



April 14, 2025

PH4905-LET.02.REV.01.

Ottawa Sivan Temple
2104 Roger Stevens Drive
Ottawa, Ontario
K0A 2T0

Attention: **Kula Sellathurai**

Subject: **Hydrogeological Assessment and Terrain Analysis**
Proposed Temple Redevelopment
2104 Roger Stevens Drive Ottawa, Ontario

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Geotechnical Engineering
Environmental Engineering
Hydrogeology
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INTRODUCTION

Further to your request, Paterson Group (Paterson) has conducted a Hydrogeological Assessment and Terrain Analysis in support of a Site Plan Control Application for the proposed redevelopment of the temple located at 2104 Roger Stevens Drive in Ottawa, Ontario. Please refer to the Key Plan (attached) for the approximate site location. The subject site refers to the parcel at 2104 Roger Steven Drive.

The purpose of this work has been to determine the suitability of the water supply aquifer underlying the site to support the Site Plan Application for the proposed redevelopment.

The proposed Site Plan Application is for the construction of a new temple and priest residence that is replacing the currently existing temple. Details of the proposed temple redevelopment can be found in the attached P² Concepts drawing SP01 - Site Plan – dated October 4, 2024.

The Subject Site consists of a 2.04 hectares (ha) lot and is currently occupied by the existing temple with associated private infrastructure. The ground surface is generally flat at the location of the temple and is sloped to the south behind the temple and towards the rear of the property. The surficial groundwater flow is anticipated to be towards the southeast, while general groundwater flow is anticipated to be to the east towards an unnamed tributary which eventually drains into Stevens Creek.



The Subject Site is situated in a rural area which is serviced by private water supplies and private on-site septic fields. The site is bordered to the north by Roger Stevens Drive, followed by a residential dwelling and agricultural land, to the west by residential dwellings, and to the south and east by agricultural land.

Description of Subject Site

The subject site is approximately 2.04 ha in size and is currently occupied by a one-storey commercial building; Ottawa Sivan Temple. The Site Plan application is for a proposed redevelopment. The proposed redevelopment includes the construction of a new temple and a priest residence. Please refer to Figure-1 Key Plan and Site Plan Drawing SP01.REV.05, dated October 4, 2024 by P²Concepts, attached, for the proposed site location and site layout.

The subject site is currently serviced by an onsite sewage system and a private drilled well. A new drilled well was installed onsite to support the redevelopment. A new sewage system is proposed to be located on the western side, behind the priest residence. D.B Gray Engineering Inc. (hereby referred to as DBG Engineering) has designed a new sewage system due to the nitrate reduction required as part of the Nitrate Impact Assessment (NIA). A septic flow calculation was completed by DBG Engineering and resulted in a total daily water demand calculation of 7,250 L/day. Please refer to DBG Engineering Sewage System design, attached, for full details.

The existing well is currently servicing the existing building, however, a new drilled well, hereafter referred to as Test Well 1 (TW1) was installed on September 9, 2024 and is intended to service the proposed temple and priest residence following the completion of the proposed redevelopment. The existing well will be decommissioned in accordance with O.Reg.903 once it is no longer required.

The suitability of the aquifer to supply the subject site was assessed using the methodology provided in City of Ottawa Hydrogeological and Terrain Analysis Guidelines (HTAG).

Karst Mapping

Available Karst mapping (OGS GRS005) was reviewed as part of this assessment. The available mapping does not indicate the presence of any inferred or potential karstic features. Furthermore, no indication of karstic features were observed during the site visits completed by Paterson personnel.

Mississippi-Rideau Source Protection Plan

The Mississippi-Rideau Source Protection Plan (MRSP) provides guidance as to which policies apply to a given property, municipality or specific activity and if there are specific designations that apply to the area. The subject site has not been designated as any of the four groundwater related vulnerable areas identified within the Clean Water Act



(2006). The four vulnerable areas consist of Significant Groundwater Recharge Area (SGRA), Highly Vulnerable Aquifer (HVA), Intake Protection Zone (IPZ) and Wellhead Protection Area (WHPA).

As the subject site has not been designated as any of the four groundwater related vulnerable areas, there is no prohibition of land uses on the subject site based upon its existing or proposed usage.

HYDROGEOLOGICAL ASSESSMENT

The purpose of this work has been to determine the suitability of the water supply aquifer underlying the site to support the Site Plan Application for the proposed temple redevelopment for potable supply usage. Specifically, the intent of this report is to review the availability of a safe and reliable water supply having sufficient quantity and quality to provide potable water for the proposed redevelopment.

Fieldwork Program

Geotechnical Program

A geotechnical investigation was carried out on September 19, 2023, and consisted of a total of 3 boreholes excavated to a maximum depth of 6.7 m below ground surface (bgs). Practical refusal to DCPT was encountered at a depth of 10.8 m bgs in BH3-23. The boreholes were distributed in a manner to provide general coverage of the proposed redevelopment, taking into account underground utilities and site features. The locations of the boreholes are shown on Drawing PG6832-1 – Test Hole Location Plan (attached). The geotechnical analysis is completed under report no. PG6832-1.Revision 2, dated October 15, 2024.

Well Testing

As a means to demonstrate the adequacy of the aquifer underlying the subject lands, with respect to water quality and quantity, the newly drilled well (TW1) on the subject site was tested. TW1 has a Water Well Record (WWR) Well ID of A395525. TW1 has a 158.7 mm diameter steel casing that extends to 17.67 m below ground surface (bgs) with a 0.62 m stick up. The well itself extends to a depth of 54.9 m bgs. Based on available geological mapping, the drift thickness at TW1 varies from 15 to 25 m. According to the Water Well Record (WWR) for the newly drilled well, the overburden generally consists of sand and gravel, boulders, clay and hardpan to a depth of 15.84 m, where limestone bedrock was encountered. Refer to P²Concepts - Site Plan Drawing-SP01.REV.05 (Oct 4, 2024), attached, for the approximate location of TW1.

As a means to evaluate the water supply aquifer intercepted by the well, the well was subjected to an 8-hour constant rate pumping test. The pumping test was conducted on September 24, 2024 under the full-time supervision of Paterson personnel. Prior to the



pumping test the well was disinfected as per the MECP Disinfection Instruction Sheet (attached), and a data-logger was installed to monitor the background groundwater levels.

