Ne	w 1657.6m ² Total 16	57.6m ²	[A] 1.4.1.2	[A] 1.4.1.2
4	Gross Area (m²) Existing 0	.00 Ne	w 11723.0m ² Total 11	723.0m ²	[A] 1.4.1.2	[A] 1.4.1.2
5	Number of Storeys Above Grad	e 6 Bel	ow Grade 1		3.2.1.1 & 1.4.1.2	2.1.1.3
6	Building Height (m) 18.62m				[A] 1.4.1.2. & 3.2.1.1.	[A] 1.4.1.2. & 9.10.4
7	Number of Streets/Access Routes	1			3.2.2.10. & 3.2.5.	9.10.20.
8		roup C, up to 6 tible Construction	Storeys, Sprinklered, on		3.2.2.20 83.	n/a
9	Sprinkler System Proposed	V	Entire Building		3.2.1.5. & 3.2.2.17.	9.10.8.24.
			Basement Only		3.2.2.2083	
			In Lieu of Roof Rating		3.2.1.5	
			Not Required		3.2.2.17	
10	Standpipe Required		Yes N	0	3.2.9.	n/a
11	Fire Alarm Required		Yes N	0	3.2.4.	9.10.18.
12	Water Service/Supply is Adequate	V	Yes N	0		
13	High Building		Yes 🗸 N	0	3.2.6	n/a
14	Permitted Construction	bustible]EMTC ✓ N	on - Combustible	3.2.2.20 83. & 3.2.1.4.	9.10.6.
	Actual Construction	bustible] EMTC ✓ N	on - Combustible		
15	Mezzanine(s) Area (m²) N/A				3.2.1.1.	9.10.4.1
16	Occupant Load Based On	√	I m²/person ✓ D	esign of Building	3.1.17.	3.1.17.
	LEVEL P1 Occupancy F	ITNESS/DOG V	VASH (design) Load 52	2 Persons		
	' '		DRAGE GARAGE Load 4	1 Persons		
	LEVEL 1 Occupancy D	WELLING UNIT	S Load 58	8 Persons		
	LEVEL 2 Occupancy D	WELLING UNIT	S Load 78	8 Persons		
	LEVEL 3 Occupancy D	WELLING UNIT	S Load 78	8 Persons		
		WELLING UNIT		8 Persons		
	LEVEL 5 Occupancy D	WELLING UNIT	S Load 64	4 Persons		
	LEVEL 6 Occupancy D	WELLING UNIT	S Load 64	4 Persons		
17	Barrier-Free Design	V		o (Explain)	3.8.	9.5.2.
18	Hazardous Substances		Yes 🔽 N	0	3.3.1.2. & 3.3.1.19.	9.10.1.3
19	Required Fire Resistance Rating (FRR		1		3.2.2.20 83. & 3.2.1.4.	9.10.8.
	Horizontal Assemblies	FRR	Listed Design No. or Des	cription (SB-2)		
	Floors	1 HR	SEE A001			
	Roofs	n/a	SEE A001			
	Mezzanines	1 HR	SEE A001			
	Supporting Members	FRR	Listed Design No. or Des	cription (SB-2)		
	Floors	1 HR	SEE A001			
	Roofs	n/a	SEE A001			
	Mezzanines	1 HR	SEE A001			
	Other Assemblies	FRR	Listed Design No. or Des	cription (SB-2)		
	Residential Suites	1 HR	SEE A001		3.3.4.2.	
	Residential Suite Entry Doors	20 MIN	SEE A001		3.1.8.10.	
	Janitor Rooms	0 HR	SEE A001		3.3.1.20.	
	Exits	1 HR	SEE A001		3.4.4.1.	
	Elevator Shafts	1 HR	SEE A001		Table 3.5.3.1.	
	Vertical Service Space	45 MIN	SEE A001		3.6.3.1.	
	Service Rooms (Mech & Elec)	1 HR	SEE A001		3.6.2.1.	
	Lotuco Doom	17 40	I SEE ADDIT		1 4 h 7 h	1

XXXX DETAIL REFERENCE	$\stackrel{\times}{\underset{\times}{\left(\times \right) }}$	ELEVATION REFERENCE	X	BUILDING SECTION REFERENCE
X DETAIL SECTION REFERENCE	x X	INTERIOR ELEVATION REFERENCE	XX.XXm	HEIGHT ELEVATION REFERENCE
ODID LINE & DEFENDANCE	X		+ XX.XX	SPOT ELEVATION
X GRID LINE & REFERENCE	XXXX	ROOM NAME & NUMBER	XX	CEILING MATERIAL & HEIGHT
CONSTRUCTION ASSEMBLY REFERENCE	XXX	WINDOW REFERENCE	⟨xx⟩—	EXTERIOR FINISH REFERENCE
(XXXX) DOOR REFERENCE	X	REVISION REFERENCE	XX-X	INTERIOR FINISH REFERENCE

100%

100%

n/a

3.3.4.3.

3.2.3.

Area of EBF L.D. (m) L/H or H/L Permitted Max Proposed (m²) L/H or H/L % of Openings % of Openings Construction Construction



63000



Refuse Room Tenant Storage Room

21 Other - Describe

20 Spatial Separation - Construction of Exterior Walls

max 29m² 6



1 ISSUED FOR BUILDING PERMIT

ISSUE RECORD

9.10.14. & 9.10.15.

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2023-12-19



Project1 Studio Incorporated | 613.884.3939 | mail@project1studio.ca

1184 CUMMINGS

GENERAL ARCHITECTURAL NOTES:

Electrical Drawings.

such purpose.

without the expressed consent of the Architect.

Architect and obtain clarification prior to commencing work.

This drawing is the property of the Architect and may not be reproduced or used

Drawings are not to be scaled. The Contractor is responsible for checking and verifying all levels and dimensions and shall report all discrepancies to the

Upon notice in writing, the Architect will provide written/graphic clarification or supplementary information regarding the intent of the Contract Documents. The Architectural drawings are to be read in conjunction with all other Contract Documents including Project Manuals and the Structural, Mechanical and

Positions of exposed or finished Mechanical or Electrical devices, fittings and fixtures are indicated on the Architectural Drawings. Locations shown on the Architectural Drawings shall govern over Mechanical and Electrical Drawings. Mechanical and Electrical items not clearly located will be located as directed by These documents are not to be used for construction unless specifically noted for

1184 Cummings Avenue Gloucester, ON, K1J 7R8

PROJ SCALE DRAWN REVIEWED

2231 NOTED JH RMK

ZONING INFORMATION

PROJECT STATISTICS AND

Appendix C Sanitary

C.1 Sanitary Calculation Sheet



Project Number: 160401787

A-8

Stan	tec		: D BY:	ON 1/1	0/2024 1 MW	FILE NUMBEI	R:	_	, ,	_	EET				MAX PEAK FA MIN PEAK FA PEAKING FA PEAKING FA PERSONS / - PERSONS / - PERSONS / -	CTOR (RES.) CTOR (INDUS CTOR (ICI >20 BEDROOM	= TRIAL):	4.0 2.0 2.4 1.5 1.4 2.1		AVG. DAILY I COMMERCIA INDUSTRIAL INDUSTRIAL INSTITUTION INFILTRATIO	. (HEAVY) . (LIGHT) NAL	ON	28,000 55,000 35,000 28,000	I/p/day I/ha/day I/ha/day I/ha/day I/ha/day I/ha/day I/ha/day I/ha/day		MINIMUM VE MAXIMUM VE MANNINGS I BEDDING CL MINIMUM CC HARMON CC	ELOCITY n LASS	ACTOR	0.60 3.00 0.013 B 2.50	m/s m				
LOCATI	ON					RESIDENTIAL ARE	EA AND POPU	ULATION				COMM	AMENITY	INDUS	TRIAL (L)	INDUST	RIAL (H)	INSTITU	JTIONAL	GREEN	/ UNUSED	C+I+I		INFILTRATIO	N	TOTAL				Р	IPE			
AREA ID NUMBER	FROM M.H.	TO M.H.	AREA (ha)	1 BEDROOM	2 BEDROOM	3 BEDROOM	POP.	CUMU AREA (ha)	POP.	PEAK FACT.	PEAK FLOW (I/s)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	PEAK FLOW (I/s)	TOTAL AREA (ha)	ACCU. AREA (ha)	INFILT. FLOW (I/s)	FLOW (I/s)	LENGTH (m)	DIA (mm)	MATERIAL	CLASS	SLOPE (%)	CAP. (FULL) (I/s)	CAP. V PEAK FLOW (%)	VEL. (FULL) (m/s)
PROPOSED BLDG	BLDG	EX SAN	0.165	163	26		283	0.165	283	3.47	3.18	0.000	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.183	0.18	0.00	0.349	0.35	0.12	3.30	6.9	150	PVC	SDR 35	5.00	34.3	9.62%	1.93

Unit breakdown for proposed 6-storey residential building provided by Project 1 Studios Inc. in December 19, 2023
 Site to outlet to existing 250 mm dia. sanitary sewer on Cummings Avenue.

Entire site area considered as potential source of infiltration.

C.2 Correspondence with City on Sanitary Sewer Capacity



Wu, Michael

From: Elsby, Cam <Cam.Elsby@ottawa.ca>

Sent: August 16, 2023 09:12

To: Wu, Michael Cc: Moir, Tyler

Subject: RE: D07-12-23-0044 - 1184-1196 Cummings Avenue Updated Sanitary Peak Flows

Hi Michael,

Thanks for sending this over. I've confirmed with our Asset Management team that the revised proposed sanitary flow is still acceptable as the increase is not significant enough to affect the sewer's capacity.

Kind regards,

Cam Elsby

Project Manager, Infrastructure Approvals

Planning, Real Estate and Economic Development Department | Services de la planification, des biens immobiliers et du développement économique

Development Review - East Branch

City of Ottawa | Ville d'Ottawa

110 Laurier Avenue West Ottawa, ON | 110, avenue Laurier Ouest. Ottawa (Ontario) K1P 1J1

613.580.2424 ext./poste 21443

cam.elsby@ottawa.ca

From: Wu, Michael < Michael. Wu@stantec.com >

Sent: August 15, 2023 10:58 AM **To:** Elsby, Cam <Cam.Elsby@ottawa.ca> **Cc:** Moir, Tyler <Tyler.Moir@stantec.com>

Subject: D07-12-23-0044 - 1184-1196 Cummings Avenue Updated Sanitary Peak Flows

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Good morning, Cam:

As a follow-up to the preliminary engineering comments for 1184-1196 Cummings Avenue (D07-12-23-0044), we have updated the sanitary flows based on the corrected peaking factor, as per comment D.6.

As the sanitary peak flow has been revised to 3.3 L/s, up from 3.12 L/s that was initially submitted, we would like to confirm if the 250 mm diameter sanitary sewer in Cummings Avenue has the capacity for the 3.3 L/s of peak flow from the proposed site.

Attached is the updated sanitary design sheet for your information.

Please let me know if you have any questions or comments.

Michael Wu EIT Civil Engineering Intern, Community Development Direct: 1 (613) 738-6033 Michael.Wu@stantec.com Stantec 300-1331 Clyde Avenue Ottawa ON K2C 3G4

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Appendix D Stormwater Servicing

D.1 Modified Rational Method Sheet



Project Number: 160401787 A-10

File No: **160401787**

Project: 1184-1196 Cummings Avenue

Date: **05-Mar-24**

SWM Approach: Post-development to Pre-development flows

Post-Development Site Conditions:

Overall Runoff Coefficient for Site and Sub-Catchment Areas

Sub-catchm	ont		Area		Runoff			Overall
Area	iont		(ha)		Coefficient			Runoff
Catchment Type	ID / Description		"A"	`	"C"	"Δ	k C"	Coefficien
	.2 / 2000							
Jncontrolled - Tributary to Cistern	BLDG-4	Hard	0.001		0.9	0.001		
•		Soft	0.000		0.2	0.000		
	Su	ıbtotal		0.001			0.0009	0.900
Jncontrolled - Tributary to Cistern	BLDG-3	Hard	0.001		0.9	0.001		
	Si.	Soft ibtotal	0.000	0.001	0.2	0.000	0.0009	0.900
	30	ibiolai		0.001			0.0009	0.500
Incontrolled - Tributary to Cistern	BLDG-2	Hard	0.003		0.9	0.003		
		Soft	0.000		0.2	0.000		
	Su	ıbtotal		0.003			0.0027	0.900
Roof	BLDG-1	Hard	0.165		0.9	0.149		
NOOI	DLDG-1	Hard Soft	0.165		0.9	0.149		
	Sı	ıbtotal	0.000	0.165	0.2	0.000	0.1485	0.900
				0.100			000	0.000
Controlled - Tributary to Cistern	CB-3	Hard	0.017		0.9	0.015		
		Soft	0.007		0.2	0.001		
	Sı	ıbtotal		0.024			0.0168	0.700
Controlled - Tributary to Cistern	CB-2	Hard	0.020		0.9	0.018		
Controlled - Tributary to Cistern	CB-2	Soft	0.020		0.9	0.018		
	Su	ıbtotal	0.007	0.027	0.2	0.001	0.01971	0.730
Controlled - Tributary to Cistern	CB-1	Hard	0.032		0.9	0.029		
		Soft	0.014		0.2	0.003		
	Sı	ıbtotal		0.046			0.03174	0.690
Uncontrolled - Ramp to Cistern	RAMP	Hard	0.008		0.9	0.007		
Oncommoned - Namp to Olsten	I V-tivii	Soft	0.000		0.2	0.000		
	Sı	ıbtotal		0.008			0.0072	0.900
Uncontrolled - Non-Tributary	UNC-4	Hard	0.013		0.9	0.012		
	0	Soft	0.022	0.005	0.2	0.004	0.0404	0.400
	ડા	ıbtotal		0.035			0.0161	0.460
Uncontrolled - Non-Tributary	UNC-3	Hard	0.000		0.9	0.000		
,		Soft	0.013		0.2	0.003		
	Su	ıbtotal		0.013			0.0026	0.200
Uncontrolled - Non-Tributary	UNC-2	Hard	0.000		0.9	0.000		
	0.	Soft	0.020	0.020	0.2	0.004	0.004	0.200
	SI	ıbtotal		0.020			0.004	0.200
Uncontrolled - Non-Tributary	UNC-1	Hard	0.000		0.9	0.000		
· · · · · · · · · · · · · · · · · ·		Soft	0.005		0.2	0.001		
	Su	ıbtotal		0.005			0.001	0.200
Total				0.348			0.252	
lotai				0.340			0.252	

Total Roof Areas 0.17 ha Total Tributary Surface Areas (Controlled and Uncontrolled) 0.11 ha Total Tributary Area to Outlet 0.28 ha Total Uncontrolled Areas (Non-Tributary) 0.07 ha **Total Site** 0.35 ha

Project #160401787, 1184-1196 Cummings Avenue Modified Rational Method Calculations for Storage

	5 yr Intens	itv	$I = a/(t + b)^c$	a =	998.071	t (min)	I (mm/hr)
	City of Otta		- ' '	b =	6.053	10	104.19
	o, o. o			c =	0.814	20	70.25
				0 -	0.014	30	53.93
						40	
						50	44.18
						60	37.65 32.94
						70	29.37
						80	26.56
						90	24.29
						100	22.41
						110	20.82
						120	19.47
	5 V	EAD Drode	volonmont	Target Rele	aco from E	entiro Sito	
O the descrip				_		inine Site	
Suburan	Area (ha):	0.35	ment mbutai	y Area to Outle	5l		
	C:	0.43					
	Typical Tim	e of Concen	tration				
ļ	tc	I (5 yr)	Qtarget	,			
	(min)	(mm/hr)	(L/s)				
	10	104.19	43.3				
		VEAD Ma	dified Datio	nal Method	for Portion	of Sito	
	5	TEAR MO	ullieu Katio	nai wetnou	ior Portior	or Site	
Subdraii	nage Area: Area (ha):	0.11					Cistern
	C:	0.73					·
	tc (min)	I (5 yr)	Qactual	Qrelease	Qstored	Vstored	
	(min)	(mm/hr)	(L/s)	(L/s)	(L/s)	(m^3)	
	10	104.19	23.2	8.3	14.8	8.9	
	20	70.25	15.6	8.3	7.3	8.7	
	30	53.93	12.0	8.3	3.7	6.6	
	40	44.18	9.8	8.3	1.5	3.6	
	50	37.65	8.4	8.3	0.0	0.1	
	60	32.94	7.3	7.3	0.0	0.0	
	70	29.37	6.5	6.5	0.0	0.0	
	80						
		26.56	5.9	5.9	0.0	0.0	
	90	24.29	5.4	5.4	0.0	0.0	
	100	22.41	5.0	5.0	0.0	0.0	
	110	20.82	4.6	4.6	0.0	0.0	
	120	19.47	4.3	4.3	0.0	0.0	
		0.		B: 1	Veca	Vavail	Volume
		Stage	Head	Discharge	Vreq		
E year '	Nator Lauri	Stage	Head (m)	(L/s)	(cu. m)	(cu. m)	Check
5-year V	Water Level	Stage -		(L/s) 8.3			Check OK
		-		(L/s)	(cu. m) 8.90	(cu. m) 30.00	OK
	nage Area:	- BLDG-4		(L/s)	(cu. m) 8.90	(cu. m) 30.00	
		- BLDG-4 0.00		(L/s)	(cu. m) 8.90	(cu. m) 30.00	OK
	nage Area:	- BLDG-4		(L/s)	(cu. m) 8.90	(cu. m) 30.00	OK
	nage Area: Area (ha): C:	BLDG-4 0.00 0.90	(m) -	(L/s) 8.3	(cu. m) 8.90 Uncontro	(cu. m) 30.00 blled - Tribut	OK
	nage Area: Area (ha): C:	BLDG-4 0.00 0.90	(m) -	(L/s) 8.3	(cu. m) 8.90 Uncontro	(cu. m) 30.00 blled - Tribut	OK
	nage Area: Area (ha): C: tc (min)	BLDG-4 0.00 0.90 I (5 yr) (mm/hr)	(m) - Qactual (L/s)	(L/s) 8.3 Qrelease (L/s)	(cu. m) 8.90 Uncontro	(cu. m) 30.00 blled - Tribut	OK
	nage Area: Area (ha): C: tc (min)	BLDG-4 0.00 0.90	(m) -	(L/s) 8.3 Qrelease (L/s) 0.3	(cu. m) 8.90 Uncontro	(cu. m) 30.00 blled - Tribut	OK
	nage Area: Area (ha): C: tc (min) 10 20	BLDG-4 0.00 0.90 I (5 yr) (mm/hr)	(m) - Qactual (L/s)	(L/s) 8.3 Qrelease (L/s)	(cu. m) 8.90 Uncontro	(cu. m) 30.00 blled - Tribut	OK
	nage Area: Area (ha): C: tc (min)	BLDG-4 0.00 0.90 I (5 yr) (mm/hr) 104.19	Qactual (L/s)	(L/s) 8.3 Qrelease (L/s) 0.3	(cu. m) 8.90 Uncontro	(cu. m) 30.00 blled - Tribut	OK
	nage Area: Area (ha): C: tc (min) 10 20	BLDG-4 0.00 0.90 I (5 yr) (mm/hr) 104.19 70.25	Qactual (L/s) 0.3 0.2	(L/s) 8.3 Qrelease (L/s) 0.3 0.2	(cu. m) 8.90 Uncontro	(cu. m) 30.00 blled - Tribut	OK
	nage Area: Area (ha): C: tc (min) 10 20 30 40	BLDG-4 0.00 0.90 I (5 yr) (mm/hr) 104.19 70.25 53.93 44.18	Qactual (L/s) 0.3 0.2 0.1 0.1	(L/s) 8.3 Qrelease (L/s) 0.3 0.2 0.1 0.1	(cu. m) 8.90 Uncontro	(cu. m) 30.00 blled - Tribut	OK
	nage Area: Area (ha): C: tc (min) 10 20 30 40 50	BLDG-4 0.00 0.90 I (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65	Qactual (L/s) 0.3 0.2 0.1 0.1	(L/s) 8.3 Qrelease (L/s) 0.3 0.2 0.1 0.1	(cu. m) 8.90 Uncontro	(cu. m) 30.00 blled - Tribut	OK
	nage Area: Area (ha): C: tc (min) 10 20 30 40	BLDG-4 0.00 0.90 1 (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94	Qactual (L/s) 0.3 0.2 0.1 0.1	Qrelease (L/s) 0.3 0.2 0.1 0.1 0.1	(cu. m) 8.90 Uncontro	(cu. m) 30.00 blled - Tribut	OK
	nage Area: Area (ha): C: tc (min) 10 20 30 40 50 60 70	BLDG-4 0.00 0.90 I (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37	(m)	(L/s) 8.3 Qrelease (L/s) 0.3 0.2 0.1 0.1 0.1	(cu. m) 8.90 Uncontro	(cu. m) 30.00 blled - Tribut	OK
	nage Area: Area (ha): C: tc (min) 10 20 30 40 50 60 70 80	BLDG-4 0.00 0.90 1 (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56	Qactual (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1	(L/s) 8.3 Qrelease (L/s) 0.3 0.2 0.1 0.1 0.1 0.1	(cu. m) 8.90 Uncontro	(cu. m) 30.00 blled - Tribut	OK
	rage Area: Area (ha): C: tc (min) 10 20 30 40 50 60 70 80 90	BLDG-4 0.00 0.90 1 (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56 24.29	Qactual (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1	Qrelease (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1	(cu. m) 8.90 Uncontro	(cu. m) 30.00 blled - Tribut	OK
	nage Area: Area (ha): C: tc (min) 10 20 30 40 50 60 70 80 90 100	BLDG-4 0.00 0.90 I (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56 24.29 22.41	Qactual (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	(L/s) 8.3 Qrelease (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	(cu. m) 8.90 Uncontro	(cu. m) 30.00 blled - Tribut	OK
	nage Area: Area (ha): C: tc (min) 10 20 30 40 50 60 70 80 90 110	BLDG-4 0.00 0.90 1 (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56 24.29 22.41 20.82	Qactual (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Qrelease (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1	(cu. m) 8.90 Uncontro	(cu. m) 30.00 blled - Tribut	OK
Subdrain	nage Area: Area (ha): C: tc (min) 10 20 30 40 50 60 70 80 90 110 120	BLDG-4 0.00 0.90 1 (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56 24.29 22.41 20.82 19.47	Qactual (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	(L/s) 8.3 Qrelease (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Uncontrol Uncontrol Uncontrol Utrol Utrol Utrol Utrol Utrol Utrol Utrol	(cu. m) 30.00 billed - Tribut Vstored (m^3)	OK ary to Cistern
Subdraie	nage Area: Area (ha): C: tc (min) 10 20 30 40 50 60 70 80 90 110 120 nage Area:	BLDG-4 0.00 0.90 1 (5 yr) (mm/hr) 104.19 70.25 53.93 34.18 37.65 32.94 29.37 26.56 24.29 22.41 20.82 19.47	Qactual (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1	(L/s) 8.3 Qrelease (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Uncontrol Uncontrol Uncontrol Utrol Utrol Utrol Utrol Utrol Utrol Utrol	(cu. m) 30.00 billed - Tribut Vstored (m^3)	OK
Subdraie	nage Area: Area (ha): C: tc (min) 10 20 30 40 50 60 70 80 90 110 120	BLDG-4 0.00 0.90 1 (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56 24.29 22.41 20.82 19.47	Qactual (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1	(L/s) 8.3 Qrelease (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Uncontrol Uncontrol Uncontrol Utrol Utrol Utrol Utrol Utrol Utrol Utrol	(cu. m) 30.00 billed - Tribut Vstored (m^3)	OK ary to Cistern
Subdraie	nage Area: Area (ha): C: tc (min) 10 20 30 40 50 60 70 80 90 1100 110 120 nage Area: Area (ha): C:	BLDG-4 0.00 0.90 1 (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56 24.29 22.41 20.82 19.47	Qactual (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.0 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	(L/s) 8.3 Qrelease (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.0 Crelease	Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Ostored	(cu. m) 30.00 billed - Tribut Vstored (m^3)	OK ary to Cistern
Subdraie	nage Area: Area (ha): C: tc (min) 10 20 30 40 50 60 70 80 90 110 120 nage Area: Area (ha): C: tc (min)	BLDG-4 0.00 0.90 1 (5 yr) (mw/hr) 104.19 70.25 53.93 44.18 37.65 24.29 22.41 20.82 19.47 BLDG-3 0.00 0.90	Qactual (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	(L/s) 8.3 Grelease (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	(cu. m) 8.90 Uncontrol Qstored (L/s)	(cu. m) 30.00 billed - Tribut Vstored (m^3)	OK ary to Cistern
Subdrain	nage Area: Area (ha): C: tc (min) 10 20 30 40 50 60 70 80 90 110 120 nage Area: Area (ha): C: tc (min) 10	BLDG-4 0.00 0.90 1 (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56 24.29 22.41 20.82 19.47 BLDG-3 0.09 1 (5 yr) (mm/hr)	Qactual (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	(L/s) 8.3 Qrelease (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.0 Qrelease (L/s) 0.3	Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Ostored	(cu. m) 30.00 billed - Tribut Vstored (m^3)	OK ary to Cistern
Subdrain	nage Area: Area (ha): C: tc (min) 10 20 30 40 50 60 70 80 90 100 1120 nage Area: Area (ha): C: (min) 10 20	BLDG-4 0.00 0.90 1 (5 yr) (mw/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56 24.29 120.82 19.47 BLDG-3 0.00 0.90	(m)	(L/s) 8.3 Grelease (L/s) 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Ostored	(cu. m) 30.00 billed - Tribut Vstored (m^3)	OK ary to Cistern
Subdrain	nage Area: Area (ha): C: tc (min) 10 20 30 40 50 60 70 80 90 110 120 nage Area: Area (ha): C: tc (min) 10	BLDG-4 0.00 0.90 1 (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56 24.29 22.41 20.82 19.47 BLDG-3 0.09 1 (5 yr) (mm/hr)	Qactual (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	(L/s) 8.3 Qrelease (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.0 Qrelease (L/s) 0.3	Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Ostored	(cu. m) 30.00 billed - Tribut Vstored (m^3)	OK ary to Cistern
Subdrain	nage Area: Area (ha): C: tc (min) 10 20 30 40 50 60 70 80 90 100 1120 nage Area: Area (ha): C: (min) 10 20	BLDG-4 0.00 0.90 1 (5 yr) (mw/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56 24.29 120.82 19.47 BLDG-3 0.00 0.90	(m)	(L/s) 8.3 Grelease (L/s) 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Ostored	(cu. m) 30.00 billed - Tribut Vstored (m^3)	OK ary to Cistern
Subdrain	nage Area: Area (ha): C: tc (min) 10 20 30 40 50 60 70 80 90 110 110 110 Area (ha): C: tc (min) 10 20 30	BLDG-4 0.00 0.90 1 (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56 24.29 22.41 20.82 19.47 BLDG-3 0.90 1 (5 yr) (mm/hr) 104.19 70.25 53.93	Qactual (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Qrelease (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Ostored	(cu. m) 30.00 billed - Tribut Vstored (m^3)	OK ary to Cistern
Subdrain	nage Area: Area (ha): C: tc (min) 10 20 30 40 50 60 70 80 90 110 120 nage Area: Area (ha): C: tc (min) 10 20 30 40 40 40 40	BLDG-4 0.00 0.90 I (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 42.93 726.56 24.29 22.41 20.82 19.47 BLDG-3 0.00 0.90 I (5 yr) (mm/hr) 104.19 70.25 53.93 44.18	(m)	Qrelease (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.0 0.2 Qrelease (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Ostored	(cu. m) 30.00 billed - Tribut Vstored (m^3)	OK ary to Cistern
Subdrain	nage Area: Area (ha): C: tc (min) 10 20 30 40 50 60 70 80 90 110 120 nage Area: Area (ha): C: tc (min) 10 20 30 40 50 60 70 80 90 40 50 60 70 80 80 90 100 100 100 100 100 100 100 100 100	BLDG-4 0.00 0.90 1 (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56 24.29 22.41 20.82 19.47 BLDG-3 0.00 1 (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65	Qactual (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.0 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	(L/s) 8.3 Qrelease (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.0 Qrelease (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Ostored	(cu. m) 30.00 billed - Tribut Vstored (m^3)	OK ary to Cistern
Subdrain	nage Area: Area (ha): C: tc (min) 10 20 30 40 50 60 70 80 90 110 120 nage Area: Area (ha): C: tc (min) 10 20 30 40 50 60 70 70 80 90 100 110 20 70 70 70 70 70 70 70 70 70 70 70 70 70	BLDG-4 0.00 0.90 I (5 yr) (mm/hr) 104.19 104.19 105.29 10.10	(m)	(L/s) 8.3 Qrelease (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.0 Qrelease (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Ostored	(cu. m) 30.00 billed - Tribut Vstored (m^3)	OK ary to Cistern
Subdrain	nage Area: Area (ha): C: tc (min) 10 20 30 40 50 60 70 80 90 110 120 Area (ha): C: tc (min) 10 20 30 40 40 50 60 60 60 60 70 80	BLDG-4 0.00 0.90 1 (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56 24.29 22.41 20.82 19.47 BLDG-3 0.00 90 1 (5 yr) (mm/hr) 104.18 37.65 33.93 44.18 37.65 32.94 29.37 26.56	Qactual (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.0 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	(L/s) 8.3 Qrelease (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.0 Qrelease (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Ostored	(cu. m) 30.00 billed - Tribut Vstored (m^3)	OK ary to Cistern
Subdrain	nage Area: Area (na): C: tc (min) 10 20 30 40 50 60 70 80 90 110 120 c: tc (min) 120 30 40 50 60 70 80 90 100 60 70 80 90 100 100 100 100 100 100 100 100 100	BLDG-4 0.00 0.90 1 (5 yr) (mm/hr) 104.19 104.19 37.65 32.94 44.18 32.94 29.37 26.56 24.29 22.41 20.82 19.47 BLDG-3 0.00 0.90 1 (5 yr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56 24.29 22.41 20.82 21.41 20.	Qactual (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.0 Qactual (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	(L/s) 8.3 Grelease (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.0 Grelease (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Ostored	(cu. m) 30.00 billed - Tribut Vstored (m^3)	OK ary to Cistern
Subdrain	nage Area: Area (ha): C: tc (min) 10 20 30 40 50 60 70 80 90 110 120 tc (min) 10 20 30 40 60 70 80 90 100 80 90 100 100 100	BLDG-4 0.00 0.90 1 (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 24.29 22.41 20.82 19.47 BLDG-3 0.90 1 (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56 24.29 22.41 20.82 21.47	Qactual (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	CL(s) 8.3 8.	Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Ostored	(cu. m) 30.00 billed - Tribut Vstored (m^3)	OK ary to Cistern
Subdraie	nage Area: Area (na): C: tc (min) 10 20 30 40 50 60 70 80 90 110 120 c: tc (min) 120 30 40 50 60 70 80 90 100 60 70 80 90 100 100 100 100 100 100 100 100 100	BLDG-4 0.00 0.90 1 (5 yr) (mm/hr) 104.19 104.19 37.65 32.94 44.18 32.94 29.37 26.56 24.29 22.41 20.82 19.47 BLDG-3 0.00 0.90 1 (5 yr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56 24.29 22.41 20.82 21.41 20.	Qactual (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.0 Qactual (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	(L/s) 8.3 Grelease (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.0 Grelease (L/s) 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Uncontrol Ostored	(cu. m) 30.00 billed - Tribut Vstored (m^3)	OK ary to Cistern

Project #160401787, 1184-1196 Cummings Avenue Modified Rational Method Calculations for Storage

	vietnod Ca	liculations	for Storag	le		
400 !4	neity [I = a/(t + b)		172F 600	t (min)	I (mm/b=)
100 yr Inte City of Otta		a/(L + D)	a = b =	1735.688 6.014	t (min) 10	1 (mm/hr) 178.56
City of Otta	awd		C =	0.820	20	119.95
		I.	0 -	0.020	30	91.87
					40	75.15
					50	63.95
					60	55.89
					70	49.79
					80	44.99
					90	41.11
					100	37.90
					110 120	35.20 32.89
				L	120	32.09
100 \	EAR Pred	evelopmen	t Target Rel	ease from	Entire Site)
Control to	5-Year Pred	evelopment	Runoff			
100	YEAR Mo	dified Rati	onal Method	for Portio	n of Site	
Subdrainage Area:						Cistern
Area (ha): C:	0.11 0.89					
tc (min)	I (100 yr)	Qactual	Qrelease	Qstored	Vstored	
(min) 10	(mm/hr) 178.56	(L/s) 35.1	(L/s) 8.3	(L/s) 26.8	(m^3) 16.1	
20	119.95	30.8	8.3	22.5	27.0	
30	91.87	24.8	8.3	16.5	29.6	
40	75.15	20.5	8.3	12.2	29.3	
50	63.95	17.5	8.3	9.2	27.5	
60	55.89	15.3	8.3	7.0	25.0	
70 80	49.79 44.99	13.6 12.3	8.3 8.3	5.3 4.0	22.2 19.1	
90	41.11	11.2	8.3	2.9	15.7	
100	37.90	10.4	8.3	2.0	12.2	
110	35.20	9.6	8.3	1.3	8.6	
120	32.89	9.0	8.3	0.7	4.8	
	Stage	Head	Discharge	Vreq	Vavail	Volume
	·	(m)	(L/s)	(cu. m)	(cu. m)	Check
100-year Water Level	-	-	8.3	29.63	30.00	OK
<u> </u>					0.37	
Subdrainage Area:	BLDG-4			Uncontro	olled - Tributa	ary to Cistern
Area (ha):	0.00					
C:	1.00					
tc	I (100 yr)	Qactual	Qrelease	Qstored	Vstored	
(min)	(mm/hr)	(L/s)	(L/s)	(L/s)	(m^3)	
10	178.56	0.5	0.5			
20 30	119.95	0.3	0.3			
30 40	91.87 75.15	0.3 0.2	0.3 0.2			
50	63.95	0.2	0.2			
60	55.89	0.2	0.2			
70	49.79	0.1	0.1			
80	44.99	0.1	0.1			
90	41.11	0.1	0.1			
100 110	37.90 35.20	0.1 0.1	0.1 0.1			
120	35.20	0.1	0.1			
				De :		
Subdrainage Area: Area (ha):	BLDG-3 0.00			uncontro	niea - Tributa	ary to Cistern
C:	1.00					
1						
tc (min)	I (100 yr)	Qactual	Qrelease	Qstored	Vstored	
(min) 10	(mm/hr) 178.56	(L/s) 0.5	(L/s) 0.5	(L/s)	(m^3)	
20	119.95	0.3	0.3			
30	91.87	0.3	0.3			
40	75.15	0.2	0.2			
50	63.95	0.2	0.2			
60	55.89	0.2	0.2			
70 80	49.79 44.99	0.1	0.1			
80 90	44.99	0.1 0.1	0.1 0.1			
		U. I	U. I			
			0.1			
100 110	37.90 35.20	0.1 0.1	0.1 0.1			

Project #160401787, 1184-1196 Cummings Avenue Modified Rational Method Calculations for Storage

Subdrainag Are	e Area: ea (ha): C:	0.00			Uncontr	olled - Tribut	ary to Cistern	
	tc	I (5 yr)	Qactual	Qrelease	Qstored	Vstored	Ī	
((min)	(mm/hr)	(L/s)	(L/s)	(L/s)	(m^3)		
	10	104.19	0.8	0.8				
	20	70.25	0.5	0.5				
	30	53.93	0.4	0.4				
	40	44.18	0.3	0.3				
	50	37.65	0.3	0.3				
	60	32.94	0.2	0.2				
	70	29.37	0.2	0.2				
	80	26.56	0.2	0.2				
	90	24.29	0.2	0.2				
	100	22.41	0.2	0.2				
	110	20.82	0.2	0.2				
	120	19.47	0.1	0.1				
Air	ea (ha): C:	0.17 0.90		N	faximum Sto	rage Depth:	150	mı
A			Qactual	Qrelease	laximum Sto	vstored	150	mi
	tc (min)	0.90 I (5 yr) (mm/hr)	(L/s)	Qrelease (L/s)	Qstored (L/s)	Vstored (m^3)	Depth (mm)	
	tc (min)	0.90 I (5 yr) (mm/hr) 104.19	(L/s) 43.0	Qrelease (L/s)	Qstored (L/s) 25.2	Vstored (m^3) 15.1	Depth (mm) 90.2	
	tc (min) 10 20	0.90 I (5 yr) (mm/hr) 104.19 70.25	(L/s) 43.0 29.0	Qrelease (L/s) 17.8 17.6	Qstored (L/s) 25.2 11.4	Vstored (m^3) 15.1 13.7	Depth (mm) 90.2 87.0	
	tc (min) 10 20 30	0.90 I (5 yr) (mm/hr) 104.19 70.25 53.93	(L/s) 43.0 29.0 22.3	Qrelease (L/s) 17.8 17.6 17.0	Qstored (L/s) 25.2 11.4 5.3	Vstored (m^3) 15.1 13.7 9.5	Depth (mm) 90.2 87.0 77.8	
	tc (min) 10 20 30 40	0.90 I (5 yr) (mm/hr) 104.19 70.25 53.93 44.18	(L/s) 43.0 29.0 22.3 18.2	Qrelease (L/s) 17.8 17.6 17.0 16.0	Qstored (L/s) 25.2 11.4 5.3 2.3	Vstored (m^3) 15.1 13.7 9.5 5.4	Depth (mm) 90.2 87.0 77.8 62.8	
	tc (min) 10 20 30 40 50	0.90 I (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65	(L/s) 43.0 29.0 22.3 18.2 15.5	Qrelease (L/s) 17.8 17.6 17.0 16.0 14.8	Qstored (L/s) 25.2 11.4 5.3 2.3 0.8	Vstored (m^3) 15.1 13.7 9.5 5.4 2.3	Depth (mm) 90.2 87.0 77.8 62.8 48.6	
	tc (min) 10 20 30 40 50 60	0.90 I (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94	(L/s) 43.0 29.0 22.3 18.2 15.5 13.6	Qrelease (L/s) 17.8 17.6 17.0 16.0 14.8 13.1	Qstored (L/s) 25.2 11.4 5.3 2.3 0.8 0.5	Vstored (m^3) 15.1 13.7 9.5 5.4 2.3 1.8	Depth (mm) 90.2 87.0 77.8 62.8 48.6 42.3	
	C: tc [min) 10 20 30 40 50 60 70	0.90 I (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37	(L/s) 43.0 29.0 22.3 18.2 15.5 13.6 12.1	Qrelease (L/s) 17.8 17.6 17.0 16.0 14.8 13.1 11.8	Qstored (L/s) 25.2 11.4 5.3 2.3 0.8 0.5 0.3	Vstored (m^3) 15.1 13.7 9.5 5.4 2.3 1.8 1.4	Depth (mm) 90.2 87.0 77.8 62.8 48.6 42.3 37.4	
	tc (min) 10 20 30 40 50 60 70 80	0.90 I (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56	(L/s) 43.0 29.0 22.3 18.2 15.5 13.6 12.1 11.0	Qrelease (L/s) 17.8 17.6 17.0 16.0 14.8 13.1 11.8 10.8	Qstored (L/s) 25.2 11.4 5.3 2.3 0.8 0.5 0.3 0.2	Vstored (m^3) 15.1 13.7 9.5 5.4 2.3 1.8 1.4	Depth (mm) 90.2 87.0 77.8 62.8 48.6 42.3 37.4 33.4	
	tc (min) 10 20 30 40 50 60 70 80 90	0.90 1 (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56 24.29	(L/s) 43.0 29.0 22.3 18.2 15.5 13.6 12.1 11.0 10.0	Qrelease (L/s) 17.8 17.6 17.0 16.0 14.8 13.1 11.8 10.8 9.9	Qstored (L/s) 25.2 11.4 5.3 2.3 0.8 0.5 0.3 0.2 0.1	Vstored (m^3) 15.1 13.7 9.5 5.4 2.3 1.8 1.4 1.0 0.7	Depth (mm) 90.2 87.0 77.8 62.8 48.6 42.3 37.4 33.4 30.2	
	tc (min) 10 20 30 40 50 60 70 80 90 100	0.90 I (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56 24.29 22.41	(L/s) 43.0 29.0 22.3 18.2 15.5 13.6 12.1 11.0 10.0 9.3	Qrelease (L/s) 17.8 17.6 17.0 16.0 14.8 13.1 11.8 9.9	Qstored (L/s) 25.2 11.4 5.3 2.3 0.8 0.5 0.3 0.2 0.1	Vstored (m^3) 15.1 13.7 9.5 5.4 2.3 1.8 1.4 1.0 0.7	Depth (mm) 90.2 87.0 77.8 62.8 48.6 42.3 37.4 33.4 30.2 27.4	
	tc (min) 10 20 30 40 50 60 70 80 90 100 110	0.90 I (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56 24.29 22.41 20.82	(L/s) 43.0 29.0 22.3 18.2 15.5 13.6 12.1 11.0 10.0 9.3 8.6	Qrelease (L/s) 17.8 17.6 17.0 16.0 14.8 13.1 11.8 10.8 9.9 9.2 8.5	Qstored (L/s) 25.2 11.4 5.3 2.3 0.8 0.5 0.3 0.2 0.1 0.1	Vstored (m^3) 15.1 13.7 9.5 5.4 2.3 1.8 1.4 1.0 0.7 0.5 0.3	Depth (mm) 90.2 87.0 77.8 62.8 48.6 42.3 37.4 33.4 30.2 27.4 25.1	
	tc (min) 10 20 30 40 50 60 70 80 90 100	0.90 I (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56 24.29 22.41	(L/s) 43.0 29.0 22.3 18.2 15.5 13.6 12.1 11.0 10.0 9.3	Qrelease (L/s) 17.8 17.6 17.0 16.0 14.8 13.1 11.8 9.9	Qstored (L/s) 25.2 11.4 5.3 2.3 0.8 0.5 0.3 0.2 0.1	Vstored (m^3) 15.1 13.7 9.5 5.4 2.3 1.8 1.4 1.0 0.7	Depth (mm) 90.2 87.0 77.8 62.8 48.6 42.3 37.4 33.4 30.2 27.4	
	tc (min) 10 20 30 40 50 60 70 80 90 100 110	0.90 I (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56 24.29 22.41 20.82 19.47	(L/s) 43.0 29.0 22.3 18.2 15.5 13.6 12.1 11.0 10.0 9.3 8.6	Qrelease (L/s) 17.8 17.6 17.0 16.0 14.8 13.1 11.8 10.8 9.9 9.2 8.5	Qstored (L/s) 25.2 11.4 5.3 2.3 0.8 0.5 0.3 0.2 0.1 0.1	Vstored (m^3) 15.1 13.7 9.5 5.4 2.3 1.8 1.4 1.0 0.7 0.5 0.3	Depth (mm) 90.2 87.0 77.8 62.8 48.6 42.3 37.4 33.4 30.2 27.4 25.1	
	C: tc (min) 10 20 30 40 50 60 70 80 90 1100 1100 120	0.90 I (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56 24.29 22.41 20.82 19.47	(L/s) 43.0 29.0 22.3 18.2 15.5 13.6 12.1 11.0 10.0 9.3 8.6	Qrelease (L/s) 17.8 17.6 17.0 16.0 14.8 13.1 11.8 10.8 9.9 9.2 8.5	Qstored (L/s) 25.2 11.4 5.3 2.3 0.8 0.5 0.3 0.2 0.1 0.1	Vstored (m^3) 15.1 13.7 9.5 5.4 2.3 1.8 1.4 1.0 0.7 0.5 0.3	Depth (mm) 90.2 87.0 77.8 62.8 48.6 42.3 37.4 33.4 30.2 27.4 25.1	
	C: tc (min) 10 20 30 40 50 60 70 80 90 1100 1100 120	0.90 I (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56 24.29 22.41 20.82 19.47	(L/s) 43.0 29.0 22.3 18.2 15.5 13.6 12.1 11.0 10.0 9.3 8.6 8.0	Qrelease (<i>L/s</i>) 17.8 17.6 17.0 16.0 14.8 13.1 11.8 10.8 9.9 9.2 8.5 8.0	Qstored (L/s) 25.2 11.4 5.3 2.3 0.8 0.5 0.3 0.2 0.1 0.1 0.0 0.0	Vstored (m^3) 15.1 13.7 9.5 5.4 2.3 1.8 1.4 1.0 0.7 0.5 0.3 0.3	Depth (mm) 90.2 87.0 77.8 62.8 48.6 42.3 37.4 33.4 30.2 27.4 25.1 23.5	

Project #160401787, 1184-1196 Cummings Avenue Modified Rational Method Calculations for Storage

Subdr	ainage Area: Area (ha): C:	0.00			Uncontro	olled - Tribut	ary to Cistern	
	tc	I (100 yr)	Qactual	Qrelease	Qstored	Vstored		
	(min)	(mm/hr)	(L/s)	(L/s)	(L/s)	(m^3)		
	10	178.56	1.5	1.5	, ,		!	
	20	119.95	1.0	1.0				
	30	91.87	0.8	0.8				
	40	75.15	0.6	0.6				
	50	63.95	0.5	0.5				
	60	55.89	0.5	0.5				
	70	49.79	0.4	0.4				
	80	44.99	0.4	0.4				
	90	41.11	0.3	0.3				
	100	37.90	0.3	0.3				
	110	35.20	0.3	0.3				
	120	32.89	0.3	0.3				
	ainage Area:	BLDG-1						
Gubui	Area (ha): C:	0.17		М	aximum Sto	rage Depth:	150	mm
Oubui	Area (ha): C:	0.17 1.00	Qactual (L/s)	Qrelease	Qstored	Vstored	Depth	mn
oubui	Area (ha): C:	0.17 1.00	Qactual (L/s) 81.9					
Gubui	Area (ha): C: tc (min)	0.17 1.00 I (100 yr) (mm/hr)	(L/s)	Qrelease (L/s)	Qstored (L/s)	Vstored (m^3)	Depth (mm)]
Gubui	Area (ha): C: tc (min)	0.17 1.00 I (100 yr) (mm/hr) 178.56	(L/s) 81.9	Qrelease (L/s) 20.0	Qstored (L/s) 61.9	Vstored (m^3) 37.1	Depth (mm) 123.6	0 0
Subur	Area (ha): C: tc (min) 10 20	0.17 1.00 I (100 yr) (mm/hr) 178.56 119.95	(L/s) 81.9 55.0	Qrelease (L/s) 20.0 20.3	Qstored (L/s) 61.9 34.7	Vstored (m^3) 37.1 41.6	Depth (mm) 123.6 128.1	0 0
Subur	Area (ha): C: tc (min) 10 20 30	0.17 1.00 I (100 yr) (mm/hr) 178.56 119.95 91.87	(L/s) 81.9 55.0 42.1	Qrelease (L/s) 20.0 20.3 20.2	Qstored (L/s) 61.9 34.7 22.0	Vstored (m^3) 37.1 41.6 39.5	Depth (mm) 123.6 128.1 126.2	0 0
Gusui	Area (ha): C: tc (min) 10 20 30 40	0.17 1.00 I (100 yr) (mm/hr) 178.56 119.95 91.87 75.15	(L/s) 81.9 55.0 42.1 34.5	Qrelease (L/s) 20.0 20.3 20.2 19.8	Qstored (L/s) 61.9 34.7 22.0 14.6	Vstored (m^3) 37.1 41.6 39.5 35.1	Depth (mm) 123.6 128.1 126.2 120.9	0 0
Subu	Area (ha): C: tc (min) 10 20 30 40 50	0.17 1.00 I (100 yr) (mm/hr) 178.56 119.95 91.87 75.15 63.95	81.9 55.0 42.1 34.5 29.3	Qrelease (L/s) 20.0 20.3 20.2 19.8 19.4 18.9 18.3	Qstored (L/s) 61.9 34.7 22.0 14.6 10.0	Vstored (m^3) 37.1 41.6 39.5 35.1 29.9	Depth (mm) 123.6 128.1 126.2 120.9 113.9	0 0 0
Gubui	Area (ha): C: tc (min) 10 20 30 40 50 60	0.17 1.00 I (100 yr) (mm/hr) 178.56 119.95 91.87 75.15 63.95 55.89	(L/s) 81.9 55.0 42.1 34.5 29.3 25.6	Qrelease (L/s) 20.0 20.3 20.2 19.8 19.4 18.9	Qstored (L/s) 61.9 34.7 22.0 14.6 10.0 6.8	Vstored (m^3) 37.1 41.6 39.5 35.1 29.9 24.3	Depth (mm) 123.6 128.1 126.2 120.9 113.9 106.4	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Cuban	Area (ha): C: tc (min) 10 20 30 40 50 60 70 80 90	0.17 1.00 I (100 yr) (mm/hr) 178.56 119.95 91.87 75.15 63.95 55.89 49.79 44.99 41.11	(L/s) 81.9 55.0 42.1 34.5 29.3 25.6 22.8 20.6 18.9	Qrelease (L/s) 20.0 20.3 20.2 19.8 19.4 18.9 18.3 17.7	Qstored (L/s) 61.9 34.7 22.0 14.6 10.0 6.8 4.5 3.0 1.8	Vstored (m^3) 37.1 41.6 39.5 35.1 29.9 24.3 18.9 14.2 9.9	Depth (mm) 123.6 128.1 126.2 120.9 113.9 106.4 98.5 88.2 78.6	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Cusum	Area (ha): C: tc (min) 10 20 30 40 50 60 70 80 90 100	0.17 1.00 I (100 yr) (mm/hr) 178.56 119.95 91.87 75.15 63.95 55.89 49.79 44.99 41.11 37.90	(L/s) 81.9 55.0 42.1 34.5 29.3 25.6 22.8 20.6 18.9 17.4	Qrelease (L/s) 20.0 20.3 20.2 19.8 19.4 18.9 18.3 17.7 17.0 16.3	Qstored (L/s) 61.9 34.7 22.0 14.6 10.0 6.8 4.5 3.0 1.8 1.1	Vstored (m^3) 37.1 41.6 39.5 35.1 29.9 24.3 18.9 14.2 9.9 6.5	Depth (mm) 123.6 128.1 126.2 120.9 113.9 106.4 98.5 88.2 78.6 67.5	
Cusum	Area (ha):	0.17 1.00 I (100 yr) (mm/hr) 178.56 119.95 91.87 75.15 63.95 55.89 49.79 44.99 41.11	(L/s) 81.9 55.0 42.1 34.5 29.3 25.6 22.8 20.6 18.9 17.4 16.1	Qrelease (L/s) 20.0 20.3 20.2 19.8 19.4 18.9 18.3 17.7	Qstored (L/s) 61.9 34.7 22.0 14.6 10.0 6.8 4.5 3.0 1.8 1.1 0.6	Vstored (m^3) 37.1 41.6 39.5 35.1 29.9 24.3 18.9 14.2 9.9 6.5 3.9	Depth (mm) 123.6 128.1 126.2 120.9 113.9 106.4 98.5 88.2 78.6	
Casa	Area (ha): C: tc (min) 10 20 30 40 50 60 70 80 90 100	0.17 1.00 I (100 yr) (mm/hr) 178.56 119.95 91.87 75.15 63.95 55.89 49.79 44.99 41.11 37.90	(L/s) 81.9 55.0 42.1 34.5 29.3 25.6 22.8 20.6 18.9 17.4	Qrelease (L/s) 20.0 20.3 20.2 19.8 19.4 18.9 18.3 17.7 17.0 16.3	Qstored (L/s) 61.9 34.7 22.0 14.6 10.0 6.8 4.5 3.0 1.8 1.1	Vstored (m^3) 37.1 41.6 39.5 35.1 29.9 24.3 18.9 14.2 9.9 6.5	Depth (mm) 123.6 128.1 126.2 120.9 113.9 106.4 98.5 88.2 78.6 67.5	
	Area (ha):	0.17 1.00 I (100 yr) (mm/hr) 178.56 119.95 91.87 75.15 63.95 55.89 49.79 44.99 41.11 37.90 35.20 32.89	(L/s) 81.9 55.0 42.1 34.5 29.3 25.6 22.8 20.6 18.9 17.4 16.1	Qrelease (L/s) 20.0 20.3 20.2 19.8 19.4 18.9 18.3 17.7 17.0 16.3 15.6	Qstored (L/s) 61.9 34.7 22.0 14.6 10.0 6.8 4.5 3.0 1.8 1.1 0.6	Vstored (m^3) 37.1 41.6 39.5 35.1 29.9 24.3 18.9 14.2 9.9 6.5 3.9	Depth (mm) 123.6 128.1 126.2 120.9 113.9 106.4 98.5 88.2 78.6 67.5 56.3	
	Area (ha):	0.17 1.00 I (100 yr) (mm/hr) 178.56 119.95 91.87 75.15 63.95 55.89 49.79 44.99 41.11 37.90 35.20 32.89	(L/s) 81.9 55.0 42.1 34.5 29.3 25.6 22.8 20.6 18.9 17.4 16.1	Qrelease (L/s) 20.0 20.3 20.2 19.8 19.4 18.9 18.3 17.7 17.0 16.3 15.6	Qstored (L/s) 61.9 34.7 22.0 14.6 10.0 6.8 4.5 3.0 1.8 1.1 0.6	Vstored (m^3) 37.1 41.6 39.5 35.1 29.9 24.3 18.9 14.2 9.9 6.5 3.9	Depth (mm) 123.6 128.1 126.2 120.9 113.9 106.4 98.5 88.2 78.6 67.5 56.3	
Storage:	Area (ha):	0.17 1.00 yr) (mm/hr) 178.56 119.95 91.87 75.15 63.95 55.89 49.79 44.91 35.20 32.89	(L/s) 81.9 55.0 42.1 34.5 29.3 25.6 22.8 20.6 18.9 17.4 16.1 15.1	Qrelease (L/s) 20.0 20.3 20.2 19.8 19.4 18.9 18.3 17.7 17.0 16.3 15.6 14.8	Qstored (L/s) 61.9 34.7 22.0 14.6 10.0 6.8 4.5 3.0 1.8 1.1 0.6 0.3	Vstored (m^3) 37.1 41.6 39.5 35.1 29.9 24.3 18.9 14.2 9.9 6.5 3.9 2.3	Depth (mm) 123.6 128.1 126.2 120.9 113.9 106.4 98.5 88.2 78.6 67.5 56.3 48.6	0 0 0 0 0 0 0 0 0

Project #160401787, 1184-1196 Cummings Avenue Modified Rational Method Calculations for Storage

Subdrainag Are	e Area: ea (ha): C:	CB-3 0.02 0.70			Contro	olled - Tribut	ary to Cistern
	tc	I (5 yr)	Qactual	Qrelease	Qstored	Vstored	
(min) 10	(mm/hr) 104.19	(L/s) 4.9	(L/s) 4.9	(L/s) 0.0	(m^3) 0.0	ļ
	20	70.25	3.3	3.3	0.0	0.0	
	30	53.93	2.5	2.5	0.0	0.0	
	40	44.18	2.1	2.1	0.0	0.0	
	50 60	37.65 32.94	1.8 1.5	1.8 1.5	0.0 0.0	0.0 0.0	
	70	29.37	1.4	1.4	0.0	0.0	
	80	26.56	1.2	1.2	0.0	0.0	
	90	24.29	1.1	1.1	0.0	0.0	
	100	22.41	1.0	1.0	0.0	0.0	
	110 120	20.82 19.47	1.0 0.9	1.0 0.9	0.0 0.0	0.0 0.0	
		rage Above		0.0	0.0	0.0	
	ICD	LMF 60					
Invert El		68.96	m				
Max Pondin	evation	71.28 0.00	m m				
Downstrea		0.00	m				
				D			
		Stage	Head (m)	Discharge (L/s)	Vreq (cu. m)	Vavail (cu. m)	Volume Check
5-year Wate	er Level	71.28	(m) 2.32	(L/S) 4.9	(cu. m) 0.00	(cu. m) 5.14	OK
Subdrainag Are	e Area: ea (ha): C:	CB-2 0.03 0.73			Contro	olled - Iribut	ary to Cistern
Γ.	tc	I (5 yr)	Qactual	Qrelease	Qstored	Vstored	
_ (min) 10	(mm/hr) 104.19	(L/s) 5.7	(L/s) 5.7	(L/s) 0.0	(m^3) 0.0	ļ.
	20	70.25	3.8	3.8	0.0	0.0	
	30	53.93	3.0	3.0	0.0	0.0	
	40	44.18	2.4	2.4	0.0	0.0	
	50	37.65	2.1	2.1	0.0	0.0	
	60 70	32.94 29.37	1.8 1.6	1.8 1.6	0.0 0.0	0.0 0.0	
	80	26.56	1.5	1.5	0.0	0.0	
	90	24.29	1.3	1.3	0.0	0.0	
	100	22.41	1.2	1.2	0.0	0.0	
	110 120	20.82 19.47	1.1 1.1	1.1 1.1	0.0 0.0	0.0 0.0	
		10.11			0.0	0.0	
torage: e Ab	ove CB	L ME 00					
	ICD	LMF 80					
Invert El		69.06	m				
	evation	71.30	m				
Max Ponding		0.00	m				
Downstrea	am vv/L	0.00	m				
	1	Stage	Head	Discharge	Vreq	Vavail	Volume
5-year Wate	er I evel	70.06	(m) 1.00	(L/s) 5.7	(cu. m) 0.00	(cu. m) 3.41	Check OK
Subdrainag Are	e Area: ea (ha): C:	CB-1 0.05 0.69			Contro	olled - Tribut	ary to Cistern
	tc	I (5 yr)	Qactual	Qrelease	Qstored	Vstored	
(min)	(mm/hr)	(L/s)	(L/s)	(L/s)	(m^3)	
	10 20	104.19 70.25	9.2 6.2	9.2 6.2	0.0 0.0	0.0 0.0	
	30	53.93	4.8	4.8	0.0	0.0	
	40	44.18	3.9	3.9	0.0	0.0	
	50	37.65	3.3	3.3	0.0	0.0	
	60 70	32.94 29.37	2.9 2.6	2.9 2.6	0.0	0.0 0.0	
	70 80	29.37	2.6	2.6	0.0 0.0	0.0	
	90	24.29	2.1	2.1	0.0	0.0	
	100	22.41	2.0	2.0	0.0	0.0	
	110 120	20.82 19.47	1.8 1.7	1.8 1.7	0.0 0.0	0.0 0.0	
	ove CB	15.47	1.7	1.7	0.0	0.0	
Orifice Ed	quation:	CdA(2gh)^		Where C =	0.61		
Orifice Dia Invert El		73.00 69.44	mm				
	evation evation	71.30	m m				
Max Ponding	g Depth	0.00	m				
Downstrea	am W/L	0.00	m				
	ſ	Stage	Head	Discharge	Vreq	Vavail	Volume
5-year Wate	er I evel	Stage 70.11	Head (m) 0.67	Discharge (L/s) 9.3	Vreq (cu. m) 0.00	Vavail (cu. m) 3.07	Volume Check OK

Project #160401787, 1184-1196 Cummings Avenue

Project #160401 Modified Ratior							
Subdrainage A Area (rea:	CB-3 0.02 0.88				lled - Tributa	ary to Cistern
tc		I (100 yr)	Qactual	Qrelease	Qstored	Vstored	
(mir 10		(mm/hr) 178.56	(L/s) 10.4	(L/s) 5.0	(L/s) 5.4	(m^3) 3.2	
20		119.95	7.0	5.0	2.0	2.4	
30 40		91.87	5.4	5.0	0.3	0.6	
40 50		75.15 63.95	4.4 3.7	4.4 3.7	0.0 0.0	0.0 0.0	
60		55.89	3.3	3.3	0.0	0.0	
70		49.79	2.9	2.9	0.0	0.0	
80 90		44.99 41.11	2.6 2.4	2.6 2.4	0.0 0.0	0.0 0.0	
100		37.90	2.2	2.2	0.0	0.0	
110		35.20	2.1	2.1	0.0	0.0	
120)	32.89	1.9	1.9	0.0	0.0	
torage: Surfac	e Sto	rage Above	СВ				
	ICD I	LMF 60					
Invert Eleva		68.96					
T/G Eleva		71.28		Vo	lume in CB	0.84	cu.m
Max Ponding D Downstream		0.12 68.90					
		Stage	Head (m)	Discharge (L/s)	Vreq (cu. m)	Vavail (cu. m)	Volume Check
100-year Water L	evel	71.40	(m) 2.44	5.0	3.23	5.14	OK
	-			*		1.91	
Subdrainage A Area (CB-2 0.03 0.91			Contro	lled - Tributa	ary to Cistern
tc (mir		l (100 yr) (mm/hr)	Qactual (L/s)	Qrelease (L/s)	Qstored (L/s)	Vstored (m^3)	
10		178.56	12.2	8.7	3.5	2.1	
20		119.95	8.2	8.2	0.0	0.0	
30 40		91.87 75.15	6.3 5.1	6.3 5.1	0.0 0.0	0.0	
50		63.95	4.4	4.4	0.0	0.0	
60		55.89	3.8	3.8	0.0	0.0	
70 80		49.79 44.99	3.4 3.1	3.4 3.1	0.0 0.0	0.0 0.0	
90		41.11	2.8	2.8	0.0	0.0	
100		37.90	2.6	2.6	0.0	0.0	
110 120		35.20 32.89	2.4 2.3	2.4 2.3	0.0 0.0	0.0 0.0	
120		02.00	2.0	2.0	0.0	0.0	
Storage: Surface	e Sto	rage Above	CB				
	ICD I	LMF 80					
Invert Eleva		69.06					
T/G Eleva Max Ponding D		71.30 0.10		Vo	lume in CB	0.81	cu.m
Downstream		69.00					
	lf:	0.		8: 1	.,	., .,	
		Stage	Head (m)	Discharge (L/s)	Vreq (cu. m)	Vavail (cu. m)	Volume Check
100-year Water L	evel	71.40	2.34	8.7	2.09	3.41	OK
						1.31	
Subdrainage A Area (CB-1 0.05 0.86			Contro	lled - Tributa	ary to Cistern
tc		l (100 yr)	Qactual	Qrelease	Qstored	Vstored	
(mir		(mm/hr)	(L/s)	(L/s)	(L/s)	(m^3)	
10 20		178.56 119.95	19.7 13.2	14.8 13.2	4.8 0.0	2.9 0.0	
30	1	91.87	10.1	10.1	0.0	0.0	
40		75.15	8.3	8.3	0.0	0.0	
50 60		63.95 55.89	7.1 6.2	7.1 6.2	0.0 0.0	0.0 0.0	
70		49.79	5.5	5.5	0.0	0.0	
80	1	44.99	5.0	5.0	0.0	0.0	
90		41.11	4.5	4.5	0.0	0.0	
100 110		37.90 35.20	4.2 3.9	4.2 3.9	0.0 0.0	0.0 0.0	
120		32.89	3.6	3.6	0.0	0.0	
Storage: Surface	e Sto	rage Above	СВ				
Orifice Equa				Where C =	0.57		
Orifice Diame Invert Eleva		73.00 69.44					
T/G Eleva	ation	71.30	m	Vo	lume in CB	0.67	cu.m
Max Ponding D		0.10					
Downstream	vv/L	69.22	111				
	Γ	Stage	Head	Discharge	Vreq	Vavail	Volume
100 year Mate - 1	01/01	71.40	(m) 1.96	(L/s) 14.8	(cu. m) 2.91	(cu. m) 3.07	Check OK
100-year Water L	evei	11.40	1.90	14.8	2.91	3.07	UK

Project #160401787, 1184-1196 Cummings Avenue Modified Rational Method Calculations for Storage

Subdraii	nage Area: Area (ha): C:	0.01 0.90			Unco	ntrolled - Ra	amp to Cistern
	tc	I (5 yr)	Qactual	Qrelease	Qstored	Vstored	Ī
	(min) 10	(mm/hr) 104.19	(L/s) 2.1	(L/s) 2.1	(L/s)	(m^3)	1
	20	70.25	1.4	1.4			
	30 40	53.93 44.18	1.1 0.9	1.1 0.9			
	50	37.65	0.8	0.8			
	60	32.94	0.7	0.7			
	70 80	29.37 26.56	0.6 0.5	0.6 0.5			
	90	24.29	0.5	0.5			
	100 110	22.41 20.82	0.4 0.4	0.4 0.4			
	120	19.47	0.4	0.4			
Subdraii	nage Area: Area (ha): C:	UNC-4 0.04 0.46			Un	controlled -	Non-Tributary
	tc	I (5 yr)	Qactual	Qrelease	Qstored	Vstored	Ī
	(min) 10	(mm/hr) 104.19	(L/s) 4.7	(L/s) 4.7	(L/s)	(m^3)	1
	20	70.25	3.1	3.1			
	30 40	53.93 44.18	2.4 2.0	2.4 2.0			
	50	37.65	1.7	1.7			
	60 70	32.94 29.37	1.5 1.3	1.5 1.3			
	80	26.56	1.3	1.3			
	90	24.29	1.1	1.1			
	100 110	22.41 20.82	1.0 0.9	1.0 0.9			
	120	19.47	0.9	0.9			
Subdraii	nage Area: Area (ha): C:	UNC-3 0.01 0.20			Un	controlled -	Non-Tributary
1	tc	I (5 yr)	Qactual	Qrelease	Qstored	Vstored	Т
	(min)	(mm/hr)	(L/s)	(L/s)	(L/s)	(m^3)	1
	10	104.19	0.8	0.8			-
	20 30	70.25 53.93	0.5 0.4	0.5 0.4			
	40	44.18	0.3	0.3			
	50 60	37.65 32.94	0.3 0.2	0.3 0.2			
	70	29.37	0.2	0.2			
	80	26.56	0.2	0.2			
	90 100	24.29 22.41	0.2 0.2	0.2 0.2			
	110 120	20.82 19.47	0.2 0.1	0.2 0.1			
N. d. d d							No. Telleston
ouburan	nage Area: Area (ha): C:	UNC-2 0.02 0.20			OII	controlled -	Non-Tributary
	tc (min)	I (5 yr) (mm/hr)	Qactual (L/s)	Qrelease (L/s)	Qstored (L/s)	Vstored (m^3)	
	10	104.19	1.2	1.2	(L/S)	(111 3)	1
	20	70.25	0.8	0.8			
	30 40	53.93 44.18	0.6 0.5	0.6 0.5			
	50	37.65	0.4	0.4			
	60 70	32.94 29.37	0.4 0.3	0.4 0.3			
	80	26.56	0.3	0.3			
	90 100	24.29 22.41	0.3 0.2	0.3 0.2			
	110 120	20.82	0.2	0.2 0.2			
Santa de la			0.2	V.Z			No. Total
oubdraii	nage Area: Area (ha): C:	UNC-1 0.01 0.20					Non-Tributary
	tc (min)	I (5 yr) (mm/hr)	Qactual (L/s)	Qrelease (L/s)	Qstored (L/s)	Vstored (m^3)	
	10	104.19	0.3	0.3	(=/3)	, 0,	1
	20 30	70.25 53.93	0.2 0.1	0.2 0.1			
	40	44.18	0.1	0.1			
	50	37.65	0.1	0.1			
	60 70	32.94 29.37	0.1 0.1	0.1 0.1			
	80	26.56	0.1	0.1			
	90	24.29 22.41	0.1 0.1	0.1 0.1			
	100			U. I			
	100 110	20.82	0.1	0.1			
				0.1 0.1			

Project #160401787, 1184-1196 Cummings Avenue Modified Rational Method Calculations for Storage

Area (ha): C:	0.01 1.00			Uncontrolled - Ramp to Cistern
tc (min) 10	I (100 yr) (mm/hr) 178.56	Qactual (L/s) 4.0	Qrelease (L/s) 4.0	Qstored (L/s) Vstored (m^3)
20	119.95	2.7	2.7	
30 40	91.87 75.15	2.0 1.7	2.0 1.7	
50	63.95	1.4	1.4	
60 70	55.89 49.79	1.2 1.1	1.2 1.1	
80	44.99	1.0	1.0	
90 100	41.11 37.90	0.9 0.8	0.9 0.8	
110 120	35.20	0.8 0.7	0.8 0.7	
Subdrainage Area:	32.89 UNC-4	0.7	0.7	Uncontrolled - Non-Tributary
Area (ha): C:	0.04 0.58			,
tc (min)	I (100 yr)	Qactual	Qrelease	Qstored Vstored
(min) 10	(mm/hr) 178.56	(L/s) 10.0	(L/s) 10.0	(L/s) (m^3)
20 30	119.95	6.7 5.1	6.7 5.1	
40	91.87 75.15	4.2	4.2	
50	63.95	3.6	3.6	
60 70	55.89 49.79	3.1 2.8	3.1 2.8	
80	44.99	2.5	2.5	
90 100	41.11 37.90	2.3 2.1	2.3 2.1	
110	35.20	2.0	2.0	
120	32.89	1.8	1.8	
Subdrainage Area: Area (ha): C:	UNC-3 0.01 0.25			Uncontrolled - Non-Tributary
		0	01	Ontared Material
tc (min) 10	I (100 yr) (mm/hr) 178.56	Qactual (L/s) 1.6	Qrelease (L/s) 1.6	Qstored Vstored (L/s) (m^3)
20	119.95	1.0	1.0	
30	91.87	0.8	0.8	
40 50	75.15 63.95	0.7 0.6	0.7 0.6	
60	55.89	0.5	0.5	
70 80	49.79 44.99	0.4 0.4	0.4 0.4	
90	41.11	0.4	0.4	
100 110	37.90 35.20	0.3 0.3	0.3 0.3	
120	32.89	0.3	0.3	
Subdrainage Area:	UNC-2			Uncontrolled - Non-Tributary
	0.02			
Area (ha): C:	0.25			
C:	I (100 yr)	Qactual (L/s)	Qrelease (L/s)	Qstored Vstored (L/s) (m^3)
tc (min)	I (100 yr) (mm/hr) 178.56	(L/s) 2.5	(L/s) 2.5	Qstored (L/s) Vstored (m^3)
tc (min) 10 20 30	I (100 yr) (mm/hr) 178.56 119.95 91.87	2.5 1.7 1.3	(L/s) 2.5 1.7 1.3	Qstored Vstored (L/s) (m^3)
tc (min) 10 20 30 40	I (100 yr) (mm/hr) 178.56 119.95 91.87 75.15	(L/s) 2.5 1.7 1.3 1.0	2.5 1.7 1.3 1.0	Qstored (L/s) Vstored (m^3)
tc (min) 10 20 30 40 50 60	1 (100 yr) (mm/hr) 178.56 119.95 91.87 75.15 63.95 55.89	(L/s) 2.5 1.7 1.3 1.0 0.9 0.8	2.5 1.7 1.3 1.0 0.9 0.8	Qstored Vstored (Us) (m^3)
tc (min) 10 20 30 40 50 60 70	1 (100 yr) (mm/hr) 178.56 119.95 91.87 75.15 63.95 55.89 49.79	2.5 1.7 1.3 1.0 0.9 0.8 0.7	2.5 1.7 1.3 1.0 0.9 0.8 0.7	Ostored (L/s) Vstored (m^3)
tc (min) 10 20 30 40 50 60 70 80 90	1 (100 yr) (mm/hr) 178.56 119.95 91.87 75.15 63.95 55.89 49.79 44.99 41.11	(L/s) 2.5 1.7 1.3 1.0 0.9 0.8 0.7 0.6 0.6	(L/s) 2.5 1.7 1.3 1.0 0.9 0.8 0.7 0.6 0.6	Ostored (L/s) Vstored (m^3)
tc (min) 10 20 30 40 50 60 70 80 90	I (100 yr) (mm/hr) 178.56 119.95 91.87 75.15 63.95 55.89 49.79 44.99 41.11 37.90	(L/s) 2.5 1.7 1.3 1.0 0.9 0.8 0.7 0.6 0.6 0.5	(L/s) 2.5 1.7 1.3 1.0 0.9 0.8 0.7 0.6 0.6 0.5	Ostored (Us) (m^3)
tc (min) 10 20 30 40 50 60 70 80	1 (100 yr) (mm/hr) 178.56 119.95 91.87 75.15 63.95 55.89 49.79 44.99 41.11	(L/s) 2.5 1.7 1.3 1.0 0.9 0.8 0.7 0.6 0.6	(L/s) 2.5 1.7 1.3 1.0 0.9 0.8 0.7 0.6 0.6	Ostored (L/s) Vstored (m^3)
C: tc (min) 10 20 30 40 50 60 70 80 90 100 110 120 Subdrainage Area: Area (ha):	I (100 yr) (mm/hr) 178.56 119.95 91.87 75.15 63.95 55.89 49.79 44.99 41.11 37.90 35.20 32.89	(L/s) 2.5 1.7 1.3 1.0 0.9 0.8 0.7 0.6 0.6 0.5 0.5	(L/s) 2.5 1.7 1.3 1.0 0.9 0.8 0.7 0.6 0.6 0.5	Ostored (Us) Vstored (m^3) Uncontrolled - Non-Tributary
tc (min) 10 20 30 40 50 60 70 80 90 100 110 120 Subdrainage Area: Area (ha):	I (100 yr) (mm/hr) (178.56 119.56 119.95 55.89 49.79 44.99 41.11 37.90 35.20 32.89	(L/s) 2.5 1.7 1.3 1.0 0.9 0.8 0.7 0.6 0.6 0.5 0.5	2.5 1.7 1.3 1.0 0.9 0.8 0.7 0.6 0.5 0.5 0.5	(L/s) (m^3) Uncontrolled - Non-Tributary
tc (min) 10 20 30 40 50 60 70 80 90 100 110 120 Subdrainage Area: Area (ha): C: tc (min)	(100 yr) (mm/hr) (178.56 119.95 91.87 75.15 91.87 75.15 94.99 41.11 37.90 35.20 32.89 UNC-1 0.01 0.25 I (100 yr) (mm/hr)	(L/s) 2.5 1.7 1.3 1.0 0.9 0.8 0.7 0.6 0.6 0.5 0.5 0.5	(L/s) 2.5 1.7 1.3 1.0 0.9 0.8 0.7 0.6 0.6 0.5 0.5 0.5 0.5	(L/s) (m^3)
tc (min) 10 20 30 40 50 60 70 80 90 100 110 120 Subdrainage Area: Area (ha): C:	(100 yr) (mm/hr) (78.56 119.95 91.87 75.15 63.95 55.89 44.79 44.11 37.90 35.20 32.89 UNC-1 0.25 (100 yr) (mm/hr) (178.56 179.56 179.56	(L/s) 2.5 1.7 1.3 1.0 0.9 0.8 0.7 0.6 0.6 0.5 0.5 0.5	(L/s) 2.5 1.7 1.3 1.0 0.9 0.8 0.7 0.6 0.5 0.5 0.5	Uncontrolled - Non-Tributary Qstored Vstored
C: tc (min) 10 20 30 40 50 60 70 80 90 110 110 120 Subdrainage Area: Area (ha): C: tc (min) 10 20 30	(100 yr) (mm/hr) 178.56 119.95 91.87 75.15 63.95 55.89 44.99 44.11 37.90 35.20 32.89 UNC-1 0.25 (100 yr) (mm/hr) 178.56 119.95 91.87 91.87	(L/s) 2.5 1.7 1.3 1.0 0.9 0.8 0.7 0.6 0.6 0.5 0.5 0.5 0.5 0.6 0.6 0.6 0.6 0.7 0.6 0.7 0.6 0.7 0.6 0.7 0.6 0.7 0.6 0.7 0.6 0.7 0.6 0.7 0.7 0.6 0.7 0.7 0.6 0.7 0.7 0.6 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7	(L/s) 2.5 1.7 1.3 1.0 0.9 0.8 0.7 0.6 0.5 0.5 0.5 0.5	Uncontrolled - Non-Tributary Qstored Vstored
C: tc (min) 10 20 30 40 50 60 70 80 90 110 120 Subdrainage Area: Area (ha): C: tc (min) 10 20 30 40	(100 yr) (mm/hr) 178.56 119.95 91.87 75.15 63.95 55.89 44.99 44.11 37.90 35.20 32.89 UNC-1 0.25 (100 yr) (mm/hr) 178.56 119.95 91.87 75.15	(L/s) 2.5 1.7 1.3 1.0 0.9 0.8 0.7 0.6 0.5 0.5 0.5 0.5 Qactual (L/s) 0.6 0.4 0.3 0.3	(L/s) 2.5 1.7 1.3 1.0 0.9 0.8 0.7 0.6 0.6 0.5 0.5 0.5 0.5 0.6 0.6 0.6 0.3 0.3 0.3	Uncontrolled - Non-Tributary Qstored Vstored
C: tc (min) 10 20 30 40 50 60 70 80 90 1100 1120 Subdrainage Area: Area (na): C: tc (min) 10 20 30 40 50 60	(100 yr) (mm/hr) 178.56 119.95 91.87 75.15 63.95 55.89 44.99 44.19 35.20 32.89 UNC-1 0.25 (100 yr) (mm/hr) 178.56 19.95 91.87 75.15 63.95 55.89	(L/s) 2.55 1.7 1.3 1.0 0.9 0.8 0.7 0.6 0.5 0.5 0.5 0.5 0.5 0.5	(L/s) 2.5 1.7 1.3 1.0 0.9 0.8 0.7 0.6 0.6 0.5 0.5 0.5 0.5 0.6 0.6 0.0 0.5 0.5 0.5 0.5 0.6 0.6 0.6 0.7 0.7 0.8 0.8 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9	Uncontrolled - Non-Tributary Qstored Vstored
C: tc (min) 10 20 30 40 50 60 70 80 90 100 110 120 Subdrainage Area: Area (ha): C: tc (min) 10 20 30 40 50 60 70	(100 yr) (mm/hr) (78.56 119.95 91.87 75.15 63.95 55.89 49.79 44.99 44.11 37.90 32.89 UNC-1 0.01 0.25 17.56 1	(L/s) 2.5 1.7 1.3 1.0 0.9 0.8 0.7 0.6 0.6 0.5 0.5 0.5	(L/s) 2.5 1.7 1.3 1.0 0.9 0.8 0.7 0.6 0.6 0.5 0.5 0.5 0.6 0.4 0.3 0.3 0.3 0.2 0.2 0.2	Uncontrolled - Non-Tributary Qstored Vstored
tc (min) 10 20 30 40 50 60 70 80 90 60 70 80 90 100 110 120 100 110 120 100	(100 yr) (mm/hr) 178.56 119.95 91.87 75.15 63.95 55.89 49.79 44.99 41.11 37.90 32.89 UNC-1 0.01 0.25 1100 yr) (mm/hr) 178.56 119.57 51.56 55.89 49.79 44.99 44.11	(L/s) 2.5 1.7 1.3 1.0 0.9 0.8 0.7 0.6 0.6 0.5 0.5 0.5 0.5 0.6 0.4 0.3 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.1	(L/s) 2.5 1.7 1.3 1.0 0.9 0.8 0.7 0.6 0.6 0.5 0.5 0.5 0.5 0.6 0.4 0.3 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.1	Uncontrolled - Non-Tributary Qstored Vstored
tc (min) 10 20 30 40 50 60 70 80 90 100 50 60 70 80 90 60 70 80 90 100 110 120 80 90 100 80 90 100 80 90 100	(100 yr) (mm/hr) 178.56 119.95 91.87 75.15 63.95 55.89 44.99 41.11 37.90 35.20 32.89 UNC-1 0.01 0.25 [100 yr] (mm/hr) 178.56 63.95 55.89 44.99 41.11 37.90 44.99 41.11 37.90 44.99 41.11 37.90 44.99 41.11 37.90 41.11 41.	(L/s) 2.5 1.7 1.3 1.0 0.9 0.8 0.7 0.6 0.6 0.5 0.5 0.5 0.5 0.5 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	(L/s) 2.5 1.7 1.3 1.0 0.8 0.7 0.6 0.6 0.5 0.5 0.5 0.5 0.6 0.6 0.6 0.0 0.6 0.0 0.6 0.0 0.6 0.0 0.6 0.0 0.6 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Uncontrolled - Non-Tributary Qstored Vstored
tc (min) 10 20 30 40 50 60 70 80 90 60 70 80 90 100 110 120 100 110 120 100	(100 yr) (mm/hr) 178.56 119.95 91.87 75.15 63.95 55.89 49.79 44.99 41.11 37.90 32.89 UNC-1 0.01 0.25 1100 yr) (mm/hr) 178.56 119.57 51.56 55.89 49.79 44.99 44.11	(L/s) 2.5 1.7 1.3 1.0 0.9 0.8 0.7 0.6 0.6 0.5 0.5 0.5 0.5 0.6 0.4 0.3 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.1	(L/s) 2.5 1.7 1.3 1.0 0.9 0.8 0.7 0.6 0.6 0.5 0.5 0.5 0.5 0.6 0.4 0.3 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.1	Uncontrolled - Non-Tributary Qstored Vstored
C: tc (min) 10 20 30 40 50 60 70 80 90 1100 120 Subdrainage Area: Area (ha): C: tc (min) 10 20 30 40 50 60 70 80 90 100 110	(100 yr) (mm/hr) 178.56 119.95 91.87 75.15 63.95 55.89 49.79 44.99 44.11 37.90 32.89 UNC-1 0.01 0.25 1 (100 yr) (mm/hr) 178.56 119.95 91.87 75.15 63.95 55.89 44.99 44.11 37.90 35.20	(L/s) 2.5 1.7 1.3 1.0 0.9 0.8 0.7 0.6 0.6 0.5 0.5 0.5 0.5 0.6 0.4 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.1	(L/s) 2.5 1.7 1.3 1.0 0.9 0.8 0.7 0.6 0.6 0.5 0.5 0.5 0.5 0.6 0.6 0.4 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.1	Uncontrolled - Non-Tributary Qstored Vstored

Project #160401787, 1184-1196 Cummings Avenue Modified Rational Method Calculations for Storage

SUMMARY TO OUTLET				
		Vrequired Vavai	lable*	
Roof, Catch Basin and Ramp Drain Areas	0.28 ha			
Total 5 yr Flow to Cistern	23.2 L/s			
5 yr Flow from Roof to Sewer	17.8 L/s			
5 yr Flow from Cistern to Sewer	8.3 L/s	0.0	0.0 m ³	Ok
Non-Tributary Area	0.07 ha			
Total 5 yr Flow Uncontrolled	6.9 L/s			
Total Area	0.35 ha			
Total 5 yr Flow	33.0 L/s			1
Target	43.3 L/s			1
=				

Project #160401787, 1184-1196 Cummings Avenue Modified Rational Method Calculations for Storage

SUMMARY TO OUTLET				
		Vrequired Vava	ilable*	
Roof, Catch Basin and Ramp Drain Areas	0.28 ha			
Total 100 yr Flow to Cistern	35.1 L/s			
100 yr Flow from Roof to Sewer	20.3 L/s			
100 yr Flow from Cistern to Sewer	8.3 L/s	0.0	0.0 m ³	Oŀ
Non-Tributary Area	0.07 ha			
Total 100 yr Flow Uncontrolled	14.7 L/s			
Total Area	0.35 ha			
Total 100 yr Flow	43.3 L/s			
Target	43.3 L/s			

Project #160401787, 1184-1196 Cummings Avenue Roof Drain Design Sheet, Area BLDG Standard Watts Accutrol Weir - Single Notch Roof Drain

	Rating Curve				Volume Estimation			
Elevation	Discharge Rate Outlet Discharge		Storage	Elevation	Area	Volume	e (cu. m)	Water Depth
(m)	(cu.m/s)	(cu.m/s)	(cu. m)	(m)	(sq. m)	Increment	Accumulated	(m)
0.000	0.000000	0.0000	0.00	0.000	0	0.00	0.00	0.000
0.025	0.000315	0.0085	0.31	0.025	36.67	0.31	0.31	0.025
0.050	0.000631	0.0151	2.44	0.050	146.67	2.14	2.44	0.050
0.075	0.000710	0.0168	8.25	0.075	330.00	5.81	8.25	0.075
0.100	0.000789	0.0185	19.56	0.100	586.67	11.31	19.56	0.100
0.125	0.000867	0.0201	38.19	0.125	916.67	18.64	38.19	0.125
0.150	0.000946	0.0218	66.00	0.150	1320.00	27.81	66.00	0.150

Drawdown	n Estimate	
Total		
Time	Vol	Detention
(sec)	(cu.m)	Time (hr)
0.0	0.0	0
141.3	2.1	0.03924
345.7	5.8	0.13526
612.7	11.3	0.30545
926.9	18.6	0.56294
1277.6	27.8	0.91783
	Total Time (sec) 0.0 141.3 345.7 612.7 926.9	Time (cu.m) 0.0 0.0 141.3 2.1 345.7 5.8 612.7 11.3 926.9 18.6

Rooftop Storage Summary

Total Building Area (sq.m)		1650	
Assume Available Roof Area (sq.	80%	1320	
Roof Imperviousness		0.99	
Roof Drain Requirement (sq.m/Notch)		232	
Number of Roof Notches*		27	
Max. Allowable Depth of Roof Ponding (m)		0.15	
Max. Allowable Storage (cu.m)		66	
Estimated 100 Year Drawdown Time (h)		0.6	

^{*} As per Ontario Building Code section OBC 7.4.10.4.(2)(c).

^{*} Note: Number of drains can be reduced if multiple-notch drain used.

Calculation Results		5yr	100yr	Available
C	Qresult (cu.m/s)		0.020	-
	Depth (m)	0.090	0.128	0.150
V	/olume (cu.m)	15.1	41.6	66.0
	Oraintime (hrs)	0.2	0.6	

Adj	Adjustable Accutrol Weir Flow Rate Settings							
	From Watts Drain Catalogue							
Head (m)	Head (m) L/s							
	Open	75%	50%	25%	Closed			
0.025	0.3154	0.3154	0.3154	0.3154	0.3154			
0.05	0.6308	0.6308	0.6308	0.6308	0.3154			
0.075	0.9462	0.8674	0.7885	0.7097	0.3154			
0.1	1.2617	1.104	0.9462	0.7885	0.3154			
0.125	1.5771	1.3405	1.104	0.8674	0.3154			
0.15	1 8925	1 5771	1 2617	0.9462	0.3154			

Federal Aviation Administration (FAA) (1970) Pre-Development Time of Concentration Calculation

Project: 1184-1196 Cummings Avenue Stantec Project Number: 160401787

Federal	THE SHEET	De-24	Developed from air
Aviation Administ	t _o =	1.8(1.1- C)L ^{0.50} /S ^{0.333} [min]	field drainage data assembled by the
ration			US Corps of
(1970)			Engineers; method is intended for use
	C =	rational method runoff coefficient	on airfield drainage problems, but has been used
	L =	length of overland flow, ft	frequently for overland flow in urban basins
	S =	surface slope, ft/ft	

For WEST in the pre-development condition:

$t_c = 9.98 \text{ minutes}$

Variable	Value	Unit	Notes
С	0.45	unitless	Represents existing condition of the area
L	151	ft	
S	3.00	%	

Since the calculated time of concentration is less than 10 minutes, a 10 minute time of concentration will be used to determine the stormwater target release rate.

For EAST in the pre-development condition:

$t_c = 9.33 \text{ minutes}$

Variable	Value	Unit	Notes
С	0.41	unitless	Represents existing condition of the area
L	112	ft	
S	2.80	%	

Since the calculated time of concentration is less than 10 minutes, a 10 minute time of concentration will be used to determine the stormwater target release rate.

For NORTH in the pre-development condition:

$$t_c = 6.71 \text{ minutes}$$

Variable	Value	Unit	Notes
С	0.4	unitless	Represents existing condition of the area
L	48.0	ft	
S	2.20	%	

Since the calculated time of concentration is less than 10 minutes, a 10 minute time of concentration will be used to determine the stormwater target release rate.

D.2 Watts Drainage Adjustable Accutrol Weir Detail (2016)





Adjustable Accutrol Weir

Adjustable Flow Control for Roof Drains

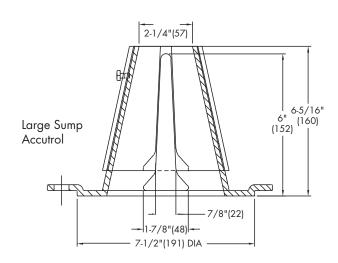
ADJUSTABLE ACCUTROL (for Large Sump Roof Drains only)

For more flexibility in controlling flow with heads deeper than 2", Watts Drainage offers the Adjustable Accutrol. The Adjustable Accutrol Weir is designed with a single parabolic opening that can be covered to restrict flow above 2" of head to less than 5 gpm per inch, up to 6" of head. To adjust the flow rate for depths over 2" of head, set the slot in the adjustable upper cone according to the flow rate required. Refer to Table 1 below. Note: Flow rates are directly proportional to the amount of weir opening that is exposed.