The submersible pump was rented from and installed by a licensed well technician (Air Rock Drilling Inc.) and used for the 8-hour pumping test. A licensed water well technician (Air Rock) completed the necessary plumbing related activities. The discharge line was placed at a sufficient distance to ensure that the discharge water was being directed away from the well as well as any septic systems in the area. Upon completion of the test, the system was returned to its normal configuration.

The pumping test was carried out at a pumping rate of 58 L/min for a duration of 8 hours. During the pumping test, the pumping rate was periodically measured using the timed volume correlation method. The pump rate was maintained within 5% of the selected pump rate. The static water level was recorded manually and an electric datalogger (VanEssen TD-Diver) was installed in the test well prior to the start of the pumping test. The selected rate of 58 L/min provides approximately 4.8 times the maximum total daily design volume for the septic system during the 8-hour pumping test. The rate was determined to be representative of a flow rate which would be in excess of what the proposed redevelopment would require.

The data logger recorded water levels at 30 second intervals. In addition, manual water level readings were taken at periodic intervals during the test.

Recovery data was collected from the well following the completion of the pumping. The well was noted to have fully recovered within 2 minutes after the end of pumping.

Groundwater samples were collected 4 hours and 8 hours after the start of pumping. Prior to collection of the groundwater samples, the free chlorine residual was verified as non-detectable. The water samples were submitted for comprehensive testing of bacteriological, chemical, and physical water quality parameters consistent with the standard "Subdivision Supply" suite of parameters plus trace metals, and volatile organic compounds (VOCs).

All samples were collected unfiltered and unchlorinated and were placed directly into clean bottles supplied by the analytical laboratory. Samples were placed immediately into a cooler with ice and were transported directly to Environmental Testing Canada Inc.(Eurofins) laboratory in Ottawa. All samples were received by the laboratory within 24 hours of collection.

A series of field tests of the pumped water were carried out at the well head during the 8-hour pumping test. The parameters tested at the well head included: pH, total dissolved solids, conductivity, turbidity, apparent colour, and temperature.



Well Inspection

A visual inspection of TW1 was performed by Paterson personnel and confirmed that the well casing and well cap are in good condition. The grading around the well was noted to be sufficiently graded to direct surface water away from the wellhead, as required by O.Reg 903. The stickup was measured to be 0.62 m above ground surface. Based on a visual inspection by Paterson personnel, the well was deemed to be in good condition.

Aquifer Analysis

Water Quantity

Pumping test data was analyzed using AQTESOLV Pro Version 4 aquifer analysis software package by HydroSOLVE Inc. Drawdown data was measured using an electronic water level tape and an electronic datalogger unit.

Table 1: SUMMARY OF WATER SUPPLY AQUIFER CHARACTERISTICS OF TW1	
AQUIFER PARAMETER	RESULT OF ANALYSIS
Transmissivity (m ² /day)	1971
Pumping Rate (L/min)	58
Pre-test Static Water Level (m)	4.62
Post-test Static Water Level (m)	4.88 (4.98 max)
Available Drawdown (m)	50.28
% Drawdown During Pump Test (%)	0.7
Specific Capacity (L/min/m drawdown)	161

The drawdown data was analyzed using the Cooper Jacob method of analysis. Aquifer transmissivity is estimated to be 1971 m²/day. Refer to the Cooper Jacob method of analysis data sheet attached to this report. Note that there was very little draw down during the pumping test at the associated pumping rate.

The pumping test results show that TW1 has a high yield to support the water demands that may be required. Overall maximum drawdown at a constant pumping rate for a period of 8 hours was approximately 0.36 m (0.7% of the available drawdown). It should be noted that full recovery was achieved within 2 minutes after the end of pumping.

The total volume of water pumped during the 8-hour pumping event was approximately 27,840 L. This is approximately 3.8 times the maximum total daily design volume of water required (7,250 L/day) to support the proposed redevelopment.

The suitability of the aquifer to supply the proposed Site Plan Application for the proposed commercial modification was assessed using the methodology provided in the City of Ottawa Hydrogeological and Terrain Analysis Guidelines (HTAG).



Based on the information summarized in Table 1, it is readily apparent that the water supply well has intercepted an adequately strong water supply aquifer which has sufficient quantity to service the proposed Site Plan Control Application.

Given the analyses presented and summarized above, it is our opinion that there is an adequate supply of water to support the proposed redevelopment as well as the neighbouring lots. Available water well records (WWR) of the neighboring properties on the MECP Well Record mapping website indicated that the wells were screened in limestone and sandstone. Surrounding WWR's are attached to this report.

Water Quality

Field Data

Turbidity, electrical conductivity, total dissolved solids (TDS), pH, apparent color and temperature were measured at the wellhead during the pumping test. The measurements and time intervals for each of these parameters are summarized on the graphical representation below. In addition, a HACH Pocket Colorimeter II chlorine reader was used to measure the free chlorine residual level. No chlorine residual was detected in the discharge water prior to the collection of the water samples.

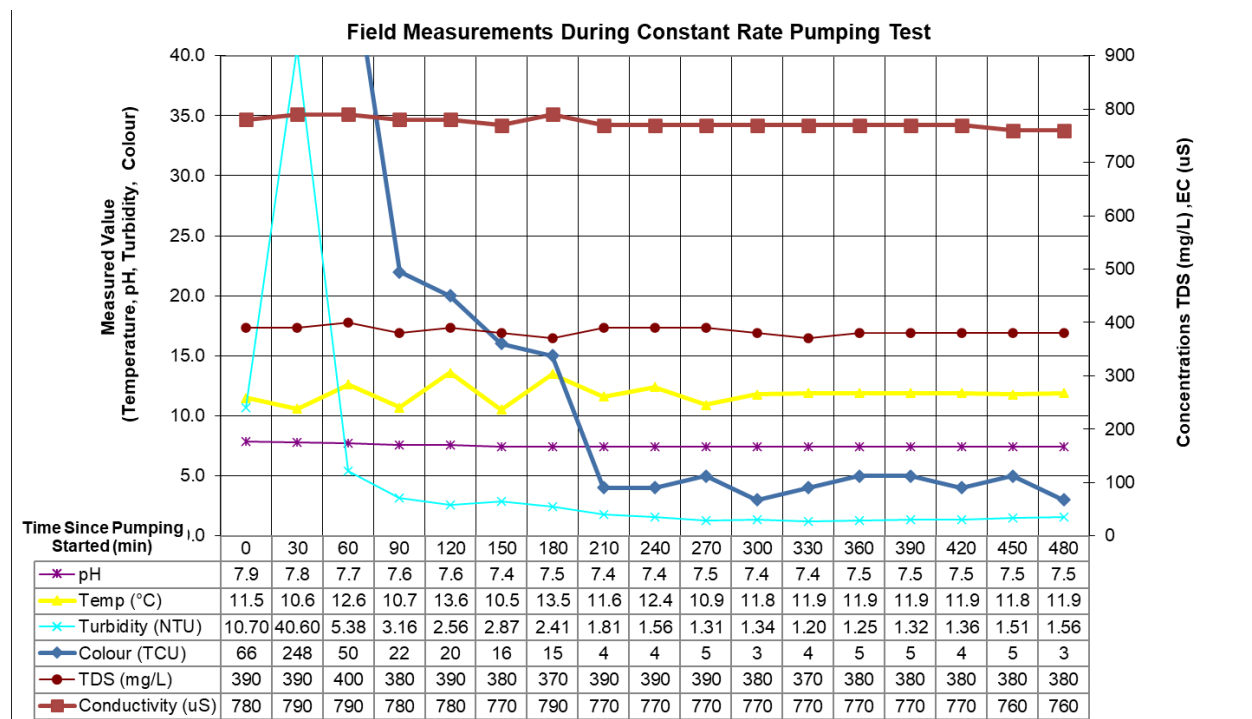


Figure 1: Field Measurements

**Laboratory Data**

The Subdivision Package suite of parameters and trace metals laboratory water quality obtained from the pumping test of TW1 is provided in Table 2a, 2b, and 2c below and the laboratory analyses reports can be found attached. VOC laboratory analytical testing were completed and measured to be non-detect in the sample results. All laboratory test results can be found attached to this report.

TABLE 2a: GROUNDWATER MICROBIOLOGY & GENERAL GEOCHEMISTRY					
PARAMETER	UNITS	ODWS		TW1	
		LIMIT	TYPE	TW1 GW1 (4 hr)	TW1 GW2 (8 hr)
				9/24/2024	9/24/2024
MICROBIOLOGICAL					
Escherichia Coli (E.Coli)	ct/100mL	0	MAC	0	0
Total Coliforms	ct/100mL	0	MAC	0	0
GENERAL CHEMICAL - HEALTH RELATED					
Fluoride (F)	mg/L	1.5	MAC	0.64	0.63
Ammonia (N-NH ₃)	mg/L	-	-	0.154	0.153
Nitrite (N-NO ₂)	mg/L	1	MAC	<0.1	<0.1
Nitrate (N-NO ₃)	mg/L	10	MAC	<0.1	<0.1
Total Kjeldahl Nitrogen	mg/L	-	-	0.231	0.236
Turbidity (Field)	NTU	1.0 (5.0)	MAC/AO	1.56	1.56
Turbidity (Laboratory)	NTU	1.0 (5.0)	MAC/AO	1.6	2.3
GENERAL CHEMICAL - AESTHETIC RELATED					
Alkalinity (as CaCO3)	mg/L	30-500	OG	229	236
Chloride (Cl)	mg/L	250	AO	90	85
Colour (Apparent - Lab)	TCU	5	AO	6	7
Colour (Apparent - Field)	TCU	5	AO	4	3
Conductivity	uS/cm	-	-	781	766
Dissolved Organic Carbon	mg/L	5	AO	0.7	1.1
Hardness (as CaCO3)	mg/L	100	OG	226	226
Ion Balance	unitless	-	-	1.01	1.00
pH@25°C	unitless	6.5-8.5	AO	7.99	7.95
Phenols	mg/L	-	-	<0.001	<0.001
Sulphate (SO ₄)	mg/L	500	AO	47	47
Sulphide (S ₂ ⁻)	mg/L	0.05	AO	<0.01	<0.01
Tannin & Lignin	mg/L	-	-	0.10	<0.01
Total Dissolved Solids	mg/L	500	AO	508	498

1. ODWS identifies the following types of parameters:

MAC = Maximum Allowable Concentration

AO = Aesthetic Objective

OG = Operational Guideline

2. Shaded Concentration Indicates an Exceedance of the ODWS Objective

**TABLE 2b: GROUNDWATER GEOCHEMISTRY - METALS**

PARAMETER	UNITS	ODWS		TW1	
		LIMIT	TYPE	TW1 GW1 (4 hr)	TW1 GW2 (8 hr)
				9/24/2024	9/24/2024
METALS					
Aluminum (Al)	mg/L	0.1	OG	0.03	0.01
Antimony (Sb)	mg/L	0.006	IMAC	<0.0005	<0.0005
Arsenic (As)	mg/L	0.01	IMAC	<0.001	<0.001
Barium (Ba)	mg/L	1.0	MAC	0.07	0.06
Beryllium (Be)	mg/L	-	-	<0.0005	<0.0005
Boron (B)	mg/L	5.0	IMAC	0.20	0.20
Cadmium (Cd)	mg/L	0.005	MAC	<0.0001	<0.0001
Calcium (Ca)	mg/L	-	-	42	42
Chromium (Cr)	mg/L	0.05	MAC	<0.001	<0.001
Cobalt (Co)	mg/L	-	-	<0.0002	<0.0002
Copper (Cu)	mg/L	1.0	AO	<0.001	<0.001
Iron (Fe)	mg/L	0.3	AO	0.19	0.33
Lead (Pb)	mg/L	0.01	MAC	<0.001	<0.001
Magnesium (Mg)	mg/L	-	-	30	29
Manganese (Mn)	mg/L	0.05	AO	<0.01	<0.01
Molybdenum (Mo)	mg/L	-	-	<0.005	<0.005
Nickel (Ni)	mg/L	-	-	<0.005	<0.005
Potassium (K)	mg/L	-	-	8	8
Selenium (Se)	mg/L	0.05	MAC	<0.001	<0.001
Silver (Ag)	mg/L	-	-	<0.0001	<0.0001
Sodium (Na)	mg/L	200	AO	81	78
Strontium (Sr)	mg/L	-	-	1.75	1.77
Thallium (Tl)	mg/L	-	-	<0.0001	<0.0001
Uranium (U)	mg/L	0.02	MAC	<0.001	<0.001
Vanadium (V)	mg/L	-	-	<0.001	<0.001
Zinc (Zn)	mg/L	5.0	AO	<0.01	<0.01