EXAMPLE:

For example, if the adjustable upper cone is set to cover 1/2 of the weir opening, flow rates above 2"of head will be restricted to 2-1/2 gpm per inch of head.

Therefore, at 3" of head, the flow rate through the Accutrol Weir that has 1/2 the slot exposed will be: [5 gpm (per inch of head) \times 2 inches of head] + 2-1/2 gpm (for the third inch of head) = 12-1/2 gpm.



Adjustable Upper Cone

Fixed Weir

1/2 Weir Opening Exposed Shown Above

TABLE 1. Adjustable Accutrol Flow Rate Settings

Wain Ononing	1"	2"	3"	4"	5"	6"									
Weir Opening Exposed	Flow Rate (gallons per minute)														
Fully Exposed	5	10	15	20	25	30									
3/4	5	10	13.75	17.5	21.25	25									
1/2	5	10	12.5	15	17.5	20									
1/4	5	10	11.25	12.5	13.75	15									
Closed	5	5	5	5	5	5									

Job Name	Contractor
lab l apation	Contractorio D.O. No
Job Location	Contractor's P.O. No.
Engineer	Representative
<u>e</u>	·

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D.3 Storm Sewer Design Sheet



Project Number: 160401787

A-12

Stantec	1184-	-1196 Cummir	ngs Avenu	е	STORM SEWER DESIGN SHEET					DESIGN PARAMETERS I = a / (t+b)° (As per City of Ottawa Guidelines, 2012)																											
Starited	DATE:		2024-0	03-05			(City of	Ottawa))			1:2 yr	1:5 yr	1:10 yr	1:100 yr																						
	REVISION:		4	1							a =	732.951	998.071	1174.184	1735.688	MANNING	S'S n=	0.013		BEDDING (CLASS =	В															
	DESIGNED BY	Y:	D.	T	FILE NUM	MBER:	16040178	37			b =	6.199	6.053	6.014	6.014	MINIMUM	COVER:	2.00	m																		
	CHECKED BY	:	-								c =	0.810	0.814	0.816	0.820	TIME OF	ENTRY	10	min																		
LOCATION														DF	RAINAGE AF	EA																1	PIPE SELEC	TION			
AREA ID	FROM	TO	AREA	AREA	AREA	AREA	AREA	С	С	С	С	AxC	ACCUM	AxC	ACCUM.	AxC	ACCUM.	AxC	ACCUM.	T of C	I _{2-YEAR}	I _{5-YEAR}	I _{10-YEAR}	I _{100-YEAR}	Q _{CONTROL}	ACCUM.	Q _{ACT}	LENGTH	PIPE WIDTH	PIPE	PIPE	MATERIAL	CLASS	SLOPE	Q _{CAP}	% FULL	L VEL.
NUMBER	M.H.	M.H.	(2-YEAR)	(5-YEAR)	(10-YEAR)	(100-YEAR)	(ROOF)	(2-YEAR)	(5-YEAR)	(10-YEAR)	(100-YEAR	(2-YEAR)	AxC (2YR)	(5-YEAR)	AxC (5YR)	(10-YEAR)	AxC (10YR)	(100-YEAR)	AxC (100YR)							Q _{CONTROL}	(CIA/360)	C	R DIAMETE	HEIGHT	SHAPE				(FULL)		(FULL
			(ha)	(ha)	(ha)	(ha)	(ha)	(-)	(-)	(-)	(-)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(min)	(mm/h)	(mm/h)	(mm/h)	(mm/h)	(L/s)	(L/s)	(L/s)	(m)	(mm)	(mm)	(-)	(-)	(-)	%	(L/s)	(-)	(m/s)
CB-1, CB-2	STM1	STM2	0.00	0.07	0.00	0.00	0.00	0.00	0.70	0.00	0.00	0.000	0.000	0.051	0.051	0.000	0.000	0.000	0.000	10.00	76.81	104.19	122 14	178.56	0.0	0.0	14 9	16.7	250	250	CIRCULAR	PVC	_	0.50	42.7	34 870	% 0.86
CB-3	STM2	STUB	0.00	0.02	0.00	0.00	0.00	0.00	0.70	0.00	0.00	0.000	0.000	0.017	0.068	0.000	0.000	0.000	0.000	10.42	75.22	102.02	119.58	174.80	0.0	0.0	19.3	5.0	250	250	CIRCULAR	PVC	-	0.50	42.7		% 0.86
BLDG 1-4, RAMP	CISTERN	ogs	0.00	0.01	0.00	0.00	0.17	0.00	0.90	0.00	0.00	0.000	0.000	0.012	0.068	0.000	0.000	0.000	0.000	10.42	75.22	102.02	119.58	174.80	17.8	17.8	37.1	1.0	300	300	CIRCULAR	PVC	-	1.00	96.2	38.639	% 1.37
	OGS	EX SEWER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.068	0.000	0.000	0.000	0.000	10.44	75.17	101.94	119.49	174.66	0.0	17.8	37.1	10.4	300	300	CIRCULAR	PVC		1.00	96.2	38.61°	% 1.37

D.4 Correspondence with City on SWM Quality Control Criteria



Wu, Michael

From: Polyak, Alex <alex.polyak@ottawa.ca>

Sent: Monday, 17 April, 2023 13:57

To: Wu, Michael Cc: Moir, Tyler

Subject: RE: 1184-1196 Cummings Avenue Boundary Condition Request

Hello Michael,

That is correct, SWM quality control requirements will be responsibility of the City going forward. The following criteria must be met for development scenarios:

General:

- i) Characterize the water quality to be protected and Stormwater Contaminants (e.g., suspended solids, nutrients, bacteria, water temperature) for potential impact on the Natural Environment, and control as necessary, **OR**
- ii) As per the watershed/subwatershed plan, similar area-wide Stormwater study, or Stormwater management plan to minimize, or where possible, prevent increases in Contaminant loads and impacts to receiving waters.

Suspended Solids:

iii) Provide Enhanced level of protection (80%) for suspended solids removal.

Water Balance:

- iv) Provide a water balance analysis as per the conservation authority guidelines for development applications.
 - a) Control the recharge to meet Pre-development conditions on property.

Let me know if you have any questions regarding the above.

Regards,

Oleksandr (Alex) Polyak, B.Eng., P.Eng.

Project Manager, Infrastructure Approvals, Development Review East Branch | Gestionnaire de projet, Direction de l'examen des projets d'aménagement – Est.

Planning, Real Estate and Economic Development Department | Direction générale de la planification, des biens immobiliers et du développement économique

City of Ottawa | Ville d'Ottawa 110 Laurier Ave., 4th Fl East, Ottawa ON K1P 1J1 Email: alex.polyak@ottawa.ca www.Ottawa.ca



From: Wu, Michael < Michael. Wu@stantec.com >

Sent: April 17, 2023 11:40 AM

To: Polyak, Alex <alex.polyak@ottawa.ca> **Cc:** Moir, Tyler <Tyler.Moir@stantec.com>

Subject: RE: 1184-1196 Cummings Avenue Boundary Condition Request

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Morning Alex, thanks for the update.

On a side note, I have been informed by Eric Lalande at the RVCA that as a result of Bill 23, stormwater quality control criteria will be provided by the City.

As such, below is a list of some key site information for our request for the stormwater quality control criteria for the site:

- Stormwater quantity control for the site is anticipated to be provided via a combination of rooftop storage and surface storage in the surface parking and access driveway, while the remaining site will drain via uncontrolled surface flow towards the Cummings Avenue and Weldon Drive ROWs.
- 2. The proposed storm service lateral will be connected to the existing 600 mm diameter separated concrete storm sewer fronting the site on Cummings Avenue. This local sewer discharges to the 600 mm diameter storm sewer on Ogilvie Road.
- 3. In the preconsultation, the City indicated that the allowable stormwater release rate is to be calculated using:
 - Allowable Runoff Coefficient (C): 0.5 or the existing C coefficient, whichever is more restricted
 - b. Allowable Flowrate: Control the 100-year storm event to the 5-year predevelopment storm event. The remainder of the site is to be left to drain uncontrolled towards the rights of way.

Attached is the latest Site Plan (provided by Project 1 Studios Inc.), preliminary storm drainage plan, and a site map for your review.

Please let me know if you have any questions or require any additional information from our end.

Thanks,

Michael Wu, EIT

Civil Engineering Intern, Community Development

Work: (613) 738-6033 Mobile: (613) 858-0548 michael.wu@stantec.com

Stanted

300 - 1331 Clyde Avenue Ottawa ON K2C 3G4



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D.5 Detailed Stormceptor Sizing Reports



Project Number: 160401787

A-14





Imbrium® Systems ESTIMATED NET ANNUAL SEDIMENT (TSS) LOAD REDUCTION

01/10/2024

Province:	Ontario
City:	Ottawa
Nearest Rainfall Station:	OTTAWA CDA RCS
Climate Station Id:	6105978
Years of Rainfall Data:	20

Site Name: Full Updated Site

Drainage Area (ha): 0.29
Runoff Coefficient 'c': 0.81

Particle Size Distribution: Fine

Target TSS Removal (%): 80.0

90.00
7.58
Yes
No
200
285
232

Project Name:	1184 Cummings Avenue
Project Number:	160401787
Designer Name:	Michael Wu
Designer Company:	Stantec
Designer Email:	Michael.Wu@stantec.com
Designer Phone:	613-738-6033
EOR Name:	
EOR Company:	
EOR Email:	
EOR Phone:	

Net Annual Sediment
(TSS) Load Reduction
Sizing Summary

Stormceptor Model	TSS Removal Provided (%)
EFO4	92
EFO6	97
EFO8	99
EFO10	100
EFO12	100

Recommended Stormceptor EFO Model:

EFO4

Estimated Net Annual Sediment (TSS) Load Reduction (%):

92

Water Quality Runoff Volume Capture (%):

> 90





THIRD-PARTY TESTING AND VERIFICATION

► Stormceptor® EF and Stormceptor® EFO are the latest evolutions in the Stormceptor® oil-grit separator (OGS) technology series, and are designed to remove a wide variety of pollutants from stormwater and snowmelt runoff. These technologies have been third-party tested in accordance with the Canadian ETV Procedure for Laboratory Testing of Oil-Grit Separators and performance has been third-party verified in accordance with the ISO 14034 Environmental Technology Verification (ETV) protocol.

PERFORMANCE

► Stormceptor® EF and EFO remove stormwater pollutants through gravity separation and floatation, and feature a patent-pending design that generates positive removal of total suspended solids (TSS) throughout each storm event, including high-intensity storms. Captured pollutants include sediment, free oils, and sediment-bound pollutants such as nutrients, heavy metals, and petroleum hydrocarbons. Stormceptor is sized to remove a high level of TSS from the frequent rainfall events that contribute the vast majority of annual runoff volume and pollutant load. The technology incorporates an internal bypass to convey excessive stormwater flows from high-intensity storms through the device without resuspension and washout (scour) of previously captured pollutants. Proper routine maintenance ensures high pollutant removal performance and protection of downstream waterways.

PARTICLE SIZE DISTRIBUTION (PSD)

► The Canadian ETV PSD shown in the table below was used, or in part, for this sizing. This is the identical PSD that is referenced in the Canadian ETV *Procedure for Laboratory Testing of Oil-Grit Separators* for both sediment removal testing and scour testing. The Canadian ETV PSD contains a wide range of particle sizes in the sand and silt fractions, and is considered reasonably representative of the particle size fractions found in typical urban stormwater runoff.

Particle Size (µm)	Percent Less Than	Particle Size Fraction (µm)	Percent	
1000	100	500-1000	5	
500	95	250-500	5	
250	90	150-250	15	
150	75	100-150	15	
100	60	75-100	10	
75	50	50-75	5	
50	45	20-50	10	
20	35	8-20	15	
8	20	5-8	10	
5	10	2-5	5	
2	5	<2	5	





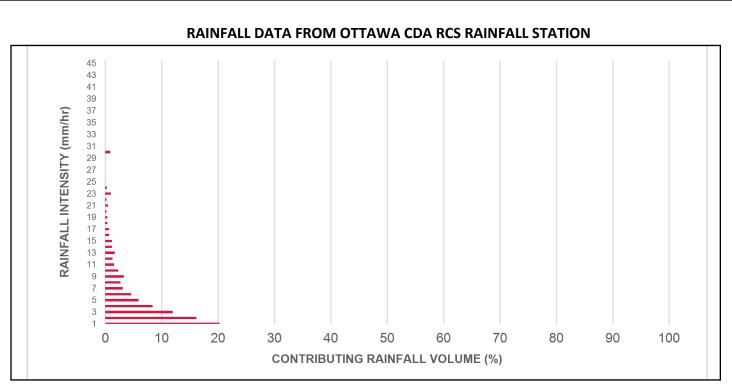
Rainfall Intensity (mm / hr)	Percent Rainfall Volume (%)	Cumulative Rainfall Volume (%)	Flow Rate (L/s)	Flow Rate (L/min)	Surface Loading Rate (L/min/m²)	Removal Efficiency (%)	Incremental Removal (%)	Cumulative Removal (%)
0.50	8.6	8.6	0.33	20.0	16.0	100	8.6	8.6
1.00	20.3	29.0	0.65	39.0	33.0	100	20.3	29.0
2.00	16.2	45.2	1.31	78.0	65.0	100	16.2	45.2
3.00	12.0	57.2	1.96	118.0	98.0	97	11.7	56.8
4.00	8.4	65.6	2.61	157.0	131.0	92	7.8	64.6
5.00	5.9	71.6	3.27	196.0	163.0	88	5.2	69.9
6.00	4.6	76.2	3.92	235.0	196.0	84	3.9	73.8
7.00	3.1	79.3	4.57	274.0	229.0	82	2.5	76.3
8.00	2.7	82.0	5.22	313.0	261.0	80	2.2	78.5
9.00	3.3	85.3	5.88	353.0	294.0	79	2.6	81.1
10.00	2.3	87.6	6.53	392.0	327.0	78	1.8	82.9
11.00	1.6	89.2	7.18	431.0	359.0	76	1.2	84.1
12.00	1.3	90.5	7.84	470.0	392.0	74	1.0	85.1
13.00	1.7	92.2	8.49	509.0	424.0	73	1.3	86.3
14.00	1.2	93.5	9.14	549.0	457.0	72	0.9	87.2
15.00	1.2	94.6	9.80	588.0	490.0	70	0.8	88.0
16.00	0.7	95.3	10.45	627.0	522.0	68	0.5	88.5
17.00	0.7	96.1	11.10	666.0	555.0	67	0.5	89.0
18.00	0.4	96.5	11.75	705.0	588.0	66	0.3	89.2
19.00	0.4	96.9	12.41	744.0	620.0	64	0.3	89.5
20.00	0.2	97.1	13.06	784.0	653.0	64	0.1	89.6
21.00	0.5	97.5	13.71	823.0	686.0	64	0.3	89.9
22.00	0.2	97.8	14.37	862.0	718.0	64	0.2	90.1
23.00	1.0	98.8	15.02	901.0	751.0	63	0.6	90.7
24.00	0.3	99.1	15.67	940.0	784.0	63	0.2	90.9
25.00	0.0	99.1	16.33	980.0	816.0	63	0.0	90.9
30.00	0.9	100.0	19.59	1175.0	980.0	62	0.6	91.5
35.00	0.0	100.0	22.86	1371.0	1143.0	58	0.0	91.5
40.00	0.0	100.0	26.12	1567.0	1306.0	55	0.0	91.5
45.00	0.0	100.0	29.39	1763.0	1469.0	50	0.0	91.5
	Estimated Net Annual Sediment (TSS) Load Reduction =							

Climate Station ID: 6105978 Years of Rainfall Data: 20

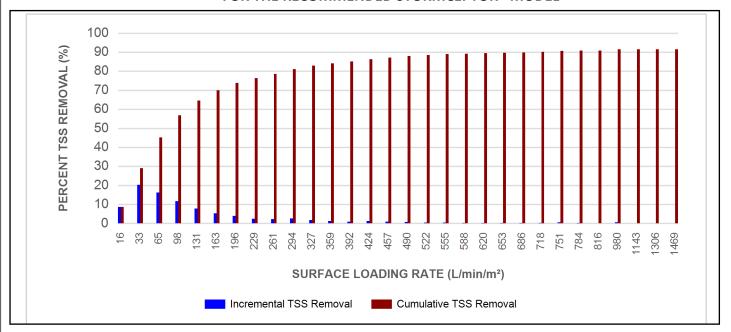








INCREMENTAL AND CUMULATIVE TSS REMOVAL FOR THE RECOMMENDED STORMCEPTOR® MODEL







Maximum Pipe Diameter / Peak Conveyance

Stormceptor EF / EFO	Model Diameter		Min Angle Inlet / Outlet Pipes		Max Inlet Pipe Diameter		Max Outlet Pipe Diameter		Peak Conveyance Flow Rate	
	(m) (ft)			(mm)	(in)	(mm)	(in)	(L/s)	(cfs)	
EF4 / EFO4	1.2	4	90	609	24	609	24	425	15	
EF6 / EFO6	1.8	6	90	914	36	914	36	990	35	
EF8 / EFO8	2.4	8	90	1219	48	1219	48	1700	60	
EF10 / EFO10	3.0	10	90	1828	72	1828	72	2830	100	
EF12 / EFO12	3.6	12	90	1828	72	1828	72	2830	100	

SCOUR PREVENTION AND ONLINE CONFIGURATION

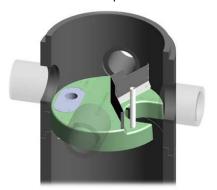
► Stormceptor® EF and EFO feature an internal bypass and superior scour prevention technology that have been demonstrated in third-party testing according to the scour testing provisions of the Canadian ETV Procedure for Laboratory Testing of Oil-Grit Separators, and the exceptional scour test performance has been third-party verified in accordance with the ISO 14034 ETV protocol. As a result, Stormceptor EF and EFO are approved for online installation, eliminating the need for costly additional bypass structures, piping, and installation expense.

DESIGN FLEXIBILITY

► Stormceptor® EF and EFO offers design flexibility in one simplified platform, accepting stormwater flow from a single inlet pipe or multiple inlet pipes, and/or surface runoff through an inlet grate. The device can also serve as a junction structure, accommodate a 90-degree inlet-to-outlet bend angle, and can be modified to ensure performance in submerged conditions.

OIL CAPTURE AND RETENTION

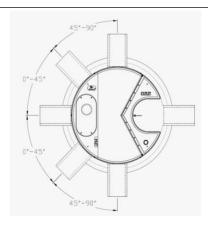
► While Stormceptor® EF will capture and retain oil from dry weather spills and low intensity runoff, **Stormceptor® EFO** has demonstrated superior oil capture and greater than 99% oil retention in third-party testing according to the light liquid reentrainment testing provisions of the Canadian ETV **Procedure for Laboratory Testing of Oil-Grit Separators**. Stormceptor EFO is recommended for sites where oil capture and retention is a requirement.











INLET-TO-OUTLET DROP

Elevation differential between inlet and outlet pipe inverts is dictated by the angle at which the inlet pipe(s) enters the unit.

0° - 45°: The inlet pipe is 1-inch (25mm) higher than the outlet pipe.

45° - 90°: The inlet pipe is 2-inches (50mm) higher than the outlet pipe.

HEAD LOSS

The head loss through Stormceptor EF is similar to that of a 60-degree bend structure. The applicable K value for calculating minor losses through the unit is 1.1. For submerged conditions the applicable K value is 3.0.

Pollutant Capacity

Stormceptor EF / EFO	Model Diameter		Depth (Outlet Pipe Invert to Sump Floor)		Oil Volume		Recommended Sediment Maintenance Depth *		Maximum Sediment Volume *		Maxim Sediment	
	(m)	(ft)	(m)	(ft)	(L)	(Gal)	(mm)	(in)	(L)	(ft³)	(kg)	(lb)
EF4 / EFO4	1.2	4	1.52	5.0	265	70	203	8	1190	42	1904	5250
EF6 / EFO6	1.8	6	1.93	6.3	610	160	305	12	3470	123	5552	15375
EF8 / EFO8	2.4	8	2.59	8.5	1070	280	610	24	8780	310	14048	38750
EF10 / EFO10	3.0	10	3.25	10.7	1670	440	610	24	17790	628	28464	78500
EF12 / EFO12	3.6	12	3.89	12.8	2475	655	610	24	31220	1103	49952	137875

^{*}Increased sump depth may be added to increase sediment storage capacity

^{**} Average density of wet packed sediment in sump = 1.6 kg/L (100 lb/ft³)

Feature	Benefit	Feature Appeals To
Patent-pending enhanced flow treatment and scour prevention technology	Superior, verified third-party performance	Regulator, Specifying & Design Engineer
Third-party verified light liquid capture and retention for EFO version	Proven performance for fuel/oil hotspot locations	Regulator, Specifying & Design Engineer, Site Owner
Functions as bend, junction or inlet structure	Design flexibility	Specifying & Design Engineer
Minimal drop between inlet and outlet	Site installation ease	Contractor
Large diameter outlet riser for inspection and maintenance	Easy maintenance access from grade	Maintenance Contractor & Site Owner

STANDARD STORMCEPTOR EF/EFO DRAWINGS

For standard details, please visit http://www.imbriumsystems.com/stormwater-treatment-solutions/stormceptor-ef

STANDARD STORMCEPTOR EF/EFO SPECIFICATION

For specifications, please visit http://www.imbriumsystems.com/stormwater-treatment-solutions/stormceptor-ef







STANDARD PERFORMANCE SPECIFICATION FOR "OIL GRIT SEPARATOR" (OGS) STORMWATER QUALITY TREATMENT DEVICE

PART 1 – GENERAL

1.1 WORK INCLUDED

This section specifies requirements for selecting, sizing, and designing an underground Oil Grit Separator (OGS) device for stormwater quality treatment, with third-party testing results and a Statement of Verification in accordance with ISO 14034 Environmental Management – Environmental Technology Verification (ETV).

1.2 REFERENCE STANDARDS & PROCEDURES

ISO 14034:2016 Environmental management – Environmental technology verification (ETV)

Canadian Environmental Technology Verification (ETV) Program's **Procedure for Laboratory Testing of Oil-Grit Separators**

1.3 SUBMITTALS

- 1.3.1 All submittals, including sizing reports & shop drawings, shall be submitted upon request with each order to the contractor then forwarded to the Engineer of Record for review and acceptance. Shop drawings shall detail all OGS components, elevations, and sequence of construction.
- 1.3.2 Alternative devices shall have features identical to or greater than the specified device, including: treatment chamber diameter, treatment chamber wet volume, sediment storage volume, and oil storage volume.
- 1.3.3 Unless directed otherwise by the Engineer of Record, OGS stormwater quality treatment product substitutions or alternatives submitted within ten days prior to project bid shall not be accepted. All alternatives or substitutions submitted shall be signed and sealed by a local registered Professional Engineer, based on the exact same criteria detailed in Section 3, in entirety, subject to review and approval by the Engineer of Record.

PART 2 - PRODUCTS

2.1 OGS POLLUTANT STORAGE

The OGS device shall include a sump for sediment storage, and a protected volume for the capture and storage of petroleum hydrocarbons and buoyant gross pollutants. The minimum sediment & petroleum hydrocarbon storage capacity shall be as follows:

2.1.1 4 ft (1219 mm) Diameter OGS Units: 1.19 m³ sediment / 265 L oil
6 ft (1829 mm) Diameter OGS Units: 3.48 m³ sediment / 609 L oil
8 ft (2438 mm) Diameter OGS Units: 8.78 m³ sediment / 1,071 L oil
10 ft (3048 mm) Diameter OGS Units: 17.78 m³ sediment / 1,673 L oil
12 ft (3657 mm) Diameter OGS Units: 31.23 m³ sediment / 2,476 L oil

PART 3 - PERFORMANCE & DESIGN

3.1 GENERAL

The OGS stormwater quality treatment device shall be verified in accordance with ISO 14034:2016 Environmental management – Environmental technology verification (ETV). The OGS stormwater quality treatment device shall







remove oil, sediment and gross pollutants from stormwater runoff during frequent wet weather events, and retain these pollutants during less frequent high flow wet weather events below the insert within the OGS for later removal during maintenance. The Manufacturer shall have at least ten (10) years of local experience, history and success in engineering design, manufacturing and production and supply of OGS stormwater quality treatment device systems, acceptable to the Engineer of Record.

3.2 SIZING METHODOLOGY

The OGS device shall be engineered, designed and sized to provide stormwater quality treatment based on treating a minimum of 90 percent of the average annual runoff volume and a minimum removal of an annual average 60% of the sediment (TSS) load based on the Particle Size Distribution (PSD) specified in the sizing report for the specified device. Sizing of the OGS shall be determined by use of a minimum ten (10) years of local historical rainfall data provided by Environment Canada. Sizing shall also be determined by use of the sediment removal performance data derived from the ISO 14034 ETV third-party verified laboratory testing data from testing conducted in accordance with the Canadian ETV protocol Procedure for Laboratory Testing of Oil-Grit Separators, as follows:

- 3.2.1 Sediment removal efficiency for a given surface loading rate and its associated flow rate shall be based on sediment removal efficiency demonstrated at the seven (7) tested surface loading rates specified in the protocol, ranging 40 L/min/m² to 1400 L/min/m², and as stated in the ISO 14034 ETV Verification Statement for the OGS device.
- 3.2.2 Sediment removal efficiency for surface loading rates between 40 L/min/m² and 1400 L/min/m² shall be based on linear interpolation of data between consecutive tested surface loading rates.
- 3.2.3 Sediment removal efficiency for surface loading rates less than the lowest tested surface loading rate of 40 L/min/m² shall be assumed to be identical to the sediment removal efficiency at 40 L/min/m². No extrapolation shall be allowed that results in a sediment removal efficiency that is greater than that demonstrated at 40 L/min/m².
- 3.2.4 Sediment removal efficiency for surface loading rates greater than the highest tested surface loading rate of 1400 L/min/m² shall assume zero sediment removal for the portion of flow that exceeds 1400 L/min/m², and shall be calculated using a simple proportioning formula, with 1400 L/min/m² in the numerator and the higher surface loading rate in the denominator, and multiplying the resulting fraction times the sediment removal efficiency at 1400 L/min/m².

The OGS device shall also have sufficient annual sediment storage capacity as specified and calculated in Section 2.1.

3.3 CANADIAN ETV or ISO 14034 ETV VERIFICATION OF SCOUR TESTING

The OGS device shall have Canadian ETV or ISO 14034 ETV Verification of third-party scour testing conducted in accordance with the Canadian ETV Program's **Procedure for Laboratory Testing of Oil-Grit Separators**.

3.3.1 To be acceptable for on-line installation, the OGS device must demonstrate an average scour test effluent concentration less than 10 mg/L at each surface loading rate tested, up to and including 2600 L/min/m².

3.4 <u>LIGHT LIQUID RE-ENTRAINMENT SIMULATION TESTING</u>

The OGS device shall have Canadian ETV or ISO 14034 ETV Verification of completed third-party Light Liquid Re-entrainment Simulation Testing in accordance with the Canadian ETV **Program's Procedure for Laboratory Testing of Oil-Grit Separators**, with results reported within the Canadian ETV or ISO 14034 ETV verification. This reentrainment testing is conducted with the device pre-loaded with low density polyethylene (LDPE) plastic beads as a surrogate for light liquids such as oil and fuel. Testing is conducted on the same OGS unit tested for sediment removal to







assess whether light liquids captured after a spill are effectively retained at high flow rates.
3.4.1 For an OGS device to be an acceptable stormwater treatment device on a site where vehicular traffic occurs and the potential for an oil or fuel spill exists, the OGS device must have reported verified performance results of greater than 99% cumulative retention of LDPE plastic beads for the five specified surface loading rates (ranging 200 L/min/m² to 2600 L/min/m²) in accordance with the Light Liquid Re-entrainment Simulation Testing within the Canadian ETV Program's Procedure for Laboratory Testing of Oil-Grit Separators. However, an OGS device shall not be allowed if the Light Liquid Re-entrainment Simulation Testing was performed with screening components within the OGS device that are effective at retaining the LDPE plastic beads, but would not be expected to retain light liquids such as oil and fuel.



Appendix E Background Studies

E.1 Geotechnical Investigation Report by Paterson Group, March 2023





Geotechnical Investigation Proposed Multi-Storey Building

1184, 1188, and 1196 Cummings Avenue Ottawa, Ontario

Prepared for TCU Development

Report PG6604-1 Revision 3 dated December 18, 2023



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Appendices

Appendix 1 Soil Profile and Test Data Sheets

Symbols and Terms

Test Hole Logs by Others Analytical Testing Results

Appendix 2 Figure 1 – Key Plan

Figures 2 & 3 – Seismic Shear Wave Velocity Profiles

Drawing PG6604-1 – Test Hole Location Plan



1.0 Introduction

Paterson Group (Paterson) was commissioned by TCU Development to prepare a geotechnical investigation report for the proposed multi-storey building to be located at 1184, 1188, and 1196 Cummings Avenue, Ottawa, Ontario (refer to Figure 1 - Key Plan presented in Appendix 2 of this report).

The objective of the geotechnical investigation was to:

determin test holes	e the subsoil s	and	groundwa	ter	cond	itions	at the	e sit	e by	mean	s of
provide	geotechnical	reco	mmendati	ons	for	the	desigr	of	the	propo	sed

development including construction considerations which may affect its

design.

The following report has been prepared specifically and solely for the aforementioned project which is described herein. It contains our findings and

aforementioned project which is described herein. It contains our findings and includes geotechnical recommendations pertaining to the design and construction of the subject development as they are understood at the time of writing this report.

2.0 Proposed Development

Based on the available conceptual drawings, it is understood that the proposed multi-storey building will consist of six floors and one underground parking structure occupying the majority of the site area. Access lanes, at-grade parking and landscaped areas are also anticipated as part of the development. It is further understood that the proposed residential building will be municipally serviced.

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3.0 Method of Investigation

3.1 Field Investigation

Field Program

The field program for the current investigation was carried out on March 9 and March 10, 2023 and consisted of advancing a total of four (4) boreholes to a maximum depth of 7.6 m below existing grade. A previous investigation was also carried out by Paterson on February 14, 2023. At that time, a total of thirteen (13) test pits were excavated to a maximum depth of 2.1 m below existing grade. The test holes were placed in a manner to provide general coverage of the subject site taking into consideration site features and underground utilities. Historical investigations were also completed by others at the subject site in 2021. The test hole locations for the current and previous investigations are presented on Drawing PG6604-1 - Test Hole Location Plan included in Appendix 2.

The boreholes were completed using a track mounted drill rig operated by a twoperson crew. The test pits were completed using a hydraulic shovel at the selected locations across the site. All fieldwork was conducted under the full-time supervision of Paterson personnel under the direction of a senior engineer from the geotechnical division. The drilling and excavation procedure consisted of augering to the required depth at the selected locations, sampling and testing the overburden, and coring in bedrock.

Sampling and In Situ Testing

The soil samples were recovered from the auger flights and using a 50 mm diameter split-spoon sampler. The samples were initially classified on site, placed in sealed plastic bags and transported to our laboratory. The depths at which the auger, split-spoon and grab samples were recovered from the test holes are shown as AU, SS, and G respectively, on the Soil Profile and Test Data sheets in Appendix 1.

The Standard Penetration Test (SPT) was conducted in conjunction with the recovery of the split-spoon samples. The SPT results are recorded as "N" values on the Soil Profile and Test Data sheets. The "N" value is the number of blows required to drive the split-spoon sampler 300 mm into the soil after a 150 mm initial penetration using a 63.5 kg hammer falling from a height of 760 mm.

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Rock samples were recovered from BH1-23, BH 2-23, BH 3-23, and BH 4-23 using a core barrel and diamond drilling techniques. The bedrock samples were classified on site, placed in hard cardboard core boxes and transported to Paterson's laboratory. The depths at which rock core samples were recovered from the boreholes are presented as RC on the Soil Profile and Test Data sheets in Appendix 1.

The recovery value and a Rock Quality Designation (RQD) value were calculated for each drilled section of bedrock and are presented on the borehole logs. The recovery value is the length of the bedrock sample recovered over the length of the drilled section. The RQD value is the total length of intact rock pieces longer than 100 mm over the length of the core run. The values indicate the bedrock quality.

The subsurface conditions observed in the test holes were recorded in detail in the field. The soil profiles are logged on the Soil Profile and Test Data sheets in Appendix 1 of this report.

Groundwater

A groundwater monitoring well was installed in borehole BH 2-23 to monitor the groundwater level subsequent of the sampling program. Also, flexible polyethylene standpipes were installed in boreholes BH 1-23, BH 3-23, and BH 4-23. The groundwater observations are discussed in subsection 4.3 and presented in the Soil Profile and Test Data Sheets in Appendix 1.

Monitoring Well Installation

Typical monitoring well construction details are described below:

- 3.0 m of slotted 51 mm diameter PVC screen at the base of the boreholes.
- ➤ 51 mm diameter PVC riser pipe from the top of the screen to the ground surface.
- ➤ No. 3 silica sand backfill within annular space around screen.
- > 300 mm thick bentonite hole plug directly above PVC slotted screen.
- Clean backfill from top of bentonite plug to the ground surface.

Refer to the Soil Profile and Test Data sheets in Appendix 1 for specific well construction details.



Sample Storage

All samples will be stored in the laboratory for a period of one (1) month after issuance of this report. They will then be discarded unless we are otherwise directed.

3.2 Field Survey

The test hole locations were selected by Paterson to provide general coverage of the subject site. The test hole locations and ground surface elevation at each test hole location were surveyed by Paterson using a high precision GPS and referenced to a geodetic datum. The location of the test holes is presented on Drawing PG6604-1 - Test Hole Location Plan in Appendix 2.

3.3 Laboratory Review

Soil samples were recovered from the subject site and visually examined in our laboratory to review the results of the field logging.

3.4 Analytical Testing

One (1) soil sample was submitted for analytical testing to assess the corrosion potential for exposed ferrous metals and the potential of sulphate attacks against subsurface concrete structures by others. The sample was submitted to determine the concentration of sulphate and chloride, the resistivity, and the pH of the samples. The results are presented in Appendix 1 and discussed further in Subsection 6.7.

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4.0 Observations

4.1 Surface Conditions

The subject site consists of three residential properties, each occupied by a single-family dwelling and associated asphalt/gravel-covered driveways and backyards. Several mature trees were observed in the grass-covered backyards. In addition, the properties were observed to have a fence. The ground surface across the site is generally flat and approximately at grade with the neighbouring roads and properties.

The site is bordered to the north by Weldon Drive, to the east by Cummings Avenue, to the west by residential properties, and to the south by a gas/service station.

4.2 Subsurface Profile

Overburden

Generally, the subsurface profile observed at the test hole locations consists of a topsoil and fill, underlain by a layer of silty sand to sandy silty with gravel and cobbles, overlying bedrock. The fill was observed to consist of a mixture of brown silty sand with gravel and crushed stone, trace clay, some shale and cobbles. The silty sand/sandy silt formation was observed to be compact to dense.

Practical refusal to excavation/augering was encountered at all test holes at depths ranging between approximately 0.8 and 2.5m below the existing ground surface.

Reference should be made to the Soil Profile and Test Data sheets in Appendix 1 for specific details of the soil profiles encountered at each test hole location.

Bedrock

Bedrock was cored at BH 1-23, BH 2-23, BH 3-23 and BH 4-23, beginning at approximate depths of 1.83 to 2.54 m, and extending down to the final depth of the test holes. The bedrock was observed to consist of black shale of the Billings formation. Based on the RQDs of the recovered rock core, the bedrock can be classified as very poor to fair in quality at the top, generally increasing in quality with depth.



4.3 Groundwater

Groundwater levels were measured in the installed monitoring well and piezometers during the current investigation. The groundwater readings obtained from the current field program are summarised in Table 1 below and are also presented on the Soil Profile and Test Data sheets in Appendix 1.

Table 1 – Summary of Groundwater Levels					
Toot Hala	Ground Surface	_	Groundwater evel	Data Bassadad	
Test Hole	Elevation (m)	Depth (m)	Elevation (m)	Date Recorded	
BH 1-23	71.36	2.80	68.56	March 21, 2023	
BH 2-23	71.39	2.59	68.80	March 21, 2023	
BH 3-23	70.66	2.07	68.59	March 21, 2023	
BH 4-23	71.73	2.87	68.86	March 21, 2023	

Note: The ground surface elevation at each borehole location was surveyed using a high precision GPS and referenced to a geodetic datum.

Based on the observed groundwater level measurements and our knowledge of the groundwater conditions within the area, the long-term groundwater level is estimated to be at **2** to **3 m** depth below the existing grade.

It should be noted that groundwater levels are subject to seasonal fluctuations. Therefore, the groundwater level could vary at the time of construction.

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5.0 Discussion

5.1 Geotechnical Assessment

From a geotechnical perspective, the subject site is considered suitable for the proposed multi-storey building. It is recommended that the proposed six-floor building, and one underground parking structure be founded using conventional shallow footings placed on clean, surface sounded bedrock.

Depending on the final founding depth, bedrock removal may be required within the subject site to complete the underground parking level. Bedrock removal can be accomplished by hoe ramming where only a small quantity of the bedrock needs to be removed. Sound bedrock may be removed by line drilling and controlled blasting and/or hoe ramming. The blasting operations should be planned and conducted under the guidance of a professional engineer with experience in blasting operations.

Due to the expansive nature of the shale bedrock encountered at the subject site, precautions should be taken during construction to reduce the risks associated with heaving of the shale bedrock. The bedrock surface should be protected from excessive dewatering and exposure to ambient air. Therefore, a 50mm thick concrete mud slab consisting of a minimum of 15 MPA lean concrete, should be placed on the exposed bedrock surface within 48-hour period of being exposed. The excavated side slopes of the bedrock surface should be sprayed with bituminous emulsion to seal bedrock from exposure to air and dewatering.

Removal of concrete elements is likely to be encountered due to the demolition of the existing structures on site. In addition, tree roots may also be encountered at the west and east ends of the site, and these shall be removed as well.

Temporary shoring will be required where excavation is to be completed in close proximity to existing properties and roads.

The above and other considerations are further discussed in the following sections.

5.2 Site Grading and Preparation

Stripping Depth

Topsoil and deleterious fill, such as those containing significant amounts of organic materials, should be stripped from under any buildings, paved areas, pipe bedding and other settlement sensitive structures.



Due to the relatively shallow depth of the bedrock surface and the anticipated founding level for the proposed building, all existing overburden material should be excavated from within the proposed building footprint.

Existing foundation walls, and other construction debris should be entirely removed from within proposed building perimeters. Under paved areas, existing construction remnants such as foundation walls should be excavated to a minimum of 1 m below final grade.

Fill Placement

Fill used for grading beneath the building areas should consist, unless otherwise specified, of clean imported granular fill, such as Ontario Provincial Standard Specifications (OPSS) Granular A, Granular B Type II. This material should be tested and approved prior to delivery to the site. The fill should be placed in lifts no greater than 300 mm thick and compacted using suitable compaction equipment for the lift thickness. Fill placed beneath the building areas should be compacted to at least 98% of its standard Proctor maximum dry density (SPMDD).

Non-specified existing fill, along with site-excavated soil, can be used as general landscaping fill where settlement of the ground surface is of minor concern. These materials should be spread in thin lifts and at least compacted by the tracks of the spreading equipment to minimize voids. If these materials are to be used to build up the subgrade level for areas to be paved, they should be compacted in thin lifts to a minimum density of 95% of their respective SPMDD. Site-excavated soils are not suitable for use as backfill against foundation walls unless a composite drainage blanket connected to a perimeter drainage system is provided.

Non-specified existing fill and site-excavated soils are not suitable for use as backfill against foundation walls unless used in conjunction with a geocomposite drainage membrane, such as Miradrain G100N or Delta Drain 6000.

Bedrock Removal

Bedrock removal could be carried out by hoe-ramming where only small quantities of bedrock need to be removed. Sound bedrock may be removed by line drilling and controlled blasting and/or hoe ramming.

Prior to considering blasting operations, the blasting effects on the existing services, buildings and other structures should be addressed. A pre-blast or pre-construction survey of the existing structures located in proximity of the blasting operations should be completed prior to commencing site activities.



The extent of the survey should be determined by the blasting consultant and should be sufficient to respond to any inquiries/claims related to the blasting operations. As a general guideline, peak particle velocities of 25 mm/sec (measured at the structures) should not be exceeded during the blasting program to reduce the risks of damage to the existing structures.

The blasting operations should be planned and carried out under the supervision of a licensed professional engineer who is also an experienced blasting consultant.

Vibration Considerations

Construction operations are the cause of vibrations, and possibly, sources of nuisance to the community. Therefore, means to reduce the vibration levels as much as possible should be incorporated in the construction operations to maintain, as much as possible, a cooperative environment with the residents.

The following construction equipment could be the source of vibrations: hoe ram, compactor, dozer, crane, truck traffic, etc. Vibrations, whether caused by blasting operations or by construction operations, could be the source of detrimental vibrations on the nearby buildings and structures. Therefore, all vibrations are recommended to be limited.

Two parameters are used to determine the permissible vibrations, namely, the maximum peak particle velocity and the frequency. For low frequency vibrations, the maximum allowable peak particle velocity is less than that for high frequency vibrations. As outlined by City of Ottawa S.P. No: F-1201, vibrations limits should be limited to 20 mm/s for frequencies below or equal to 40 Hz and 50 mm/s for frequencies greater than 40 Hz. Considering that these guidelines are above perceptible human level and, in some cases, could be very disturbing to some people, a pre-construction survey is recommended be completed to minimize the risks of claims during or following the construction of the proposed building.

Should blasting be utilized a pre-blast survey must be completed for the surrounding area per City of Ottawa S.P. No: F-1201 and blast notices must be distributed 15 business days prior to the commencement of blasting work.

5.3 Foundation Design

Bearing Resistance Values (Conventional Shallow Footings)

Footings placed on a clean, surface sounded bedrock surface can be designed using a bearing resistance value at ultimate limit states (ULS) of **1,000 kPa**, incorporating a geotechnical resistance factor of 0.5.



A clean, surface-sounded bedrock bearing surface should be free of loose materials, and have no near surface seams, voids, fissures or open joints which can be detected from surface sounding with a rock hammer.

Settlement

Footings bearing on an acceptable bedrock bearing surface and designed using the bearing resistance values provided herein will be subjected to negligible potential post-construction total and differential settlements.

Lateral Support

The bearing medium under footing-supported structures is required to be provided with adequate lateral support with respect to excavations and different foundation levels. Adequate lateral support is provided to a sound bedrock bearing medium when a plane extending down and out from the bottom edge of the footing at a minimum of 1H:6V passes only through sound bedrock. Slopes of 1H:1V or shallower can be used for fractured bedrock.

5.4 Design for Earthquakes

Seismic shear wave velocity testing was completed for the subject site to accurately determine the applicable seismic site classification for the proposed building in accordance with Table 4.1.8.4.A of the Ontario Building Code 2012. The shear wave velocity testing was completed by Paterson personnel. The results of the shear wave velocity test are provided on Figures 2 and 3 in Appendix 2 of the present report.

Field Program

The seismic array testing location was placed as shown on Drawing PG6604-1 - Test Hole Location Plan, attached to the present report. Paterson field personnel placed 18 horizontal 4.5 Hz. geophones mounted to the surface by means of two 75 mm ground spikes attached to the geophone land case. The geophones were spaced at 1 m intervals and connected by a geophone spread cable to a Geode 24 Channel seismograph.

The seismograph was also connected to a computer laptop and a hammer trigger switch attached to a 12-pound dead blow hammer. The hammer trigger switch sends a start signal to the seismograph. The hammer is used to strike an I-Beam seated into the ground surface, which creates a polarized shear wave.



The hammer shots are repeated between four (4) to eight (8) times at each shot location to improve signal to noise ratio. The shot locations were 1, 1.5 and 10 m away from the first and last geophones, and at the centre of the seismic array.

Data Processing and Interpretation

Interpretation for the shear wave velocity results were completed by Paterson personnel. Shear wave velocity measurement was made using reflection/refraction methods. The interpretation is performed by recovering arrival times from direct and refracted waves.

The interpretation is repeated at each shot location to provide an average shear wave velocity, V_{s30} , of the upper 30 m profile, immediately below the foundation of the building. The layer intercept times, velocities from different layers and critical distances are interpreted from the shear wave records to compute the bedrock depth at each location.

The bedrock velocity was interpreted using the main refractor wave velocity, which is considered a conservative estimate of the bedrock velocity due to the increasing quality of the bedrock with depth. It should be noted that as bedrock quality increases, the bedrock shear wave velocity also increases.

Based on our testing results, the average shear wave velocity, V_{s30} for the proposed building is **2,023 m/s** provided the footings are placed directly on bedrock. The V_{s30} was calculated using the standard equation for average shear wave velocity provided in the OBC 2012 and as presented below:

$$V_{s30} = \frac{Depth_{of\ interest}(m)}{\left(\frac{Depth_{Layer1}(m)}{V_{S_{Layer1}}(m/s)} + \frac{Depth_{Layer2}(m)}{V_{S_{Layer2}}(m/s)}\right)}$$

$$V_{s30} = \frac{30\ m}{\left(\frac{30\ m}{2,023\ m/s}\right)}$$

$$V_{s30} = 2,023\ m/s$$

Based on the results of the shear wave velocity testing, the average shear wave velocity V_{s30} is **2,023 m/s**. Therefore, a **Site Class A** is applicable for design of the proposed building bearing on the bedrock, as per Table 4.1.8.4.A of the OBC 2012. The soil underlying the subject site is not susceptible to liquefaction.



5.5 Basement Slab

For the proposed building, all overburden soil will be removed from the building footprint, leaving the bedrock as the founding medium for the basement floor slab. The basement area for the proposed building will be mostly parking and the recommended pavement structure noted in Subsection 5.7 will be applicable. However, if storage or other uses of the lower level where a concrete floor slab will be constructed, the upper 200 mm of sub-slab fill is recommended to consist of 19 mm clear crushed stone.

Any soft areas in the basement slab subgrade should be removed and backfilled with appropriate backfill material prior to placing any fill. OPSS Granular A or Granular B Type II, with a maximum particle size of 50 mm, are recommended for backfilling below the floor slab.

All backfill material within the footprint of the proposed building(s) should be placed in maximum 300 mm thick loose layers and compacted to a minimum of 98% of the SPMDD.

Furthermore, a subfloor drainage system, consisting of lines of perforated drainage pipe subdrains connected to a positive outlet, should be provided in the subfloor fill under the lower basement floor (discussed further in Subsection 6.1). A modulus of subgrade reaction of **100 MPa/m** should be utilized for the design of the basement floor.

5.6 Basement Wall

There are several combinations of backfill materials and retained soils that could be applicable for the basement walls of the subject structure. However, the conditions can be well-represented by assuming the retained soil consists of a material with an angle of internal friction of 30 degrees and a drained unit weight of 20 kN/m³.

However, undrained conditions are anticipated (i.e. below the groundwater level). Therefore, the applicable effective (undrained) unit weight of the retained soil can be taken as 13 kN/m³, where applicable. A hydrostatic pressure should be added to the total static earth pressure when using the effective unit weight.

Lateral Earth Pressures

The static horizontal earth pressure (p_o) can be calculated using a triangular earth pressure distribution equal to $K_o \cdot \gamma \cdot H$ where:

 K_o = at-rest earth pressure coefficient of the applicable retained soil (0.5)



γ = unit weight of fill of the applicable retained soil (kN/m³)

H = height of the wall (m)

An additional pressure having a magnitude equal to $K_o \cdot q$ and acting on the entire height of the wall should be added to the above diagram for any surcharge loading, q (kPa), that may be placed at ground surface adjacent to the wall. The surcharge pressure will only be applicable for static analyses and should not be used in conjunction with the seismic loading case.

Actual earth pressures could be higher than the "at-rest" case if care is not exercised during the compaction of the backfill materials to maintain a minimum separation of 0.3 m from the walls with the compaction equipment.

Seismic Earth Pressures

The total seismic force (P_{AE}) includes both the earth force component (P_o) and the seismic component (ΔP_{AE}). The seismic earth force (ΔP_{AE}) can be calculated using 0.375·a_c·γ·H²/g where:

 $a_c = (1.45 - a_{max}/g)a_{max}$

 γ = unit weight of fill of the applicable retained soil (kN/m³)

H = height of the wall (m)

 $g = gravity, 9.81 \text{ m/s}^2$

The peak ground acceleration, (a_{max}) , for the site area is 0.32 g according to OBC 2012. Note that the vertical seismic coefficient is assumed to be zero.

The earth force component (P_o) under seismic conditions can be calculated using $P_o = 0.5 \text{ K}_o \text{ y H}^2$, where $K_o = 0.5 \text{ for the soil conditions noted above}$.

The total earth force (P_{AE}) is considered to act at a height, h (m), from the base of the wall, where:

$$h = \{P_o \cdot (H/3) + \Delta P_{AE} \cdot (0.6 \cdot H)\}/P_{AE}$$

The earth forces calculated are unfactored. For the ULS case, the earth loads should be factored as live loads, as per OBC 2012.



5.7 Pavement Design

Underground Parking Levels

It is anticipated that the underground parking levels will be provided car only parking areas, access lanes, fire truck lanes and loading areas.

Based on the concrete slab subgrade, the pavement structure indicated in the following page may be considered for design purposes:

Table 3 - Recommended Rigid Pavement Structure – Underground Parking				
Thickness Material Description (mm)				
125	Rigid Concrete Pavement - 32 MPa concrete with air entrainment			
300	300 BASE - OPSS Granular A Crushed Stone			
SUBGRADE - Either fill, OPSS Granular B Type II material placed over in situ soil, fill or rock.				

Table 4 - Recommended Pavement Structure - Car-Only Parking Areas				
Thickness (mm)	Material Description			
50	Wear Course - HL-3 or Superpave 12.5 Asphaltic Concrete			
200**	Base - OPSS Granular A Crushed Stone			
See Below*	Thermal Break* - Rigid Insulation (See Paragraph Below)			
n/a	Waterproofing Membrane and IKO protection Board			

SUBGRADE - Reinforced concrete slab

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^{*}If specified by others, not required from a geotechnical perspective

^{**}Thickness is dependent on grade of insulation as noted in paragraphs below.



Table 5 - Recommended Pavement Structure – Access Lane, Fire Truck Lane, Ramp and Heavy Truck Parking Areass					
Thickness (mm) Material Description					
40	Wear Course - HL-3 or Superpave 12.5 Asphaltic Concrete				
50	Wear Course - HL-8 or Superpave 19.0 Asphaltic Concrete				
200**	Base - OPSS Granular A Crushed Stone				
See Below* Thermal Break* - Rigid Insulation (See Paragraph Below)					
n/a Waterproofing Membrane and IKO protection Board					
SUBGRADE – Reinforced concrete slab					
*If specified by others, not required from a geotechnical perspective					
**Thickness is dependent on grade of insulation as noted in paragraphs below.					

Should the proposed underground parking levels be specified to be provided a thermal break by the use of a layer of rigid insulation below the pavement structure, its placement within the pavement structure is recommended to be as per the above-noted tables. The layer of rigid insulation is recommended to consist of a DOW Chemical High-Load 100 (HI-100), High-Load 60 (HI-60) or High Load (HI-40). The pavement structures base layer thickness will be dependant on the grade of insulation considered for this project and should be reassessed by the geotechnical consultant once pertinent design details have been prepared.

The higher grades of insulation have more resistance to deformation under wheel-loading and require less granular cover to avoid being crushing by vehicular loading. It should be noted that SM (Styrofoam) rigid insulation is not considered suitable for this application.

Flexible Pavement Structure

The flexible pavement structure presented in Tables 6 and 7 could be used for the design of the pavement structure for car only parking, access lanes, and heavy truck parking areas.

Table 6 - Recommended Pavement Structure – Car Only Parking Areas				
Thickness (mm) Material Description				
50	Wear Course - HL-3 or Superpave 12.5 Asphaltic Concrete			
150	BASE - OPSS Granular A Crushed Stone			
300 SUBBASE - OPSS Granular B Type II				
SUBGRADE Either in situ soils, fill approved by the geotechnical consultant or OPSS				

Granular B Type I or II material placed over in situ soil.



Table 7 - Recommended Pavement Structure – Access Lanes and Heavy Truck Parking Areas				
Thickness (mm)	Material Description			
40	Wear Course - HL-3 or Superpave 12.5 Asphaltic Concrete			
50	Binder Course - HL-8 or Superpave 19.0 Asphaltic Concrete			
150	BASE - OPSS Granular A Crushed Stone			
400 SUBBASE - OPSS Granular B Type II				
SUBGRADE – Either in situ soils, fill approved by the geotechnical consultant or OPSS Granular B Type I or II material placed over in situ soil.				

Minimum Performance Graded (PG) 58-34 asphalt cement should be used for this project.

If soft spots develop in the subgrade during compaction or due to construction traffic, the affected areas should be excavated and replaced with OPSS Granular B Type I or II material. The pavement granular base and subbase should be placed in maximum 300 mm thick lifts and compacted to a minimum of 100% of the material's SPMDD using suitable vibratory equipment.

Where the subgrade is observed to be in a loose state of compactness, proof rolling should be completed, under dry conditions and above freezing temperatures, using suitably sized equipment to achieve desired levels of compactness.

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6.0 Design and Construction Precautions

6.1 Foundation Drainage and Backfill

Foundation Drainage

Based on the preliminary information provided, it is expected that a portion of the proposed building foundation walls will be located below the long-term groundwater table. To limit long-term groundwater lowering, it is recommended that a groundwater infiltration control system be designed for the proposed building. Also, a perimeter foundation drainage system will be required as a secondary system to account for any groundwater which breaches the primary ground infiltration control system. The system should consist of a 150 mm diameter perforated corrugated plastic pipe, surrounded on all sides by 150 mm of 10 mm clear crushed stone, placed at the footing level around the exterior perimeter of the structure. The pipe should have a positive outlet, such as a gravity connection to the sump pump pit or storm sewer.

The groundwater infiltration control system should extend at least 1 m above the long-term groundwater level and the following is suggested for preliminary design purposes:

- Place a suitable waterproofing membrane against the temporary shoring surface, such as a bentomat liner system or equivalent. The membrane liner should extend down to footing level. The membrane liner should also extend horizontally a minimum of 600 mm below the footing at underside of footing level.
- Place a composite drainage layer, such as Delta Drain 6000 or equivalent, over the membrane, as a secondary system. The composite drainage layer should extend from finished grade to underside of footing level.
- Pour the foundation wall against the composite drainage system.

It is recommended that the composite drainage system (such as Delta Drain 6000 or equivalent) extend down to the footing level. It is recommended that 150 mm diameter sleeves at 3-6 m centres be cast in the footing or at the foundation wall/footing interface to allow the infiltration of water to flow to the interior perimeter drainage pipe. The perimeter drainage pipe and underfloor drainage system should direct water to sump pit(s) within the lower basement area.

It is important to note that the building's sump pit and elevator pit be considered for waterproofing in a similar fashion. A detail can be provided by Paterson once the design drawings are available for the elevator and sump pits.



Foundation Backfilling - Double Side Pour Areas

Backfill against the exterior sides of the foundation walls should consist of free-draining non frost susceptible granular materials. The greater part of the site excavated materials will be frost susceptible and, as such, are not recommended for re-use as backfill against the foundation walls, unless used in conjunction with a drainage geocomposite, such as Miradrain G100N or Delta Drain 6000, connected to the perimeter foundation drainage system. Imported granular materials, such as clean sand or OPSS Granular B Type I granular material, should otherwise be used for this purpose.

Underfloor Drainage

Underfloor drainage is recommended to control water infiltration for the proposed structure. For preliminary design purposes, we recommend that 150 mm diameter perforated PVC pipes be placed below the floor slab at 3 to 6m center spacings. The spacing of the underfloor drainage system should be confirmed at the time of completing the excavation when water infiltration can be better assessed.

Adverse Effects of Dewatering on Adjacent Properties

Based on the subsurface conditions and on the anticipated excavation depth, any minor dewatering will be considered temporary and limited to the local area of the proposed building during the construction period. Therefore, adverse effects to the surrounding buildings or properties are not expected with respect to any groundwater lowering.

Concrete Sidewalks and Walkways

Backfill material below sidewalks and walkway subgrade areas throughout the subject site, including along the building, should be provided with a minimum 300 mm thick layer of OPSS Granular A or OPSS Granular B Type II crushed stone. This material should be placed in maximum 300 mm thick loose lifts and compacted to a minimum of 98% of the materials SPMDD. The subgrade for walkway structures against the building should be shaped to promote drainage towards the buildings perimeter drainage system.

6.2 Protection Against Frost Action

Perimeter footings of heated structures are required to be insulated against the deleterious effect of frost action. A minimum of 1.5 m thick soil cover (or equivalent) should be provided in this regard.



Exterior unheated footings, such as those for isolated exterior piers, are more prone to deleterious movement associated with frost action than the exterior walls of the structure proper and require additional protection, such as soil cover of 2.1 m or a combination of soil cover and foundation insulation.

It has been our experience that insufficient soil cover is typically provided to footings located in areas where minimal soil cover is available, such as entrance ramps to underground parking garages. Paterson requests permission to review design drawings prior to construction to ensure proper frost protection is provided.

6.3 Excavation Side Slopes

The side slopes of excavations in the overburden materials should either be cut back at acceptable slopes or should be retained by shoring systems from the start of the excavation until the structure is backfilled. It is assumed that insufficient room will be available for the greater part of the excavation to be undertaken by open-cut methods (i.e. unsupported excavations) and temporary shoring will likely be required.

Unsupported Excavations

The excavation side slopes above the groundwater level extending to a maximum depth of 3 m should be cut back at 1H:1V or flatter. The flatter slope is required for excavation below groundwater level. The subsoil at this site is considered to be mainly a Type 2 and 3 soil according to the Occupational Health and Safety Act and Regulations for Construction Projects.

Excavated soil should not be stockpiled directly at the top of excavations and heavy equipment should be kept away from the excavation sides.

Slopes in excess of 3 m in height should be periodically inspected by the geotechnical consultant in order to detect if the slopes are exhibiting signs of distress.

It is recommended that a trench box be used at all times to protect personnel working in trenches with steep or vertical sides. It is expected that services will be installed by "cut and cover" methods and excavations will not be left open for extended periods of time.



Temporary Shoring

Temporary shoring will be required to support the overburden soils. The design and implementation of these temporary systems will be the responsibility of the excavation contractor or the shoring contractor and their design team. Inspections and approval of the temporary system will also be the responsibility of the designer.

Geotechnical information provided below is to assist the designer in completing a suitable and safe shoring system. The designer should take into account the potential for a fully saturated condition following a significant precipitation event. Any changes to the approved shoring design system should be reported immediately to the owner's representative prior to implementation.

For design purposes, the temporary system may consist of soldier pile and lagging system or interlocking steel sheet piling. Any additional loading due to street traffic, construction equipment, adjacent structures and facilities, etc., should be added to the earth pressures described below. These systems can be cantilevered, anchored or braced. The earth pressures acting on the shoring system may be calculated using the following parameters.

Table 8 - Soil Parameters for Shoring System Design			
Parameters	Values		
Active Earth Pressure Coefficient (K _a)	0.33		
Passive Earth Pressure Coefficient (K _p)	3		
At-Rest Earth Pressure Coefficient (K _o)	0.5		
Unit Weight (γ), kN/m³	20		
Submerged Unit Weight (γ), kN/m³	13		

The active earth pressure should be calculated where wall movements are permissible while the at-rest pressure should be calculated if no movement is permissible. The dry unit weight should be calculated above the groundwater level while the effective unit weight should be calculated below the groundwater level.

The hydrostatic groundwater pressure should be included to the earth pressure distribution wherever the effective unit weights are calculated for earth pressures. If the groundwater level is lowered, the dry unit weight for the soil should be calculated full weight, with no hydrostatic groundwater pressure component.

For design purposes, the minimum factor of safety of 1.5 should be calculated.



6.4 Pipe Bedding and Backfill

Bedding and backfill materials should be in accordance with the most recent Material Specifications & Standard Detail Drawings of the OPSD.

At least 150 mm of OPSS Granular A should be used for pipe bedding for sewer and water pipes. The bedding should extend to the spring line of the pipe. Cover material, from the spring line to at least 300 mm above the obvert of the pipe, should consist of OPSS Granular A or Granular B Type II with a maximum size of 25 mm. The bedding layer should be increased to a minimum thickness of 300 mm where the subgrade consists of grey silty clay. The bedding and cover materials should be placed in maximum 225 mm thick lifts compacted to 95% of the material's standard Proctor maximum dry density.

It should generally be possible to re-use the upper portion of the dry to moist (not wet) sandy silt above the cover material if the excavation and filling operations are carried out in dry weather conditions. Any stones greater than 200 mm in their longest dimension should be removed from these materials prior to placement.

The backfill material within the frost zone (about 1.8 m below finished grade) should match the soils exposed at the trench walls to reduce potential differential frost heaving. The backfill should be placed in maximum 300 mm thick loose lifts and compacted to a minimum of 95% of the material's SPMDD.

6.5 Groundwater Control

Groundwater Control for Building Construction

Based on our observations, it is anticipated that groundwater infiltration into the excavations should be moderate and controllable using open sumps. Pumping from open sumps should be sufficient to control the groundwater influx through the sides of shallow excavations above the groundwater level.

If excavation below the groundwater level will be completed, consideration may need to given to undertaking a dewatering program taking place outside the excavation footprints. The system would require the use of deep wells or well points to temporarily lower the local groundwater table below the depth of future excavations. The contractor should be prepared to direct water away from all bearing surfaces and subgrades, regardless of the source, to prevent disturbance to the founding medium.



Permit to Take Water

A temporary Ministry of the Environment, Conservation and Parks (MECP) permit to take water (PTTW) may be required for this project if more than 400,000 L/day of ground and/or surface water is to be pumped during the construction phase. A minimum 4 to 5 months should be allowed for completion of the PTTW application package and issuance of the permit by the MECP. For typical ground or surface water volumes being pumped during the construction phase, typically between 50,000 to 400,000 L/day, it is required to register on the Environmental Activity and Sector Registry (EASR). A minimum of two to four weeks should be allotted for completion of the EASR registration and the Water Taking and Discharge Plan to be prepared by a Qualified Person as stipulated under O.Reg. 63/16.

Impacts to Neighbouring Properties

It is understood that one level of underground parking is planned for the proposed building. Any groundwater encountered along the building's perimeter or underslab drainage system will be directed to the proposed building's cistern/sump pit. Provided the proposed groundwater infiltration control system is properly implemented and approved by the geotechnical consultant at the time of construction, long-term groundwater lowering is anticipated to be negligible for the area. Therefore, no adverse effects to neighbouring properties are expected.

6.6 Winter Construction

Precautions must be taken if winter construction is considered for this project. The subsoil conditions at this site mostly consist of frost susceptible materials. In the presence of water and freezing conditions, ice could form within the soil mass. Heaving and settlement upon thawing could occur.

In the event of construction during below zero temperatures, the founding stratum should be protected from freezing temperatures by the use of straw, propane heaters and tarpaulins or other suitable means. In this regard, the base of the excavations should be insulated from sub-zero temperatures immediately upon exposure and until such time as heat is adequately supplied to the building and the footings are protected with sufficient soil cover to prevent freezing at founding level.

Trench excavations and pavement construction are also difficult activities to complete during freezing conditions without introducing frost in the subgrade or in the excavation walls and bottoms. Precautions should be taken if such activities are to be carried out during freezing conditions.



6.7 Corrosion Potential and Sulphate

The results of analytical testing show that the sulphate content is less than 0.1%. This result is indicative that Type GU (General Use) cement would be appropriate for this site. The chloride content and the pH of the sample indicate that they are not significant factors in creating a corrosive environment for exposed ferrous metals at this site, whereas the resistivity is indicative of a moderate to very aggressive corrosive environment.

6.8 Storm Water Detention Cistern

Based on the available site servicing drawings, it is understood that storm water detention cistern is proposed to be located in the underground parking area with a mechanical pump to attenuate peak flows from the catch basin and ramp drain areas. It is understood that the final location of the cistern within the proposed building is to be coordinated by the architect with mechanical and structural engineers. The cistern will have an approximate volume of 30 m3 and it will be attached to the proposed building. The top of the cistern will be at geodetic elevation of 89.06m and the bottom of the cistern will be at geodetic elevation of 88.43m. The finish floor level for the basement of the adjacent 9 storey building will be at geodetic elevation of 87.2m. The finish grade level at the location of the cistern will be at approximate geodetic elevation of 90.79m. Therefore, the cistern will be fully buried with a soil cover of approximately 2.36 m above the top of the cistern. Furthermore, due to the founding depth and the depth of the long-term groundwater level, frost protection and waterproofing will not be required for the proposed storm water cistern.

Based on the founding level of the cistern and the finish floor level of the adjacent 9 storey building, the minimum vertical separation between the bottom of the cistern and the USF of the adjacent basement wall is anticipated to be approximately 1.8m. The loads resulting from the cistern shall be taken into account in the design of the basement wall of the building in contact with the proposed storm water cistern. The cistern will exert a lateral hydrostatic pressure on the portion of the wall above the founding level of the cistern. On the other hand, the lateral component of the cistern surcharge shall be added to the lateral earth pressure acting on the basement wall for the portion of the wall below the founding level of the cistern. Further details on the design of the basement wall are discussed in section 5.6.

Due to the difference in elevation between the founding depth of the cistern and the muti storey building, it is recommended that the cistern be founded on OPSS Granular A or Granular B Type II extending to the founding level of the adjacent basement wall and compacted to a minimum 98% of the material's SPMDD.



7.0 Recommendations

that the following material testing and observation program be performed by the geotechnical consultant. Review of the grading and site servicing plans from a geotechnical perspective. Review of the proposed excavation activities Once structural and architectural drawings are available, it is recommended that Paterson provide a damp-proofing, waterproofing and drainage plan for the subject building. Periodic inspections of the damp-proofing of the foundation walls and waterproofing of the mechanical pits from a geotechnical perspective. Observation of all bearing surfaces prior to the placement of concrete. Sampling and testing of the concrete and fill materials. Periodic observation of the condition of unsupported excavation side slopes in excess of 3 m in height, if applicable. Observation of all subgrades prior to backfilling. Field density tests to ensure that the specified level of compaction has been achieved. Sampling and testing of the bituminous concrete including mix design

It is a requirement for the foundation design data provided herein to be applicable

All excess soils generated by construction activities should be handled as per *Ontario Regulation 406/19: On-Site and Excess Soil Management.*

A report confirming that these works have been conducted in general accordance with our recommendations could be issued upon the completion of a satisfactory inspection program by the geotechnical consultant.

reviews.



8.0 Statement of Limitations

The recommendations provided are in accordance with the present understanding of the project. Paterson requests permission to review the recommendations when the drawings and specifications are completed.

A soils investigation is a limited sampling of a site. Should any conditions at the site be encountered which differ from those at the test locations, Paterson requests immediate notification to permit reassessment of our recommendations.

The recommendations provided herein should only be used by the design professionals associated with this project. They are not intended for contractors bidding on or undertaking the work. The latter should evaluate the factual information provided in this report and determine the suitability and completeness for their intended construction schedule and methods. Additional testing may be required for their purposes.

The present report applies only to the project described in this document. Use of this report for purposes other than those described herein or by person(s) other than TCU Development or their agent(s) is not authorized without review by Paterson Group for the applicability of our recommendations to the altered use of the report.

Paterson Group Inc.

December 18, 2023

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APPENDIX 1

SOIL PROFILE AND TEST DATA SHEETS
SYMBOLS AND TERMS
ANALYTICAL TESTING RESULTS
TEST HOLE LOGS BY OTHERS

Report: PG6604-1 Revision 3 December 18, 2023

9 Auriga Drive, Ottawa, Ontario K2E 7T9

SOIL PROFILE AND TEST DATA

Geotechnical Investigation Proposed Multi-Storey Building 1184, 1188 & 1196 Cummings Ave., Ottawa, Ontario

DATUM Geodetic FILE NO. **PG6604 REMARKS** HOLE NO. **BH 1-23** BORINGS BY CME-55 Low Clearance Drill **DATE** March 9, 2023 **SAMPLE** Pen. Resist. Blows/0.3m PLOT Piezometer Construction **DEPTH** ELEV. **SOIL DESCRIPTION** 50 mm Dia. Cone (m) (m) RECOVERY N VALUE or RQD STRATA NUMBER TYPE Water Content % **GROUND SURFACE** 80 20 0+71.36FILL: Crushed stone 0.10 1 Ö FILL: Topsoil, some crushed stone, gravel and sand 1.07 1+70.36SS 2 58 12 Compact to dense, brown SILTY SAND to SANDY SILT, trace shale SS 3 67 21 Ó 2+69.362.54 SS 4 100 45 O 3+68.36RC 1 89 27 4+67.36**BEDROCK:** Poor to fair quality, black shale 5+66.362 RC 100 52 6+65.36 - good to excellent quality by 6.0m depth. RC 3 100 90 7 + 64.367.57 End of Borehole (GWL @ 2.80m - March 21, 2023) 20 40 60 100 Shear Strength (kPa) ▲ Undisturbed △ Remoulded

SOIL PROFILE AND TEST DATA

Geotechnical Investigation Proposed Multi-Storey Building 1184, 1188 & 1196 Cummings Ave., Ottawa, Ontario

9 Auriga Drive, Ottawa, Ontario K2E 7T9 **DATUM** Geodetic FILE NO. **PG6604 REMARKS** HOLE NO. **BH 2-23** BORINGS BY CME-55 Low Clearance Drill **DATE** March 9, 2023 **SAMPLE** Pen. Resist. Blows/0.3m Monitoring Well Construction STRATA PLOT **DEPTH** ELEV. **SOIL DESCRIPTION** 50 mm Dia. Cone (m) (m) RECOVERY N VALUE or RQD NUMBER TYPE Water Content % **GROUND SURFACE** 80 20 0+71.39**TOPSOIL** 0.15 ΑU 1 O FILL: Brown silty sand with gravel, crushed stone, trace clay, topsoil and concrete 1+70.39SS 2 67 12 1.45 Compact, brown SILTY SAND with SS 3 83 20 Ó gravel 2+69.392.29 SS 4 80 50 +RC 1 62 0 3+68.39RC 2 47 93 4+67.39**BEDROCK:** Very poor to fair quality, black shale 5+66.393 RC 100 68 6+65.396.10 End of Borehole (GWL @ 2.59m - March 21, 2023) 40 60 80 100 Shear Strength (kPa) ▲ Undisturbed △ Remoulded

SOIL PROFILE AND TEST DATA

Proposed Multi-Storey Building 1184, 1188 & 1196 Cummings Ave., Ottawa, Ontario

9 Auriga Drive, Ottawa, Ontario K2E 7T9

Geotechnical Investigation

DATUM Geodetic FILE NO. **PG6604 REMARKS** HOLE NO. **BH 3-23** BORINGS BY CME-55 Low Clearance Drill **DATE** March 9, 2023 **SAMPLE** Pen. Resist. Blows/0.3m PLOT Construction DEPTH ELEV. Piezometer **SOIL DESCRIPTION** 50 mm Dia. Cone (m) (m) RECOVERY N VALUE or RQD STRATA NUMBER Water Content % **GROUND SURFACE** 80 20 0+70.66FILL: Crushed stone 0.10 FILL: Topsoil with silty clay, trace 0.36 1 Q gravel and organics Compact, brown SILTY SAND, trace 1 + 69.66SS 2 gravel, clay, shale, cobbles and 75 11 Ō boulders 1.83 2+68.66RC 1 100 0 3+67.66RC 2 100 24 4+66.66 **BEDROCK:** Very poor to fair quality, black shale 5 + 65.66RC 3 24 100 6 + 64.6672 RC 4 100 7 + 63.66<u>7</u>.54 End of Borehole (GWL @ 2.07m - March 21, 2023) 40 60 100 Shear Strength (kPa) ▲ Undisturbed △ Remoulded

JOIL

SOIL PROFILE AND TEST DATA

9 Auriga Drive, Ottawa, Ontario K2E 7T9

Geotechnical Investigation Proposed Multi-Storey Building 1184, 1188 & 1196 Cummings Ave., Ottawa, Ontario

DATUM Geodetic FILE NO. **PG6604 REMARKS** HOLE NO. **BH 4-23** BORINGS BY CME-55 Low Clearance Drill **DATE** March 10, 2023 **SAMPLE** Pen. Resist. Blows/0.3m STRATA PLOT Construction **DEPTH** ELEV. Piezometer **SOIL DESCRIPTION** 50 mm Dia. Cone (m) (m) RECOVERY N VALUE or RQD NUMBER TYPE Water Content % **GROUND SURFACE** 80 20 0+71.73FILL: Crushed stone, some sand 0.10 1 FILL: Dark brown silty sand with 0.30 2 Ö asphalt, crushed stone and gravel FILL: Brown silty sand, some gravel and crushed stone 0.97 1+70.73SS 3 100 31 O SS 4 83 50 +Ō. 2+69.73BEDROCK: Very poor to poor quality, black shale 5 SS 100 50 +0 3+68.73- fair quality by 3.0m depth RC 1 100 36 4+67.735 + 66.73RC 2 51 100 5.97 End of Borehole (GWL @ 2.87m - March 21, 2023) 40 60 80 100 Shear Strength (kPa) ▲ Undisturbed △ Remoulded

SOIL PROFILE AND TEST DATA

▲ Undisturbed

△ Remoulded

9 Auriga Drive, Ottawa, Ontario K2E 7T9

Geotechnical Investigation Proposed Multi-Storey Building 1184, 1188 and 1196 Cummings Ave., Ottawa, Ontario

DATUM Geodetic FILE NO. **PG6604 REMARKS** HOLE NO. **TP 1-23 BORINGS BY** Excavator DATE February 14, 2023 **SAMPLE** Pen. Resist. Blows/0.3m Piezometer Construction STRATA PLOT DEPTH ELEV. **SOIL DESCRIPTION** • 50 mm Dia. Cone (m) (m) N VALUE or RQD RECOVERY NUMBER Water Content % **GROUND SURFACE** 80 20 0 ± 71.44 FILL: Crushed stone 0.10 FILL: Brown silty sand with gravel, G 1 trace organics 0.40 FILL: Brown silty sand with gravel G 2 <u>0.8</u>0₽ 1+70.44G 3 Brown **SANDY SILT** with gravel, occasional cobbles G 4 1.60 End of Test Pit TP terminated on bedrock surface at 1.60m depth. (TP dry upon completion) 20 40 60 80 100 Shear Strength (kPa)

9 Auriga Drive, Ottawa, Ontario K2E 7T9

SOIL PROFILE AND TEST DATA

Geotechnical Investigation Proposed Multi-Storey Building 1184, 1188 and 1196 Cummings Ave., Ottawa, Ontario

DATUM Geodetic									FILE NO		
REMARKS									HOLE N	10.	
BORINGS BY Excavator				D	ATE I	ebruary	14, 2023	l 	TP 2-	·23	
SOIL DESCRIPTION	A PLOT			IPLE	E Q.	DEPTH (m)	ELEV. (m)			Blows/0.3m ia. Cone	Piezometer Construction
	STRATA	TYPE	NUMBER	% RECOVERY	N VALUE or RQD					ontent %	Piezo Cons
GROUND SURFACE TOPSOIL				æ		0-	71.44	20	40	60 80	
10PSOIL0.10	XXX										
FILL: Brown silty sand with gravel, trace organics		_ G	1								4
FILL: Brown silty sand, trace clay, gravel and concrete blocks		 G _	2								
0.80						1-	-70.44				
Brown SILTY SAND with gravel, some clay		- G G	3								
		G	4								
End of Test Pit						2-	69.44				
TP terminated on bedrock surface at 2.00m depth.											
(TP dry upon completion)								20	40	60 80 1	00
								Shea	r Stren	gth (kPa)	

9 Auriga Drive, Ottawa, Ontario K2E 7T9

SOIL PROFILE AND TEST DATA

▲ Undisturbed

△ Remoulded

Geotechnical Investigation Proposed Multi-Storey Building 1184, 1188 and 1196 Cummings Ave., Ottawa, Ontario

DATUM Geodetic FILE NO. **PG6604 REMARKS** HOLE NO. **TP 3-23 BORINGS BY** Excavator DATE February 14, 2023 **SAMPLE** Pen. Resist. Blows/0.3m STRATA PLOT Piezometer Construction DEPTH ELEV. **SOIL DESCRIPTION** 50 mm Dia. Cone (m) (m) N VALUE or RQD RECOVERY NUMBER Water Content % **GROUND SURFACE** 80 20 0 + 71.52FILL: Crushed stone 0.10 FILL: Brown silty sand, some shale and gravel G 1 G 2 FILL: Brown silty sand, some cobbles, trace brick and shale 1.00 1+70.52G 3 Brown SILTY SAND, trace clay and gravel, occasional cobbles G 4 End of Test Pit TP terminated on bedrock surface at 1.70m depth. 40 60 80 100 Shear Strength (kPa)

9 Auriga Drive, Ottawa, Ontario K2E 7T9

SOIL PROFILE AND TEST DATA

Geotechnical Investigation Proposed Multi-Storey Building

1184, 1188 and 1196 Cummings Ave., Ottawa, Ontario **DATUM** Geodetic FILE NO. **PG6604 REMARKS** HOLE NO. **TP 4-23 BORINGS BY** Excavator DATE February 14, 2023 **SAMPLE** Pen. Resist. Blows/0.3m Piezometer Construction STRATA PLOT **DEPTH** ELEV. **SOIL DESCRIPTION** • 50 mm Dia. Cone (m) (m) N VALUE or RQD RECOVERY NUMBER **Water Content % GROUND SURFACE** 80 20 0 + 70.97FILL: Crushed stone 0.10 FILL: Brown silty sand, trace gravel G 1 0.30 G 2 Brown SILTY SAND with gravel, occasional cobbles 1 + 69.97G 3 1.60 End of Test Pit TP terminated on bedrock surface at 1.60m depth.. (TP dry upon completion) 20 40 60 80 100 Shear Strength (kPa) ▲ Undisturbed △ Remoulded

9 Auriga Drive, Ottawa, Ontario K2E 7T9

SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Proposed Multi-Storey Building
1184, 1188 and 1196 Cummings Ave., Ottawa, Ontario

DATUM Geodetic FILE NO. **PG6604 REMARKS** HOLE NO. **TP 5-23 BORINGS BY** Excavator DATE February 14, 2023 **SAMPLE** Pen. Resist. Blows/0.3m Piezometer Construction STRATA PLOT DEPTH ELEV. **SOIL DESCRIPTION** 50 mm Dia. Cone (m) (m) N VALUE or RQD RECOVERY NUMBER Water Content % **GROUND SURFACE** 80 20 0 + 70.87<u>0.10</u> FILL: Crushed stone Brown SILTY SAND, some clay, G 1 trace organics (possible topsoil) 0.40 Brown **SANDY SILT** with gravel G 2 0.70 1 + 69.87Brown SILTY SAND with gravel and cobbles G 3 End of Test Pit TP terminated on bedrock surface at 1.70m depth. (TP dry upon completion) 20 40 60 80 100 Shear Strength (kPa) ▲ Undisturbed △ Remoulded

9 Auriga Drive, Ottawa, Ontario K2E 7T9

SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Proposed Multi-Storey Building
1184, 1188 and 1196 Cummings Ave., Ottawa, Ontario

DATUM Geodetic									FILE	NO. 6 604	
REMARKS									HOLE	E NO.	
BORINGS BY Excavator				D	ATE	February	14, 2023	3	TP	6-23	
SOIL DESCRIPTION	A PLOT			MPLE ≿	ы	DEPTH (m)	ELEV. (m)			Blows/0.3m Dia. Cone	Piezometer Construction
	STRATA	TYPE	NUMBER	% RECOVERY	N VALUE or RQD			0 W		Content %	Piezor Constr
GROUND SURFACE				2	Z	0-	70.74	20	40	60 80	-
	0	× ×									
TOPSOIL	0_	G	1								
		G G	2								
Brown SILTY SAND with gravel						1-	-69.74				
1.5	0	G	3								
Brown SILTY SAND with shale fragments		G	4								
End of Test Pit	<u> </u>	<u> </u>									
TP terminated on bedrock surface at 1.70m depth.								20	40	60 80	100
								Shea ▲ Undist		ength (kPa) △ Remoulded	

9 Auriga Drive, Ottawa, Ontario K2E 7T9

SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Proposed Multi-Storey Building
1184, 1188 and 1196 Cummings Ave., Ottawa, Ontario

DATUM Geodetic FILE NO. **PG6604 REMARKS** HOLE NO. **TP 7-23 BORINGS BY** Excavator DATE February 14, 2023 **SAMPLE** Pen. Resist. Blows/0.3m STRATA PLOT Piezometer Construction DEPTH ELEV. **SOIL DESCRIPTION** 50 mm Dia. Cone (m) (m) N VALUE or RQD RECOVERY NUMBER **Water Content % GROUND SURFACE** 80 20 40 0+70.86FILL: Crushed stone 0.10 FILL: Brown silty sand, trace silt and organics G 1 <u>0.50</u> G 2 1 + 69.86Brown SILTY SAND with gravel, occasional cobbles G 3 2 + 68.864 2.10 End of Test Pit TP terminated on bedrock surface at 2.10m depth. (TP dry upon completion) 20 40 60 100 Shear Strength (kPa) ▲ Undisturbed △ Remoulded

9 Auriga Drive, Ottawa, Ontario K2E 7T9

SOIL PROFILE AND TEST DATA

Geotechnical Investigation Proposed Multi-Storey Building 1184, 1188 and 1196 Cummings Ave., Ottawa, Ontario

DATUM Geodetic						0 1, 1 100	una moc	, oanning	FILE	NO.	itui io
REMARKS									PG	6604	
BORINGS BY Excavator				D	ATE	February	14, 2023	3	TP 8	E NO. 8-23	
SOIL DESCRIPTION	PLOT		SAN	/IPLE		DEPTH	ELEV.	Pen. Re	esist.	Blows/0.3m Dia. Cone	ter
30.2 2 2 3 7 11 11 11 11 11 11 11 11 11 11 11 11 1	STRATA F	TYPE	NUMBER	% RECOVERY	VALUE r RQD	(m)	(m)				Piezometer Construction
	STR	ΤX	NOM	»	N VZ					Content %	Pie O
GROUND SURFACE FILL: Crushed stone				Щ		0-	71.40	20	40	60 80	
FILL: Brown silty sand, some cobbles, trace shale and organics 0.10 0.40		 _ _ G 	1								
Brown SILTY SAND with gravel		– G	2								
TP terminated on bedrock surface at 0.80m depth.											
(TP dry upon completion)											
								20	40	60 80	100
								Shea ▲ Undist		ength (kPa) △ Remoulded	

SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Proposed Multi-Storey Building

1184, 1188 and 1196 Cummings Ave., Ottawa, Ontario

9 Auriga Drive, Ottawa, Ontario K2E 7T9

DATUM Geodetic

REMARKS

BORINGS BY Excavator

PG6604

HOLE NO.

TP 9-23

BORINGS BY Excavator		1	NUMBER RECOVERY OF ROD (m)					TP 9-23
SOIL DESCRIPTION	PLOT		SAN	/IPLE	T	-	ELEV.	Pen. Resist. Blows/0.3m ■ 50 mm Dia. Cone
	STRATA E	TYPE	MBER	% COVERY	VALUE RQD	(m)	(m)	Pen. Resist. Blows/0.3m ■ 50 mm Dia. Cone ○ Water Content %
GROUND SURFACE	, v	-	¥	E	z ^ö		-	20 40 60 80
FILL: Crushed stone 0.1	o 💥					- 0-	1.42	
FILL: Brown silty sand, some cobbles, trace shale, organics and brick		G	1					
Brown SILTY SAND with gravel		_ G _	2					
Brown SILTY SAND with gravel, cobbles and shale fragments		 _ G	3			1-	-70.42	
TP terminated on bedrock surface at 1.30m depth.								
(TP dry upon completion)								20 40 60 20 100
								20 40 60 80 100 Shear Strength (kPa)
								▲ Undisturbed △ Remoulded

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SOIL PROFILE AND TEST DATA

9 Auriga Drive, Ottawa, Ontario K2E 7T9

Geotechnical Investigation
Proposed Multi-Storey Building

Proposed Multi-Storey Building 1184, 1188 and 1196 Cummings Ave., Ottawa, Ontario

20

▲ Undisturbed

40

Shear Strength (kPa)

60

△ Remoulded

100

DATUM Geodetic FILE NO. **PG6604 REMARKS** HOLE NO. **TP10-23 BORINGS BY** Excavator DATE February 14, 2023 **SAMPLE** Pen. Resist. Blows/0.3m Piezometer Construction STRATA PLOT **DEPTH** ELEV. **SOIL DESCRIPTION** • 50 mm Dia. Cone (m) (m) N VALUE or RQD RECOVERY NUMBER Water Content % **GROUND SURFACE** 80 20 0 + 70.76FILL: Crushed stone FILL: Brown silty sand, some clay and organics G 1 0.30 G 2 FILL: Brown silty sand with cobbles, trace shale 1.00 1 + 69.76G 3 Brown SILTY SAND with gravel G 4 1.50 End of Test Pit TP terminated on bedrock surface at 1.50m depth. (TP dry upon completion)

SOIL PROFILE AND TEST DATA

Geotechnical Investigation Proposed Multi-Storey Building

Shear Strength (kPa)

△ Remoulded

▲ Undisturbed

9 Auriga Drive, Ottawa, Ontario K2E 7T9 1184, 1188 and 1196 Cummings Ave., Ottawa, Ontario **DATUM** Geodetic FILE NO. **PG6604 REMARKS** HOLE NO. **TP11-23 BORINGS BY** Excavator DATE February 14, 2023 **SAMPLE** Pen. Resist. Blows/0.3m Piezometer Construction STRATA PLOT DEPTH ELEV. **SOIL DESCRIPTION** • 50 mm Dia. Cone (m) (m) N VALUE or RQD RECOVERY NUMBER Water Content % **GROUND SURFACE** 80 20 0 ± 71.50 FILL: Crushed stone 0.10 G 1 FILL: Brown sitly sand with clay, shale, trace gravel and organics 0.60 FILL: Brown silty sand with gravel, 2 trace clay 0.90 1 + 70.50Brown SILTY SAND with gravel G 3 2+69.50G 4 2.10 End of Test Pit TP terminated on bedrock surface at 2.10m depth. (TP dry upon completion) 20 40 60 80 100

SOIL PROFILE AND TEST DATA

Geotechnical Investigation Proposed Multi-Storey Building

9 Auriga Drive, Ottawa, Ontario K2E 7T9 1184, 1188 and 1196 Cummings Ave., Ottawa, Ontario **DATUM** Geodetic FILE NO. **PG6604 REMARKS** HOLE NO. **TP12-23 BORINGS BY** Excavator DATE February 14, 2023 **SAMPLE** Pen. Resist. Blows/0.3m STRATA PLOT Piezometer Construction DEPTH ELEV. **SOIL DESCRIPTION** 50 mm Dia. Cone (m) (m) N VALUE or RQD RECOVERY NUMBER Water Content % **GROUND SURFACE** 80 20 0+71.08**TOPSOIL** 0.10 G 1 Brown SILTY SAND with gravel, trace shale fragments G 2 1+70.08G 3 1.50 Brown SILTY SAND with gravel and G 4 cobbles 1.80 Endof Test Pit TP terminated on bedrock surface at 1.80m depth. (TP dry upon completion) 20 40 60 80 100 Shear Strength (kPa) ▲ Undisturbed △ Remoulded

9 Auriga Drive, Ottawa, Ontario K2E 7T9

SOIL PROFILE AND TEST DATA

Geotechnical Investigation Proposed Multi-Storey Building 1184, 1188 and 1196 Cummings Ave., Ottawa, Ontario

DATUM Geodetic FILE NO. **PG6604 REMARKS** HOLE NO. **TP13-23 BORINGS BY** Excavator DATE February 14, 2023 **SAMPLE** Pen. Resist. Blows/0.3m STRATA PLOT Piezometer Construction DEPTH ELEV. **SOIL DESCRIPTION** • 50 mm Dia. Cone (m) (m) N VALUE or RQD RECOVERY NUMBER TYPE **Water Content % GROUND SURFACE** 80 20 0 ± 71.10 **TOPSOIL** 0.30 FILL: Brown silty sand with cobbles, trace shale G 1 0.50 G 2 1+70.10G 3 Brown SILTY SAND with gravel and cobbles G 4 5 2+69.10G <u>2.1</u>0 End of Test Pit TP terminated on bedrock surface at 2.10m depth. (TP dry upon completion) 20 40 60 100 Shear Strength (kPa) ▲ Undisturbed △ Remoulded

SYMBOLS AND TERMS

SOIL DESCRIPTION

Behavioural properties, such as structure and strength, take precedence over particle gradation in describing soils. Terminology describing soil structure are as follows:

Desiccated	-	having visible signs of weathering by oxidation of clay minerals, shrinkage cracks, etc.
Fissured	-	having cracks, and hence a blocky structure.
Varved	-	composed of regular alternating layers of silt and clay.
Stratified	-	composed of alternating layers of different soil types, e.g. silt and sand or silt and clay.
Well-Graded	-	Having wide range in grain sizes and substantial amounts of all intermediate particle sizes (see Grain Size Distribution).
Uniformly-Graded	-	Predominantly of one grain size (see Grain Size Distribution).