1. ODWS identifies the following types of parameters:

MAC = Maximum Acceptable Concentration

IMAC = Interim Maximum Acceptable Concentration

AO = Aesthetic Objective

OG = Operational Guideline

2. Shaded Concentration Indicates an Exceedance of the ODWS Objective

**TABLE 2c: GROUNDWATER GEOCHEMISTRY - VOLATILES**

PARAMETER	UNITS	ODWS		TW1	
		LIMIT	TYPE	TW1 GW1 (4 hr)	TW1 GW2 (8 hr)
				9/24/2024	9/24/2024
VOCs Surrogates					
1,2-dichloroethane-d4	%	-	-	-	113
4-bromofluorobenzene	%	-	-	-	81
Toluene-d8	%	-	-	-	99
Volatiles					
1,1,1,2-tetrachloroethane	µg/L	-	-	-	<0.5
1,1,1-trichloroethane	µg/L	-	-	-	<0.4
1,1,2,2-tetrachloroethane	µg/L	-	-	-	<0.5
1,1,2-trichloroethane	µg/L	-	-	-	<0.4
1,1-dichloroethane	µg/L	-	-	-	<0.4
1,1-dichloroethylene	µg/L	14.0	MAC	-	<0.5
1,2-dichlorobenzene	µg/L	200.0	MAC	-	<0.4
1,2-dichloroethane	µg/L	5.0	IMAC	-	<0.2
1,2-dichloropropane	µg/L	-	-	-	<0.5
1,3,5-trimethylbenzene	µg/L	-	-	-	<0.3
1,3-dichlorobenzene	µg/L	-	-	-	<0.4
1,3-Dichloropropylene (cis+trans)	µg/L	-	-	-	<0.3
1,4-dichlorobenzene	µg/L	5.0	MAC	-	<0.4
Acetone	µg/L	-	-	-	<30
Benzene	µg/L	1.0	MAC	-	<0.5
Bromodichloromethane	µg/L	-	-	-	<0.3
Bromoform	µg/L	-	-	-	<0.4
Bromomethane	µg/L	-	-	-	<0.5
c-1,2-Dichloroethylene	µg/L	-	-	-	<0.4
c-1,3-Dichloropropylene	µg/L	-	-	-	<0.2
Carbon Tetrachloride	µg/L	2.0	MAC	-	<0.2
Chloroethane	µg/L	-	-	-	<0.2
Chloroform	µg/L	-	-	-	<0.5
Dibromochloromethane	µg/L	-	-	-	<0.3
Dichlorodifluoromethane	µg/L	-	-	-	<0.5
Dichloromethane	µg/L	50	MAC	-	<4.0
Ethylbenzene	µg/L	140	MAC	-	<0.5
Ethylene Dibromide	µg/L	-	-	-	<0.2
Hexane	µg/L	-	-	-	<5
m/p-xylene	µg/L	-	-	-	<0.4
Methyl Ethyl Ketone (MEK)	µg/L	-	-	-	<10
Methyl Isobutyl Ketone (MIBK)	µg/L	-	-	-	<10
Methyl Tert Butyl Ether (MTBE)	µg/L	15	AO	-	<2
Monochlorobenzene	µg/L	80	MAC	-	<0.5
o-xylene	µg/L	-	-	-	<0.4
Styrene	µg/L	-	-	-	<0.5
t-1,2-Dichloroethylene	µg/L	-	-	-	<0.4
t-1,3-Dichloropropylene	µg/L	-	-	-	<0.2
Tetrachloroethylene	µg/L	10	MAC	-	<0.3
Toluene	µg/L	60	MAC	-	<0.4
Trichloroethylene	µg/L	5	MAC	-	<0.3
Trichlorofluoromethane	µg/L	-	-	-	<0.5
Vinyl Chloride	µg/L	1	MAC	-	<0.2
Xylene; total	µg/L	90	MAC	-	<0.5



The bacteriological test results (Certificate of Analysis – Report No. 4102006) indicated that the test samples at the 4 and 8 hour interval were non-detect (0 ct/100 mL) for E.Coli and Total Coliforms.

The water quality of the subject water supply well meets all the Ontario Drinking Water Standards maximum acceptable concentrations (MAC). Furthermore, the water meets all of the Aesthetic Objectives (AO) and Operational Guidelines (OG) with the exception of the following.

- ☐ Hardness (as CaCO_3)
- ☐ Turbidity
- ☐ Iron (Fe)

Exceedances of the above parameters are not uncommon of the water supply in the subject aquifer. Each of these groundwater parameters are discussed in detail below.

Hardness as CaCO_3

Hardness, expressed as calcium carbonate, is an operation guideline and does not appear in the ODWS. Rather, it appears in the Technical Support Documents for Ontario Drinking Water Standards, Objectives and Guidelines (ODWS) as a parameter with an operational guideline at 100 mg/L. At the measured concentration of 226 mg/L, the water is considered to be hard, however, it is below the reasonable treatable limit of 500 mg/L specified in Table 3 of the MOECC guidance document Procedure D-5-5 (1996). The hardness concentration can be treated using conventional softening technologies, if desired by the owner.

Turbidity

Turbidity, which is generally an aesthetic parameter, was detected in the laboratory test samples at values of 1.6 and 2.3 NTU in the 4- and 8-hours tests, respectively. Field testing of the samples detected values of 1.56 NTU in the 4- and 8-hour field tests, respectively. It is expected that continued use of the well would further reduce turbidity values. The elevated turbidity in the laboratory analyzed samples is attributed to the precipitation of iron.

The ODWS maximum acceptable concentration for turbidity in drinking water entering the distribution system is 1 NTU. The health-related Ontario Drinking Water Objective (ODWO) is 1 NTU. The Aesthetic Objective for turbidity in drinking water reaching the consumer is 5 NTU. The City's HTAG has a Maximum Concentration Considered Reasonably Treatable (MCCRT) of 5 NTU.