The standard terminology to describe the strength of cohesionless soils is the relative density, usually inferred from the results of the Standard Penetration Test (SPT) 'N' value. The SPT N value is the number of blows of a 63.5 kg hammer, falling 760 mm, required to drive a 51 mm O.D. split spoon sampler 300 mm into the soil after an initial penetration of 150 mm.

Relative Density	'N' Value	Relative Density %
Very Loose	<4	<15
Loose	4-10	15-35
Compact	10-30	35-65
Dense	30-50	65-85
Very Dense	>50	>85

The standard terminology to describe the strength of cohesive soils is the consistency, which is based on the undisturbed undrained shear strength as measured by the in situ or laboratory vane tests, penetrometer tests, unconfined compression tests, or occasionally by Standard Penetration Tests.

Consistency	Undrained Shear Strength (kPa)	'N' Value
Very Soft Soft Firm	<12 12-25 25-50	<2 2-4 4-8
Stiff	50-100	8-15
Very Stiff	100-200	15-30
Hard	>200	>30

SYMBOLS AND TERMS (continued)

SOIL DESCRIPTION (continued)

Cohesive soils can also be classified according to their "sensitivity". The sensitivity is the ratio between the undisturbed undrained shear strength and the remoulded undrained shear strength of the soil.

Terminology used for describing soil strata based upon texture, or the proportion of individual particle sizes present is provided on the Textural Soil Classification Chart at the end of this information package.

ROCK DESCRIPTION

The structural description of the bedrock mass is based on the Rock Quality Designation (RQD).

The RQD classification is based on a modified core recovery percentage in which all pieces of sound core over 100 mm long are counted as recovery. The smaller pieces are considered to be a result of closely-spaced discontinuities (resulting from shearing, jointing, faulting, or weathering) in the rock mass and are not counted. RQD is ideally determined from NXL size core. However, it can be used on smaller core sizes, such as BX, if the bulk of the fractures caused by drilling stresses (called "mechanical breaks") are easily distinguishable from the normal in situ fractures.

RQD %	ROCK QUALITY
90-100	Excellent, intact, very sound
75-90	Good, massive, moderately jointed or sound
50-75	Fair, blocky and seamy, fractured
25-50	Poor, shattered and very seamy or blocky, severely fractured
0-25	Very poor, crushed, very severely fractured

SAMPLE TYPES

SS	-	Split spoon sample (obtained in conjunction with the performing of the Standard Penetration Test (SPT))
TW	-	Thin wall tube or Shelby tube
PS	-	Piston sample
AU	-	Auger sample or bulk sample
WS	-	Wash sample
RC	-	Rock core sample (Core bit size AXT, BXL, etc.). Rock core samples are obtained with the use of standard diamond drilling bits.

SYMBOLS AND TERMS (continued)

GRAIN SIZE DISTRIBUTION

MC% - Natural moisture content or water content of sample, %

Liquid Limit, % (water content above which soil behaves as a liquid)
 PL - Plastic limit, % (water content above which soil behaves plastically)

PI - Plasticity index, % (difference between LL and PL)

Dxx - Grain size which xx% of the soil, by weight, is of finer grain sizes

These grain size descriptions are not used below 0.075 mm grain size

D10 - Grain size at which 10% of the soil is finer (effective grain size)

D60 - Grain size at which 60% of the soil is finer

Cc - Concavity coefficient = $(D30)^2 / (D10 \times D60)$

Cu - Uniformity coefficient = D60 / D10

Cc and Cu are used to assess the grading of sands and gravels:

Well-graded gravels have: 1 < Cc < 3 and Cu > 4 Well-graded sands have: 1 < Cc < 3 and Cu > 6

Sands and gravels not meeting the above requirements are poorly-graded or uniformly-graded.

Cc and Cu are not applicable for the description of soils with more than 10% silt and clay

(more than 10% finer than 0.075 mm or the #200 sieve)

CONSOLIDATION TEST

p'₀ - Present effective overburden pressure at sample depth

p'_c - Preconsolidation pressure of (maximum past pressure on) sample

Ccr - Recompression index (in effect at pressures below p'c)
Cc - Compression index (in effect at pressures above p'c)

OC Ratio Overconsolidaton ratio = p'_c/p'_o

Void Ratio Initial sample void ratio = volume of voids / volume of solids

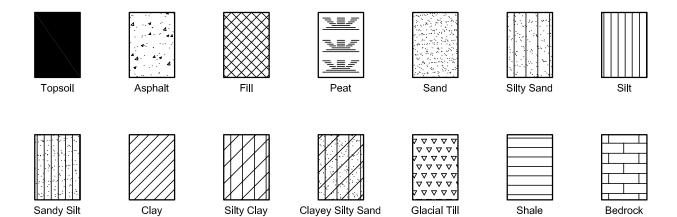
Wo - Initial water content (at start of consolidation test)

PERMEABILITY TEST

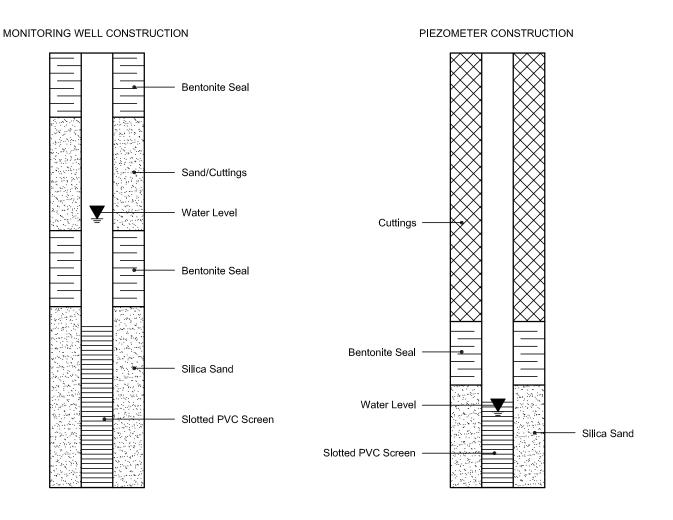
Coefficient of permeability or hydraulic conductivity is a measure of the ability of water to flow through the sample. The value of k is measured at a specified unit weight for (remoulded) cohesionless soil samples, because its value will vary with the unit weight or density of the sample during the test.

SYMBOLS AND TERMS (continued)

STRATA PLOT



MONITORING WELL AND PIEZOMETER CONSTRUCTION





Order #: 2310483

Certificate of Analysis

Client: Paterson Group Consulting Engineers

Client PO: 56998

Report Date: 16-Mar-2023

Order Date: 10-Mar-2023

Project Description: PG6604

	-				
	Client ID:	BH1-23-SS4	-	-	-
	Sample Date:	09-Mar-23 09:00	-	-	-
	Sample ID:	2310483-01	-	-	-
	MDL/Units	Soil	-	-	-
Physical Characteristics					
% Solids	0.1 % by Wt.	86.3	-	-	-
General Inorganics			•		
рН	0.05 pH Units	7.85	-	-	-
Resistivity	0.1 Ohm.m	29.9	-	-	-
Anions			•		•
Chloride	10 ug/g dry	80	-	-	-
Sulphate	10 ug/g dry	68	-	-	-



Project #: 286278

Logged By: WT

Project: Geotechnical Investigation

Client: Siacku Limited

Location: 1188 and 1196 Cummings Avenue, Ottawa, Ontario

Drill Date: January 28, 2021

Project Manager: WT

SUBSURFACE PRO	FILE					_	SAMPLE			
Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-values	SPT N-values Shear Strength kPa 50 100 150 200	Lab Analysis	Moisture (%)	Plasticity Index
Ground Surface	98.63	4250								
trace organics, frozen	98.17	fled ——— ball	SS	1	80	8	•			
	07.44	io Monitoring Well Instal	SS	2	80	13	•			
Shale Bedrock Blackish brown highly weathered shale bedrock			SS	3	100	>50				
auger refusal on weathered		±								
	Ground Surface Fill Brown sand and gravel, trace silt trace organics, frozen Brown sand, trace silt, trace shall bedrock, compact, damp Shale Bedrock Blackish brown highly weathered shale bedrock End of Borehole Borehole terminated at approximately 2.13 mbgs due auger refusal on weathered shale bedrock. No groundwate was encountered at drilling	Ground Surface 98.63 Fill Brown sand and gravel, trace slit, trace organics, frozen 98.17 Brown sand, trace slit, trace shale bedrock, compact, damp 97.11 Shale Bedrock Blackish brown highly weathered shale bedrock End of Borehole Borehole terminated at approximately 2.13 mbgs due to auger refusal on weathered shale bedrock. No groundwater was encountered at drilling	Description Ground Surface Fill Brown sand and gravel, trace silt, trace organics, frozen Palletsul jian bullouw 98.17 Brown sand, trace silt, trace shale bedrock, compact, damp Palletsul jian bullouituow 97.11 Shale Bedrock Blackish brown highly weathered shale bedrock End of Borehole Borehole terminated at approximately 2.13 mbgs due to auger refusal on weathered shale bedrock. No groundwater was encountered at drilling	Description Continuous Con	Description Ground Surface Ground Surface 98.63 Fill Brown sand and gravel, trace slit, trace organics, frozen 98.17 Brown sand, trace slit, trace shale bedrock, compact, damp 97.11 Shale Bedrock Blackish brown highly weathered shale bedrock End of Borehole Borehole terminated at approximately 2.13 mbgs due to auger refusal on weathered shale bedrock. No groundwater was encountered at drilling	Description Compact C	Description C	Description Part	Description Compact C	Description Compared by Description Compared by Description Descr

Contractor: Strata Drilling Group

Drilling Method: Hollow Stem Auger / Split Spoon

Well Casing Size: N/A

Grade Elevation: 98.63 m

Top of Casing Elevation: N/A



Project #: 286278

Logged By: WT

Project: Geotechnical Investigation

Client: Siacku Limited

Location: 1188 and 1196 Cummings Avenue, Ottawa, Ontario

Drill Date: January 28, 2021

Project Manager: WT

	- 935		SAMPLE	10					E .	SUBSURFACE PROFIL		
Moisture (%) Plasticity Index		Lab Analysis	SPT N-values Shear Strength kPa 50 100 150 200	SPT N-values	Recovery (%)	Sampler #	Sample Type	Monitoring Well Details	Elevation (m)	Description	Symbol	Depth (m)
	Ť							es:	98.66	Ground Surface	***	0-
			1. 0. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	15	100	1	SS		98.51	Brown sand and gravel, trace silt, frozen Glacial Till Brown silty sand and gravel, compact, damp	# 	,
				19	100	2	SS	No Monitoring Well Installed	97.90	Brown sand, trace gravel, trace silt, compact, damp		1-
1						7		No Mo	97.14	Trace weathered shale bedrock		-
			•	38	100	3	SS			Trace weathered shale bedrook		
			/	_				*	96.53	End of Borehole	H	2-
										Borehole terminated at approximately 2.13 mbgs due to auger refusal on weathered shale bedrock. No groundwater was encountered at drilling completion.		3-
										approximately 2.13 mbgs due to auger refusal on weathered shale bedrock. No groundwater was encountered at drilling		3-

Contractor: Strata Drilling Group

Drilling Method: Hollow Stem Auger / Split Spoon

Well Casing Size: N/A

Grade Elevation: 98.66 m

Top of Casing Elevation: N/A



Project #: 286278

Logged By: WT

Project: Geotechnical Investigation

Client: Siacku Limited

Location: 1188 and 1196 Cummings Avenue, Ottawa, Ontario

Drill Date: January 28, 2021

Project Manager: WT

SUBSURFACE PROFILE				SAMPLE									
Depth (m)	Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-values	Shear Strength kPa 50 100 150 200 R9 50 100 150 150 150 150 150 150 150 150				
0-	~~~	Ground Surface	98.81	*									
-	 	Brown sand and gravel, trace silt, frozen Glacial Till Brown silty sand and gravel, loose, damp	98.61		SS	1	100	7					
-	<i>X X</i>	Brown sand, trace gravel, trace silt, loose, damp	96.05	No Monitoring Well Installed —	SS	2	100	9					
1	1		97.29	ing	5		1						
,	<i>\\</i>	Trace weathered shale bedrock		No Monito	SS	3	80	13					
1	11		96,52										
- Annaham		Shale Bedrock Blackish brown highly weathered shale bedrock, wet	96.07		SS	4	80	<50					
3		End of Borehole Borehole terminated at approximately 2.74 mbgs due to auger refusal on weathered shale bedrock. Groundwater measured at approximately 2.30 mbgs, at drilling completion.											

Contractor: Strata Drilling Group

Drilling Method: Hollow Stem Auger / Split Spoon

Well Casing Size: N/A

Grade Elevation: 98.81 m

Top of Casing Elevation: N/A



Project #: 286278

Logged By: WT

Project: Geotechnical Investigation

Client: Siacku Limited

Location: 1188 and 1196 Cummings Avenue, Ottawa, Ontario

Drill Date: January 28, 2021

Project Manager: WT

Ground Surface Own silty sand, trace gravel, trace y, frozen	66 Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-values	SPT N-values 8 9 Shear Strength	alysis	e (%)	Plasticity Index
wn silty sand, trace gravel, trace y, frozen		*		Sar	Reco	SPTN	kPa 50 100 150 200	Lab Analysis	Moisture (%)	Plasticit
own silty sand, trace gravel, trace y, frozen	00.00									
acial Till own sand and silt, some y, trace gravel, damp, npact	99.23	nstalled	SS	1	100	22		Hyd.	18.1	
pale Bedrock	98.67	Well li					1			
ale bedrock		—— No Monitoring	SS	2	100	40				
	97.45	*	SS	3	100	>50				
End of Borehole rehole terminated at proximately 1.98 mbgs due auger refusal on weathered ale bedrock. No undwater was encountered brilling completion.										
	End of Borehole The service of the	enpact 98.67 ale Bedrock ckish brown highly weathered le bedrock ehole terminated at broximately 1.98 mbgs due uger refusal on weathered le bedrock. No undwater was encountered	enpact Section 198.67 1	End of Borehole The hole terminated at proximately 1.98 mbgs due auger refusal on weathered ale bedrock. No aundwater was encountered	End of Borehole The hole terminated at proximately 1.98 mbgs due auger refusal on weathered ale bedrock. No undwater was encountered	End of Borehole ehole terminated at proximately 1.98 mbgs due auger refusal on weathered ale bedrock. No andwater was encountered	End of Borehole ehole terminated at proximately 1.98 mbgs due auger refusal on weathered ale bedrock. No undwater was encountered	End of Borehole ehole terminated at proximately 1.98 mbgs due auger refusal on weathered ale bedrock. No undwater was encountered	End of Borehole ehole terminated at proximately 1.98 mbgs due auger refusal on weathered ale bedrock. No undwater was encountered	End of Borehole ehole terminated at proximately 1.98 mbgs due auger refusal on weathered ale bedrock. No undwater was encountered

Contractor: Strata Drilling Group

Drilling Method: Hollow Stem Auger / Split Spoon

Well Casing Size: N/A

Grade Elevation: 99.43 m

Top of Casing Elevation: N/A



Project #: 286278

Logged By: WT

Project: Geotechnical Investigation

Client: Siacku Limited

Location: 1188 and 1196 Cummings Avenue, Ottawa, Ontario

Drill Date: January 28, 2021

Project Manager: WT

SUBSURFACE PROFILE						SAMPLE									
Deptin (m)	Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-values	SPT N-values Shear Strength KPa FPa 50 100 150 200 Bastloit Index						
0-	7077	Ground Surface	99.44												
	₩	Asphalt ~ 40 mm		Ţ	5000		i delle	75							
		Brown sand and gravel, trace silt, frozen	00.00		SS	1	100	47							
-	m	Glacial Till	98.68					_							
-	,	Brown silty sand and gravel, loose, damp		Installed —	SS	2	100	5							
1	4		97.92	Well											
	71 71	Very dense, moist		No Monitoring Well Installed	ss	3	30	>50							
	4		97.15	Ī		0		- 0	× ×						
- Andrewsky and a second		Shale Bedrock Blackish brown higly weathered shale bedrock, wet	96.39		SS	4	100	58							
	***	End of Borehole	90.09	¥											
		Borehole terminated at approximately 3.05 mbgs due to auger refusal on weathered shale bedrock. Groundwater measured at approximately 2.30 mbgs, at drilling completion.													

Contractor: Strata Drilling Group

Drilling Method: Hollow Stem Auger / Split Spoon

Well Casing Size: N/A

Grade Elevation: 99.44 m

Top of Casing Elevation: N/A



Project #: 286278

Logged By: WT

Project: Geotechnical Investigation

Client: Siacku Limited

Location: 1188 and 1196 Cummings Avenue, Ottawa, Ontario

Drill Date: January 28, 2021

Project Manager: WT

SUBSURFACE PROFILE					SAMPLE									
Symbol of my Support	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-values	SPT N-values Shear Strength kPa 50 100 150 200	Lab Analysis	Moisture (%)	Plasticity Index			
	Ground Surface	99.27	4											
	Organics ~ 100 mm	99.17	1											
- X	Glacial Till Brown silty sand, some gravel, some clay, frozen			SS	1	80	10							
	1	98.51												
14	Compact, damp	10	talle											
			No Monitoring Well Installed	SS	2	90	10	10	Hyd.	17.8				
1			onito	10										
	Brown sand, trace silt, trace gravel, damp	97.44	No Mc	SS	3	80	20	•						
	Shale Bedrock Blackish brown higly weathered shale bedrock End of Borehole	96.98	*	SS	4	30	>50							
	Borehole terminated at approximately 2.44 mbgs due to auger refusal on weathered shale bedrock. No groundwater was encountered at drilling completion.													

Contractor: Strata Drilling Group

Drilling Method: Hollow Stem Auger / Split Spoon

Well Casing Size: N/A

Grade Elevation: 99.27 m

Top of Casing Elevation: N/A



APPENDIX 2

FIGURE 1 - KEY PLAN

FIGURES 2 & 3 - SEISMIC SHEAR WAVE VELOCITY PROFILES

DRAWING PG6604-1 - TEST HOLE LOCATION PLAN

Report: PG6604-1 Revision 3 December 18, 2023

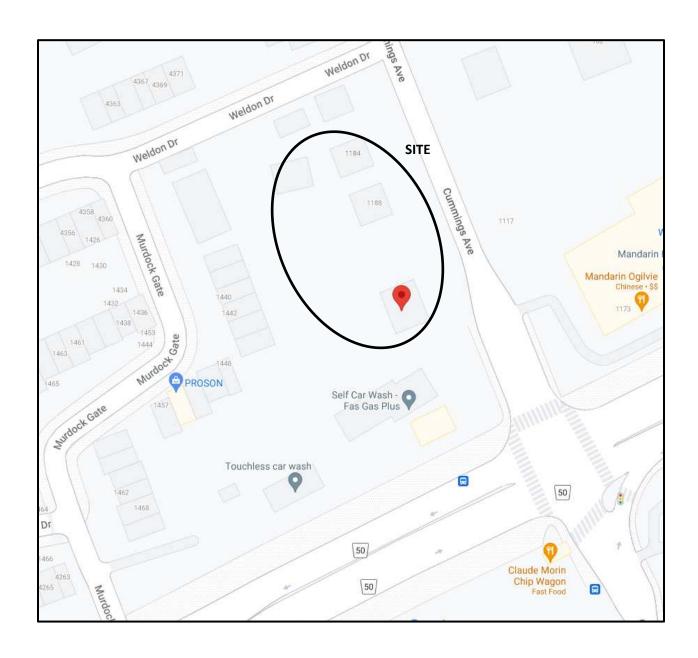


FIGURE 1

KEY PLAN



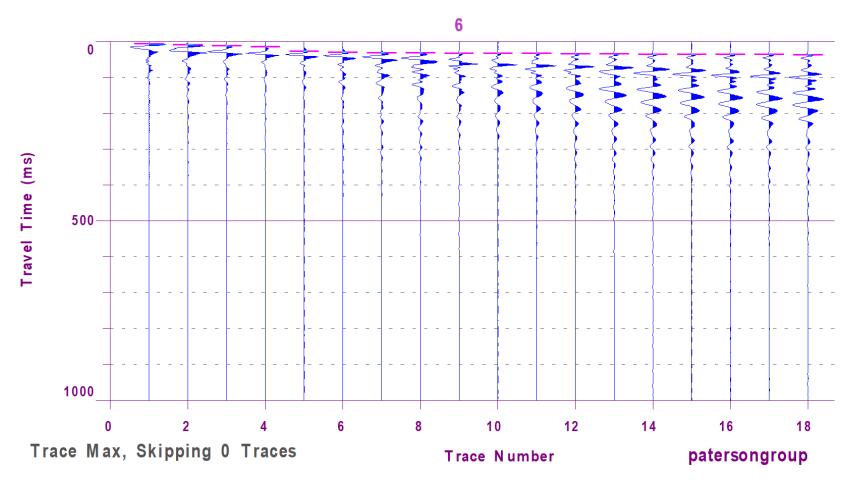


Figure 2 – Shear Wave Velocity Profile at Shot Location -1.5 m



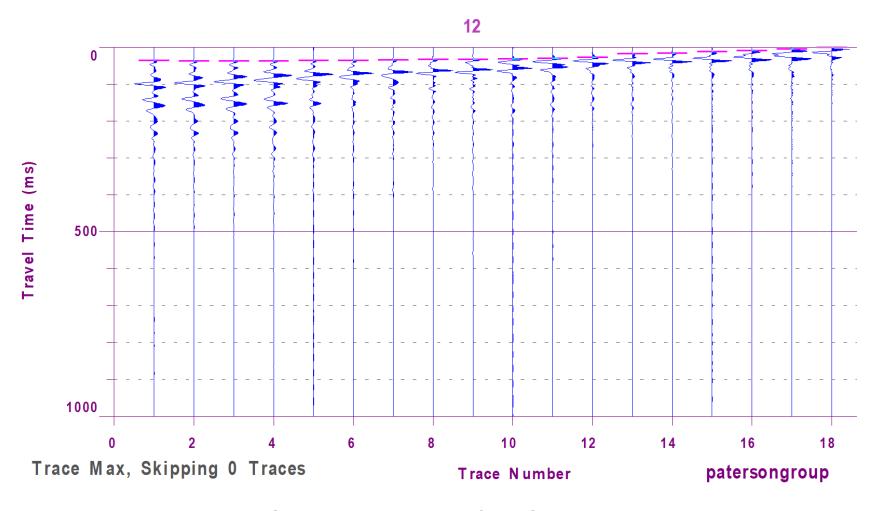
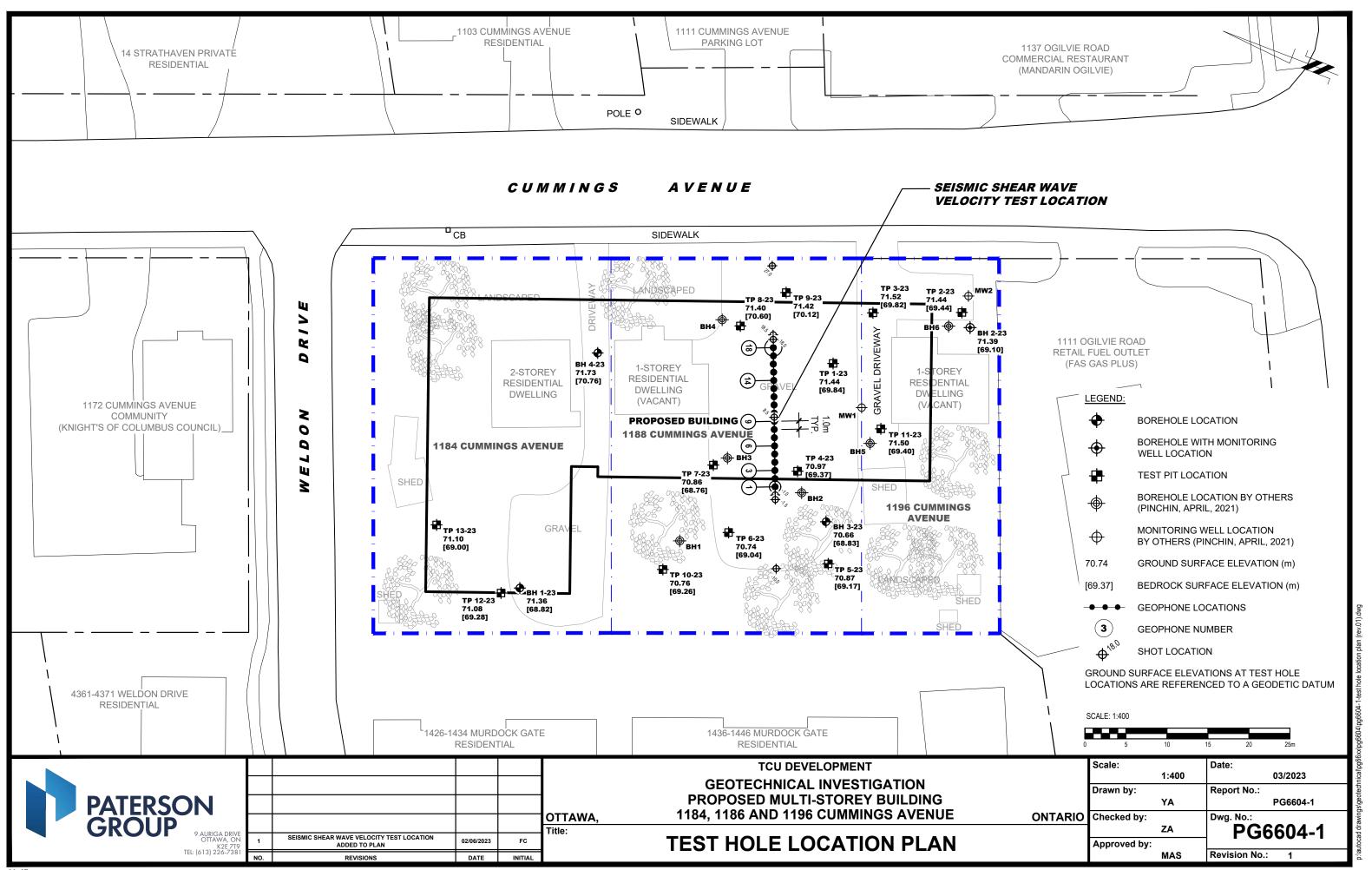


Figure 3 – Shear Wave Velocity Profile at Shot Location 18 m





E.2 Phase I Environmental Site Assessment by Paterson Group, March 2023





Phase I Environmental Site Assessment

1184, 1188 and 1196 Cummings Avenue Ottawa, Ontario

Prepared for TCU Development Corporation

Report: PE5990-1 Date: March 8, 2023

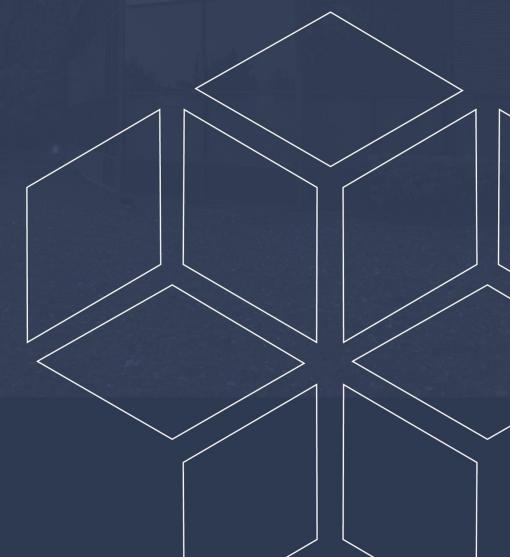




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Drawing PE5990-2 - Surrounding Land Use Plan

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Appendix 1 Plan of Survey

Aerial Photographs Site Photographs

Appendix 2 MECP Freedom of Information Response

TSSA Correspondence City of Ottawa HLUI Search

ERIS Report

Appendix 3 Qualifications of Assessors



EXECUTIVE SUMMARY

Assessment

Paterson Group was retained by TCU Development Corporation to conduct a Phase I-Environmental Site Assessment (ESA) for the properties addressed 1184, 1188 and 1196 Cummings Avenue, in the City of Ottawa, Ontario. The purpose of this Phase I-ESA was to research the past and current use of the Phase I Property and 250m Phase I Study Area, and to identify any environmental concerns with the potential to have impacted the Phase I Property.

According to the historical research and personal interviews, the Phase I Property was first developed with the existing residential dwellings circa 1952. No historical potentially contaminating activities (PCAs) were identified on the Phase I Property.

Based on available historical information, adjacent and surrounding properties within the Phase I Study Area were primarily used for residential and commercial purposes. Historical off-site PCAs include former retail fuel outlets, an automotive service garage and a contractors yard (with an associated underground storage tank). Based on the separation distances and/or down/cross-gradient orientation with respect to the Phase I Property, these PCAs are not considered to result in areas of potential environmental concern (APEC) on the Phase I Property.

Following the historical research, a site visit was conducted. The Phase I Property is currently occupied by a two-storey residential duplex (1184 Cummings Avenue), two vacant one-storey residential dwellings (1188 and 1194 Cummings Avenue) and five outbuildings of various uses. No concerns were identified with the current use of the Phase I Property.

The current uses of the adjacent and neighbouring properties within the Phase I Study Area consists of residential use to the west and north and commercial use to the east and south. A retail fuel outlet was identified at the property addressed 1111 Ogilvie Road, adjacent to the south of the Phase I Property. The retail fuel outlet is not considered to represent an environmental concern to the Phase I Property based on the results of the 2019 Phase II ESA conducted on the 1188 and 1196 portions of the Phase I Property. Based on the separation distances and/or down/cross-gradient orientation with respect to the Phase I Property, remaining existing PCAs in the Phase I Study Area are not considered to result in areas of potential environmental concern (APEC) on the Phase I Property.

Based on the findings of the Phase I ESA, it is **our opinion that a Phase II-Environmental Site Assessment is not required for the Phase I Property.**

Report: PE5990-1 Page ii

Ottawa, Ontario



1.0 INTRODUCTION

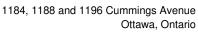
At the request of the TCU Development Corporation, Paterson Group (Paterson) conducted a Phase I-Environmental Site Assessment (Phase I-ESA) for the properties addressed 1184, 1188 and 1196 Cummings Avenue, in the City of Ottawa, Ontario. The purpose of this Phase I-ESA was to research the past and current use of the Phase I Property and properties within the Phase I Study Area to identify any potentially contaminating activities (PCAs) that would result in areas of potential environmental concern (APECs) on the subject land.

Paterson was engaged to conduct this Phase I-ESA by Mr. Dylan Desjardins with TCU Development Corporation. Mr. Desjardins can be reached by telephone at (613)-725-4722.

This report has been prepared specifically and solely for the above noted project which is described herein. It contains all our findings and results of the environmental conditions at this site.

This Phase I-ESA report has been prepared in general accordance with Ontario Regulation (O.Reg.) 153/04, as amended, under the Environmental Protection Act, and CSA Z768-01 (reaffirmed 2022). The conclusions presented herein are based on information gathered from a limited historical review and field inspection program. The findings of the Phase I-ESA are based on a review of readily available geological, historical and regulatory information and a cursory review made at the time of the field assessment. The historical research relies on information supplied by others, such as, local, provincial and federal agencies and was limited within the scope-of-work, time and budget of the project herein.

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2.0 PHASE I PROPERTY INFORMATION

Address: 1184, 1188 and 1196 Cummings Avenue, Ottawa,

Ontario.

Legal Description: Part of Lot 1, Registered Plan 4R-26865; in the City of

Ottawa, Ontario.

Property Identification

Number (PIN): 04265-0025, 04265-0026, 04265-0027

Location: The Phase I Property is located on the west side of

Cummings Avenue, approximately 45 m north of Ogilvie Road, in the City of Ottawa, Ontario. For the purposes of this report, Cummings Avenue is assumed to run north-south. Refer to Figure 1 - Key Plan in the

Figures section following the text.

Latitude and Longitude: 45° 25' 36" N, 75° 37' 57" W

Site Description:

Configuration: Rectangular

Area: 0.35 ha (approximate)

Zoning: R3 – Residential Third Density Zone

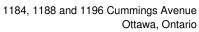
Current Use: The Phase I Property is currently occupied by three

residential dwellings, two of which are vacant.

Services: The Phase I Property is situated in a municipally

serviced area.

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3.0 SCOPE OF INVESTIGATION

e scope of work for this Phase I – Environmental Site Assessment was as lows:
Determine the historical activities on the subject site and study area by conducting a review of readily available records, reports, photographs, plans, mapping, databases, and regulatory agencies;
Investigate the existing conditions present at the subject site and study area by conducting site reconnaissance;
Conduct interviews with persons knowledgeable of current and historic operations on the subject properties, and if warranted, neighbouring properties;
Present the results of our findings in a comprehensive report in general accordance with the requirements of O.Reg. 153/04, as amended, under the Environmental Protection Act, and CSA Z768-01 (reaffirmed 2022);
Provide a preliminary environmental site evaluation based on our findings;
Provide preliminary remediation recommendations and further investigative work if contamination is suspected or encountered.

Report: PE5990-1 Page 3

Ottawa, Ontario



4.0 RECORDS REVIEW

4.1 General

Phase I-ESA Study Area Determination

A radius of approximately 250m was determined to be appropriate as a Phase I Study Area for this assessment. Properties outside the 250m radius are not considered to have impacted the Phase I Property, based on their significant distance from the Phase I Property.

First Developed Use Determination

Based on a review of available historical information, the Phase I Property was first developed for residential purposes circa 1952.

Fire Insurance Plans

Fire insurance plans (FIPs) are not available for the area of the Phase I Property or the surrounding lands.

City of Ottawa Street Directories

City directories at the National Archives were reviewed in approximate 10-year intervals from 1935 to 2011 as part of the Phase I-ESA.

The three parcels that comprise the Phase I Property were first listed in 1970 as residential dwellings and have remained as such since that time. No concerns were identified with the historical use of the Phase I Property.

Surrounding properties in the Phase I Study Area were historically listed as residential dwellings and commercial businesses.

Potentially contaminating activities identified from a review of the City Directories are listed in Table 1.

Report: PE5990-1 Page 4



	tentially Cor ries Review	ntaminating <i>A</i> Summary	Activities		
Listing	Address	Approx. Distance from Phase I Property	Years Listed	Potentially Contaminating Activity	Represents an Area of Potential Environmental Concern (Y/N)
Calex Service Station / Global Fuels Inc.	1111 Ogilvie Road	Adjacent to South	1975, 1980, 1990, 2000, 2011	"Item 28: Gasoline and Associated Products Storage in Fixed Tanks"	N
Atlas Welding and Equipment Rentals	1091 Cummings Avenue	20 m E	1970, 1980, 1992	"Item 28: Gasoline and Associated Products Storage in Fixed Tanks"	N
Top Value Gas Mart / Pioneer Petroleums	1134 Ogilvie Road	80 m SE	1980, 1990, 2000, 2011	"Item 28: Gasoline and Associated Products Storage in Fixed Tanks"	N
Kenoco Gas Mart	1110 Ogilvie Road	80 m S	1970	"Item 28: Gasoline and Associated Products Storage in Fixed Tanks"	N
Latremouille Fuels	1151 Ogilvie Road	85 m E	1980	"Item 28: Gasoline and Associated Products Storage in Fixed Tanks"	N
Top Stop Gas Station	1154 Ogilvie Road (present day 1150 Ogilvie Road)	105 m SE	1990	"Item 28: Gasoline and Associated Products Storage in Fixed Tanks"	N
Tremblay Auto Repair / Auto Choice 417 Inc.	1129 - 1133 Cyrville Road	165 m S	1980, 2011	"Item 52: Storage, maintenance, fuelling and repair of equipment, vehicles, and material used to maintain transportation systems"	N
One Stop Laundromat & Dry Cleaner	1099 Cyrville Road	175 m SW	2011	"Item 37: Operation of Dry Cleaning Equipment (where chemicals are used)"	N
Manis Metal Manufacturing Ltd.	1120 Cummings Avenue	180 m N	1970, 1980, 1992	"Item N/A: Commercial Machine Shop"	N
Sk Auto Repair	1057 Cyrville Road	210 m SW	2011	"Item 52: Storage, maintenance, fuelling and repair of equipment, vehicles, and material used to maintain transportation systems"	N

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The property addressed 1111 Ogilvie Road, adjacent to the south of the Phase I Property, has been listed as various retail fuel outlets since the mid 1970's. As further discussed in the Previous Engineering Reports section of this report, the historic/existing function of the 1111 Ogilvie Road property is not considered to represent an environmental concern to the Phase I Property based on the results of the 2019 Phase II ESA (conducted on the 1188 and 1196 portions of the Phase I Property).

The property addressed 1091 Cummings Avenue, approximately 20 m east of the Phase I Property, was listed as Atlas Welding and Equipment Rental from the 1970's to the mid 1990's. As further discussed in the Environmental Risk Information Service (ERIS) Report section of this report, an underground fuel storage tank was historically present on the 1091 Cummings Avenue property, however based on the separation distance of the activities of concern and the extensive redevelopment of the property, the former use of the 1091 Cummings Avenue property is not considered to represent an environmental concern on the Phase I Property.

The remaining off-site historical PCAs are not considered to represent areas of potential environmental concern (APECs) based on the separation distances and/or down-or-cross gradient orientation with respect to the Phase I Property. Historical PCAs identified in the City of Ottawa Street Directories review are shown on Drawing PE5990-2- Surrounding Land Use Plan.

Chain of Title

Given the available information, it was determined that the results of a chain of title search would not contribute to the environmental assessment for the Phase I Property. Therefore, a chain of title search was not completed as part of this assessment.

Plan of Survey

A plan of survey for the Phase I Properly, prepared by Annis, O'Sullivan Vollebekk Limited was reviewed as part of the Phase I ESA. The plan shows the Phase I Property in its current configuration. A copy of the topographic plan of survey is provided in Appendix 1.

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Previous Environmental Reports

"Phase I Environmental Site Assessment, 1188 and 1196 Cummings Avenue, Ottawa, Ontario", prepared by Pinchin Ltd., dated August 29, 2019.

A Phase I ESA was conducted on the portions of the Phase I Property addressed 1188 and 1196 Cummings Avenue in August of 2019. The Phase I ESA did not identify any environmental concerns with regard to the historical or current use of the Phase I Property. A retail fuel outlet was identified on the property addressed 1111 Ogilvie Road, adjacent to the south of the Phase I Property. Pinchin recommended a Phase II ESA to address potential impacts resulting from the retail fuel outlet located at 1111 Ogilvie Road, adjacent to the south of the Phase I Property.

"Phase II Environmental Site Assessment, 1188 and 1196 Cummings Avenue, Ottawa, Ontario", prepared by Pinchin Ltd., dated October 3, 2019.

A Phase II ESA was conducted on the portions of the Phase I Property addressed 1188 and 1196 Cummings Avenue in September and October of 2019. As part of the Phase II ESA, two boreholes outfitted with monitoring wells (MW1 and MW2) were drilled on the 1196 Cummings Avenue property. Soil and groundwater samples were submitted for analysis of petroleum hydrocarbons (PHCs), volatile organic compounds (VOCs) and/or polycyclic aromatic hydrocarbons (PAHs). Test results were compared to and comply with the MECP Table 3 Standards for residential/parkland/institutional land use. Based on the findings of the 2019 Phase II ESA, no further work was recommended.

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"Phase I Environmental Site Assessment, 1184, 1188 and 1196 Cummings Avenue, Ottawa, Ontario", prepared by Pinchin Ltd., dated January 20, 2023.

At the time of the assessment, the Phase I Property was developed with two, single-storey residential dwellings and a two-storey multi-tenant residential dwelling. The Phase I ESA did not identify any environmental concerns with regard to the historical or current use of the Phase I Property. The retail fuel outlet previously identified on the property addressed 1111 Ogilvie Road, adjacent to the south of the Phase I Property was not considered to represent an environmental concern to the Phase I Property based on the results of the 2019 Phase II ESA (conducted on the 1188 and 1196 portions of the Phase I Property). A second retail fuel outlet was identified at the property addressed 1134 Ogilvie Road, approximately 80 m southeast of the Phase I Property. Based on the separation distance and down-gradient orientation with respect to the Phase I Property, the retail fuel outlet located at 1134 Ogilvie Road was not considered to represent an environmental concern to the Phase I Property. No further work was recommended as a result of the 2023 Phase I ESA.

4.2 Environmental Source Information

Environment Canada

A search of the National Pollutant Release Inventory (NPRI) was conducted electronically on February 27, 2023. No records were found in the NPRI database for properties within the Phase I Study Area.

PCB Inventory

A search of provincial PCB waste storage sites was conducted. No PCB waste storage sites were identified within the Phase I Study Area.

Areas of Natural Significance

A search for areas of natural significance and features within the Phase I Study Area was conducted on the website of the Ontario Ministry of Natural Resources (MNR) on February 27, 2023. The search did not reveal any areas of natural significance within the Phase I Study Area.

Report: PE5990-1 Page 8



Ministry of the Environment, Conservation and Parks Freedom of Information Request

A request was submitted to the MECP FOI office for information with respect to reports related to environmental conditions for the properties. At the time of issuing this report, a response had not been received from the MECP. A copy of the response will be forwarded to the client if it contains any pertinent information.

MECP Instruments

A request was submitted to the MECP Freedom of Information (FOI) office for information with respect to certificates of approval, permits to take water, certificates of property use or any other similar MECP issued instruments for the site. At the time of issuing this report, a response had not been received from the MECP. A copy of the response will be forwarded to the client if it contains any pertinent information.

MECP Waste Management Records

A request was submitted to the MECP FOI office for information with respect to waste management records. At the time of issuing this report, a response had not been received from the MECP. A copy of the response will be forwarded to the client if it contains any pertinent information.

MECP Submissions

A request was submitted to the MECP FOI office for information with respect to reports related to environmental conditions for the Phase I Property. At the time of issuing this report, a response had not been received from the MECP. A copy of the response will be forwarded to the client if it contains any pertinent information.

MECP Incident Reports

A request was submitted to the MECP FOI office for information with respect to records concerning environmental incidents, orders, offences, spills, discharges of contaminants, inspections maintained by the MECP the for Phase I Property or neighbouring properties. At the time of issuing this report, a response had not been received from the MECP. A copy of the response will be forwarded to the client if it contains any pertinent information.

Report: PE5990-1 Page 9



MECP Brownfields Environmental Site Registry

A search of the MECP Brownfields Environmental Site Registry (ESR) was conducted as part of this assessment for the site, neighbouring properties and the general area of the site. No record of site condition (RSC) was identified for the Phase I Property or properties within the Phase I Study Area.

MECP Waste Disposal Site Inventory

The Ontario Ministry of Environment document titled "Waste Disposal Site Inventory in Ontario, 1991" was reviewed as part of the historical research. This document includes all recorded active and closed waste disposal sites, industrial manufactured gas plants and coal tar distillation plants in the Province of Ontario. There are no former waste disposal sites listed in this document within the Phase I Study Area.

Technical Standards and Safety Authority (TSSA)

The TSSA, Fuels Safety Branch in Toronto, was contacted electronically on February 27, 2023 to inquire about current and former underground/aboveground storage tanks, spills, and incidents for the subject and neighbouring properties. response from the TSSA indicated that no records were identified pertaining to the Phase I Property.

The property addressed 1111 Ogilvie Road, adjacent to the south of the Phase I Property, contains three records for expired full-service retail fuel outlets, one record for an active self-serve retail fuel outlet and six records for active liquid fuel tanks. Given the results of the Phase II ESA conducted on the 1188 and 1196 Cummings Avenue in 2019, the presence of the existing retail fuel outlet at 1111 Ogilvie Road, adjacent to the south of the Phase I Property, is not considered to represent an environmental concern to the Phase I Property.

City of Ottawa Historical Land Use Inventory (HLUI)

A request for a search of the City of Ottawa's Historical Land Use Inventory (HLUI) database was submitted to the City of Ottawa. A response had not been received at the time of issuing this report. A copy of the search results will be forwarded to the client upon receipt. A copy of the HLUI request form is provided in Appendix 2.

City of Ottawa Landfill Document

The document prepared by Golder Associates entitled "Old Landfill Management Strategy, Phase I - Identification of Sites, City of Ottawa", was reviewed. No former landfills were identified within the Phase I Study Area.

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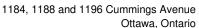
Environmental Risk Information Service (ERIS) Report

An ERIS (Environmental Risk Information Service) Report was obtained for the Phase I Property and surrounding lands. The ERIS report includes information that can normally be obtained through the MECP FOI, a TSSA search, MECP well records search as well as several other records (i.e., incident reports, waste generators, etc.). The ERIS search identified two records for the Phase I Property (one of which is a previous ERIS search) and 170 records for the surrounding properties within the Phase I Study Area (11 of which are previous ERIS searches), several of which are associated with the properties addressed 1111 Ogilvie Road (adjacent to the south), 1134 Ogilvie Road (80 m southeast) and 1154 Ogilvie Road (105 m southeast) and their historic/existing functions as retail fuel outlets.

The ERIS report identified one well record for the Phase I Property. The well records for the Phase I Property and for properties within the Phase I Study Area are further discussed in the Water Well Records section of this assessment.

The ERIS report identified 51 Waste Generator records for properties within the Phase I study area, several of which are associated with the properties addressed 1111 Ogilvie Road (adjacent to the south), 1134 Ogilvie Road (80 m southeast) and 1154 Ogilvie Road (alternatively addressed 1150 Ogilvie Road) (105 m southeast) and their historic/existing functions as retail fuel outlets. The waste classes documented include light fuels, oil skimmings, waste oils and lubricants, etc. As previously discussed, the historic/existing function of the 1111 Ogilvie Road property is not considered to represent an environmental concern to the Phase I Property based on the results of the 2019 Phase II ESA (conducted on the 1188 and 1196 portions of the Phase I Property). Several remaining waste generator records are associated with PCAs previously identified within the Phase I Study Area, however, due to their respective separation distances and/or cross/downgradient orientation with respect to the Phase I Property these PCAs are not considered to represent APECs. Remaining waste generator records identified in the ERIS report are not considered to represent PCAs based on information contained within the records.

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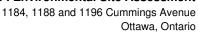




The ERIS report identified four Scott's Manufacturing Directory records for properties within the Phase I Study Area. Three of which pertain to the property addressed 1120 Cummings Avenue, approximately 180 m north of the Phase I Property. The records list a metal window and door manufacturing facility. Based on the separation distance and cross-gradient orientation with respect to the Phase I Property, the function of the 1120 Cummings Avenue property is not considered to represent an environmental concern on the Phase I Property. The remaining Scott's Manufacturing Directory record identified in the ERIS report is not considered to represent a PCA based on information contained within the record.

The ERIS report identified various records pertaining to both current and historic fuel oil tanks. Several records for underground fuel storage tanks were identified for the property addressed 1111 Ogilvie Road, adjacent to the south of the Phase I Property, all of which pertain to its function as a retail fuel outlet since as early as 1977 (based on the records in the ERIS report). As previously discussed, the historic/existing function of the 1111 Ogilvie Road property is not considered to represent an environmental concern to the Phase I Property based on the results of the 2019 Phase II ESA (conducted on the 1188 and 1196 portions of the Phase I Property). Historic fuel tank records were identified for the property addressed 1091 Cummings Avenue, 20 m east of the Phase I Property, stating that a liquid fuel single wall underground storage tank installed in 1985 was removed in August, 2007. Based on aerial photos from this time, the activities of concern on the 1091 Cummings Avenue property would have occurred a minimum of 40 m from the Phase I Property, therefore, based on the separation distance of the activities of concern and the extensive redevelopment of the property, the former use of the 1091 Cummings Avenue property is not considered to represent an environmental concern on the Phase I Property. Several records for underground fuel storage tanks were identified for the property addressed 1134 Ogilvie Road, approximately 80 m southeast of the Phase I Property, all of which pertain to its function as a retail fuel outlet since as early as 1991 (based on the records in the ERIS report). Several records for underground fuel storage tanks were identified for the property addressed 1154 Ogilvie Road, approximately 105 m southeast of the Phase I Property, all of which pertain to its former function as a retail fuel outlet since as early as 1990 (based on the records in the ERIS report). Based on the listed separation distance and/or cross/down-gradient orientation with respect to the Phase I Property, the function of the properties associated with the various fuel records are not considered to pose an environmental concern to the Phase I Property

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The ERIS report identified five Ontario Spill records for properties within the Phase I study area. Two of the records identified pertain to unknown addresses on Cummings Avenue south of Ogilvie Road. The two records dated June 1992 and February 2004 pertain to minimal spills of hydraulic oil and diesel fuel, respectively. Based on the listed description of the spills and the unknown specific location, these records are not considered to pose a concern to the Phase I Property. One Ontario spill record was identified for the property addressed 1111 Ogilvie Road (adjacent to the south), occurring in August, 2016, the record is for a 0.5 L spill of coolant to a catch basin. Two Ontario spill records were identified for the property addressed 1134 Ogilvie Road (80 m southeast), occurring in March, 2001 and June, 2014, both records were for minimal spills of diesel fuel to the ground. Due to the listed description of the Ontario spill records, the respective separation distance and/or the down/cross-gradient orientation with respect to the Phase I Property, these records are not considered to pose an environmental concern to the Phase I Property.

The ERIS report identified three various incident records. Two of which pertain to natural gas leaks and are not considered to represent an environmental concern. The remaining incident record pertains to a gasoline spill of an unknown amount on the 1134 Ogilvie Road property, approximately 80 m southeast of the Phase I Property, in October of 2014. No remaining pertinent information was listed in the record. Given the lack of information contained in the record in combination with the separation distance from the Phase I Property, the Fuel Oil Spills and Leaks record for the 1134 Ogilvie Road property is not considered to represent an environmental concern.

The ERIS report identified 23 well records (and one borehole record), which are further discussed in the water well records section of this report.

The ERIS report identified seven certificates of approval and environmental compliance approvals for properties within the Phase I Study Area. The records are limited to air, sewer and water works and are not considered to pose an environmental risk to the Phase I Property.

4.3 Physical Setting Sources

Aerial Photographs

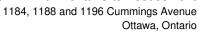
Historical air photos from the National Air Photo Library were reviewed in approximate ten (10) year intervals. Based on the review, the following observations have been made:

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1945	(Poor Quality) The Phase I Property appears to be vacant and undeveloped land at this time. Surrounding properties consist primarily of vacant and agricultural land with occasional farmsteads to the east and further south. Ogilvie Road has been developed approximately 40 m south of the Phase I Property at this time.
1952	(Poor Quality) The Phase I Property has been developed with the three existing residential dwellings. Residential development has occurred on the surrounding properties. Cummings Avenue has been developed adjacent to the east of the Phase I Property at this time.
1965	(City of Ottawa website) No significant changes are apparent with respect to the Phase I Property or the surrounding properties.
1976	(City of Ottawa website) No significant changes are apparent with respect to the Phase I Property. A retail fuel outlet has been developed on the property adjacent to the south of the Phase I Property (1111 Ogilvie Road). A commercial plaza has been developed approximately 20 m east of the Phase I Property.
1991	(City of Ottawa website) An outbuilding has been developed on the west portion of the 1196 Cummings Avenue portion of the Phase I Property. The property approximately 75 m southeast of the Phase I Property, across Ogilvie Road, has been developed with a retail fuel outlet. Significant residential development has occurred further north and west of the Phase I Property with some commercial development further to the southwest and southeast.
2002	(City of Ottawa website) The 1188 Cummings Avenue portion of the Phase I Property appears to have been stripped of topsoil and a granular parking area is present to the west and south of the residential dwelling. No significant changes are apparent with respect to the surrounding properties.
2011	(City of Ottawa website) An outbuilding has been developed on the north portion of the 1188 Cummings Avenue portion of the Phase I Property. The retail fuel outlet adjacent to the south of the Phase I Property has been further developed with a car wash. Residential development has continued to the northeast of the Phase I Property.
2021	(City of Ottawa website) No significant changes are apparent with respect to the Phase I Property or the surrounding properties.

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Laser copies of selected aerial photographs reviewed are included in Appendix 1.

Physiographic Maps

A Physiographic Map was reviewed from the Natural Resources Canada – The Atlas of Canada website. According to this physiographic map, the site is located in the St. Lawrence Lowlands. According to the mapping description provided: "The lowlands are plain-like areas that were all affected by the Pleistocene glaciations and are therefore covered by surficial deposits and other features associated with the ice sheets." The Phase I Property is located in the Central St. Lawrence Lowland, which is generally less than 150 m above sea level.

Topographic Maps

Topographic maps were obtained from Natural Resources Canada – The Atlas of Canada website and from the City of Ottawa website. The topographic map depicts topography in the area of the Phase I Property sloping gently downward to the west towards the Rideau River. An illustration of the referenced topographic map is presented on Figure 2 – Topographic Map, appended to this report.

Geological Maps

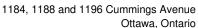
The Geological Survey of Canada website on the Urban Geology of the National Capital Area was consulted as part of this assessment. Based on the information from NRCAN, bedrock in the area of the site consists of shale of the Billings Formation. Based on the maps, the surficial geology consists of till with an overburden thickness ranging from 1 to 5 m.

Water Well Records

A search of the MECP's web site for all drilled well records within 250 m of the Phase I Property was conducted on February 27, 2023. The search identified two well records for the portion of the Phase I Property addressed 1196 Cummings Avenue. The monitoring wells were drilled in 2019 to depths ranging from 6.1 to 7.0 m below ground surface (mbgs). The soil profile was reported to consist of topsoil underlain by sand with stones. Shale bedrock was encountered at a depth of 2.4 m below ground surface in both wells. The wells were installed as part of the 2019 Phase II ESA as discussed in the Previous Engineering Reports section of this assessment.

A total of 40 well records were identified for surrounding properties within the Phase I Study Area. The reported wells records were dated between 1948 and 2020.

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Five records were identified for monitoring wells drilled in 2014, at the property addressed 1134 Ogilvie Road, approximately 80 m southeast of the Phase I Property, where an existing retail was identified. The wells were drilled to depths ranging from 2.8 to 4.6 m below ground surface (mbgs). The soil profile was generally reported to consist of gravel fill, underlain by a silty clay. Bedrock was not encountered at these depths. No other pertinent information was provided in these records.

Four well records were identified at the property addressed 1150 Ogilvie Road, approximately 105 m southeast of the Phase I Property, adjacent to the east of the aforementioned existing retail fuel outlet (at 1134 Ogilvie Road). Two of the records pertain to domestic wells installed in the late 1950's. The remaining two records pertain to monitoring wells installed in 2010. The wells were drilled to depths ranging from 3.1 to 4.3 m below ground surface (mbgs). The soil profile was reported to consist of sand with clay and gravel underlain by sand. Bedrock was not encountered at these depths. No other pertinent information was provided in these records.

The remaining records were identified as domestic wells or pertain to wells approximately 100 m or more away from the Phase I Property and are not considered to pose an environmental concern to the Phase I Property. Given the introduction of municipal water services since the installation of these domestic wells, it is our opinion that there are no domestic supply wells in service within the Phase I Study Area. Based on the well records, the stratigraphy in the general area of the Phase I Property consists of silty sand or clay underlain by shale bedrock encountered at depths ranging from approximately 0.61 to 7.6m below grade. A copy of the well records has been included in Appendix 2.

5.0 INTERVIEWS

Property Owner Representatives

Mr. Brendan Kuffner, with TCU Development Corporation, was interviewed via email correspondence as part of this assessment. Mr. Kuffner indicated that to his knowledge the Phase I Property was developed with the existing residential dwellings in the early 1950's and that the property has been used strictly for residential purposes since that time. Mr. Kuffner stated that he was unaware of any environmental concerns with regard to the Phase I Property, besides those addressed as part of previous environmental investigations. Mr. Kuffner was unaware of any asbestos/hazardous building materials assessment previously conducted for the subject buildings.

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The information obtained through the interview with Mr. Kuffner is considered to be consistent with site information obtained from other sources (aerial photos, ERIS Database Report and site observations) and is considered to be valid.

6.0 SITE RECONNAISSANCE

6.1 General Requirements

A site visit was conducted on March 7, 2023, by Mr. Jeremy Camposarcone with the Environmental Department of Paterson Group. In addition to the site, the uses of neighbouring properties within the Phase I Study Area were assessed at the time of the site visit from publicly accessible areas.

6.2 Specific Observations at the Phase I Property

Buildings and Structures

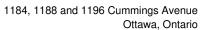
The Phase I Property is currently occupied by a two-storey residential duplex (1184 Cummings Avenue), two vacant one-storey residential dwellings (1188 and 1194 Cummings Avenue) and five outbuildings of various uses.

The two-storey residential duplex addressed 1184 Cummings Avenue is finished on the exterior with brick, and vinyl siding in addition to a sloped and shingled style roof. Constructed circa 1952, the building is constructed with a concrete foundation and is currently heated and cooled via a combination of natural gas-and electric means.

A storage shed is present to the west of the residential duplex on the 1184 Cummings Avenue property. The storage shed is constructed with a wood frame, plywood walls and flooring, in addition to a sloped weather-proof membrane roof. The storage shed has been outfitted to be used as a leisure space with full electricity.

A second storage shed is present on the northwest corner of the 1184 Cummings Avenue property. The second storage shed is constructed with a wood frame, plywood walls and a sloped and shingled style roof. The second storage shed was used to store various household items and yard maintenance equipment at the time of the site inspection.

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The vacant one-storey (with one basement level) residential dwelling addressed 1188 Cummings Avenue is finished on the exterior with vinyl siding and concrete block in addition to a sloped and shingled style roof. Constructed circa 1952, the building is constructed with a concrete foundation and is not currently serviced. However, natural gas services were noted to be present on the exterior of the subject building and assumed to be the most recent means of heating and cooling for the building.

The vacant one-storey (with one basement level) residential dwelling addressed 1196 Cummings Avenue is finished on the exterior with vinyl siding and pebble stucco in addition to a sloped and shingled style roof. Constructed circa 1952, the building is constructed with a concrete foundation and is not currently serviced. However, natural gas services were noted to be present on the exterior of the subject building and assumed to be the most recent means of heating and cooling for the building.

A storage shed is present to the west of the residential duplex on the 1196 Cummings Avenue property. The storage shed is constructed with a wood frame and is finished on the exterior with vinyl siding in addition to sloped and shingled style roof. The storage shed has been outfitted to be used as a leisure space with full electricity. The storage shed was used for the storage of miscellaneous items at the time of the site inspection.

Two small storage sheds are present on the southwest corner of the 1196 Cummings Avenue property. Both of which are constructed with metal siding and sloped and shingled style roofs. The two storage sheds were used for the storage of miscellaneous items at the time of the site inspection.

No other buildings or permanent structures are present on the Phase I Property.

Subsurface Structures and Utilities

The Phase I Property is situated in a municipally serviced area. Underground utility services on the subject land include natural gas, electricity, cable, water and sewer services. Services enter the Phase I Property from Cummings Avenue.

No subsurface structures, potable wells or private sewage systems were observed on the Phase I Property at the time of the site visit.

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Site Features

The subject buildings occupy the northeast, east-central and southeast portions of the Phase I Property, with the remainder consisting of gravel parking areas and landscaped areas. At the time of the site visit, no evidence of fill material, spills, staining, stressed vegetation, or visual or olfactory evidence of contamination were noted.

No other fuels or chemicals, or signs of ASTs or USTs were observed on the exterior of the property at the time of the site inspection.

Site drainage typically occurs through infiltration and sheet flow to catch basins located along Cummings Avenue. The Phase I Property has a gentle slope to the east and is slightly above the grade of Cummings Avenue. The regional topography slopes down to the west towards the Rideau River. Groundwater within the Phase I Study Area is generally expected to flow towards the west.

Site features are presented on Drawing PE5990-1 – Site Plan, provided in the Figures section following the text.

Potential Environmental Concerns

□ Fuels and Chemical Storage

No aboveground storage tanks (ASTs) or signs of underground storage tanks (USTs) were observed on the exterior of the Phase I Property at the time of the site inspection.

■ Waste Management

Solid, non-hazardous waste is stored in containers along the exterior of the west face of the 1184 Cummings Avenue property and is collected by a licensed contractor on a regular basis. No waste is currently generated on the 1188 and 1196 Cummings Avenue portions of the Phase I Property. No environmental concerns were identified with respect to waste management practices on the Phase I Property.

☐ Fill Material

No evidence of fill material was observed on the exterior of the Phase I Property at the time of the site inspection.

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□ Polychlorinated Biphenyls (PCBs) and Transformer (]	Polychlorinated	Biphenvis	(PCBs)	and	Transformer	Oi
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No potential sources of PCBs or transformer oil were observed on the exterior of the Phase I Property at the time of the site inspection.

Interior Assessment

A general description of the residential dwelling at 1184 Cummings Avenue is as follows:

Floors consist of poured concrete, ceramic tile, carpet, and laminate;

	Walls consist of concrete blocks or drywall; Ceilings consist of drywall or exposed wood joists; Lighting is provided by fluorescent and incandescent fixtures.
the ba buildi or sig	ng throughout the building is provided by a natural gas-fired boiler located in asement. No drains, pits or sumps were observed on the interior of the subjecting at the time of the site inspection. No aboveground storage tanks (ASTs) are of underground storage tanks (USTs) were observed on the interior of the rty at the time of the site visit.
A ger follow	neral description of the residential dwelling at 1188 Cummings Avenue is as s:
3 3 3	Floors consist of concrete, hardwood, vinyl tiles, laminate and ceramic tiles; Walls consist of drywall and wood panelling; Ceilings are finished with suspended ceiling tiles, drywall and stippled plaster;

An out-of-service natural gas fired furnace and water heater were identified in the basement of the 1188 Cummings Avenue residential dwelling. No drains, pits or sumps were observed on the interior of the subject building at the time of the site inspection. No aboveground storage tanks (ASTs) or signs of underground storage tanks (USTs) were observed on the interior of the property at the time of the site visit. Water damaged ceilings and suspected mould growth were observed in the 1188 Cummings Avenue residential dwelling.

Lighting is provided by fluorescent and incandescent fixtures.

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A	general	description	of the	residential	dwelling a	at 1196	Cummings	Avenue	is as
fc	llows:								

Floors consist of hardwood, vinyl tiles and linoleum;
Walls consist of concrete block and drywall;
Ceilings are finished with drywall and stippled plaster;
Lighting is provided by fluorescent and incandescent fixtures.

An out-of-service natural gas fired furnace and water heater were identified in the basement of the 1196 Cummings Avenue residential dwelling. No drains, pits or sumps were observed on the interior of the subject building at the time of the site inspection. No aboveground storage tanks (ASTs) or signs of underground storage tanks (USTs) were observed on the interior of the property at the time of the site visit.

Potentially Hazardous Building Products

■ Asbestos-Containing Materials (ACMs)

Based on the age of the subject buildings (circa 1952), potential ACMs identified at the time of the site inspection include pebble stucco, vinyl floor tiles, linoleum flooring, drywall joint compound, stippled plaster and suspended ceiling tiles. The materials in the 1184 Cummings Avenue residential dwelling were observed to be in good condition at the time of the site inspection and do not pose an immediate concern.

☐ Lead-Based Paints (LBPs)

Based on the age of the subject buildings (circa 1952), LBPs may be present within the structures on original or older painted surfaces. Painted surfaces in the 1184 Cummings Avenue residential dwelling were generally observed to be in good condition at the time of the site inspection, and do not pose an immediate concern.

□ Polychlorinated Biphenyls (PCBs) and Transformer Oil

No concerns with respect to PCBs or transformer oil were identified within the subject buildings at the time of the site inspection.

☐ Urea Formaldehyde Foam Insulation (UFFI)

No signs of UFFI were noted at the time of the site visit, although wall and ceiling cavities were not inspected.

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Other Potential Environmental Concerns

☐ Fuel and Chemical Storage

The subject buildings are heated with either natural gas-fired equipment and/or electrical baseboard heaters. No evidence of ASTs or USTs was observed on the Phase I Property at the time of the site visit.

No chemicals, with the exception of common household cleaning and maintenance chemicals, were observed within the subject buildings.

☐ Wastewater Discharge

Wastewater discharged from the portion of the Phase I Property addressed 1184 Cummings Avenue includes wash water and sewage. No wastewater is currently generated at the 1188 and 1196 Cummings Avenue properties. No concerns were noted with regard to wastewater discharge at the Phase I Property.

□ Ozone Depleting Substances (ODSs)

Potential sources of ODSs observed on-site include refrigerators, fire extinguishers, and exterior air conditioner units.

These appliances were noted to be in good condition at the time of the site inspection and should be regularly serviced by a licensed contractor on a regular basis.

Neighbouring Properties

An inspection of the neighbouring properties was conducted from publicly accessible areas at the time of the site visits. Land use adjacent to the Phase I Property was as follows:

riope	ity was as lollows.
	North – Weldon Drive, followed by a community building and residential dwellings;
	South – a retail fuel outlet, followed by Ogilvie Road and vacant land; East – Cummings Avenue, followed by a commercial plaza and residential dwellings;
	West – Residential dwellings, followed by Murdock Gate.

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Ottawa, Ontario



Land use within the Phase I Study generally consists of residential use to the west and north and commercial use to the east and south. As previously discussed, the retail fuel outlet addressed 1111 Ogilvie Road, adjacent to the south of the Phase I Property, is not considered to represent an environmental concern to the Phase I Property based on the results of the 2019 Phase II ESA (conducted on the 1188 and 1196 portions of the Phase I Property).

Current land use and PCAs identified in the Phase I Study Area are presented on Drawing PE5990-2 – Surrounding Land Use Plan.

7.0 REVIEW AND EVALUATION OF INFORMATION

7.1 Current and Past Uses

Based on city directories, aerial photographs and personal interviews, the Phase I Property was first developed with the existing residential dwellings circa 1952.

Potentially Contaminating Activities (PCAs)

No historical or existing potentially contaminating activities were identified on the Phase I Property.

A total of 10 off-site PCAs (existing and historical) were identified within the Phase I Study Area but are not considered to result in APECs on the Phase I Property due to their respective separation distances and/or cross/down-gradient orientations with respect to the Phase I Property. The retail fuel outlet addressed 1111 Ogilvie Road, adjacent to the south of the Phase I Property, is not considered to represent an environmental concern to the Phase I Property based on the results of the 2019 Phase II ESA (conducted on the 1188 and 1196 portions of the Phase I Property).

All PCAs identified within the Phase I Study Area are presented on Drawing PE5990-2 – Surrounding Land Use Plan in the Figures section of the report, following the text.

Areas of Potential Environmental Concern (APECs)

No areas of potential environmental concern were identified on the Phase I Property.

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1184, 1188 and 1196 Cummings Avenue Ottawa, Ontario

Contaminants of Potential Concern (CPCs)

Since no APECs were identified there are no contaminants of potential concern identified on the Phase I Property.

7.2 Conceptual Site Model

Geological and Hydrogeological Setting

The Geological Survey of Canada website on the Urban Geology of the National Capital Area was consulted as part of this assessment. Based on the information from NRCAN, bedrock in the area of the site consists of shale of the Billings Formation. Based on the maps, the surficial geology consists of till with an overburden thickness ranging from 1 to 5 m.

The topographic maps indicate that the regional topography in the general area of the Phase I Property sloping gently downward to the west towards the Rideau River. Groundwater within the Phase I Study Area is generally expected to flow towards the west.

Topographic maps were obtained from Natural Resources Canada – The Atlas of Canada website and from the City of Ottawa website. The topographic map depicts topography in the area of the Phase I Property sloping gently downward to the west towards the Rideau River. An illustration of the referenced topographic map is presented on Figure 2 – Topographic Map, appended to this report.

Fill Placement

No evidence of fill material was observed on the exterior of the Phase I Property at the time of the site inspection.

Water Bodies and Areas of Natural Significance

No areas of natural significance or water bodies were identified on the Phase I Property or within the Phase I Study Area.

Drinking Water Wells

Records of historical potable wells were identified for properties within the Phase I Study Area. These wells are considered to have been abandoned and no longer in use; the Phase I Property and properties within the Phase I Study Area are currently provided with municipal services.

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Ottawa, Ontario



Monitoring Wells

A total of 40 well records were identified within he Phase I Study Area. Two monitoring well records were identified for the portion of the Phase I Property addressed 1196 Cummings Avenue. The monitoring wells were drilled in 2019 to depths ranging from 6.1 to 7.0 m below ground surface (mbgs). The soil profile was reported to consist of topsoil underlain by sand with stones. Shale bedrock was encountered at a depth of 2.4 m below ground surface in both wells. The wells were installed as a part of the 2019 Phase II ESA conducted on the Phase I Property.

Five monitoring well records were identified for monitoring wells drilled in 2014, at the property addressed 1134 Ogilvie Road, approximately 80 m southeast of the Phase I Property, where an existing retail was identified. The wells were drilled to depths ranging from 2.8 to 4.6 m below ground surface (mbgs). No other pertinent information was provided in these records.

Two monitoring well records were identified at the property addressed 1150 Ogilvie Road, approximately 105 m southeast of the Phase I Property, adjacent to the east of the aforementioned existing retail fuel outlet (at 1134 Ogilvie Road). The wells were drilled to depths ranging from 3.1 to 4.3 m below ground surface (mbgs). No other pertinent information was provided in these records.

The remaining monitoring well records pertain to monitoring wells approximately 100 m or more away from the Phase I Property and are not considered to pose an environmental concern to the Phase I Property. Based on the well records, the stratigraphy in the general area of the Phase I Property consists of silty sand or clay underlain by shale bedrock encountered at depths ranging from approximately 0.61 to 7.6m below grade. A copy of the well records has been included in Appendix 2.

Existing Buildings and Structures

The Phase I Property is currently occupied by a two-storey residential duplex (1184 Cummings Avenue), two vacant one-storey residential dwellings (1188 and 1194 Cummings Avenue) and five outbuildings of various uses.

The two-storey residential duplex addressed 1184 Cummings Avenue is finished on the exterior with brick, and vinyl siding in addition to a sloped and shingled style roof. Constructed circa 1952, the building is constructed with a concrete foundation and is currently heated and cooled via a combination of natural gas-and electric means.

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A storage shed is present to the west of the residential duplex on the 1184 Cummings Avenue property. The storage shed is constructed with a wood frame, plywood walls and flooring, in addition to a sloped weather-proof membrane roof. The storage shed has been outfitted to be used as a leisure space with full electricity.

A second storage shed is present on the northwest corner of the 1184 Cummings Avenue property. The second storage shed is constructed with a wood frame, plywood walls and a sloped and shingled style roof. The second storage shed was used to store various household items and yard maintenance equipment at the time of the site inspection.

The vacant one-storey (with one basement level) residential dwelling addressed 1188 Cummings Avenue is finished on the exterior with vinyl siding and concrete block in addition to a sloped and shingled style roof. Constructed circa 1952, the building is constructed with a concrete foundation and is not currently serviced. However, natural gas services were noted to be present on the exterior of the subject building and assumed to be the most recent means of heating and cooling for the building.

The vacant one-storey (with one basement level) residential dwelling addressed 1196 Cummings Avenue is finished on the exterior with vinyl siding and pebble in addition to a sloped and shingled style roof. Constructed circa 1952, the building is constructed with a concrete foundation and is not currently serviced. However, natural gas services were noted to be present on the exterior of the subject building and assumed to be the most recent means of heating and cooling for the building.

A storage shed is present to the west of the residential duplex on the 1196 Cummings Avenue property. The storage shed is constructed with a wood frame and is finished on the exterior with vinyl siding in addition to sloped and shingled style roof. The storage shed has been outfitted to be used as a leisure space with full electricity. The storage shed was used for the storage of miscellaneous items at the time of the site inspection.

Two small storage sheds are present on the southwest corner of the 1196 Cummings Avenue property. Both of which are constructed with metal siding and sloped and shingled style roofs. The two storage sheds were used for the storage of miscellaneous items at the time of the site inspection.

No other buildings or permanent structures are present on the Phase I Property.

Report: PE5990-1 Page 26



Subsurface Structures and Utilities

The Phase I Property is situated in a municipally serviced area. Underground utility services on the subject land include natural gas, electricity, cable, water and sewer services. Services enter the Phase I Property from Cummings Avenue.

No potable wells or private sewage systems were observed on the Phase I Property at the time of the site visit. No subsurface structures were identified at the time of the site visit.

Neighbouring Land Use

Land use within the Phase I Study generally consists of residential use to the west and north and commercial use to the east and south. As previously discussed, the retail fuel outlet addressed 1111 Ogilvie Road, adjacent to the south of the Phase I Property, is not considered to represent an environmental concern to the Phase I Property based on the results of the 2019 Phase II ESA (conducted on the 1188 and 1196 portions of the Phase I Property). Current land use and PCAs identified in the Phase I Study Area are presented on Drawing PE5990-2 – Surrounding Land Use Plan.

Potentially Contaminating Activities and Areas of Potential Environmental Concern

As per Section 7.1 of this report, no historical or existing potentially contaminating activities were identified on the Phase I Property. A total of 10 off-site PCAs (existing and historical) were identified within the Phase I Study Area but are not considered to result in APECs on the Phase I Property due to their respective separation distances and/or cross/down-gradient orientations with respect to the Phase I Property. The retail fuel outlet addressed 1111 Ogilvie Road, adjacent to the south of the Phase I Property, is not considered to represent an environmental concern to the Phase I Property based on the results of the 2019 Phase II ESA (conducted on the 1188 and 1196 portions of the Phase I Property). As previously discussed in Section 7.1, all PCAs identified within the Phase I Study Area are presented on Drawing PE5990-2 – Surrounding Land Use Plan in the Figures section of the report, following the text.

As per Section 7.1 of this report, no areas of potential environmental concern were identified on the Phase I Property.

Report: PE5990-1 Page 27



Contaminants of Potential Concern

As per Section 7.1 of this report, no contaminants of potential concern were identified on the Phase I Property.

Assessment of Uncertainty and/or Absence of Information

The information available for review as part of the preparation of this Phase I- ESA is considered to be sufficient to conclude that there are no PCAs that have resulted in APECs on the Phase I Property.

A variety of independent sources were consulted as part of this assessment, and as such, the conclusions of this report are not affected by uncertainty which may be present with respect to the individual sources.

8.0 CONCLUSIONS

8.1 Assessment

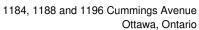
Paterson Group was retained by TCU Development Corporation to conduct a Phase I-Environmental Site Assessment (ESA) for the properties addressed 1184, 1188 and 1196 Cummings Avenue, in the City of Ottawa, Ontario. The purpose of this Phase I-ESA was to research the past and current use of the Phase I Property and 250m Phase I Study Area, and to identify any environmental concerns with the potential to have impacted the Phase I Property.

According to the historical research and personal interviews, the Phase I Property was first developed with the existing residential dwellings circa 1952. No historical potentially contaminating activities (PCAs) were identified on the Phase I Property.

Based on available historical information, adjacent and surrounding properties within the Phase I Study Area were primarily used for residential and commercial purposes. Historical off-site PCAs include former retail fuel outlets, an automotive service garage and a contractors yard (with an associated underground storage tank). Based on the separation distances and/or down/cross-gradient orientation with respect to the Phase I Property, these PCAs are not considered to result in areas of potential environmental concern (APEC) on the Phase I Property.

Following the historical research, a site visit was conducted. The Phase I Property is currently occupied by a two-storey residential duplex (1184 Cummings Avenue), two vacant one-storey residential dwellings (1188 and 1194 Cummings Avenue) and five outbuildings of various uses. No concerns were identified with the current use of the Phase I Property.

Report: PE5990-1 Page 28





The current uses of the adjacent and neighbouring properties within the Phase I Study Area consists of residential use to the west and north and commercial use to the east and south. A retail fuel outlet was identified at the property addressed 1111 Ogilvie Road, adjacent to the south of the Phase I Property. The retail fuel outlet is not considered to represent an environmental concern to the Phase I Property based on the results of the 2019 Phase II ESA conducted on the 1188 and 1196 portions of the Phase I Property. Based on the separation distances and/or down/cross-gradient orientation with respect to the Phase I Property, remaining existing PCAs in the Phase I Study Area are not considered to result in areas of potential environmental concern (APEC) on the Phase I Property.

Based on the findings of the Phase I ESA, it is our opinion that a Phase II-Environmental Site Assessment is not required for the Phase I Property.

Report: PE5990-1 Page 29

M.S. D'ARCY

90377839

NOVINCE OF ONTAR

Ottawa, Ontario



9.0 STATEMENT OF LIMITATIONS

This Phase I - Environmental Site Assessment report has been prepared in general accordance with O.Reg. 153/04, as amended, and meets the requirements of CSA Z768-01 (reaffirmed 2022). The conclusions presented herein are based on information gathered from a limited historical review and field inspection program. The findings of the Phase I - ESA are based on a review of readily available geological, historical and regulatory information and a cursory review made at the time of the field assessment. The historical research relies on information supplied by others, such as, local, provincial and federal agencies and was limited within the scope-of-work, time and budget of the project herein.

Should any conditions be encountered at the subject site and/or historical information that differ from our findings, we request that we be notified immediately in order to allow for a reassessment.

This report was prepared for the sole use of the TCU Development Corporation. Permission and notification from the TCU Development Corporation and Paterson will be required to release this report to any other party.

Paterson Group Inc.

Jeremy Camposarcone, B.Eng.

Mark D'Arcy, P.Eng, Q.P.ESA

Report Distribution:

□ TCU Development Corporation

Paterson Group

Report: PE5990-1 Page 30

Date: March 8, 2023



10.0 REFERENCES

Federal Records

Air photos at the Energy Mines and Resources Air Photo Library.

National Archives.

Maps and photographs (Geological Survey of Canada surficial and subsurface mapping).

Natural Resources Canada – The Atlas of Canada.

Environment Canada, National Pollutant Release Inventory.

PCB Waste Storage Site Inventory.

Provincial Records

MECP Municipal Coal Gasification Plant Site Inventory, 1991.

MECP document titled "Waste Disposal Site Inventory in Ontario".

MECP Brownfields Environmental Site Registry.

MNR Areas of Natural Significance.

MECP Water Well Record Inventory.

Chapman, L.J., and Putnam, D.F., 1984: 'The Physiography of Southern Ontario, Third Edition', Ontario Geological Survey Special Volume 2.

Municipal Records

City of Ottawa Document "Old Landfill Management Strategy, Phase I - Identification of Sites.", prepared by Golder Associates, 2004. geoOttawa: City of Ottawa electronic mapping website.

City of Ottawa Historical Land Use Inventory (HLUI) Database

Local Information Sources

Personal Interviews

Previous Engineering Reports

Environmental Risk Information Services (ERIS) Report, February 27, 2023 Plan of Survey by Annis, O'Sullivan, Vollebekk Ltd., dated March 5, 2013.

Public Information Sources

Google Earth.

Google Maps/Street View.

Report: PE5990-1 Page 31

Date: March 8, 2023

FIGURES

FIGURE 1 – KEY PLAN

FIGURE 2 – TOPOGRAPHIC MAP

DRAWING PE5990-1 - SITE PLAN

DRAWING PE5990-2 - SURROUNDING LAND USE PLAN

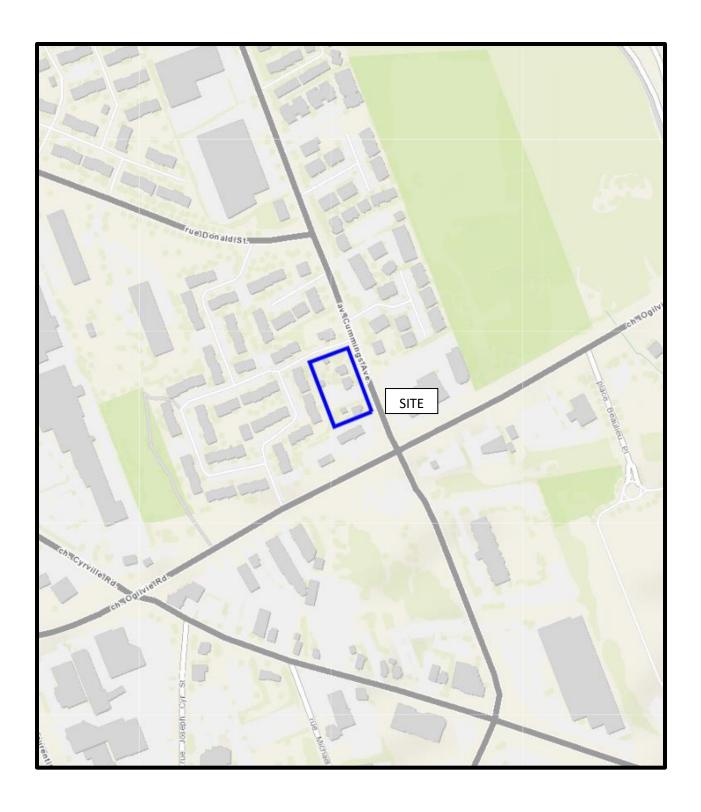


FIGURE 1 KEY PLAN



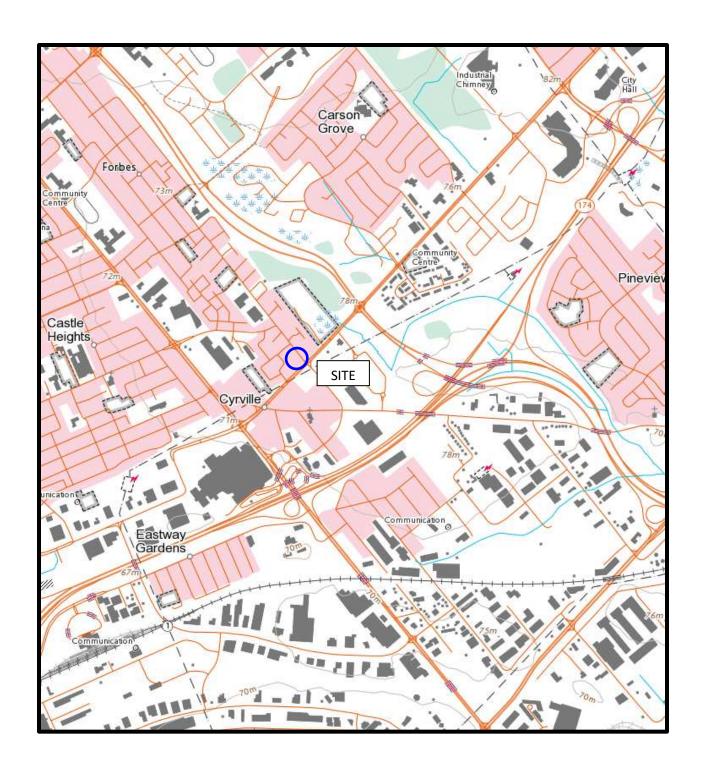
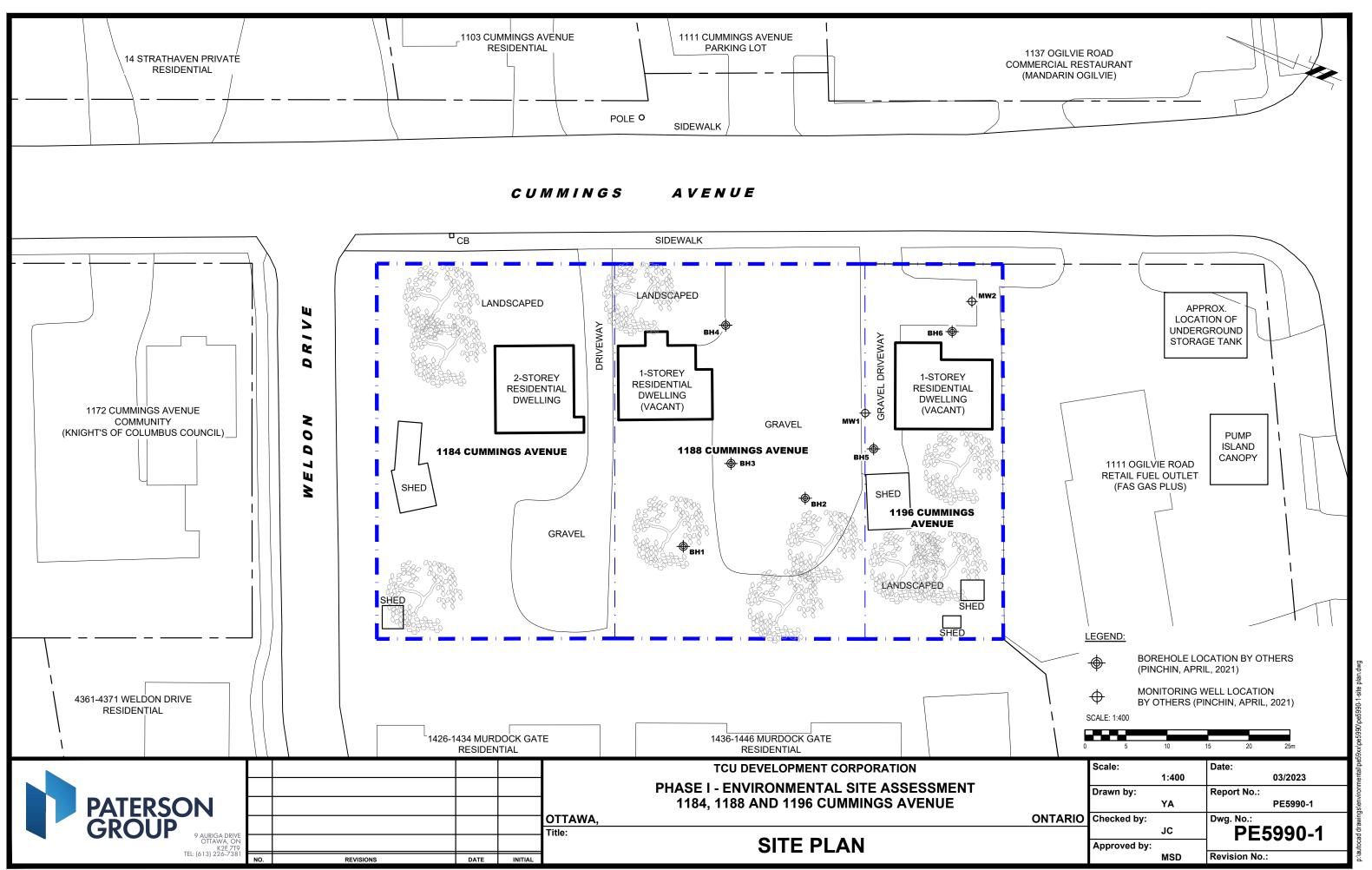
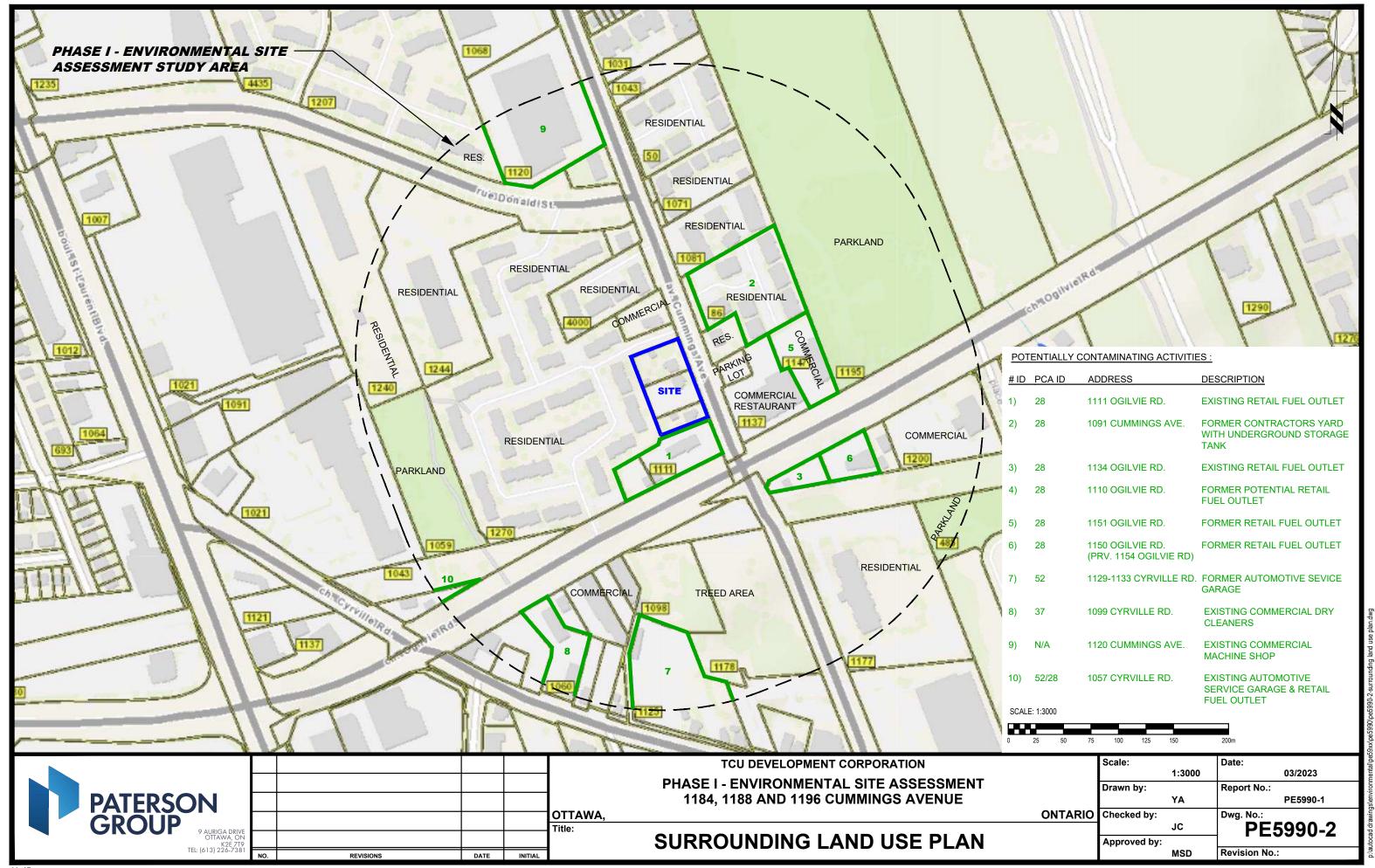


FIGURE 2 TOPOGRAPHIC MAP







APPENDIX 1

PLAN OF SURVEY

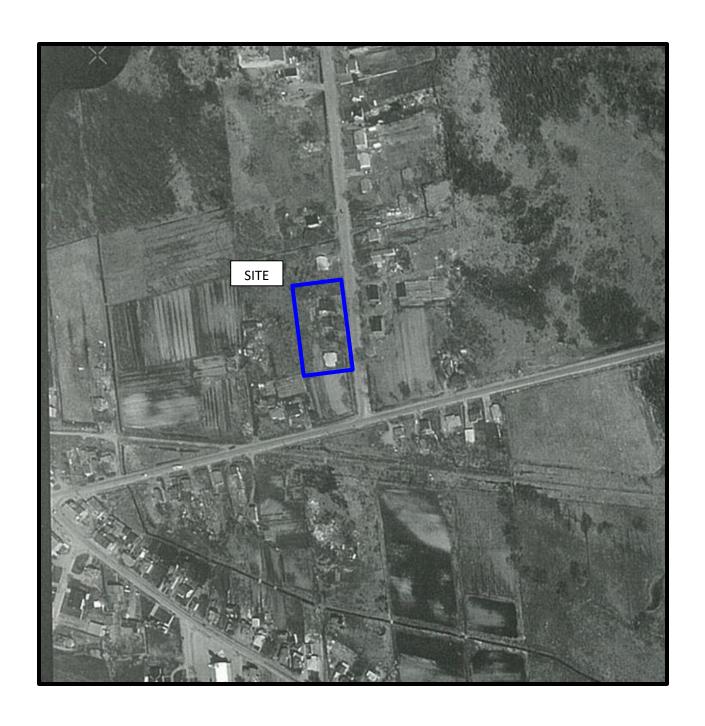
AERIAL PHOTOGRAPHS

SITE PHOTOGRAPHS



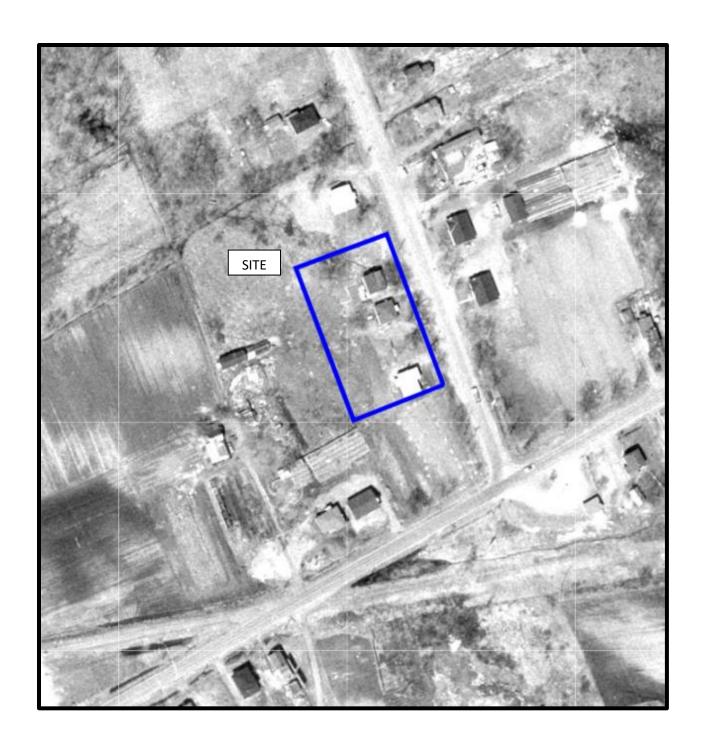
AERIAL PHOTOGRAPH 1945





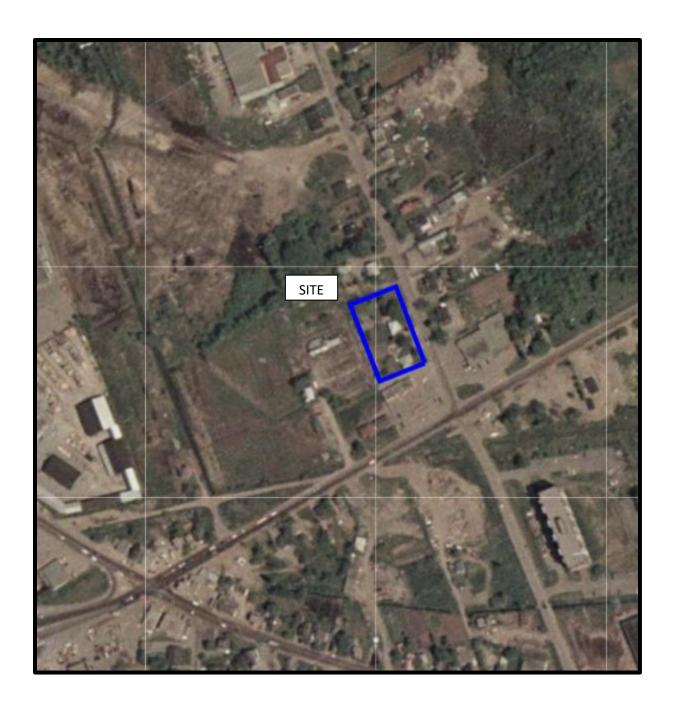
AERIAL PHOTOGRAPH 1952





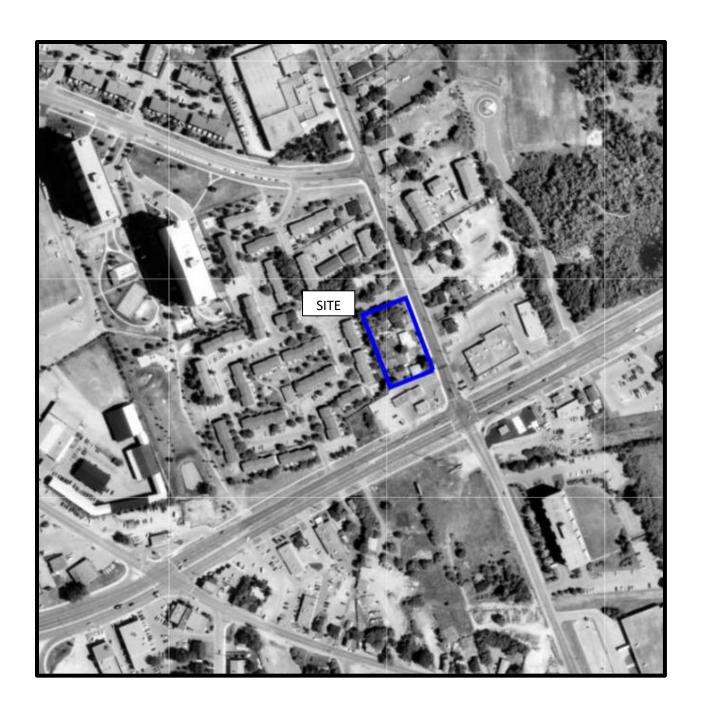
AERIAL PHOTOGRAPH 1965





AERIAL PHOTOGRAPH 1976





AERIAL PHOTOGRAPH 1991





AERIAL PHOTOGRAPH 2002





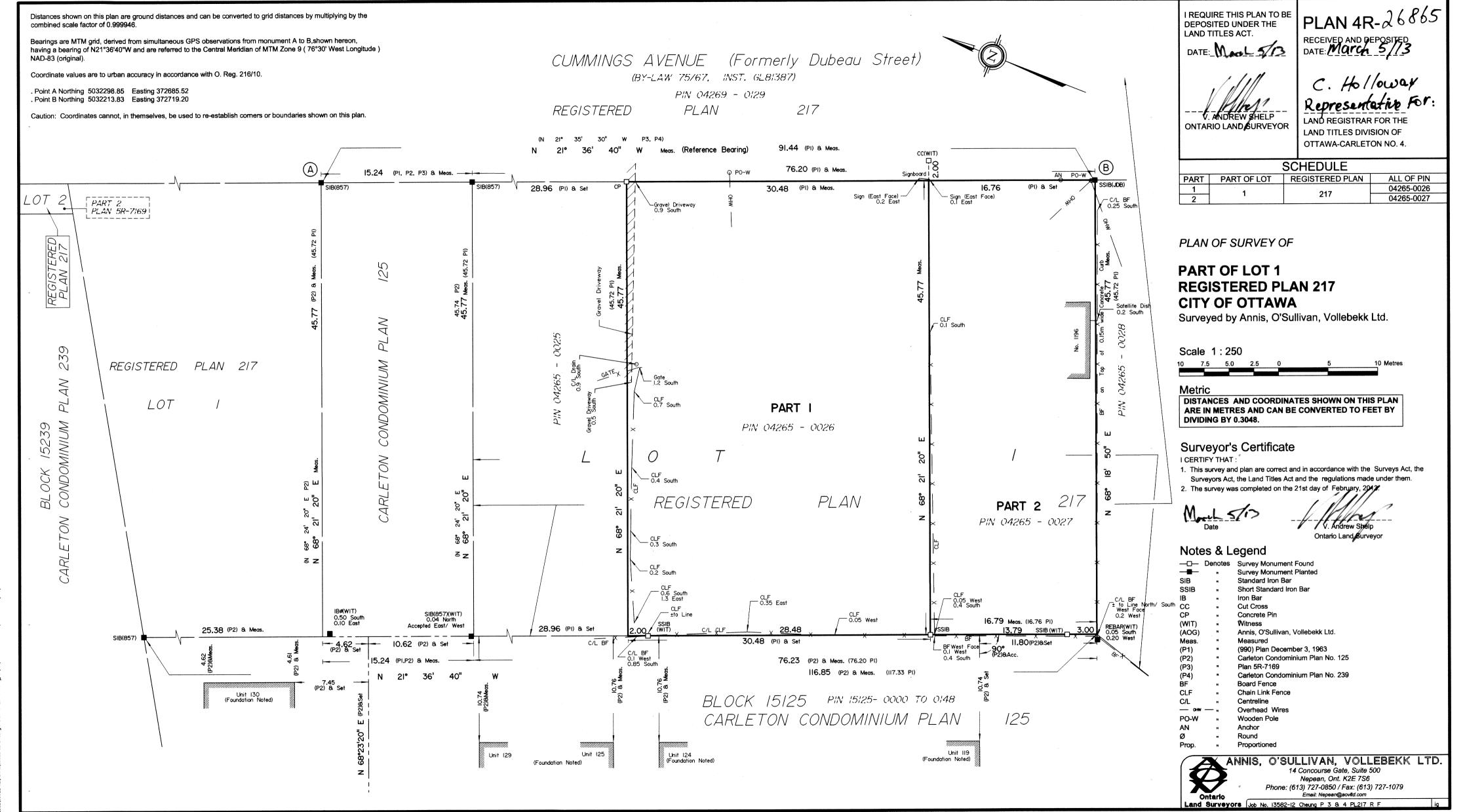
AERIAL PHOTOGRAPH 2011





AERIAL PHOTOGRAPH 2021





\2012\13582-12\FINAL\13582-12 Cheuna P 3 & 4 Pt217 R F.dwa, 05/03/2013 9:52:18 AM, KIP 7700 M



Photograph 1: View of the front of 1184 Cummings Avenue residential dwelling, facing west.



Photograph 2: View of the outbuilding on the 1184 Cummings Avenue property, facing north.





Photograph 3: View of the storage shed on the 1184 Cummings Avenue property, facing north.



Photograph 4: View of the front of 1188 Cummings Avenue residential dwelling, facing west.





Photograph 5: View of the front of 1196 Cummings Avenue residential dwelling, facing west.



Photograph 6: View of the outbuilding on the 1196 Cummings Avenue property, facing west.





Photograph 7: View of the storage sheds on the 1196 Cummings Avenue property, facing south.



Photograph 8: View of the retail fuel outlet on the 1111 Ogilvie Road property from the southeast corner of the Phase I Property, facing northwest.



Site Photographs							
PE5990	March 7, 2023						



APPENDIX 2

MECP FREEDOM OF INFORMATION SEARCH TSSA CORRESPONDANCE CITY OF OTTAWA HLUI SEARCH ERIS REPORT

Ministry of the Environment, Conservation and Parks

Access and Privacy Office

40 St. Clair Avenue West Toronto ON M4V 1M2 Tel: (416) 314-4075

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



March 9, 2023

Jeremy Camposarcone
Paterson Group
9 Auriga Drive
Ottawa, Ontario K2E 7T9
jcamposarcone@patersongroup.ca

Dear Jeremy Camposarcone:

RE: MECP FOI A-2023-01232, Your Reference PE5990 – Decision Letter

This letter is in response to your request made pursuant to the Freedom of Information and Protection of Privacy Act (the Act) relating to 1184, 1188 and 1196 Cummings Avenue, Ottawa.

After a thorough search through the files of the ministry's Ottawa District Office, Environmental Investigations and Enforcement Branch (EIEB), and Safe Drinking Water Branch (SDW) no records were located responsive to your request. **This file is now closed.**

You may request a review of my decision within 30 days from the date of this letter by contacting the Information and Privacy Commissioner/Ontario at http://www.ipc.on.ca. Please note there may be a fee associated with submitting the appeal.

If you have any questions, please contact Tolani Abraham at Tolani. Abraham 2@ontario.ca.

Yours truly,

ORIGINAL SIGNED BY

Ryan Gunn Manager (A), Access and Privacy Office

Jeremy Camposarcone

From: Public Information Services <publicinformationservices@tssa.org>

Sent: February 27, 2023 3:02 PM **To:** Jeremy Camposarcone

Subject: RE: Records Search Request - PE5990

Hello,

RECORD FOUND IN CURRENT DATABASE

Thank you for your request for confirmation of public information. TSSA has performed a preliminary search of TSSA's current database.

We confirm that there are records in our database of any <u>fuel storage tanks</u> at the subject address(es).

Inventory Number	Address	City	Province	Postal Code	Status	Asset Type / Inventory Item
	1111 OGILVIE					FS GASOLINE STATION - FULL
10083411	RD	GLOUCESTER	ON	K1J 7P7	EXPIRED	SERVE
	1111 OGILVIE					FS GASOLINE STATION - FULL
10105915	RD	GLOUCESTER	ON	K1J 7P7	EXPIRED	SERVE
	1111 OGILVIE					FS GASOLINE STATION - FULL
10105948	RD	GLOUCESTER	ON	K1J 7P7	EXPIRED	SERVE
	1111 OGILVIE					
11287886	RD	GLOUCESTER	ON	K1J 7P7	Active	FS LIQUID FUEL TANK
	1111 OGILVIE					
11287906	RD	GLOUCESTER	ON	K1J 7P7	Active	FS LIQUID FUEL TANK
	1111 OGILVIE					
11287923	RD	GLOUCESTER	ON	K1J 7P7	Active	FS LIQUID FUEL TANK
	1111 OGILVIE					
11287944	RD	GLOUCESTER	ON	K1J 7P7	Active	FS LIQUID FUEL TANK
	1111 OGILVIE					FS GASOLINE STATION - SELF
29160194	RD	GLOUCESTER	ON	K1J 7P7	Active	SERVE
	1111 OGILVIE					
64508685	RD	GLOUCESTER	ON	K1J 7P7	Active	FS LIQUID FUEL TANK
	1111 OGILVIE					
64508686	RD	GLOUCESTER	ON	K1J 7P7	Active	FS LIQUID FUEL TANK

<u>This is not a confirmation that there are no records in the archives</u>. For a further search in our archives, please submit an application for release of public information (PI Form) through TSSA's new Service Prepayment Portal. The associated fee must be paid via credit card (Visa or MasterCard) through a secure site.

Please follow the steps below to access the new application(s) and Service Prepayment Portal:

- 1. Click Release of Public Information TSSA TSSA and click "need a copy of a document";
- 2. Select the appropriate application, download it and complete it in full; and
- 3. Proceed to page 3 of the application and click the link TSSA Service Prepayment Portal under payment options (the link will take you the secure site to pay for the release via credit card).

Accessing the Service Prepayment Portal:

- 1. Select new or existing customer (*if you are an existing customer, you will need your account # & postal code to access your account);
- 2. Select the program area: AD (Amusement Devices), BPV (Boilers and Pressure Vessels), ED (Elevating Devices), FS (Fuels Services), OE (Operating Engineers) or SKI (Ski Lifts) and click continue;
- 3. Enter the application form number (obtained from bottom left corner of application form) and click continue;
 - a. When selecting the application form number from the drop-down menu, please make sure you select the application that begins with "PI" (i.e. PI-FS, PI-BPV etc.);
- Complete the primary contact information section; 4.
- Complete the fees section; 5.
- 6. Upload your completed application; and
- 7. Upload supporting documents (if required) and click continue.

Once all steps have been successfully completed, you will receive your receipt via email.

Questions? Please contact TSSA's Public Information Release team at publicinformationservices@tssa.org. 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,



Kimberly Gage | Public Information Agent

Legal 345 Carlingview Drive Toronto, Ontario M9W 6N9

Tel: +1 416-734-3348 | Fax: +1 416-734-3568 | E-Mail: kgage@tssa.org







From: Jeremy Camposarcone



Winner of 2022 5-Star Safety Cultures Award

<JCamposarcone@patersongroup.ca> Sent: Monday, February 27, 2023 2:44 PM

To: Public Information Services <publicinformationservices@tssa.org>

Subject: Records Search Request - PE5990

[CAUTION]: This email originated outside the organisation.

Please do not click links or open attachments unless you recognise the source of this email and know the content is safe.

Good afternoon,

Could you please complete a search of your records for underground/aboveground storage tanks, historical spills, or other incidents/infractions for the following addresses in Ottawa, Ontario:

Cummings Avenue: 1184, 1188, 1196, 1172, 1111, 1103;

Ogilvie Road: 1101, 1111, 1137

Belgate Way: 1270

Best Regards,



Jeremy Camposarcone, B.Eng.

Junior Environmental Engineer

TEL: (613)-226-7381 CELL: (343)-999-7255 9 AURIGA DRIVE OTTAWA ON K2E 7T9 patersongroup.ca

TEMPORARY SHORING DESIGN SERVICES ARE NOW AVAILABLE, PLEASE CONTACT US TO SEE HOW WE CAN HELP!

OUR DIRECT LINE FOR MATERIALS TESTING INSPECTION BOOKING HAS BEEN UPDATED, PLEASE CALL **613-696-9677** TO BOOK AN INSPECTION.

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.

	Office Use O	Dnly	
Application Number:	Ward Number:	Application Received: (dd/mm/yyyy):	
Client Service Centre Staff:		Fee Received: \$	



Historic Land Use Inventory

Application Form

Notice of Public Record

All information and materials required in support of your application shall be made available to the public, as indicated by Section 1.0.1 of *The Planning Act*, R.S.O. 1990, C.P.13.

Municipal Freedom of Information and Protection Act

Personal information on this form is collected under the authority the *Planning Act*, RSO 1990, c. P. 13 and will be used to process this application. Questions about this collection may be directed by mail to Manager, Business Support Services, Planning, Real Estate and Economic Development Department, 110 Laurier Avenue West, Ottawa, K1P 1J1, or by phone at (613) 580-2424, ext. 24075

(第三) 文章等/	Background Information
*Site Address or Location:	1184, 1188 & 1196 Commings Avenue *Mandatory Field
Applicant/Agent I	nformation:
Name:	Jereny Camposarcone - Paterson Group
Mailing Address:	9 Auriga Drive
Telephone:	343-999-9255 Email Address: Camposarcune Opatoson group.ca
Registered Proper	ty Owner Information: Same as above
Name:	TW Development Corporation
Mailing Address:	
Telephone:	Email Address:

Site Details Legal Description and PIN: What is the land currently used for? Lot depth: Lot area: 0 m²Lot frontage: m Lot area: (irregular lot) OR Does the site have Full Municipal Services: **Required Fees** Please don't hesitate to visit the Historic Land Use Inventory website more information. Fees must be paid in full at the time of application submission. **Planning Fee** \$132.00

Submittal Requirements

The following are required to be submitted with this application:

- 1. Consent to Disclose Information: Consultants and other third parties may make requests for information on behalf of an individual or corporation. However, if the requester is not the owner of the property, the requester must provide the City of Ottawa with a 'consent to disclose information' letter, signed by the property owner. This will authorize the City of Ottawa to release any relevant information about the property or its owner(s) to the requester. Consent for disclosure is required in the event that personal information or proprietary company information is found concerning the property and its owner. All consents must clearly indicate the name of the property owner as well as the name of the requester, and must be signed and dated.
- 2. **Disclaimer:** Requesters must read and understand the conditions included in the attached disclaimer and submit a signed disclaimer to the City of Ottawa's Planning, Real Estate and Economic Development Department. This disclaimer is related to the Historic Land Use Inventory and must be received by the City of Ottawa, signed and dated by the requestor, before the process can begin.
- 3. A site plan or key plan of the property, its location and particular features.
- 4. Any significant dates or time frames that you would like researched.

Disclaimer For use with HLUI Database

CITY OF OTTAWA ("the City") is the owner of the Historical Land Use Inventory ("HLUI"), a database of information on the type and location of land uses within the geographic area of Ottawa, which had or have the potential to cause contamination in soil, groundwater or surface water.

The City, in providing information from the HLUI, to Conditions and understanding:

- 1. The HLUI may contain erroneous information given that such records and sources of information may be flawed. Changes in municipal addresses over time may have introduced error in such records and sources of information. The City is not responsible for any errors or omissions in the HLUI and reserves the right to change and update the HLUI without further notice. The City does not, however, make any commitment to update the HLUI. Accordingly, all information from the HLUI is provided on an "as is" basis with no representation or warranty by the City with respect to the information's accuracy or exhaustiveness in responding to the request.
- 2. City staff will perform a search of the HLUI based on the information given by the Requester. City staff will make every effort to be accurate, however, the City does not provide an assurance, guarantee, warranty, representation (express or implied), as to the availability, accuracy, completeness or currency of information which will be provided to the Requester. The HLUI in no way confirms the presence or absence of contamination or pollution of any kind. The information provided by the City to the Requester is provided on the assumption that it will not be relied upon by any person whatsoever. The City denies all liability to any such persons attempting to rely on any information provided from the HLUI database.
- 3. The City, its employees, servants, agents, boards, officials or contractors take no responsibility for any actions, claims, losses, liability, judgments, demands, expenses, costs, damages or harm suffered by any person whatsoever including negligence in compiling or disseminating information in the HLUI.
- 4. Copyright is reserved to the City.
- 5. Any use of the information provided from the HLUI which a third party makes, or any reliance on or decisions to be based on it, are the responsibilities of such third parties. The City, its employees, servants, agents, boards, officials or contractors accept no responsibility for any damages, if any, suffered by a third party as a result of decisions made as a result of an information search of the HLUI.
- 6. Any use of this service by the Requestor indicates an acknowledgement, acceptance and limits of this disclaimer.
- 7. All information collected under this request and all records provided in response to this request are subject to the provisions of the Municipal Freedom of Information and Protection of Privacy Act, R.S.O. 1990, c. M.56, as amended.

Signed:

Dated (dg//mgh/yyyy):

13/03/200

Per Tarent

(Please print name)

Company:

Depress Cons



Project Property: Phase I ESA

1184, 1188 & 1196 Cummings Avenue

Gloucester ON K1J 7R8

Project No: *P.* 0.56881 / *PE*5990

Report Type: Standard Report Order No: 23022400359

Requested by: Paterson Group Inc.

Date Completed: February 27, 2023

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Notice: IMPORTANT LIMITATIONS and YOUR LIABILITY

Reliance on information in Report: This report DOES NOT replace a full Phase I Environmental Site Assessment but is solely intended to be used as a database review of environmental records.

License for use of information in Report: No page of this report can be used without this cover page, this notice and the project property identifier. The information in Report(s) may not be modified or re-sold.

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Executive Summary

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$\nu r \cap$	nortv	Intorn	nation:
	DELLA	1111011	nauvn.

Project Property: Phase I ESA

1184, 1188 & 1196 Cummings Avenue Gloucester ON K1J 7R8

Order No: 23022400359

Project No: P.O.56881 / PE5990

Coordinates:

 Latitude:
 45.427021

 Longitude:
 -75.6324805

 UTM Northing:
 5,030,583.34

 UTM Easting:
 450,522.54

UTM Zone: 18T

Elevation: 242 FT

73.88 M

Order Information:

Order No: 23022400359

Date Requested: February 24, 2023

Requested by: Paterson Group Inc.

Report Type: Standard Report

Historical/Products:

Executive Summary: Report Summary

Database	Name	Searched	Project Property	Within 0.25 km	Total
AAGR	Abandoned Aggregate Inventory	Υ	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	Υ	0	0	0
AST	Aboveground Storage Tanks	Υ	0	0	0
AUWR	Automobile Wrecking & Supplies	Υ	0	0	0
BORE	Borehole	Υ	0	1	1
CA	Certificates of Approval	Υ	0	2	2
CDRY	Dry Cleaning Facilities	Υ	0	0	0
CFOT	Commercial Fuel Oil Tanks	Υ	0	0	0
CHEM	Chemical Manufacturers and Distributors	Υ	0	0	0
CHM	Chemical Register	Υ	0	0	0
CNG	Compressed Natural Gas Stations	Υ	0	0	0
COAL	Inventory of Coal Gasification Plants and Coal Tar Sites	Υ	0	0	0
CONV	Compliance and Convictions	Υ	0	0	0
CPU	Certificates of Property Use	Υ	0	0	0
DRL	Drill Hole Database	Υ	0	0	0
DTNK	Delisted Fuel Tanks	Υ	0	26	26
EASR	Environmental Activity and Sector Registry	Υ	0	1	1
EBR	Environmental Registry	Υ	0	2	2
ECA	Environmental Compliance Approval	Υ	0	5	5
EEM	Environmental Effects Monitoring	Υ	0	0	0
EHS	ERIS Historical Searches	Υ	1	11	12
EIIS	Environmental Issues Inventory System	Υ	0	0	0
EMHE	Emergency Management Historical Event	Υ	0	0	0
EPAR	Environmental Penalty Annual Report	Υ	0	0	0
EXP	List of Expired Fuels Safety Facilities	Υ	0	0	0
FCON	Federal Convictions	Υ	0	0	0
FCS	Contaminated Sites on Federal Land	Υ	0	0	0
FOFT	Fisheries & Oceans Fuel Tanks	Υ	0	0	0
FRST	Federal Identification Registry for Storage Tank Systems (FIRSTS)	Υ	0	0	0
FST	Fuel Storage Tank	Y	0	13	13
FSTH	Fuel Storage Tank - Historic	Y	0	5	5
GEN	Ontario Regulation 347 Waste Generators Summary	Υ	0	51	51
GHG	Greenhouse Gas Emissions from Large Facilities	Υ	0	0	0
HINC	TSSA Historic Incidents	Υ	0	1	1
IAFT	Indian & Northern Affairs Fuel Tanks	Υ	0	0	0

Database	Name	Searched	Project Property	Within 0.25 km	Total
INC	Fuel Oil Spills and Leaks	Υ	0	2	2
LIMO	Landfill Inventory Management Ontario	Υ	0	0	0
MINE	Canadian Mine Locations	Υ	0	0	0
MNR	Mineral Occurrences	Y	0	0	0
NATE	National Analysis of Trends in Emergencies System	Υ	0	0	0
NCPL	(NATES) Non-Compliance Reports	Υ	0	0	0
NDFT	National Defense & Canadian Forces Fuel Tanks	Υ	0	0	0
NDSP	National Defense & Canadian Forces Spills	Υ	0	0	0
NDWD	National Defence & Canadian Forces Waste Disposal	Υ	0	0	0
NEBI	Sites National Energy Board Pipeline Incidents	Υ	0	0	0
NEBP	National Energy Board Wells	Υ	0	0	0
NEES	National Environmental Emergencies System (NEES)	Υ	0	0	0
NPCB	National PCB Inventory	Υ	0	0	0
NPRI	National Pollutant Release Inventory	Υ	0	0	0
OGWE	Oil and Gas Wells	Υ	0	0	0
OOGW	Ontario Oil and Gas Wells	Υ	0	0	0
OPCB	Inventory of PCB Storage Sites	Υ	0	0	0
ORD	Orders	Υ	0	0	0
PAP	Canadian Pulp and Paper	Υ	0	0	0
PCFT	Parks Canada Fuel Storage Tanks	Υ	0	0	0
PES	Pesticide Register	Y	0	0	0
PINC	Pipeline Incidents	Y	0	0	0
PRT	Private and Retail Fuel Storage Tanks	Y	0	8	8
PTTW	Permit to Take Water	Υ	0	1	1
REC	Ontario Regulation 347 Waste Receivers Summary	Υ	0	0	0
RSC	Record of Site Condition	Υ	0	0	0
RST	Retail Fuel Storage Tanks	Υ	0	9	9
SCT	Scott's Manufacturing Directory	Υ	0	4	4
SPL	Ontario Spills	Υ	0	5	5
SRDS	Wastewater Discharger Registration Database	Υ	0	0	0
TANK	Anderson's Storage Tanks	Υ	0	0	0
TCFT	Transport Canada Fuel Storage Tanks	Υ	0	0	0
VAR	Variances for Abandonment of Underground Storage Tanks	Y	0	0	0
WDS	Waste Disposal Sites - MOE CA Inventory	Υ	0	0	0
WDSH	Waste Disposal Sites - MOE 1991 Historical Approval Inventory	Υ	0	0	0
WWIS	Water Well Information System	Υ	1	23	24
		Total:	2	170	172

Executive Summary: Site Report Summary - Project Property

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev diff (m)	Page Number
1	EHS		1188 Cummings Ave Ottawa ON Gloucester ON K1J 7R8	SSE/29.9	0.00	<u>42</u>
<u>2</u> .	wwis		c1196 Cummings Ave Ottawa ON	SSE/44.7	0.00	<u>42</u>

Well ID: 7346072

Executive Summary: Site Report Summary - Surrounding Properties

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
<u>3</u>	WWIS		1198 Cummings Ave Ottawa ON	SSE/56.4	0.00	<u>45</u>
			Well ID: 7346071			
<u>4</u>	WWIS		lot 25 con 1 ON	N/58.7	0.00	<u>49</u>
			Well ID: 1501127			
<u>5</u>	WWIS		lot 25 con 1 ON	ENE/65.9	0.00	<u>52</u>
			Well ID: 1501129			
<u>6</u>	wwis		lot 25 con 1 ON	NE/79.2	1.00	<u>54</u>
			Well ID: 1501126			
7	PRT	CALEX DIVISION OF SUNOCO ATTN ROBERTA WALSH	1111 OGILVIE RD GLOUCESTER ON K1J 7P7	S/80.4	-1.00	<u>57</u>
<u>7</u>	PRT	CALEX DIVISION OF SUNOCO ATTN ROBERTA WALSH	1111 OGILVIE RD GLOUCESTER ON K1J 7P7	S/80.4	-1.00	<u>57</u>
<u>7</u>	PRT	LES PETROLES CALEX LTEE	1111 OGILVIE OTTAWA ON K1J7P7	S/80.4	-1.00	<u>57</u>
<u>7</u>	PRT	CALEX DIVISION OF SUNOCO ATTN MARY MISANGYI	1111 OGILVIE OTTAWA ON K1J7P7	S/80.4	-1.00	<u>57</u>
<u>7</u>	PRT	CALEX DIVISION OF SUNOCO ATTN MARY MISANGYI	1111 OGILVIE OTTAWA ON K1J7P7	S/80.4	-1.00	<u>57</u>
<u>7</u> *	RST	CALEX SERVICE STATION	1111 OGILVIE RD GLOUCESTER ON K1J7P7	S/80.4	-1.00	<u>58</u>
<u>7</u> '	GEN	OLCO Petrolleum	1111 Ogilvie Ottawa ON K1J 7P7	S/80.4	-1.00	<u>58</u>
<u>7</u> '	FSTH	1633981 ONTARIO INC O/ A OLCO GAS BAR	1111 OGILVIE RD GLOUCESTER OTTAWA ON K1J 7P7	S/80.4	-1.00	<u>58</u>

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
<u>7</u>	FSTH	1633981 ONTARIO INC O/ A OLCO GAS BAR	1111 OGILVIE RD GLOUCESTER ON K1J 7P7	S/80.4	-1.00	<u>59</u>
7	CA	1633981 Ontario Inc.	1111 Ogilvie Rd Ottawa ON	S/80.4	-1.00	<u>59</u>
7	DTNK	MOT MARWAN ENTERPRISES LTD	1111 OGILVIE RD OTTAWA ON	S/80.4	-1.00	<u>59</u>
7	DTNK	LES PETROLES CALEX LTEE	1111 OGILVIE RD GLOUCESTER ON K1J 7P7	S/80.4	-1.00	<u>60</u>
7	DTNK	SMS PETROLEUMS DIVISION OF SUNOCO NANCY NG	1111 OGILVIE RD GLOUCESTER ON K1J 7P7	S/80.4	-1.00	<u>61</u>
7	DTNK	MO & MARWAN ENTERPRISES LTD	1111 OGILVIE RD GLOUCESTER ON K1J 7P7	S/80.4	-1.00	<u>61</u>
<u>7</u>	DTNK	1633981 ONTARIO INC O/ A OLCO GAS BAR	1111 OGILVIE RD GLOUCESTER ON	S/80.4	-1.00	<u>62</u>
<u>7</u>	DTNK	1633981 ONTARIO INC O/ A OLCO GAS BAR	1111 OGILVIE RD GLOUCESTER ON	S/80.4	-1.00	<u>62</u>
<u>7</u>	DTNK	1633981 ONTARIO INC O/ A OLCO GAS BAR	1111 OGILVIE RD GLOUCESTER ON	S/80.4	-1.00	<u>63</u>
<u>7</u>	GEN	1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON	S/80.4	-1.00	<u>64</u>
<u>7</u>	GEN	1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON	S/80.4	-1.00	<u>64</u>
<u>7</u>	GEN	1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON	S/80.4	-1.00	<u>65</u>
<u>7</u>	FST	1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S/80.4	-1.00	<u>65</u>

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
<u>7</u>	FST	1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S/80.4	-1.00	<u>65</u>
7	FST	1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S/80.4	-1.00	<u>66</u>
<u>7</u>	FST	1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S/80.4	-1.00	<u>66</u>
7	FST	1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S/80.4	-1.00	<u>67</u>
<u>7</u>	FST	1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S/80.4	-1.00	<u>67</u>
<u>7</u> *	GEN	1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON	S/80.4	-1.00	<u>68</u>
7	GEN	1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON	S/80.4	-1.00	<u>68</u>
7	RST	FAS GAS PLUS	1111 OGILVIE RD UNIT 1 GLOUCESTER ON K1J7P7	S/80.4	-1.00	6 <u>9</u>
7	SPL		1111 Ogilvie Rd Ottawa ON	S/80.4	-1.00	<u>69</u>
7	ECA	1633981 Ontario Inc.	1111 Ogilvie Rd Ottawa ON K1J 7P7	S/80.4	-1.00	<u>69</u>
7	GEN	1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON K1J 7P7	S/80.4	-1.00	<u>70</u>
<u>7</u>	GEN	1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON K1J 7P7	S/80.4	-1.00	<u>70</u>

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
7	GEN	1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON K1J 7P7	S/80.4	-1.00	<u>71</u>
7	GEN	1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON K1J 7P7	S/80.4	-1.00	<u>71</u>
7	GEN	1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON K1J 7P7	S/80.4	-1.00	<u>72</u>
<u>7</u>	RST	ECONO GAS	1111 OGILVIE RD APT 1 GLOUCESTER ON K1J7P7	S/80.4	-1.00	<u>72</u>
7	DTNK	1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S/80.4	-1.00	<u>72</u>
<u>7</u>	DTNK	1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S/80.4	-1.00	<u>73</u>
<u>7</u> '	DTNK	1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S/80.4	-1.00	<u>73</u>
<u>7</u>	DTNK	1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S/80.4	-1.00	<u>74</u>
7	DTNK		1111 OGILVIE RD GLOUCESTER ON K1J 7P7	S/80.4	-1.00	<u>75</u>
7	GEN	1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON K1J 7P7	S/80.4	-1.00	<u>75</u>
7	GEN	1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON K1J 7P7	S/80.4	-1.00	<u>76</u>
<u>8</u>	СА	MANDARIN-OGILVIE RESTAURANT	1137 OGILVIE ROAD GLOUCESTER CITY ON K1J 7P6	E/81.9	0.00	<u>76</u>
<u>8</u>	GEN	FRESH AIR EXPERIENCE INC.	1137 AGILVIE ROAD GLOUCESTER ON K1J 7P6	E/81.9	0.00	<u>76</u>

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
<u>8</u>	GEN	FRESH AIR EXPERIENCE INC. 15-313	1137 AGILVIE ROAD GLOUCESTER ON K1J 7P6	E/81.9	0.00	<u>77</u>
<u>8</u>	EHS		1137 Ogilvie Road and 1111 Cummings Avenue Gloucester ON K1J 7P6	E/81.9	0.00	<u>77</u>
<u>8</u>	EHS		1137 Ogilvie Road and 1111 Cummings Avenue Gloucester ON K1J 7P6	E/81.9	0.00	<u>77</u>
9	PRT	ATLAS WELDING & EQUIPMENT RENTALS DIV OF LALONDE W	1091 CUMMINGS AV GLOUCESTER ON K1J 7S2	ENE/86.9	1.00	<u>77</u>
<u>9</u> .	FSTH	ATLAS WELDING & EQUIPMENT RENTALS DIV OF LALONDE WELDING LTD	1091 CUMMINGS AVE GLOUCESTER ON K1J 7S2	ENE/86.9	1.00	<u>78</u>
9	DTNK	ATLAS WELDING & EQUIPMENT RENTALS DIV OF LALONDE WELDING LTD	1091 CUMMINGS AVE GLOUCESTER ON	ENE/86.9	1.00	<u>78</u>
<u>9</u> .	DTNK	ATLAS WELDING & EQUIPMENT RENTALS DIV OF LALONDE WELDING LTD	1091 CUMMINGS AVE GLOUCESTER K1J 7S2 ON CA ON	ENE/86.9	1.00	<u>79</u>
9	FST	ATLAS WELDING & EQUIPMENT RENTALS DIV OF LALONDE WELDING LTD	1091 CUMMINGS AVE GLOUCESTER K1J 7S2 ON CA ON	ENE/86.9	1.00	<u>79</u>
<u>10</u>	WWIS		lot 25 con 1 ON <i>Well ID:</i> 1501115	SE/92.0	0.00	<u>80</u>
<u>11</u>	WWIS		lot 25 con 1 ON <i>Well ID:</i> 1501124	NE/92.2	1.00	83
<u>12</u>	WWIS		lot 25 con 1 ON <i>Well ID:</i> 1510842	SW/113.8	-1.00	<u>86</u>
<u>13</u>	SPL	UNKNOWN	CUMMINGS AVE JUST SOUTH OF OLGILVIE GLOUCESTER CITY ON	SE/114.3	0.00	<u>89</u>

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
<u>13</u>	SPL	Labrador Spring Water <unofficial></unofficial>	OGILVIE STREET / CUMMING STREET <unofficial> Ottawa ON</unofficial>	SE/114.3	0.00	90
<u>14</u>	HINC		1085 CUMMINGS AVENUE OTTAWA ON	NNE/121.3	1.00	<u>90</u>
<u>15</u>	wwis		lot 25 con 1 ON <i>Well ID:</i> 1501128	NE/128.3	1.00	<u>91</u>
<u>16</u>	WWIS		1134 OGILVIE RD. Ottawa ON <i>Well ID:</i> 7224359	ESE/146.8	-1.03	93
<u>17</u>	wwis		1134 ON <i>Well ID</i> : 7224188	ESE/154.8	-1.03	<u>97</u>
<u>18</u>	wwis		1134 OGILVIE RD ON <i>Well ID:</i> 7224189	SE/155.6	-1.06	100
<u>19</u>	PRT	C CORP (ONTARIO) INC ATTN ACCOUNTS PAYABLE	1134 OGILVIE RD OTTAWA ON K1J8V1	ESE/160.7	-1.03	103
<u>19</u>	SPL	PIONEER PETROLEUMS LTD.	1134 OGILVIE RD GLOUCESTER SERVICE STATION OTTAWA CITY ON K1J 8V1	ESE/160.7	-1.03	103
<u>19</u>	RST	PIONEER PETROLEUMS	1134 OGILVIE RD OTTAWA ON K1J 8V1	ESE/160.7	-1.03	104
<u>19</u>	FSTH	PIONEER PETROLEUMS MANAGEMENT INC**	1134 OGILVIE RD OTTAWA ON K1J 8V1	ESE/160.7	-1.03	104
<u>19</u>	RST	PIONEER PETROLEUMS	1134 OGILVIE RD GLOUCESTER ON K1J 8V1	ESE/160.7	-1.03	104
<u>19</u>	FSTH	PIONEER PETROLEUMS MANAGEMENT INC**	1134 OGILVIE RD OTTAWA ON	ESE/160.7	-1.03	104
<u>19</u>	DTNK	PIONEER ENERGY MANAGEMENT INC.	1134 OGILVIE RD OTTAWA ON K1J 8V1	ESE/160.7	-1.03	<u>105</u>

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
<u>19</u>	DTNK	PIONEER ENERGY MANAGEMENT INC.	1134 OGILVIE RD OTTAWA ON	ESE/160.7	-1.03	<u>106</u>
<u>19</u>	DTNK	PIONEER ENERGY MANAGEMENT INC.	1134 OGILVIE RD OTTAWA ON	ESE/160.7	-1.03	106
<u>19</u>	DTNK	PIONEER ENERGY MANAGEMENT INC.	1134 OGILVIE RD OTTAWA ON	ESE/160.7	-1.03	<u>107</u>
<u>19</u>	FST	PARKLAND CORPORATION	1134 OGILVIE RD OTTAWA K1J 8V1 ON CA ON	ESE/160.7	-1.03	<u>107</u>
<u>19</u>	FST	PARKLAND CORPORATION	1134 OGILVIE RD OTTAWA K1J 8V1 ON CA ON	ESE/160.7	-1.03	108
<u>19</u>	FST	PARKLAND CORPORATION	1134 OGILVIE RD OTTAWA K1J 8V1 ON CA ON	ESE/160.7	-1.03	108
<u>19</u>	RST	PIONEER PETROLEUMS	1134 OGILVIE RD GLOUCESTER ON K1J8V1	ESE/160.7	-1.03	109
<u>19</u>	SPL	Triangle Pump Service Limited	1134 Ogilvie Road Ottawa ON K1J 8V1	ESE/160.7	-1.03	109
<u>19</u>	GEN	Pioneer Energy LP	1134 Ogilvie Road Gloucester ON K1J 8V1	ESE/160.7	-1.03	<u>110</u>
<u>19</u>	RST	PIONEER PETROLEUMS	1134 OGILVIE RD GLOUCESTER ON K1J8V1	ESE/160.7	-1.03	<u>110</u>
<u>19</u>	INC	PARKLAND CORPORATION	1134 OGILVIE RD,,OTTAWA,ON,K1J 8V1, CA ON	ESE/160.7	-1.03	<u>110</u>
<u>19</u>	DTNK		1134 OGILVIE RD GLOUCESTER ON K1J 8V1	ESE/160.7	-1.03	111
<u>20</u>	WWIS		1134 OGILVIE RD. Ottawa ON	ESE/166.8	-1.00	111

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
			Well ID: 7224358			
<u>21</u>	wwis		1134 ON <i>Well ID:</i> 7224187	ESE/168.4	-1.00	<u>115</u>
<u>22</u>	BORE		ON	ESE/168.9	-1.00	118
<u>23</u>	WWIS		lot 26 con 2 ON <i>Well ID</i> : 1501363	ESE/169.0	-1.00	<u>119</u>
<u>24</u>	wwis		lot 26 con 2 ON <i>Well ID:</i> 1501355	ESE/177.9	0.08	121
<u>25</u>	PRT	1085091 ONTARIO LTD	1154 OGLIVIE RD GLOUCESTER ON K1J 8V1	ESE/178.7	0.08	124
<u>25</u>	RST	TROPIC SQUARE	1154 OGILVIE RD GLOUCESTER ON K1J8V1	ESE/178.7	0.08	124
<u>25</u>	RST	FENELON'S GAZ	1154 OGILVIE RD GLOUCESTER ON K1J 8V1	ESE/178.7	0.08	124
<u>25</u>	DTNK	TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER ON K1J 8V1	ESE/178.7	0.08	125
<u>25</u>	DTNK	TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER ON	ESE/178.7	0.08	125
<u>25</u>	DTNK	TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER ON	ESE/178.7	0.08	126
<u>25</u>	DTNK	TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER ON	ESE/178.7	0.08	126
<u>25</u>	DTNK	TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER K1J 8V1 ON CA ON	ESE/178.7	0.08	127
<u>25</u>	DTNK	TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER K1J 8V1 ON CA ON	ESE/178.7	0.08	128

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
<u>25</u>	DTNK	TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER K1J 8V1 ON CA ON	ESE/178.7	0.08	128
<u>25</u>	FST	TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER K1J 8V1 ON CA ON	ESE/178.7	0.08	129
<u>25</u>	FST	TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER K1J 8V1 ON CA ON	ESE/178.7	0.08	129
<u>25</u>	FST	TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER K1J 8V1 ON CA ON	ESE/178.7	0.08	<u>130</u>
<u>26</u>	WWIS		lot 25 con 1 ON <i>Well ID:</i> 1501123	E/183.2	1.00	130
<u>27</u>	GEN	6037682 CANADA INC.	1150 OGILVIE ROAD OTTAWA ON K1J 8V1	ESE/185.3	0.08	133
<u>27</u>	GEN	6037682 CANADA INC.	1150 OGILVIE RD OTTAWA ON K1J 8V1	ESE/185.3	0.08	133
<u>27</u>	EHS		1150 Chemin Ogilvie Ottawa ON K1J 8V1	ESE/185.3	0.08	134
<u>27</u>	GEN	6037682 Canada Inc.	1150 OGILVIE ROAD OTTAWA ON K1J 8V1	ESE/185.3	0.08	134
<u>28</u>	wwis		1182 OGILIVE ROAD Ottawa ON <i>Well ID:</i> 7157668	ESE/193.7	-0.06	<u>134</u>
<u>29</u>	wwis		ON <i>Well ID:</i> 7388761	S/194.7	-1.00	<u>137</u>
<u>30</u>	SCT	AFSC Future Security Controls	1088 Ogilvie Rd Gloucester ON K1J 7P8	SSW/201.2	-1.86	<u>138</u>

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
<u>31</u>	EHS		1098 Ogilvie Road Gloucester ON K1J 7P8	S/203.1	-0.97	<u>139</u>
<u>32</u>	INC		4297 WELDON DR, OTTAWA ON	WSW/204.5	-1.25	139
<u>33</u>	PTTW	9456-5082 Quebec Inc., as general partner for and on behalf of Lux Place L.P.	1098 Ogilvie Road and 1178 Cummings Avenue Ottawa, ON Canada ON	S/204.6	-0.97	139
<u>34</u>	EHS		1162 Ogilvie Road Gloucester ON K1J 8V1	ESE/205.6	0.00	<u>140</u>
<u>35</u>	EHS		1162 Ogilvie Road Ottawa ON	ESE/207.7	0.31	<u>140</u>
<u>36</u>	wwis		lot 25 con 1 ON <i>Well ID:</i> 1501130	ENE/211.7	2.00	<u>140</u>
<u>37</u>	wwis		1162 OGILIVE ROAD Ottawa ON <i>Well ID:</i> 7157667	ESE/218.4	0.00	143
38	EHS		1055 Cummings Ave Gloucester (Ottawa) ON K1J 7S2	N/218.5	1.00	<u>146</u>
<u>39</u>	GEN	FAIRVIEW FUNERAL &CREMATION SERVICES INC	1092 OGILVIE ROAD GLOUCESTER ON K1J 7P8	SSW/226.3	-1.86	147
<u>39</u>	GEN	FAIRVIEW FUNERAL AND CREMATION	1092 OGILVIE ROAD GLOUCESTER ON K1J 7P8	SSW/226.3	-1.86	<u>147</u>
<u>40</u>	GEN	EDIFICE BEAUFORT BUILDING INC.	1178 CUMMINGS OTTAWA ON K1J 7R8	SSE/231.6	-1.31	<u>147</u>
41	wwis		1043 CUMMINGS AVE OTTAWA ON Well ID: 7163232	N/235.9	1.00	148
<u>42</u>	SCT	Ambico Limited	1120 Cummings Ave Gloucester ON K1J 7R8	NW/241.5	0.00	<u>150</u>

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
42	SCT	AMBICO LIMITED	1120 Cummings Ave Ottawa ON K1J 7R8	NW/241.5	0.00	<u>150</u>
<u>42</u>	GEN	MANIS METAL MANUFACTURING LTD.	1120 CUMMINGS AVENUE OTTAWA ON K1J 7R8	NW/241.5	0.00	<u>150</u>
<u>42</u>	GEN	MANIS METAL MANUFACTURING LTD.	1120 CUMMINGS AVENUE OTTAWA ON K1J 7R8	NW/241.5	0.00	<u>151</u>
<u>42</u>	GEN	AMBICO LIMITED 25-161	1120 CUMMINGS AVENUE OTTAWA ON K1J 7R8	NW/241.5	0.00	<u>152</u>
<u>42</u>	GEN	MANIS METAL MANUFACTURING LTD. 25-161	1120 CUMMINGS AVENUE OTTAWA ON K1J 7R8	NW/241.5	0.00	<u>152</u>
<u>42</u>	SCT	Ambico Limited	1120 Cummings Ave Gloucester ON K1J 7R8	NW/241.5	0.00	<u>153</u>
<u>42</u>	GEN	Ambico Limited	1120 Cummings Avenue Ottawa ON	NW/241.5	0.00	<u>153</u>
<u>42</u>	EBR	Ambico Limited	1120 Cummings Avenue Ottawa K1J 7R8 CITY OF OTTAWA ON	NW/241.5	0.00	<u>154</u>
<u>42</u>	GEN	Ambico Limited	1120 Cummings Avenue Ottawa ON	NW/241.5	0.00	154
<u>42</u>	GEN	Ambico Limited	1120 Cummings Avenue Ottawa ON	NW/241.5	0.00	<u>154</u>
<u>42</u>	GEN	Ambico Limited	1120 Cummings Avenue Ottawa ON	NW/241.5	0.00	<u>155</u>
<u>42</u>	GEN	Ambico Limited	1120 Cummings Avenue Ottawa ON	NW/241.5	0.00	<u>155</u>
<u>42</u>	ECA	Ambico Limited	1120 Cummings Ave Ottawa ON K1J 7R8	NW/241.5	0.00	<u>156</u>

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
<u>42</u>	GEN	Ambico Limited	1120 Cummings Avenue Ottawa ON	NW/241.5	0.00	<u>156</u>
<u>42</u>	EBR	Ambico Limited	1120 Cummings Avenue Ottawa K1J 7R8 CITY OF OTTAWA ON	NW/241.5	0.00	<u>157</u>
<u>42</u>	ECA	Ambico Limited	1120 Cummings Avenue Ottawa ON K1J 7R8	NW/241.5	0.00	157
<u>42</u>	ECA	Ambico Limited	1120 Cummings Ave Ottawa ON K1J 7R8	NW/241.5	0.00	<u>157</u>
<u>42</u>	ECA	Ambico Limited	1120 Cummings Ave Ottawa ON K1J 7R8	NW/241.5	0.00	<u>158</u>
<u>42</u>	GEN	Ambico Limited	1120 Cummings Avenue Ottawa ON K1J 7R8	NW/241.5	0.00	<u>158</u>
<u>42</u>	GEN	Ambico Limited	1120 Cummings Avenue Ottawa ON K1J 7R8	NW/241.5	0.00	<u>159</u>
<u>42</u>	GEN	Ambico Limited	1120 Cummings Avenue Ottawa ON K1J 7R8	NW/241.5	0.00	<u>159</u>
42	GEN	Ambico Limited	1120 Cummings Avenue Ottawa ON K1J 7R8	NW/241.5	0.00	<u>160</u>
42	EASR	AMBICO LIMITED	1120 CUMMINGS AVE GLOUCESTER ON K1J 7R8	NW/241.5	0.00	<u>161</u>
<u>42</u>	GEN	Ambico Limited	1120 Cummings Avenue Ottawa ON K1J 7R8	NW/241.5	0.00	<u>161</u>
<u>42</u>	GEN	Ambico Limited	1120 Cummings Avenue Ottawa ON K1J 7R8	NW/241.5	0.00	<u>162</u>
42	GEN	Ambico Limited	1120 Cummings Avenue Ottawa ON K1J 7R8	NW/241.5	0.00	<u>162</u>

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
<u>43</u>	EHS		1059 Ogilvie Road Gloucester ON K1J 7S6	WSW/242.3	-2.00	<u>163</u>
43	EHS		1059 Ogilvie Road Gloucester ON K1J 7S6	WSW/242.3	-2.00	<u>163</u>
44	EHS		1098 Ogilvie Road and 1178 Cummings Avenue Gloucester ON K1J 7P8	S/243.3	-1.68	<u>163</u>
<u>44</u>	EHS		1098 Ogilvie Road and 1178 Cummings Avenue Gloucester ON K1J 7P8	S/243.3	-1.68	164
<u>45</u>	GEN	ST. LAURENT FUNERAL HOME	1200 OGILVIE ROAD GLOUCESTER ON K1J 8V1	E/246.4	0.88	<u>164</u>
<u>45</u>	GEN	ST. LAURENT FUNERAL HOME 44-081	1200 OGILVIE ROAD GLOUCESTER ON K1J 8V1	E/246.4	0.88	<u>164</u>
<u>45</u>	GEN	HULSE PLAYFAIR & MCGARRY	1200 OGILVIE ROAD GLOUCESTER ON K1J 8V1	E/246.4	0.88	<u>164</u>
<u>45</u>	GEN	HULSE, PLAYFAIR & MCGARRY	1200 OGILVIE ROAD GLOUCESTER ON K1J 8V1	E/246.4	0.88	<u>165</u>
<u>45</u>	GEN	HULSE, PLAYFAIR & MCGARRY INC.	1200 OGILVIE ROAD OTTAWA ON K1J 8V1	E/246.4	0.88	<u>165</u>
<u>45</u>	GEN	HULSE, PLAYFAIR & MCGARRY INC.	1200 OGILVIE ROAD OTTAWA ON K1J 8V1	E/246.4	0.88	<u>165</u>
<u>45</u>	GEN	HULSE, PLAYFAIR & MCGARRY INC.	1200 OGILVIE ROAD OTTAWA ON K1J 8V1	E/246.4	0.88	<u>166</u>
<u>45</u>	GEN	HULSE, PLAYFAIR & MCGARRY INC.	1200 OGILVIE ROAD OTTAWA ON K1J 8V1	E/246.4	0.88	<u>166</u>
<u>45</u>	GEN	Hulse, Playfair & McGarry	1200 Ogilvie Rd. Ottawa ON K1J 8V1	E/246.4	0.88	<u>167</u>

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
<u>45</u>	GEN	Hulse, Playfair & McGarry	1200 Ogilvie Rd. Ottawa ON K1J 8V1	E/246.4	0.88	<u>167</u>
<u>45</u>	GEN	Hulse, Playfair & McGarry	1200 Ogilvie Rd. Ottawa ON K1J 8V1	E/246.4	0.88	<u>167</u>
<u>46</u>	GEN	Gignul Non Profit Housing Corporation	1043 Cummings Avenue Ottawa ON K1J 7R8	N/248.8	1.00	<u>168</u>
<u>47</u>	wwis		1043 CUMMINGS AVE Ottawa ON	NNW/248.9	1.00	168
			Well ID: 7159001			
<u>47</u>	WWIS		1043 CUMMINGS AVE OTTAWA ON	NNW/248.9	1.00	<u>171</u>
			Well ID: 7163230			

Executive Summary: Summary By Data Source

BORE - Borehole

A search of the BORE database, dated 1875-Jul 2018 has found that there are 1 BORE site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	<u>Address</u>	Direction	Distance (m)	<u>Map Key</u>
	ON	ESE	168.90	<u>22</u>

CA - Certificates of Approval

A search of the CA database, dated 1985-Oct 30, 2011* has found that there are 2 CA site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	<u>Address</u>	<u>Direction</u>	Distance (m)	Map Key
MANDARIN-OGILVIE RESTAURANT	1137 OGILVIE ROAD GLOUCESTER CITY ON K1J 7P6	E	81.94	<u>8</u>
Lower Elevation	<u>Address</u>	<u>Direction</u>	Distance (m)	Map Key
1633981 Ontario Inc.	1111 Ogilvie Rd Ottawa ON	S	80.43	<u>7</u>

DTNK - Delisted Fuel Tanks

A search of the DTNK database, dated Feb 28, 2022 has found that there are 26 DTNK site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	<u>Address</u>	Direction	Distance (m)	Map Key
ATLAS WELDING & EQUIPMENT RENTALS DIV OF LALONDE WELDING LTD	1091 CUMMINGS AVE GLOUCESTER ON	ENE	86.94	<u>9</u>
ATLAS WELDING & EQUIPMENT RENTALS DIV OF LALONDE WELDING LTD	1091 CUMMINGS AVE GLOUCESTER K1J 7S2 ON CA ON	ENE	86.94	9

Equal/Higher Elevation TROPIC SQUARE LTD	Address 1154 OGILVIE RD GLOUCESTER K1J 8V1 ON CA ON	<u>Direction</u> ESE	<u>Distance (m)</u> 178.65	<u>Map Key</u> <u>25</u>
TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER ON K1J 8V1	ESE	178.65	<u>25</u>
TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER ON	ESE	178.65	<u>25</u>
TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER ON	ESE	178.65	<u>25</u>
TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER ON	ESE	178.65	<u>25</u>
TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER K1J 8V1 ON CA ON	ESE	178.65	<u>25</u>
TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER K1J 8V1 ON CA ON	ESE	178.65	<u>25</u>
Lower Elevation MOT MARWAN ENTERPRISES LTD	Address 1111 OGILVIE RD OTTAWA ON	<u>Direction</u> S	<u>Distance (m)</u> 80.43	Map Key 7
SMS PETROLEUMS DIVISION OF SUNOCO NANCY NG	1111 OGILVIE RD GLOUCESTER ON K1J 7P7	S	80.43	7
MO & MARWAN ENTERPRISES LTD	1111 OGILVIE RD GLOUCESTER ON K1J 7P7	S	80.43	7
1633981 ONTARIO INC O/ A OLCO GAS BAR	1111 OGILVIE RD GLOUCESTER ON	S	80.43	7

1633981 ONTARIO INC O/ A OLCO GAS BAR	1111 OGILVIE RD GLOUCESTER ON	S	80.43	7
1633981 ONTARIO INC O/ A OLCO GAS BAR	1111 OGILVIE RD GLOUCESTER ON	S	80.43	<u>7</u>
1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S	80.43	<u>7</u>
1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S	80.43	<u>7</u>
1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S	80.43	<u>7</u>
1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S	80.43	7
	1111 OGILVIE RD GLOUCESTER ON K1J 7P7	S	80.43	<u>7</u>
LES PETROLES CALEX LTEE	1111 OGILVIE RD GLOUCESTER ON K1J 7P7	S	80.43	7
PIONEER ENERGY MANAGEMENT INC.	1134 OGILVIE RD OTTAWA ON K1J 8V1	ESE	160.74	<u>19</u>
PIONEER ENERGY MANAGEMENT INC.	1134 OGILVIE RD OTTAWA ON	ESE	160.74	<u>19</u>
PIONEER ENERGY MANAGEMENT INC.	1134 OGILVIE RD OTTAWA ON	ESE	160.74	<u>19</u>
PIONEER ENERGY MANAGEMENT INC.	1134 OGILVIE RD OTTAWA ON	ESE	160.74	<u>19</u>
	1134 OGILVIE RD GLOUCESTER ON K1J 8V1	ESE	160.74	<u>19</u>

EASR - Environmental Activity and Sector Registry

A search of the EASR database, dated Oct 2011- Dec 31, 2022 has found that there are 1 EASR site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	<u>Address</u>	Direction	Distance (m)	<u>Map Key</u>
AMBICO LIMITED	1120 CUMMINGS AVE GLOUCESTER ON K1.1 7R8	NW	241.51	<u>42</u>

EBR - Environmental Registry

A search of the EBR database, dated 1994 - Jan 31, 2023 has found that there are 2 EBR site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	<u>Address</u>	<u>Direction</u>	Distance (m)	Map Key
Ambico Limited	1120 Cummings Avenue Ottawa K1J 7R8 CITY OF OTTAWA ON	NW	241.51	<u>42</u>
Ambico Limited	1120 Cummings Avenue Ottawa K1J 7R8 CITY OF OTTAWA ON	NW	241.51	<u>42</u>

ECA - Environmental Compliance Approval

A search of the ECA database, dated Oct 2011- Dec 31, 2022 has found that there are 5 ECA site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	<u>Address</u>	Direction	Distance (m)	Map Key
Ambico Limited	1120 Cummings Ave Ottawa ON K1J 7R8	NW	241.51	<u>42</u>
Ambico Limited	1120 Cummings Ave Ottawa ON K1J 7R8	NW	241.51	<u>42</u>
Ambico Limited	1120 Cummings Ave Ottawa ON K1J 7R8	NW	241.51	<u>42</u>
Ambico Limited	1120 Cummings Avenue Ottawa ON K1J 7R8	NW	241.51	<u>42</u>

Equal/Higher Elevation	<u>Address</u>	<u>Direction</u>	Distance (m)	Map Key
Lower Elevation	<u>Address</u>	<u>Direction</u>	Distance (m)	Map Key
1633981 Ontario Inc.	1111 Ogilvie Rd Ottawa ON K1J 7P7	S	80.43	7

EHS - ERIS Historical Searches

A search of the EHS database, dated 1999-Jul 31, 2022 has found that there are 12 EHS site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address 1188 Cummings Ave Ottawa ON Gloucester ON K1J 7R8	<u>Direction</u> SSE	<u>Distance (m)</u> 29.86	Map Key 1
	1137 Ogilvie Road and 1111 Cummings Avenue Gloucester ON K1J 7P6	E	81.94	<u>8</u>
	1137 Ogilvie Road and 1111 Cummings Avenue Gloucester ON K1J 7P6	E	81.94	<u>8</u>
	1150 Chemin Ogilvie Ottawa ON K1J 8V1	ESE	185.31	<u>27</u>
	1162 Ogilvie Road Gloucester ON K1J 8V1	ESE	205.64	<u>34</u>
	1162 Ogilvie Road Ottawa ON	ESE	207.72	<u>35</u>
	1055 Cummings Ave Gloucester (Ottawa) ON K1J 7S2	N	218.51	<u>38</u>
Lower Elevation	Address	<u>Direction</u>	Distance (m)	Map Key

1098 Ogilvie Road Gloucester ON K1J 7P8	S	203.10	<u>31</u>
1059 Ogilvie Road Gloucester ON K1J 7S6	WSW	242.30	<u>43</u>
1059 Ogilvie Road Gloucester ON K1J 7S6	wsw	242.30	<u>43</u>
1098 Ogilvie Road and 1178 Cummings Avenue Gloucester ON K1J 7P8	S	243.26	<u>44</u>
1098 Ogilvie Road and 1178 Cummings Avenue Gloucester ON K1J 7P8	S	243.26	<u>44</u>

FST - Fuel Storage Tank

A search of the FST database, dated Feb 28, 2022 has found that there are 13 FST site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation ATLAS WELDING & EQUIPMENT RENTALS DIV OF LALONDE WELDING LTD	Address 1091 CUMMINGS AVE GLOUCESTER K1J 7S2 ON CA ON	<u>Direction</u> ENE	<u>Distance (m)</u> 86.94	Map Key 9
TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER K1J 8V1 ON CA ON	ESE	178.65	<u>25</u>
TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER K1J 8V1 ON CA ON	ESE	178.65	<u>25</u>
TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER K1J 8V1 ON CA ON	ESE	178.65	<u>25</u>
Lower Elevation	<u>Address</u>	<u>Direction</u>	Distance (m)	Map Key
1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S	80.43	<u>7</u>

1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S	80.43	<u>7</u>
1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S	80.43	7
1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S	80.43	7
1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S	80.43	7
1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S	80.43	<u>7</u>
PARKLAND CORPORATION	1134 OGILVIE RD OTTAWA K1J 8V1 ON CA ON	ESE	160.74	<u>19</u>
PARKLAND CORPORATION	1134 OGILVIE RD OTTAWA K1J 8V1 ON CA ON	ESE	160.74	<u>19</u>
PARKLAND CORPORATION	1134 OGILVIE RD OTTAWA K1J 8V1 ON CA ON	ESE	160.74	<u>19</u>

FSTH - Fuel Storage Tank - Historic

A search of the FSTH database, dated Pre-Jan 2010* has found that there are 5 FSTH site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	<u>Address</u>	Direction	Distance (m)	<u>Map Key</u>
ATLAS WELDING & EQUIPMENT RENTALS DIV OF LALONDE WELDING LTD	1091 CUMMINGS AVE GLOUCESTER ON K1J 7S2	ENE	86.94	<u>9</u>

Lower Elevation	<u>Address</u>	<u>Direction</u>	Distance (m)	<u>Map Key</u>

1633981 ONTARIO INC O/ A OLCO GAS BAR	1111 OGILVIE RD GLOUCESTER OTTAWA ON K1J 7P7	S	80.43	7
1633981 ONTARIO INC O/ A OLCO GAS BAR	1111 OGILVIE RD GLOUCESTER ON K1J 7P7	S	80.43	<u>7</u>
PIONEER PETROLEUMS MANAGEMENT INC**	1134 OGILVIE RD OTTAWA ON	ESE	160.74	<u>19</u>
PIONEER PETROLEUMS MANAGEMENT INC**	1134 OGILVIE RD OTTAWA ON K1J 8V1	ESE	160.74	<u>19</u>

GEN - Ontario Regulation 347 Waste Generators Summary

A search of the GEN database, dated 1986-Oct 31, 2022 has found that there are 51 GEN site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation FRESH AIR EXPERIENCE INC.	Address 1137 AGILVIE ROAD GLOUCESTER ON K1J 7P6	<u>Direction</u> E	<u>Distance (m)</u> 81.94	<u>Map Key</u> <u>8</u>
FRESH AIR EXPERIENCE INC. 15-313	1137 AGILVIE ROAD GLOUCESTER ON K1J 7P6	Е	81.94	<u>8</u>
6037682 CANADA INC.	1150 OGILVIE ROAD OTTAWA ON K1J 8V1	ESE	185.31	<u>27</u>
6037682 CANADA INC.	1150 OGILVIE RD OTTAWA ON K1J 8V1	ESE	185.31	<u>27</u>
6037682 Canada Inc.	1150 OGILVIE ROAD OTTAWA ON K1J 8V1	ESE	185.31	<u>27</u>
Ambico Limited	1120 Cummings Avenue Ottawa ON K1J 7R8	NW	241.51	<u>42</u>
Ambico Limited	1120 Cummings Avenue Ottawa ON K1J 7R8	NW	241.51	<u>42</u>

Equal/Higher Elevation	<u>Address</u>	Direction	Distance (m)	<u>Map Key</u>
Ambico Limited	1120 Cummings Avenue Ottawa ON K1J 7R8	NW	241.51	<u>42</u>
Ambico Limited	1120 Cummings Avenue Ottawa ON K1J 7R8	NW	241.51	<u>42</u>
Ambico Limited	1120 Cummings Avenue Ottawa ON K1J 7R8	NW	241.51	<u>42</u>
Ambico Limited	1120 Cummings Avenue Ottawa ON K1J 7R8	NW	241.51	<u>42</u>
Ambico Limited	1120 Cummings Avenue Ottawa ON K1J 7R8	NW	241.51	<u>42</u>
Ambico Limited	1120 Cummings Avenue Ottawa ON	NW	241.51	<u>42</u>
MANIS METAL MANUFACTURING LTD.	1120 CUMMINGS AVENUE OTTAWA ON K1J 7R8	NW	241.51	<u>42</u>
MANIS METAL MANUFACTURING LTD.	1120 CUMMINGS AVENUE OTTAWA ON K1J 7R8	NW	241.51	<u>42</u>
AMBICO LIMITED 25-161	1120 CUMMINGS AVENUE OTTAWA ON K1J 7R8	NW	241.51	<u>42</u>
MANIS METAL MANUFACTURING LTD. 25-161	1120 CUMMINGS AVENUE OTTAWA ON K1J 7R8	NW	241.51	<u>42</u>
Ambico Limited	1120 Cummings Avenue Ottawa ON	NW	241.51	<u>42</u>

Equal/Higher Elevation	<u>Address</u>	Direction	Distance (m)	Map Key
Ambico Limited	1120 Cummings Avenue Ottawa ON	NW	241.51	<u>42</u>
Ambico Limited	1120 Cummings Avenue Ottawa ON	NW	241.51	<u>42</u>
Ambico Limited	1120 Cummings Avenue Ottawa ON	NW	241.51	<u>42</u>
Ambico Limited	1120 Cummings Avenue Ottawa ON	NW	241.51	<u>42</u>
ST. LAURENT FUNERAL HOME	1200 OGILVIE ROAD GLOUCESTER ON K1J 8V1	E	246.38	<u>45</u>
ST. LAURENT FUNERAL HOME 44-081	1200 OGILVIE ROAD GLOUCESTER ON K1J 8V1	E	246.38	<u>45</u>
HULSE PLAYFAIR & MCGARRY	1200 OGILVIE ROAD GLOUCESTER ON K1J 8V1	E	246.38	<u>45</u>
HULSE, PLAYFAIR & MCGARRY	1200 OGILVIE ROAD GLOUCESTER ON K1J 8V1	Е	246.38	<u>45</u>
HULSE, PLAYFAIR & MCGARRY INC.	1200 OGILVIE ROAD OTTAWA ON K1J 8V1	Е	246.38	<u>45</u>
HULSE, PLAYFAIR & MCGARRY INC.	1200 OGILVIE ROAD OTTAWA ON K1J 8V1	Е	246.38	<u>45</u>
HULSE, PLAYFAIR & MCGARRY INC.	1200 OGILVIE ROAD OTTAWA ON K1J 8V1	E	246.38	<u>45</u>
HULSE, PLAYFAIR & MCGARRY INC.	1200 OGILVIE ROAD OTTAWA ON K1J 8V1	Е	246.38	<u>45</u>

Equal/Higher Elevation	<u>Address</u>	<u>Direction</u>	Distance (m)	<u>Map Key</u>
Hulse, Playfair & McGarry	1200 Ogilvie Rd. Ottawa ON K1J 8V1	E	246.38	<u>45</u>
Hulse, Playfair & McGarry	1200 Ogilvie Rd. Ottawa ON K1J 8V1	E	246.38	<u>45</u>
Hulse, Playfair & McGarry	1200 Ogilvie Rd. Ottawa ON K1J 8V1	E	246.38	<u>45</u>
Gignul Non Profit Housing Corporation	1043 Cummings Avenue Ottawa ON K1J 7R8	N	248.82	<u>46</u>
Lower Elevation	Address	<u>Direction</u>	Distance (m)	Map Key
OLCO Petrolleum	1111 Ogilvie Ottawa ON K1J 7P7	S	80.43	<u>7</u>
1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON	S	80.43	<u>7</u>
1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON	S	80.43	7
1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON	S	80.43	7
1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON	S	80.43	7
1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON	S	80.43	7
1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON K1J 7P7	S	80.43	7

1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON K1J 7P7	S	80.43	<u>7</u>
1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON K1J 7P7	S	80.43	<u>7</u>
1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON K1J 7P7	S	80.43	<u>7</u>
1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON K1J 7P7	S	80.43	<u>7</u>
1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON K1J 7P7	S	80.43	<u>7</u>
1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON K1J 7P7	S	80.43	<u>7</u>
Pioneer Energy LP	1134 Ogilvie Road Gloucester ON K1J 8V1	ESE	160.74	<u>19</u>
FAIRVIEW FUNERAL &CREMATION SERVICES INC	1092 OGILVIE ROAD GLOUCESTER ON K1J 7P8	SSW	226.28	<u>39</u>
FAIRVIEW FUNERAL AND CREMATION	1092 OGILVIE ROAD GLOUCESTER ON K1J 7P8	SSW	226.28	<u>39</u>
EDIFICE BEAUFORT BUILDING INC.	1178 CUMMINGS OTTAWA ON K1J 7R8	SSE	231.57	<u>40</u>

HINC - TSSA Historic Incidents

A search of the HINC database, dated 2006-June 2009* has found that there are 1 HINC site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	<u>Direction</u>	Distance (m)	<u>Map Key</u>
	1085 CUMMINGS AVENUE OTTAWA ON	NNE	121.26	<u>14</u>

INC - Fuel Oil Spills and Leaks

A search of the INC database, dated Feb 28, 2022 has found that there are 2 INC site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	<u>Address</u>	Direction	Distance (m)	<u>Map Key</u>
PARKLAND CORPORATION	1134 OGILVIE RD,,OTTAWA,ON,K1J 8V1,CA ON	ESE	160.74	<u>19</u>
	4297 WELDON DR, OTTAWA ON	WSW	204.51	<u>32</u>

PRT - Private and Retail Fuel Storage Tanks

A search of the PRT database, dated 1989-1996* has found that there are 8 PRT site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	<u>Address</u>	<u>Direction</u>	Distance (m)	Map Key
ATLAS WELDING & EQUIPMENT RENTALS DIV OF LALONDE W	1091 CUMMINGS AV GLOUCESTER ON K1J 7S2	ENE	86.94	9
1085091 ONTARIO LTD	1154 OGLIVIE RD GLOUCESTER ON K1J 8V1	ESE	178.65	<u>25</u>

Lower Elevation	Address	<u>Direction</u>	Distance (m)	Map Key
CALEX DIVISION OF SUNOCO ATTN ROBERTA WALSH	1111 OGILVIE RD GLOUCESTER ON K1J 7P7	S	80.43	7
LES PETROLES CALEX LTEE	1111 OGILVIE OTTAWA ON K1J7P7	S	80.43	7
CALEX DIVISION OF SUNOCO ATTN ROBERTA WALSH	1111 OGILVIE RD GLOUCESTER ON K1J 7P7	S	80.43	<u>7</u>

CALEX DIVISION OF SUNOCO ATTN MARY MISANGYI	1111 OGILVIE OTTAWA ON K1J7P7	S	80.43	7
CALEX DIVISION OF SUNOCO ATTN MARY MISANGYI	1111 OGILVIE OTTAWA ON K1J7P7	S	80.43	<u>7</u>
C CORP (ONTARIO) INC ATTN ACCOUNTS PAYABLE	1134 OGILVIE RD OTTAWA ON K1J8V1	ESE	160.74	<u>19</u>

PTTW - Permit to Take Water

A search of the PTTW database, dated 1994 - Jan 31, 2023 has found that there are 1 PTTW site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	<u>Address</u>	Direction	Distance (m)	<u>Map Key</u>
9456-5082 Quebec Inc., as general partner for and on behalf of Lux Place L.P.	1098 Ogilvie Road and 1178 Cummings Avenue Ottawa, ON Canada ON	S	204.56	<u>33</u>

RST - Retail Fuel Storage Tanks

A search of the RST database, dated 1999-May 31, 2022 has found that there are 9 RST site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation TROPIC SQUARE	Address 1154 OGILVIE RD GLOUCESTER ON K1J8V1	<u>Direction</u> ESE	<u>Distance (m)</u> 178.65	<u>Map Key</u> <u>25</u>
FENELON'S GAZ	1154 OGILVIE RD GLOUCESTER ON K1J 8V1	ESE	178.65	<u>25</u>
Lower Elevation CALEX SERVICE STATION	Address 1111 OGILVIE RD GLOUCESTER ON K1J7P7	Direction S	<u>Distance (m)</u> 80.43	Map Key 7
ECONO GAS	1111 OGILVIE RD APT 1 GLOUCESTER ON K1J7P7	S	80.43	7

FAS GAS PLUS	1111 OGILVIE RD UNIT 1 GLOUCESTER ON K1J7P7	S	80.43	7
PIONEER PETROLEUMS	1134 OGILVIE RD GLOUCESTER ON K1J8V1	ESE	160.74	<u>19</u>
PIONEER PETROLEUMS	1134 OGILVIE RD GLOUCESTER ON K1J 8V1	ESE	160.74	<u>19</u>
PIONEER PETROLEUMS	1134 OGILVIE RD OTTAWA ON K1J 8V1	ESE	160.74	<u>19</u>
PIONEER PETROLEUMS	1134 OGILVIE RD GLOUCESTER ON K1J8V1	ESE	160.74	<u>19</u>

SCT - Scott's Manufacturing Directory

A search of the SCT database, dated 1992-Mar 2011* has found that there are 4 SCT site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation Ambico Limited	Address 1120 Cummings Ave Gloucester ON K1J 7R8	<u>Direction</u> NW	<u>Distance (m)</u> 241.51	<u>Map Key</u> <u>42</u>
Ambico Limited	1120 Cummings Ave Gloucester ON K1J 7R8	NW	241.51	<u>42</u>
AMBICO LIMITED	1120 Cummings Ave Ottawa ON K1J 7R8	NW	241.51	<u>42</u>
Lower Elevation AFSC Future Security Controls	Address 1088 Ogilvie Rd Gloucester ON K1J 7P8	<u>Direction</u> SSW	<u>Distance (m)</u> 201.21	<u>Map Key</u> <u>30</u>

SPL - Ontario Spills

A search of the SPL database, dated 1988-Sep 2020; Dec 2020-Mar 2021 has found that there are 5 SPL site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation UNKNOWN	Address CUMMINGS AVE JUST SOUTH OF OLGILVIE GLOUCESTER CITY ON	<u>Direction</u> SE	<u>Distance (m)</u> 114.30	<u>Map Key</u> <u>13</u>
Labrador Spring Water <unofficial></unofficial>	OGILVIE STREET / CUMMING STREET <unofficial> Ottawa ON</unofficial>	SE	114.30	<u>13</u>
Lower Elevation	Address 1111 Ogilvie Rd Ottawa ON	<u>Direction</u> S	<u>Distance (m)</u> 80.43	Map Key 7
Lower Elevation Triangle Pump Service Limited	1111 Ogilvie Rd			-

WWIS - Water Well Information System

A search of the WWIS database, dated Jun 30 2022 has found that there are 24 WWIS site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address c1196 Cummings Ave Ottawa ON Well ID: 7346072	<u>Direction</u> SSE	<u>Distance (m)</u> 44.74	Map Key 2
	1198 Cummings Ave Ottawa ON Well ID: 7346071	SSE	56.45	<u>3</u>
	lot 25 con 1 ON <i>Well ID:</i> 1501127	N	58.69	<u>4</u>

Order No: 23022400359

SERVICE STATION OTTAWA CITY ON K1J 8V1

Equal/Higher Elevation	Address lot 25 con 1 ON	<u>Direction</u> ENE	<u>Distance (m)</u> 65.86	<u>Map Key</u> <u>5</u>
	Well ID: 1501129			
	lot 25 con 1 ON	NE	79.16	<u>6</u>
	Well ID: 1501126			
	lot 25 con 1 ON	SE	92.04	<u>10</u>
	Well ID: 1501115			
	lot 25 con 1 ON	NE	92.23	<u>11</u>
	Well ID: 1501124			
	lot 25 con 1 ON	NE	128.27	<u>15</u>
	Well ID: 1501128			
	lot 26 con 2 ON	ESE	177.85	<u>24</u>
	Well ID: 1501355			
	lot 25 con 1 ON	E	183.17	<u>26</u>
	Well ID: 1501123			
	lot 25 con 1 ON	ENE	211.73	<u>36</u>
	Well ID: 1501130			
	1162 OGILIVE ROAD Ottawa ON	ESE	218.36	<u>37</u>
	Well ID : 7157667			
	1043 CUMMINGS AVE OTTAWA ON	N	235.94	<u>41</u>
	Well ID: 7163232			
	1043 CUMMINGS AVE Ottawa ON	NNW	248.93	<u>47</u>
	Well ID: 7159001			
	1043 CUMMINGS AVE OTTAWA ON	NNW	248.93	<u>47</u>

<u>Equaliting net Elevation</u>	Well ID: 7163230	<u>Direction</u>	<u>Distance (m)</u>	<u>шар кеу</u>
Lower Elevation	<u>Address</u>	Direction	Distance (m)	Map Key
	lot 25 con 1 ON	SW	113.83	<u>12</u>
	Well ID: 1510842			
	1134 OGILVIE RD. Ottawa ON	ESE	146.79	<u>16</u>
	Well ID: 7224359			
	1134 ON	ESE	154.77	<u>17</u>
	Well ID: 7224188			
	1134 OGILVIE RD ON	SE	155.61	<u>18</u>
	Well ID: 7224189			
	1134 OGILVIE RD. Ottawa ON	ESE	166.78	<u>20</u>
	Well ID: 7224358			
	1134 ON	ESE	168.41	<u>21</u>
	Well ID: 7224187			
	lot 26 con 2 ON	ESE	169.02	<u>23</u>
	Well ID: 1501363			
	1182 OGILIVE ROAD Ottawa ON	ESE	193.69	<u>28</u>
	Well ID: 7157668			
	ON	S	194.65	<u>29</u>

Direction

Distance (m)

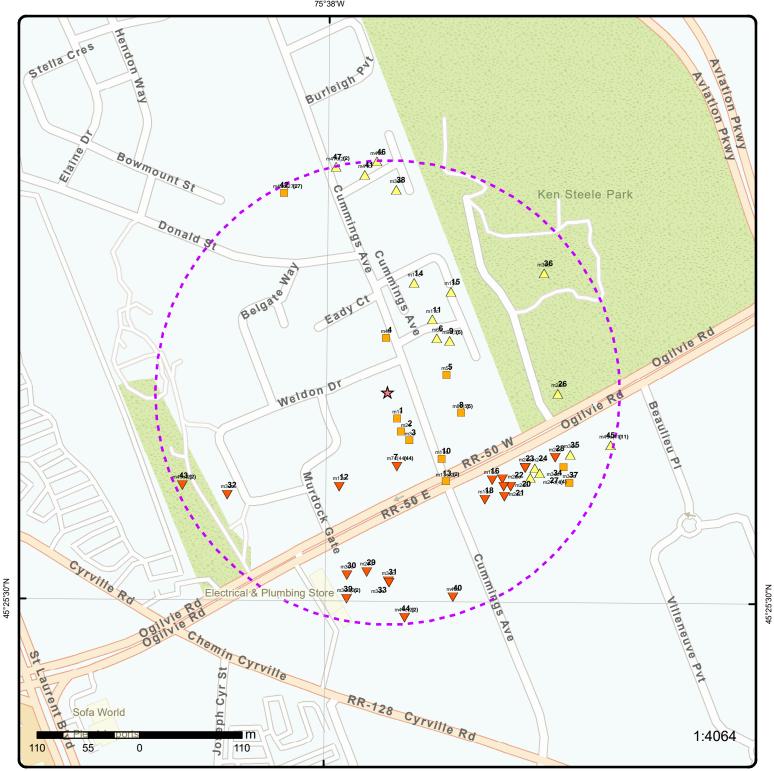
Map Key

Order No: 23022400359

Well ID: 7388761

Equal/Higher Elevation

Address



Map: 0.25 Kilometer Radius

Order Number: 23022400359

Address: 1184, 1188 & 1196 Cummings Avenue, Gloucester, ON



ERIS

Aerial Year: 2022

Address: 1184, 1188 & 1196 Cummings Avenue, Gloucester, ON

Source: ESRI World Imagery

Order Number: 23022400359



Topographic Map

Address: 1184, 1188 & 1196 Cummings Avenue, ON

Source: ESRI World Topographic Map

Order Number: 23022400359



Detail Report

Map Key Number of Direction/ Elev/Diff Site DB Records Distance (m) (m) 1 of 1 73.9 / 0.00 1188 Cummings Ave Ottawa ON 1 SSE/29.9 **EHS** Gloucester ON K1J 7R8 Order No: 20190809156 Nearest Intersection: Status: Municipality: Report Type: Standard Report Client Prov/State: ON Report Date: 15-AUG-19 Search Radius (km): .25 Date Received: 09-AUG-19 X: -75.632344 Y: Previous Site Name: 45.42677 Lot/Building Size: Fire Insur. Maps and/or Site Plans Additional Info Ordered:

2 1 of 1 SSE/44.7 73.9 / 0.00 c1196 Cummings Ave Ottawa ON WWIS

Flowing (Y/N):

Date Received:

Selected Flag:

Form Version:

Concession:

Easting NAD83: Northing NAD83:

UTM Reliability:

Contractor:

Owner:

County:

Lot:

Zone:

Data Entry Status:

Abandonment Rec:

Concession Name:

30-Oct-2019 00:00:00

OTTAWA-CARLETON

Order No: 23022400359

TRUE

7241

Flow Rate:

Data Src:

Well ID: 7346072

Construction Date:

Use 1st: Monitoring and Test Hole Use 2nd:

Final Well Status: Monitoring and Test Hole

Water Type:

Casing Material:
Audit No: Z298268
Too: A274730

Tag: A274739
Constructn Method:

Elevation (m): Elevatn Reliabilty: Depth to Bedrock: Well Depth: Overburden/Bedrock:

Pump Rate: Static Water Level: Clear/Cloudy:

Municipality: GLOUCESTER TOWNSHIP

Site Info:

PDF URL (Map):

Additional Detail(s) (Map)