The field test parameters are below the 5 NTU objective. Furthermore, total coliforms and E.Coli were non-detect (0 ct/100 mL) in both the 4 and 8-hour samples, which meets the health requirements of the City's HTAG when the sample results are above the health-related ODWO of 1 NTU. Therefore, treatment for turbidity is not required



Iron

Concentrations of iron above 0.3 mg/L can contribute to staining of fixtures and a metallic taste at higher concentrations. Precipitation of iron can promote the growth of iron bacteria in pipes. The concentration of iron in the groundwater in TW1 was measured to be 0.33 mg/L at the 8-hour mark. The concentration of iron in the groundwater in the test well is considered to be reasonably treatable in accordance with Procedure D-5-5. It is recommended that an iron filter be used to reduce the levels of iron and reduce the potential for excessive precipitate occurring in the water supply system, if desired by the owner.

Colour

Colour may occur in drinking water for several reasons. It may be due to organic substances from the decay of vegetation, or the presence of metals such as iron, manganese, and copper, which are abundant in nature. The provincial aesthetic objective for colour in drinking water is 5 True Colour Units (TCU). The federal (Health Canada) guideline aesthetic objective limit for colour is 15 TCU (Guidelines for Canadian Drinking Water Quality, Health Canada June 2019). Procedure D-5-5 gives a maximum concentration considered reasonably treatable for colour as 7 TCU. As colour is a strictly aesthetic parameter, it can be reduced from the water supply, if desired, through the use of a manganese greensand treatment.

During the field pumping test, a DR900 colorimeter was used to measure apparent colour in the groundwater at regular intervals. Apparent colour in the groundwater was measured as 4 and 3 TCU at the 4- and 8- hour marks, which are below the aesthetic guideline of 5 TCU, whereas apparent colour from laboratory measurements was 6 and 7 TCU which is above the guideline but within treatable limits. The elevated colour levels detected in the lab samples is attributed to the precipitation of iron out of the groundwater.

Total Dissolved Solids (TDS)

TDS refers to the concentration of inorganic substances dissolved in water. The main constituents are typically chloride, sulphates, calcium, magnesium, and bicarbonates. The TDS concentration of 508 mg/L at the 4-hour mark exceeds the Aesthetic Objective of 500 mg/L. At concentrations above 500 mg/L, some consumers may find the taste objectionable, however, as the objective is an aesthetic objective, no treatment is required. At the 8-hour mark, the TDS concentration was 498 mg/L which is below the Aesthetic Objective. As the TDS concentration was decreasing with time and was below the Aesthetic Objective no taste problems are anticipated to occur and treatment is not likely to be required. If desired by the owner, a point of use reverse osmosis unit can be installed to reduce TDS levels for drinking purposes.

The Langelier calculation provided an LSI of 0.0. Based on the evaluation of the result, the water is saturated and does not precipitate a scale layer of calcium carbonate or dissolve calcium carbonate (neither scale forming nor corrosive). Based on the stable



value, there are no mitigative measures needed. See Langelier Saturation Index Calculation attached for calculation details.

Sodium

Sodium (Na), an aesthetic parameter, was detected in the laboratory test sample at concentrations of 81 and 78 mg/L, which does not exceed the ODWS aesthetic objective of 200 mg/L. Although sodium is not toxic and no maximum acceptable concentration has been set, concentrations above 20 mg/L require that the Medical Officer of Health be notified of the water quality results, so that this information may be passed on to local physicians for use in treatment of those requiring a sodium-restricted diet.

TERRAIN ANALYSIS

The purpose of this study is to determine the site's suitability for private on-site wastewater systems. Specifically, the intent of this report is to provide design details for private septic servicing and lot development potential.

Surficial Geology

Paterson carried out a Geotechnical Investigation on September 19, 2023 where 3 boreholes were installed in a manner to provide general coverage of the subject site, with specific consideration to the redevelopment. The general overburden was observed to be a thin layer of topsoil followed by fill and/or glacial till. Fill, consisting of brown silty sand with gravel, was encountered in BH2-23 and BH3-23, to a maximum depth of 2.1 m bgs. Glacial till, consisting of silty sand to sandy silt with varying amounts of gravel and, cobbles and boulders, was found in each borehole to the maximum depth of the boreholes. Practical refusal to augering was observed at a depth of 5 m in BH1-23 and DCPT refusal was observed in BH3-23 at a depth of 10.8 m bgs. The results of the geotechnical program are generally consistent with available geological mapping provided by the Ontario Geological Survey (OGS MRD128) and with the available historical surrounding Water Well Records (WWR). Further details can be found in geotechnical report PG6832-1.Revision 2, dated October 15, 2024.

Available bedrock geological mapping provided by the Ontario Geological Survey (MRD 219) indicates that the bedrock underlying the subject site consists of dolostone, minor shale and sandstone of the Oxford Formation in the Beekmantown Group. Available overburden thickness mapping shows a drift thickness of 10 to 15 m across the subject site.

Hydrogeological Sensitivity of the Site

The subject site currently consists of a temple with associated infrastructure and private servicing. The subject site is serviced by a private potable well and septic system. The subject site is currently occupied by a one-story commercial building, specifically the Ottawa Sivan Temple. The site is bordered to the north by Roger Stevens Drive, followed by a residential dwelling and agricultural land, to the west by residential dwellings, and to



the south and east by agricultural land. All surrounding properties are on private services. The adjacent properties are serviced by private wells and septic systems.

The overburden at the subject site and surrounding WWRs is recorded as a sand based glacial till.

According to the Ontario Building Code (OBC) Section 8.7.2.1 (1) (b)(i), highly permeable soils as it relates to sewage system design is defined by soils having a percolation rate of less than 1 minute per cm. According to the Ministry of Municipal Affairs and Housing (MMAH) Supplementary Standard SB-6 – Percolation time and soil descriptions dated January 1, 2024 only “Well graded gravels, gravel-sand mixtures, little or no fines” or “Poorly graded gravels, gravel-sand mixtures, little or no fines” have a percolation time of less than 1 minute per cm. The onsite soils were noted to be a glacial till consisting of silty sand to sandy silt with varying amounts of gravel and, cobbles and boulders. Due to the presence of silty sand to sandy silt (a high composition of fines), the percolation time is anticipated to be greater than 1 min/cm and therefore is not considered a highly permeable soil. As such, septic impacts due to observed soils are not anticipated onsite.

According to the Geotechnical Investigation, the overburden thickness was observed to be greater than 2 m.