 Well Completed Date:
 2019/09/16

 Year Completed:
 2019

 Depth (m):
 6.1

Latitude: 45.4266409195665 **Longitude:** -75.6322914072156

Path:

Bore Hole Information

 Bore Hole ID:
 1007697673
 Elevation:

 DP2BR:
 Elevrc:

Spatial Status: Zone: 18

East83:

North83:

Org CS:

UTMRC: UTMRC Desc:

Location Method:

450537.00

5030541.00

margin of error: 30 m - 100 m

Order No: 23022400359

UTM83

Code OB: Code OB Desc: Open Hole:

Date Completed: 16-Sep-2019 00:00:00

Remarks:

. Cluster Kind:

Loc Method Desc: on Water Well Record

Elevrc Desc:

Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment: Supplier Comment:

Overburden and Bedrock

Materials Interval

Formation ID: 1007890235

Layer: Color: 8 **BLACK** General Color: Mat1: 27 **OTHER** Most Common Material: Mat2: 11 Mat2 Desc: **GRAVEL** Mat3: 66 Mat3 Desc: **DENSE**

Formation End Depth: 0.3100000023841858

0.0

Formation End Depth UOM: m

Overburden and Bedrock

Formation Top Depth:

Materials Interval

Formation ID: 1007890236

 Layer:
 2

 Color:
 6

 General Color:
 BROWN

 Mat1:
 28

 Most Common Material:
 SAND

 Mat2:
 12

 Mat2 Desc:
 STONES

 Mat3:
 77

 Mat3 Desc:
 LOOSE

 Formation Top Depth:
 0.3100000023841858

 Formation End Depth:
 2.440000057220459

Formation End Depth UOM: m

Overburden and Bedrock

Materials Interval

Formation ID: 1007890237

 Layer:
 3

 Color:
 8

 General Color:
 BLACK

 Mat1:
 17

 Most Common Material:
 SHALE

Mat2:

Mat2 Desc:

Mat3: 85 Mat3 Desc: SOFT

 Formation Top Depth:
 2.440000057220459

 Formation End Depth:
 6.099999904632568

Formation End Depth UOM:

Annular Space/Abandonment

Sealing Record

Plug ID: 1007891422

Layer:

 Plug From:
 0.3100000023841858

 Plug To:
 2.740000009536743

Plug Depth UOM: m

Annular Space/Abandonment

Sealing Record

Plug ID: 1007891421

Layer: 1

Plug From: 0.0

Plug To: 0.3100000023841858

Plug Depth UOM: m

Annular Space/Abandonment

Sealing Record

Plug ID: 1007891423

Layer:

 Plug From:
 2.74000009536743

 Plug To:
 6.099999904632568

Plug Depth UOM: m

Method of Construction & Well

<u>Use</u>

Method Construction ID: 1007892585

Method Construction Code: 5

Method Construction: Air Percussion

Other Method Construction:

Pipe Information

Pipe ID: 1007888646

Casing No:

Comment: Alt Name:

Construction Record - Casing

Casing ID: 1007893026

Layer: 1
Material: 5

Open Hole or Material: PLASTIC

Depth From: 0.0

 Depth To:
 3.0999999046325684

 Casing Diameter:
 5.199999809265137

Casing Diameter UOM: cm
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1007893380

Layer: 1

10 Slot:

Screen Top Depth: 3.0999999046325684 Screen End Depth: 6.099999904632568

Screen Material: 5 Screen Depth UOM: m Screen Diameter UOM: cm

Screen Diameter: 6.03000020980835

Results of Well Yield Testing

Pumping Test Method Desc:

1007894063 Pump Test ID:

Pump Set At: Static Level:

Final Level After Pumping: Recommended Pump Depth:

Pumping Rate: Flowing Rate:

Recommended Pump Rate:

Levels UOM: Rate UOM: Water State After Test Code:

LPM

0

Water State After Test: Pumping Test Method: **Pumping Duration HR:**

Pumping Duration MIN:

Flowing:

Hole Diameter

Hole ID: 1007892093

Diameter: 11.430000305175781

Depth From: 0.0

Depth To: 3.3499999046325684

Hole Depth UOM: m Hole Diameter UOM: cm

Hole Diameter

1007892094 Hole ID: Diameter: 8.890000343322754 Depth From: 3.3499999046325684 Depth To: 6.099999904632568

Hole Depth UOM: m Hole Diameter UOM: cm

<u>Links</u>

Bore Hole ID: 1007697673 Tag No: A274739 Contractor: Depth M: 6.1 7241

734\7346072.pdf Year Completed: 2019 Path: Well Completed Dt: 2019/09/16 Latitude: 45.4266409195665 Audit No: Z298268 Longitude: -75.6322914072156

3 1 of 1 SSE/56.4 73.9 / 0.00 1198 Cummings Ave **WWIS** Ottawa ON

Flowing (Y/N):

Data Entry Status:

Order No: 23022400359

Flow Rate:

Data Src:

Well ID: 7346071

Construction Date: Use 1st: Monitoring and Test Hole

Use 2nd:

Final Well Status: Date Received: 30-Oct-2019 00:00:00 Monitoring and Test Hole

Water Type:

Casing Material:

Z298267 Audit No: A274740 Tag:

Constructn Method: Elevation (m):

Elevatn Reliabilty: Depth to Bedrock: Well Depth:

Overburden/Bedrock: Pump Rate: Static Water Level: Clear/Cloudy:

Municipality: Site Info:

GLOUCESTER TOWNSHIP

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/734\7346071.pdf

Additional Detail(s) (Map)

2019/09/16 Well Completed Date: 2019 Year Completed: Depth (m): 7.01

Latitude: 45.426560550015 Longitude: -75.6321754619596 734\7346071.pdf Path:

Bore Hole Information

Bore Hole ID: 1007697670

DP2BR: Spatial Status: Code OB: Code OB Desc: Open Hole:

Cluster Kind:

Date Completed: 16-Sep-2019 00:00:00 Remarks:

Loc Method Desc: on Water Well Record

Elevrc Desc:

Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment:

Supplier Comment:

Overburden and Bedrock

Materials Interval

1007890232 Formation ID:

Layer: Color: 6 General Color: **BROWN** Mat1: 02 **TOPSOIL** Most Common Material:

Mat2:

Mat2 Desc:

Mat3: 85 **SOFT** Mat3 Desc: Formation Top Depth: 0.0

0.3100000023841858 Formation End Depth:

Formation End Depth UOM: m Selected Flag:

Abandonment Rec:

7241 Contractor: Form Version: 7

Owner:

OTTAWA-CARLETON County:

> 18 450546.00

5030532.00

margin of error: 30 m - 100 m

Order No: 23022400359

UTM83

TRUE

Lot: Concession:

Concession Name: Easting NAD83: Northing NAD83:

Zone:

Elevation:

Elevrc:

East83:

North83:

Org CS:

UTMRC:

UTMRC Desc:

Location Method:

Zone:

UTM Reliability:

Overburden and Bedrock

Materials Interval

Formation ID: 1007890233

Layer: Color: 6 General Color: **BROWN** 28 Mat1: Most Common Material: SAND Mat2: 12 **STONES** Mat2 Desc:

Mat3: 77 LOOSE Mat3 Desc:

Formation Top Depth: 0.3100000023841858 Formation End Depth: 2.440000057220459

Formation End Depth UOM:

Overburden and Bedrock

Materials Interval

1007890234 Formation ID:

Layer: 3 Color: 8 **BLACK** General Color: Mat1: 17 Most Common Material: SHALE

Mat2:

Mat2 Desc: Mat3:

85 Mat3 Desc: SOFT

2.440000057220459 Formation Top Depth: 7.010000228881836 Formation End Depth:

Formation End Depth UOM:

Annular Space/Abandonment

Sealing Record

Plug ID: 1007891418

Layer: 1 Plug From: 0.0

Plug To: 0.3100000023841858

Plug Depth UOM:

Annular Space/Abandonment

Sealing Record

Plug ID: 1007891419

Layer:

0.3100000023841858 Plug From: Plug To: 3.6600000858306885

Plug Depth UOM:

Annular Space/Abandonment

Sealing Record

Plug ID: 1007891420

Layer: 3

Plug From: 3.6600000858306885 7.010000228881836 Plug To:

Plug Depth UOM: m

Method of Construction & Well

<u>Use</u>

Method Construction ID: 1007892579

Method Construction Code: 5

Method Construction: Air Percussion

Other Method Construction:

Pipe Information

Pipe ID: 1007888645

Casing No:

Comment: Alt Name:

Construction Record - Casing

Casing ID: 1007893025

Layer:1Material:5Open Hole or Material:PLASTICDepth From:0.0

 Depth To:
 3.9600000381469727

 Casing Diameter:
 4.03000020980835

Casing Diameter UOM: cm
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1007893379

 Screen Top Depth:
 3.9600000381469727

 Screen End Depth:
 7.010000228881836

Screen Material: 5
Screen Depth UOM: m
Screen Diameter UOM: cm

Screen Diameter: 4.820000171661377

Results of Well Yield Testing

Pumping Test Method Desc:

Pump Test ID: 1007894062

Pump Set At: Static Level:

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: Water State After Test:

Pumping Test Method: 0

Pumping Duration HR: Pumping Duration MIN:

Flowing:

Hole Diameter

Hole ID: 1007892092

 Diameter:
 7.619999885559082

 Depth From:
 3.0999999046325684

 Depth To:
 7.010000228881836

Hole Depth UOM: m
Hole Diameter UOM: cm

Hole Diameter

Hole ID: 1007892091

Diameter: 11.430000305175781

Depth From: 0.0

Depth To: 3.0999999046325684

Hole Depth UOM: m
Hole Diameter UOM: cm

Links

 Bore Hole ID:
 1007697670
 Tag No:
 A274740

 Depth M:
 7.01
 Contractor:
 7241

 Year Completed:
 2019
 Path:
 734\7346071.pdf

 Well Completed Dt:
 2019/09/16
 Latitude:
 45.426560550015

 Audit No:
 Z298267
 Longitude:
 -75.6321754619596

4 1 of 1 N/58.7 73.9 / 0.00 lot 25 con 1 WWIS

Flowing (Y/N):

Order No: 23022400359

Well ID: 1501127

Construction Date: Flow Rate:
Use 1st: Domestic Data Entry Status:

Use 2nd: 0 Data Src:

Final Well Status:Water SupplyDate Received:22-Jun-1959 00:00:00Water Type:Selected Flag:TRUE

Water Type: Selected Flag: TRU
Casing Material: Abandonment Rec:

Audit No:Contractor:2311Tag:Form Version:1

Constructn Method: Owner:
Elevation (m): County: OTTAWA-CARLETON

 Elevatn Reliabilty:
 Lot:
 025

 Depth to Bedrock:
 Concession:
 01

 Well Depth:
 Concession Name:
 OF

Overburden/Bedrock: Easting NAD83: Pump Rate: Northing NAD83:

Static Water Level: Zone:

Clear/Cloudy: UTM Reliability:

Municipality: GLOUCESTER TOWNSHIP Site Info:

Additional Detail(s) (Map)

 Well Completed Date:
 1959/06/12

 Year Completed:
 1959

 Depth (m):
 24.384

 Latitude:
 45.4275488368718

 Longitude:
 -75.6325099122333

 Path:
 150\1501127.pdf

Bore Hole Information

Bore Hole ID: 10023170 Elevation: DP2BR: Elevro:

Zone: Spatial Status: 18

Code OB: East83: 450520.70 Code OB Desc: North83: 5030642.00

Open Hole: Org CS: Cluster Kind: UTMRC:

12-Jun-1959 00:00:00 margin of error: 100 m - 300 m **UTMRC Desc:** Date Completed:

Remarks: Location Method: p5 Loc Method Desc: Original Pre1985 UTM Rel Code 5: margin of error : 100 m - 300 m

Elevrc Desc:

Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment: Supplier Comment:

Overburden and Bedrock

Materials Interval

Formation ID: 930991043

Layer: Color:

General Color:

17 Mat1: SHALE Most Common Material:

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 4.0 Formation End Depth: 80.0 Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

930991042 Formation ID:

Layer:

Color:

General Color:

Mat1: 11 **GRAVEL** Most Common Material: Mat2: 05 Mat2 Desc: CLAY

Mat3:

Mat3 Desc:

0.0 Formation Top Depth: Formation End Depth: 4.0 Formation End Depth UOM:

Method of Construction & Well

<u>Use</u>

Method Construction ID: 961501127

Method Construction Code:

Method Construction: Cable Tool

Other Method Construction:

Pipe Information

Pipe ID: 10571740

Casing No:

Comment:

Alt Name:

Construction Record - Casing

Casing ID: 930039247 Layer: 2

Material:

OPEN HOLE Open Hole or Material:

Depth From: Depth To: 0.08 Casing Diameter: 4.0 Casing Diameter UOM: inch Casing Depth UOM: ft

Construction Record - Casing

930039246 Casing ID:

Layer: Material: Open Hole or Material: **STEEL**

Depth From:

10.0 Depth To: Casing Diameter: 4.0 Casing Diameter UOM: inch Casing Depth UOM: ft

Results of Well Yield Testing

PUMP Pumping Test Method Desc: Pump Test ID: 991501127

Pump Set At:

8.0 Static Level: Final Level After Pumping: 24.0 Recommended Pump Depth: 22.0 Pumping Rate: 4.0 Flowing Rate: 4.0 Recommended Pump Rate: Levels UOM: Rate UOM: **GPM** Water State After Test Code: Water State After Test: **CLEAR** Pumping Test Method: Pumping Duration HR: 1 **Pumping Duration MIN:** 0 No Flowing:

Water Details

Water ID: 933453814

Layer: 1 Kind Code: **FRESH** Kind: Water Found Depth: 76.0 Water Found Depth UOM: ft

Links

Bore Hole ID: 10023170 Tag No: 24.384 2311 Depth M: Contractor:

Year Completed: 1959 Path:

150\1501127.pdf Well Completed Dt: 1959/06/12 Latitude: 45.4275488368718 -75.6325099122333 Audit No: Longitude:

1 of 1 ENE/65.9 73.9 / 0.00 lot 25 con 1 5 **WWIS** ON

1501129 Well ID: Flowing (Y/N): Construction Date: Flow Rate:

Use 1st: Domestic Data Entry Status: Use 2nd: Data Src:

Final Well Status: Water Supply Date Received: 07-Dec-1962 00:00:00

Water Type: Selected Flag: TRUE

Casing Material: Abandonment Rec:

Audit No: Contractor: 1504 Form Version: Tag: 1 Constructn Method: Owner:

OTTAWA-CARLETON Elevation (m): County:

Elevatn Reliabilty: 025 Lot: Depth to Bedrock: Concession: 01 OF Well Depth: Concession Name: Overburden/Bedrock: Easting NAD83:

Pump Rate: Northing NAD83:

Static Water Level: Zone: Clear/Cloudy: UTM Reliability:

GLOUCESTER TOWNSHIP Municipality:

Site Info:

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/150\1501129.pdf

Additional Detail(s) (Map)

Well Completed Date: 1962/10/15 Year Completed: 1962 Depth (m): 28.0416

Latitude: 45.4271934067589 Longitude: -75.6316750312776 Path: 150\1501129.pdf

Bore Hole Information

Bore Hole ID: 10023172 Elevation: DP2BR: Elevrc:

Spatial Status: 18 Zone: Code OB:

East83: 450585.70 Code OB Desc: North83: 5030602.00

Org CS: Open Hole:

Cluster Kind: UTMRC:

Date Completed: 15-Oct-1962 00:00:00 UTMRC Desc: margin of error: 100 m - 300 m

Order No: 23022400359

Remarks: Location Method: Original Pre1985 UTM Rel Code 5: margin of error: 100 m - 300 m Loc Method Desc:

Elevrc Desc: Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment:

Supplier Comment:

Overburden and Bedrock **Materials Interval**

Formation ID: 930991047

Layer: Color: 6 **BROWN** General Color:

Mat1: 19
Most Common Material: SLATE

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 8.0
Formation End Depth: 92.0
Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID: 930991046

Layer:

Color:

General Color:

Mat1: 17
Most Common Material: SHALE

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 0.0 Formation End Depth: 8.0 Formation End Depth UOM: ft

Method of Construction & Well

<u>Use</u>

Method Construction ID: 961501129

Method Construction Code: 1

Method Construction: Cable Tool

Other Method Construction:

Pipe Information

Pipe ID: 10571742

Casing No:

Comment: Alt Name:

Construction Record - Casing

Casing ID: 930039251

Layer: 2 Material: 4

Open Hole or Material: OPEN HOLE

Depth From:

Depth To: 92.0
Casing Diameter: 5.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930039250

Layer: 1
Material: 1
Open Hole or Material: STEEL

Depth From:

Depth To: 16.0

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

5.0 Casing Diameter: Casing Diameter UOM: inch Casing Depth UOM: ft

Results of Well Yield Testing

PUMP Pumping Test Method Desc: 991501129 Pump Test ID:

Pump Set At: Static Level: 12.0 30.0 Final Level After Pumping: 30.0 Recommended Pump Depth: Pumping Rate: 12.0

Flowing Rate:

Recommended Pump Rate: 12.0 Levels UOM: ft Rate UOM: **GPM** Water State After Test Code: Water State After Test: **CLEAR** Pumping Test Method: **Pumping Duration HR:** 3

Water Details

Flowing:

Pumping Duration MIN:

Water ID: 933453816

0

No

Layer: Kind Code: **FRESH** Kind: Water Found Depth: 92.0 Water Found Depth UOM: ft

Links

Bore Hole ID: 10023172 Tag No: Contractor: Depth M: 28.0416 1504

Year Completed: 1962 Path: 150\1501129.pdf 1962/10/15 45.4271934067589 Well Completed Dt: Latitude: -75.6316750312776 Longitude:

Audit No:

Use 1st:

NE/79.2 6 1 of 1 74.9 / 1.00 lot 25 con 1 **WWIS** ON

Order No: 23022400359

Well ID: 1501126 Flowing (Y/N):

Construction Date: Flow Rate: Domestic

Data Entry Status: Use 2nd: Data Src: Final Well Status: Water Supply Date Received: 18-Apr-1957 00:00:00

Water Type: Selected Flag: TRUE Casing Material: Abandonment Rec:

Audit No: Contractor: 2311 Tag: Form Version:

Constructn Method: Owner: Elevation (m): County: **OTTAWA-CARLETON**

Elevatn Reliabilty: Lot: 025 Depth to Bedrock: Concession: 01 Well Depth: Concession Name: OF

Overburden/Bedrock: Easting NAD83: Pump Rate: Northing NAD83:

Static Water Level: Zone: Clear/Cloudy: UTM Reliability:

Municipality:

GLOUCESTER TOWNSHIP

Site Info:

 $https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/150\1501126.pdf$ PDF URL (Map):

Additional Detail(s) (Map)

1957/03/16 Well Completed Date: Year Completed: 1957 Depth (m): 38.1

45.4275527278765 Latitude: -75.631806872455 Longitude: Path: 150\1501126.pdf

Bore Hole Information

10023169 Bore Hole ID: Elevation: DP2BR: Elevrc:

Spatial Status: 18 Zone: Code OB: East83: 450575.70 Code OB Desc: North83: 5030642.00

Open Hole: Org CS:

Cluster Kind: UTMRC: 16-Mar-1957 00:00:00

Date Completed: unknown UTM **UTMRC Desc:** Remarks: **Location Method:** p9

Loc Method Desc: Original Pre1985 UTM Rel Code 9: unknown UTM

Elevrc Desc:

Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment:

Supplier Comment:

Overburden and Bedrock

Materials Interval

Formation ID: 930991041

Layer: Color:

General Color:

Mat1: 17 Most Common Material: SHALE

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 0.0 Formation End Depth: 125.0 Formation End Depth UOM: ft

Method of Construction & Well

<u>Use</u>

Method Construction ID: 961501126 **Method Construction Code:**

Method Construction: Cable Tool

Other Method Construction:

Pipe Information

Pipe ID: 10571739 Casing No:

Comment: Alt Name:

Construction Record - Casing

Casing ID: 930039244

Layer: 1
Material: 1

Open Hole or Material: STEEL

Depth From:

Depth To: 12.0
Casing Diameter: 4.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930039245

Layer: 2 Material: 4

Open Hole or Material: OPEN HOLE

Depth From:

Depth To: 125.0
Casing Diameter: 4.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pumping Test Method Desc:PUMPPump Test ID:991501126

Pump Set At:

Static Level: 8.0 Final Level After Pumping: 100.0

Recommended Pump Depth:

Pumping Rate: 1.0

Flowing Rate:

Recommended Pump Rate:
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

Water Details

Flowing:

Water ID: 933453813

No

ft

 Layer:
 1

 Kind Code:
 1

 Kind:
 FRESH

 Water Found Depth:
 90.0

Water Found Depth UOM:

<u>Links</u>

Bore Hole ID: 10023169 **Tag No:**

 Depth M:
 38.1
 Contractor:
 2311

 Year Completed:
 1957
 Path:
 150\1501126.pdf

 Well Completed Dt:
 1957/03/16
 Latitude:
 45.4275527278765

Мар Кеу	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Audit No:				Longitude: -75.631806872455	
7	1 of 44	S/80.4	72.9/-1.00	CALEX DIVISION OF SUNOCO ATTN ROBERTA WALSH 1111 OGILVIE RD GLOUCESTER ON K1J 7P7	PRT
Location ID: Type: Expiry Date: Capacity (L): Licence #:		19079 retail 1992-12-31 136380 0076343748			
7_	2 of 44	S/80.4	72.9 / -1.00	CALEX DIVISION OF SUNOCO ATTN ROBERTA WALSH 1111 OGILVIE RD GLOUCESTER ON K1J 7P7	PRT
Location ID: Type: Expiry Date: Capacity (L): Licence #:		19079 retail 1994-12-31 136380 0076389428			
7	3 of 44	S/80.4	72.9 / -1.00	LES PETROLES CALEX LTEE 1111 OGILVIE OTTAWA ON K1J7P7	PRT
Location ID: Type: Expiry Date: Capacity (L): Licence #:		28325 retail 1995-08-31 136313 0076421999			
7_	4 of 44	S/80.4	72.9 / -1.00	CALEX DIVISION OF SUNOCO ATTN MARY MISANGYI 1111 OGILVIE OTTAWA ON K1J7P7	PRT
Location ID: Type: Expiry Date: Capacity (L): Licence #:		28325 retail 1992-12-31 136380 0076343748			
7_	5 of 44	S/80.4	72.9 / -1.00	CALEX DIVISION OF SUNOCO ATTN MARY MISANGYI 1111 OGILVIE OTTAWA ON K1J7P7	PRT
Location ID: Type: Expiry Date: Capacity (L): Licence #:		28325 retail 1994-12-31 136380 0076389428			

Map Key Number of Direction/ Elev/Diff Site DΒ Records Distance (m) (m) **CALEX SERVICE STATION** 7 6 of 44 S/80.4 72.9 / -1.00 **RST** 1111 OGILVIE RD **GLOUCESTER ON K1J7P7** Headcode: 1186800 Headcode Desc: Service Stations-Gasoline, Oil & Natural Gas 6137420528 Phone: List Name: Description: 7 7 of 44 S/80.4 72.9 / -1.00 **OLCO Petrolleum GEN** 1111 Ogilvie Ottawa ON K1J 7P7 Generator No: ON7373036 SIC Code: SIC Description: Approval Years: 03,04 PO Box No: Country: Status: Co Admin: Choice of Contact: Phone No Admin: Contaminated Facility: MHSW Facility: 7 8 of 44 S/80.4 72.9 / -1.00 1633981 ONTARIO INC O/ A OLCO GAS BAR **FSTH** 1111 OGILVIE RD GLOUCESTER OTTAWA ON K1J 7P7 7/25/2005 License Issue Date: Tank Status: Licensed Tank Status As Of: August 2007 Operation Type: Retail Fuel Outlet Gasoline Station - Self Serve Facility Type: --Details--Status: Active Year of Installation: 1989 **Corrosion Protection:** Capacity: 27274 Tank Fuel Type: Liquid Fuel Single Wall UST - Gasoline Status: Active Year of Installation: 1977 **Corrosion Protection:** 36365 Capacity: Tank Fuel Type: Liquid Fuel Single Wall UST - Gasoline Active Status: Year of Installation: 1989 **Corrosion Protection:** 27274 Capacity: Tank Fuel Type: Liquid Fuel Single Wall UST - Diesel Active Status: Year of Installation: 1989 **Corrosion Protection:**

Liquid Fuel Single Wall UST - Gasoline

Order No: 23022400359

45400

Capacity:

Tank Fuel Type:

Map Key Number of Direction/ Elev/Diff Site DΒ Records Distance (m) (m) 9 of 44 S/80.4 72.9 / -1.00 1633981 ONTARIO INC O/ A OLCO GAS BAR 7 **FSTH** 1111 OGILVIE RD **GLOUCESTER ON K1J 7P7** 7/25/2005 3:04:00 PM License Issue Date: Tank Status: Licensed Tank Status As Of: December 2008 Operation Type: Retail Fuel Outlet Gasoline Station - Self Serve Facility Type: --Details--Active Status: Year of Installation: 1989 **Corrosion Protection:** 27274 Capacity: Tank Fuel Type: Liquid Fuel Single Wall UST - Diesel Status: Active Year of Installation: 1989 **Corrosion Protection:** Capacity: 27274 Liquid Fuel Single Wall UST - Gasoline Tank Fuel Type: Active Status: Year of Installation: 1977 **Corrosion Protection:** Capacity: 36365 Tank Fuel Type: Liquid Fuel Single Wall UST - Gasoline Active Status: Year of Installation: 1989 **Corrosion Protection:** 45400 Capacity: Tank Fuel Type: Liquid Fuel Single Wall UST - Gasoline 7 10 of 44 S/80.4 72.9 / -1.00 1633981 Ontario Inc. CA 1111 Ogilvie Rd Ottawa ON 9556-7BLQAG Certificate #: 2008 Application Year: Issue Date: 2/8/2008 Industrial Sewage Works Approval Type: Approved Status: Application Type: Client Name: Client Address: Client City: Client Postal Code: Project Description: Contaminants: **Emission Control:** 7 11 of 44 S/80.4 72.9 / -1.00 **MOT MARWAN ENTERPRISES LTD DTNK** 1111 OGILVIE RD OTTAWA ON

Order No: 23022400359

<u>Delisted Expired Fuel Safety</u> <u>Facilities</u>

 Instance No:
 26279500

 Status:
 EXPIRED

 Instance ID:
 282503

 Instance Type:
 FS Facility

Instance Creation Dt: Instance Install Dt: Item Description: Manufacturer: Model: Serial No: **ULC Standard:** Quantity: Unit of Measure: Overfill Prot Type: Creation Date: Next Periodic Str DT: TSSA Base Sched Cycle 2: TSSAMax Hazard Rank 1: TSSA Risk Based Periodic Yn: TSSA Volume of Directives: TSSA Periodic Exempt: TSSA Statutory Interval: TSSA Recd Insp Interva: TSSA Recd Tolerance: TSSA Program Area:

Expired Date:
Max Hazard Rank:
Facility Location:
Facility Type:
Fuel Type 2:
Fuel Type 3:
Panam Related:
Panam Venue Nm:
External Identifier:
Item:

Piping Steel:
Piping Galvanized:
Tank Single Wall St:
Piping Underground:
Tank Underground:
Source:

Source

TSSA Program Area 2:
Description: FS Cylinder Exchange

Original Source: EXP

Record Date: Up to Mar 2012

7 12 of 44 S/80.4 72.9 / -1.00

LES PETROLES CALEX LTEE

1111 OGILVIE RD GLOUCESTER ON K1J 7P7 DTNK

Order No: 23022400359

Delisted Expired Fuel Safety

Facilities

Instance No: 10083411 Status: EXPIRED

Instance ID:

Instance Type: FS Facility

Instance Creation Dt: Instance Install Dt: Item Description: Manufacturer: Model: Serial No: **ULC Standard:** Quantity: Unit of Measure: Overfill Prot Type: Creation Date: Next Periodic Str DT: TSSA Base Sched Cycle 2: TSSAMax Hazard Rank 1: TSSA Risk Based Periodic Yn: TSSA Volume of Directives:

TSSA Periodic Exempt: TSSA Statutory Interval: TSSA Recd Insp Interva: TSSA Recd Tolerance: TSSA Program Area: **Expired Date:** 5/20/2009

Max Hazard Rank: Facility Location: Facility Type: Fuel Type 2: Fuel Type 3: Panam Related: Panam Venue Nm: External Identifier:

Item:
Piping Steel:
Piping Galvanized:
Tank Single Wall St:
Piping Underground:
Tank Underground:

Source:

Map Key Number of Direction/ Elev/Diff Site DB

TSSA Program Area 2:

Description:
Original Source: EXP

Records

Record Date: Up to May 2013

7 13 of 44 S/80.4 72.9 / -1.00 SMS PETROLEUMS DIVISION OF SUNOCO

72.9 / -1.00

(m)

Distance (m)

NANCY NG

1111 OGILVIE RD

GLOUCESTER ON K1J 7P7

DTNK

DTNK

Order No: 23022400359

Delisted Expired Fuel Safety

Facilities

Instance No: 10105915 Status: EXPIRED

Instance ID:

Instance Type: FS Facility

Instance Creation Dt: Instance Install Dt: Item Description: Manufacturer: Model: Serial No: ULC Standard:

ULC Standard:
Quantity:
Unit of Measure:
Overfill Prot Type:
Creation Date:
Next Periodic Str DT:
TSSA Base Sched Cycle 2:

TSSAMax Hazard Rank 1: TSSA Risk Based Periodic Yn: TSSA Volume of Directives: TSSA Periodic Exempt:

TSSA Statutory Interval: TSSA Recd Insp Interva: TSSA Recd Tolerance:

TSSA Program Area: TSSA Program Area 2:

Description: Original Source:

Original Source: EXP

14 of 44

Record Date: Up to May 2013

12/20/1991

Max Hazard Rank:
Facility Location:
Facility Type:
Fuel Type 2:
Fuel Type 3:
Panam Related:
Panam Venue Nm:
External Identifier:
Item:

Expired Date:

riein: Piping Steel: Piping Galvanized: Tank Single Wall St: Piping Underground: Tank Underground:

Source:

Delisted Expired Fuel Safety

Facilities

7

Instance No: 10105948 Status: EXPIRED

Instance ID:
Instance Type: FS Facility
Instance Creation Dt:

Instance Install Dt: Item Description: Manufacturer: Model: Serial No: MO & MARWAN ENTERPRISES LTD 1111 OGILVIE RD

GLOUCESTER ON K1J 7P7

Expired Date: 12/7/2009 9:28

Max Hazard Rank: Facility Location: Facility Type: Fuel Type 2: Fuel Type 3: Panam Related: Panam Venue Nm: External Identifier:

Item: Piping Steel:

S/80.4

ULC Standard:

Number of Direction/ Elev/Diff Site DΒ Map Key Records Distance (m) (m) Quantity: Piping Galvanized: Unit of Measure: Tank Single Wall St: Overfill Prot Type: Piping Underground: Tank Underground: Creation Date: Next Periodic Str DT: Source: TSSA Base Sched Cycle 2: TSSAMax Hazard Rank 1: TSSA Risk Based Periodic Yn: TSSA Volume of Directives: TSSA Periodic Exempt: TSSA Statutory Interval: TSSA Recd Insp Interva: TSSA Recd Tolerance: TSSA Program Area: TSSA Program Area 2: Description: Original Source: **EXP** Record Date: Up to May 2013

72.9 / -1.00

Delisted Expired Fuel Safety

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S/80.4

7

Facilities

Instance No: 63282847
Status: EXPIRED
Instance ID: 348109
Instance Type: FS Piping
Instance Creation Dt:

Instance Install Dt: Item Description: Manufacturer: Model: Serial No: **ULC Standard:** Quantity: Unit of Measure: Overfill Prot Type: Creation Date: Next Periodic Str DT: TSSA Base Sched Cycle 2: TSSAMax Hazard Rank 1: TSSA Risk Based Periodic Yn: TSSA Volume of Directives: TSSA Periodic Exempt: TSSA Statutory Interval: TSSA Recd Insp Interva:

TSSA Recd Tolerance: TSSA Program Area: TSSA Program Area 2:

Description: FS Piping **Original Source:** EXP

Record Date: Up to Mar 2012

S/80.4 72.9 / -1.00

Expired Date:
Max Hazard Rank:
Facility Location:
Facility Type:
Fuel Type 2:
Fuel Type 3:
Panam Related:
Panam Venue Nm:
External Identifier:
Item:
Piping Steel:
Piping Galvanized:
Tank Single Wall St:
Piping Underground:

Tank Underground:

1111 OGILVIE RD GLOUCESTER ON

Source:

1633981 ONTARIO INC O/ A OLCO GAS BAR 1111 OGILVIE RD GLOUCESTER ON

1633981 ONTARIO INC O/ A OLCO GAS BAR

DTNK

Order No: 23022400359

DTNK

Delisted Expired Fuel Safety

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7

Facilities

Instance No: 11572668
Status: EXPIRED
Instance ID: 91197
Instance Type: FS Piping
Instance Creation Dt:

Instance Install Dt: Item Description: Manufacturer: Model: Serial No: **ULC Standard:** Quantity: Unit of Measure: Overfill Prot Type: Creation Date: Next Periodic Str DT: TSSA Base Sched Cycle 2: TSSAMax Hazard Rank 1: TSSA Risk Based Periodic Yn: TSSA Volume of Directives: TSSA Periodic Exempt: TSSA Statutory Interval: TSSA Recd Insp Interva: TSSA Recd Tolerance: TSSA Program Area:

TSSA Program Area 2:
Description: FS Piping
Original Source: EXP

Record Date: Up to Mar 2012

Expired Date:
Max Hazard Rank:
Facility Location:
Facility Type:
Fuel Type 2:
Fuel Type 3:
Panam Related:
Panam Venue Nm:
External Identifier:
Item:
Piping Steel:
Piping Galvanized:
Tank Single Wall St:

Piping Underground:

Tank Underground: Source:

7 17 of 44

S/80.4

72.9 / -1.00

1633981 ONTARIO INC O/ A OLCO GAS BAR 1111 OGILVIE RD GLOUCESTER ON

DTNK

Order No: 23022400359

<u>Delisted Expired Fuel Safety</u> <u>Facilities</u>

 Instance No:
 11572649

 Status:
 EXPIRED

 Instance ID:
 91528

 Instance Type:
 FS Piping

Instance Creation Dt: Instance Install Dt: Item Description: Manufacturer: Model: Serial No: **ULC Standard:** Quantity: Unit of Measure: Overfill Prot Type: Creation Date: Next Periodic Str DT: TSSA Base Sched Cycle 2: TSSAMax Hazard Rank 1: TSSA Risk Based Periodic Yn: TSSA Volume of Directives: TSSA Periodic Exempt: TSSA Statutory Interval: TSSA Recd Insp Interva:

Expired Date:
Max Hazard Rank:
Facility Location:
Facility Type:
Fuel Type 2:
Fuel Type 3:
Panam Related:
Panam Venue Nm:
External Identifier:
Item:
Piping Steel:
Piping Galvanized:

Piping Galvanized: Tank Single Wall St: Piping Underground: Tank Underground:

Source:

TSSA Recd Tolerance:

TSSA Program Area: TSSA Program Area 2:

Description: FS Piping
Original Source: EXP

Record Date: Up to Mar 2012

7 18 of 44 S/80.4 72.9 / -1.00 1633981 Ontario Inc 1111 Ogilvie Road GEN

Ottawa ON

 Generator No:
 ON7051938

 SIC Code:
 447110, 811192

SIC Description: Gasoline Stations with Convenience Stores, Car Washes

Approval Years: 200

PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 213

Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 221

Waste Class Name: LIGHT FUELS

Waste Class: 252

Waste Class Name: WASTE OILS & LUBRICANTS

7 19 of 44 S/80.4 72.9 / -1.00 1633981 Ontario Inc

1111 Ogilvie Road Ottawa ON

Order No: 23022400359

Ottawa

Generator No: ON7051938 **SIC Code:** 447110, 811192

SIC Description: Gasoline Stations with Convenience Stores, Car Washes

Approval Years: 2010

PO Box No: Country: Status: Co Admin: Choice of Contact: Phone No Admin: Contaminated Facility:

Detail(s)

MHSW Facility:

Waste Class: 25

Waste Class Name: WASTE OILS & LUBRICANTS

Waste Class: 213

Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 221

Waste Class Name: LIGHT FUELS

Map Key Number of Direction/ Elev/Diff Site DΒ Records Distance (m) (m) 1633981 Ontario Inc 7 20 of 44 S/80.4 72.9 / -1.00 **GEN** 1111 Ogilvie Road

Ottawa ON

Generator No: ON7051938 SIC Code: 447110, 811192

SIC Description: Gasoline Stations with Convenience Stores, Car Washes

Approval Years:

PO Box No: Country: Status: Co Admin: Choice of Contact: Phone No Admin: Contaminated Facility: MHSW Facility:

Detail(s)

Waste Class: 252

Waste Class Name: WASTE OILS & LUBRICANTS

Waste Class:

LIGHT FUELS Waste Class Name:

Waste Class:

Waste Class Name: PETROLEUM DISTILLATES

21 of 44 S/80.4 **1633981 ONTARIO INC** 7 72.9 / -1.00

1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA

Gasoline

NULL

NULL

ON

Quantity: Unit of Measure:

Fuel Type:

Fuel Type2:

Fuel Type3:

Piping Steel: Piping Galvanized:

Tanks Single Wall St:

Piping Underground:

No Underground:

Panam Related:

Panam Venue:

Manufacturer: Serial No:

Ulc Standard:

Instance No: 11287923

Status: Cont Name:

FS Liquid Fuel Tank

Instance Type:

Item:

Item Description: FS Liquid Fuel Tank Tank Type: Single Wall UST 7/24/2009 10:42:38 AM Install Date:

1986

Install Year:

Years in Service:

Model: **NULL**

Description:

36365 Capacity:

Fiberglass (FRP) Tank Material: Corrosion Protect: Fiberglass

Overfill Protect:

FS Liquid Fuel Tank Facility Type:

FS GASOLINE STATION - SELF SERVE Parent Facility Type:

Facility Location:

Device Installed Location: 1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA

Liquid Fuel Tank Details

Overfill Protection:

1633981 ONTARIO INC **Owner Account Name:** FS LIQUID FUEL TANK Item:

S/80.4 **1633981 ONTARIO INC** 7 22 of 44 72.9 / -1.00

1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA

ON

Order No: 23022400359

FST

FST

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

11287886 Manufacturer:

Status: Serial No: Cont Name: Ulc Standard:

FS Liquid Fuel Tank Instance Type: Quantity: Item:

Unit of Measure:

FS Liquid Fuel Tank Gasoline Fuel Type: Item Description: Tank Type: Single Wall UST Fuel Type2: NULL Install Date: 7/24/2009 10:41:37 AM Fuel Type3: **NULL**

Install Year: 1976 Piping Steel: Years in Service: Piping Galvanized:

NULL Tanks Single Wall St: Model: Description: Piping Underground: 45400 No Underground: Capacity: Tank Material: Fiberglass (FRP) Panam Related:

Corrosion Protect: Overfill Protect:

Instance No:

FS Liquid Fuel Tank Facility Type:

Fiberglass

Parent Facility Type: FS GASOLINE STATION - SELF SERVE

Facility Location:

Device Installed Location: 1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA

Liquid Fuel Tank Details

Overfill Protection:

Owner Account Name: 1633981 ONTARIO INC FS LIQUID FUEL TANK Item:

S/80.4 72.9 / -1.00 **1633981 ONTARIO INC** 7 23 of 44

1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA

FST

FST

Order No: 23022400359

ON

Panam Venue:

11287944 Manufacturer: Instance No:

Serial No: Status: Ulc Standard: Cont Name: Instance Type: FS Liquid Fuel Tank Quantity:

Unit of Measure: Item:

FS Liquid Fuel Tank Fuel Type: Diesel Item Description: Tank Type: Single Wall UST Fuel Type2: NULL Install Date: Fuel Type3: 7/24/2009 10:42:16 AM **NULL** Install Year: 1986 Piping Steel:

Piping Galvanized: Years in Service:

Model: NULL Tanks Single Wall St: Piping Underground: Description:

No Underground: Capacity: 27274 Tank Material: Fiberglass (FRP) Panam Related: **Corrosion Protect: Fiberglass** Panam Venue:

Overfill Protect:

FS Liquid Fuel Tank Facility Type:

Parent Facility Type: FS GASOLINE STATION - SELF SERVE

Facility Location:

1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA Device Installed Location:

Liquid Fuel Tank Details

Overfill Protection:

1633981 ONTARIO INC Owner Account Name: Item: **FS LIQUID FUEL TANK**

7 24 of 44 S/80.4 72.9 / -1.00 **1633981 ONTARIO INC**

1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA

ON

Instance No: 64508685 Manufacturer:

Number of Direction/ Elev/Diff Site DΒ Map Key

Records Distance (m) (m)

Serial No: Status: Cont Name: Ulc Standard: Instance Type: FS Liquid Fuel Tank Quantity:

Unit of Measure: Item Description: FS Liquid Fuel Tank Fuel Type: Gasoline Double Wall UST Fuel Type2: NULL Tank Type: Install Date: 6/24/2011 11:17:43 AM Fuel Type3: NULL

Install Year: 2011 Piping Steel:

Years in Service: Piping Galvanized: Model: DWT6 Tanks Single Wall St: Piping Underground: Description: Capacity: 50000 No Underground: Fiberglass (FRP) Panam Related: Tank Material:

Corrosion Protect: Fiberglass Panam Venue:

Overfill Protect: Facility Type: FS Liquid Fuel Tank

Parent Facility Type: FS Gasoline Station - Self Serve

Facility Location:

1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA Device Installed Location:

Liquid Fuel Tank Details

Item:

Overfill Protection: 1633981 ONTARIO INC **Owner Account Name:**

Item: FS LIQUID FUEL TANK

S/80.4 72.9 / -1.00 **1633981 ONTARIO INC** 7 25 of 44 **FST** 1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA

ON

Instance No: 64508686 Manufacturer:

Serial No: Status: Ulc Standard: Cont Name: Instance Type: FS Liquid Fuel Tank Quantity:

Item: Unit of Measure: Item Description: FS Liquid Fuel Tank Gasoline Fuel Type:

Double Wall UST Fuel Type2: Diesel Tank Type: Install Date: 6/24/2011 11:24:14 AM Fuel Type3: NULL

Install Year: 2011 Piping Steel:

Years in Service: Piping Galvanized: **DWT6 DWB2** Tanks Single Wall St: Model: Description: Piping Underground:

50000 No Underground: Capacity: Tank Material: Fiberglass (FRP) Panam Related: **Corrosion Protect:** Fiberglass Panam Venue:

Overfill Protect:

FS Liquid Fuel Tank Facility Type:

FS Gasoline Station - Self Serve Parent Facility Type:

Facility Location:

1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA Device Installed Location:

Liquid Fuel Tank Details

Overfill Protection:

67

Owner Account Name: 1633981 ONTARIO INC FS LIQUID FUEL TANK Item:

7 26 of 44 S/80.4 72.9 / -1.00 **1633981 ONTARIO INC**

1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA

FST

ON

Instance No: 11287906 Manufacturer: Status: Serial No:

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

Fuel Type:

Fuel Type2:

Fuel Type3:

Piping Steel: Piping Galvanized:

Tanks Single Wall St:

Piping Underground:

No Underground:

Panam Related:

Panam Venue:

Cont Name: Ulc Standard: Instance Type: FS Liquid Fuel Tank Quantity: Unit of Measure:

Item:

Item Description: FS Liquid Fuel Tank Tank Type: Single Wall UST Install Date: 7/24/2009 10:43:05 AM

Install Year:

Years in Service: Model:

NULL Description: 27274 Capacity: Tank Material: Fiberglass (FRP)

Corrosion Protect: **Fiberglass**

Overfill Protect:

Facility Type: FS Liquid Fuel Tank

FS GASOLINE STATION - SELF SERVE Parent Facility Type:

Facility Location:

Device Installed Location: 1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA

Liquid Fuel Tank Details

Overfill Protection:

1633981 ONTARIO INC Owner Account Name: FS LIQUID FUEL TANK Item:

7 27 of 44 S/80.4 72.9 / -1.00 1633981 Ontario Inc

1111 Ogilvie Road Ottawa ON

Gasoline

GEN

Order No: 23022400359

NULL

NULL

Generator No: ON7051938 SIC Code: 447110. 811192

SIC Description: Gasoline Stations with Convenience Stores, Car Washes

Approval Years:

PO Box No: Country: Status: Co Admin:

Choice of Contact: Phone No Admin: Contaminated Facility: MHSW Facility:

Detail(s)

Waste Class: 252

Waste Class Name: WASTE OILS & LUBRICANTS

Waste Class: 221

Waste Class Name: LIGHT FUELS

Waste Class:

PETROLEUM DISTILLATES Waste Class Name:

7 28 of 44 S/80.4 72.9 / -1.00 1633981 Ontario Inc **GEN**

1111 Ogilvie Road

Ottawa ON

Generator No: ON7051938 447110, 811192 SIC Code: SIC Description: **CAR WASHES**

Approval Years: PO Box No: Country:

2013

erisinfo.com | Environmental Risk Information Services

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

Status: Co Admin:

Choice of Contact: Phone No Admin: Contaminated Facility: MHSW Facility:

Detail(s)

Waste Class:

WASTE OILS & LUBRICANTS Waste Class Name:

Waste Class: 221

Waste Class Name: LIGHT FUELS

Waste Class: 213

Waste Class Name: PETROLEUM DISTILLATES

7 29 of 44 S/80.4 72.9 / -1.00 **FAS GAS PLUS** 1111 OGILVIE RD UNIT 1

GLOUCESTER ON K1J7P7

Unknown / N/A

1111 Ogilvie Rd

Primary Assessment of Spills

Ottawa

01186800 Headcode:

SERVICE STATIONS GASOLINE OIL & NATURAL GAS Headcode Desc:

Phone: 6137420528

List Name: Info-direct(TM) BUSINESS FILE

Description:

30 of 44 S/80.4 72.9 / -1.00 1111 Ogilvie Rd 7 SPL Ottawa ON

Sector Type:

Site Address:

Site Region: Site Municipality:

Site Lot:

Site Conc:

Northing:

Easting:

Agency Involved:

Site District Office:

Site Geo Ref Accu:

SAC Action Class:

Site Map Datum:

Source Type:

Site Postal Code:

Nearest Watercourse:

Ref No: 2234-ACHT7Y Discharger Report: Site No: NA Material Group: Incident Dt: 2016/08/04 Health/Env Conseq: Client Type:

Year:

Incident Cause: Incident Event: Unknown / N/A

Contaminant Code:

COOLANT N.O.S. Contaminant Name:

Contaminant Limit 1: Contam Limit Freq 1: Contaminant UN No 1: **Environment Impact:** Nature of Impact:

Receiving Medium: Receiving Env: Land MOE Response: No

Dt MOE Arvl on Scn:

2016/08/04 MOE Reported Dt: **Dt Document Closed:**

Incident Reason: Unknown / N/A

Site Name:

Site County/District: Municipality No:

Site Geo Ref Meth:

Contaminant Qty:

Incident Summary: Ottawa - 0.5L coolant to CB, cleaning

0.5 L

catch basin<UNOFFICIAL>

S/80.4 31 of 44 72.9 / -1.00 1633981 Ontario Inc.

1111 Ogilvie Rd

Order No: 23022400359

ECA

RST

7

Map Key Number of Direction/ Elev/Diff Site DB

Records Distance (m) (m)

Ottawa ON K1J 7P7

45.426285

GEN

Order No: 23022400359

 Approval No:
 9556-7BLQAG
 MOE District:
 Ottawa

 Approval Date:
 2008-02-08
 City:
 -75.63237

 Status:
 Approved
 Longitude:
 -75.63237

 Status:
 Approved
 Longitude:

 Record Type:
 ECA
 Latitude:

 Link Source:
 IDS
 Geometry X:

 SWP Area Name:
 Rideau Valley
 Geometry Y:

Approval Type: ECA-INDUSTRIAL SEWAGE WORKS
Project Type: INDUSTRIAL SEWAGE WORKS

Business Name: 1633981 Ontario Inc. Address: 1111 Ogilvie Rd

Address: 1111 Ogilvie Rd Full Address:

Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/3406-7B4RGZ-14.pdf

PDF Site Location:

7 32 of 44 S/80.4 72.9 / -1.00 1633981 Ontario Inc 1111 Ogilvie Road

Ottawa ON K1J 7P7

 Generator No:
 ON7051938

 SIC Code:
 447110, 811192

 SIC Description:
 447110, CAR WASHES

Approval Years: 2016
PO Box No:
Country: Canada

Status:
Co Admin:

Choice of Contact: CO_OFFICIAL

Phone No Admin:

Contaminated Facility: No **MHSW Facility:** No

Detail(s)

Waste Class: 252

Waste Class Name: WASTE OILS & LUBRICANTS

Waste Class: 213

Waste Class Name: PETROLEUM DISTILLATES

Waste Class: 221

Waste Class Name: LIGHT FUELS

7 33 of 44 S/80.4 72.9 / -1.00 1633981 Ontario Inc 1111 Ogilvie Road

Ottawa ON K1J 7P7

 Generator No:
 ON7051938

 SIC Code:
 447110, 811192

 SIC Description:
 447110, CAR WASHES

Approval Years: 2015
PO Box No:
Country: Canada

Status: Co Admin:

Choice of Contact: CO_OFFICIAL

Phone No Admin:

Contaminated Facility: No MHSW Facility: No

Map Key Number of Direction/ Elev/Diff Site DΒ Records Distance (m) (m) Detail(s) Waste Class: 221 Waste Class Name: LIGHT FUELS Waste Class: 213 Waste Class Name: PETROLEUM DISTILLATES Waste Class: Waste Class Name: WASTE OILS & LUBRICANTS 7 34 of 44 S/80.4 72.9 / -1.00 1633981 Ontario Inc **GEN** 1111 Ogilvie Road Ottawa ON K1J 7P7 ON7051938 Generator No: SIC Code: 447110, 811192 447110, CAR WASHES SIC Description: Approval Years: PO Box No: Country: Canada Status: Co Admin: Choice of Contact: CO_OFFICIAL Phone No Admin: Contaminated Facility: No MHSW Facility: No Detail(s) Waste Class: 221 Waste Class Name: LIGHT FUELS Waste Class: 252 WASTE OILS & LUBRICANTS Waste Class Name: Waste Class: Waste Class Name: PETROLEUM DISTILLATES 35 of 44 72.9 / -1.00 1633981 Ontario Inc 7 S/80.4 **GEN** 1111 Ogilvie Road Ottawa ON K1J 7P7 Generator No: ON7051938 SIC Code: SIC Description: Approval Years: As of Dec 2018 PO Box No: Country: Canada Status: Registered Co Admin: Choice of Contact: Phone No Admin: Contaminated Facility: MHSW Facility:

Order No: 23022400359

Detail(s)

Waste Class: 221 I
Waste Class Name: Light fuels

Waste Class: 252 L

Waste Class Name: Waste crankcase oils and lubricants

Number of Direction/ Elev/Diff Site DΒ Map Key Records Distance (m) (m) 72.9 / -1.00 1633981 Ontario Inc 7 36 of 44 S/80.4 **GEN** 1111 Ogilvie Road Ottawa ON K1J 7P7 ON7051938 Generator No: SIC Code: SIC Description: Approval Years: As of Jul 2020 PO Box No: Country: Canada Status: Registered Co Admin: Choice of Contact: Phone No Admin: Contaminated Facility: MHSW Facility: Detail(s) Waste Class: 252 I Waste Class Name: Waste crankcase oils and lubricants 221 I Waste Class: Waste Class Name: Light fuels 7 37 of 44 S/80.4 72.9 / -1.00 **ECONO GAS** RST 1111 OGILVIE RD APT 1 **GLOUCESTER ON K1J7P7** Headcode: 01186800 SERVICE STATIONS GASOLINE OIL & NATURAL GAS Headcode Desc: Phone: 6137420528 List Name: INFO-DIRECT(TM) BUSINESS FILE

Description:

7

S/80.4 **1633981 ONTARIO INC** 38 of 44 72.9 / -1.00

1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA

NULL

DTNK

Order No: 23022400359

Delisted Expired Fuel Safety

Facilities

Instance No: 11287923 Expired Date: Inactive Max Hazard Rank: Status:

Instance ID: Facility Location: 1111 OGILVIE RD GLOUCESTER K1J 7P7

ON CA

Instance Type: Facility Type: **FS LIQUID FUEL TANK**

Instance Creation Dt: 7/19/2000 8:15:15 PM Fuel Type 2: NULL 7/24/2009 10:42:38 AM Fuel Type 3: NULL FS Liquid Fuel Tank Panam Related: NULL

Instance Install Dt: Item Description: NULL Panam Venue Nm: NULL Manufacturer: Model: NULL External Identifier: NULL Serial No: **NULL** Item:

NULL Piping Steel: **ULC Standard:** Quantity: Piping Galvanized: Unit of Measure: EΑ Tank Single Wall St: Overfill Prot Type: **NULL** Piping Underground: Creation Date: 7/5/2009 1:24:38 AM Tank Underground:

Next Periodic Str DT: FS Liquid Fuel Tank NULL Source:

Number of Direction/ Elev/Diff Site DΒ Map Key Records Distance (m) (m) TSSA Base Sched Cycle 2: NULL

TSSAMax Hazard Rank 1: **NULL** TSSA Risk Based Periodic Yn: NULL TSSA Volume of Directives: **NULL** TSSA Periodic Exempt: **NULL** TSSA Statutory Interval: **NULL** TSSA Recd Insp Interva: **NULL** TSSA Recd Tolerance: NULL TSSA Program Area: **NULL** TSSA Program Area 2: **NULL**

2009VBS Super gasoline Description:

S/80.4

Original Source: **EXP** 31-JUL-2020 Record Date:

72.9 / -1.00

1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA

DTNK

ON

Delisted Expired Fuel Safety

Facilities

7

11287906 Instance No: Inactive Status:

39 of 44

Instance ID:

Instance Type:

7/19/2000 8:15:15 PM Instance Creation Dt: Instance Install Dt: 7/24/2009 10:43:05 AM Item Description: FS Liquid Fuel Tank

Manufacturer: NULL Model: NULL Serial No: NULL **ULC Standard: NULL** Quantity: Unit of Measure: EΑ Overfill Prot Type: NULL

7/5/2009 1:24:38 AM Creation Date:

Next Periodic Str DT: NULL

NULL TSSA Base Sched Cycle 2: TSSAMax Hazard Rank 1: **NULL** TSSA Risk Based Periodic Yn: NULL NULL TSSA Volume of Directives: TSSA Periodic Exempt: **NULL** TSSA Statutory Interval: NULL TSSA Recd Insp Interva: **NULL** TSSA Recd Tolerance: **NULL** TSSA Program Area: NULL TSSA Program Area 2: NULL

2009VBS Regular gasoline Description:

EXP Original Source:

Record Date: 31-JUL-2020 Expired Date:

Max Hazard Rank: **NULL**

1633981 ONTARIO INC

1111 OGILVIE RD GLOUCESTER K1J 7P7 Facility Location:

ON CA

Facility Type: FS LIQUID FUEL TANK

Fuel Type 2: NULL Fuel Type 3: NULL Panam Related: NULL Panam Venue Nm: NULL External Identifier: **NULL**

Item:

Piping Steel: Piping Galvanized: Tank Single Wall St: Piping Underground: Tank Underground:

FS Liquid Fuel Tank Source:

7 40 of 44 S/80.4

72.9 / -1.00

1633981 ONTARIO INC

1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA

ON

Delisted Expired Fuel Safety

Facilities

Instance No: 11287944

Status: Inactive **Expired Date:**

NULL Max Hazard Rank:

DTNK

Map Key Number of Direction/ Elev/Diff Site DB

Records Distance (m) (m)

Instance ID: Facility Location: 1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA

Instance Type: FS LIQUID FUEL TANK

 Instance Creation Dt:
 7/19/2000 8:15:15 PM
 Fuel Type 2:
 NULL

 Instance Install Dt:
 7/24/2009 10:42:16 AM
 Fuel Type 3:
 NULL

 Item Description:
 FS Liquid Fuel Tank
 Panam Related:
 NULL

 Manufacturer:
 NULL
 Panam Venue Nm:
 NULL

 Model:
 NULL
 External Identifier:
 NULL

 Sorial No:
 NULL
 Item:

 Serial No:
 NULL
 Item:

 ULC Standard:
 NULL
 Piping Steel:

 Quantity:
 1
 Piping Galvanized:

 Unit of Measure:
 EA
 Tank Single Wall St:

 Overfill Prot Type:
 NULL
 Piping Underground:

Creation Date: 7/5/2009 1:24:35 AM Tank Underground:

Next Periodic Str DT: NULL Source: FS Liquid Fuel Tank
TSSA Base Sched Cvcle 2: NULL

TSSA Base Sched Cycle 2: TSSAMax Hazard Rank 1: **NULL** TSSA Risk Based Periodic Yn: **NULL** TSSA Volume of Directives: **NULL** TSSA Periodic Exempt: NULL TSSA Statutory Interval: **NULL** TSSA Recd Insp Interva: **NULL** NULL TSSA Recd Tolerance: TSSA Program Area: **NULL** TSSA Program Area 2: **NULL** Description: 2009VBS

Original Source: EXP Record Date: 31-JUL-2020

7 41 of 44 S/80.4 72.9 / -1.00 1633981 ONTARIO INC 1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA

ON

<u>Delisted Expired Fuel Safety</u> <u>Facilities</u>

Instance No: 11287886

Instance ID:

Status:

Instance Type:

Instance Creation Dt: 7/19/2000 8:15:15 PM
Instance Install Dt: 7/24/2009 10:41:37 AM
Item Description: FS Liquid Fuel Tank

Inactive

Manufacturer: NULL
Model: NULL
Serial No: NULL
ULC Standard: NULL
Quantity: 1
Unit of Measure: EA
Overfill Prot Type: NULL

Creation Date: 7/5/2009 1:24:32 AM

Next Periodic Str DT: NULL

TSSA Base Sched Cycle 2: **NULL** NULL TSSAMax Hazard Rank 1: TSSA Risk Based Periodic Yn: NULL TSSA Volume of Directives: NULL TSSA Periodic Exempt: **NULL** TSSA Statutory Interval: **NULL** TSSA Recd Insp Interva: **NULL** TSSA Recd Tolerance: NULL TSSA Program Area: NULL TSSA Program Area 2: **NULL** Expired Date:

Max Hazard Rank: NULL

Facility Location: 1111 OGILVIE RD GLOUCESTER K1J 7P7

Order No: 23022400359

ON CA

Facility Type: FS LIQUID FUEL TANK

Fuel Type 2: NULL
Fuel Type 3: NULL
Panam Related: NULL
Panam Venue Nm: NULL
External Identifier: NULL

Item:

Piping Steel: Piping Galvanized: Tank Single Wall St: Piping Underground: Tank Underground:

Source: FS Liquid Fuel Tank

Description: 2009VBS Regular gasoline

Original Source: EXP

Record Date: 31-JUL-2020

7 42 of 44 S/80.4 72.9 / -1.00 1111 OGIL VIE RD GLOUCESTER ON K1J 7P7

Delisted Fuel Storage Tank

Instance No: 29160194
Status: Active

Instance Type:
Fuel Type:
Cont Name:
Capacity:
Tank Material:
Corrosion Prot:
Tank Type:
Install Year:
Facility Type:
Device Installed Loc:

Fuel Type 2: Fuel Type 3:

Item: FS GASOLINE STATION - SELF SERVE

Item Description:
Model:
Description:

Instance Creation Dt: Instance Install Dt: Manufacturer: Serial No: ULC Standard: Quantity: Unit of Measure: Parent Fac Type:

TSSA Base Sched Cycle 1: TSSA Base Sched Cycle 2:

Original Source: FST

43 of 44

Record Date: 31-MAY-2021

Creation Date: Overfill Prot Type: Facility Location:

Piping SW Steel: 0 Piping SW Galvan: 0 Tanks SW Steel: 0 Piping Underground: 3 No Underground: 6 Max Hazard Rank: Max Hazard Rank 1: Nxt Period Start Dt: Program Area 1: Program Area 2: Nxt Period Strt Dt 2: Risk Based Periodic: Vol of Directives: Years in Service: Created Date:

Periodic Exempt: Statutory Interval: Rcomnd Insp Interval: Recommended Toler: Panam Venue Name: External Identifier:

1633981 Ontario Inc

Federal Device:

72.9 / -1.00

Generator No: SIC Code:

7

SIC Description:

Approval Years: As of Nov 2021

PO Box No:

Country: Canada Status: Registered

Co Admin: Choice of Contact: Phone No Admin: Contaminated Facility: MHSW Facility:

Detail(s)

Waste Class: 252 L

Waste Class Name: Waste crankcase oils and lubricants

S/80.4

ON7051938

1111 Ogilvie Road Ottawa ON K1J 7P7

GEN

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Waste Class: Waste Class Name:		221 I Light fuels			
<u>7</u>	44 of 44	S/80.4	72.9 / -1.00	1633981 Ontario Inc 1111 Ogilvie Road Ottawa ON K1J 7P7	GEN
Generator No: SIC Code:		ON7051938			
SIC Descript Approval Ye PO Box No:	ars:	As of Oct 2022			
Country: Status: Co Admin: Choice of Co	ontact:	Canada Registered			
Phone No Ad Contaminate MHSW Facil	ed Facility:				
<u>Detail(s)</u>					
Waste Class: Waste Class Name:		221 I LIGHT FUELS			
Waste Class: Waste Class Name:		252 L WASTE OILS & LU	BRICANTS		
<u>8</u>	1 of 5	E/81.9	73.9 / 0.00	MANDARIN-OGILVIE RESTAURANT 1137 OGILVIE ROAD GLOUCESTER CITY ON K1J 7P6	CA
Certificate #		8-4099-93- 93			
Issue Date:		9/29/1993			
Approval Ty Status: Application Client Name Client Addre Client City:	Type: :	Industrial air Approved			
Client Postal Code: Project Description: Contaminants: Emission Control:		RESTAURANT KIT Odour/Fumes Panel Filter	CHEN EXHAUST	FAN	
8	2 of 5	E/81.9	73.9 / 0.00	FRESH AIR EXPERIENCE INC. 1137 AGILVIE ROAD GLOUCESTER ON K1J 7P6	GEN
Generator No: SIC Code: SIC Description: Approval Years: PO Box No: Country: Status: Co Admin: Choice of Contact: Phone No Admin: Contaminated Facility: MHSW Facility:		ON0960500 0000 *** NOT DEFINED *** 86,87,88,89,90,92,93,97,98			

Detail(s)

Waste Class: 213

Waste Class Name: PETROLEUM DISTILLATES

8 3 of 5 E/81.9 73.9 / 0.00 FRESH AIR EXPERIENCE INC. 15-313
1137 AGILVIE ROAD
GLOUCESTER ON K1J 7P6

Generator No: ON0960500

SIC Code: 6541

SIC Description: SPORTING GOODS STORE

94,95,96

Approval Years:
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:

Country: Status: So Admin:

Detail(s)

MHSW Facility:

Waste Class: 213

Waste Class Name: PETROLEUM DISTILLATES

<u>8</u> 4 of 5 E/81.9 73.9 / 0.00 1137 Ogilvie Road and 1111 Cummings Avenue Gloucester ON K1J 7P6

 Order No:
 21031000028

 Status:
 C

Report Type: Standard Report Report Date: 15-MAR-21

Date Received: 10-MAR-21

Date Received: 1
Previous Site Name:
Lot/Building Size:
Additional Info Ordered:

Municipality:
d Report Client Prov/State: ON
-21 Search Radius (km): .25

X: -75.6314686 **Y**: 45.4268306

Nearest Intersection:

8 5 of 5 E/81.9 73.9 / 0.00

1137 Ogilvie Road and 1111 Cummings Avenue Gloucester ON K1J 7P6

EHS

PRT

Order No: 23022400359

Order No: 21031000028

Status: C

Report Type: Standard Report Report Date: 15-MAR-21
Date Received: 10-MAR-21

Previous Site Name: Lot/Building Size: Additional Info Ordered: Nearest Intersection:
Municipality:
Client Prov/State:

Client Prov/State: ON Search Radius (km): .25

X:-75.6314686Y:45.4268306

9 1 of 5 ENE/86.9 74.9 / 1.00 ATLAS WELDING & EQUIPMENT RENTALS DIV

OF LALONDE W 1091 CUMMINGS AV GLOUCESTER ON K1J 7S2

Location ID: 5278
Type: private

 Map Key
 Number of Direction/
 Elev/Diff
 Site
 DB

 Records
 Distance (m) (m)

 Expiry Date:

 Capacity (L):
 2273.00

 Licence #:
 0001019493

9 2 of 5 ENE/86.9 74.9 / 1.00 ATLAS WELDING & EQUIPMENT RENTALS DIV

OF LALONDE WELDING LTD 1091 CUMMINGS AVE GLOUCESTER ON K1J 7S2 **FSTH**

Order No: 23022400359

License Issue Date:6/4/1990Tank Status:LicensedTank Status As Of:August 2007Operation Type:Private Fuel Outlet

Facility Type: Gasoline Station - Self Serve

--Details--

Status:RemovedYear of Installation:1985

Corrosion Protection:

Capacity: 2273

Tank Fuel Type: Liquid Fuel Single Wall UST - Gasoline

9 3 of 5 ENE/86.9 74.9 / 1.00 ATLAS WELDING & EQUIPMENT RENTALS DIV

OF LALONDE WELDING LTD 1091 CUMMINGS AVE GLOUCESTER ON

<u>Delisted Expired Fuel Safety</u> <u>Facilities</u>

 Instance No:
 10762206

 Status:
 EXPIRED

 Instance ID:
 38518

 Instance Type:
 FS Piping

Instance Creation Dt: Instance Install Dt: Item Description: Manufacturer: Model: Serial No: **ULC Standard:** Quantity: Unit of Measure: Overfill Prot Type: Creation Date: Next Periodic Str DT: TSSA Base Sched Cycle 2: TSSAMax Hazard Rank 1: TSSA Risk Based Periodic Yn: TSSA Volume of Directives: TSSA Periodic Exempt: TSSA Statutory Interval: TSSA Recd Insp Interva: TSSA Recd Tolerance:

Description: FS Piping **Original Source:** EXP

Record Date: Up to Mar 2012

Expired Date:
Max Hazard Rank:
Facility Location:
Facility Type:
Fuel Type 2:
Fuel Type 3:
Panam Related:
Panam Venue Nm:
External Identifier:

Item:
Piping Steel:
Piping Galvanized:
Tank Single Wall St:
Piping Underground:
Tank Underground:

Source:

TSSA Program Area: TSSA Program Area 2:

OF LALONDE WELDING LTD 1091 CUMMINGS AVE GLOUCESTER K1J 7S2 ON CA ON

DTNK

Delisted Expired Fuel Safety

Facilities

Instance No: 10762197 **EXPIRED** Status:

Instance ID:

Instance Type:

1/17/1990 Instance Creation Dt: Instance Install Dt: 1/17/1990

Item Description: FS Liquid Fuel Tank

Manufacturer: **NULL NULL** Model: Serial No: NULL **ULC Standard:** NULL Quantity: FΑ Unit of Measure: Overfill Prot Type: NULL

7/5/2009 1:20:40 AM Creation Date:

Next Periodic Str DT: NULL

TSSA Base Sched Cycle 2: **NULL** TSSAMax Hazard Rank 1: NULL TSSA Risk Based Periodic Yn: NULL TSSA Volume of Directives: NULL TSSA Periodic Exempt: **NULL** TSSA Statutory Interval: **NULL** TSSA Recd Insp Interva: NULL TSSA Recd Tolerance: **NULL** TSSA Program Area: **NULL NULL** TSSA Program Area 2:

Description: UNDERGROUND TANK

AS PER E063297

Original Source: **EXP** Record Date: 31-JUL-2020 Expired Date:

Max Hazard Rank: **NULL**

Facility Location: 1091 CUMMINGS AVE GLOUCESTER K1J

7S2 ON CA

FS LIQUID FUEL TANK Facility Type:

Fuel Type 2: **NULL** Fuel Type 3: NULL Panam Related: NULL Panam Venue Nm: **NULL** External Identifier: NULL

Item:

Piping Steel: Piping Galvanized: Tank Single Wall St: Piping Underground: Tank Underground:

FS Liquid Fuel Tank Source:

9 5 of 5 ENE/86.9 74.9 / 1.00 ATLAS WELDING & EQUIPMENT RENTALS DIV

Instance No: 10762197

Status: Cont Name: Instance Type: Item:

FS Liquid Fuel Tank Item Description: Tank Type: Liquid Fuel Single Wall UST

Install Date: 1/17/1990 Install Year: 1985

Years in Service:

NULL Model: Description:

2273 Capacity: Tank Material: Steel

Impressed Current **Corrosion Protect:**

OF LALONDE WELDING LTD

1091 CUMMINGS AVE GLOUCESTER K1J 7S2 ON CA

ON

Manufacturer: Serial No: Ulc Standard: Quantity: Unit of Measure:

Fuel Type: Gasoline Fuel Type2: NULL Fuel Type3: NULL

Piping Steel: Piping Galvanized: Tanks Single Wall St: Piping Underground: No Underground: Panam Related: Panam Venue:

FST

Number of Elev/Diff Site DΒ Map Key Direction/ (m)

Records Distance (m)

Overfill Protect: Facility Type: FS Liquid Fuel Tank

Parent Facility Type: Facility Location:

Device Installed Location: 1091 CUMMINGS AVE GLOUCESTER K1J 7S2 ON CA

Liquid Fuel Tank Details

Overfill Protection:

Owner Account Name: ATLAS WELDING & EQUIPMENT RENTALS DIV OF LALONDE WELDING LTD

FS LIQUID FUEL TANK Item:

1 of 1 SE/92.0 10 73.9 / 0.00 lot 25 con 1 **WWIS** ON

Well ID: 1501115 Flowing (Y/N):

Construction Date: Flow Rate: Use 1st: Domestic Data Entry Status:

Use 2nd: Data Src: Water Supply 23-Jun-1948 00:00:00 Final Well Status: Date Received:

TRUE Water Type: Selected Flag:

Casing Material: Abandonment Rec: 2311 Audit No: Contractor:

Tag: Form Version: 1 Constructn Method: Owner:

Elevation (m): County: **OTTAWA-CARLETON**

Elevatn Reliabilty: Lot: 025 Depth to Bedrock: Concession: 01 Well Depth: Concession Name: OF

Overburden/Bedrock: Easting NAD83: Pump Rate: Northing NAD83:

Static Water Level: Zone: UTM Reliability: Clear/Cloudy:

GLOUCESTER TOWNSHIP Municipality:

Site Info:

https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/150\1501115.pdf PDF URL (Map):

Additional Detail(s) (Map)

Well Completed Date: 1948/04/30 Year Completed: 1948 Depth (m): 42.672

45.4263829899684 Latitude: Longitude: -75.6317299075181 150\1501115.pdf Path:

Bore Hole Information

Bore Hole ID: 10023158 Elevation: DP2BR: Elevrc:

Spatial Status: Zone: 18

Code OB: East83: 450580.70 Code OB Desc: 5030512.00 North83: Open Hole: Org CS:

Cluster Kind: **UTMRC:**

30-Apr-1948 00:00:00 Date Completed: **UTMRC Desc:** unknown UTM

Order No: 23022400359

Remarks: Location Method:

Loc Method Desc: Original Pre1985 UTM Rel Code 9: unknown UTM

Elevrc Desc: Location Source Date: Improvement Location Source:

Improvement Location Method: Source Revision Comment:

Supplier Comment:

Overburden and Bedrock

Materials Interval

Formation ID: 930991012

Layer: 2 Color:

General Color:

Mat1: 17

Most Common Material: SHALE

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 22.0
Formation End Depth: 140.0
Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID: 930991011

Layer:

Color: 6

 General Color:
 BROWN

 Mat1:
 05

 Most Common Material:
 CLAY

 Mat2:
 09

Mat2 Desc: MEDIUM SAND

Mat3: Mat3 Desc:

Formation Top Depth: 0.0
Formation End Depth: 22.0
Formation End Depth UOM: ft

Method of Construction & Well

<u>Use</u>

Method Construction ID: 961501115

Method Construction Code:

Method Construction: Cable Tool

Other Method Construction:

Pipe Information

Pipe ID: 10571728

Casing No:

Comment: Alt Name:

Construction Record - Casing

Casing ID: 930039223

Layer: 3 Material: 4

Open Hole or Material: OPEN HOLE

Depth From:

Depth To: 140.0 **Casing Diameter:** 4.0

Casing Diameter UOM: inch Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930039222

Layer: 2

Material:

Open Hole or Material:

Depth From:

Depth To: 22.0
Casing Diameter: 4.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930039221

Layer: 1
Material: 1
Open Hole or Material: STEEL

Depth From:

Depth To:20.0Casing Diameter:4.0Casing Diameter UOM:inchCasing Depth UOM:ft

Results of Well Yield Testing

Pumping Test Method Desc: PUMP

Pump Test ID: 991501115

Pump Set At: Static Level:

Final Level After Pumping: 45.0

Recommended Pump Depth:

Pumping Rate: 2.0

Flowing Rate: Recommended Pump Rate:

Levels UOM: ft

Rate UOM: GPM

Water State After Test Code:

Water State After Test: Pumping Test Method:

Pumping Duration HR: Pumping Duration MIN:

Flowing: No

Water Details

Water ID: 933453797

1

Layer: 1
Kind Code: 1

Kind: FRESH
Water Found Depth: 120.0
Water Found Depth UOM: ft

Water Details

Water ID: 933453798

 Layer:
 2

 Kind Code:
 1

 Kind:
 FRESH

Water Found Depth: 135.0
Water Found Depth UOM: ft

Links

Bore Hole ID: 10023158 **Tag No:**

Depth M: 42.672 **Contractor:** 2311

 Year Completed:
 1948
 Path:
 150\1501115.pdf

 Well Completed Dt:
 1948/04/30
 Latitude:
 45.4263829899684

 Audit No:
 Longitude:
 -75.6317299075181

11 1 of 1 NE/92.2 74.9 / 1.00 lot 25 con 1 WWIS

Well ID: 1501124 Flowing (Y/N):
Construction Date: Flow Rate:

 Use 1st:
 Domestic
 Data Entry Status:

 Use 2nd:
 0
 Data Src:

Final Well Status: Water Supply Date Received: 25-Oct-1956 00:00:00

Water Type: Selected Flag: TRUE

Casing Material:Abandonment Rec:Audit No:Contractor:23

Audit No:Contractor:2311Tag:Form Version:1Constructn Method:Owner:

Elevation (m): County: OTTAWA-CARLETON

 Elevatn Reliabilty:
 Lot:
 025

 Depth to Bedrock:
 Concession:
 01

 Well Depth:
 Concession Name:
 OF

Overburden/Bedrock: Easting NAD83: Pump Rate: Northing NAD83:

Static Water Level: Zone:

Clear/Cloudy: UTM Reliability:

Municipality: GLOUCESTER TOWNSHIP

Site Info:

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/150\1501124.pdf

Additional Detail(s) (Map)

 Well Completed Date:
 1956/10/06

 Year Completed:
 1956

 Depth (m):
 19.812

 Latitude:
 45.4277323883663

 Longitude:
 -75.6318727936797

 Path:
 150\1501124.pdf

Bore Hole Information

Bore Hole ID: 10023167 Elevation: DP2BR: Elevrc:

 DP2BR.
 Elevic.

 Spatial Status:
 Zone:
 18

 Code OB:
 East83:
 450570.70

 Code OB Desc:
 North83:
 5030662.00

Open Hole: Org CS:

Cluster Kind: UTMRC:

Date Completed: 06-Oct-1956 00:00:00 **UTMRC Desc:** margin of error : 100 m - 300 m

Order No: 23022400359

Remarks: Location Method: p5
Loc Method Desc: Original Pre1985 UTM Rel Code 5: margin of error : 100 m - 300 m

Elevrc Desc: Location Source Date:

Improvement Location Source: Improvement Location Method:

Source Revision Comment:

Supplier Comment:

Overburden and Bedrock

Materials Interval

Formation ID: 930991038

2

Layer:

Color:

General Color:

Mat1: 17
Most Common Material: SHALE

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 5.0
Formation End Depth: 65.0
Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID: 930991037

Layer: 1

Color: 6
General Color: BROWN

Mat1: 02
Most Common Material: TOPSOIL

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 0.0 Formation End Depth: 5.0 Formation End Depth UOM: ft

Method of Construction & Well

<u>Use</u>

Method Construction ID: 961501124

Method Construction Code: 1

Method Construction: Cable Tool

Other Method Construction:

Pipe Information

Pipe ID: 10571737

Casing No:

Comment: Alt Name:

Construction Record - Casing

Casing ID: 930039240

Layer: 1
Material: 1
Open Hole or Material: STEEL

Depth From:

Depth To: 12.0 Casing Diameter: 4.0

Casing Diameter UOM: inch

Casing Depth UOM:

Construction Record - Casing

 Casing ID:
 930039241

 Layer:
 2

ft

Material: 4

Open Hole or Material: OPEN HOLE

Depth From:
Depth To: 65.0
Casing Diameter: 4.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pumping Test Method Desc:PUMPPump Test ID:991501124

Pump Set At:

Static Level: 5.0 Final Level After Pumping: 15.0

Recommended Pump Depth:

Pumping Rate: 2.0

Flowing Rate:

Recommended Pump Rate:

Recommended Fump Nate:

Levels UOM:

Rate UOM:

Water State After Test Code:

Water State After Test:

CLEAR

Pumping Test Method:

Pumping Duration HR:

Pumping Duration MIN:

O

Flowing:

No

Water Details

Water ID: 933453810

 Layer:
 1

 Kind Code:
 1

 Kind:
 FRESH

 Water Found Depth:
 35.0

 Water Found Depth UOM:
 ft

Water Details

 Water ID:
 933453811

 Layer:
 2

 Kind Code:
 1

 Kind:
 FRESH

Water Found Depth: 58.0
Water Found Depth UOM: ft

<u>Links</u>

Bore Hole ID: 10023167 **Depth M:** 19.812

Depth M: 19.812 **Contractor:** 2311

 Year Completed:
 1956
 Path:
 150\1501124.pdf

 Well Completed Dt:
 1956/10/06
 Latitude:
 45.4277323883663

 Audit No:
 Longitude:
 -75.6318727936797

Tag No:

12 1 of 1 SW/113.8 72.9/-1.00 lot 25 con 1 ON WWIS

Well ID: 1510842 Flowing (Y/N):
Construction Date: Flow Rate:

Use 1st: Commerical Data Entry Status:

Use 2nd: 0 Data Src:

Final Well Status:Water SupplyDate Received:28-Sep-1970 00:00:00Water Type:Selected Flag:TRUE

Water Type: Selected Flag:
Casing Material: Abandonment Rec:

Audit No: Contractor: 1558
Tag: Form Version: 1

Constructn Method: Owner:

Elevation (m): County: OTTAWA-CARLETON

 Elevatn Reliabilty:
 Lot:
 025

 Depth to Bedrock:
 Concession:
 01

 Well Depth:
 Concession Name:
 OF

Well Depth: Concession Name: OF
Overburden/Bedrock: Easting NAD83:
Pump Rate: Northing NAD83:

Static Water Level: Zone: Clear/Cloudy: UTM Reliability:

Municipality: GLOUCESTER TOWNSHIP

Site Info:

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/151\1510842.pdf

Additional Detail(s) (Map)

 Well Completed Date:
 1970/07/22

 Year Completed:
 1970

 Depth (m):
 60.96

 Latitude:
 45.4261051836758

 Longitude:
 -75.6331329392714

 Path:
 151\1510842.pdf

Bore Hole Information

Bore Hole ID: 10032845 Elevation:

DP2BR: Elevrc: Spatial Status: Zone:

 Spatial Status:
 Zone:
 18

 Code OB:
 East83:
 450470.70

 Code OB Desc:
 North83:
 5030482.00

Open Hole: Org CS: Cluster Kind: UTMRC:

 Date Completed:
 22-Jul-1970 00:00:00
 UTMRC Desc:
 margin of error : 30 m - 100 m

Order No: 23022400359

Remarks: Location Method: p4

Loc Method Desc: Original Pre1985 UTM Rel Code 4: margin of error : 30 m - 100 m

Elevrc Desc:

Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment:

Supplier Comment:

Overburden and Bedrock

Materials Interval

Formation ID: 931015951

 Layer:
 3

 Color:
 6

 General Color:
 BROWN

 Mat1:
 17

 Most Common Material:
 SHALE

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 30.0 Formation End Depth: 55.0 Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931015950

 Layer:
 2

 Color:
 8

 General Color:
 BLACK

 Mat1:
 17

 Most Common Material:
 SHALE

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 4.0
Formation End Depth: 30.0
Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

 Formation ID:
 931015952

 Layer:
 4

 Color:
 2

 General Color:
 GREY

 Mat1:
 15

Most Common Material: LIMESTONE

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 55.0 Formation End Depth: 200.0 Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID: 931015949

Layer: 1 Color: 6

General Color: BROWN **Mat1:** 09

Most Common Material: MEDIUM SAND

 Mat2:
 12

 Mat2 Desc:
 STONES

 Mat3:
 01

 Mat3 Desc:
 FILL

 Formation Top Depth:
 0.0

 Formation End Depth:
 4.0

 Formation End Depth UOM:
 ft

Method of Construction & Well

<u>Use</u>

Method Construction ID: 961510842

Method Construction Code:

Method Construction: Cable Tool

Other Method Construction:

Pipe Information

Pipe ID: 10581415

Casing No:

Comment: Alt Name:

Construction Record - Casing

Casing ID: 930058243

Layer: 1
Material: 1
Open Hole or Material: STEEL

Open Hole or Material: Depth From:

Depth To: 10.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930058244

Layer: 2 Material: 4

Open Hole or Material: OPEN HOLE

Depth From:

Depth To: 200.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pumping Test Method Desc: BAILER
Pump Test ID: 991510842

Pump Set At:

Static Level: 4.0 Final Level After Pumping: 125.0 150.0 Recommended Pump Depth: Pumping Rate: 1.0 Flowing Rate: Recommended Pump Rate: 1.0 Levels UOM: ft **GPM** Rate UOM: Water State After Test Code: 2 CLOUDY Water State After Test: Pumping Test Method: 2 **Pumping Duration HR:** 30 **Pumping Duration MIN:** Flowing: No

Draw Down & Recovery

 Pump Test Detail ID:
 934380135

 Test Type:
 Draw Down

 Test Duration:
 30

 Test Level:
 125.0

Test Level UOM:

Draw Down & Recovery

Pump Test Detail ID: 934899053 Draw Down Test Type: Test Duration: 125.0 Test Level: Test Level UOM: ft

ft

Draw Down & Recovery

Pump Test Detail ID: 934097400 Test Type: Draw Down Test Duration: 15 Test Level: 125.0 Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934641711 Draw Down Test Type: Test Duration: 45 125.0 Test Level: Test Level UOM: ft

Water Details

Water ID: 933465871

Layer: Kind Code: 3

SULPHUR Kind: Water Found Depth: 130.0 ft Water Found Depth UOM:

Links

Bore Hole ID: 10032845 Tag No: Depth M: 60.96 Contractor:

1558 151\1510842.pdf Year Completed: 1970 Path: Well Completed Dt: 1970/07/22 Latitude: 45.4261051836758 Longitude: -75.6331329392714

Audit No:

13 1 of 2 SE/114.3 73.9 / 0.00 **UNKNOWN**

CUMMINGS AVE JUST SOUTH OF OLGILVIE

SPL

Order No: 23022400359

GLOUCESTER CITY ON

71782 Ref No: Discharger Report: Site No: Material Group:

Incident Dt: Health/Env Conseq: Client Type: Year: Sector Type: **UNKNOWN** Incident Cause:

CITY OF GLOUCESTOR Incident Event: Agency Involved:

Nearest Watercourse: Contaminant Code: Contaminant Name: Site Address: Site District Office: Contaminant Limit 1: Contam Limit Freq 1: Site Postal Code: Contaminant UN No 1: Site Region:

CONFIRMED **GLOUCESTER CITY** Environment Impact: Site Municipality:

Nature of Impact: Soil contamination Site Lot: LAND Receiving Medium: Site Conc:

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

Receiving Env: Northing: MOE Response: Easting:

Dt MOE Arvl on Scn: Site Geo Ref Accu: 6/9/1992 MOE Reported Dt: Site Map Datum: **Dt Document Closed:** SAC Action Class: **UNKNOWN** Incident Reason:

Site Name:

Site County/District:

Municipality No: 20105

Site Geo Ref Meth:

100 L HYDRAULIC OIL TO GROUND FROM UNK SOURCE. Incident Summary:

Contaminant Qty:

SE/114.3 13 2 of 2 73.9 / 0.00

Ref No: 1776-5W9PV4

Site No: Incident Dt: 2/17/2004

Year:

Incident Cause: Other Transport Accident

Incident Event:

Contaminant Code:

Contaminant Name:

DIESEL FUEL

Contaminant Limit 1:

Contam Limit Freq 1: Contaminant UN No 1:

Environment Impact: Not Anticipated

Nature of Impact: Soil Contamination Land Receiving Medium:

Receiving Env: MOE Response:

Dt MOE Arvl on Scn: **MOE** Reported Dt:

Dt Document Closed:

Incident Reason:

Site Name:

Site County/District: Municipality No: Site Geo Ref Meth:

Incident Summary:

Contaminant Qty:

14

1 of 1

NNE/121.3

182 L

74.9 / 1.00

MVA, 40 gal diesel to gnd

1085 CUMMINGS AVENUE OTTAWA ON

HINC

External File Num: FS INC 0711-06584 Fuel Occurrence Type: Pipeline Strike 11/2/2007 Date of Occurrence: Fuel Type Involved: Natural Gas

2/17/2004

Error-Operator error

Completed - Causal Analysis(End) Status Desc: Job Type Desc: Incident/Near-Miss Occurrence (FS) Oper. Type Involved: Construction Site (pipeline strike)

Service Interruptions: Yes Property Damage: Yes

Transmission, Distribution and Transportation Fuel Life Cycle Stage:

Root Cause: Root Cause: Equipment/Material/Component:No Procedures:Yes Maintenance:No Design:No Training:No

Management:Yes Human Factors:Yes

Reported Details:

Gaseous Fuel Fuel Category:

DΒ

SPL

Source Type:

Labrador Spring Water<UNOFFICIAL>

OGILVIE STREET / CUMMING

STREET<UNOFFICIAL>

Ottawa ON

Discharger Report:

Material Group: Oil

Health/Env Conseq: Client Type:

Sector Type: Agency Involved: Nearest Watercourse:

Site Address:

Site District Office: Site Postal Code:

Site Region: Eastern Site Municipality: Ottawa

Site Lot: Site Conc: Northing: Easting:

Site Geo Ref Accu: Site Map Datum:

Spill to Land

SAC Action Class: Source Type:

OGILVIE STREET / CUMMING STREET<UNOFFICIAL>

Ottawa

Number of Direction/ Elev/Diff Site DΒ Map Key (m)

Records Distance (m)

Incident

Occurrence Type: Affiliation: Industry Stakeholder (Licensee/Registration/Certificate Holder, Facility Owner, etc.)

County Name: Ottawa

Approx. Quant. Rel: Nearby body of water: Enter Drainage Syst.: Approx. Quant. Unit: **Environmental Impact:**

> 15 1 of 1 NE/128.3 74.9 / 1.00 lot 25 con 1 **WWIS** ON

Well ID: 1501128 Flowing (Y/N): Construction Date: Flow Rate:

Use 1st: **Domestic** Data Entry Status:

Use 2nd: Data Src:

18-Aug-1959 00:00:00 Final Well Status: Water Supply Date Received:

TRUE Water Type: Selected Flag:

Casing Material: Abandonment Rec: Audit No: 2311 Contractor:

Tag: Form Version: Constructn Method: Owner:

Elevation (m): County: **OTTAWA-CARLETON**

Elevatn Reliabilty: Lot: 025 Depth to Bedrock: 01 Concession:

Well Depth: Concession Name: OF Overburden/Bedrock: Easting NAD83:

Pump Rate: Northing NAD83: Static Water Level: Zone: Clear/Cloudy: UTM Reliability:

Municipality: **GLOUCESTER TOWNSHIP**

Site Info:

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/150\1501128.pdf

Additional Detail(s) (Map)

Well Completed Date: 1959/07/15 Year Completed: 1959 Depth (m): 44.196

Latitude: 45.4280038234168 -75.6316201535922 Longitude: Path: 150\1501128.pdf

Bore Hole Information

10023171 Bore Hole ID: Elevation:

DP2BR: Elevrc: Spatial Status: Zone:

18 Code OB: East83: 450590.70 Code OB Desc: 5030692.00 North83:

Open Hole: Org CS:

Cluster Kind: **UTMRC:**

Date Completed: 15-Jul-1959 00:00:00 **UTMRC Desc:** margin of error: 100 m - 300 m

Order No: 23022400359

Location Method: Remarks: Loc Method Desc: Original Pre1985 UTM Rel Code 5: margin of error: 100 m - 300 m

Elevrc Desc: Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment:

Supplier Comment:

Overburden and Bedrock

Materials Interval

Formation ID: 930991044

Layer:

Color:

General Color:

Mat1: 09

Most Common Material: MEDIUM SAND

Mat2: 11
Mat2 Desc: GRAVEL

Mat3: Mat3 Desc:

Formation Top Depth: 0.0
Formation End Depth: 28.0
Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID: 930991045

Layer: 2

Color:

General Color:

Mat1: 17

Most Common Material: SHALE

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 28.0 Formation End Depth: 145.0 Formation End Depth UOM: ft

omaton Ena Depar Com.

Method of Construction & Well

<u>Use</u>

Method Construction ID: 961501128

Method Construction Code: 1

Method Construction: Cable Tool

Other Method Construction:

Pipe Information

Pipe ID: 10571741

Casing No:

Comment: Alt Name:

Construction Record - Casing

Casing ID: 930039249

Layer: 2 Material: 4

Open Hole or Material: OPEN HOLE

Depth From:

Depth To: 145.0
Casing Diameter: 4.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930039248

Layer: Material:

Open Hole or Material: STEEL Depth From:

30.0 Depth To: Casing Diameter: 4.0 Casing Diameter UOM: inch ft Casing Depth UOM:

Results of Well Yield Testing

Pumping Test Method Desc: **PUMP** Pump Test ID: 991501128

Pump Set At: 16.0 Static Level: Final Level After Pumping: 145.0

Recommended Pump Depth: Pumping Rate: 0.0

Flowing Rate:

Recommended Pump Rate:

ft Levels UOM: Rate UOM: **GPM** Water State After Test Code: Water State After Test: **CLEAR** Pumping Test Method: **Pumping Duration HR:** 4 Pumping Duration MIN: 0

Water Details

Flowing:

933453815 Water ID:

Layer: Kind Code:

Kind: **FRESH** Water Found Depth: 80.0 Water Found Depth UOM: ft

<u>Links</u>

Bore Hole ID: 10023171

Contractor: Depth M: 44.196 2311

Year Completed: 1959 Path: 150\1501128.pdf Well Completed Dt: 1959/07/15 Latitude: 45.4280038234168 Audit No: Longitude: -75.6316201535922

1 of 1 ESE/146.8 72.8 / -1.03 1134 OGILVIE RD. 16 **WWIS** Ottawa ON

Tag No:

21-Jul-2014 00:00:00

Order No: 23022400359

Well ID: 7224359 Flowing (Y/N): Flow Rate:

Construction Date:

No

Use 1st: Monitoring and Test Hole Data Entry Status: Use 2nd: Data Src:

Final Well Status: Monitoring and Test Hole Date Received: Water Type: Selected Flag: TRUE

Casing Material: Abandonment Rec:

Audit No: Z189005 Contractor: 7241 Form Version: Tag: A164777 7

Constructn Method: Owner:

Concession:

Order No: 23022400359

levation (m): County: OTTAWA-CARLETON

 Elevation (m):
 Cou

 Elevatn Reliabilty:
 Lot:

 Depth to Bedrock:
 Con

 Well Depth:
 Con

 Overburden/Bedrock:
 East

Well Depth: Concession Name:
Overburden/Bedrock: Easting NAD83:
Pump Rate: Northing NAD83:
Static Water Level: Zone:
Clear/Cloudy: UTM Reliability:

Municipality: GLOUCESTER TOWNSHIP

Site Info:

PDF URL (Map):

Additional Detail(s) (Map)

 Well Completed Date:
 2014/06/10

 Year Completed:
 2014

 Depth (m):
 3.1

Latitude: 45.4261798104351 Longitude: -75.6310335230838

Path:

Bore Hole Information

 Bore Hole ID:
 1004957479
 Elevation:

 DP2BR:
 Elevrc:

 Spatial Status:
 Zone:
 18

 Code OB:
 East83:
 450635.00

 Code OB Desc:
 North83:
 5030489.00

 Open Hole:
 Org CS:
 UTM83

 Cluster Kind:
 UTMRC:
 4

Date Completed: 10-Jun-2014 00:00:00 **UTMRC Desc:** margin of error : 30 m - 100 m

Remarks: Location Method: w
Loc Method Desc: on Water Well Record

Location Source Date:

Elevrc Desc:

Improvement Location Source: Improvement Location Method: Source Revision Comment:

Supplier Comment:

Overburden and Bedrock

Materials Interval

Formation ID: 1005233183

 Layer:
 1

 Color:
 6

 General Color:
 BROWN

 Mat1:
 02

 Most Common Material:
 TOPSOIL

 Mat2:
 28

 Mat2 Desc:
 SAND

 Mat3:
 77

Mat3 Desc: LOOSE
Formation Top Depth: 0.0

Formation End Depth: 0.6100000143051147

Formation End Depth UOM: m

Overburden and Bedrock Materials Interval

Formation ID: 1005233185

Layer: 3 Color: **GREY** General Color: 06 Mat1: Most Common Material: SILT 28 Mat2: Mat2 Desc: SAND Mat3: 66 Mat3 Desc: **DENSE** Formation Top Depth:

Formation End Depth: 3.0999999046325684

2

Formation End Depth UOM:

Overburden and Bedrock

Materials Interval

Formation ID: 1005233184

Layer: Color: 6 General Color: **BROWN** Mat1: 06 Most Common Material: SILT Mat2: 05

Mat2 Desc: CLAY Mat3: 66 **DENSE** Mat3 Desc:

Formation Top Depth: 0.6100000143051147

Formation End Depth: 1.5 Formation End Depth UOM: m

Annular Space/Abandonment

Sealing Record

1005233194 Plug ID:

Layer:

0.30000001192092896 Plug From: 1.2200000286102295 Plug To:

Plug Depth UOM:

Annular Space/Abandonment

Sealing Record

Plug ID: 1005233195

Layer: 3

1.2200000286102295 Plug From: Plug To: 3.0999999046325684

Plug Depth UOM:

Annular Space/Abandonment

Sealing Record

Plug ID: 1005233193

Layer: 1 0.0 Plug From:

Plug To: 0.30000001192092896

Plug Depth UOM:

Method of Construction & Well

Method Construction ID: 1005233192

Method Construction Code:

Method Construction:

Auger

Other Method Construction:

Pipe Information

Pipe ID: 1005233182

Casing No:

Comment: Alt Name:

Construction Record - Casing

Casing ID: 1005233188

Layer: 1 Material: 5

Open Hole or Material:PLASTICDepth From:0.0Depth To:1.5

Casing Diameter: 5.199999809265137

Casing Diameter UOM: cm Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1005233189

 Layer:
 1

 Slot:
 10

 Screen Top Depth:
 1.5

Screen End Depth: 3.0999999046325684

Screen Material: 5
Screen Depth UOM: m
Screen Diameter UOM: cm

Screen Diameter: 6.03000020980835

Water Details

Water ID: 1005233187

Layer: Kind Code: Kind:

Water Found Depth:

Water Found Depth UOM: m

Hole Diameter

Hole ID: 1005233186

Diameter: 15.239999771118164

Depth From: 0.0

Depth To: 3.0999999046325684

Hole Depth UOM: m
Hole Diameter UOM: cm

Links

 Bore Hole ID:
 1004957479
 Tag No:
 A164777

 Depth M:
 3.1
 Contractor:
 7241

 Year Completed:
 2014
 Path:
 722\7224359.pdf

 Well Completed Dt:
 2014/06/10
 Latitude:
 45.4261798104351

 Audit No:
 Z189005
 Longitude:
 -75.6310335230838

17 1 of 1 ESE/154.8 72.8 / -1.03 1134 ON WWIS

Well ID: 7224188

Construction Date:

Use 1st: Monitoring Use 2nd: Test Hole

Final Well Status: Monitoring and Test Hole

Water Type:

Casing Material:

 Audit No:
 Z189003

 Tag:
 A164780

Constructn Method: Elevation (m): Elevatn Reliabilty: Depth to Bedrock: Well Depth:

Overburden/Bedrock: Pump Rate: Static Water Level:

Clear/Cloudy:

Municipality: GLOUCESTER TOWNSHIP

Site Info:

PDF URL (Map):

Additional Detail(s) (Map)

 Well Completed Date:
 2014/06/10

 Year Completed:
 2014

 Depth (m):
 2.79

 Latitude:
 45.4261895878527

 Longitude:
 -75.6308930187634

Path:

Bore Hole Information

Bore Hole ID: 1004950461

DP2BR: Spatial Status: Code OB: Code OB Desc: Open Hole: Cluster Kind:

Date Completed: 10-Jun-2014 00:00:00

Remarks:

Loc Method Desc: on Water Well Record

Elevrc Desc:

Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment:

Supplier Comment:

Overburden and Bedrock

Materials Interval

Formation ID: 1006697676

Layer: 2
Color: 6
General Color: BROWN

Mat1: 06
Most Common Material: SILT

Flowing (Y/N): Flow Rate:

Data Entry Status:

Data Src:

Date Received: 21-Jul-2014 00:00:00

Selected Flag: TRUE

Abandonment Rec:
Contractor: 7241
Form Version: 7

Owner:

Lot:

County: OTTAWA-CARLETON

Concession: Concession Name: Easting NAD83: Northing NAD83: Zone:

UTM Reliability:

Elevation: Elevrc:

Zone: 18 **East83:** 450646.00

 North83:
 5030490.00

 Org CS:
 UTM83

 UTMRC:
 4

UTMRC Desc: margin of error : 30 m - 100 m

Order No: 23022400359

Location Method: ww

 Mat2:
 05

 Mat2 Desc:
 CLAY

 Mat3:
 66

 Mat3 Desc:
 DENSE

 Formation Top Depth:
 0.6100000143051147

 Formation End Depth:
 1.2200000286102295

Formation End Depth UOM: m

Overburden and Bedrock Materials Interval

Formation ID: 1006697677

Layer: 3 Color: 2 General Color: **GREY** 06 Mat1: Most Common Material: SILT Mat2: 05 Mat2 Desc: CLAY Mat3: 66 **DENSE** Mat3 Desc:

 Formation Top Depth:
 1.2200000286102295

 Formation End Depth:
 2.7899999618530273

Formation End Depth UOM: m

Overburden and Bedrock

Materials Interval

Formation ID: 1006697675

Layer: 6 Color: **BROWN** General Color: Mat1: 01 Most Common Material: FILL Mat2: 11 **GRAVEL** Mat2 Desc: Mat3: 77 Mat3 Desc: LOOSE

Formation Top Depth: 0.0

Formation End Depth: 0.6100000143051147

Formation End Depth UOM: m

Annular Space/Abandonment

Sealing Record

Plug ID: 1006697680

Layer: 1

Plug From: 0.0

Plug To: 0.30000001192092896

Plug Depth UOM: m

Annular Space/Abandonment

Sealing Record

Plug ID: 1006697681

Layer:

 Plug From:
 0.30000001192092896

 Plug To:
 0.9100000262260437

Plug Depth UOM: m

Annular Space/Abandonment

Sealing Record

Plug ID: 1006697682

Layer: 3

 Plug From:
 0.9100000262260437

 Plug To:
 2.7899999618530273

Plug Depth UOM:

Method of Construction & Well

<u>Use</u>

Method Construction ID: 1005235020 Method Construction Code: E

Method Construction: Auger

Other Method Construction:

Pipe Information

Pipe ID: 1005235014

Casing No: 0

Comment: Alt Name:

Construction Record - Casing

Casing ID: 1005235018

 Layer:
 1

 Material:
 5

Open Hole or Material: PLASTIC

Depth From: 0.0

 Depth To:
 1.2200000286102295

 Casing Diameter:
 5.199999809265137

Casing Diameter UOM: cm
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1005235019

Layer: 1 **Slot:** 10

 Screen Top Depth:
 1.2200000286102295

 Screen End Depth:
 2.700000047683716

Screen Material: 5
Screen Depth UOM: m
Screen Diameter UOM: cm

Screen Diameter: 6.03000020980835

Water Details

Water ID: 1005235017

Layer: Kind Code: Kind:

Water Found Depth:

Water Found Depth UOM: m

Hole Diameter

 Hole ID:
 1005235016

 Diameter:
 20.31999969482422

Depth From: 0.0

Depth To: 2.7899999618530273

Hole Depth UOM: m
Hole Diameter UOM: cm

Links

 Bore Hole ID:
 1004950461
 Tag No:
 A164780

 Depth M:
 2.79
 Contractor:
 7241

 Year Completed:
 2014
 Path:
 722\7224188.pdf

 Well Completed Dt:
 2014/06/10
 Latitude:
 45.4261895878527

 Audit No:
 Z189003
 Longitude:
 -75.6308930187634

18 1 of 1 SE/155.6 72.8 / -1.06 1134 OGILVIE RD WWIS

Flowing (Y/N):

Date Received:

Selected Flag:

Form Version:

Concession:

Contractor:

Owner:

County:

Lot:

Zone:

Data Entry Status:

Abandonment Rec:

Concession Name:

Easting NAD83:

Northing NAD83:

UTM Reliability:

21-Jul-2014 00:00:00

OTTAWA-CARLETON

margin of error: 30 m - 100 m

Order No: 23022400359

wwr

TRUE

7241

Flow Rate:

Data Src:

Well ID: 7224189
Construction Date:

Use 1st: Monitoring
Use 2nd: Test Hole

Final Well Status: Monitoring and Test Hole

Water Type: Casing Material:

Audit No: Z189002

Tag: A1647 Constructn Method: Elevation (m):

Elevatn Reliabilty: Depth to Bedrock: Well Depth: Overburden/Bedrock: Pump Rate:

Static Water Level: Clear/Cloudy:

Municipality: GLOUCESTER TOWNSHIP

Site Info:

PDF URL (Map):

Additional Detail(s) (Map)

 Well Completed Date:
 2014/06/10

 Year Completed:
 2014

 Depth (m):
 4.57

Latitude: 45.425990230626 **Longitude:** -75.6311336745975

Path:

Bore Hole Information

 Bore Hole ID:
 1004950464
 Elevation:

 DP2BR:
 Elevrc:

Date Completed: 10-Jun-2014 00:00:00 UTMRC Desc:

Remarks: Location Method:

Loc Method Desc: on Water Well Record Elevrc Desc:

Location Source Date: Improvement Location Source: Improvement Location Method:

Source Revision Comment:

Supplier Comment:

Overburden and Bedrock

Materials Interval

Formation ID: 1006697684

 Layer:
 2

 Color:
 6

 General Color:
 BROWN

 Mat1:
 06

 Most Common Material:
 SILT

 Mat2:
 05

 Mat2 Desc:
 CLAY

 Mat3:
 66

Formation Top Depth: 0.6100000143051147

DENSE

Formation End Depth: 1.5
Formation End Depth UOM: m

Overburden and Bedrock

Materials Interval

Mat3 Desc:

Formation ID: 1006697685

Layer: Color: 2 General Color: **GREY** Mat1: 06 Most Common Material: SILT Mat2: 05 CLAY Mat2 Desc: Mat3: 66 **DENSE** Mat3 Desc: Formation Top Depth: 1.5

Formation End Depth: 4.570000171661377

Formation End Depth UOM:

Overburden and Bedrock

Materials Interval

Formation ID: 1006697683

Layer: Color: 6 **BROWN** General Color: Mat1: 01 Most Common Material: **FILL** Mat2: 11 **GRAVEL** Mat2 Desc: Mat3: 77 LOOSE Mat3 Desc:

 Formation Top Depth:
 0.0

 Formation End Depth:
 0.6100000143051147

Formation End Depth UOM: m

Annular Space/Abandonment

Sealing Record

Plug ID: 1006697688

Layer: 1
Plug From: 0.0

Plug To: 0.30000001192092896

Plug Depth UOM: m

Annular Space/Abandonment

Sealing Record

Plug ID: 1006697689

Layer: 2

 Plug From:
 0.30000001192092896

 Plug To:
 1.2200000286102295

Plug Depth UOM: m

Annular Space/Abandonment

Sealing Record

Plug ID: 1006697690

Layer: 3

 Plug From:
 1.2200000286102295

 Plug To:
 4.570000171661377

Plug Depth UOM: m

Method of Construction & Well

<u>Use</u>

Method Construction ID:1005235027Method Construction Code:EMethod Construction:Auger

Other Method Construction:

Pipe Information

Pipe ID: 1005235021

Casing No: 0

Comment: Alt Name:

Construction Record - Casing

Casing ID: 1005235025

Layer: 1 Material: 5

Open Hole or Material:PLASTICDepth From:0.0

Depth To: 1.5

Casing Diameter: 5.199999809265137

Casing Diameter UOM: cm
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1005235026

Layer: 1 **Slot:** 10

Screen Top Depth: 1.5

Screen End Depth: 4.570000171661377

Screen Material: 5
Screen Depth UOM: m
Screen Diameter UOM: cm

Screen Diameter: 6.03000020980835

Water Details

Map Key	Numbe Record		Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Water ID: Layer: Kind Code: Kind:		,	1005235024				
Water Found Depth: Water Found Depth UOM:		M: 1	m				
Hole Diamete	<u>er</u>						
Hole ID: Diameter: Depth From: Depth To: Hole Depth L Hole Diamete	ЈОМ:	(4	1005235023 15.23999977111816 0.0 4.57000017166137 m				
<u>Links</u>							
Bore Hole ID Depth M: Year Comple Well Comple Audit No:	eted:	100495046 4.57 2014 2014/06/10 Z189002			Tag No: Contractor: Path: Latitude: Longitude:	A164781 7241 722\7224189.pdf 45.425990230626 -75.6311336745975	
<u>19</u>	1 of 19		ESE/160.7	72.8 / -1.03	C CORP (ONTARIO) INC ATTN ACCOUNTS PAYABLE 1134 OGILVIE RD OTTAWA ON K1J8V1		PRT
Location ID: Type: Expiry Date: Capacity (L): Licence #:		!	11027 retail 1996-02-28 31700 0056442001				
<u>19</u>	2 of 19		ESE/160.7	72.8/-1.03	PIONEER PETROL 1134 OGILVIE RD STATION OTTAWA CITY ON	GLOUCESTER SERVICE	SPL
Ref No: Site No:		197240			Discharger Report: Material Group:		
ncident Dt: Year:		3/28/2001			Health/Env Conseq: Client Type:		
Incident Cau Incident Eve Contaminant Contaminant Contaminant Contam Limi	nt: t Code: t Name: t Limit 1: it Freq 1:	PIPE/HOS	E LEAK		Sector Type: Agency Involved: Nearest Watercours Site Address: Site District Office: Site Postal Code:	FD e:	
Contaminant Environment Nature of Imp Receiving M Receiving Er MOE Respor	t Impact: pact: edium: nv: nse:	Possible Soil contar Land	nination		Site Region: Site Municipality: Site Lot: Site Conc: Northing: Easting:	OTTAWA CITY	
Dt Document Closed:		3/28/2001 ERROR			Site Geo Ref Accu: Site Map Datum: SAC Action Class:		
					Source Type:		

Order No: 23022400359

Site County/District:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB	
Municipality	No:	20107				
Site Geo Rei Incident Sun Contaminan	nmary:	PIONEER SERVIC	E STN: 50 LGASO	LINE TO GRND, ERROR, FD CONTAINED, WILL CLEAN.		
<u>19</u>	3 of 19	ESE/160.7	72.8 / -1.03	PIONEER PETROLEUMS 1134 OGILVIE RD OTTAWA ON K1J 8V1	RST	
Headcode: Headcode D Phone: List Name: Description:		1186800 Service Stations-G 6137418911	asoline, Oil & Natur	ral Gas		
<u>19</u>	4 of 19	ESE/160.7	72.8/-1.03	PIONEER PETROLEUMS MANAGEMENT INC** 1134 OGILVIE RD OTTAWA ON K1J 8V1	FSTH	
License Issu		9/27/2002				
Tank Status. Tank Status	=	Licensed August 2007				
Operation Ty		Retail Fuel Outlet				
Facility Type	9 :	Gasoline Station - S	Self Serve			
Details						
Status:		Active				
Year of Insta		1991				
Corrosion Pacage Capacity:	rotection:	45400				
Tank Fuel Ty	/pe:	Liquid Fuel Single	Wall UST - Gasoline	е		
Status:		Active				
Year of Insta		1991				
Corrosion Page Capacity:	rotection:	22700				
Tank Fuel Ty	/pe:	Liquid Fuel Single	Wall UST - Gasoline	e		
Status:		Active				
Year of Insta		1991				
Corrosion P	rotection:	13600				
Capacity: Tank Fuel Type:		13600 Liquid Fuel Single Wall UST - Diesel				
<u>19</u>	5 of 19	ESE/160.7	72.8 / -1.03	PIONEER PETROLEUMS 1134 OGILVIE RD GLOUCESTER ON K1J 8V1	RST	
Headcode: Headcode Desc: Phone: List Name: Description:		01186800 SERVICE STATIONS-GASOLINE, OIL & NATURAL GAS				
<u>19</u>	6 of 19	ESE/160.7	72.8 / -1.03	PIONEER PETROLEUMS MANAGEMENT INC** 1134 OGILVIE RD OTTAWA ON	FSTH	

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

License Issue Date: 9/27/2002 Tank Status: Licensed December 2008 Tank Status As Of: Retail Fuel Outlet Operation Type:

Facility Type: Gasoline Station - Self Serve

--Details--

Active Status: Year of Installation: 1991 **Corrosion Protection:**

45400 Capacity:

Liquid Fuel Single Wall UST - Gasoline Tank Fuel Type:

Status: Active Year of Installation: 1991

Corrosion Protection:

22700 Capacity:

Liquid Fuel Single Wall UST - Gasoline Tank Fuel Type:

Status: Active 1991 Year of Installation:

Corrosion Protection:

Capacity: 13600

Liquid Fuel Single Wall UST - Diesel Tank Fuel Type:

7 of 19 ESE/160.7 72.8 / -1.03 PIONEER ENERGY MANAGEMENT INC. 19 DTNK 1134 OGILVIE RD **OTTAWA ON K1J 8V1**

Delisted Expired Fuel Safety

Facilities

Instance No: 9836528 **EXPIRED** Status:

Instance ID: Instance Type: FS Facility

Instance Creation Dt: Instance Install Dt: Item Description: Manufacturer: Model: Serial No: **ULC Standard:** Quantity: Unit of Measure: Overfill Prot Type: Creation Date: Next Periodic Str DT: TSSA Base Sched Cycle 2: TSSAMax Hazard Rank 1: TSSA Risk Based Periodic Yn:

TSSA Volume of Directives: TSSA Periodic Exempt: TSSA Statutory Interval: TSSA Recd Insp Interva: TSSA Recd Tolerance: TSSA Program Area: TSSA Program Area 2: Description:

Original Source:

Record Date: Up to May 2013 Expired Date: 9/1/1995

Max Hazard Rank: Facility Location: Facility Type: Fuel Type 2: Fuel Type 3: Panam Related: Panam Venue Nm: External Identifier:

Item:

Piping Steel: Piping Galvanized: Tank Single Wall St: Piping Underground: Tank Underground:

Source:

72.8 / -1.03

72.8 / -1.03

ESE/160.7

Delisted Expired Fuel Safety

Facilities

19

Instance No: 10905133
Status: EXPIRED
Instance ID: 50628
Instance Type: FS Piping

8 of 19

Instance Creation Dt: Instance Install Dt: Item Description: Manufacturer: Model: Serial No: **ULC Standard:** Quantity: Unit of Measure: Overfill Prot Type: Creation Date: Next Periodic Str DT: TSSA Base Sched Cycle 2: TSSAMax Hazard Rank 1: TSSA Risk Based Periodic Yn: TSSA Volume of Directives: TSSA Periodic Exempt: TSSA Statutory Interval: TSSA Recd Insp Interva: TSSA Recd Tolerance: TSSA Program Area:

TSSA Program Area 2:
Description: FS Piping
Original Source: EXP

Record Date: Up to Mar 2012

Expired Date:
Max Hazard Rank:
Facility Location:
Facility Type:
Fuel Type 2:
Fuel Type 3:
Panam Related:

Panam Venue Nm:

External Identifier:

1134 OGILVIE RD OTTAWA ON

PIONEER ENERGY MANAGEMENT INC.

DTNK

DTNK

Order No: 23022400359

Item:

Piping Steel: Piping Galvanized: Tank Single Wall St: Piping Underground: Tank Underground:

Source:

Delisted Expired Fuel Safety

Facilities

19

Instance No: 10905155
Status: EXPIRED
Instance ID: 51355
Instance Type: FS Piping
Instance Creation Dt:

9 of 19

Instance Install Dt: Item Description: Manufacturer: Model: Serial No: ULC Standard: Quantity: Unit of Measure: Overfill Prot Type: Creation Date: Next Periodic Str DT: PIONEER ENERGY MANAGEMENT INC. 1134 OGILVIE RD OTTAWA ON

Expired Date:
Max Hazard Rank:
Facility Location:
Facility Type:
Fuel Type 2:
Fuel Type 3:
Panam Related:
Panam Venue Nm:

External Identifier: Item: Piping Steel: Piping Galvanized: Tank Single Wall St: Piping Underground: Tank Underground:

Source:

ESE/160.7

TSSA Base Sched Cycle 2: TSSAMax Hazard Rank 1: TSSA Risk Based Periodic Yn: TSSA Volume of Directives: TSSA Periodic Exempt: TSSA Statutory Interval: TSSA Recd Insp Interva: TSSA Recd Tolerance: TSSA Program Area: TSSA Program Area 2:

Description: FS Piping
Original Source: EXP

Record Date: Up to Mar 2012

19 10 of 19 ESE/160.7 72.8 / -1.03 PIONEER ENERGY MANAGEMENT INC.
1134 OGILVIE RD

Delisted Expired Fuel Safety

Facilities

Instance No: 10905118
Status: EXPIRED
Instance ID: 52544
Instance Type: FS Piping
Instance Creation Dt:

Instance Install Dt: Item Description: Manufacturer: Model: Serial No: **ULC Standard:** Quantity: Unit of Measure: Overfill Prot Type: Creation Date: Next Periodic Str DT: TSSA Base Sched Cycle 2: TSSAMax Hazard Rank 1: TSSA Risk Based Periodic Yn: TSSA Volume of Directives: TSSA Periodic Exempt: TSSA Statutory Interval: TSSA Recd Insp Interva: TSSA Recd Tolerance: TSSA Program Area: TSSA Program Area 2:

Description: FS Piping **Original Source:** EXP

Record Date: Up to Mar 2012

Expired Date:
Max Hazard Rank:
Facility Location:
Facility Type:
Fuel Type 2:
Fuel Type 3:
Panam Related:
Panam Venue Nm:

OTTAWA ON

External Identifier: Item: Piping Steel: Piping Galvanized: Tank Single Wall St: Piping Underground: Tank Underground: Source:

19 11 of 19 ESE/160.7 72.8 / -1.03 PARKLAND CORPORATION

1134 OGILVIE RD OTTAWA K1J 8V1 ON CA

FST

Order No: 23022400359

ON

Instance No: 10905127 Manufacturer: Status: Serial No:

Cont Name:

Instance Type:

FS Liquid Fuel Tank

Uic Standard:
Quantity:
Unit of Measure:

Item Description:FS Liquid Fuel TankFuel Type:GasolineTank Type:Single Wall USTFuel Type2:NULL

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

Piping Steel:

Piping Galvanized: Tanks Single Wall St:

Panam Related: Panam Venue:

Piping Underground: No Underground:

5/14/2009 NULL Install Date: Fuel Type3:

Install Year: 1991

Years in Service:

Model: NULL Description:

22730 Capacity:

Tank Material: Fiberglass (FRP) **Corrosion Protect:** Fiberglass

Overfill Protect:

Facility Type:

FS Liquid Fuel Tank

FS Gasoline Station - Self Serve Parent Facility Type:

Facility Location:

1134 OGILVIE RD OTTAWA K1J 8V1 ON CA Device Installed Location:

Liquid Fuel Tank Details

Overfill Protection:

PARKLAND CORPORATION **Owner Account Name: FS LIQUID FUEL TANK** Item:

19 12 of 19 ESE/160.7 72.8 / -1.03 PARKLAND CORPORATION

1134 OGILVIE RD OTTAWA K1J 8V1 ON CA

Diesel

NULL

NULL

FST

FST

ON

Serial No:

Quantity: Unit of Measure:

Fuel Type:

Fuel Type2:

Fuel Type3:

Piping Steel: Piping Galvanized:

Tanks Single Wall St: Piping Underground:

No Underground:

Panam Related: Panam Venue:

Manufacturer:

Ulc Standard:

Instance No: 10905142

Status:

Cont Name:

Instance Type: FS Liquid Fuel Tank

Item:

Item Description: FS Liquid Fuel Tank Tank Type: Single Wall UST Install Date: 5/14/2009 Install Year: 1991

Years in Service:

Model: NULL

Description:

Capacity: 13630

Fiberglass (FRP) Tank Material: **Corrosion Protect:** Fiberglass

Overfill Protect:

FS Liquid Fuel Tank Facility Type:

Parent Facility Type: FS Gasoline Station - Self Serve

Facility Location:

Device Installed Location: 1134 OGILVIE RD OTTAWA K1J 8V1 ON CA

Liquid Fuel Tank Details

Overfill Protection:

PARKLAND CORPORATION **Owner Account Name: FS LIQUID FUEL TANK** Item:

13 of 19 ESE/160.7 72.8 / -1.03 PARKLAND CORPORATION 19

1134 OGILVIE RD OTTAWA K1J 8V1 ON CA

ON

Serial No:

Manufacturer:

10905109 Instance No:

Status: Cont Name:

Instance Type: FS Liquid Fuel Tank

Item:

108

Item Description: FS Liquid Fuel Tank Tank Type: Single Wall UST Install Date: 5/14/2009

Ulc Standard: Quantity:

Unit of Measure:

Gasoline Fuel Type: Fuel Type2: NULL NULL Fuel Type3:

erisinfo.com | Environmental Risk Information Services

Number of Direction/ Elev/Diff Site DΒ Map Key

Piping Steel:

Piping Galvanized:

No Underground:

Panam Related:

Panam Venue:

Tanks Single Wall St:

Piping Underground:

1991 Install Year:

Years in Service:

NULL Model:

Description:

Capacity: 45460

Fiberglass (FRP) Tank Material: **Corrosion Protect:** Fiberglass

Records

Overfill Protect:

Facility Type:

FS Liquid Fuel Tank

FS Gasoline Station - Self Serve

Distance (m)

(m)

Parent Facility Type: Facility Location:

Device Installed Location: 1134 OGILVIE RD OTTAWA K1J 8V1 ON CA

Liquid Fuel Tank Details

Overfill Protection:

PARKLAND CORPORATION **Owner Account Name: FS LIQUID FUEL TANK** Item:

14 of 19

ESE/160.7

PIONEER PETROLEUMS 1134 OGILVIE RD **GLOUCESTER ON K1J8V1**

RST

SPL

Order No: 23022400359

Headcode: 01186800

SERVICE STATIONS GASOLINE OIL & NATURAL Headcode Desc:

Phone: 6137418911

List Name: Description:

19

19 15 of 19 ESE/160.7 72.8 / -1.03 Triangle Pump Service Limited

72.8 / -1.03

1134 Ogilvie Road

Pioneer Gas STn < UNOFFICIAL>

7201-9KX2M7 Ref No: Site No: NA 2014/06/09

Incident Dt: Year:

Incident Cause:

Operator/Human error

Soil Contamination

Incident Event:

Contaminant Code: 13

DIESEL FUEL Contaminant Name: Contaminant Limit 1:

Contam Limit Freq 1: Contaminant UN No 1:

Environment Impact: Possible

Nature of Impact:

Receiving Medium: Receiving Env:

MOE Response: No Field Response

Dt MOE Arvl on Scn:

MOE Reported Dt: 2014/06/09

Dt Document Closed: 2014/10/22 Incident Reason: Operator/Human Error

Site Name:

Site County/District:

Municipality No: Site Geo Ref Meth:

Incident Summary: Pioneer Gas Stn 40L Diesel Cln

Contaminant Qty: 40 L Ottawa ON K1J 8V1

Discharger Report: Material Group: Health/Env Conseq:

Client Type:

Sector Type: Service Station

Agency Involved: Nearest Watercourse:

Site Address: 1134 Ogilvie Road

Site District Office:

Site Postal Code: K1J 8V1

Site Region: Site Municipality:

Ottawa Site Lot:

Site Conc: Northing: Easting:

Site Geo Ref Accu: Site Map Datum:

Land Spills SAC Action Class:

Source Type:

Map Key	Numbe Record		Elev/Diff (m)	Site	DB		
<u>19</u>	16 of 19	ESE/160.7	72.8 / -1.03	Pioneer Energy LP 1134 Ogilvie Road Gloucester ON K1J 8V1	GEN		
Generator N	lo:	ON5440275					
SIC Code:	-	447110					
SIC Descrip	tion:	447110					
Approval Ye		2014					
PO Box No:							
Country: Status:		Canada					
Co Admin:		Alyssa Santiago					
Choice of Co		CO_ADMIN					
Phone No A		905-567-4444 Ext.	.1494				
Contaminate	•	No					
MHSW Facil	ity:	No					
Detail(s)							
Waste Class	: :	251					
Waste Class	Name:	OIL SKIMMINGS 8	& SLUDGES				
Waste Class		221					
Waste Class	Name:	LIGHT FUELS					
<u>19</u>	17 of 19	ESE/160.7	72.8 / -1.03	PIONEER PETROLEUMS 1134 OGILVIE RD GLOUCESTER ON K1J8V1	RST		
Headcode:	1000	01186800 SERVICE STATIO	INIS CASOLINE O	I & NATUDAL CAS			
Headcode D Phone:	esc:	SERVICE STATIONS GASOLINE OIL & NATURAL GAS 6137418911					
List Name: Description:	:	INFO-DIRECT(TM) BUSINESS FILE				
<u>19</u>	18 of 19	ESE/160.7	72.8 / -1.03	PARKLAND CORPORATION 1134 OGILVIE RD,,OTTAWA,ON,K1J 8V1,CA ON	INC		
Incident No:		1413186		Any Hoolth Imports			
Incident ID:		1413100		Any Health Impact: Any Enviro Impact:			
Instance No.				Service Interrupted:			
Status Code				Was Prop Damaged:			
Attribute Ca		FS-Incident		Reside App. Type: Commer App. Type:			
Date of Occurrence:		6/10/2014		Indus App. Type:			
Time of Occurrence:				Institut App. Type:			
Incident Cre	ated On:			Venting Type:			
Instance Cre	eation Dt:			Vent Conn Mater:			
Instance Install Dt: Occur Insp Start Date: Approx Quant Rel: Tank Capacity: Fuels Occur Type: Fuel Type Involved:				Vent Chimney Mater:			
				Pipeline Type:			
				Pipeline Involved:			
				Pipe Material:			
				Depth Ground Cover:			
				Regulator Location:			
Enforcemen Prc Escalati	•			Regulator Type: Operation Pressure:			
Tank Materia	•			Ciperation Pressure. Liquid Prop Make:			
Tank Storag				Liquid Prop Model:			
Tank Storage Type: Tank Location Type: Pump Flow Rate Cap:				Liquid Prop Serial No:			
				Liquid Prop Notes:			
Task No:				Equipment Type:			
Notes:				Equipment Model:			

Direction/ Elev/Diff Site DΒ Map Key Number of

Records Distance (m) (m)

Serial No: Drainage System: Sub Surface Contam.: Cylinder Capacity: Aff Prop Use Water: Cylinder Cap Units: Contam. Migrated: Cylinder Mat Type: Contact Natural Env: Near Body of Water:

Incident Location: 1134 OGILVIE RD,,OTTAWA,ON,K1J 8V1,CA

Occurence Narrative: Operation Type Involved:

FS GASOLINE STATION - SELF SERVE Item:

Item Description:

19

Device Installed Location:

19 of 19 ESE/160.7 1134 OGILVIE RD 72.8 / -1.03

GLOUCESTER ON K1J 8V1

Delisted Fuel Storage Tank

10340301 Instance No: Active Status:

Instance Type: Fuel Type: Cont Name: Capacity: Tank Material: **Corrosion Prot:** Tank Type: Install Year: Facility Type: Device Installed Loc: Fuel Type 2:

FS GASOLINE STATION - SELF SERVE Item:

Item Description:

Model: Description:

Fuel Type 3:

Instance Creation Dt: Instance Install Dt: Manufacturer: Serial No: **ULC Standard:** Quantity: Unit of Measure: Parent Fac Type:

TSSA Base Sched Cycle 1: TSSA Base Sched Cycle 2:

FST Original Source:

Record Date: 31-MAY-2021

Facility Location: Piping SW Steel: 0 Piping SW Galvan: 0 Tanks SW Steel: Piping Underground:

Creation Date:

Overfill Prot Type:

DTNK

Order No: 23022400359

0 3 No Underground: 3 Max Hazard Rank: Max Hazard Rank 1: Nxt Period Start Dt: Program Area 1:

Program Area 2: Nxt Period Strt Dt 2: Risk Based Periodic: Vol of Directives: Years in Service: Created Date: Federal Device: Periodic Exempt: Statutory Interval: Rcomnd Insp Interval: Recommended Toler:

Panam Venue Name:

External Identifier:

20 1 of 1 ESE/166.8 72.9 / -1.00 1134 OGILVIE RD. **WWIS** Ottawa ON

Well ID: 7224358

Construction Date:

Use 1st: Monitoring and Test Hole

Use 2nd:

Monitoring and Test Hole Final Well Status:

Water Type:

Casing Material:

Z189004 Audit No: A164778 Tag:

Constructn Method:

Flowing (Y/N): Flow Rate: Data Entry Status:

Data Src:

21-Jul-2014 00:00:00 Date Received: TRUE

Selected Flag:

Abandonment Rec:

7241 Contractor: Form Version: 7

Owner:

Map Key Number of Direction/ Elev/Diff Site DB

Records Distance (m) (m)

Levation (m): County: OTTAWA-CARLETON

Elevation (m): County:
Elevatn Reliabilty: Lot:
Depth to Bedrock: Concession:
Well Depth: Concession Name:
Overburden/Bedrock: Easting NAD83:

Overburden/Bedrock:Easting NAD83:Pump Rate:Northing NAD83:Static Water Level:Zone:

Clear/Cloudy: UTM Reliability: Municipality: OTTAWA CITY

Site Info:

Additional Detail(s) (Map)

PDF URL (Map):

Well Completed Date: 2014/06/10

 Year Completed:
 2014

 Depth (m):
 3.1

Latitude: 45.4261182175659 **Longitude:** -75.6307771766537

Path:

Bore Hole Information

Bore Hole ID: 1004957476 Elevation:
DP2BR: Flevrc:

 DP2BR:
 Elevrc:

 Spatial Status:
 Zone:

 Code OB:
 East83:

 Code OP Processing
 North 02:

 Code OB:
 East83:
 450655.00

 Code OB Desc:
 North83:
 5030482.00

 Open Hole:
 Org CS:
 UTM83

 Cluster Kind:
 UTMRC:
 4

 Date Completed:
 10-Jun-2014 00:00:00
 UTMRC Desc:
 margin of error : 30 m - 100 m

 Remarks:
 Location Method:
 wwr

18

Order No: 23022400359

Loc Method Desc: on Water Well Record

Location Source Date: Improvement Location Source:

Improvement Location Source.
Improvement Location Method:
Source Revision Comment:

Supplier Comment:

Elevrc Desc:

Overburden and Bedrock Materials Interval

Formation ID: 1005233156

 Layer:
 2

 Color:
 6

 General Color:
 BROWN

 Mat1:
 06

 Most Common Material:
 SILT

 Most Common Material:
 SIL1

 Mat2:
 05

 Mat2 Desc:
 CLAY

 Mat3:
 66

 Mat3 Desc:
 DENSE

Formation Top Depth: 0.6100000143051147

Formation End Depth: 1.5 **Formation End Depth UOM:** m

Overburden and Bedrock Materials Interval

Formation ID: 1005233155

Layer: Color: 6 **BROWN** General Color: Mat1: 01 Most Common Material: **FILL** Mat2: 11 Mat2 Desc: **GRAVEL** Mat3: 77 Mat3 Desc: LOOSE

Formation Top Depth: 0.0

Formation End Depth: 0.6100000143051147

Formation End Depth UOM:

Overburden and Bedrock

Materials Interval

Formation ID: 1005233157

Layer: 3 Color: 2 General Color: **GREY** Mat1: 06 Most Common Material: SILT Mat2: 05 Mat2 Desc: CLAY Mat3: 66 DENSE Mat3 Desc: Formation Top Depth: 1.5

Formation End Depth: 3.0999999046325684

Formation End Depth UOM: m

Annular Space/Abandonment

Sealing Record

Plug ID: 1005233166

Layer:

 Plug From:
 0.30000001192092896

 Plug To:
 1.2200000286102295

Plug Depth UOM:

Annular Space/Abandonment

Sealing Record

Plug ID: 1005233165

Layer: 1
Plug From: 0.0

Plug To: 0.30000001192092896

Plug Depth UOM:

Annular Space/Abandonment

Sealing Record

Plug ID: 1005233167

Layer: 3

 Plug From:
 1.2200000286102295

 Plug To:
 3.0999999046325684

Plug Depth UOM: m

Method of Construction & Well

Use

Method Construction ID: 1005233164

Method Construction Code:

Method Construction:

Auger

Other Method Construction:

Pipe Information

Pipe ID: 1005233154

Casing No:

Comment: Alt Name:

Construction Record - Casing

Casing ID: 1005233160

Layer: 1 Material: 5

Open Hole or Material:PLASTICDepth From:0.0Depth To:1.5

Casing Diameter: 5.199999809265137

Casing Diameter UOM: cm
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1005233161

 Layer:
 1

 Slot:
 10

 Screen Top Depth:
 1.5

Screen End Depth: 3.0999999046325684

Screen Material: 5
Screen Depth UOM: m
Screen Diameter UOM: cm

Screen Diameter: 6.03000020980835

Water Details

Water ID: 1005233159

Layer: Kind Code: Kind:

Water Found Depth:

Water Found Depth UOM: m

Hole Diameter

Hole ID: 1005233158

Diameter: 15.239999771118164

Depth From: 0.0

Depth To: 3.0999999046325684

Hole Depth UOM: m
Hole Diameter UOM: cm

Links

 Bore Hole ID:
 1004957476
 Tag No:
 A164778

 Depth M:
 3.1
 Contractor:
 7241

 Year Completed:
 2014
 Path:
 722\7224358.pdf

 Well Completed Dt:
 2014/06/10
 Latitude:
 45.4261182175659

 Audit No:
 Z189004
 Longitude:
 -75.6307771766537

21 1 of 1 ESE/168.4 72.9/-1.00 1134 ON WWIS

Well ID: 7224187

Construction Date: Use 1st:

Monitoring Test Hole

Use 2nd: Test Hole
Final Well Status: Monitoring and Test Hole

Water Type:

Casing Material:

Audit No: Z189001 **Tag:** A164779

Constructn Method: Elevation (m): Elevatn Reliabilty: Depth to Bedrock:

Well Depth: Overburden/Bedrock: Pump Rate: Static Water Level:

Clear/Cloudy:

Municipality: GLOUCESTER TOWNSHIP Site Info:

PDF URL (Map):

Additional Detail(s) (Map)

 Well Completed Date:
 2014/06/10

 Year Completed:
 2014

 Depth (m):
 3.1

 Latitude:
 45.4260187156382

 Longitude:
 -75.6308655493403

Path:

Bore Hole Information

Bore Hole ID: 1004950458

DP2BR: Spatial Status: Code OB: Code OB Desc: Open Hole: Cluster Kind:

Date Completed: 10-Jun-2014 00:00:00

Remarks:

Loc Method Desc: on Water Well Record

Elevrc Desc:

Location Source Date: Improvement Location Source:

Improvement Location Method: Source Revision Comment:

Supplier Comment:

Overburden and Bedrock

Materials Interval

Formation ID: 1006697630

 Layer:
 3

 Color:
 2

 General Color:
 GREY

 Mat1:
 06

 Most Common Material:
 SILT

Flowing (Y/N): Flow Rate:

Data Entry Status:

Data Src:

Date Received: 21-Jul-2014 00:00:00

Selected Flag: TRUE

Abandonment Rec:
Contractor: 7241
Form Version: 7

Owner:

County: OTTAWA-CARLETON

Lot: Concession: Concession Name: Easting NAD83: Northing NAD83: Zone:

UTM Reliability:

Elevation: Elevrc:

Zone: 18 450648.00

 North83:
 5030471.00

 Org CS:
 UTM83

 UTMRC:
 4

UTMRC Desc: margin of error : 30 m - 100 m

Order No: 23022400359

Location Method: WI

 Mat2:
 05

 Mat2 Desc:
 CLAY

 Mat3:
 66

 Mat3 Desc:
 DENSE

 Formation Top Depth:
 1.5

Formation End Depth: 3.0999999046325684

Formation End Depth UOM: m

Overburden and Bedrock Materials Interval

Formation ID: 1006697628

Layer: Color: 6 **BROWN** General Color: 01 Mat1: Most Common Material: **FILL** Mat2: 11 GRAVEL Mat2 Desc: Mat3: 77 LOOSE Mat3 Desc:

Formation End Depth: 0.6100000143051147

0.0

Formation End Depth UOM: m

Overburden and Bedrock

Formation Top Depth:

Materials Interval

Formation ID: 1006697629

Layer: 6 Color: **BROWN** General Color: Mat1: 06 Most Common Material: SILT Mat2: 05 Mat2 Desc: CLAY Mat3: 66 Mat3 Desc: **DENSE**

Formation Top Depth: 0.6100000143051147

Formation End Depth: 1.5
Formation End Depth UOM: m

Annular Space/Abandonment

Sealing Record

Plug ID: 1006697635

Layer: 3

 Plug From:
 1.2200000286102295

 Plug To:
 3.0999999046325684

Plug Depth UOM: m

Annular Space/Abandonment

Sealing Record

Plug ID: 1006697633

Layer: 1

Plug From: 0.0

Plug To: 0.30000001192092896

Plug Depth UOM: m

Annular Space/Abandonment

Sealing Record

Plug ID: 1006697634

Layer: 2

 Plug From:
 0.30000001192092896

 Plug To:
 1.2200000286102295

Auger

Plug Depth UOM: m

Method of Construction & Well

<u>Use</u>

Method Construction ID: 1005235010
Method Construction Code: E

Method Construction:
Other Method Construction:

Pipe Information

Pipe ID: 1005235004

Casing No: 0

Comment: Alt Name:

Construction Record - Casing

Casing ID: 1005235008

Layer: 1
Material: 5
Open Hole or Material: PLASTIC

 Open Hole or Material:
 PLAS

 Depth From:
 0.0

 Depth To:
 1.5

Casing Diameter: 5.199999809265137

Casing Diameter UOM: cm
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1005235009

 Layer:
 1

 Slot:
 10

 Screen Top Depth:
 1.5

Screen End Depth: 3.0999999046325684

Screen Material: 5
Screen Depth UOM: m
Screen Diameter UOM: cm

Screen Diameter: 6.03000020980835

Water Details

Water ID: 1005235007

Layer: Kind Code: Kind:

Water Found Depth:

Water Found Depth UOM: m

Hole Diameter

Hole ID: 1005235006

Diameter: 15.239999771118164

Depth From: 0.0

Depth To: 3.0999999046325684

Hole Depth UOM: m
Hole Diameter UOM: cm

Links

 Bore Hole ID:
 1004950458
 Tag No:
 A164779

 Depth M:
 3.1
 Contractor:
 7241

 Year Completed:
 2014
 Path:
 722\7224187.pdf

 Well Completed Dt:
 2014/06/10
 Latitude:
 45.4260187156382

 Audit No:
 Z189001
 Longitude:
 -75.6308655493403

22 1 of 1 ESE/168.9 72.9 / -1.00 ON BORE

45.426301

Order No: 23022400359

 Borehole ID:
 615076
 Inclin FLG:
 No

 OGF ID:
 215516018
 SP Status:
 Initial Entry

 Status:
 Surv Elev:
 No

 Type:
 Borehole
 Piezometer:
 No

Use: Primary Name:
Completion Date: AUG-1960 Municipality:

Completion Date:AUG-1960Municipality:Static Water Level:Lot:Primary Water Use:Township:

Sec. Water Use: Latitude DD:

Total Depth m:24.4Longitude DD:-75.630579Depth Ref:Ground SurfaceUTM Zone:18

 Depth Elev:
 Easting:
 450671

 Drill Method:
 Northing:
 5030502

 Orig Ground Elev m:
 70.1
 Location Accuracy:

Orig Ground Elev m: 70.1 Location Accuracy: Elev Reliabil Note: Accuracy:

Elev Reliabil Note:Accuracy:Not ApplicableDEM Ground Elev m:72.6

Concession: Location D: Survey D: Comments:

Borehole Geology Stratum

Geology Stratum ID: 218400344 Mat Consistency: Top Depth: 1.5 Material Moisture: **Bottom Depth:** 24.4 Material Texture: Material Color: Red Non Geo Mat Type: Material 1: Shale Geologic Formation: Material 2: Geologic Group: Material 3: Geologic Period:

Material 4: Gsc Material Description:

Stratum Description: SHALE. 00046. BEDROCK. 00035 010 WEATHERED. 000100140008910030RED. 000050040 **Note: Many

records provided by the department have a truncated [Stratum Description] field.

Depositional Gen:

Geology Stratum ID: 218400343 Mat Consistency: Top Depth: Material Moisture: 0 **Bottom Depth:** 1.5 Material Texture: Material Color: Brown Non Geo Mat Type: Material 1: Soil Geologic Formation: Material 2: Geologic Group: Material 3: Geologic Period: Material 4: Depositional Gen:

Gsc Material Description:

Stratum Description: SOIL. BROWN.

Source

Spatial/Tabular Source Type: **Data Survey** Source Appl:

Source Orig: Geological Survey of Canada Source Iden: Varies Source Date: 1956-1972 Scale or Res: NAD27 Confidence: Horizontal:

Observatio: Verticalda: Mean Average Sea Level

Source Name: Urban Geology Automated Information System (UGAIS) Source Details: File: OTTAWA2.txt RecordID: 07584 NTS_Sheet:

Confiden 1:

Source List

NAD27 Source Identifier: Horizontal Datum:

Data Survey Mean Average Sea Level Source Type: Vertical Datum: Source Date: 1956-1972 Projection Name: Universal Transverse Mercator

Scale or Resolution: Varies Source Name: Urban Geology Automated Information System (UGAIS)

Source Originators: Geological Survey of Canada

23 1 of 1 ESE/169.0 72.9 / -1.00 lot 26 con 2 **WWIS** ON

Well ID: 1501363 Flowing (Y/N): Construction Date: Flow Rate:

Use 1st: Domestic Data Entry Status:

Use 2nd: Data Src:

07-Sep-1960 00:00:00 Final Well Status: Water Supply Date Received: TRUE

Water Type: Selected Flag: Casing Material: Abandonment Rec: Audit No: Contractor: 2311

Tag: Form Version: 1 Constructn Method: Owner:

Elevation (m): County: **OTTAWA-CARLETON**

Elevatn Reliabilty: 026 Lot: Depth to Bedrock: Concession: 02 Well Depth: Concession Name: OF

Overburden/Bedrock: Easting NAD83: Pump Rate: Northing NAD83:

Static Water Level: Zone: Clear/Cloudy: UTM Reliability:

Municipality: **GLOUCESTER TOWNSHIP**

Site Info:

https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/150\1501363.pdf PDF URL (Map):

Order No: 23022400359

Additional Detail(s) (Map)

1960/08/22 Well Completed Date: 1960 Year Completed: Depth (m): 24.384

Latitude: 45.4262993397699 Longitude: -75.6305785000678 150\1501363.pdf Path:

Bore Hole Information

Bore Hole ID: 10023406 Elevation:

DP2BR: Elevrc: Spatial Status: Zone:

18 Code OB: East83: 450670.70 Code OB Desc: North83: 5030502.00

Open Hole: Org CS: Cluster Kind: UTMRC: 5

Date Completed: 22-Aug-1960 00:00:00 **UTMRC Desc:** margin of error : 100 m - 300 m

Remarks: Location Method:
Loc Method Desc: Original Pre1985 UTM Rel Code 5: margin of error : 100 m - 300 m

Elevrc Desc:

Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment:

Supplier Comment:

Overburden and Bedrock

Materials Interval

Formation ID: 930991645

Layer:

Color:

General Color:

Mat1: 17
Most Common Material: SHALE

Mat2: Mat2 Desc:

Mat3: Mat3 Desc:

Formation Top Depth: 5.0
Formation End Depth: 80.0
Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID: 930991644

 Layer:
 1

 Color:
 6

 General Color:
 BROWN

 Mat1:
 02

 Most Common Material:
 TOPSOIL

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 0.0 Formation End Depth: 5.0 Formation End Depth UOM: ft

Method of Construction & Well

<u>Use</u>

Method Construction ID: 961501363

Method Construction Code:

Method Construction: Cable Tool

Other Method Construction:

Pipe Information

Pipe ID: 10571976

Casing No:

Comment: Alt Name:

Construction Record - Casing

Casing ID: 930039695

Layer: Material:

STEEL Open Hole or Material:

Depth From:

Depth To: 12.0 Casing Diameter: 4.0 Casing Diameter UOM: inch Casing Depth UOM: ft

Construction Record - Casing

930039696 Casing ID:

Layer: 2 Material:

OPEN HOLE Open Hole or Material:

Depth From:

Depth To: 80.0 4.0 Casing Diameter: Casing Diameter UOM: inch Casing Depth UOM: ft

Results of Well Yield Testing

PUMP Pumping Test Method Desc: Pump Test ID: 991501363

Pump Set At:

Static Level: 10.0 Final Level After Pumping: 65.0 Recommended Pump Depth: 65.0 **Pumping Rate:** 1.0

Flowing Rate: Recommended Pump Rate: 1.0 Levels UOM: ft Rate UOM: GPM Water State After Test Code:

CLEAR Water State After Test: Pumping Test Method: 1 **Pumping Duration HR:** Pumping Duration MIN: 0 Flowing: No

Water Details

933454062 Water ID: Layer: Kind Code: Kind: **FRESH** Water Found Depth: 46.0 Water Found Depth UOM: ft

Links

Bore Hole ID: 10023406 Tag No: Contractor: Depth M: 24.384

2311 Path: 150\1501363.pdf Year Completed: 1960 Well Completed Dt: 1960/08/22 Latitude: 45.4262993397699 -75.6305785000678 Audit No:

24 1 of 1 ESE/177.9 74.0 / 0.08 lot 26 con 2 ON

Longitude:

Well ID: 1501355 Flowing (Y/N): **WWIS**

Construction Date: Flow Rate: Use 1st: **Domestic** Data Entry Status:

Use 2nd: 0 Data Src:

Final Well Status: 16-May-1956 00:00:00 Water Supply Date Received: Water Type: Selected Flag: TRUE

Casing Material: Abandonment Rec:

Audit No: Contractor: 2311 Tag: Form Version: Constructn Method: Owner:

Elevation (m): County: **OTTAWA-CARLETON**

Elevatn Reliabilty: 026 Lot: Depth to Bedrock: Concession: 02 OF Well Depth: Concession Name:

Overburden/Bedrock: Easting NAD83: Pump Rate: Northing NAD83:

Static Water Level: Zone:

UTM Reliability: Clear/Cloudv: **GLOUCESTER TOWNSHIP**

Municipality: Site Info:

https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/150\1501355.pdf PDF URL (Map):

Additional Detail(s) (Map)

Well Completed Date: 1956/05/08 Year Completed: 1956 Depth (m): 22.86

45.4263000453708 Latitude: Longitude: -75.6304506774367 Path: 150\1501355.pdf

Bore Hole Information

Bore Hole ID: 10023398 Elevation: DP2BR: Elevrc:

Spatial Status: Zone: 18

East83: 450680.70 Code OB: Code OB Desc: North83: 5030502.00 Open Hole: Org CS:

Cluster Kind: **UTMRC**:

08-May-1956 00:00:00 Date Completed: **UTMRC Desc:** unknown UTM

Order No: 23022400359

Location Method: Remarks: p9

Loc Method Desc: Original Pre1985 UTM Rel Code 9: unknown UTM

Elevrc Desc: Location Source Date: Improvement Location Source: Improvement Location Method:

Source Revision Comment:

Supplier Comment:

Overburden and Bedrock

Materials Interval

Formation ID: 930991628

Layer:

Color: General Color:

Mat1:

TOPSOIL Most Common Material: Mat2: 12 Mat2 Desc: **STONES**

Mat3: Mat3 Desc:

Formation Top Depth: 0.0 Formation End Depth: 12.0 Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

 Formation ID:
 930991629

 Laver:
 2

Layer: Color:

General Color:

Mat1: 26

Most Common Material: ROCK

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 12.0 Formation End Depth: 75.0 Formation End Depth UOM: ft

Method of Construction & Well

<u>Use</u>

Method Construction ID:961501355Method Construction Code:1Method Construction:Cable Tool

Other Method Construction:

Pipe Information

 Pipe ID:
 10571968

 Casing No:
 1

Comment: Alt Name:

Construction Record - Casing

Casing ID: 930039680

Layer: 2 Material: 4

Open Hole or Material: OPEN HOLE

Depth From:

Depth To: 75.0
Casing Diameter: 4.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930039679

Layer: 1
Material: 1
Open Hole or Material: STEEL

Depth From:
Depth To: 16.0
Casing Diameter: 4.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Мар Кеу	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Pump Test II Pump Set At Static Level: Final Level A Recommend Pumping Rate Flowing Rate Recommend Levels UOM: Rate UOM:	st Method Desc: D: Ster Pumping: led Pump Depth: te: led Pump Rate: Ster Test Code: After Test: st Method: ration HR:	PUMP 991501355 7.0 15.0 7.0 ft GPM 1 CLEAR 1 1 0 No	(***)			
Water Detail: Water ID: Layer: Kind Code: Kind: Water Found		933454054 1 3 SULPHUR 70.0 ft				
Links Bore Hole ID Depth M: Year Comple Well Comple Audit No:	22.86 22.86 1956			Tag No: Contractor: Path: Latitude: Longitude:	2311 150\1501355.pdf 45.4263000453708 -75.6304506774367	
Location ID: Type: Expiry Date: Capacity (L): Licence #:		ESE/178.7 5309 retail 1995-08-31 23097 0076428457	74.0 / 0.08	1085091 ONTARIO LTD 1154 OGLIVIE RD GLOUCESTER ON K1J 8V1		PRT
Headcode: Headcode De Phone: List Name: Description:		ESE/178.7 1186800 Service Stations-Ga 6137425552	1154 OGILVIE RD GLOUCESTER ON K1J8V1 ations-Gasoline, Oil & Natural Gas			RST
<u>25</u>	3 of 13	ESE/178.7	74.0 / 0.08	FENELON'S GAZ 1154 OGILVIE RE GLOUCESTER O		RST

Number of Direction/ Elev/Diff Site DΒ Map Key

1186800 Headcode:

Records

Headcode Desc: Service Stations-Gasoline, Oil & Natural Gas

Phone: List Name:

Description:

(m)

6138429864

Distance (m)

25 4 of 13 ESE/178.7

74.0 / 0.08

TROPIC SQUARE LTD 1154 OGILVIE RD

GLOUCESTER ON K1J 8V1

DTNK

Delisted Expired Fuel Safety

Facilities

Instance No: 9841329 Status: **EXPIRED**

Instance ID:

FS Facility Instance Type:

Instance Creation Dt: Instance Install Dt: Item Description: Manufacturer: Model: Serial No: **ULC Standard:** Quantity: Unit of Measure: Overfill Prot Type: Creation Date: Next Periodic Str DT:

TSSA Base Sched Cycle 2: TSSAMax Hazard Rank 1: TSSA Risk Based Periodic Yn: TSSA Volume of Directives:

TSSA Periodic Exempt:

TSSA Statutory Interval: TSSA Recd Insp Interva: TSSA Recd Tolerance:

TSSA Program Area: TSSA Program Area 2:

Description:

EXP Original Source:

Record Date: Up to May 2013 Expired Date: 3/23/2010 9:23

Max Hazard Rank: Facility Location: Facility Type: Fuel Type 2: Fuel Type 3: Panam Related: Panam Venue Nm: External Identifier: Item:

Piping Steel: Piping Galvanized: Tank Single Wall St: Piping Underground: Tank Underground:

Source:

25

5 of 13

ESE/178.7

74.0 / 0.08

TROPIC SQUARE LTD 1154 OGILVIE RD **GLOUCESTER ON**

DTNK

Order No: 23022400359

Delisted Expired Fuel Safety

Facilities

11422193 Instance No: Status: **EXPIRED** 83287 Instance ID: Instance Type: FS Piping

Instance Creation Dt: Instance Install Dt: Item Description: Manufacturer: Model: Serial No:

Expired Date: Max Hazard Rank: Facility Location: Facility Type: Fuel Type 2: Fuel Type 3: Panam Related: Panam Venue Nm:

External Identifier:

Item:

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Number of Direction/ Elev/Diff Site DΒ Map Key Records Distance (m) (m) Piping Steel: **ULC Standard:** Quantity: Piping Galvanized: Unit of Measure: Tank Single Wall St: Overfill Prot Type: Piping Underground: Creation Date: Tank Underground: Next Periodic Str DT: Source: TSSA Base Sched Cycle 2: TSSAMax Hazard Rank 1: TSSA Risk Based Periodic Yn: TSSA Volume of Directives: TSSA Periodic Exempt: TSSA Statutory Interval: TSSA Recd Insp Interva: TSSA Recd Tolerance: TSSA Program Area: TSSA Program Area 2: FS Piping Description: Original Source: **EXP** Record Date: Up to Mar 2012 25 6 of 13 ESE/178.7 74.0 / 0.08 TROPIC SQUARE LTD **DTNK** 1154 OGILVIE RD **GLOUCESTER ON Delisted Expired Fuel Safety Facilities** 11422176 Instance No: Expired Date: Status: **EXPIRED** Max Hazard Rank: Instance ID: 84055 Facility Location: FS Piping Facility Type: Instance Type: Instance Creation Dt: Fuel Type 2: Fuel Type 3: Instance Install Dt: Item Description: Panam Related: Manufacturer: Panam Venue Nm: Model: External Identifier: Serial No: Item: **ULC Standard:** Piping Steel: Quantity: Piping Galvanized: Tank Single Wall St: Unit of Measure: Overfill Prot Type: Piping Underground: Tank Underground: Creation Date: Next Periodic Str DT: Source: TSSA Base Sched Cycle 2: TSSAMax Hazard Rank 1: TSSA Risk Based Periodic Yn: TSSA Volume of Directives: TSSA Periodic Exempt: TSSA Statutory Interval: TSSA Recd Insp Interva: TSSA Recd Tolerance: TSSA Program Area:

Description: FS Piping **Original Source:** EXP

7 of 13

TSSA Program Area 2:

Record Date: Up to Mar 2012

ESE/178.7 74.0 / 0.08

TROPIC SQUARE LTD 1154 OGILVIE RD GLOUCESTER ON

DTNK

Order No: 23022400359

25

Delisted Expired Fuel Safety

Facilities

11422150 Instance No: Status: **EXPIRED** 84057 Instance ID: FS Piping Instance Type: Instance Creation Dt:

Instance Install Dt: Item Description: Manufacturer: Model: Serial No: **ULC Standard:** Quantity: Unit of Measure: Overfill Prot Type: Creation Date: Next Periodic Str DT: TSSA Base Sched Cycle 2: TSSAMax Hazard Rank 1: TSSA Risk Based Periodic Yn: TSSA Volume of Directives: TSSA Periodic Exempt: TSSA Statutory Interval: TSSA Recd Insp Interva: TSSA Recd Tolerance: TSSA Program Area:

TSSA Program Area 2: Description: FS Piping Original Source: **EXP**

Record Date:

Facility Location: Facility Type: Fuel Type 2: Fuel Type 3: Panam Related: Panam Venue Nm: External Identifier: Item:

Expired Date:

Max Hazard Rank:

Piping Steel: Piping Galvanized: Tank Single Wall St: Piping Underground: Tank Underground: Source:

Up to Mar 2012

8 of 13 ESE/178.7 74.0 / 0.08 TROPIC SQUARE LTD

1154 OGILVIE RD GLOUCESTER K1J 8V1 ON CA

Delisted Expired Fuel Safety

Facilities

25

Instance No: 10762955 **EXPIRED** Status:

Instance ID:

Instance Type:

Instance Creation Dt: 7/19/2000 8:15:15 PM

Instance Install Dt: 5/19/2009

Item Description: FS Liquid Fuel Tank

NULL Manufacturer: NULL Model: Serial No: NULL NULL **ULC Standard:** Quantity: Unit of Measure: EΑ Overfill Prot Type: **NULL**

Creation Date: 7/5/2009 1:20:44 AM

Next Periodic Str DT: **NULL**

TSSA Base Sched Cycle 2: NULL TSSAMax Hazard Rank 1: NULL TSSA Risk Based Periodic Yn: NULL TSSA Volume of Directives: **NULL** TSSA Periodic Exempt: NULL TSSA Statutory Interval: **NULL** Expired Date:

Max Hazard Rank: NULL

Facility Location: 1154 OGILVIE RD GLOUCESTER K1J 8V1

DTNK

Order No: 23022400359

ON CA

Facility Type: FS LIQUID FUEL TANK

Fuel Type 2: **NULL** Fuel Type 3: NULL NULL Panam Related: Panam Venue Nm: NULL **NULL** External Identifier:

Item: Piping Steel: Piping Galvanized: Tank Single Wall St: Piping Underground:

Tank Underground:

FS Liquid Fuel Tank Source:

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

NULL TSSA Recd Insp Interva: TSSA Recd Tolerance: **NULL** TSSA Program Area: NULL TSSA Program Area 2: NULL

Description: 2009VBSRegular Gasoline

FXP Original Source:

Record Date: 31-JUL-2020

25 9 of 13 ESE/178.7 TROPIC SQUARE LTD 74.0 / 0.08

1154 OGILVIE RD GLOUCESTER K1J 8V1 ON CA

NULL

ON CA

NULL

NULL

NULL

NULL

NULL

FS LIQUID FUEL TANK

FS Liquid Fuel Tank

1154 OGILVIE RD GLOUCESTER K1J 8V1

DTNK

DTNK

Order No: 23022400359

ON

Expired Date:

Facility Type:

Fuel Type 2:

Fuel Type 3:

Piping Steel:

Source:

Item:

Panam Related:

Panam Venue Nm:

External Identifier:

Piping Galvanized: Tank Single Wall St:

Piping Underground:

Tank Underground:

Max Hazard Rank:

Facility Location:

Delisted Expired Fuel Safety

Facilities

Instance No: 11292765 **EXPIRED** Status:

Instance ID:

Instance Type:

Instance Creation Dt: 7/19/2000 8:15:15 PM

Instance Install Dt: 5/19/2009

Item Description: FS Liquid Fuel Tank

Manufacturer: NULL Model: NULL Serial No: NULL **ULC Standard:** NULL Quantity: Unit of Measure: EΑ Overfill Prot Type: **NULL**

7/5/2009 1:24:34 AM Creation Date:

Next Periodic Str DT: **NULL**

TSSA Base Sched Cycle 2: **NULL** TSSAMax Hazard Rank 1: NULL TSSA Risk Based Periodic Yn: NULL TSSA Volume of Directives: NULL TSSA Periodic Exempt: **NULL** TSSA Statutory Interval: **NULL** TSSA Recd Insp Interva: **NULL** TSSA Recd Tolerance: **NULL** TSSA Program Area: **NULL**

TSSA Program Area 2: NULL

2009VBSETHANOL Description:

10 of 13

Original Source: Record Date: 31-JUL-2020

EXP

ESE/178.7 74.0 / 0.08 TROPIC SQUARE LTD

1154 OGILVIE RD GLOUCESTER K1J 8V1 ON CA

ON

Delisted Expired Fuel Safety

Facilities

25

Instance No: 11292792

Status: **EXPIRED**

Instance ID:

Instance Type:

Instance Creation Dt: 7/19/2000 8:15:15 PM

Instance Install Dt: 5/19/2009

Item Description: FS Liquid Fuel Tank Expired Date:

Max Hazard Rank:

1154 OGILVIE RD GLOUCESTER K1J 8V1 Facility Location:

ON CA

Facility Type: FS LIQUID FUEL TANK

Fuel Type 2: NULL **NULL** Fuel Type 3:

Panam Related: **NULL**

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Item:

Source:

Piping Steel:

Piping Galvanized: Tank Single Wall St:

Piping Underground:

Tank Underground:

NULL Panam Venue Nm: NULL Manufacturer: Model: External Identifier: NULL NULL

Serial No: NULL NULL **ULC Standard:** Quantity: Unit of Measure: FΑ Overfill Prot Type: **NULL**

7/5/2009 1:24:40 AM Creation Date:

Next Periodic Str DT: **NULL**

TSSA Program Area:

TSSA Program Area 2:

TSSA Base Sched Cycle 2: **NULL** TSSAMax Hazard Rank 1: NULL TSSA Risk Based Periodic Yn: **NULL** TSSA Volume of Directives: NULL TSSA Periodic Exempt: NULL TSSA Statutory Interval: **NULL** TSSA Recd Insp Interva: **NULL** TSSA Recd Tolerance: **NULL**

Description: 2009VBSPreviously a diesel tank, now filled with super gasoline

NULL NULL

Original Source: **EXP**

Record Date: 31-JUL-2020

25 11 of 13 ESE/178.7 74.0 / 0.08 TROPIC SQUARE LTD

1154 OGILVIE RD GLOUCESTER K1J 8V1 ON CA

FS Liquid Fuel Tank

FST

FST

Order No: 23022400359

ON

Piping Galvanized:

Instance No: 10762955 Manufacturer: Status:

Serial No: Cont Name: Ulc Standard: Instance Type: Quantity: Item: Unit of Measure:

FS Liquid Fuel Tank Fuel Type: Gasoline Item Description: Single Wall UST NULL Tank Type: Fuel Type2: Install Date: 5/19/2009 Fuel Type3: **NULL** Piping Steel:

Install Year: 1990 Years in Service:

NULL Tanks Single Wall St: Model: Description: Piping Underground: Capacity: 35000 No Underground: Tank Material: Panam Related: Steel **Corrosion Protect:** Sacrificial anode Panam Venue:

Overfill Protect: Facility Type: FS Liquid Fuel Tank

Parent Facility Type:

Facility Location:

Device Installed Location: 1154 OGILVIE RD GLOUCESTER K1J 8V1 ON CA

Liquid Fuel Tank Details

Overfill Protection:

Owner Account Name: TROPIC SQUARE LTD Item: **FS LIQUID FUEL TANK**

ESE/178.7 74.0 / 0.08 TROPIC SQUARE LTD 25 12 of 13

1154 OGILVIE RD GLOUCESTER K1J 8V1 ON CA

ON

Instance No: 11292765 Manufacturer:

Status: Serial No: Cont Name: Ulc Standard: Instance Type: Quantity: Unit of Measure: Item:

FS Liquid Fuel Tank Item Description: Fuel Type: Gasoline Tank Type: Single Wall UST Fuel Type2: NULL 5/19/2009 Fuel Type3: **NULL**

Install Date: Install Year: 1990

Piping Steel: Years in Service: Piping Galvanized: **NULL** Tanks Single Wall St: Model:

Description: Piping Underground: 35000 Capacity: No Underground:

Tank Material: Steel Panam Related: Corrosion Protect: Sacrificial anode Panam Venue:

Overfill Protect: Facility Type: FS Liquid Fuel Tank

Parent Facility Type:

Facility Location:

Device Installed Location: 1154 OGILVIE RD GLOUCESTER K1J 8V1 ON CA

Liquid Fuel Tank Details

Overfill Protection: **Owner Account Name:** TROPIC SQUARE LTD

FS LIQUID FUEL TANK Item:

25 13 of 13 ESE/178.7 74.0 / 0.08 TROPIC SQUARE LTD **FST** 1154 OGILVIE RD GLOUCESTER K1J 8V1 ON CA

ON

Order No: 23022400359

Instance No: 11292792 Manufacturer: Serial No: Status: Ulc Standard: Cont Name: Instance Type: Quantity:

Unit of Measure: Item:

FS Liquid Fuel Tank Fuel Type: Gasoline Item Description: Single Wall UST Fuel Type2: NULL Tank Type: Install Date: 5/19/2009 Fuel Type3: **NULL**

Install Year: 1990 Piping Steel: Piping Galvanized: Years in Service:

Model: **NULL** Tanks Single Wall St: Description: Piping Underground: Capacity: 25000 No Underground:

Tank Material: Steel Panam Related: Sacrificial anode Panam Venue: **Corrosion Protect:**

Overfill Protect:

FS Liquid Fuel Tank Facility Type:

Parent Facility Type:

Facility Location: 1154 OGILVIE RD GLOUCESTER K1J 8V1 ON CA Device Installed Location:

Liquid Fuel Tank Details

Overfill Protection: Owner Account Name: TROPIC SQUARE LTD

FS LIQUID FUEL TANK Item:

26 1 of 1 E/183.2 74.9 / 1.00 lot 25 con 1 **WWIS** ON

Well ID: 1501123 Flowing (Y/N): Construction Date: Flow Rate:

Data Entry Status: Use 1st: Domestic Use 2nd: Data Src:

Date Received: 16-May-1956 00:00:00 Final Well Status: Water Supply

Selected Flag: TRUE Water Type:

Casing Material: Abandonment Rec:

Contractor: 2311

Audit No: Form Version: Tag: Constructn Method: Owner:

OTTAWA-CARLETON Elevation (m): County:

Elevatn Reliabilty: Lot: 025 01 Depth to Bedrock: Concession: Well Depth: Concession Name: OF

Overburden/Bedrock: Easting NAD83: Pump Rate: Northing NAD83:

Static Water Level: Zone: Clear/Cloudy: UTM Reliability:

Municipality: **GLOUCESTER TOWNSHIP** Site Info:

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/150\1501123.pdf

Additional Detail(s) (Map)

Well Completed Date: 1956/04/30 Year Completed: 1956 Depth (m): 27.432

Latitude: 45.4270218652671 Longitude: -75.630139132531 150\1501123.pdf Path:

Bore Hole Information

Bore Hole ID: 10023166 Elevation: DP2BR: Elevrc:

Spatial Status: Zone: 18 450705.70 Code OB: East83: Code OB Desc: North83: 5030582.00

Open Hole: Org CS:

Cluster Kind: **UTMRC:** Date Completed: 30-Apr-1956 00:00:00 UTMRC Desc: unknown UTM

Remarks: Location Method: p9

Loc Method Desc: Original Pre1985 UTM Rel Code 9: unknown UTM

Elevrc Desc:

Location Source Date:

Improvement Location Source: Improvement Location Method: **Source Revision Comment:**

Supplier Comment:

Overburden and Bedrock

Materials Interval

Formation ID: 930991036

Layer: 2 Color:

General Color:

26 Mat1: Most Common Material: **ROCK**

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 10.0 Formation End Depth: 90.0 Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID: 930991035

Layer:

Color:

General Color:

Mat1: 02

Most Common Material:TOPSOILMat2:19Mat2 Desc:SLATE

Mat3:

Mat3 Desc:

Formation Top Depth: 0.0 Formation End Depth: 10.0 Formation End Depth UOM: ft

Method of Construction & Well

<u>Use</u>

Method Construction ID: 961501123

Method Construction Code:

Method Construction: Cable Tool

Other Method Construction:

Pipe Information

Pipe ID: 10571736

Casing No:

Comment: Alt Name:

Construction Record - Casing

Casing ID: 930039238

Layer: 1
Material: 1

Open Hole or Material: STEEL
Depth From:
Depth To: 14.0
Casing Diameter: 4.0
Casing Diameter UOM: inch

Casing Depth UOM:

Construction Record - Casing

Casing ID: 930039239

ft

Layer: 2 Material: 4

Open Hole or Material: OPEN HOLE

Depth From:

Depth To:90.0Casing Diameter:4.0Casing Diameter UOM:inchCasing Depth UOM:ft

Results of Well Yield Testing

Pumping Test Method Desc:PUMPPump Test ID:991501123

Pump Set At:

Static Level: 5.0
Final Level After Pumping: 10.0

Мар Кеу	Numbel Record		Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Recommender Pumping Rate Flowing Rate Recommender Levels UOM: Water State A Pumping Test Pumping Dur Flowing:	te: h: ed Pump R After Test C After Test: ht Method: ration HR:	ate: Code:	ft GPM 1 CLEAR 1 1 0 No				
Water Details Water ID: Layer: Kind Code: Kind: Water Found Water Found	Depth:	M :	933453808 1 1 FRESH 76.0 ft				
Water Details Water ID: Layer: Kind Code: Kind: Water Found Water Found	Depth:	м:	933453809 2 1 FRESH 83.0 ft				
Links Bore Hole ID: 1002316 Depth M: 27.432 Year Completed: 1956 Well Completed Dt: 1956/04/ Audit No: 1956/04/				Tag No: Contractor: Path: Latitude: Longitude:	2311 150\1501123.pdf 45.4270218652671 -75.630139132531		
27	1 of 4		ESE/185.3	74.0 / 0.08	6037682 CANADA INC 1150 OGILVIE ROAD OTTAWA ON K1J 8V1		GEN
Generator No SIC Code: SIC Descripti Approval Yea PO Box No: Country: Status: Co Admin: Choice of Co Phone No Ad Contaminate MHSW Facilis	ion: ars: ntact: Imin: d Facility:		ON2090726 03,04				
27	2 of 4		ESE/185.3	74.0 / 0.08	6037682 CANADA INC. 1150 OGILVIE RD OTTAWA ON K1J 8V1		GEN

SIC Description:

Other Gasoline Stations

Approval Years: PO Box No: Country: Status: Co Admin:

27

Choice of Contact: Phone No Admin: Contaminated Facility: MHSW Facility:

ESE/185.3 74.0 / 0.08

1150 Chemin Ogilvie Ottawa ON K1J 8V1

Nearest Intersection:

Municipality:

EHS

20051229028 Order No:

3 of 4

Status: С

Report Type: Complete Report Report Date: 1/2/2006 Date Received: 12/29/2005 Previous Site Name:

Client Prov/State: ON Search Radius (km): 0.25 -75.630738 X: Y: 45.426276

Lot/Building Size:

Additional Info Ordered: Fire Insur. Maps and/or Site Plans, City Directory Search

27 4 of 4 ESE/185.3 74.0 / 0.08

6037682 Canada Inc. 1150 OGILVIE ROAD **OTTAWA ON K1J 8V1**

GEN

WWIS

Order No: 23022400359

Generator No: ON8677710 447190 SIC Code:

SIC Description:

Approval Years:

PO Box No: Country: Status: Co Admin:

Choice of Contact: Phone No Admin: Contaminated Facility: MHSW Facility:

Other Gasoline Stations

Detail(s)

28

Waste Class:

WASTE OILS & LUBRICANTS Waste Class Name:

Monitoring and Test Hole

Well ID: 7157668

Construction Date:

1 of 1

Monitoring and Test Hole Use 1st: Use 2nd:

Final Well Status:

Water Type: Casing Material:

Audit No: Z120905 A097240

Constructn Method:

Tag:

Elevation (m): Elevatn Reliabilty:

Depth to Bedrock:

ESE/193.7 73.8 / -0.06 1182 OGILIVE ROAD Ottawa ON

Flowing (Y/N):

Flow Rate: Data Entry Status:

Data Src:

Date Received: 14-Jan-2011 00:00:00 Selected Flag: TRUE

Abandonment Rec:

Contractor: 7241 Form Version: 7

Owner:

OTTAWA-CARLETON County: Lot:

Concession: Concession Name:

Well Depth:

Map Key Number of Direction/ Elev/Diff Site DB

Records Distance (m) (m)

Overburden/Bedrock:Easting NAD83:Pump Rate:Northing NAD83:

Static Water Level: Zone:
Clear/Cloudy: UTM Reliability:

Municipality: GLOUCESTER TOWNSHIP

Site Info:

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/715\7157668.pdf

Additional Detail(s) (Map)

 Well Completed Date:
 2010/12/08

 Year Completed:
 2010

 Depth (m):
 3.1

 Latitude:
 45.4264006261219

 Longitude:
 -75.6301667346025

 Path:
 715√7157668.pdf

Bore Hole Information

 Bore Hole ID:
 1003455874
 Elevation:

 DP2BR:
 Elevrc:

 Spatial Status:
 Zone:
 18

 Code OB:
 East83:
 450703.00

 Code OB Desc:
 North83:
 5030513.00

 Open Hole:
 Org CS:
 UTM83

Open Hole: Org CS: Cluster Kind: UTMRC:

 Date Completed:
 08-Dec-2010 00:00:00
 UTMRC Desc:
 margin of error: 10 - 30 m

 Remarks:
 Location Method:
 wwr

Remarks: Location Method: w
Loc Method Desc: on Water Well Record

Elevre Desc:

Location Source Date: Improvement Location Source: Improvement Location Method:

Source Revision Comment: Supplier Comment:

Overburden and Bedrock

Materials Interval

Formation ID: 1003772804

Layer: 3

Color: General Color:

Mat1:

Most Common Material:

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 3.0999999046325684

Formation End Depth:

Formation End Depth UOM: m

Overburden and Bedrock

Materials Interval

Formation ID: 1003772802

 Layer:
 1

 Color:
 6

 General Color:
 BROWN

 Mat1:
 28

 Most Common Material:
 SAND

 Mat2:
 11

 Mat2 Desc:
 GRAVEL

 Mat3:
 05

 Mat3 Desc:
 CLAY

 Formation Top Depth:
 0.0

Formation End Depth: 2.440000057220459

Formation End Depth UOM: m

Overburden and Bedrock Materials Interval

Formation ID: 1003772803

 Layer:
 2

 Color:
 6

General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2: 85

 Mat2:
 85

 Mat2 Desc:
 SOFT

 Mat3:
 91

 Mat3 Desc:
 WATE

 Mat3 Desc:
 WATER-BEARING

 Formation Top Depth:
 2.440000057220459

 Formation End Depth:
 3.0999999046325684

Formation End Depth UOM: m

<u>Annular Space/Abandonment</u> <u>Sealing Record</u>

Plug ID: 1003772813

Layer: 1 0.0

Plug To: 0.3100000023841858

Plug Depth UOM: m

Annular Space/Abandonment

Sealing Record

Plug ID: 1003772815

Layer: 3

 Plug From:
 1.2200000286102295

 Plug To:
 3.0999999046325684

Plug Depth UOM: m

Annular Space/Abandonment

Sealing Record

Plug ID: 1003772814

Layer:

 Plug From:
 0.3100000023841858

 Plug To:
 1.2200000286102295

Plug Depth UOM: m

Method of Construction & Well

<u>Use</u>

Method Construction ID: 1003772811

Method Construction Code: B

Method Construction: Other Method Other Method Construction: DIRECT PUSH

Pipe Information

Pipe ID: 1003772801

Casing No: Comment:

Alt Name:

Construction Record - Casing

Casing ID: 1003772807

 Layer:
 1

 Material:
 5

 Open Hole or Material:
 PLASTIC

 Depth From:
 0.0

 Depth To:
 1.5

Casing Diameter: 4.03000020980835

Casing Diameter UOM: cm
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1003772808

 Layer:
 1

 Slot:
 10

 Screen Top Depth:
 1.5

Screen End Depth: 3.0999999046325684

Screen Material: 5
Screen Depth UOM: m
Screen Diameter UOM: cm

Screen Diameter: 4.820000171661377

Water Details

Water ID: 1003772806

Layer: Kind Code: Kind:

Water Found Depth:
Water Found Depth UOM:

Hole Diameter

 Hole ID:
 1003772805

 Diameter:
 8.25

 Depth From:
 0.0

Depth To: 3.0999999046325684

Hole Depth UOM: m
Hole Diameter UOM: cm

<u>Links</u>

 Bore Hole ID:
 1003455874
 Tag No:
 A097240

 Depth M:
 3.1
 Contractor:
 7241

 Year Completed:
 2010
 Path:
 715/7157668.pdf

 Well Completed Dt:
 2010/12/08
 Latitude:
 45.4264006261219

 Audit No:
 2120905
 Longitude:
 -75.6301667346025

29 1 of 1 S/194.7 72.9 / -1.00 WWIS

Order No: 23022400359

Well ID: 7388761 **Flowing (Y/N):**

Construction Date:

Use 1st: Use 2nd: Final Well Status: Water Type:

Casing Material:

Audit No: C32281 Tag: A202124

Constructn Method: Elevation (m): Elevatn Reliabilty: Depth to Bedrock:

Overburden/Bedrock: Pump Rate: Static Water Level: Clear/Cloudv:

Municipality:

Well Depth:

Site Info:

Flow Rate:

Data Entry Status: Yes

Data Src:

03-Jun-2021 00:00:00 Date Received:

Selected Flag: TRUE

Abandonment Rec:

Contractor: 1844 Form Version: 8

Owner: County:

OTTAWA-CARLETON

Lot: Concession: Concession Name: Easting NAD83: Northing NAD83:

Zone:

UTM Reliability:

Bore Hole Information

Bore Hole ID: DP2BR:

1008667703

GLOUCESTER TOWNSHIP

Spatial Status: Code OB: Code OB Desc: Open Hole: Cluster Kind:

Date Completed: 25-Sep-2019 00:00:00

Remarks:

Loc Method Desc: on Water Well Record

Elevrc Desc:

Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment:

Supplier Comment:

Elevation: Elevrc:

Zone: 18 450500.00 East83: North83: 5030390.00

Org CS: UTM83 UTMRC: 4

UTMRC Desc: margin of error: 30 m - 100 m

A202124

1844

Location Method: wwr

Links

Bore Hole ID: 1008667703

Depth M:

2019 Year Completed:

Well Completed Dt: 2019/09/25 Audit No: C32281

1 of 1

Tag No: Contractor:

Path:

Latitude: 45.4252791943293 -75.632749168996 Longitude:

30

SSW/201.2

AFSC Future Security Controls 1088 Ogilvie Rd Gloucester ON K1J 7P8

SCT

01-SEP-82 Established: Plant Size (ft2): 8000

Employment:

--Details--

Electronic Components, Navigational and Communications Equipment and Supplies Wholesaler-Distributors Description:

72.0 / -1.86

SIC/NAICS Code:

Description: Security Systems Services (except Locksmiths)

SIC/NAICS Code: 561621

Elev/Diff Site DΒ Map Key Number of Direction/

Description: Industrial Design Services

SIC/NAICS Code: 541420

Records

Description: Electrical Wiring and Construction Supplies Wholesaler-Distributors

Distance (m)

SIC/NAICS Code: 416110

31 1 of 1 S/203.1 72.9 / -0.97 1098 Ogilvie Road **EHS**

Order No: 20190813196

Status:

Standard Report Report Type: Report Date: 20-AUG-19 13-AUG-19 Date Received:

Previous Site Name: Lot/Building Size: Additional Info Ordered: Nearest Intersection:

Municipality:

Client Prov/State: ON Search Radius (km): .25

Gloucester ON K1J 7P8

-75.63245 X: Y: 45.425193

32 1 of 1 WSW/204.5 72.6 / -1.25 4297 WELDON DR, OTTAWA INC

Incident No: 1576702 Any Health Impact: Incident ID: Any Enviro Impact: Nο

Instance No: Service Interrupted: Status Code: Was Prop Damaged: No

Attribute Category: FS-Perform L1 Incident Insp Reside App. Type: Context:

2015/02/16 00:00:00 Date of Occurrence:

Time of Occurrence: 18:21:00

Incident Created On: Instance Creation Dt-Instance Install Dt:

Occur Insp Start Date: 2015/02/18 00:00:00

Approx Quant Rel:

Tank Capacity:

CO Release Fuels Occur Type: Fuel Type Involved: Natural Gas **NULL** Enforcement Policy:

Prc Escalation Reg: NULL Tank Material Type: Tank Storage Type: Tank Location Type: Pump Flow Rate Cap:

5367418 Task No:

Notes:

Drainage System: Sub Surface Contam.: Aff Prop Use Water: Contam. Migrated:

Contact Natural Env: Incident Location:

Occurence Narrative:

Operation Type Involved: Item:

Item Description:

Device Installed Location:

No

Yes

Commer App. Type: Indus App. Type: Institut App. Type: Venting Type:

Vent Conn 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: Liquid Prop Notes:

Equipment Type: **Equipment Model:** Serial No: Cylinder Capacity: Cylinder Cap Units: Cylinder Mat Type:

Near Body of Water: 4297 WELDON DR, OTTAWA - CO RELEASE

CO Release coming from NG fired furnace Multi-unit Residential

33 1 of 1 S/204.6 72.9 / -0.97

9456-5082 Quebec Inc., as general partner for and on behalf of Lux Place L.P.