As the proposed site does not have bedrock within 2 m of the ground surface and the site does not contain any highly permeable soils, the site is not considered hydrogeologically sensitive. Separation distances are not required to be increased between the septic components and the onsite well.

To corroborate our position in this matter, the water quality of the bedrock aquifer targeted by the onsite drilled potable supply well shows no indication of surface water or surface impacts.

Lot Development Plan

The Site Plan for the proposed redevelopment was produced by P²Concepts and is attached (Drawing-SP01.REV.05, dated October 4, 2024). The location of the temple, priest residence, proposed sewage system, and related infrastructure are shown. Please note that although a “permeable parking area” was designated in the site plan drawing, the material was considered impermeable as a conservative approach for this Nitrate Impact Assessment.

Sewage System Volumes

The sewage system has been designed by D.B. Gray Engineering and can be found attached to this report. The maximum total daily design sanitary sewage flow volume (TDDSSF) was determined to be 7,250 L/day. An approved Ottawa Septic System Office (OSSO) permit will be submitted with the Site Plan Application.



Predictive Nitrate Impact Assessment

In order to demonstrate that private services would adequately support the proposed Site Plan application, a Predictive Nitrate Impact Assessment (NIA) for the subject site was completed. The values shown in the Predictive NIA attached to this report are summarized below.

☐ Site area	2.04 ha
☐ Impervious area (%)	27 %
☐ Daily sewage flow	7.25 m ³ /d
☐ Concentration of nitrate in effluent (Value based on typical effluent concentration)	40 mg/L
☐ Concentration of nitrate in effluent with treatment (Value based on BNQ/NSF 245 certified nitrate reduction system with 50% nitrate reduction)	20 mg/L
☐ Surplus Water (The surplus water value was estimated based on Environment Canada Climate Office values with a soil type comprised of a fine sandy loam (Urban lawns / Shallow Rooted Crops) and anthropogenic sources.)	378 mm/yr
☐ Combined infiltration factor based on:	0.70
• Topography infiltration factor	0.20
• Soil texture infiltration factor	0.40
• Cover infiltration factor	0.10

The topography infiltration factor of 0.20 is based upon a generally rolling land with an average slope between 2.8 to 3.8 m/km. The soil texture infiltration factor was based upon an “open sandy loam” with a value of 0.4 which is a reasonable generalization based upon the site investigations and available geological mapping. The “cover infiltration factor” was calculated at 0.10 based upon a cultivated land type cover.

The calculation for a conventional septic system results in a predicted nitrate concentration of 16.05 mg/L nitrate for the subject site, using a value of 40 mg/L nitrate concentration within the effluent. This value was based upon a daily sewage flow of 7,250 L/day. It is expected that the actual usage should be lower. The inclusion of nitrate reduction technology (50 % nitrogen reduction of the effluent nitrate, with a BNQ or NSF 245 certified technology) would result in a nitrate concentration of 8.03 mg/L at the property boundary using a value of 20 mg/L nitrate within the effluent, which is below the maximum property value of 10 mg/L nitrate by the property boundary. Using a BNQ or NSF 245 certified 50% nitrate reduction technology, the maximum allowable flow is greater than 10,000 L/day.



Based on the results of the predictive NIA, it is our opinion that the property can adequately support the proposed Site Plan application without having an adverse impact on the underlying bedrock aquifer, provided that an BNQ/NSF 245 certified nitrate reduction system with a minimum of 50% nitrate reduction is used in the sewage system.

CONCLUSIONS

Based on the information contained within the body of this report the following conclusions can be drawn:

1. The water supply aquifer intercepted by the existing well is considered to be adequate to support the water quantity demands for the proposed redevelopment.
2. Based on a visual inspection performed by Paterson personnel, the well casing, stickup, well cap, and surrounding grading around the well are of sufficient standard to meet O.Reg 903. It is a requirement that the well continue to adhere to and be maintained in accordance with O.Reg 903.
3. The preferred water supply intercepted by TW1 contains a water supply that is potable, and contains only elevated concentrations of hardness, turbidity, iron, and apparent colour. The noted parameters can be treated with current readily available water conditioning equipment if desired by the owner.
4. A residential grade water softener is recommended to facilitate the reduction of the hardness concentration. If a water softener is used for the proposed redevelopment, the owner should be made aware that additional sodium will be added to the water to reduce hardness. If desired, a point-of-use reverse osmosis system can be also used to provide a drinking tap source.
5. If desired, the owner can use an iron filter to treat the potential iron values.
6. The sodium concentration was measured to be above the 20 mg/L reporting limit and, as such, the Medical Officer of Health for the City of Ottawa should be informed to assist area physicians in the treatment of local residents on sodium reduced diets.
7. The site is not considered hydrogeologically sensitive.
8. The predicted nitrate concentrations at the property boundary is calculated to be below the required 10 mg/L threshold when a standard denitrification system (50% nitrate reduction) using BNQ/NSF 245 certified nitrate reduction technology is used.



9. A Sewage System Permit and Building Permit need to be issued prior to the commencement of construction on the proposed redevelopment or the proposed septic system.
10. The existing well will be decommissioned in accordance with O.Reg.903 once it is no longer needed.
11. The results of the Hydrogeological Assessment and Terrain Analysis have provided satisfactory evidence that the subject site can support the proposed redevelopment with respect to water quality, quantity and sewage system placement.

We trust that the current submission satisfies your immediate requirements.

Best Regards,

Paterson Group Inc.