1098 Ogilvie Road and 1178 Cummings Avenue

PTTW

Map Key Number of Direction/ Elev/Diff Site DB

Records Distance (m) (m)

Ottawa, ON Canada

EBR Registry No: 019-5394 Decision Posted: August 15, 2022

Ministry Ref No:0432-CDMNAAException Posted:Notice Type:InstrumentSection:

Notice Type:InstrumentSection:Section 34Notice Stage:DecisionAct 1:Ontario Water Resources Act, R.S.O. 1990

Notice Date: Act 2: Ontario Water Resources Act

 Proposal Date:
 April 29, 2022
 Site Location Map:
 45.424992, -75.631751

Year: 2022

Instrument Type: Permit to take water

Off Instrument Name: Permit to Take Water (OWRA s. 34)

Posted By: Ministry of the Environment, Conservation and Parks

Company Name:

Site Address: 1098 Ogilvie Road and 1178 Cummings Avenue

Ottawa, ON Canada

Location Other:

Proponent Name:9456-5082 Quebec Inc., as general partner for and on behalf of Lux Place L.P.Proponent Address:9456-5082 Quebec Inc., as general partner for and on behalf of Lux Place L.P.

155 Wellington Street West

Unit 40 Toronto, ON M5V 3J7 Canada

Comment Period: April 29, 2022 - May 29, 2022 (30 days) Closed

URL: https://ero.ontario.ca/notice/019-5394

Site Location Details:

34 1 of 1 ESE/205.6 73.9 / 0.00 1162 Ogilvie Road Gloucester ON K1J 8V1

Order No: 20190628212

Status: C

Report Type: Standard Report Report Date: 08-JUL-19
Date Received: 28-JUN-19

Previous Site Name: Lot/Building Size:

Additional Info Ordered: City Directory

12 Nearest Intersection: Municipality:

Client Prov/State: ON Search Radius (km): .25

X: -75.630053 **Y:** 45.426311

45.426433

Order No: 23022400359

35 1 of 1 ESE/207.7 74.2 / 0.31 1162 Ogilvie Road Ottawa ON

 Order No:
 20101102009
 Nearest Intersection:

 Status:
 C
 Municipality:

 Report Type:
 Standard Report
 Client Prov/State:
 ON

 Report Date:
 11/8/2010
 Search Radius (km):
 0.25

 Date Received:
 11/2/2010 11:09:01 AM
 X:
 -75.62996

Previous Site Name: Lot/Building Size:

Additional Info Ordered: Fire Insur. Maps and/or Site Plans; City Directory

36 1 of 1 ENE/211.7 75.9 / 2.00 lot 25 con 1 WWIS

Y:

Well ID: 1501130 **Flowing (Y/N):**

Construction Date: Flow Rate: Use 1st: **Domestic** Data Entry Status:

Use 2nd: 0 Data Src: Final Well Status: Water Supply Date Received:

27-Aug-1963 00:00:00 Water Type: Selected Flag: TRUE Casing Material: Abandonment Rec:

Audit No: Contractor: 1802 Tag: Form Version: Constructn Method: Owner:

Elevation (m): County: **OTTAWA-CARLETON**

Elevatn Reliabilty: 025 Lot: Depth to Bedrock: Concession: 01 OF Well Depth: Concession Name:

Overburden/Bedrock: Easting NAD83: Pump Rate: Northing NAD83:

Static Water Level: Zone:

UTM Reliability: Clear/Cloudv:

Municipality: **GLOUCESTER TOWNSHIP** Site Info:

https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/150\1501130.pdf PDF URL (Map):

Additional Detail(s) (Map)

Well Completed Date: 1963/06/04 Year Completed: 1963 Depth (m): 79.248

45.4281908989274 Latitude: Longitude: -75.6303438925385 Path: 150\1501130.pdf

Bore Hole Information

Bore Hole ID: 10023173 Elevation: DP2BR: Elevrc:

Spatial Status: Zone: 18

East83: 450690.70 Code OB: Code OB Desc: North83: 5030712.00 Open Hole: Org CS:

Cluster Kind: **UTMRC**:

04-Jun-1963 00:00:00 UTMRC Desc: margin of error: 100 m - 300 m Date Completed:

Order No: 23022400359

Location Method: Remarks: Loc Method Desc: Original Pre1985 UTM Rel Code 5: margin of error: 100 m - 300 m

Elevrc Desc:

Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment:

Supplier Comment:

Overburden and Bedrock Materials Interval

Formation ID: 930991048

Layer:

Color:

General Color:

Mat1: 05 Most Common Material: CLAY Mat2: 13

BOULDERS Mat2 Desc:

Mat3: Mat3 Desc:

Formation Top Depth: 0.0
Formation End Depth: 15.0
Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

 Formation ID:
 930991050

 Layer:
 3

 Color:
 2

 General Color:
 GREY

 Mat1:
 15

Most Common Material: LIMESTONE

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 165.0 Formation End Depth: 260.0 Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID: 930991049

 Layer:
 2

 Color:
 8

 General Color:
 BLACK

 Mat1:
 17

 Most Common Material:
 SHALE

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 15.0
Formation End Depth: 165.0
Formation End Depth UOM: ft

Method of Construction & Well

<u>Use</u>

Method Construction ID:961501130Method Construction Code:1

Method Construction: Cable Tool

Other Method Construction:

Pipe Information

Pipe ID: 10571743

Casing No: 1
Comment:

Alt Name:

Construction Record - Casing

Casing ID: 930039252

Layer: 1
Material: 1
Open Hole or Material: STEEL

Depth From:

Depth To: 18.0 Casing Diameter: 6.0

Casing Diameter UOM: inch Casing Depth UOM: ft

Construction Record - Casing

930039253 Casing ID:

Layer: 2 Material:

Open Hole or Material:

OPEN HOLE

Depth From:

260.0 Depth To: Casing Diameter: 6.0 Casing Diameter UOM: inch Casing Depth UOM: ft

Results of Well Yield Testing

PUMP Pumping Test Method Desc:

Pump Test ID: 991501130

Pump Set At:

Static Level: 30.0 260.0 Final Level After Pumping: Recommended Pump Depth: 200.0 2.0 Pumping Rate:

Flowing Rate:

Recommended Pump Rate: 2.0 Levels UOM: ft

GPM Rate UOM: Water State After Test Code: 2 Water State After Test: **CLOUDY**

Pumping Test Method: 1 **Pumping Duration HR:** 1 **Pumping Duration MIN:** 0 Flowing: No

Water Details

Water ID: 933453817

Layer: Kind Code:

Kind: **FRESH** Water Found Depth: 255.0 Water Found Depth UOM:

Links

Bore Hole ID: 10023173

Depth M: 79.248 Contractor: 1802

Year Completed: 1963 Path: 150\1501130.pdf 1963/06/04 45.4281908989274 Well Completed Dt: Latitude: Longitude: -75.6303438925385

Tag No:

Flowing (Y/N):

WWIS

Order No: 23022400359

Audit No:

Well ID:

1162 OGILIVE ROAD 1 of 1 ESE/218.4 73.9 / 0.00 **37**

Ottawa ON 7157667

Flow Rate: **Construction Date:**

Use 1st: Monitoring and Test Hole Data Entry Status: 0 Use 2nd: Data Src:

Final Well Status: Monitoring and Test Hole Date Received: 14-Jan-2011 00:00:00

TRUE Water Type: Selected Flag: Casing Material:

Abandonment Rec:

Z120906 Contractor: 7241

Audit No: A097242 Form Version: Tag: Constructn Method: Owner:

Elevation (m): County: OTTAWA-CARLETON

Elevatn Reliabilty: Lot: Concession: Depth to Bedrock: Well Depth: Concession Name: Overburden/Bedrock: Easting NAD83: Pump Rate: Northing NAD83: Static Water Level: Zone:

UTM Reliability: Clear/Cloudy:

Municipality: **GLOUCESTER TOWNSHIP** Site Info:

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/715\7157667.pdf

Additional Detail(s) (Map)

Well Completed Date: 2010/12/08 Year Completed: 2010 Depth (m): 4.27

Latitude: 45.4261586646808 Longitude: -75.6299722970786 715\7157667.pdf Path:

Bore Hole Information

Bore Hole ID: 1003455872 Elevation: DP2BR: Elevrc:

Spatial Status: Zone: 18 450718.00 Code OB: East83: 5030486.00 Code OB Desc: North83: Open Hole: Org CS: UTM83 Cluster Kind: **UTMRC:**

margin of error: 10 - 30 m Date Completed: 08-Dec-2010 00:00:00 UTMRC Desc:

Order No: 23022400359

Remarks: Location Method: wwr Loc Method Desc: on Water Well Record

Elevrc Desc:

Location Source Date:

Improvement Location Source: Improvement Location Method: **Source Revision Comment:**

Supplier Comment:

Overburden and Bedrock

Materials Interval

Formation ID: 1003768436

2 Layer: Color: 6 General Color: **BROWN** Mat1: 09

Most Common Material: MEDIUM SAND

Mat2: 85 Mat2 Desc: SOFT Mat3: 91

Mat3 Desc: WATER-BEARING Formation Top Depth: 2.440000057220459 Formation End Depth: 4.269999980926514

Formation End Depth UOM: m

Overburden and Bedrock

Materials Interval

Formation ID: 1003768435

 Layer:
 1

 Color:
 6

 General Color:
 BROWN

 Mat1:
 11

 Most Common Material:
 GRAVEL

 Mat2:
 28

 Mat2 Desc:
 SAND

 Mat3:
 05

 Mat3 Desc:
 CLAY

 Formation Top Depth:
 0.0

Formation End Depth: 2.440000057220459

Formation End Depth UOM: m

Annular Space/Abandonment

Sealing Record

Plug ID: 1003768445

Layer: 1 0.0

Plug To: 0.3100000023841858

Plug Depth UOM: m

Annular Space/Abandonment

Sealing Record

Plug ID: 1003768447

Layer:

 Plug From:
 0.9100000262260437

 Plug To:
 4.26999980926514

Plug Depth UOM:

Annular Space/Abandonment

Sealing Record

Plug ID: 1003768446

Layer:

 Plug From:
 0.3100000023841858

 Plug To:
 0.9100000262260437

Plug Depth UOM: m

Method of Construction & Well

<u>Use</u>

Method Construction ID: 1003768443

Method Construction Code: B

Method Construction:Other MethodOther Method Construction:DIRECT PUSH

Pipe Information

Pipe ID: 1003768434

Casing No:

Comment: Alt Name:

Construction Record - Casing

Casing ID: 1003768439

Layer:1Material:5Open Hole or Material:PLASTIC

 Depth From:
 0.0

 Depth To:
 1.2200000286102295

Casing Diameter: 4.03000020980835
Casing Diameter UOM: cm

Casing Depth UOM:

Construction Record - Screen

Screen ID: 1003768440

Layer: 1 **Slot**: 10

 Screen Top Depth:
 1.2200000286102295

 Screen End Depth:
 4.269999980926514

Screen Material: 5
Screen Depth UOM: m
Screen Diameter UOM: cm

Screen Diameter: 4.820000171661377

Water Details

Water ID: 1003768438

Layer: Kind Code: Kind:

Water Found Depth:

Water Found Depth UOM: m

Hole Diameter

 Hole ID:
 1003768437

 Diameter:
 8.25

Depth From: 0.0

Depth To: 4.269999980926514

Hole Depth UOM: m
Hole Diameter UOM: cm

Links

 Bore Hole ID:
 1003455872
 Tag No:
 A097242

 Depth M:
 4.27
 Contractor:
 7241

 Year Completed:
 2010
 Path:
 715\7157667.pdf

 Well Completed Dt:
 2010/12/08
 Latitude:
 45.4261586646808

 Audit No:
 Z120906
 Longitude:
 -75.6299722970786

38 1 of 1 N/218.5 74.9 / 1.00 1055 Cummings Ave Gloucester (Ottawa) ON K1J 7S2

 Order No:
 20040407012

 Status:
 C

 Report Type:
 Complete Report

 Report Date:
 4/13/04

 Date Received:
 4/7/04

Previous Site Name: Lot/Building Size: Additional Info Ordered: Nearest Intersection: Donald
Nunicipality: Prov/State: Donald
Regional Municipality of Ottawa-Carleton
ON

Order No: 23022400359

 Client Prov/State:
 ON

 Search Radius (km):
 0.25

 X:
 -75.633036

 Y:
 45.429095

Мар Кеу	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>39</u>	1 of 2	SSW/226.3	72.0 / -1.86	FAIRVIEW FUNERAL &CREMATION SERVICES INC 1092 OGILVIE ROAD GLOUCESTER ON K1J 7P8	GEN
Generator No SIC Code: SIC Descript Approval Ye PO Box No: Country: Status: Co Admin: Choice of Co Phone No AC Contaminate MHSW Facili	ion: ars: ontact: dmin: ed Facility:	ONF055900 9731 FUNERAL HOMES 95,96,97,98,99			
<u>Detail(s)</u>					
Waste Class: Waste Class Name:		312 PATHOLOGICAL WASTES			
<u>39</u>	2 of 2	SSW/226.3	72.0 / -1.86	FAIRVIEW FUNERAL AND CREMATION 1092 OGILVIE ROAD GLOUCESTER ON K1J 7P8	GEN
Generator No SIC Code: SIC Descript Approval Ye PO Box No: Country: Status: Co Admin: Choice of Co Phone No Ad Contaminate MHSW Facili	ion: ars: ontact: dmin: ed Facility:	ONF055900 9731 FUNERAL HOMES 00,01			
<u>Detail(s)</u>					
Waste Class: Waste Class Name:		312 PATHOLOGICAL WASTES			
<u>40</u>	1 of 1	SSE/231.6	72.6 / -1.31	EDIFICE BEAUFORT BUILDING INC. 1178 CUMMINGS OTTAWA ON K1J 7R8	GEN
Generator No SIC Code: SIC Descript Approval Ye PO Box No: Country: Status: Co Admin: Choice of Co Phone No Ad Contaminate MHSW Facili	ion: ars: ontact: dmin: ed Facility:	ON7246315 03,04			

WWIS

Order No: 23022400359

18-May-2011 00:00:00

1 of 1 N/235.9 74.9 / 1.00 1043 CUMMINGS AVE OTTAWA ON

Well ID: 7163232 Flowing (Y/N): Construction Date: Flow Rate:

Use 1st: Data Entry Status:

Use 2nd:

Pata Src:
Final Well Status:

Abandoned-Other

Data Received:

Water Type:Selected Flag:TRUECasing Material:Abandonment Rec:Yes

Audit No: Z119783 Contractor: 1119
Tag: Form Version: 7

Constructn Method: Owner:
Elevation (m): County: OTTAWA-CARLETON

Elevatn Reliabilty:

Depth to Bedrock:

Well Depth:

Overburden/Bedrock:

Lot:

Concession:

Concession Name:

Easting NAD83:

Pump Rate:
Static Water Level:
Clear/Cloudy:
Northing NAD83:
Zone:
UTM Reliability:

lear/Cloudy: UTM Reli

Municipality: GLOUCESTER TOWNSHIP Site Info:

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/716\7163232.pdf

Additional Detail(s) (Map)

41

Well Completed Date: 2011/04/06 Year Completed: 2011

Depth (m):

 Latitude:
 45.4291313527472

 Longitude:
 -75.6328177774273

 Path:
 716\7163232.pdf

Bore Hole Information

Bore Hole ID: 1003510536 Elevation:

 DP2BR:
 Elevrc:

 Spatial Status:
 Zone:
 18

 Code OB:
 East83:
 450498.00

 Code OB Desc:
 North83:
 5030818.00

 Open Hole:
 Org CS:
 UTM83

 Date Completed:
 06-Apr-2011 00:00:00
 UTMRC Desc:
 margin of error : 10 - 30 m

UTMRC:

Remarks: Location Method: wwr

Loc Method Desc: on Water Well Record

Elevrc Desc: Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment:

Supplier Comment:

Annular Space/Abandonment

Sealing Record

Cluster Kind:

Plug ID: 1003900155

 Layer:
 2

 Plug From:
 4.0

 Plug To:
 12.0

 Plug Depth UOM:
 ft

Annular Space/Abandonment

Sealing Record

Plug ID: 1003900154

 Layer:
 1

 Plug From:
 0.0

 Plug To:
 4.0

 Plug Depth UOM:
 ft

Method of Construction & Well

<u>Use</u>

Method Construction ID: 1003900153

Method Construction Code: Method Construction: Other Method Construction:

Pipe Information

Pipe ID: 1003900147

Casing No: 0

Comment: Alt Name:

Construction Record - Casing

Casing ID: 1003900151

Layer: Material:

Open Hole or Material:

Depth From: Depth To: Casing Diameter:

Casing Diameter UOM: inch Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 1003900152

Layer: Slot:

Screen Fnd Depth:

Screen End Depth: Screen Material: Screen Depth UOM:

Screen Depth UOM: ft Screen Diameter UOM: inch

Screen Diameter:

Water Details

Water ID: 1003900150

Layer: Kind Code: Kind:

Water Found Depth: Water Found Depth UOM:

Hole Diameter

Hole ID: 1003900149

Diameter:

ft

Depth From: Depth To:

Hole Depth UOM: ft Hole Diameter UOM: inch

<u>Links</u>

1003510536 Bore Hole ID:

Depth M:

Year Completed: 2011 2011/04/06 Well Completed Dt: Z119783 Audit No:

Tag No:

Contractor: 1119

Path: 716\7163232.pdf Latitude: 45.4291313527472 -75.6328177774273 Longitude:

42

1 of 27

NW/241.5

73.9 / 0.00

Ambico Limited 1120 Cummings Ave Gloucester ON K1J 7R8

SCT

Established:

Plant Size (ft2): Employment:

7/1/1961

--Details--

Description:

Metal Window and Door Manufacturing

SIC/NAICS Code: 332321

Description:

Other Ornamental and Architectural Metal Product Manufacturing

SIC/NAICS Code: 332329

42

2 of 27

NW/241.5

73.9 / 0.00

AMBICO LIMITED 1120 Cummings Ave Ottawa ON K1J 7R8

SCT

Established: 1961 Plant Size (ft2): 16100 Employment: 40

--Details--

Description: SIC/NAICS Code: Wood Window and Door Manufacturing

321911

Metal Window and Door Manufacturing Description:

SIC/NAICS Code: 332321

42

3 of 27

NW/241.5

73.9 / 0.00

MANIS METAL MANUFACTURING LTD. 1120 CUMMINGS AVENUE **OTTAWA ON K1J 7R8**

GEN

Order No: 23022400359

ON0526500 Generator No: SIC Code:

SIC Description: **METAL DOOR & WINDOW**

Approval Years:

PO Box No: Country: Status: Co Admin: Choice of Contact: Phone No Admin: Contaminated Facility: 3031

86,87

erisinfo.com | Environmental Risk Information Services

MHSW Facility:

Map Key Number of Direction/ Elev/Diff Site DB

Detail(s)

Waste Class: 212

Records

Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 233

Waste Class Name: OTHER POLYMERIC WASTES

Distance (m)

(m)

Waste Class: 241

Waste Class Name: HALOGENATED SOLVENTS

Waste Class: 252

Waste Class Name: WASTE OILS & LUBRICANTS

Waste Class: 123

Waste Class Name: ALKALINE PHOSPHATES

Waste Class: 211

Waste Class Name: AROMATIC SOLVENTS

42 4 of 27 NW/241.5 73.9 / 0.00 MANIS METAL MANUFACTURING LTD.
1120 CUMMINGS AVENUE GEN

OTTAWA ON K1J 7R8

Order No: 23022400359

Generator No: ON0526500

SIC Code: 3031

SIC Description: METAL DOOR & WINDOW

Approval Years: 88,89

PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contaminated Facility:
MHSW Facility:

Detail(s)

Waste Class: 123

Waste Class Name: ALKALINE PHOSPHATES

Waste Class: 145

Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 211

Waste Class Name: AROMATIC SOLVENTS

Waste Class: 212

Waste Class Name: ALIPHATIC SOLVENTS

Waste Class: 232

Waste Class Name: POLYMERIC RESINS

Waste Class: 233

Waste Class Name: OTHER POLYMERIC WASTES

Waste Class: 241

Waste Class Name: HALOGENATED SOLVENTS

Waste Class: 252

Waste Class Name: WASTE OILS & LUBRICANTS

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

MANIS METAL MANUFACTURING LTD. 25-161

1120 CUMMINGS AVENUE OTTAWA ON K1J 7R8

GEN

GEN

Order No: 23022400359

NW/241.5 73.9 / 0.00 **AMBICO LIMITED 25-161** 42 5 of 27 1120 CUMMINGS AVENUE **OTTAWA ON K1J 7R8**

ON0526500 Generator No: SIC Code: 3031

METAL DOOR & WINDOW SIC Description:

Approval Years: 92,93,96,97,98

PO Box No: Country: Status: Co Admin: Choice of Contact: Phone No Admin: Contaminated Facility: MHSW Facility:

Detail(s)

Waste Class: 123

Waste Class Name: ALKALINE PHOSPHATES

Waste Class:

PAINT/PIGMENT/COATING RESIDUES Waste Class Name:

Waste Class:

AROMATIC SOLVENTS Waste Class Name:

Waste Class: 241

Waste Class Name: HALOGENATED SOLVENTS

Waste Class: 212

Waste Class Name: ALIPHATIC SOLVENTS

Waste Class:

Waste Class Name: POLYMERIC RESINS

Waste Class: 233

OTHER POLYMERIC WASTES Waste Class Name:

Waste Class:

6 of 27

WASTE OILS & LUBRICANTS Waste Class Name:

Generator No: ON0526500

SIC Code: METAL DOOR & WINDOW SIC Description:

Approval Years:

PO Box No: Country: Status: Co Admin: Choice of Contact: Phone No Admin: Contaminated Facility: MHSW Facility:

94,95

73.9 / 0.00

NW/241.5

3031

Detail(s)

42

Number of Direction/ Elev/Diff Site DΒ Map Key Records Distance (m) 123 Waste Class: Waste Class Name: ALKALINE PHOSPHATES Waste Class: Waste Class Name: PAINT/PIGMENT/COATING RESIDUES Waste Class: AROMATIC SOLVENTS Waste Class Name: Waste Class: 212 ALIPHATIC SOLVENTS Waste Class Name: Waste Class: 232 Waste Class Name: POLYMERIC RESINS Waste Class: 233 Waste Class Name: OTHER POLYMERIC WASTES Waste Class: 241 Waste Class Name: HALOGENATED SOLVENTS Waste Class: Waste Class Name: WASTE OILS & LUBRICANTS 42 7 of 27 NW/241.5 73.9 / 0.00 **Ambico Limited** SCT 1120 Cummings Ave Gloucester ON K1J 7R8 Established: 01-AUG-55 Plant Size (ft2): Employment: --Details--Description: Metal Window and Door Manufacturing SIC/NAICS Code: 332321 Description: Other Ornamental and Architectural Metal Product Manufacturing SIC/NAICS Code: 332329 42 8 of 27 NW/241.5 73.9 / 0.00 Ambico Limited **GEN** 1120 Cummings Avenue Ottawa ON ON5821952 Generator No: SIC Code: 321911 SIC Description: Wood Window and Door Manufacturing Approval Years: PO Box No: Country: Status: Co Admin: Choice of Contact: Phone No Admin: Contaminated Facility:

Order No: 23022400359

Detail(s)

MHSW Facility:

Waste Class: 211

Waste Class Name: AROMATIC SOLVENTS

Waste Class: 252

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

Waste Class Name: WASTE OILS & LUBRICANTS

42 9 of 27 NW/241.5 73.9 / 0.00 Ambico Limited
42 EBR

1120 Cummings Avenue Ottawa K1J 7R8 CITY OF OTTAWA

ON

EBR Registry No:011-5449Decision Posted:Ministry Ref No:5049-8PDMPEException Posted:

Notice Type:Instrument DecisionSection:Notice Stage:Act 1:Notice Date:September 09, 2014Act 2:

Proposal Date: December 23, 2011 Site Location Map:

Year: 2011

Instrument Type: (EPA Part II.1-air) - Environmental Compliance Approval (project type: air)

Off Instrument Name:

Posted By:

Company Name: Ambico Limited

Site Address: Location Other: Proponent Name:

Proponent Address: 1120 Cummings avenue, Ottawa Ontario, Canada K1J 7R8

Comment Period:

URL:

Site Location Details:

1120 Cummings Avenue Ottawa K1J 7R8 CITY OF OTTAWA

42 10 of 27 NW/241.5 73.9 / 0.00 Ambico Limited
430 Commission Associated GEN

1120 Cummings Avenue

Ottawa ON

 Generator No:
 ON5821952

 SIC Code:
 321911

SIC Description: Wood Window and Door Manufacturing

Approval Years: 2009

Country: Status: Co Admin: Choice of Contact: Phone No Admin: Contaminated Facility: MHSW Facility:

Detail(s)

PO Box No:

Waste Class: 145

Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 211

Waste Class Name: AROMATIC SOLVENTS

Waste Class: 252

Waste Class Name: WASTE OILS & LUBRICANTS

42 11 of 27 NW/241.5 73.9 / 0.00 Ambico Limited

1120 Cummings Avenue

GEN

Order No: 23022400359

Ottawa ON

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

ON5821952 Generator No: SIC Code: 321911

SIC Description: Wood Window and Door Manufacturing

Approval Years: 2010

Country: Status: Co Admin: Choice of Contact: Phone No Admin:

Contaminated Facility: MHSW Facility:

Detail(s)

PO Box No:

Waste Class: 145

Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class:

Waste Class Name: WASTE OILS & LUBRICANTS

Waste Class:

AROMATIC SOLVENTS Waste Class Name:

42 12 of 27 NW/241.5 73.9 / 0.00 Ambico Limited **GEN**

1120 Cummings Avenue

Ottawa ON

ON5821952 Generator No: SIC Code: 321911

SIC Description: Wood Window and Door Manufacturing

Approval Years:

PO Box No: Country: Status: Co Admin:

Choice of Contact: Phone No Admin: Contaminated Facility:

MHSW Facility:

Detail(s)

Waste Class: 252

WASTE OILS & LUBRICANTS Waste Class Name:

Waste Class:

PAINT/PIGMENT/COATING RESIDUES Waste Class Name:

Waste Class:

Waste Class Name: AROMATIC SOLVENTS

73.9 / 0.00 Ambico Limited 42 13 of 27 NW/241.5 **GEN**

1120 Cummings Avenue

Order No: 23022400359

Ottawa ON

Generator No: ON5821952 SIC Code: 321911

Wood Window and Door Manufacturing SIC Description:

Approval Years: 2012

PO Box No: Country: Status:

Map Key Number of Direction/ Elev/Diff Site DB

Co Admin:

Choice of Contact: Phone No Admin: Contaminated Facility: MHSW Facility:

Detail(s)

Waste Class: 145

Records

Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 21

Waste Class Name: AROMATIC SOLVENTS

Waste Class: 252

Waste Class Name: WASTE OILS & LUBRICANTS

42 14 of 27 NW/241.5 73.9 / 0.00 Ambico Limited
1120 Cummings Ave

Ottawa ON K1J 7R8

Approval No: 3400-94XLJ4 MOE District:

Distance (m)

(m)

Approval Date: 8/22/14 City: Ottawa

Status: Approved **Longitude:** -75.6358333333333333376913287793286144733

428955078125

GEN

Order No: 23022400359

Record Type: 45.4313888888888970996049465611577033

Geometry Y:

Ambico Limited

Ottawa ON

1120 Cummings Avenue

99658203125 **Geometry X:**

SWP Area Name:

Link Source:

Approval Type:

Project Type: Air/Noise
Business Name: Ambico Limited

Address: Full Address:

42

Business Name: Ambico Limited Address:

Full PDF Link: PDF Site Location:

Ambico Ltd. 1120 Cummings A ve Ottawa City K1J 7R8

73.9 / 0.00

Generator No: ON5821952

SIC Code: 321911
SIC Description: WOOD WINDOW AND DOOR MANUFACTURING

NW/241.5

Approval Years: 2013

15 of 27

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

Choice of Contact: Phone No Admin: Contaminated Facility:

MHSW Facility:

Detail(s)

Waste Class: 21

Waste Class Name: AROMATIC SOLVENTS

Waste Class: 148

Waste Class Name: INORGANIC LABORATORY CHEMICALS

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

145 Waste Class:

Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class:

Waste Class Name: WASTE OILS & LUBRICANTS

Waste Class:

POLYMERIC RESINS Waste Class Name:

Waste Class: 263

Waste Class Name: ORGANIC LABORATORY CHEMICALS

NW/241.5 73.9 / 0.00 42 16 of 27 Ambico Limited

1120 Cummings Avenue Ottawa K1J 7R8 CITY

OF OTTAWA

ON

Act 1:

012-2917 EBR Registry No: Decision Posted: Ministry Ref No: 5484-9P3QL3 Exception Posted: Section:

Notice Type: Instrument Decision Notice Stage:

Notice Date: January 13, 2015 Act 2:

October 28, 2014 Proposal Date: Site Location Map:

Year: 2014

(EPA Part II.1-air) - Environmental Compliance Approval (project type: air) Instrument Type:

Off Instrument Name:

Posted By:

Company Name: Ambico Limited

Site Address: Location Other: Proponent Name:

Proponent Address: 1120 Cummings avenue, Ottawa Ontario, Canada K1J 7R8

Comment Period:

URL:

Site Location Details:

1120 Cummings Avenue Ottawa K1J 7R8 CITY OF OTTAWA

42 17 of 27 NW/241.5 73.9 / 0.00 Ambico Limited **ECA**

1120 Cummings Avenue Ottawa ON K1J 7R8

5887-9SHN85 **MOE District:** Approval No:

1/8/15 Ottawa Approval Date: City:

Status: Approved Longitude: -75.63583333333333376913287793286144733

428955078125

45.431388888888888970996049465611577033 Record Type: Latitude: 99658203125

Geometry X:

Link Source: SWP Area Name: Geometry Y:

Approval Type:

Air/Noise Project Type: **Business Name:** Ambico Limited

Address:

Full Address: Ambico Limited 1120 Cummings A venue Ottawa, Ontario K1J 7R8

Full PDF Link: PDF Site Location:

> 42 18 of 27 NW/241.5 73.9 / 0.00 Ambico Limited

ECA

Order No: 23022400359

EBR

Number of Direction/ Elev/Diff Site DΒ Map Key

Records Distance (m) (m)

> 1120 Cummings Ave Ottawa ON K1J 7R8

Approval No: 5887-9SHN85 **MOE District:** Ottawa

Approval Date: 2015-01-08 City: Status: Approved Longitude: -75.6358 Record Type: ECA Latitude: 45.43152 **IDS** Link Source: Geometry X: Geometry Y:

Rideau Valley SWP Area Name: ECA-AIR Approval Type: Project Type: AIR

Ambico Limited **Business Name:** 1120 Cummings Ave

Address: Full Address:

Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/5484-9P3QL3-14.pdf

PDF Site Location:

19 of 27 NW/241.5 73.9 / 0.00 Ambico Limited 42 **ECA**

Geometry X:

Geometry Y:

1120 Cummings Ave Ottawa ON K1J 7R8

Approval No: 3400-94XLJ4 **MOE District:** Ottawa 2014-08-22 Approval Date:

City: Longitude: -75.6358 Status: Revoked and/or Replaced Record Type: **ECA** Latitude: 45.43152

Link Source: **IDS** SWP Area Name: Rideau Valley ECA-AIR Approval Type: Project Type: AIR

Business Name: Ambico Limited

Address: 1120 Cummings Ave Full Address:

Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/5049-8PDMPE-14.pdf

PDF Site Location:

NW/241.5 73.9 / 0.00 Ambico Limited 42 20 of 27

1120 Cummings Avenue Ottawa ON K1J 7R8

GEN

Order No: 23022400359

Generator No: ON5821952 SIC Code: 321911

SIC Description: WOOD WINDOW AND DOOR MANUFACTURING

Approval Years: 2016

PO Box No:

Country: Canada

Status:

Co Admin:

Choice of Contact: CO_OFFICIAL Phone No Admin:

Contaminated Facility: No

MHSW Facility: No

Detail(s)

Waste Class: 263

Waste Class Name: ORGANIC LABORATORY CHEMICALS

Waste Class:

POLYMERIC RESINS Waste Class Name:

Waste Class:

Waste Class Name: INORGANIC LABORATORY CHEMICALS

Number of Direction/ Elev/Diff Site DΒ Map Key

Records Distance (m) (m)

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

Waste Class:

AROMATIC SOLVENTS Waste Class Name:

Waste Class: 145

Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

42 21 of 27 NW/241.5 73.9 / 0.00 Ambico Limited **GEN**

1120 Cummings Avenue Ottawa ON K1J 7R8

ON5821952 Generator No: SIC Code: 321911

SIC Description: WOOD WINDOW AND DOOR MANUFACTURING

Approval Years: 2015 PO Box No:

Country: Canada

Status: Co Admin:

CO_OFFICIAL Choice of Contact:

Phone No Admin:

Contaminated Facility: No MHSW Facility: No

Detail(s)

Waste Class: 145

Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 252

WASTE OILS & LUBRICANTS Waste Class Name:

Waste Class:

Waste Class Name: **INORGANIC LABORATORY CHEMICALS**

Waste Class:

AROMATIC SOLVENTS Waste Class Name:

Waste Class:

ORGANIC LABORATORY CHEMICALS Waste Class Name:

Waste Class:

Waste Class Name: POLYMERIC RESINS

22 of 27 NW/241.5 73.9 / 0.00 Ambico Limited 42 **GEN** 1120 Cummings Avenue

Ottawa ON K1J 7R8

Order No: 23022400359

Generator No: ON5821952 SIC Code: 321911

SIC Description: WOOD WINDOW AND DOOR MANUFACTURING

Approval Years: 2014

PO Box No:

Country: Canada

Status:

Co Admin:

CO_OFFICIAL Choice of Contact:

Phone No Admin:

Contaminated Facility: No MHSW Facility: No Map Key Number of Direction/ Elev/Diff Site DB

Detail(s)

Waste Class: 263

Records

Waste Class Name: ORGANIC LABORATORY CHEMICALS

Waste Class: 148

Waste Class Name: INORGANIC LABORATORY CHEMICALS

Distance (m)

(m)

Waste Class: 145

Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 232

Waste Class Name: POLYMERIC RESINS

Waste Class: 211

Waste Class Name: AROMATIC SOLVENTS

Waste Class: 252

Waste Class Name: WASTE OILS & LUBRICANTS

42 23 of 27 NW/241.5 73.9 / 0.00 Ambico Limited 1120 Cummings Avenue GEN

Order No: 23022400359

Ottawa ON K1J 7R8

Generator No: ON5821952

SIC Code:

SIC Description:

Approval Years: As of Dec 2018

PO Box No:

Country: Canada Status: Registered

Co Admin: Choice of Contact: Phone No Admin: Contaminated Facility:

MHSW Facility:

Detail(s)

Waste Class: 145 H

Waste Class Name: Wastes from the use of pigments, coatings and paints

Waste Class: 145 l

Waste Class Name: Wastes from the use of pigments, coatings and paints

Waste Class: 148 L

Waste Class Name: Misc. wastes and inorganic chemicals

Waste Class: 211 E

Waste Class Name: Aromatic solvents and residues

Waste Class: 232 C

Waste Class Name: Polymeric resins

Waste Class: 232 L

Waste Class Name: Polymeric resins

Waste Class: 252 L

Waste Class Name: Waste crankcase oils and lubricants

Waste Class: 263 l

Waste Class Name: Misc. waste organic chemicals

Map Key Number of Direction/ Elev/Diff Site DB

Records Distance (m)

42 24 of 27 NW/241.5 73.9 / 0.00 AMBICO LIMITED
1120 CUMMINGS AVE

 GLOUCESTER ON K1J 7R8

 val No:
 R-010-1110351691
 MOE District:
 Ottawa

 Approval No:
 R-010-1110351691
 MOE District:
 Ottawa

 Status:
 REGISTERED
 Municipality:
 GLOUCESTER

 Date:
 2018-01-31
 Latitude:
 45.42916667

 Record Type:
 EASR
 Longitude:
 -75.63416667

 Link Source:
 MOFA
 Geometry X:

(m)

Link Source:MOFAGeometry X:Project Type:Air EmissionsGeometry Y:

Approval Type: EASR-Air Emissions SWP Area Name: Rideau Valley

PDF URL: PDF Site Location:

42 25 of 27 NW/241.5 73.9 / 0.00 Ambico Limited 1120 Cummings Avenue GEN

Ottawa ON K1J 7R8

Order No: 23022400359

Generator No: ON5821952

SIC Code:

Full Address:

SIC Description:

Approval Years: As of Jul 2020
PO Box No:
Country: Canada
Status: Registered

Co Admin: Choice of Contact: Phone No Admin: Contaminated Facility:

Detail(s)

MHSW Facility:

Waste Class: 211 B

Waste Class Name: Aromatic solvents and residues

Waste Class: 263 L

Waste Class Name: Misc. waste organic chemicals

Waste Class: 232 L

Waste Class Name: Polymeric resins

Waste Class: 145 H

Waste Class Name: Wastes from the use of pigments, coatings and paints

Waste Class: 148 L

Waste Class Name: Misc. wastes and inorganic chemicals

Waste Class: 232 C

Waste Class Name: Polymeric resins

Waste Class: 263 l

Waste Class Name: Misc. waste organic chemicals

Waste Class: 145 l

Waste Class Name: Wastes from the use of pigments, coatings and paints

Waste Class: 252 L

Waste Class Name: Waste crankcase oils and lubricants

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

26 of 27 NW/241.5 73.9 / 0.00 Ambico Limited 42 1120 Cummings Avenue

Ottawa ON K1J 7R8

GEN

Order No: 23022400359

ON5821952 Generator No:

SIC Code: SIC Description:

Approval Years: As of Nov 2021

PO Box No: Country: Canada Registered Status:

Co Admin: Choice of Contact: Phone No Admin: Contaminated Facility: MHSW Facility:

Detail(s)

Waste Class: 145 H

Waste Class Name: Wastes from the use of pigments, coatings and paints

Waste Class:

Misc. waste organic chemicals Waste Class Name:

Waste Class: 232 L

Waste Class Name: Polymeric resins

Waste Class:

Waste Class Name: Wastes from the use of pigments, coatings and paints

Waste Class: 148 L

Waste Class Name: Misc. wastes and inorganic chemicals

Waste Class: 263 L

Waste Class Name: Misc. waste organic chemicals

Waste Class:

Waste Class Name: Waste crankcase oils and lubricants

Waste Class: 232 C

Waste Class Name: Polymeric resins

Waste Class:

Waste Class Name: Aromatic solvents and residues

42 27 of 27 NW/241.5 73.9 / 0.00 Ambico Limited **GEN** 1120 Cummings Avenue

Ottawa ON K1J 7R8

Generator No: ON5821952 SIC Code:

SIC Description:

As of Oct 2022 Approval Years:

PO Box No:

Country: Canada Status: Registered

Co Admin: Choice of Contact: Phone No Admin: Contaminated Facility: MHSW Facility:

Number of Direction/ Elev/Diff Site DΒ Map Key

Records

Distance (m)

(m)

Detail(s)

Waste Class: 232 C

Waste Class Name: POLYMERIC RESINS

Waste Class:

Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 211 B

Waste Class Name: AROMATIC SOLVENTS

Waste Class:

INORGANIC LABORATORY CHEMICALS Waste Class Name:

Waste Class:

Waste Class Name: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 232 I

Waste Class Name: POLYMERIC RESINS

Waste Class: 252 I

Waste Class Name: WASTE OILS & LUBRICANTS

Waste Class: 263 I

Waste Class Name: ORGANIC LABORATORY CHEMICALS

Waste Class: 263 I

Waste Class Name: ORGANIC LABORATORY CHEMICALS

43 1 of 2 WSW/242.3 71.9 / -2.00 1059 Ogilvie Road **EHS** Gloucester ON K1J 7S6

71.9 / -2.00

72.2 / -1.68

Order No: 21062900038

Status:

Report Type: RSC Report (Urban)

05-JUL-21 Report Date: Date Received: 29-JUN-21

Previous Site Name: Lot/Building Size: Additional Info Ordered:

43

Nearest Intersection: Municipality:

Client Prov/State: ON Search Radius (km): .3

-75.63529262 X:

Y: 45.42610701

Order No: 21062900038

Status:

2 of 2

RSC Report (Urban) Report Type:

05-JUL-21 Report Date: Date Received: 29-JUN-21

Previous Site Name: Lot/Building Size: Additional Info Ordered: Nearest Intersection: Municipality:

1059 Ogilvie Road

Gloucester ON K1J 7S6

Client Prov/State: ON Search Radius (km): .3

X: -75.63529262 Y: 45.42610701

1098 Ogilvie Road and 1178 Cummings Avenue

EHS

EHS

Order No: 23022400359

Order No: 21071700001

C Status:

1 of 2

Standard Report Report Type: Report Date: 21-JUL-21 Date Received: 17-JUL-21

Nearest Intersection: Municipality:

Client Prov/State: ON Search Radius (km): .25

Gloucester ON K1J 7P8

X: -75.6322221

S/243.3

WSW/242.3

44

Number of Direction/ Elev/Diff Site DΒ Map Key Records Distance (m) (m) Previous Site Name: **Y**: 45.424839 Lot/Building Size: Additional Info Ordered: **Aerial Photos** S/243.3 72.2 / -1.68 1098 Ogilvie Road and 1178 Cummings Avenue 44 2 of 2 **EHS** Gloucester ON K1J 7P8 Order No: 21071700001 Nearest Intersection: Status: Municipality: Report Type: Standard Report Client Prov/State: ON 21-JUL-21 Report Date: Search Radius (km): .25 Date Received: 17-JUL-21 X: -75.6322221 Previous Site Name: Y: 45.424839 Lot/Building Size: Additional Info Ordered: **Aerial Photos** 1 of 11 E/246.4 74.8 / 0.88 ST. LAURENT FUNERAL HOME 45 **GEN** 1200 OGILVIE ROAD **GLOUCESTER ON K1J 8V1** ONF008100 Generator No: SIC Code: 8000 **EXEMPT** SIC Description: Approval Years: 88,89,90 PO Box No: Country: Status: Co Admin: Choice of Contact: Phone No Admin: Contaminated Facility: MHSW Facility: 45 2 of 11 E/246.4 74.8 / 0.88 ST. LAURENT FUNERAL HOME 44-081 **GEN** 1200 OGILVIE ROAD **GLOUCESTER ON K1J 8V1** Generator No: ONF008100 SIC Code: 8000 **EXEMPT** SIC Description: Approval Years: 92,93,94 PO Box No: Country: Status: Co Admin: Choice of Contact: Phone No Admin: Contaminated Facility: MHSW Facility: 45 3 of 11 E/246.4 74.8 / 0.88 **HULSE PLAYFAIR & MCGARRY GEN** 1200 OGILVIE ROAD **GLOUCESTER ON K1J 8V1** Generator No: ONF022701 SIC Code: 9731 **FUNERAL HOMES** SIC Description: 95,96,97,98,99 Approval Years: PO Box No:

Order No: 23022400359

erisinfo.com | Environmental Risk Information Services

Country: Status:

DB Map Key Number of Direction/ Elev/Diff Site Records Distance (m) (m) Co Admin: Choice of Contact: Phone No Admin: Contaminated Facility: MHSW Facility: Detail(s) Waste Class: 312 Waste Class Name: PATHOLOGICAL WASTES 45 4 of 11 74.8 / 0.88 HULSE, PLAYFAIR & MCGARRY E/246.4 **GEN** 1200 OGILVIE ROAD **GLOUCESTER ON K1J 8V1** Generator No: ONF022701 SIC Code: 9731 SIC Description: **FUNERAL HOMES** Approval Years: 00,01 PO Box No: Country: Status: Co Admin: Choice of Contact: Phone No Admin: Contaminated Facility: MHSW Facility: Detail(s) Waste Class: 312 Waste Class Name: PATHOLOGICAL WASTES HULSE, PLAYFAIR & MCGARRY INC. 45 5 of 11 E/246.4 74.8 / 0.88 **GEN** 1200 OGILVIE ROAD **OTTAWA ON K1J 8V1** Generator No: ONF022701 SIC Code: SIC Description: Approval Years: 02,03,04,05,06,07,08 PO Box No: Country: Status: Co Admin: Choice of Contact: Phone No Admin: Contaminated Facility: MHSW Facility: Detail(s) Waste Class: 312 Waste Class Name: PATHOLOGICAL WASTES 45 6 of 11 E/246.4 74.8 / 0.88 HULSE, PLAYFAIR & MCGARRY INC. **GEN** 1200 OGILVIE ROAD **OTTAWA ON K1J 8V1** ONF022701 Generator No: SIC Code: 812210

DB Map Key Number of Direction/ Elev/Diff Site Records Distance (m) (m) Funeral Homes SIC Description: Approval Years: 2010 PO Box No: Country: Status: Co Admin: Choice of Contact: Phone No Admin: Contaminated Facility: MHSW Facility: Detail(s) Waste Class: 312 PATHOLOGICAL WASTES Waste Class Name: 45 7 of 11 E/246.4 74.8 / 0.88 HULSE, PLAYFAIR & MCGARRY INC. **GEN** 1200 OGILVIE ROAD **OTTAWA ON K1J 8V1** ONF022701 Generator No: SIC Code: 812210 **Funeral Homes** SIC Description: Approval Years: 2011 PO Box No: Country: Status: Co Admin: Choice of Contact: Phone No Admin: Contaminated Facility: MHSW Facility: Detail(s) Waste Class: 312 Waste Class Name: PATHOLOGICAL WASTES 8 of 11 HULSE, PLAYFAIR & MCGARRY INC. 45 E/246.4 74.8 / 0.88 **GEN** 1200 OGILVIE ROAD **OTTAWA ON K1J 8V1** ONF022701 Generator No: SIC Code: 812210 SIC Description: **Funeral Homes** Approval Years: 2012 PO Box No: Country: Status: Co Admin: Choice of Contact: Phone No Admin: Contaminated Facility: MHSW Facility: Detail(s) Waste Class: 312 Waste Class Name: PATHOLOGICAL WASTES

Мар Кеу	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>45</u>	9 of 11	E/246.4	74.8 / 0.88	Hulse, Playfair & McGarry 1200 Ogilvie Rd. Ottawa ON K1J 8V1	GEN
Generator N	o:	ON7369472			
SIC Code:	•	812210			
SIC Descript	tion:	812210			
Approval Ye		2016			
PO Box No:					
Country:		Canada			
Status:					
Co Admin:					
Choice of Co		CO_OFFICIAL			
Phone No A					
Contaminate	•	No			
MHSW Facil	ity:	No			
<u>Detail(s)</u>					
Waste Class	:	312			
Waste Class	Name:	PATHOLOGICAL V	VASTES		
Waste Class		252			
Waste Class	Name:	WASTE OILS & LU	BRICANTS		
<u>45</u>	10 of 11	E/246.4	74.8 / 0.88	Hulse, Playfair & McGarry 1200 Ogilvie Rd. Ottawa ON K1J 8V1	GEN
Generator N	o:	ON7369472			
SIC Code:					
SIC Descript		Ac of Dog 2019			
Approval Ye PO Box No:	ars:	As of Dec 2018			
		Canada			
Country: Status:		Registered			
Co Admin:		Registered			
Choice of Co	ontact:				
Phone No A					
Contaminate					
MHSW Facil					
<u>Detail(s)</u>					
		252 H			
Waste Class: Waste Class Name:		Waste crankcase o	ils and lubricants		
Wests Class		312 P			
Waste Class: Waste Class Name:		Pathological wastes	3		
<u>45</u>	11 of 11	E/246.4	74.8 / 0.88	Hulse, Playfair & McGarry 1200 Ogilvie Rd. Ottawa ON K1J 8V1	GEN
Generator N	· .	ON7369472		Guawa ON NIJ OV I	
SIC Code:	u.	ON1308412			
SIC Code.	tion:				
Approval Ye		As of Oct 2022			
PO Box No:					
Country:		Canada			
Status:		Registered			
Co Admin:					
Choice of Co	ontact:				

Map Key Number of Direction/ Elev/Diff Site DB

Phone No Admin: Contaminated Facility: MHSW Facility:

Detail(s)

Waste Class: 312 P

Records

Waste Class Name: PATHOLOGICAL WASTES

Waste Class: 252 H

Waste Class Name: WASTE OILS & LUBRICANTS

Distance (m)

46 1 of 1 N/248.8 74.9 / 1.00 Gignul Non Profit Housing Corporation

(m)

1043 Cummings Avenue Ottawa ON K1J 7R8 **GEN**

 Generator No:
 ON8012313

 SIC Code:
 531112

 SIC Description:
 531112

 Approval Years:
 2016

PO Box No:

Country: Canada

Status:

Co Admin: jim Smith
Choice of Contact: CO_ADMIN
Phone No Admin: 6137452444 Ext.241

Contaminated Facility: No MHSW Facility: No

Detail(s)

Waste Class: 251

Waste Class Name: OIL SKIMMINGS & SLUDGES

47 1 of 2 NNW/248.9 74.9 / 1.00 1043 CUMMINGS AVE WWIS

Flowing (Y/N):

Date Received:

Selected Flag:

Form Version:

Concession:

Contractor:

Owner:

County:

Lot:

Zone:

Data Entry Status:

Abandonment Rec:

Concession Name:

Easting NAD83:

Northing NAD83:

UTM Reliability:

10-Feb-2011 00:00:00

OTTAWA-CARLETON

Order No: 23022400359

TRUE

6964

7

Flow Rate:

Data Src:

Well ID: 7159001

Construction Date:

Use 1st: Test Hole Use 2nd:

Final Well Status: Test Hole

Water Type: Casing Material:

Audit No: Z127791 **Tag:** A108203

Constructn Method:
Elevation (m):

Elevatn Reliabilty: Depth to Bedrock: Well Depth:

Overburden/Bedrock: Pump Rate: Static Water Level: Clear/Cloudy:

Municipality: OTTAWA CITY

Site Info:

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/715\7159001.pdf

Additional Detail(s) (Map)

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

> Zone: East83:

North83:

Org CS:

UTMRC:

UTMRC Desc:

Location Method:

18

450467.00

5030826.00

margin of error: 10 - 30 m

Order No: 23022400359

UTM83

Well Completed Date: 2011/01/06 Year Completed: 2011 Depth (m): 4.77

Latitude: 45.4292011621791 Longitude: -75.6332148523521 715\7159001.pdf Path:

Bore Hole Information

Bore Hole ID: 1003472030 Elevation: DP2BR: Elevrc:

Spatial Status: Code OB: Code OB Desc: Open Hole: Cluster Kind: Date Completed: 06-Jan-2011 00:00:00

Remarks: Elevrc Desc:

Loc Method Desc: on Water Well Record

Location Source Date: Improvement Location Source: Improvement Location Method: Source Revision Comment:

Supplier Comment:

Overburden and Bedrock

Materials Interval

Formation ID: 1003768748

Layer:

Color: General Color:

Mat1: 02

Most Common Material: **TOPSOIL**

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 0.0

Formation End Depth: 0.07999999821186066

Formation End Depth UOM:

Overburden and Bedrock

Materials Interval

Formation ID: 1003768749

Layer: 6 Color:

BROWN General Color: Mat1: 28 SAND Most Common Material: 84 Mat2: Mat2 Desc: SILTY

Mat3: Mat3 Desc:

0.07999999821186066 Formation Top Depth: Formation End Depth: 1.4700000286102295

Formation End Depth UOM: m

Overburden and Bedrock

Materials Interval

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

Formation ID: 1003768750

 Layer:
 3

 Color:
 8

 General Color:
 BLACK

 Mat1:
 17

 Most Common Material:
 SHALE

 Mat2:
 26

 Mat2 Desc:
 ROCK

Mat3: Mat3 Desc:

 Formation Top Depth:
 1.470000286102295

 Formation End Depth:
 4.769999980926514

Formation End Depth UOM: m

Annular Space/Abandonment

Sealing Record

Plug ID: 1003768759

Layer: 1 0.0

Plug To: 2.1600000858306885

Plug Depth UOM:

Annular Space/Abandonment

Sealing Record

Plug ID: 1003768760

Layer:

 Plug From:
 2.1600000858306885

 Plug To:
 4.769999980926514

Plug Depth UOM: m

Method of Construction & Well

<u>Use</u>

Method Construction ID: 1003768757

Method Construction Code: 7

Method Construction: Diamond

Other Method Construction:

Pipe Information

Pipe ID: 1003768747

Casing No: 0

Comment: Alt Name:

Construction Record - Casing

Casing ID: 1003768754

Layer: 1
Material: 5
Open Hole or Material: PLASTIC

Depth From: 0.0

Depth To: 2.450000047683716

Casing Diameter: 3.5
Casing Diameter UOM: cm
Casing Depth UOM: m

Construction Record - Screen

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

Screen ID: 1003768755

Layer: 1 **Slot:** 10

 Screen Top Depth:
 2.450000047683716

 Screen End Depth:
 4.769999980926514

Screen Material: 5
Screen Depth UOM: m
Screen Diameter UOM: cm

Screen Diameter: 4.099999904632568

Water Details

Water ID: 1003768753

Layer: Kind Code: Kind:

Water Found Depth:

Water Found Depth UOM: m

Hole Diameter

Hole ID: 1003768751

 Diameter:
 7.5

 Depth From:
 0.0

 Depth To:
 1.5

 Hole Depth UOM:
 m

 Hole Diameter UOM:
 cm

Hole Diameter

 Hole ID:
 1003768752

 Diameter:
 5.69999809265137

Depth From: 1.5

Depth To: 4.769999980926514

Hole Depth UOM: m
Hole Diameter UOM: cm

Links

 Bore Hole ID:
 1003472030
 Tag No:
 A108203

 Depth M:
 4.77
 Contractor:
 6964

 Vear Completed:
 2011
 Path:
 715\7159001.pdf

 Well Completed Dt:
 2011/01/06
 Latitude:
 45.4292011621791

 Audit No:
 Z127791
 Longitude:
 -75.6332148523521

47 2 of 2 NNW/248.9 74.9 / 1.00 1043 CUMMINGS AVE OTTAWA ON WWIS

Well ID: 7163230 Flowing (Y/N):
Construction Date: Flow Rate:

e: Flow Rate: Data Entry Status:

Use 1st:
Use 2nd:
Data Entru
Use 2nd:
Data Src:

Final Well Status: Abandoned-Other Date Received: 18-May-2011 00:00:00
Water Type: Selected Flag: TRUE

Casing Material:
Abandonment Rec:
Yes
Audit No:
Z119818
Contractor:
1119

Tag: Form Version: 7
Constructn Method: Owner:

Elevation (m): County: OTTAWA-CARLETON

Elevatn Reliabilty: Lot:
Depth to Bedrock: Concession:

DB Map Key Number of Direction/ Elev/Diff Site

Records Distance (m) (m)

Well Depth: Concession Name: Overburden/Bedrock: Easting NAD83: Pump Rate: Northing NAD83: Static Water Level:

Zone:

UTM Reliability:

Order No: 23022400359

GLOUCESTER TOWNSHIP Municipality:

Site Info:

Clear/Cloudy:

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/716\7163230.pdf

Additional Detail(s) (Map)

2011/04/06 Well Completed Date: Year Completed: 2011

Depth (m):

Latitude: 45.4292011621791 -75.6332148523521 Longitude: Path: 716\7163230.pdf

Bore Hole Information

Bore Hole ID: 1003510532 Elevation: DP2BR: Elevrc:

Spatial Status: 18 Zone:

Code OB: East83: 450467.00 Code OB Desc: North83: 5030826.00 Open Hole: Org CS: UTM83 Cluster Kind: **UTMRC:**

Date Completed: 06-Apr-2011 00:00:00 UTMRC Desc: margin of error: 10 - 30 m

Remarks: Location Method: wwr Loc Method Desc: on Water Well Record

Elevrc Desc:

Location Source Date:

Improvement Location Source:

Improvement Location Method: Source Revision Comment: Supplier Comment:

Annular Space/Abandonment

Sealing Record

1003900062 Plug ID:

Layer: 0.0 Plug From: 4.0 Plug To: Plug Depth UOM: ft

Annular Space/Abandonment

Sealing Record

1003900063 Plug ID:

2 Layer: Plug From: 4.0 15.0 Plug To: Plug Depth UOM: ft

Method of Construction & Well

<u>Use</u>

Method Construction ID: 1003900061

Method Construction Code: Method Construction:

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

Other Method Construction:

Pipe Information

Pipe ID: 1003900055

Casing No: Comment:

Alt Name:

Construction Record - Casing

Casing ID: 1003900059

Layer:

Material:

Open Hole or Material:

Depth From: Depth To: Casing Diameter:

Casing Diameter UOM: inch Casing Depth UOM:

Construction Record - Screen

1003900060 Screen ID:

Layer: Slot:

Screen Top Depth: Screen End Depth: Screen Material: Screen Depth UOM:

ft Screen Diameter UOM: inch

Screen Diameter:

Water Details

Water ID: 1003900058

Layer: Kind Code: Kind:

Water Found Depth:

Water Found Depth UOM: ft

Hole Diameter

Hole ID: 1003900057

Diameter: Depth From: Depth To:

Hole Depth UOM: ft Hole Diameter UOM: inch

<u>Links</u>

Bore Hole ID: 1003510532 Tag No:

Depth M: Contractor: 1119

Year Completed: 2011 Path: 716\7163230.pdf 2011/04/06 45.4292011621791 Well Completed Dt: Latitude: Audit No: Z119818 Longitude: -75.6332148523521

Unplottable Summary

Total: 42 Unplottable sites

DB	Company Name/Site Name	Address	City	Postal
CA	CARL W. MADIGAN	CUMMINGS AVE.	GLOUCESTER CITY ON	
CA	CARL W. MADIGAN	CUMMINGS AVE.	GLOUCESTER CITY ON	
CA	EASTERN ONTARIO LAND TRUST INC.	OGILVIE RD.	GLOUCESTER CITY ON	
CA	CITY	CUMMINGS AVE.	GLOUCESTER CITY ON	
CA		Ogilvie Rd., Part of Rd. Allowance	Gloucester ON	
CA		Lot 25 & 26, Concession 1	Ottawa ON	
CA		Lot 25 & 26, Concession 1	Ottawa ON	
CA	GLOUCESTER CITY	CUMMINGS AVE	GLOUCESTER CITY ON	
CA	CARL W. MADIGAN	CUMMINGS AVE.	GLOUCESTER CITY ON	
CA	670669 ONTARIO LTD.	CUMMINGS AVE. NON PROFIT HOUS	GLOUCESTER CITY ON	
CA	BEAUFORT BUILDING INC.	E. S. OF CUMMINGS AVE.	GLOUCESTER CITY ON	
CA	EASTERN ONTARIO LAND TRUST INC.	OGILVIE RD.	GLOUCESTER CITY ON	
CA	CARL W. MADIGAN	CUMMINGS AVE.	GLOUCESTER CITY ON	
CA	Triangle Pump Service Limited	Mobile Unit	Ottawa ON	
CA	670669 ONTARIO LTD.	CUMMINGS AVE. NON PROFIT HOUSI	GLOUCESTER CITY ON	
CA	St. Joseph Print Shop	Part of Lots 25 and 26, Concession 2	Ottawa ON	
EBR	Triangle Pump Service Limited	Mobile Unit Ottawa CITY OF OTTAWA	ON	
ECA	Triangle Pump Service Limited	Mobile Unit	Ottawa ON	K1T 3V6

GEN	NATIONAL CAPITAL COMMISSION	LOT 25,26,27	OTTAWA ON	K1P 1C7
SPL	Eric Olmsted <unofficial></unofficial>	At Cummings Ave	Ottawa ON	
SPL	TEXACO	OTTAWA RIVER, OUTFALL AT END OF OGILVIE RD. BULK STATION	GLOUCESTER CITY ON	
SPL	Triangle Pump Service Limited		Ottawa ON	
SPL	BUS	OGILVIE RD. & OTHERS MOTOR VEHICLE (OPERATING FLUID)	GLOUCESTER CITY ON	
SPL	UNKNOWN	NORTH END OF OGILVIE RD. AT THE OTTAWA RIVER OUTFALL.	GLOUCESTER CITY ON	
WWIS		lot 27	ON	
wwis		con 1	ON	
WWIS		lot 27	ON	
WWIS		lot 25	ON	
WWIS		lot 25	ON	
wwis		lot 27	ON	
WWIS		con 1	ON	
wwis		lot 27	ON	
wwis		lot 25	ON	
wwis		lot 25	ON	
wwis		con 1	ON	
wwis		lot 26	ON	
wwis		lot 26	ON	
wwis		lot 26	ON	
wwis		lot 27	ON	
wwis		lot 27	ON	
wwis		lot 26	ON	

WWIS con 1 ON

Unplottable Report

Site: CARL W. MADIGAN

CUMMINGS AVE. GLOUCESTER CITY ON

Database:

Certificate #: 7-0081-88Application Year: 88
Issue Date: 2/9/1988
Approval Type: Municipal water
Status: Approved
Application Type:

Client Name: Client Address: Client City: Client Postal Code: Project Description: Contaminants: Emission Control:

Site: CARL W. MADIGAN

CUMMINGS AVE. GLOUCESTER CITY ON

Database:

Certificate #:7-0958-88-Application Year:88Issue Date:7/5/1988Approval Type:Municipal waterStatus:Approved

Status:
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:

Emission Control:

<u>Site:</u> EASTERN ONTARIO LAND TRUST INC. OGILVIE RD. GLOUCESTER CITY ON

Database:

Certificate #: 7-1485-88Application Year: 88
Issue Date: 9/13/1988
Approval Type: Municipal water
Status: Approved

Application Type: Client Name: Client Address: Client City: Client Postal Code: Project Description: Contaminants: Emission Control:

Site: CITY

CUMMINGS AVE. GLOUCESTER CITY ON

Database:

Order No: 23022400359

Certificate #: 3-0371-85-006

Application Year: 85

Issue Date: 5/2/85

Approval Type: Municipal sewage Status: Approved

Application Type: Client Name: Client Address: Client City: Client Postal Code: Project Description: Contaminants: Emission Control:

<u>Site:</u>
Ogilvie Rd., Part of Rd. Allowance Gloucester ON

Database:

Certificate #: 7032-4H8TJA

Application Year:00Issue Date:3/11/00

Approval Type: Municipal & Private sewage

Status: Approved

Application Type: New Certificate of Approval
Client Name: New Certificate of Approval
Anglican Church Of The Epiphany

Client Address: 24 Steel St.
Client City: Gloucester

Client Postal Code:

Project Description: Contaminants: Emission Control: Construction of sanitary sewers along Ogilvie Rd..

Site: Lot 25 & 26, Concession 1 Ottawa ON Database:

Certificate #: 6524-4QHTM6

 Application Year:
 00

 Issue Date:
 10/30/00

Approval Type: Municipal & Private sewage

Status: Approved

Application Type:New Certificate of ApprovalClient Name:1270449 Ontario Inc.Client Address:1187 Bank Street

Client City: Ottawa
Client Postal Code: K1S 3X7

Project Description: storm sewers construction on Saundres Ave; sanitary sewers construction on Pooler Ave, Orvigale Road, Porter

St.

Contaminants: Emission Control:

Site: Lot 25 & 26, Concession 1 Ottawa ON Database:

Order No: 23022400359

Certificate #: 3510-4QHTRG

Application Year:00Issue Date:10/30/00

Approval Type: Municipal & Private water

Status: Approved

Application Type:New Certificate of ApprovalClient Name:1270449 Ontario Inc.Client Address:1187 Bank Street

Client City: Ottawa
Client Postal Code: K1S 3X7

Project Description: watermain construction on pooler ave, orvigale road, porter st.

Contaminants: Emission Control: Site: GLOUCESTER CITY

CUMMINGS AVE GLOUCESTER CITY ON

Certificate #: 3-1611-86-

Application Year:86Issue Date:10/23/1986Approval Type:Municipal sewageStatus:Approved

Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:

Contaminants: Emission Control:

Site: CARL W. MADIGAN

CUMMINGS AVE. GLOUCESTER CITY ON

 Certificate #:
 3-1114-88

 Application Year:
 88

 Issue Date:
 7/5/1988

Approval Type: Municipal sewage Status: Approved

Status: Application Type: Client Name: Client Address: Client City: Client Postal Code:

Client Postal Code: Project Description: Contaminants: Emission Control:

Site: 670669 ONTARIO LTD.

CUMMINGS AVE. NON PROFIT HOUS GLOUCESTER CITY ON

Certificate #: 7-1300-87Application Year: 87
Issue Date: 9/4/1987
Approval Type: Municipal water
Status: Approved

Application Type: Client Name: Client Address: Client City: Client Postal Code: Project Description: Contaminants:

Emission Control:

Site: BEAUFORT BUILDING INC.

E. S. OF CUMMINGS AVE. GLOUCESTER CITY ON

 Certificate #:
 3-1989-88

 Application Year:
 88

 Issue Date:
 4/6/1989

Approval Type: Municipal sewage Status: Approved in 1989

Application Type: Client Name: Client Address: Client City: Client Postal Code: Database: CA

Database:

Database:

Database:

Project Description: Contaminants: **Emission Control:**

EASTERN ONTARIO LAND TRUST INC. Site: OGILVIE RD. GLOUCESTER CITY ON

3-1727-88-Certificate #: Application Year: 88 Issue Date: 9/13/1988 Municipal sewage Approval Type:

Status: Application Type: Client Name: Client Address: Client City: Client Postal Code: Project Description: Contaminants: **Emission Control:**

Site: CARL W. MADIGAN

CUMMINGS AVE. GLOUCESTER CITY ON

Approved

Certificate #: 3-0090-88-Application Year: 88 Issue Date: 2/9/1988 Approval Type: Municipal sewage Status: Approved

Application Type: Client Name: Client Address: Client City: Client Postal Code: Project Description: Contaminants: **Emission Control:**

Site: Triangle Pump Service Limited Mobile Unit Ottawa ON

7640-7H4H53 Certificate #: Application Year: 2008 9/26/2008 Issue Date:

Industrial Sewage Works Approval Type:

Status: Approved

Application Type: Client Name: Client Address: Client City: Client Postal Code: Project Description: Contaminants: **Emission Control:**

Site: 670669 ONTARIO LTD.

CUMMINGS AVE. NON PROFIT HOUSI GLOUCESTER CITY ON

3-1553-87-Certificate #: Application Year: 87 Issue Date: 9/4/1987 Approval Type: Municipal sewage Status: Approved

Database:

Database: CA

Database: CA

Database:

CA

Application Type: Client Name: Client Address: Client City: Client Postal Code: Project Description: Contaminants:

Emission Control:

Site: St. Joseph Print Shop

Part of Lots 25 and 26, Concession 2 Ottawa ON CA

Certificate #: 4747-52XKCD

Application Year: 01
Issue Date: 10/22/01

Approval Type: Industrial sewage

Status: Approved

Application Type:New Certificate of ApprovalClient Name:St. Joseph Print Group Inc.Client Address:50 Macintosh Boulevard

Client City: Concord Client Postal Code: L4K 4P3

Project Description: On-site stormwater storage provided by ponding on the roof, in parking and loading areas and in super-pipes below

the parking area. An orifice control will be used to control the release of stormwater from the whole site prior to entering the City's existing storm sewer system in Kenaston Road. Stormwater quality control will be provided through a Stormceptor STC9000 for the whole site area prior to release into the City's existing storm sewer system in Kenaston Road. The site will be serviced using existing watermain and sanitary sewer systems in Kenaston

Database:

Database: EBR

Database:

Road. Where possible grass swales will be used to provide erosion and sediment control.

Contaminants: Emission Control:

EBR Registry No:

<u>Site:</u> Triangle Pump Service Limited

Mobile Unit Ottawa CITY OF OTTAWA ON cistry No: 010-3624

Decision Posted:
T Exception Posted:

Ministry Ref No:0746-7EFKGTExceptionNotice Type:Instrument DecisionSection:

Notice Stage: Act 1:
Notice Date: October 20, 2008 Act 2:

Proposal Date: May 21, 2008 Site Location Map:

Year: 2008

Instrument Type: (OWRA s. 53(1)) - Approval for sewage works

Off Instrument Name:

Posted By:

Company Name: Triangle Pump Service Limited

Site Address: Location Other: Proponent Name:

Proponent Address: 2565 Delzotto Avenue, Gloucester Ontario, Canada K1T 3V6

Comment Period:

URL:

Site Location Details:

Mobile Unit Ottawa CITY OF OTTAWA

Site: Triangle Pump Service Limited

Mobile Unit Ottawa ON K1T 3V6

MOE District: City:

Longitude:

Latitude:

 Approval No:
 7640-7H4H53

 Approval Date:
 2008-09-26

 Status:
 Approved

 Record Type:
 ECA

 Link Source:
 IDS

Geometry X:

Order No: 23022400359

SWP Area Name: Geometry Y:

ECA-INDUSTRIAL SEWAGE WORKS Approval Type: INDUSTRIAL SEWAGE WORKS Project Type: Triangle Pump Service Limited **Business Name:**

Address: Mobile Unit

Full Address: Full PDF Link:

https://www.accessenvironment.ene.gov.on.ca/instruments/0746-7EFKGT-14.pdf

PDF Site Location:

NATIONAL CAPITAL COMMISSION Site: Database: LOT 25,26,27 OTTAWA ON K1P 1C7 GEN

Generator No: ON9920165 SIC Code: 712190

Other Heritage Institutions SIC Description:

Approval Years: 2010 PO Box No:

Country: Status: Co Admin: Choice of Contact:

Phone No Admin: Contaminated Facility: MHSW Facility:

Detail(s)

Waste Class: 221

LIGHT FUELS Waste Class Name:

Eric Olmsted<UNOFFICIAL> Site: Database: SPL At Cummings Ave Ottawa ON

Discharger Report:

Ref No: 3407-65HSEE

Site No: Material Group: Oil

Incident Dt: 10/6/2004 Health/Env Conseq: Year: Client Type:

Incident Cause: Sector Type: Other

Incident Event: Agency Involved: Contaminant Code: Nearest Watercourse:

ENGINE OIL Contaminant Name: Site Address:

Contaminant Limit 1: Site District Office: Ottawa

Contam Limit Freq 1: Site Postal Code: Contaminant UN No 1: Site Region:

Eastern **Environment Impact:** Not Anticipated Site Municipality: Ottawa Nature of Impact: Site Lot:

Receiving Medium: Land Site Conc: Receiving Env: Northing: MOE Response: Easting:

Dt MOE Arvl on Scn: Site Geo Ref Accu: 10/6/2004 MOE Reported Dt: Site Map Datum:

Dt Document Closed: SAC Action Class: Spill to Land

Incident Reason: Source Type:

1152-1160 OGILVIE RD<UNOFFICIAL> Site Name:

Site County/District: Municipality No: Site Geo Ref Meth:

Incident Summary: Unknown Source: Dumping to Vacant Plaza

Contaminant Qty: 75 L

Database: Site: OTTAWA RIVER, OUTFALL AT END OF OGILVIE RD. BULK STATION GLOUCESTER CITY ON

Order No: 23022400359

Ref No: 21520 Discharger Report: Site No: Material Group:

Incident Dt: 7/4/1989 Health/Env Conseq: Year: Client Type: Sector Type:

Incident Cause: WASTEWATER DISCHARGE TO

WATERCOURSE

WATER

Agency Involved: F.D., PUC, EPS, MCCR

Incident Event: Contaminant Code: Nearest Watercourse: Contaminant Name: Site Address: Contaminant Limit 1: Site District Office: Contam Limit Freg 1: Site Postal Code:

Site Region:

Site Municipality: **GLOUCESTER CITY Environment Impact:** Nature of Impact:

Site Lot: Site Conc: Northina:

Easting: Site Geo Ref Accu:

> Sector Type: Agency Involved:

Nearest Watercourse:

Land Spills

Order No: 23022400359

Dt MOE Arvl on Scn: MOE Reported Dt: 7/4/1989 Site Map Datum: **Dt Document Closed:** SAC Action Class: **UNKNOWN** Source Type: Incident Reason:

Site Name:

Site County/District:

Contaminant UN No 1:

Receiving Medium:

Receiving Env:

MOE Response:

Municipality No:

Site Geo Ref Meth:

Incident Summary: TEXACO - UNKNOWN AMOUNT OF GASOLINE TO OTTAWA RIVER FROM OUTFALL.

Contaminant Qty:

Site: Triangle Pump Service Limited Database: Ottawa ON SPL

0255-9VJS4B Ref No: Discharger Report: Site No: NA Material Group: Incident Dt: 4/13/2015 Health/Env Conseq: Client Type:

Year:

Incident Cause: Leak/Break Incident Event:

20105

Contaminant Code: 13

DIESEL FUEL Contaminant Name:

Site Address: Contaminant Limit 1: Site District Office: Site Postal Code: Contam Limit Freq 1: Contaminant UN No 1: Site Region:

Environment Impact: Site Municipality: Ottawa Nature of Impact: Land Site Lot:

Receiving Medium: Site Conc: Receiving Env: Northina: MOE Response: Ν Easting:

Dt MOE Arvl on Scn: Site Geo Ref Accu: **MOE** Reported Dt: 4/13/2015 Site Map Datum:

5/25/2015 Dt Document Closed: SAC Action Class:

Incident Reason: Unknown / N/A Source Type:

Site Name: 114 Preston Street<UNOFFICIAL>

Site County/District: Municipality No: Site Geo Ref Meth:

DUPLICATE REPORT - SEE 0738-9VJPN6 Incident Summary:

Contaminant Qty: 0 other - see incident description

Site: Database: OGILVIE RD. & OTHERS MOTOR VEHICLE (OPERATING FLUID) GLOUCESTER CITY ON

Ref No: 75056 Discharger Report:

Site No: Material Group: Incident Dt: 8/20/1992 Health/Env Conseq:

Year: Client Type: Incident Cause: **UNKNOWN** Sector Type:

WORKS Incident Event: Agency Involved:

Contaminant Code: Nearest Watercourse:

Contaminant Name: Site Address:

Site District Office: Contaminant Limit 1: Contam Limit Freg 1: Site Postal Code:

Contaminant UN No 1: Site Region:

NOT ANTICIPATED Site Municipality: **GLOUCESTER CITY** Environment Impact:

Nature of Impact: Site Lot: Site Conc: Receiving Medium: LAND Receiving Env: Northina: MOE Response:

Easting: Site Geo Ref Accu:

MOE Reported Dt: 8/21/1992 Site Map Datum: **Dt Document Closed:** SAC Action Class: Incident Reason: **UNKNOWN** Source Type:

Site Name:

Site County/District:

Dt MOE Arvl on Scn:

Municipality No: 20105

Site Geo Ref Meth:

Incident Summary: OTTAWA/CARLETON TRANSPORTATION - DIESEL FUEL TO ROADS FROM BUS.

Contaminant Qty:

UNKNOWN Site: Database: NORTH END OF OGILVIE RD. AT THE OTTAWA RIVER OUTFALL. GLOUCESTER CITY ON SPL

Ref No: 44105 Discharger Report:

Site No: Material Group: Incident Dt: 11/30/1990 Health/Env Conseq: Client Type: Year:

Incident Cause: **UNKNOWN** Sector Type:

CITY OF GLOUCESTER Incident Event: Agency Involved:

Contaminant Code: Nearest Watercourse: Contaminant Name: Site Address: Site District Office: Contaminant Limit 1: Contam Limit Freq 1: Site Postal Code: Contaminant UN No 1: Site Region:

POSSIBLE GLOUCESTER CITY Environment Impact: Site Municipality:

Nature of Impact: Water course or lake Site Lot: Receiving Medium: WATER Site Conc: Receiving Env: Northing:

MOE Response: Easting: Dt MOE Arvl on Scn:

Site Geo Ref Accu: MOE Reported Dt: 11/30/1990 Site Map Datum: Dt Document Closed: SAC Action Class: Incident Reason: **UNKNOWN** Source Type:

Site Name:

Site County/District:

Municipality No: 20105

Site Geo Ref Meth:

Incident Summary: OTTAWA RIVER OUTFALL - FUEL OIL SPILLING INTO RIVER. SOURCE UNKNOWN.