Alexander Schopf, PhD, EIT



Erik Ardley, P. Geo

Attachments:

- ☐ Key Plan
- ☐ P²Concepts - Drawing SP.01.REV.08, dated April 9, 2025
- ☐ MECP Water Well Records
- ☐ Eurofins Certificate of Analysis
- ☐ AQTESOLV - Pumping Test Analysis Reports
- ☐ Langelier Saturation Calculation
- ☐ Testhole Soil Profile and Data Sheets
- ☐ Nitrate Impact Assessment Calculations
- ☐ PG6832-1 – Test Hole Location Plan
- ☐ DBG Engineering Septic System Design



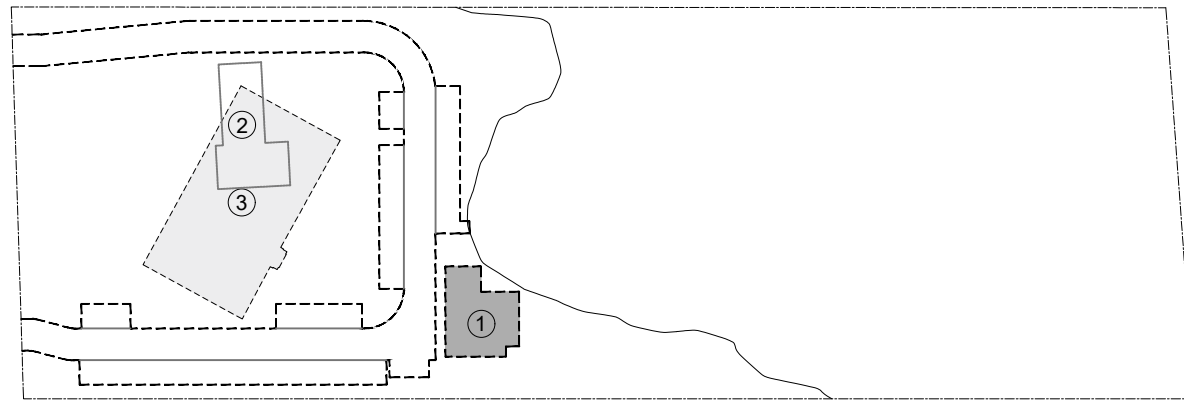


FIGURE 1

KEY PLAN

2104 Roger Stevens	R13 [608r]	S. 1A - Area D (Rural)	S. 58 - Floodplain overlay	Official Plan - S. B9	Rural Transect - Village	Temple GFA 2,013 m2 Priest Residence GFA 551 m2 Temple Assembly Area GFA 1,067.74 m2
General Provisions		Section	Required		Proposed	
Permitted uses*		S. 240 [608r]	School, Place of Worship, or Dwelling unit accessory to these uses		Place of Worship, Dwelling unit	
Min. lot area (sq. m)		Table 224A, (a)	10,000 m2		20,395 m2	
Min. lot width (m)		Table 224A, (b)	75 m		82.95 m	
Max. building height (m)		Table 224A, (g)	12 m		7.54 m	
Min. front yard setback (m)		Table 224A, (c)	9 m		26.20 m	
Min. rear yard setback (m)		Table 224A, (d)	10 m		177.10 m	
Min. int. side yard setback (m)		Table 224A, (e)	9 m		16.69 m (east), 16.90 m (west)	
Max. lot coverage (%)		Table 224A, (h)	30% lot area = 6,118.50 m2		6% lot area = 1,309.56 m2	
Min. landscaped area (%)		Table 224A, (i)	20% lot area = 4,079 m2		94% lot area = 19,085.44 m2	
* 608r exception						
Parking Provisions		Section	Required		Proposed	
Place of Worship		Table 101, N66	10 spaces / 100 m2 of assembly area GFA = 107 Spaces		60 spaces	MV REQUIRED
Dwelling unit		Table 101, R4	1 space		1 space	
Parking space size		S. 106, (1)	2.6 m x 5.2 m		2.6 m x 5.2 m	
B/F parking (included in total)		AODA, S. 80.36	4% of the total provided spaces = 2 spaces		3 spaces (2 type A, 1 type B)	
Type A parking space dimensions		AODA, S. 80.34 (1)	3.4 m x 5.2 m (plus 1.5 m aisle)		3.4 m x 5.2 m with 1.5 m shared aisle	
Type B parking space dimensions		AODA, S. 80.34 (2)	2.4 m x 5.2 m (plus 1.5 m aisle)		2.4 m x 5.2 m with 1.5 m shared aisle	
Min. drive aisle width (m)		S. 107, (1) (d)	6.7 m		6.7 m	
Min. driveway width (m)		S. 107, (1) (a)	3 m - single lane; 6 m - double lane		6.7 m	
Min. landscaped area for parking lots (%)		S. 110, (1)	15% (322.32 m2)		24% (757.31 m2)	
Min. landscaped buffer for parking lot (m)		Table 110, (1)	3 m abutting street; 1.5 m not abutting street		11.94 abutting a street; 3.02 not abutting street	
Min. setback for outdoor refuse (in-ground container)		S. 110, (3)	9 m from a lot line abutting a public street 3 m from any other lot line		77.71 m from a lot line abutting a public street 4.57 m from any other lot line	
			Screened by soft landscaping 2 m in height		Screened by soft landscaping 2 m in height	
Permitted parking lot material		S. 100, (3) (b)	gravel; B/F spaces must be hard and stable		Asphalt, interlock pavers	
Min. number of bike parking spaces		Table 111A, (i)	1 space / 1,500 m2 GFA = 1 Space		3 spaces	
Min. number of loading spaces		Table 113A, (a)	1 space if 2,000 - 4,999 m2 of GFA = 1 Space		0 spaces	MV REQUIRED

PHASING DIAGRAM:



- 1 PHASE 1 : CONSTRUCTION OF A TWO STOREY BUILDING (TEMPORARY TEMPLE / PRIEST RESIDENCE) DRIVEWAY / PARKING)
- 2 PHASE 2 : DEMOLITION OF THE OF EXISTING BUILDING
- 3 PHASE 3 : CONSTRUCTION OF A ONE STOREY BUILDING - TEMPLE

LEGEND:

INTERNAL ROAD / FIRE ROUTE

S.O.D.