Contaminant Qty:

Site: Database: lot 27 ON

Order No: 23022400359

Well ID: 1520415 Flowing (Y/N):

Construction Date: Flow Rate: Domestic Data Entry Status: Use 1st:

Use 2nd: Data Src:

09-Jan-1986 00:00:00 Final Well Status: Water Supply Date Received: Water Type: Selected Flag: TRUE

Casing Material: Abandonment Rec: 3323 Audit No: Contractor: Tag: Form Version: 1

Constructn Method: Owner:

County: OTTAWA-CARLETON Elevation (m):

Elevatn Reliabilty: Lot: 027

Depth to Bedrock: Concession: Well Depth: Concession Name: Overburden/Bedrock: Easting NAD83:

Pump Rate:

Northing NAD83: Static Water Level: Zone: UTM Reliability: Clear/Cloudy:

Municipality: **GLOUCESTER TOWNSHIP**

Site Info:

Bore Hole Information

Bore Hole ID: 10042258 Elevation:

DP2BR: Elevrc: Spatial Status: 18 Zone:

Code OB: East83: Code OB Desc: North83: Open Hole: Org CS:

Cluster Kind: UTMRC:

Date Completed: 04-Oct-1984 00:00:00 UTMRC Desc: unknown UTM

Remarks: Location Method: na Loc Method Desc: Not Applicable i.e. no UTM

Elevrc Desc:

Location Source Date:

Improvement Location Source: Improvement Location Method: **Source Revision Comment:** Supplier Comment:

Overburden and Bedrock

Materials Interval

931044690 Formation ID: Layer:

Color: 2 **GREY** General Color: Mat1: 18

SANDSTONE Most Common Material:

73 Mat2: Mat2 Desc: HARD

Mat3: Mat3 Desc:

Formation Top Depth: 18.0 68.0 Formation End Depth: Formation End Depth UOM:

Overburden and Bedrock

Materials Interval

Formation ID: 931044689

Layer: Color: 6 **BROWN** General Color: Mat1: 28 Most Common Material: SAND Mat2: 77 Mat2 Desc: LOOSE

Mat3: Mat3 Desc:

Formation Top Depth: 0.0 18.0 Formation End Depth: Formation End Depth UOM:

Method of Construction & Well

<u>Use</u>

Method Construction ID: 961520415

Method Construction Code:

Method Construction: Air Percussion

Other Method Construction:

Pipe Information

Pipe ID: 10590828

Casing No:
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930073767

Layer: 1
Material: 1

Open Hole or Material: STEEL

Depth From:

Depth To:21.0Casing Diameter:6.0Casing Diameter UOM:inchCasing Depth UOM:ft

Results of Well Yield Testing

Pumping Test Method Desc:PUMPPump Test ID:991520415

Pump Set At:

Static Level:27.0Final Level After Pumping:60.0Recommended Pump Depth:50.0Pumping Rate:25.0

Flowing Rate:
Recommended Pump Rate: 10.0
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 1
Water State After Test: CLEAR
Pumping Test Method: 1

Pumping Test Method: 1
Pumping Duration HR: 1
Pumping Duration MIN: 0
Flowing: No

Draw Down & Recovery

 Pump Test Detail ID:
 934111908

 Test Type:
 Recovery

 Test Duration:
 15

 Test Level:
 27.0

 Test Level UOM:
 ft

Draw Down & Recovery

 Pump Test Detail ID:
 934648930

 Test Type:
 Recovery

 Test Duration:
 45

 Test Level:
 27.0

 Test Level UOM:
 ft

Draw Down & Recovery

 Pump Test Detail ID:
 934386772

 Test Type:
 Recovery

 Test Duration:
 30

 Test Level:
 27.0

 Test Level UOM:
 ft

Draw Down & Recovery

934905590 Pump Test Detail ID: Test Type: Recovery Test Duration: 60 27.0 Test Level: Test Level UOM: ft

Water Details

933477657 Water ID:

Layer: 1 Kind Code: **FRESH** Kind: Water Found Depth: 60.0 Water Found Depth UOM: ft

Site: Database: con 1 ON **WWIS**

1519865 Well ID: Flowing (Y/N):

Construction Date: Flow Rate:

Use 1st: Domestic Data Entry Status:

Use 2nd: Data Src:

Final Well Status: 16-Sep-1985 00:00:00 Water Supply Date Received: Water Type: Selected Flag: TRUE

Casing Material: Abandonment Rec: Audit No: Contractor: 1558

Form Version: Tag: 1 Constructn Method: Owner:

OTTAWA-CARLETON Elevation (m): County:

Elevatn Reliabilty: Lot:

Depth to Bedrock: Concession: Concession Name: RF Well Depth:

Easting NAD83: Overburden/Bedrock: Pump Rate: Northing NAD83:

Static Water Level: Zone: Clear/Cloudy: UTM Reliability:

GLOUCESTER TOWNSHIP Municipality: Site Info:

Bore Hole Information

Bore Hole ID: 10041718 Elevation: DP2BR: Elevrc:

Spatial Status: Zone: 18

Code OB: East83: Code OB Desc: North83: Open Hole: Org CS:

Cluster Kind: UTMRC: 9 Date Completed: 01-Aug-1985 00:00:00 UTMRC Desc: unknown UTM

Order No: 23022400359

Remarks: Location Method: na

Loc Method Desc: Not Applicable i.e. no UTM

Elevrc Desc: Location Source Date:

Improvement Location Source: Improvement Location Method: **Source Revision Comment:**

Supplier Comment:

Overburden and Bedrock

Materials Interval

Formation ID: 931042996 Layer: Color:

BROWN General Color:

Mat1: 05
Most Common Material: CLAY

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 0.0 Formation End Depth: 5.0 Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

 Formation ID:
 931042998

 Layer:
 3

 Color:
 2

 General Color:
 GREY

 Mat1:
 15

Most Common Material: LIMESTONE

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 60.0 Formation End Depth: 75.0 Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID: 931042997

Layer: 2 Color: General Color: **GREY** 05 Mat1: Most Common Material: CLAY Mat2: 81 Mat2 Desc: SANDY Mat3: 11 **GRAVEL** Mat3 Desc: Formation Top Depth: 5.0 60.0 Formation End Depth: Formation End Depth UOM: ft

Method of Construction & Well

<u>Use</u>

Method Construction ID:961519865Method Construction Code:5

Method Construction: Air Percussion

Other Method Construction:

Pipe Information

 Pipe ID:
 10590288

 Casing No:
 1

Comment: Alt Name:

Construction Record - Casing

 Casing ID:
 930072830

 Layer:
 1

 Material:
 1

Open Hole or Material: STEEL

Depth From:

Depth To:62.0Casing Diameter:6.0Casing Diameter UOM:inchCasing Depth UOM:ft

Construction Record - Casing

Casing ID: 930072831

Layer: 2 Material: 4

Open Hole or Material: OPEN HOLE

Depth From:
Depth To: 75.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pumping Test Method Desc:PUMPPump Test ID:991519865

Pump Set At:

Static Level:25.0Final Level After Pumping:30.0Recommended Pump Depth:50.0Pumping Rate:10.0

Flowing Rate:

Flowing:

Recommended Pump Rate: 5.0

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

Draw Down & Recovery

 Pump Test Detail ID:
 934895214

 Test Type:
 Draw Down

 Test Duration:
 60

 Test Level:
 30.0

 Test Level UOM:
 ft

No

Draw Down & Recovery

 Pump Test Detail ID:
 934109742

 Test Type:
 Draw Down

 Test Duration:
 15

 Test Level:
 30.0

 Test Level UOM:
 ft

Draw Down & Recovery

 Pump Test Detail ID:
 934384474

 Test Type:
 Draw Down

 Test Duration:
 30

 Test Level:
 30.0

 Test Level UOM:
 ft

Draw Down & Recovery

Pump Test Detail ID:934655014Test Type:Draw Down

45 Test Duration: 30.0 Test Level: Test Level UOM: ft

Water Details

933476954 Water ID:

Layer:

Kind Code:

Kind: **FRESH** Water Found Depth: 70.0 Water Found Depth UOM: ft

Site: Database: lot 27 ON

Well ID: 1518033 Flowing (Y/N):

Construction Date: Flow Rate:

Cooling And A/C Use 1st: Data Entry Status: Use 2nd: Data Src:

Final Well Status: Water Supply 13-Dec-1982 00:00:00 Date Received: Water Type: Selected Flag: TRUE

Casing Material: Abandonment Rec:

Audit No: Contractor: 1558 Tag: Form Version: 1 Constructn Method: Owner:

County: Elevation (m): OTTAWA-CARLETON

Elevatn Reliabilty: Lot: 027 Depth to Bedrock: Concession:

Concession Name: Well Depth: Overburden/Bedrock: Easting NAD83: Northing NAD83: Pump Rate:

Static Water Level: Zone:

Clear/Cloudy: UTM Reliability:

Municipality: **OTTAWA CITY** Site Info:

Bore Hole Information

10039904 Bore Hole ID: Elevation:

DP2BR: Elevrc: Spatial Status: Zone: 18

Code OB: East83: Code OB Desc: North83: Org CS: Open Hole:

Cluster Kind: UTMRC: UTMRC Desc: 29-Jan-1982 00:00:00 Date Completed:

unknown UTM Remarks: Location Method: na

Order No: 23022400359

Not Applicable i.e. no UTM Loc Method Desc:

Elevrc Desc:

Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment:

Supplier Comment:

Overburden and Bedrock **Materials Interval**

931037131 Formation ID:

Layer: Color: 2 General Color: **GREY** Mat1:

LIMESTONE Most Common Material:

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 27.0 Formation End Depth: 100.0 Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID: 931037130

 Layer:
 3

 Color:
 8

 General Color:
 BLACK

 Mat1:
 17

 Most Common Material:
 SHALE

 Mat2:
 85

 Mat2 Desc:
 SOFT

Mat3: Mat3 Desc:

Formation Top Depth: 15.0 Formation End Depth: 27.0 Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID: 931037128

Layer: 1 Color: 6

General Color: BROWN
Mat1: 05
Most Common Material: CLAY

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 0.0
Formation End Depth: 10.0
Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID: 931037129

 Layer:
 2

 Color:
 2

 General Color:
 GREY

 Mat1:
 05

 Most Common Material:
 CLAY

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 10.0 Formation End Depth: 15.0 Formation End Depth UOM: ft

Method of Construction & Well

<u>Use</u>

Method Construction ID: 961518033

Method Construction Code: 5

Method Construction: Air Percussion

Other Method Construction:

Pipe Information

 Pipe ID:
 10588474

 Casing No:
 1

Comment: Alt Name:

Construction Record - Casing

Casing ID: 930069713

Layer: 2 Material: 4

Open Hole or Material:

OPEN HOLE

Depth From:

Depth To: 100.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930069712

Layer: 1
Material: 1
Open Hole or Material: STEEL

Depth From:

Depth To:23.0Casing Diameter:6.0Casing Diameter UOM:inchCasing Depth UOM:ft

Results of Well Yield Testing

Pumping Test Method Desc:PUMPPump Test ID:991518033

Pump Set At:

Static Level: 15.0 Final Level After Pumping: 50.0 Recommended Pump Depth: 60.0 Pumping Rate: 10.0 Flowing Rate: Recommended Pump Rate: 5.0 Levels UOM: ft Rate UOM: **GPM** Water State After Test Code: Water State After Test: CLEAR Pumping Test Method: Pumping Duration HR: 1 Pumping Duration MIN: 0

Draw Down & Recovery

Flowing:

 Pump Test Detail ID:
 934377689

 Test Type:
 Draw Down

 Test Duration:
 30

 Test Level:
 50.0

 Test Level UOM:
 ft

No

Draw Down & Recovery

 Pump Test Detail ID:
 934896797

 Test Type:
 Draw Down

 Test Duration:
 60

 Test Level:
 50.0

 Test Level UOM:
 ft

Draw Down & Recovery

934103360 Pump Test Detail ID: Draw Down Test Type: Test Duration: 15 Test Level: 50.0 Test Level UOM:

Draw Down & Recovery

Water Found Depth UOM:

Pump Test Detail ID: 934647523 Test Type: Draw Down Test Duration: 45 50.0 Test Level: Test Level UOM: ft

Water Details

Water ID: 933474659 Layer: Kind Code: **FRESH** Kind: Water Found Depth: 97.0

Site: Database: lot 25 ON

18

Order No: 23022400359

Well ID: 1522184 Flowing (Y/N):

ft

Construction Date: Flow Rate: Use 1st: Domestic Data Entry Status:

Use 2nd: Data Src:

Final Well Status: Water Supply Date Received: 01-Feb-1988 00:00:00 Selected Flag: TRUE Water Type:

Casing Material: Abandonment Rec:

Audit No: 25073 Contractor: 1558 Form Version: Tag: 1

Constructn Method: Owner:

OTTAWA-CARLETON Elevation (m): County:

Elevatn Reliabilty: Lot: 025

Depth to Bedrock: Concession: Well Depth: Concession Name: Overburden/Bedrock: Easting NAD83: Pump Rate: Northing NAD83:

Static Water Level: Zone: Clear/Cloudy: UTM Reliability:

GLOUCESTER TOWNSHIP

Municipality: Site Info:

Bore Hole Information

Bore Hole ID: 10043997 Elevation:

DP2BR: Elevrc: Spatial Status: Zone:

Code OB: East83: Code OB Desc: North83: Open Hole: Org CS:

Cluster Kind: UTMRC: 9

08-Dec-1987 00:00:00 Date Completed: **UTMRC Desc:** unknown UTM

Remarks: Location Method: na

Loc Method Desc: Not Applicable i.e. no UTM

Elevrc Desc:

Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment:

Supplier Comment:

Overburden and Bedrock

Materials Interval

Formation ID: 931050500

 Layer:
 2

 Color:
 2

 General Color:
 GREY

 Mat1:
 05

 Most Common Material:
 CLAY

 Mat2:
 13

Mat2 Desc: BOULDERS

Mat3: Mat3 Desc:

Formation Top Depth: 14.0 Formation End Depth: 23.0 Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID: 931050501

 Layer:
 3

 Color:
 2

 General Color:
 GREY

 Mat1:
 15

Most Common Material: LIMESTONE

Mat2: 78

Mat2 Desc: MEDIUM-GRAINED

Mat3:

Mat3 Desc:

Formation Top Depth: 23.0 Formation End Depth: 60.0 Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID: 931050499

 Layer:
 1

 Color:
 6

 General Color:
 BROWN

 Mat1:
 05

 Most Common Material:
 CLAY

 Mat2:
 79

 Mat2 Desc:
 PACKED

Mat3:

Mat3 Desc:

Formation Top Depth: 0.0
Formation End Depth: 14.0
Formation End Depth UOM: ft

Method of Construction & Well

<u>Use</u>

Method Construction ID: 961522184

Method Construction Code: 5

Method Construction: Air Percussion

Other Method Construction:

Pipe Information

 Pipe ID:
 10592567

 Casing No:
 1

Comment:

Alt Name:

Construction Record - Casing

Casing ID: 930076928

Layer: 2 Material: 4

Open Hole or Material: OPEN HOLE

Depth From:

Depth To:60.0Casing Diameter:6.0Casing Diameter UOM:inchCasing Depth UOM:ft

Construction Record - Casing

Casing ID: 930076927

 Layer:
 1

 Material:
 1

 Open Hole or Material:
 STEEL

 Depth From:
 30.0

 Casing Diameter:
 6.0

 Casing Diameter UOM:
 inch

Results of Well Yield Testing

Casing Depth UOM:

Pumping Test Method Desc: PUMP Pump Test ID: 991522184

Pump Set At:

Static Level:15.0Final Level After Pumping:30.0Recommended Pump Depth:40.0Pumping Rate:20.0

Flowing Rate:

Recommended Pump Rate: 5.0 Levels UOM: **GPM** Rate UOM: Water State After Test Code: Water State After Test: **CLEAR** Pumping Test Method: 1 **Pumping Duration HR:** 1 **Pumping Duration MIN:** 0 Flowing: No

Draw Down & Recovery

 Pump Test Detail ID:
 934654534

 Test Type:
 Draw Down

 Test Duration:
 45

 Test Level:
 30.0

 Test Level UOM:
 ft

Draw Down & Recovery

 Pump Test Detail ID:
 934109298

 Test Type:
 Draw Down

 Test Duration:
 15

 Test Level:
 30.0

 Test Level UOM:
 ft

Draw Down & Recovery

Pump Test Detail ID: 934392983

Draw Down Test Type: Test Duration: 30.0 Test Level: Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934903366 Test Type: Draw Down Test Duration: 60 30.0 Test Level: Test Level UOM: ft

Water Details

933479978 Water ID:

Layer: Kind Code:

FRESH Kind: Water Found Depth: 55.0 Water Found Depth UOM: ft

Database: Site: **WWIS** lot 25 ON

TRUE

Order No: 23022400359

Well ID: 1523747 Flowing (Y/N): **Construction Date:** Flow Rate:

Use 1st: Industrial Data Entry Status: Use 2nd: Data Src:

04-Aug-1989 00:00:00 Final Well Status: Water Supply Date Received:

Water Type: Selected Flag:

Casing Material: Abandonment Rec: Audit No: 49862 Contractor:

3644 Tag: Form Version:

Constructn Method: Owner: OTTAWA-CARLETON Elevation (m): County:

Elevatn Reliabilty: Lot: 025 Depth to Bedrock: Concession:

Concession Name: Well Depth: Overburden/Bedrock: Easting NAD83: Pump Rate: Northing NAD83:

Static Water Level: Zone: Clear/Cloudy:

UTM Reliability:

Municipality: **OTTAWA CITY** Site Info:

Bore Hole Information

Bore Hole ID: 10045521 Elevation: DP2BR: Elevrc:

Spatial Status: Zone: 18 Code OB: East83:

Code OB Desc: North83: Open Hole: Org CS: Cluster Kind: UTMRC:

Date Completed: 12-Jun-1989 00:00:00 UTMRC Desc: unknown UTM

Remarks: Location Method: Loc Method Desc: Not Applicable i.e. no UTM

Elevrc Desc:

Location Source Date: Improvement Location Source:

Improvement Location Method: Source Revision Comment: Supplier Comment:

Overburden and Bedrock

Materials Interval

Formation ID: 931055593

 Layer:
 2

 Color:
 2

 General Color:
 GREY

 Mat1:
 15

Most Common Material: LIMESTONE

Mat2: 82 Mat2 Desc: SHALY

Mat3:

Mat3 Desc:

Formation Top Depth: 32.0
Formation End Depth: 250.0
Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID: 931055592

 Layer:
 1

 Color:
 2

 General Color:
 GREY

 Mat1:
 05

 Most Common Material:
 CLAY

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 0.0 Formation End Depth: 32.0 Formation End Depth UOM: ft

Method of Construction & Well

<u>Use</u>

Method Construction ID: 961523747

Method Construction Code: 5

Method Construction: Air Percussion

Other Method Construction:

Pipe Information

Pipe ID: 10594091

Casing No:

Comment: Alt Name:

Construction Record - Casing

Casing ID: 930079667

Layer: 1
Material: 1
Open Hole or Material: STEEL

Depth From:

Depth To: 36.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

 Casing ID:
 930079668

 Layer:
 2

Material: 4

Open Hole or Material: OPEN HOLE

Depth From:

Depth To: 250.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pumping Test Method Desc:PUMPPump Test ID:991523747

Pump Set At:
Static Level: 19.0
Final Level After Pumping: 100.0
Recommended Pump Depth: 100.0
Pumping Rate: 14.0
Flowing Rate:

Recommended Pump Rate: 14.0
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 2

Water State After Test: CLOUDY
Pumping Test Method: 1
Pumping Duration HR: 1
Pumping Duration MIN: 0
Flowing: No

Draw Down & Recovery

Pump Test Detail ID: 934908516

Test Type:

 Test Duration:
 60

 Test Level:
 100.0

 Test Level UOM:
 ft

Draw Down & Recovery

Pump Test Detail ID: 934106105

Test Type:

 Test Duration:
 15

 Test Level:
 100.0

 Test Level UOM:
 ft

Draw Down & Recovery

Pump Test Detail ID: 934651310

Test Type:

 Test Duration:
 45

 Test Level:
 100.0

 Test Level UOM:
 ft

Draw Down & Recovery

Pump Test Detail ID: 934390332

Test Type:

 Test Duration:
 30

 Test Level:
 100.0

 Test Level UOM:
 ft

Water Details

 Water ID:
 933482122

 Layer:
 1

 Kind Code:
 1

Kind: FRESH Water Found Depth: 60.0

Water Found Depth UOM: ft

Water Details

Water ID: 933482123

Layer: 2 Kind Code:

Kind: **FRESH** Water Found Depth: 225.0 Water Found Depth UOM:

Database: Site: lot 27 ON

Well ID: 1524742 Flowing (Y/N): **Construction Date:** Flow Rate:

Use 1st: **Domestic** Data Entry Status: Use 2nd: Data Src:

Final Well Status: Date Received: 17-Sep-1990 00:00:00 Water Supply

TRUE Water Type: Selected Flag:

Casing Material: Abandonment Rec: Audit No: 80312 Contractor: 1558

Form Version: Tag: Constructn Method: Owner:

County: OTTAWA-CARLETON Elevation (m): Elevatn Reliabilty: Lot: 027

Depth to Bedrock: Concession:

Well Depth: Concession Name: BF

Overburden/Bedrock: Easting NAD83: Pump Rate: Northing NAD83:

Static Water Level: Zone:

UTM Reliability: Clear/Cloudy:

Municipality: **GLOUCESTER TOWNSHIP** Site Info:

Bore Hole Information

10046490 Elevation: Bore Hole ID:

DP2BR: Elevrc: Spatial Status: Zone: 18 Code OB: East83:

Code OB Desc: North83: Open Hole: Org CS: Cluster Kind: **UTMRC:**

9 Date Completed: 19-Jul-1990 00:00:00 UTMRC Desc: unknown UTM

Remarks: Location Method:

Loc Method Desc: Not Applicable i.e. no UTM

Elevrc Desc: Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment:

Supplier Comment:

Overburden and Bedrock

Materials Interval

931058934 Formation ID:

Layer: Color: 2 General Color: **GREY** Mat1: 11 **GRAVEL** Most Common Material:

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

199

Formation Top Depth: 29.0 Formation End Depth: 31.0 Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID: 931058935

 Layer:
 5

 Color:
 2

 General Color:
 GREY

 Mat1:
 18

Most Common Material: SANDSTONE

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 31.0
Formation End Depth: 75.0
Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID: 931058932

Layer: 2 **Color:** 6

General Color: BROWN Mat1: 05
Most Common Material: CLAY

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 1.0
Formation End Depth: 11.0
Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID: 931058933

 Layer:
 3

 Color:
 2

 General Color:
 GREY

 Mat1:
 05

 Most Common Material:
 CLAY

 Mat2:
 13

Mat2 Desc: BOULDERS

Mat3:

Mat3 Desc:

Formation Top Depth: 11.0
Formation End Depth: 29.0
Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID: 931058931

Layer: 1 **Color:** 6

General Color: BROWN Mat1: 28
Most Common Material: SAND

Mat2: Mat2 Desc:

Mat3: Mat3 Desc:

Formation Top Depth: 0.0 Formation End Depth: 1.0 Formation End Depth UOM: ft

Method of Construction & Well

<u>Use</u>

Method Construction ID: 961524742

Method Construction Code:

Method Construction: Air Percussion

Other Method Construction:

Pipe Information

 Pipe ID:
 10595060

 Casing No:
 1

Comment: Alt Name:

Construction Record - Casing

Casing ID: 930081384

Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:

Depth To:32.0Casing Diameter:6.0Casing Diameter UOM:inchCasing Depth UOM:ft

Construction Record - Casing

Casing ID: 930081385

Layer: 2

Material: 4

Open Hole or Material: OPEN HOLE

Depth From:

Depth To:75.0Casing Diameter:6.0Casing Diameter UOM:inchCasing Depth UOM:ft

Results of Well Yield Testing

Pumping Test Method Desc: PUMP

Pump Test ID: 991524742

Pump Set At:

Static Level:10.0Final Level After Pumping:20.0Recommended Pump Depth:30.0Pumping Rate:50.0

Flowing Rate:

Recommended Pump Rate: 5.0
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: No

Draw Down & Recovery

934109929 Pump Test Detail ID: Draw Down Test Type: Test Duration: 15

20.0 Test Level: Test Level UOM: ft

Draw Down & Recovery

934654699 Pump Test Detail ID: Test Type: Draw Down

Test Duration: 45 20.0 Test Level: Test Level UOM:

Draw Down & Recovery

934385338 Pump Test Detail ID: Test Type: Draw Down Test Duration: 30 Test Level: 20.0 Test Level UOM: ft

Draw Down & Recovery

934903074 Pump Test Detail ID: Test Type: Draw Down Test Duration: 60 Test Level: 20.0 Test Level UOM: ft

Water Details

933483473 Water ID:

Layer: 2 Kind Code: 5

Not stated Kind:

Water Found Depth: 70.0 Water Found Depth UOM: ft

Water Details

Water ID: 933483472 1

Layer:

Kind Code: 5

Kind: Not stated Water Found Depth: 45.0 Water Found Depth UOM: ft

Database: Site: con 1 ON

Order No: 23022400359

Well ID: 1525673 Flowing (Y/N): **Construction Date:** Flow Rate:

Use 1st: Domestic Data Entry Status:

Use 2nd: Data Src:

Date Received: 21-Oct-1991 00:00:00 Final Well Status: Water Supply

Water Type: Selected Flag: TRUE

Casing Material: Abandonment Rec:

Audit No: 68558 3644 Contractor: Tag: Form Version: 1

Constructn Method: Owner: Elevation (m): County: OTTAWA-CARLETON

Elevatn Reliabilty: Lot: Depth to Bedrock: Well Depth:

Overburden/Bedrock:

Pump Rate: Static Water Level:

Clear/Cloudy:

Municipality: **GLOUCESTER TOWNSHIP**

Site Info:

Bore Hole ID: 10047408

DP2BR: Spatial Status: Code OB: Code OB Desc:

Bore Hole Information

Open Hole: Cluster Kind:

27-Feb-1991 00:00:00 Date Completed: Remarks:

Loc Method Desc: Not Applicable i.e. no UTM

Elevrc Desc:

Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment:

Supplier Comment:

Overburden and Bedrock

Materials Interval

931061986 Formation ID:

Layer: Color: 2 General Color: **GREY** Mat1: 15

Most Common Material: LIMESTONE

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

45.0 Formation Top Depth: Formation End Depth: 103.0 Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID: 931061985

Layer: 2 Color: **GREY** General Color: Mat1: 14 **HARDPAN** Most Common Material:

Mat2: Mat2 Desc: Mat3:

Mat3 Desc:

Formation Top Depth: 32.0 Formation End Depth: 45.0 Formation End Depth UOM:

Overburden and Bedrock

Materials Interval

Formation ID: 931061984 Concession: 01 Concession Name: RF

Easting NAD83: Northing NAD83:

Zone:

UTM Reliability:

Elevation:

Elevrc: 18 Zone:

East83: North83: Org CS:

UTMRC:

UTMRC Desc: unknown UTM

Location Method: na

12

STONES

 Layer:
 1

 Color:
 2

 General Color:
 GREY

 Mat1:
 05

 Most Common Material:
 CLAY

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 0.0 Formation End Depth: 32.0 Formation End Depth UOM: ft

Method of Construction & Well

<u>Use</u>

Method Construction ID: 961525673

Method Construction Code: 5

Method Construction: Air Percussion

Other Method Construction:

Pipe Information

 Pipe ID:
 10595978

 Casing No:
 1

Comment: Alt Name:

Construction Record - Casing

Casing ID: 930082984

Layer: 2 Material: 4

Open Hole or Material: OPEN HOLE

Depth From:

Depth To: 103.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930082983

Layer: 1
Material: 1
Open Hole or Material: STEEL

Donth From:

Depth From:

Depth To: 49.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pumping Test Method Desc: PUMP

Pump Test ID: 991525673

Pump Set At:

Static Level: 35.0
Final Level After Pumping: 55.0
Recommended Pump Depth: 55.0
Pumping Rate: 10.0
Flowing Rate:

Recommended Pump Rate:

Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 2

Order No: 23022400359

8.0

Water State After Test: CLOUDY
Pumping Test Method: 1

Pumping Duration HR: 1
Pumping Duration MIN: 0
Flowing: No

Draw Down & Recovery

Pump Test Detail ID: 934388707

Test Type:

 Test Duration:
 30

 Test Level:
 55.0

 Test Level UOM:
 ft

Draw Down & Recovery

Pump Test Detail ID: 934906425

Test Type:

 Test Duration:
 60

 Test Level:
 55.0

 Test Level UOM:
 ft

Draw Down & Recovery

Pump Test Detail ID: 934649245

Test Type:

 Test Duration:
 45

 Test Level:
 55.0

 Test Level UOM:
 ft

Draw Down & Recovery

Pump Test Detail ID: 934105048

Test Type:

 Test Duration:
 15

 Test Level:
 55.0

 Test Level UOM:
 ft

Water Details

Water ID: 933484725

Layer: 2 **Kind Code**: 1

Kind: FRESH
Water Found Depth: 98.0
Water Found Depth UOM: ft

Water Details

Water ID: 933484724

 Layer:
 1

 Kind Code:
 1

 Kind:
 FRESH

Water Found Depth: 70.0
Water Found Depth UOM: ft

Site:

lot 27 ON

Database:

WWIS

Order No: 23022400359

 Well ID:
 1525793
 Flowing (Y/N):

 Construction Date:
 Flow Rate:

 Use 1st:
 Domestic
 Data Entry Status:

Use 2nd: Data Src:

Final Well Status: Water Supply Date Received: 22-Nov-1991 00:00:00

Water Type:

Casing Material:
Audit No: 100112

Audit No: Tag:

Constructn Method: Elevation (m):

Elevation (III).
Elevatin Reliability:
Depth to Bedrock:

Well Depth:

Overburden/Bedrock: Pump Rate: Static Water Level: Clear/Cloudy:

Municipality: GLOUCESTER TOWNSHIP

Site Info:

Bore Hole Information

Bore Hole ID: 10047528

DP2BR: Spatial Status:

Code OB: Code OB Desc: Open Hole:

Cluster Kind:

Date Completed: 20-Aug-1991 00:00:00

Remarks:

Loc Method Desc: Not Applicable i.e. no UTM

Elevrc Desc:

Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment: Supplier Comment:

Overburden and Bedrock

Materials Interval

Formation ID: 931062302

 Layer:
 2

 Color:
 2

 General Color:
 GREY

 Mat1:
 05

 Most Common Material:
 CLAY

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 12.0 Formation End Depth: 40.0 Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID: 931062301

Layer: 1 Color: 6

General Color: BROWN Mat1: 05
Most Common Material: CLAY

Mat2: Mat2 Desc: Mat3:

Mat3 Desc:Formation Top Depth:0.0Formation End Depth:12.0

Selected Flag: TRUE

Abandonment Rec:
Contractor: 1558
Form Version: 1

Owner:

County: OTTAWA-CARLETON

Lot: 027

Concession:

Concession Name: BF

Easting NAD83: Northing NAD83:

Zone:

UTM Reliability:

Elevation:

Elevrc: Zone: 18

East83: North83: Org CS:

UTMRC: 9

UTMRC Desc: unknown UTM

Order No: 23022400359

Location Method: na

Formation End Depth UOM:

Overburden and Bedrock

Materials Interval

Formation ID: 931062304

ft

Layer: Color: 2 General Color: **GREY** Mat1: 28 Most Common Material: SAND Mat2: 11 Mat2 Desc: **GRAVEL** Mat3: 79 Mat3 Desc: **PACKED** Formation Top Depth: 73.0 77.0 Formation End Depth:

Overburden and Bedrock

Formation End Depth UOM:

Materials Interval

Formation ID: 931062303

 Layer:
 3

 Color:
 2

 General Color:
 GREY

 Mat1:
 28

 Most Common Material:
 SAND

 Mat2:
 12

 Mat2 Desc:
 STONES

 Mat3:

Mat3 Desc:

Formation Top Depth: 40.0 Formation End Depth: 73.0 Formation End Depth UOM: ft

Method of Construction & Well

<u>Use</u>

Method Construction ID: 961525793

Method Construction Code: 5

Method Construction: Air Percussion

Other Method Construction:

Pipe Information

Pipe ID: 10596098

Casing No:

Comment: Alt Name:

Construction Record - Casing

Casing ID: 930083198

Layer: 2
Material: 4

Open Hole or Material: OPEN HOLE

Depth From:
Depth To: 77.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930083197

Layer: 1
Material: 1

Open Hole or Material: STEEL

Depth From:

Depth To: 75.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pumping Test Method Desc:PUMPPump Test ID:991525793

Pump Set At:

Static Level:6.0Final Level After Pumping:10.0Recommended Pump Depth:20.0Pumping Rate:50.0

Flowing Rate:

Recommended Pump Rate: 5.0 Levels UOM: ft Rate UOM: **GPM** Water State After Test Code: 1 Water State After Test: **CLEAR** Pumping Test Method: Pumping Duration HR: 1 **Pumping Duration MIN:** 0 No Flowing:

Draw Down & Recovery

 Pump Test Detail ID:
 934906944

 Test Type:
 Draw Down

 Test Duration:
 60

 Test Level:
 10.0

 Test Level UOM:
 ft

Draw Down & Recovery

 Pump Test Detail ID:
 934649766

 Test Type:
 Draw Down

 Test Duration:
 45

 Test Level:
 10.0

 Test Level UOM:
 ft

Draw Down & Recovery

 Pump Test Detail ID:
 934105160

 Test Type:
 Draw Down

 Test Duration:
 15

 Test Level:
 10.0

 Test Level UOM:
 ft

Draw Down & Recovery

 Pump Test Detail ID:
 934389236

 Test Type:
 Draw Down

 Test Duration:
 30

 Test Level:
 10.0

 Test Level UOM:
 ft

Water Details

Water ID: 933484901

Layer: Kind Code: 5

Not stated Kind: Water Found Depth: 76.0 Water Found Depth UOM:

Site: Database: lot 25 ON

Flowing (Y/N):

TRUE

Order No: 23022400359

Well ID: 1528229

Construction Date: Flow Rate: Use 1st: **Domestic**

Data Entry Status: Use 2nd: Data Src:

21-Oct-1994 00:00:00 Final Well Status: Water Supply Date Received:

Water Type: Selected Flag:

Casing Material: Abandonment Rec: Audit No: 144848 1414 Contractor:

Form Version: Tag: Constructn Method: Owner:

Elevation (m): OTTAWA-CARLETON County: Elevatn Reliabilty: Lot: 025

Depth to Bedrock: Concession: Well Depth: Concession Name:

Overburden/Bedrock: Easting NAD83: Northing NAD83: Pump Rate:

Static Water Level: Zone: UTM Reliability: Clear/Cloudy:

Municipality: **GLOUCESTER TOWNSHIP** Site Info:

Bore Hole Information

Bore Hole ID: 10049768 Elevation:

DP2BR: Elevrc: Spatial Status: Zone: 18 Code OB: East83:

Code OB Desc: North83: Open Hole: Org CS: Cluster Kind: **UTMRC:**

Date Completed: 22-Sep-1994 00:00:00 **UTMRC Desc:** unknown UTM

Remarks: Location Method:

Loc Method Desc: Not Applicable i.e. no UTM

Elevrc Desc: Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment:

Supplier Comment:

Overburden and Bedrock

Materials Interval

931069009 Formation ID:

Layer: 2 Color: 2 General Color: **GREY** Mat1: 15

LIMESTONE Most Common Material:

Mat2: 17 Mat2 Desc: SHALE Mat3: 74 LAYERED Mat3 Desc: Formation Top Depth: 13.0 Formation End Depth: 100.0 Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID: 931069008

Layer: Color: 6 General Color: **BROWN** Mat1: 14

HARDPAN Most Common Material:

Mat2: 13

BOULDERS Mat2 Desc: Mat3: 73 Mat3 Desc: HARD Formation Top Depth: 0.0 Formation End Depth: 13.0 Formation End Depth UOM:

Annular Space/Abandonment

Sealing Record

Plug ID: 933113096

Layer: 0.0 Plug From: Plug To: 20.0 Plug Depth UOM: ft

Method of Construction & Well

<u>Use</u>

961528229 **Method Construction ID: Method Construction Code: Method Construction:** Rotary (Air)

Other Method Construction:

Pipe Information

10598338 Pipe ID: Casing No:

Comment: Alt Name:

Construction Record - Casing

Casing ID: 930086988

Layer: Material:

STEEL Open Hole or Material:

Depth From:

Depth To: 20.0 Casing Diameter: 6.0 Casing Diameter UOM: inch Casing Depth UOM:

Construction Record - Casing

930086989 Casing ID:

Layer:

Material:

Open Hole or Material:

Depth From:

100.0 Depth To: Casing Diameter: 6.0 Casing Diameter UOM: inch Casing Depth UOM: ft

Results of Well Yield Testing

BAILER Pumping Test Method Desc: Pump Test ID: 991528229

Pump Set At:

Static Level: 14.0 Final Level After Pumping: 100.0 Recommended Pump Depth: 90.0 Pumping Rate: 6.0

Flowing Rate:

Recommended Pump Rate: 4.0 Levels UOM: ft Rate UOM: **GPM** Water State After Test Code: 2 Water State After Test: CLOUDY Pumping Test Method:

Pumping Duration HR:

Pumping Duration MIN:

Flowing: No

Draw Down & Recovery

934387694 Pump Test Detail ID: Test Type: Draw Down Test Duration: 30 Test Level: 40.0 Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934905393 Test Type: Draw Down Test Duration: 60 Test Level: 14.0 Test Level UOM: ft

Draw Down & Recovery

934104069 Pump Test Detail ID: Test Type: Draw Down Test Duration: 15 Test Level: 50.0 Test Level UOM: ft

Draw Down & Recovery

934648209 Pump Test Detail ID: Draw Down Test Type:

Test Duration: 45 20.0 Test Level: Test Level UOM: ft

Water Details

Water ID: 933487838 Layer: 1

Kind Code: Kind: **FRESH** Water Found Depth: 30.0

Site:

Water Found Depth UOM:

Database: lot 25 ON

Order No: 23022400359

Well ID: 1528230 Flowing (Y/N): Construction Date: Flow Rate:

ft

Use 1st: Industrial

Use 2nd: Final Well Status: Water Supply

Water Type:

Casing Material:

Audit No: 149882

Tag:

Constructn Method: Elevation (m):

Elevatn Reliabilty: Depth to Bedrock:

Well Depth:

Overburden/Bedrock:

Pump Rate: Static Water Level:

Clear/Cloudy:

Municipality: **GLOUCESTER TOWNSHIP**

Site Info:

Bore Hole Information

Bore Hole ID: 10049769

DP2BR: Spatial Status: Code OB:

Code OB Desc: Open Hole: Cluster Kind:

13-Sep-1994 00:00:00 Date Completed:

Remarks:

Loc Method Desc: Not Applicable i.e. no UTM

Elevrc Desc:

Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment:

Supplier Comment:

Overburden and Bedrock

Materials Interval

931069011 Formation ID:

Layer: 2 Color: 2 General Color: **GREY** Mat1: 14 Most Common Material: **HARDPAN**

Mat2: 13

BOULDERS Mat2 Desc:

Mat3: 79 Mat3 Desc: **PACKED** Formation Top Depth: 2.0 Formation End Depth: 8.0 Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

931069012 Formation ID:

3 Layer: Color: **GREY** General Color: Mat1: 17 Most Common Material: SHALE Mat2: 74 Mat2 Desc: **LAYERED** Data Entry Status:

Data Src:

21-Oct-1994 00:00:00 Date Received:

Selected Flag: TRUE

Abandonment Rec:

Contractor: 1414 Form Version: 1

Owner:

County: **OTTAWA-CARLETON**

Lot:

Concession: Concession Name: Easting NAD83: Northing NAD83:

Zone:

UTM Reliability:

Elevation:

Elevrc: Zone: 18

East83: North83: Org CS:

UTMRC: 9

UTMRC Desc: unknown UTM

Order No: 23022400359

Location Method: na

80

Mat3:

Mat3 Desc: **POROUS** Formation Top Depth: 8.0 Formation End Depth: 11.0 Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID: 931069013

Layer: 2 Color: General Color: **GREY** Mat1: 17 Most Common Material: SHALE Mat2: 85 Mat2 Desc: SOFT

Mat3: Mat3 Desc:

Formation Top Depth: 11.0 Formation End Depth: 103.0 Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

931069010 Formation ID: Layer: Color: General Color: **GREY** Mat1: 12 **STONES** Most Common Material: Mat2: 79 Mat2 Desc: **PACKED** 73 Mat3: HARD Mat3 Desc: Formation Top Depth: 0.0 2.0 Formation End Depth:

ft

Annular Space/Abandonment

Formation End Depth UOM:

Sealing Record

933113097 Plug ID: Layer: Plug From: 0.0 Plug To: 20.0 Plug Depth UOM:

Method of Construction & Well

<u>Use</u>

Method Construction ID: 961528230

Method Construction Code:

Rotary (Air) **Method Construction:**

Other Method Construction:

Pipe Information

Pipe ID: 10598339

Casing No:

Comment: Alt Name:

Construction Record - Casing

Casing ID: 930086991

Layer: 2 Material: 4

Open Hole or Material: OPEN HOLE

Depth From:

Depth To: 103.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930086990

Layer: 1
Material: 1
Open Hole or Material: STEEL

Depth From:

Depth To:20.0Casing Diameter:6.0Casing Diameter UOM:inchCasing Depth UOM:ft

Results of Well Yield Testing

Pumping Test Method Desc:PUMPPump Test ID:991528230

Pump Set At:

Static Level: 14.0 Final Level After Pumping: 103.0 Recommended Pump Depth: 95.0 Pumping Rate: 5.0 Flowing Rate: Recommended Pump Rate: 4.0 Levels UOM: ft Rate UOM: **GPM** Water State After Test Code: Water State After Test: **CLEAR** Pumping Test Method: **Pumping Duration HR:** 1 Pumping Duration MIN:

Flowing: No

Draw Down & Recovery

 Pump Test Detail ID:
 934648210

 Test Type:
 Recovery

 Test Duration:
 45

 Test Level:
 20.0

 Test Level UOM:
 ft

Draw Down & Recovery

 Pump Test Detail ID:
 934104070

 Test Type:
 Recovery

 Test Duration:
 15

 Test Level:
 60.0

 Test Level UOM:
 ft

Draw Down & Recovery

 Pump Test Detail ID:
 934387695

 Test Type:
 Recovery

 Test Duration:
 30

 Test Level:
 40.0

 Test Level UOM:
 ft

Draw Down & Recovery

Pump Test Detail ID: 934905394 Recovery Test Type: Test Duration: 60 Test Level: 14.0 Test Level UOM:

Water Details

Water ID: 933487839

Layer: Kind Code: **FRESH** Kind: Water Found Depth: 25.0 Water Found Depth UOM:

Site: Database: con 1 ON **WWIS**

Well ID: 1529330

Construction Date:

Use 1st: Commerical

Use 2nd:

Abandoned-Other Final Well Status: Water Type:

Casing Material:

Audit No: 169507

Tag:

Constructn Method:

Elevation (m): Elevatn Reliabilty:

Depth to Bedrock:

Well Depth: Overburden/Bedrock:

Pump Rate: Static Water Level:

Clear/Cloudy:

Municipality: **GLOUCESTER TOWNSHIP**

Site Info:

Bore Hole Information

Bore Hole ID: 10050866

DP2BR: Spatial Status:

Code OB:

Code OB Desc: Open Hole: Cluster Kind:

Date Completed:

06-Dec-1996 00:00:00

Remarks:

Loc Method Desc: Not Applicable i.e. no UTM

Elevrc Desc:

Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment:

Supplier Comment:

Overburden and Bedrock

Materials Interval

Formation ID: 931072413

Layer:

Color:

Flowing (Y/N): Flow Rate:

Data Entry Status:

Data Src:

14-Feb-1997 00:00:00 Date Received:

Selected Flag: TRUE

Abandonment Rec:

Contractor: 6844 Form Version: 1

Owner:

County: OTTAWA-CARLETON

Lot:

Concession: Concession Name: OF

Easting NAD83: Northing NAD83: Zone:

UTM Reliability:

Elevation:

Elevrc:

Zone:

East83: North83: Org CS:

UTMRC: 9

UTMRC Desc: unknown UTM

18

Order No: 23022400359

Location Method: na General Color:

Mat1: 23

Most Common Material: PREVIOUSLY DUG

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 0.0 Formation End Depth: 17.0 Formation End Depth UOM: ft

Annular Space/Abandonment

Sealing Record

Plug ID: 933114303

 Layer:
 2

 Plug From:
 2.0

 Plug To:
 17.0

 Plug Depth UOM:
 ft

Annular Space/Abandonment

Sealing Record

 Plug ID:
 933114302

 Layer:
 1

 Plug From:
 0.0

 Plug To:
 2.0

 Plug Depth UOM:
 ft

Method of Construction & Well

<u>Use</u>

Method Construction ID:961529330Method Construction Code:AMethod Construction:Digging

Other Method Construction:

Pipe Information

Pipe ID: 10599436

Casing No:

Comment: Alt Name:

Construction Record - Casing

Casing ID: 930088795

Layer: 1
Material: 5
Open Hole or Material: PLASTIC

Depth From:

Depth To:17.0Casing Diameter:36.0Casing Diameter UOM:inchCasing Depth UOM:ft

Construction Record - Screen

Screen ID: 933326678

Layer:

Slot:

Screen Top Depth: Screen End Depth: Screen Material: Screen Depth UOM:

Screen Diameter UOM: inch 36.0 Screen Diameter:

Water Details

Water ID: 933489269

Layer: Kind Code: 5

Not stated Kind: Water Found Depth: 6.0 Water Found Depth UOM: ft

Database: Site: lot 26 ON **WWIS**

18

Order No: 23022400359

1529709 Flowing (Y/N): Well ID: Construction Date: Flow Rate: Use 1st: Domestic Data Entry Status:

Use 2nd: Data Src:

Final Well Status: Water Supply Date Received: 22-Dec-1997 00:00:00

TRUE Water Type: Selected Flag: Abandonment Rec:

Casing Material: Audit No: 182706 Contractor: 1558

Form Version: Tag: Constructn Method: Owner:

OTTAWA-CARLETON Elevation (m): County:

Elevatn Reliabilty: Lot: 026 Depth to Bedrock: Concession:

Well Depth: Concession Name: LI Overburden/Bedrock: Easting NAD83:

Pump Rate: Northing NAD83: Static Water Level: Zone:

Clear/Cloudy: UTM Reliability:

GLOUCESTER TOWNSHIP Municipality:

Site Info:

Bore Hole Information

Bore Hole ID: 10051244 Elevation: DP2BR: Elevrc:

Spatial Status: Zone: Code OB: East83: Code OB Desc: North83: Open Hole: Org CS:

Cluster Kind: UTMRC:

Date Completed: 11-Nov-1997 00:00:00 UTMRC Desc: unknown UTM

Remarks: Location Method: na Loc Method Desc:

Not Applicable i.e. no UTM

Elevrc Desc: Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment:

Supplier Comment:

Materials Interval

Overburden and Bedrock

931073580 Formation ID:

Layer: 3 Color: General Color: **GREY** Mat1: 14 Most Common Material: **HARDPAN** Mat2: 11 Mat2 Desc: **GRAVEL** Mat3: 79

Mat3 Desc:PACKEDFormation Top Depth:13.0Formation End Depth:16.0Formation End Depth UOM:ft

Overburden and Bedrock

Materials Interval

Formation ID: 931073582

Layer: 5 **Color:** 1

General Color: WHITE Mat1: 18

Most Common Material: SANDSTONE

Mat2: 73 Mat2 Desc: HARD

Mat3:

Mat3 Desc:

Formation Top Depth: 35.0 Formation End Depth: 75.0 Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID: 931073581

 Layer:
 4

 Color:
 2

 General Color:
 GREY

 Mat1:
 15

Most Common Material: LIMESTONE

Mat2: 73 Mat2 Desc: HARD

Mat3: Mat3 Desc:

Formation Top Depth: 16.0 Formation End Depth: 35.0 Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID: 931073578

 Layer:
 1

 Color:
 6

 General Color:
 BROWN

 Mat1:
 05

 Most Common Material:
 CLAY

 Mat2:
 79

 Mat2 Desc:
 PACKED

Mat3:

Mat3 Desc:

Formation Top Depth: 0.0 Formation End Depth: 4.0 Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID: 931073579

 Layer:
 2

 Color:
 6

 General Color:
 BROWN

 Mat1:
 14

 Most Common Material:
 HARDPAN

Mat2: 13

Mat2 Desc:BOULDERSMat3:79Mat3 Desc:PACKEDFormation Top Depth:4.0Formation End Depth:13.0Formation End Depth UOM:ft

Annular Space/Abandonment

Sealing Record

 Plug ID:
 933114772

 Layer:
 1

 Plug From:
 22.0

 Plug To:
 0.0

 Plug Depth UOM:
 ft

Method of Construction & Well

<u>Use</u>

Method Construction ID:961529709Method Construction Code:5

Method Construction: Air Percussion

Other Method Construction:

Pipe Information

 Pipe ID:
 10599814

 Casing No:
 1

Comment: Alt Name:

Construction Record - Casing

 Casing ID:
 930089441

 Laver:
 2

Layer: 2 Material: 4

Open Hole or Material: OPEN HOLE

Depth From:
Depth To: 75.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930089440

Layer: 1
Material: 1
Open Hole or Material: STEEL

Depth From:

Depth To:27.0Casing Diameter:6.0Casing Diameter UOM:inchCasing Depth UOM:ft

Results of Well Yield Testing

Pumping Test Method Desc:PUMPPump Test ID:991529709

Pump Set At:

Static Level:12.0Final Level After Pumping:35.0Recommended Pump Depth:35.0Pumping Rate:30.0

Flowing Rate:

Recommended Pump Rate: 5.0
Levels UOM: ft
Rate UOM: GPM

Water State After Test Code: Water State After Test:

Pumping Test Method:1Pumping Duration HR:1Pumping Duration MIN:0Flowing:No

Draw Down & Recovery

Pump Test Detail ID: 934660796

Test Type:

 Test Duration:
 45

 Test Level:
 12.0

 Test Level UOM:
 ft

Draw Down & Recovery

Pump Test Detail ID: 934909333

Test Type:

Test Duration: 60
Test Level: 12.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934391634

Test Type:

 Test Duration:
 30

 Test Level:
 12.0

 Test Level UOM:
 ft

Draw Down & Recovery

Pump Test Detail ID: 934116660

 Test Type:

 Test Duration:
 15

 Test Level:
 12.0

 Test Level UOM:
 ft

Water Details

Water ID: 933489740

Layer: 1 Kind Code: 5

Kind: Not stated

Water Found Depth:

Water Found Depth UOM: ft

Site:

lot 26 ON

Database:

WWIS

Order No: 23022400359

Well ID: 1530327 *Flowing (Y/N):*

Construction Date: Flow Rate:

Use 1st: Domestic Data Entry Status:

Use 2nd:

Data Src:

Final Well Status: Water Supply Date Received: 08-Dec-1998 00:00:00

Water Type: Selected Flag: TRUE

Casing Material:Abandonment Rec:Audit No:194764Contractor:1558

Audit No: 194764 Contractor: 155
Tag: Form Version: 1
Constructn Method: Owner:

Elevation (m): County: OTTAWA-CARLETON

Elevatn Reliabilty: Depth to Bedrock:

Well Depth: Overburden/Bedrock: Pump Rate:

Static Water Level:

Clear/Cloudy:

GLOUCESTER TOWNSHIP Municipality:

Site Info:

026 Lot: Concession: ΒF Concession Name: Easting NAD83: Northing NAD83:

Zone:

UTM Reliability:

Bore Hole Information

Bore Hole ID: 10051862 DP2BR:

Spatial Status: Code OB: Code OB Desc: Open Hole:

Cluster Kind:

Date Completed: 16-Oct-1998 00:00:00

Remarks:

Loc Method Desc: Not Applicable i.e. no UTM

Elevrc Desc:

Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment:

Supplier Comment:

Overburden and Bedrock

Materials Interval

Formation ID: 931075169

Layer: 6 Color: 2 General Color: **GREY** Mat1: 18

Most Common Material: SANDSTONE Mat2: 73 HARD

Mat2 Desc:

Mat3: Mat3 Desc:

Formation Top Depth: 71.0 Formation End Depth: 223.0 Formation End Depth UOM:

Overburden and Bedrock

Materials Interval

Formation ID: 931075164

Layer: Color: 6

General Color: **BROWN** Mat1: 05 Most Common Material: CLAY Mat2: **PACKED** Mat2 Desc:

Mat3: Mat3 Desc:

Formation Top Depth: 0.0 Formation End Depth: 11.0 Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Elevation:

Elevrc:

Zone: 18

East83: North83: Org CS:

UTMRC: 9

UTMRC Desc: unknown UTM

Order No: 23022400359

Location Method: na Formation ID: 931075168

Layer: 5 Color: 2 General Color: **GREY** Mat1: 15

LIMESTONE Most Common Material:

Mat2: 73 Mat2 Desc: HARD

Mat3:

Mat3 Desc:

Formation Top Depth: 57.0 Formation End Depth: 71.0 Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

931075165 Formation ID:

Layer: Color: General Color: **GREY** Mat1: 05 Most Common Material: CLAY Mat2: 86 Mat2 Desc: **STICKY**

Mat3: Mat3 Desc:

Formation Top Depth:

11.0 Formation End Depth: 32.0 Formation End Depth UOM:

Overburden and Bedrock

Materials Interval

Formation ID: 931075166

Layer: Color: 2 General Color: **GREY** Mat1: 14

Most Common Material: **HARDPAN** Mat2: 13

Mat2 Desc: **BOULDERS** Mat3: 79 PACKED Mat3 Desc: Formation Top Depth: 32.0 Formation End Depth: 53.0

ft

Formation End Depth UOM:

Overburden and Bedrock

Materials Interval

931075167 Formation ID:

Layer: 2 Color: General Color: **GREY** Mat1: 28 SAND Most Common Material: Mat2: 11 Mat2 Desc: **GRAVEL** 77 Mat3: Mat3 Desc: LOOSE Formation Top Depth: 53.0 Formation End Depth: 57.0 Formation End Depth UOM:

Annular Space/Abandonment

Sealing Record

933115461 Plug ID: Layer: 53.0 Plug From: 45.0 Plug To: Plug Depth UOM:

Method of Construction & Well

<u>Use</u>

Method Construction ID: 961530327

Method Construction Code:

Method Construction: Air Percussion

Other Method Construction:

Pipe Information

Pipe ID: 10600432 Casing No:

Comment: Alt Name:

Construction Record - Casing

Casing ID: 930090407

Layer: 2 Material:

OPEN HOLE Open Hole or Material:

Depth From: Depth To: 125.0 Casing Diameter: 6.0 Casing Diameter UOM: inch Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930090408

Layer: 3 Material:

OPEN HOLE Open Hole or Material:

Depth From:

Depth To: 175.0 Casing Diameter: 5.0 Casing Diameter UOM: inch Casing Depth UOM: ft

Construction Record - Casing

930090406 Casing ID:

Layer: Material: Open Hole or Material: STEEL

Depth From:

59.0 Depth To: Casing Diameter: 6.0 Casing Diameter UOM: inch Casing Depth UOM:

Results of Well Yield Testing

Pumping Test Method Desc: **PUMP** Pump Test ID: 991530327

Pump Set At:

Static Level: 21.0

Final Level After Pumping: 55.0 Recommended Pump Depth: 90.0 Pumping Rate: 6.0 Flowing Rate:

Recommended Pump Rate: 5.0 Levels UOM: ft Rate UOM: **GPM** Water State After Test Code: 2 CLOUDY Water State After Test:

Pumping Test Method: **Pumping Duration HR:** 1 Pumping Duration MIN: 0 Flowing: No

Draw Down & Recovery

934393315 Pump Test Detail ID: Test Type: Recovery Test Duration: 30 Test Level: 24.0 Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934662465 Test Type: Recovery Test Duration: 45 Test Level: 22.0 Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934911009 Test Type: Recovery Test Duration: 60 21.0 Test Level: Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934118327 Recovery Test Type: Test Duration: 15 Test Level: 26.0 Test Level UOM: ft

Water Details

933490420 Water ID: 2 Layer: Kind Code: **FRESH** Kind: Water Found Depth: 148.0

Water Details

Water Found Depth UOM:

Water ID: 933490419

Layer: Kind Code: **FRESH** Kind: 115.0

Water Found Depth: Water Found Depth UOM: ft

Order No: 23022400359

ft

Water Details

933490421 Water ID:

Layer: 3 Kind Code: **FRESH** Kind: Water Found Depth: 211.0 Water Found Depth UOM: ft

Site: Database: **WWIS** lot 26 ON

Well ID: 1530328 Flowing (Y/N):

Construction Date: Flow Rate:

Use 1st: Livestock Data Entry Status:

Use 2nd: Data Src:

Final Well Status: Abandoned-Quality Date Received: 08-Dec-1998 00:00:00 Water Type: Selected Flag: TRUE

Casing Material: Abandonment Rec:

Audit No: 194762 Contractor: 1558 Tag: Form Version: 1

Constructn Method: Owner:

Elevation (m): County: **OTTAWA-CARLETON**

Elevatn Reliabilty: 026 Lot:

Depth to Bedrock: Concession:

Well Depth: Concession Name: BF

Overburden/Bedrock: Easting NAD83: Pump Rate: Northing NAD83:

Static Water Level: Zone: UTM Reliability:

Municipality: **GLOUCESTER TOWNSHIP**

Site Info:

Bore Hole Information

Clear/Cloudy:

Bore Hole ID: 10051863 Elevation:

DP2BR: Elevrc: Spatial Status: Zone:

18 East83: Code OB:

Code OB Desc: North83: Open Hole: Org CS: Cluster Kind: UTMRC:

19-Oct-1998 00:00:00 UTMRC Desc: unknown UTM Date Completed:

Remarks: Location Method: na

Loc Method Desc: Not Applicable i.e. no UTM

Elevrc Desc:

Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment:

Supplier Comment:

Annular Space/Abandonment

Sealing Record

933115462 Plug ID: Layer:

Plug From: 36.0 Plug To: 0.0 Plug Depth UOM: ft

Method of Construction & Well

<u>Use</u>

Method Construction ID: 961530328

Method Construction Code: Method Construction:

Other Method Construction:

Pipe Information

Pipe ID: 10600433

Casing No: Comment: Alt Name:

<u>Site:</u> Database: WWIS WWIS

9

Order No: 23022400359

Well ID: 1532390 Flowing (Y/N):

Construction Date: Flow Rate: Use 1st: Data Entry Status:

Use 1st:

Use 2nd:

Data Entry Status.

Data Src:

Final Well Status: Abandoned-Other Date Received: 28-Nov-2001 00:00:00

Water Type: Selected Flag: TRUE Casing Material: Abandonment Rec:

Audit No: 230289 Contractor: 1558

Tag: Form Version: 1
Constructn Method: Owner:

Elevation (m): County: OTTAWA-CARLETON

Elevatn Reliabilty: Lot: 027

Depth to Bedrock: Concession:

Well Depth: Concession Name: BF

Overburden/Bedrock: Easting NAD83: Pump Rate: Rorthing NAD83:

Static Water Level: Zone: Clear/Cloudy: UTM Reliability:

Municipality: GLOUCESTER TOWNSHIP

Site Info:

Bore Hole Information

Bore Hole ID: 10516840 Elevation:

 DP2BR:
 Elevrc:

 Spatial Status:
 Zone:
 18

 Code OB:
 East83:

 Code OB Desc:
 North83:

Code OB Desc: North83:
Open Hole: Org CS:
Cluster Kind: UTMRC:

Date Completed: 17-Oct-2001 00:00:00 UTMRC Desc: unknown UTM

Remarks: Location Method: na

Loc Method Desc: Not Applicable i.e. no UTM

Elevrc Desc:

Location Source Date: Improvement Location Source:

Source Revision Comment: Supplier Comment:

Improvement Location Method:

Annular Space/Abandonment

Sealing Record

 Plug ID:
 933219833

 Layer:
 1

 Plug From:
 61.0

 Plug To:
 7.0

 Plug Depth UOM:
 ft

Method of Construction & Well

<u>Use</u>

Method Construction ID: 961532390

Method Construction Code: B

Other Method **Method Construction:**

Other Method Construction:

Pipe Information

Pipe ID: 11065410

Casing No: Comment: Alt Name:

Site: Database: lot 27 ON **WWIS**

Well ID: Flowing (Y/N): 1533744 Flow Rate: **Construction Date:**

Data Entry Status: Use 1st: Domestic

Use 2nd: Data Src: Final Well Status: Water Supply Date Received:

21-May-2003 00:00:00 TRUE Water Type: Selected Flag:

Casing Material: Abandonment Rec:

255805 6565 Audit No: Contractor: Form Version: Tag: 1

Constructn Method: Owner:

Elevation (m): County: **OTTAWA-CARLETON** Elevatn Reliabilty: Lot: 027

Depth to Bedrock: Concession:

Concession Name: BF Well Depth:

Overburden/Bedrock: Easting NAD83: Pump Rate: Northing NAD83:

Static Water Level: Zone: Clear/Cloudy: UTM Reliability:

Municipality: **GLOUCESTER TOWNSHIP**

Site Info:

Bore Hole Information

10537578 Bore Hole ID: Elevation:

DP2BR: Elevrc: Spatial Status: Zone: 18 Code OB: East83: Code OB Desc: North83: Open Hole: Org CS:

Cluster Kind: **UTMRC**:

Date Completed: 22-Feb-2003 00:00:00 UTMRC Desc: unknown UTM

Location Method: Remarks: na

Order No: 23022400359

Loc Method Desc: Not Applicable i.e. no UTM Elevrc Desc:

Location Source Date:

Improvement Location Source: Improvement Location Method: **Source Revision Comment:**

Supplier Comment:

Overburden and Bedrock

Materials Interval

Formation ID: 932905631 Layer: 2 Color: 2 General Color: **GREY** Mat1:

Most Common Material: LIMESTONE

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 54.0 Formation End Depth: 61.0 Formation End Depth UOM:

Overburden and Bedrock

Materials Interval

Formation ID: 932905632

Layer: Color: General Color: **GREY** 15 Mat1:

Most Common Material: LIMESTONE

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

61.0 Formation Top Depth: Formation End Depth: 105.0 Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

932905630 Formation ID: Layer: Color: 2 **GREY** General Color: Mat1: 05

CLAY Most Common Material: Mat2: 14

Mat2 Desc: **HARDPAN**

Mat3: Mat3 Desc:

0.0 Formation Top Depth: Formation End Depth: 54.0 Formation End Depth UOM: ft

Annular Space/Abandonment

Sealing Record

933236271 Plug ID: Layer: Plug From: 0.0 61.0 Plug To: Plug Depth UOM: ft

Method of Construction & Well

<u>Use</u>

Method Construction ID: 961533744

Method Construction Code:

Method Construction: Rotary (Air)

Other Method Construction:

Pipe Information

Pipe ID: 11086148

Casing No:

Comment: Alt Name:

Construction Record - Casing

930097537 Casing ID: Layer:

Material:1Open Hole or Material:STEELDepth From:61.0Casing Diameter:6.0Casing Diameter UOM:inch

Results of Well Yield Testing

Casing Depth UOM:

Pumping Test Method Desc:PUMPPump Test ID:991533744

ft

No

Pump Set At:

Static Level:14.0Final Level After Pumping:20.0Recommended Pump Depth:80.0Pumping Rate:35.0

Flowing Rate:

Flowing:

Recommended Pump Rate: 6.0
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 2
Water State After Test: CLOUDY
Pumping Test Method: 1
Pumping Duration HR: 1
Pumping Duration MIN: 0

Draw Down & Recovery

 Pump Test Detail ID:
 934396111

 Test Type:
 Recovery

 Test Duration:
 30

 Test Level:
 14.0

 Test Level UOM:
 ft

Draw Down & Recovery

 Pump Test Detail ID:
 934665391

 Test Type:
 Recovery

 Test Duration:
 45

 Test Level:
 14.0

 Test Level UOM:
 ft

Draw Down & Recovery

 Pump Test Detail ID:
 934913518

 Test Type:
 Recovery

 Test Duration:
 60

 Test Level:
 14.0

 Test Level UOM:
 ft

Draw Down & Recovery

 Pump Test Detail ID:
 934121258

 Test Type:
 Recovery

 Test Duration:
 15

 Test Level:
 14.0

 Test Level UOM:
 ft

Water Details

 Water ID:
 934031084

 Layer:
 1

 Kind Code:
 5

Kind: Not stated
Water Found Depth: 90.0
Water Found Depth UOM: ft

UTM Reliability:

Well ID: 1519599 Flowing (Y/N):
Construction Date: Flow Rate:

Use 1st: Domestic Data Entry Status:

 Use 2nd:
 Data Src:
 1

 Final Well Status:
 Water Supply
 Date Received:
 28-May-1985 00:00:00

Water Type: Selected Flag: TRUE

Casing Material: Abandonment Rec:

Audit No:Contractor:1558Tag:Form Version:1Constructn Method:Owner:

Constructn Method: Owner:
Elevation (m): County: OTTAWA-CARLETON

Elevation (Rin): Southly: Southly: O26

Depth to Bedrock:Concession:Well Depth:Concession Name:BF

Overburden/Bedrock: Easting NAD83: Pump Rate: Northing NAD83:

Static Water Level: Zone:

Clear/Cloudy:
Municipality: GLOUCESTER TOWNSHIP

Site Info:

Bore Hole Information

Bore Hole ID: 10041469 Elevation: DP2BR: Elevro:

 DP2BR:
 Elevrc:

 Spatial Status:
 Zone:
 18

 Code OB:
 East83:

 Code OB Desc:
 North83:

 Open Hole:
 Org CS:

 Cluster Kind:
 UTMRC:
 9

Date Completed: 14-May-1985 00:00:00 UTMRC Desc: unknown UTM

Remarks: Location Method: na

Loc Method Desc: Not Applicable i.e. no UTM

Elevrc Desc: Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment:

Supplier Comment:

Overburden and Bedrock

Materials Interval

Formation ID: 931042174

Layer: 3 Color: 6 **BROWN** General Color: Mat1: 28 Most Common Material: SAND Mat2: 11 Mat2 Desc: **GRAVEL** Mat3: 13 **BOULDERS** Mat3 Desc:

Mat3 Desc:BOULDERFormation Top Depth:40.0Formation End Depth:49.0Formation End Depth UOM:ft

Overburden and Bedrock

Materials Interval

Formation ID: 931042175

 Layer:
 4

 Color:
 2

 General Color:
 GREY

 Mat1:
 15

Most Common Material: LIMESTONE

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 49.0 Formation End Depth: 65.0 Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID: 931042172

Layer: 1
Color: 6

General Color: BROWN
Mat1: 05
Most Common Material: CLAY

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 0.0
Formation End Depth: 17.0
Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

 Formation ID:
 931042173

 Layer:
 2

 Color:
 2

 General Color:
 GREY

 Mat1:
 14

Most Common Material: HARDPAN
Mat2: 13
Mat2 Desc: BOULDERS

Mat3: Mat3 Desc:

Formation Top Depth: 17.0
Formation End Depth: 40.0
Formation End Depth UOM: ft

Method of Construction & Well

<u>Use</u>

Method Construction ID: 961519599

Method Construction Code:

Method Construction: Air Percussion

Other Method Construction:

Pipe Information

 Pipe ID:
 10590039

 Casing No:
 1

Comment: Alt Name:

Construction Record - Casing

Casing ID: 930072412

Layer: 2 Material: 4

Open Hole or Material: OPEN HOLE

Depth From:

Depth To: 65.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930072411

Layer: 1
Material: 1
Open Hole or Material: STEEL

Depth From:

Depth To: 51.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pumping Test Method Desc:PUMPPump Test ID:991519599

Pump Set At:

Static Level: 14.0 Final Level After Pumping: 20.0 30.0 Recommended Pump Depth: Pumping Rate: 20.0 Flowing Rate: 5.0 Recommended Pump Rate: Levels UOM: Rate UOM: **GPM** Water State After Test Code: **CLEAR** Water State After Test: Pumping Test Method: **Pumping Duration HR:** 0 **Pumping Duration MIN:** No Flowing:

Draw Down & Recovery

 Pump Test Detail ID:
 934653801

 Test Type:
 Draw Down

 Test Duration:
 45

 Test Level:
 20.0

 Test Level UOM:
 ft

Draw Down & Recovery

 Pump Test Detail ID:
 934108530

 Test Type:
 Draw Down

 Test Duration:
 15

 Test Level:
 20.0

 Test Level UOM:
 ft

Draw Down & Recovery

 Pump Test Detail ID:
 934383821

 Test Type:
 Draw Down

 Test Duration:
 30

 Test Level:
 20.0

 Test Level UOM:
 ft

Draw Down & Recovery

934894144 Pump Test Detail ID: Draw Down Test Type:

Test Duration: 60 20.0 Test Level: Test Level UOM: ft

Water Details

933476639 Water ID:

Layer: 1 Kind Code: **FRESH** Kind: Water Found Depth: 55.0 Water Found Depth UOM: ft

Site: Database: con 1 ON **WWIS**

18

Order No: 23022400359

1501587 Well ID: Flowing (Y/N):

Construction Date: Flow Rate:

Use 1st: Domestic Data Entry Status: Use 2nd: Data Src:

Final Well Status: 06-Jan-1947 00:00:00 Water Supply Date Received:

Water Type: Selected Flag: TRUE Casing Material: Abandonment Rec:

Audit No: Contractor: 3566 Form Version: Tag: 1 Constructn Method: Owner:

OTTAWA-CARLETON Elevation (m): County:

Elevatn Reliabilty: Lot:

Depth to Bedrock: Concession: Concession Name: OF Well Depth:

Overburden/Bedrock: Easting NAD83: Pump Rate: Northing NAD83: Static Water Level: Zone:

Clear/Cloudy: UTM Reliability:

Municipality: **GLOUCESTER TOWNSHIP**

Site Info:

Bore Hole Information

Bore Hole ID: 10023630 Elevation: DP2BR: Elevrc:

Spatial Status: Zone: Code OB: East83:

Code OB Desc: North83: Open Hole: Org CS: Cluster Kind: UTMRC:

9 Date Completed: 15-Nov-1946 00:00:00 UTMRC Desc: unknown UTM

Remarks: Location Method: Loc Method Desc: Not Applicable i.e. no UTM

Elevrc Desc:

Location Source Date:

Improvement Location Source: Improvement Location Method: **Source Revision Comment:**

Supplier Comment:

Overburden and Bedrock

Materials Interval

Formation ID: 930992251 Layer: Color: General Color: **GREY**

Mat1: 05 CLAY Most Common Material:

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

0.0 Formation Top Depth: Formation End Depth: 90.0 Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

930992252 Formation ID:

Layer:

Color:

General Color:

Mat1: 17 SHALE Most Common Material:

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

90.0 Formation Top Depth: Formation End Depth: 167.0 Formation End Depth UOM:

Method of Construction & Well

<u>Use</u>

Method Construction ID: 961501587 **Method Construction Code:**

Method Construction: Cable Tool

Other Method Construction:

Pipe Information

Pipe ID: 10572200 Casing No:

Comment: Alt Name:

Construction Record - Casing

Casing ID: 930040106 Layer: Material: Open Hole or Material: **STEEL** Depth From: 92.0 Depth To: Casing Diameter: 5.0

Casing Diameter UOM: inch Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930040107 Layer:

Material:

Open Hole or Material: OPEN HOLE

Depth From:

167.0 Depth To: Casing Diameter: 5.0 Casing Diameter UOM: inch Casing Depth UOM: ft

Results of Well Yield Testing

Pumping Test Method Desc: **PUMP** 991501587 Pump Test ID:

Pump Set At:

Static Level: 10.0 Final Level After Pumping: 30.0

Recommended Pump Depth:

30.0 Pumping Rate:

Flowing Rate:

Recommended Pump Rate: Levels UOM: ft Rate UOM: GPM Water State After Test Code: Water State After Test: **CLEAR**

Pumping Test Method: Pumping Duration HR: 2 Pumping Duration MIN: 0 Flowing: No

Water Details

Water ID: 933454305

Layer: 1 Kind Code:

FRESH Kind:

Water Found Depth:

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

AGR

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 Northern Development, Mines, Natural Resources and Forestry (ONDMNRF) maintains this database of 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 Oct 2022

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-Mar 2022

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

Aboveground Storage Tanks:

Provincial

AST

Historical listing of aboveground storage tanks made available by the Department of Natural Resources and Forestry. Includes tanks used to hold water or petroleum. This dataset has been retired as of September 25, 2014 and will no longer be updated.

Government Publication Date: May 31, 2014

Automobile Wrecking & Supplies:

Private

AUWR

Order No: 23022400359

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-May 31, 2022

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 2020

Commercial Fuel Oil Tanks:

Provincial CFOT

Locations of commercial underground fuel oil tanks. This is not a comprehensive or complete inventory of commercial fuel tanks in the province; this listing is a copy of records of registered commercial underground fuel oil tanks obtained under Access to Public Information.

Note that the following types of tanks do not require registration: waste oil tanks in apartments, office buildings, residences, etc.; aboveground gas or diesel tanks. Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2022

Chemical Manufacturers and Distributors:

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, 2020

<u>Chemical Register:</u> Private CHM

This database includes a listing of locations of facilities within the Province or Territory that either manufacture and/or distributes chemicals.

Government Publication Date: 1999-May 31, 2022

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 -Sep 2022

Inventory of Coal Gasification Plants and Coal Tar Sites:

Provincial

COAL

Order No: 23022400359

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-Nov 2022

Certificates of Property Use:

Provincial CPU

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include CPU's on the registry such as (EPA s. 168.6) - Certificate of Property Use.

Government Publication Date: 1994 - Jan 31, 2023

<u>Drill Hole Database:</u> 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 2022

Delisted Fuel Tanks:

Provincial DTNK

List of fuel storage tank sites that were once found in - and have since been removed from - the list of fuel storage tanks made available by the regulatory agency under Access to Public Information.

Government Publication Date: Feb 28, 2022

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- Dec 31, 2022

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 - Jan 31, 2023

Environmental Compliance Approval:

Provincial

FCA

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- Dec 31, 2022

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-Jul 31, 2022

Environmental Issues Inventory System:

Federal

EIIS

Order No: 23022400359

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 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: Apr 30, 2022

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, 2021

List of Expired Fuels Safety Facilities:

Provincial

EXP

List of facilities and tanks for which there was once a fuel registration. This is not a comprehensive or complete inventory of expired tanks/tank facilities in the province; this listing is a copy of previously registered tanks and facilities obtained under Access to Public Information. Includes private fuel outlets, bulk plants, fuel oil tanks, gasoline stations, marinas, propane filling stations, liquid fuel tanks, piping systems, etc; includes tanks which have been removed from the ground.

Notes: registration was not required for private fuel underground/aboveground storage tanks prior to January 1990, nor for furnace oil tanks prior to May 1, 2002; registration is not required for waste oil tanks in apartments, office buildings, residences, etc., or aboveground gas or diesel tanks. Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2022

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

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. Includes fire training sites and sites at which Per- and Polyfluoroalkyl Substances (PFAS) are a concern.

Government Publication Date: Jun 2000-Dec 2022

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 2019

Federal Identification Registry for Storage Tank Systems (FIRSTS):

Federal

FRST

Order No: 23022400359

A list of federally regulated Storage tanks from the Federal Identification Registry for Storage Tank Systems (FIRSTS). FIRSTS is Environment and Climate Change Canada's database of storage tank systems subject to the Storage Tank for Petroleum Products and Allied Petroleum Products Regulations. The main objective of the Regulations is to prevent soil and groundwater contamination from storage tank systems located on federal and aboriginal lands. Storage tank systems that do not have a valid identification number displayed in a readily visible location on or near the storage tank system may be refused product delivery.

Government Publication Date: May 31, 2018

Fuel Storage Tank: Provincial **FST**

List of registered private and retail fuel storage tanks. This is not a comprehensive or complete inventory of private and retail fuel storage tanks in the province; this listing is a copy of registered private and retail fuel storage tanks, obtained under Access to Public Information. Notes: registration was not required for private fuel underground/aboveground storage tanks prior to January 1990, nor for furnace oil tanks prior to May 1, 2002; registration is not required for waste oil tanks in apartments, office buildings, residences, etc., or aboveground gas or diesel tanks. Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2022

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-Oct 31, 2022

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 2019

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*

Fuel Oil Spills and Leaks:

Provincial

INC

Listing of spills and leaks of diesel, fuel oil, gasoline, natural gas, propane, and hydrogen reported to the Spills Action Centre (SAC). This is not a comprehensive or complete inventory of fuel-related leaks, spills, and incidents in the province; this listing in a copy of incidents reported to the SAC, obtained under Access to Public Information. Includes incidents from fuel-related hazards such as spills, fires, and explosions. Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2022

Landfill Inventory Management Ontario:

Provincial

LIMO

The Landfill Inventory Management Ontario (LIMO) database is updated every year, as the Ministry of the Environment, Conservation and Parks compiles new and updated information. Includes small and large landfills currently operating as well as those which are closed and historic. Operators of larger landfills provide landfill information for the previous operating year to the ministry for LIMO including: 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 include information such as site owner, site location and certificate of approval # and status.

Government Publication Date: Mar 21, 2022

Canadian Mine Locations:

Private

MINE

Order No: 23022400359

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-Feb 2022

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, 2021

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 Canada Energy Regulator (CER) - previously 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-Jun 30, 2021

National Energy Board Wells:

Federal

NEBP

Order No: 23022400359

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

Government Publication Date: 1920-Feb 2003*

National Environmental Emergencies System (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

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

Federal

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-Nov 30, 2022

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-Aug 2021

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 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 - Jan 31, 2023

<u>Canadian Pulp and Paper:</u> 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

Order No: 23022400359

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: Oct 2011- Dec 31, 2022

Provincial PINC Provincial PINC

List of pipeline incidents (strikes, leaks, spills). This is not a comprehensive or complete inventory of pipeline incidents in the province; this listing in an historical copy of records previously obtained under Access to Public Information. Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2021

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 PTTW's on the registry such as OWRA s. 34 - Permit to take water.

Government Publication Date: 1994 - Jan 31, 2023

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: 1986-1990, 1992-2019

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-Dec 2022

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-May 31, 2022

Scott's Manufacturing Directory:

Private

SCT

Order No: 23022400359

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

List of spills and incidents made available the Ministry of the Environment, Conservation and Parks. 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. The Ministry of the Environment, Conservation and Parks cites the coronavirus pandemic as an explanation for delays in releasing data pursuant to requests.

Government Publication Date: 1988-Sep 2020; Dec 2020-Mar 2021

Wastewater Discharger Registration Database:

Facilities that report either municipal treated wastewater effluent or industrial wastewater discharges under the Effluent Monitoring and Effluent Limits (EMEL) and Municipal/Industrial Strategy for Abatement Regulations. The Municipal/Industrial Strategy for Abatement (MISA) division of the Ontario Ministry of Environment keeps record of 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.

Government Publication Date: 1990-Dec 31, 2020

Private Anderson's Storage Tanks: **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 - Apr 2020

Variances for Abandonment of Underground Storage Tanks:

Provincial VAR

Provincial

SRDS

Listing of variances granted for storage tank abandonment. This is not a comprehensive or complete inventory of tank abandonment variances in the province; this listing is a copy of tank abandonment variance records previously obtained under Access to Public Information. In Ontario, registered 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.

Government Publication Date: Feb 28, 2022

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- Dec 31, 2022

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

Order No: 23022400359

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: Jun 30 2022

Definitions

<u>Database Descriptions:</u> This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

<u>Detail Report</u>: 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.

<u>Distance:</u> The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries. All values are an approximation.

<u>Direction</u>: The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

<u>Elevation</u>: 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.'

<u>Unplottables:</u> 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 3

QUALIFICATIONS OF ASSESSORS



Jeremy Camposarcone, B.Eng. Junior Environmental Engineer

Jeremy joined Paterson Group in 2020 as part of the Environmental Group. Jeremy received his Bachelor of Engineering in Environmental Engineering from Carleton University in 2019. Jeremy completed his studies while researching water treatment processes for the wastewater effluent of a hydrothermal carbonization reactor. His responsibilities as a field engineer have brought him to various projects throughout the Ottawa-Valley. In his time with Paterson, Jeremy has been involved with residential and commercial development within Ottawa and the surrounding area. His scope of work consists of environmental investigation and reporting, field inspection, field testing, quality control and quality assurance.

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EDUCATION

Bachelor of Engineering in Environmental Engineering, 2019 Carleton University Ottawa, Ontario

LICENCE/PROSSFEIONAL AFFILIATIONS

PEO Engineer in Training

YEARS OF EXPERIENCE

With Paterson: 2

OFFICE LOCATION

9 Auriga Drive, Ottawa, Ontario, K2E 7T9

SELECT LIST OF PROJECTS

- PSPC, Confederation Heights
 Redevelopment, Ottawa, ON Phase I and
 II ESA program for site redevelopment.
- Travelodge Hotel, Carling Avenue, Ottawa, ON – Remediation Program, Phase I and II ESA, Underground Storage Tank Pull and Remediation (Site Remediation Coordinator & Supervisor)
- Caivan Residential Development, Navan, ON - Large-Scale Remediation, Groundwater Monitoring, Phase I and II ESA, Remedial Action Plan (Site Remediation Coordinator & Supervisor)
- Rideau Centre Expansion, Ottawa, ON Phase I and II ESA, Soil Remediation Program
- Ottawa Trainyards, Ottawa, ON Large-Scale Remediation, Phase I and II ESA (Site Remediation Coordinator & Supervisor)
- Major Building, Downtown Ottawa, ON Phase I and II ESA



PROFESSIONAL EXPERIENCE

2019 to present, Junior Environmental Engineer, Paterson Group, Ottawa, Ontario

- Conduct Phase I and Phase II Environmental Site Assessments (ESAs), Soil and Groundwater Remediation Programs and the preparation of Records of Site Condition
- Manage excavation contractors to ensure soil quality control; daily reporting to project manager
- Present analytical test results, interpretations, assessments, recommendation and/or conclusion in a final technical report
- Oversee geotechnical investigations for test pitting on numerous proposed utility installations, residential and commercial developments.
- Conduct laboratory testing program of soils and water for detail recommendations
- Problem solving to complete analysis required
- Adapt to unforeseen on-site challenges and provide first-hand insights to help collaborate toward a solution
- Oversee large-scale remediation projects and monitor material being excavated
- Monitor and sample multiple groundwater wells with a high degree of precision regarding the quality and parameters of the sample
- On-site settlement plate surveying of future residential developments





Mark S. D'Arcy, P.Eng., QP_{ESA} Senior Environmental/Geotechnical Engineer

After receiving his Bachelors of Applied Science from Queen's University in 1991 in Geological Engineering, Mark joined Paterson Group Inc. During the first 10 years of Mark's career, he was heavily involved in all aspects of field work, including drilling boreholes, excavating test pits, conducting phase I site inspections, environmental sampling and analysis and inspection of environmental remediations. During Mark's field experience, he gained invaluable field and office experience, which would prepare Mark to become the Environmental Division Manager. Mark's field experience ranges from Phase I Environmental Site Assessments (ESAs) to on-site soil and groundwater remediations, as well as, environmental/geotechnical borehole investigations. Mark's field experience has provided extensive knowledge of subsurface conditions, contractor relations and project management. These skills would provide Mark with the ability to understand a variety of situations, which has lead Paterson to an extremely successful Environmental Department. Mark became the Environmental Manager in 2006, which consisted of two engineers and two field technicians. Mark has been an integral part in growing the Environmental Division, which now consists of nine engineers and three field technicians. Mark is the Senior Project Manager for a wide variety of environmental projects within the Eastern Ontario area including Phase I ESAs, Phase II ESAs, remediations for filing Records of Site Condition in the Ontario Ministry of the Environment and Climate Change (MOECC) Environmental Site Registry, Brownfield Applications and Landfill Monitoring Programs. As the Senior Project Manager, Mark is responsible for directing project personnel, final report review and overall project success. Mark has proven leadership and ability to manage small to large scale projects within the allotted time and budget.

EDUCATION

B.A.Sc. 1991, Geological Engineering Queen's University Kingston, ON

LICENCE / PROFESSIONAL AFFILIATIONS

Professional Engineers of Ontario

Ottawa Geotechnical Group

ESA Qualified Person with MECP

Consulting Engineers of Ontario

YEARS OF EXPERIENCE

With Paterson: 31

OFFICE LOCATION

9 Auriga Drive, Ottawa, Ontario, K2E 7T9

SELECT LIST OF PROJECTS

- 222 Beechwood Avenue, Ottawa, Ontario (Senior Project Manager for Phase I ESA, Phase II ESA, Environmental Remediation)
- 409 MacKay Street, Ottawa, Ontario (Senior Project Manager for Phase I ESA, Phase II ESA, Phase III ESA, Environmental Remediation)
- Art's Court Redevelopment, Ottawa, Ontario (Senior Project Manager for Phase I ESA, Phase II ESA, Phase III ESA, Environmental Remediation)
- Visitor Welcome Centre, Phase II and Phase III, Parliament Hill, Ottawa, Ontario (Senior Project Manager for Environmental Remediation)
- Mattawa Landfill, Mattawa, Ontario (Senior Project Manager, Annual Water Quality Monitoring report)
- Multi-Phase Redevelopment of the Ottawa Train Yards, Ottawa, Ontario (Senior Project Manager)
- Rideau Centre Expansion, Ottawa, Ontario (Senior Project Manager for Phase I ESA, Phase II ESA, Phase III ESA, Environmental Remediation)
- 26 Stanley Avenue, Ottawa, Ontario, Phase I ESA, Phase II ESA(Senior Project Manager)
- Riverview Development Kingston, Ontario, Phase I ESA, Phase II ESA, and filing of an RSC in the MOECC Environmental Site Registry (Senior Project Manager)
- Monitoring Landfills for River Valley, Kipling and Lavagine (Senior Project Manager)
- Energy Services Acquisition Program—Modernization Project- Ottawa;
 Environmental Services (Senior Project Manager)



PROFESSIONAL EXPERIENCE

May 2001 to present, Manager of Environmental Division, Paterson Group, Ottawa, Ontario

- Manage all aspects of the environmental division (management of personnel, budgeting, invoicing, scheduling, business development, reporting, marketing, and fieldwork).
- Review day to day operations within the environmental division.
- Design, perform, and lead Phase I, II and Phase III ESAs, Remediation's, Brownfield Applications and Record of Site conditions, fieldwork surveys, excavation, monitoring, laboratory analysis, and interpretation.
- Write, present, and publish reports with methodology and laboratory analysis results, along with recommendations for environmental findings.
- Responsible for ensuring projects meet Ministry of Environment and Climate Change Standards and Guidelines.
- Building and fostering relationships with clients, stakeholders, and Ministry officials.
- Supervise and continuous training of staff in environmental methods (environmental sampling techniques, technical expertise and guidance).
- Applied due diligence in ensuring the health and safety of staff and the public in field locations.

1991 to 2001, Geotechnical and Environmental Engineer, Paterson Group, Ottawa, Ontario

- Provide on-site geotechnical and environmental expertise to various clients.
- Oversee geotechnical and environmental investigations for drilling and test pitting on numerous proposed utility installations, residential and commercial developments.
- Problem solving to help advance or maintain project schedules.
- Complete environmental reports with recommendations to meet environmental standards set by MOE and CCME standards.
- Conduct site inspections, bearing medium evaluations, bearing surface inspections, concrete testing and field density testing.
- · Liaising with contractors, consultants and government officials.
- Provide cost estimates for geotechnical and environmental field programs and construction costs.
- Review RFI's, submittals, monthly progress reports and other various construction related work.

Appendix F Pre-consultation



Project Number: 160401787 A-17

Pre-application Consultation PC2023-0001 1184, 1188 and 1196 Cummings Avenue

Zoning By-law Amendment and Site Plan Control

Follow up Meeting Notes (revised), sent on 8 February 2023

Meeting Date: 13 January 2023 Location: Virtual meeting via Teams software

Attendees:

TCU Dev. Corp.

- -Dylan Desjardins, Vice President Operations
- -Brendan Kuffner, Assoc., Acquisition & Private Equity

Project 1 Studio -Ryan Koolwine

Fotenn Planning + Design

- -Tamara Nahal, Planner
- -Brian Casagrande, Partner
- -Timothy Beed, Senior Planner

City of Ottawa

ROW, Heritage and UD
-Moise Christopher, Urban Designer

Parks and Facilities Planning -Phil Castro, Parks Planner

Development Review

- -Alex Polyak, Project Manager
- -Michael Boughton, Senior Planner
- -Patrick McMahon, Transportation Eng.
- -Evode Rwagasore, Planner

Proposal summary

The proposal is in a form of a residential development that will consist of a six (6) storey apartment building. The three existing detached dwellings located on 1184, 1188 and 1196 Cummings Avenue will be demolished

The properties southern side lot line abuts local commercial - a gas station and car wash. The northern side lot line abuts a detached residential dwelling. The rear lot line abuts Ogilvie Court a Planned Unit Development made up of townhouses and apartment building. Across the street there is currently local commercial. The property has frontage on Cummings Avenue, a major collector road. Approximately 40 metres south of the property, Cummings Avenue intersects with Ogilvie Road, an arterial road.

As part of Planning review, we will evaluate the proposed development against the Ottawa Official Plan, Zoning By-law 2008-250, and other relevant guidelines.

<u>PLANNING COMMENTS</u> **Evode Rwagasore** - <u>Evode.Rwagasore@ottawa.ca</u>

Official Plan - The City's *Official Plan* (OP) designates the subject site "Mixed-Use Centre". The Mixed-Use Centre designation supports higher densities, and compact and mixed-use development oriented to rapid transit.

Secondary Plan - The property is in the planning area of the Tremblay, St. Laurent and Cyrville Secondary Plan, which provides direction on maximum building heights and minimum densities. According to Schedule C of the Secondary Plan- Cyrville Transit-Oriented Development – Maximum Building Heights – the maximum number of storeys is 6 storeys and the minimum density is 150 units per net hectare (residential) and/or 0.5 floor space index (non-residential). Based on the preliminary plan between 32 to 40 unites are proposed. At 32 units the density for the site is 229 dwelling units/hectare and at 40 units the density for the site is 287 dwelling unites/hectare.

Community Design Plan (CDP) - Transit-Oriented Development Plans are a form of CDP. The property is in the *Cyrville TOD plan*. All six TOD studies are included in one document entitled, Transit-Oriented Development (TOD) Plans – Lees, Hurdman, Tremblay, St. Laurent, Cyrville Blair. The study area boundaries for the Transit Oriented Development (TOD) Plans were established based on an approximate 10-minute (800 metre) walking distance from the transit stations. The CDPs build upon previous plans and complement other general design guidelines prepared by the City and which may be applied to the area. Where a CDP conflicts with previously adopted guidelines, the guidelines in the CDP shall prevail. All TOD Plans are within a Design Priority Area as defined in the *Official Plan*.

Guidelines - The City has adopted Transit-Oriented Development (TOD) Guidelines for use in the Mixed Use Centres to assist applicants in submitting well-designed, context-sensitive development applications.

Zoning - The site is currently zone Residential Third Density, Subzone Y, Urban Exception 708 (R3Y [708]). The Planning Rationale and proposed site plan will need to demonstrate compliance with the proposed Transit Oriented Development Subzone 1 (TD1) provisions. Buildings in the TD1 zone are to have a minimum density of 150 units per net hectare for residential or a minimum Floor Space Index (FSI) 0.5 for non-residential land use. Proponents are encouraged to provide higher than the minimum densities required in the applicable TOD zone to bolster transit supportability. Buildings in this Zone shall range in height from two storeys to six storeys, and will be comprised of one or more of stacked dwellings, townhouses, apartment dwellings, or mixed-use and commercial uses. New single and semi-detached dwellings are not permitted. The maximum building height in any area up to and including 15 metres from a property line abutting a R3 zone is 14.5 metres.

To move forward a Major Zoning Amendment Application is required, and this proposal will be treated through a Site Plan Control Application - New Complex requiring an agreement.

Application forms, timeline and fees can be found through <u>Development applications | City of Ottawa</u>

Planning Application Fees

Please note fees increase each year.

- 1. Zoning By-law Amendment: Major Zoning Amendment fee + Conservation Authority Fee
- 2. Site Plan Control Approval: New Complex + Initial Engineering Design Review and Inspection Fee, Ranges from \$1000 to \$10,000 dependent on value of hard and soft servicing + Conservation Authority Fee

Note 1: Additional Engineering Design Review and Inspection Fees of 4.5 % of the value of the hard servicing (road, sewers, watermains, sidewalks, curbs, stormwater, etc.) and 2.25 % of the soft servicing (landscaping, parking lot construction, etc.) are payable prior to the registration and should be forwarded to the Assigned Staff. The Engineering Design Review and Inspection Flat Rate Fee collected at submission will be credited to these fees. If the Site Plan process does not involve an agreement the Engineering Design Review and Inspection, Fee is required prior to Site Plan Approval.

Note 2: Each planning fee will be reduced by 10 % if two or more planning application are submitted at the same time and for the same lands. Conservation Authority, Engineering Design Review, Inspection fees and applications for Municipal Review and Concurrence of an Antenna System are not subject to this reduction.

Parkland Dedication

Any development application to which cash-in-lieu of parkland is applicable and for which an appraisal is required, will be subject to a fee for appraisal services as per the Parkland Dedication By-law.

ENGINEERING COMMENTS _ Alex Polyak - Alex.Polyak@ottawa.ca

Zoning By-Law Amendment

Confirm if existing services (storm, water, sanitary) are adequate to service the site.

Submission Documents:

- General Plan of Services
- Design Brief
- Geotechnical Report including a slope stability analysis

Services fronting the property:

- 250mm diameter AC Sanitary
- 600mm diameter concrete Storm
- 305mm diameter Ductile Iron Watermain

Some Engineering Design Criteria to consider under a site plan control process:

Design Criteria - Civil Engineer to contact Alex Polyak directly

Storm post to pre, C of .5 or existing (whichever is more restrictive), Pre tc 20; post tc 10

Onsite, 5-year pipe minimum and store up to 100-year on site.

No 2-year ponding onsite.

Permissible ponding of 350mm for 100-year.

No spilling to adjacent properties.

At 100-year ponding elevation you must spill to City ROW

100-year Spill elevation must be 300mm lower than any building opening

<u>Water Boundary condition</u> requests must include the location of the service and the expected loads required by the proposed development. Please provide the following information:

- Location of service connections (MAP)
- Type of development and the amount of fire flow required (as per FUS).
- Average daily demand: ____ l/s.
- Maximum daily demand: I/s.
- Maximum hourly daily demand: I/s

Asset Management

There is an existing constraint in the downstream existing sanitary sewer on St. Laurent under the 417.

TRANSPORTATION Patrick McMahon - Patrick.McMahon@ottawa.ca

- Follow Traffic Impact Assessment Guidelines
 - Start this process as soon as possible.
 - Applicant advised that their application will not be deemed complete until the submission of the draft step 1-4.
- Cummings has a right of way protection of 26m as per the Official Plan. The existing ROW is approximately 20m, therefore a widening of approximately 3m will be required along the site frontage. Show this widening on future plans. Cummings is also being evaluated for cycling facilities within the draft Transportation Master Plan. If funding for the City project and timing align, opportunities should be sought to coordinate construction efforts.
- Ensure that sufficient accessible parking spaces are provided as per AODA requirements.

Future site plan considerations:

- Access location further away from Ogilvie is preferred, however any queueing impacts can be assessed within the TIA to determine whether a northbound left-turn would be warranted.
- Clear throat requirements for 100-200 apartment units accessing from a collector road are 15m which is met as proposed.
- Given TOD status and cycling infrastructure nearby, meeting one bicycle parking space per unit is recommended as well as other TDM measures given then the site is at the edge of the TOD zone
- A noise study will be required due to proximity to Cummings and Ogilvie. Stationary noise may also need review if there is exposed mechanical equipment.
- Emsure that all previous accesses are removed and the sidewalk and curb are reinstated to full height.

FORESTRY Mark Richardson - Mark.Richardson@ottawa.ca

• A Tree Conservation Report is not mandatory but recommended at this stage; it will be required for Site Plan

<u>ENVIRONMENTAL PLANNING</u> <u>Sami Rehman - Sami.Rehman@ottawa.ca</u>

"I don't see any major environmental concerns with the proposed development on the subject property.

However, since this proposal is over 4-storeys, I would suggest they review and incorporate design elements from the City's Bird-safe Design Guidelines into their proposal. I would also encourage them to plan as many locally appropriate native trees and shrubs as they can to help reach our urban canopy target."

URBAN DESIGN Christopher Moise - Christopher.Moise@ottawa.ca

- The site is within a Design Priority Area and the proposal is subject to review by the City's Urban Design Review Panel prior to the application being deemed complete. Note this will be an Informal visit (prior to a full submission and is not a public meeting). Please contact udrp@ottawa.ca for details on submission requirements and scheduling.
- We recommend additional information to better understand the light well into the basement amenity space.
- We recommend a plan that illustrates the setback alignment with neighbouring properties to better understand the building placement in relation to the streetscape and surrounding existing and future development.
- We recommend investigating grade accessible units to the street if appropriate on one or both street frontages.
- We recommend tree planting in front of the buildings street facing facades.
- A scoped Design Brief is a required submittal (and separate from any UDRP submission) for all Site Plan/Re-zoning applications and can be combined with the Planning Rationale. Please see the Design Brief Terms of Reference provided for reference.
 - It is important to study the broader existing and future contexts.
 - It is important to explore and analyze alternative site planning and massing options.
 Alternative options explored and the analysis should be documented in the Design Brief.
 - A shadow study is required. Please refer to the Terms of Reference for the <u>shadow</u> analysis to conduct the study and evaluate the impacts.
 - Note. The Design Brief submittal should have a section which addresses these preconsultation comments.

SUBMISSION REQUIREMENTS

- Site Plan.
- Landscape Plan / Tree Conservation Report
- Planning Rationale (including Design Statement)
- Coloured Elevations
- Site Survey Plan
- Phase 1 ESA
- General Plan of Services
- Design Brief
- Geotechnical Report including a slope stability analysis
- USB stick (all submitted plans and reports in .pdf format).

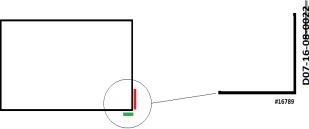
Other points to note:

- 1. Contact the Conservation Authority (RVCA) Office for their requirements
- 2. As a suggestion, if you have not already done so, please contact and brief the Ward Councillor on your proposed application.
- 3. Minimum drawing and file requirements All plans

Plans are to be submitted on standard **A1 size** (594mm x 841mm) sheets, utilizing an appropriate Metric scale (1:200, 1:250, 1:300, 1:400, or 1:500).

4. Please use the standard border (below)

A0.1 Place on all plans; DWG # and D07 # as per sample



Use Bold Black text:

Your Numbers are as per the colours listed here.

DWG XXXXX (place number on the bottom right)

D07 Number **D07-12-23-**

5. For information/question related to Development Charge, please contact AJ Mohmmand, Development Information Officer, Suburban East at <u>DIOCentrum@ottawa.ca</u> or 613-580-2424, ext. 29674

If you have any questions or require clarification with the above information, please contact me.

Sincerely,

Evode Rwagasore