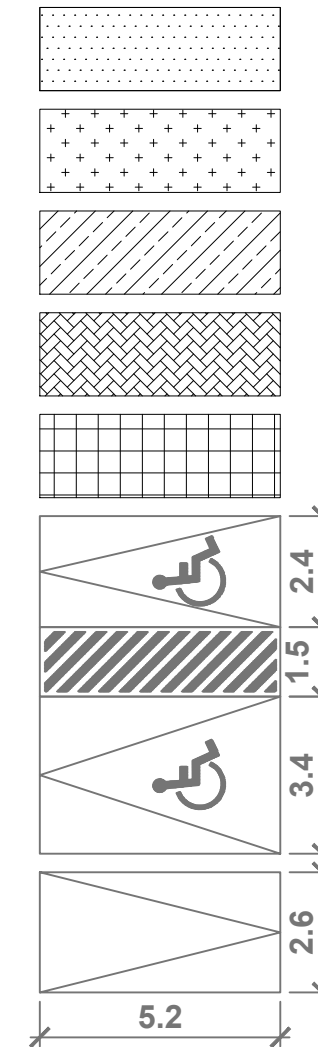
SNOW STORAGE AREA

PERMEABLE PARKING AREA

TERRACES

BARRIER FREE CAR PARKING SPACES
TYPE A (3.4 x 5.2 m)
TYPE B (2.4 x 5.2 m)
ACCESS AISLE (1.5 x 5.2 m)

CAR PARKING SPACES



PROPOSED BUILDING

PROPOSED WALKWAY

SHRUB / BUSHES

EXISTING VEGETATION

PROPOSED TREES

BIKES PARKING SPACE

MOLOK BIN

SANITARY MANHOLE

STORM / CATCH BASIN MANHOLE

CATCH BASIN

LIMIT OF SITE DEVELOPMENT

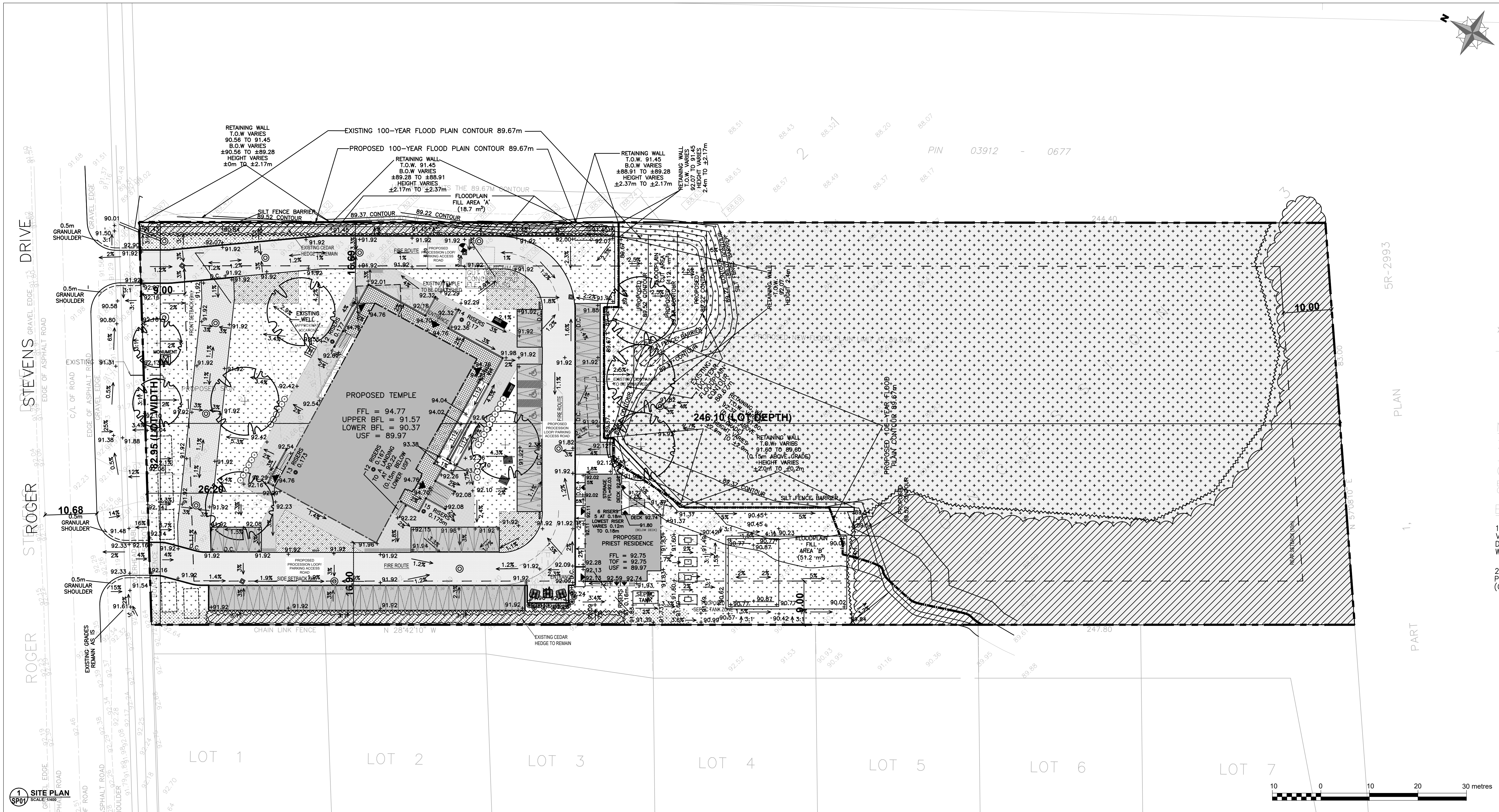
EXISTING STATUE

FIRE ROUTE SIGN

ACCESSIBLE BENCH WITH CONCRETE PAD

PROPOSED PICNIC TABLE

EXISTING TREE TO REMAIN



OWNER NAME & ADDRESS
Valluvambiga Sri Talyayayaki Sametha
Vaihiyanathan Swamy Koli Inc.
Kugendran Sabaratham
2104 Roger Stevens Rd North Gower, ON, K0A 2T0

ARCHITECT
OM P. MADAN ARCHITECT
8 AVE. Q, QUA. M9A4C
7 SPALTER CRES.
OTTAWA, ONTARIO K2B 1B3
T: (613) 203-1805

APPLICANT AND DESIGNER
P-SQUARED CONCEPTS INC.

PROJECT TEAM (ENGINEERS)
PATERSON GROUP
CIMAX
D.B. Gray Engineering Inc.

James B. Lemox & Associates Inc.
LANDSCAPE ARCHITECTS

PLAN OF SURVEY
INFORMATION SHOWN HAS BEEN TAKEN FROM
J.D. BARNES LIMITED
62 STEACIE DRIVE, SUITE 103,
KANATA, ON K2K 2A9
(613) 731-7244

TOPOGRAPHIC PLAN OF
PART OF LOT 21
CONCESSION 3
GEOGRAPHIC TOWNSHIP OF NORTH GOWER
NOW IN THE
CITY OF OTTAWA

BENCHMARK NOTE

1. IT IS THE RESPONSIBILITY OF THE USER OF THIS INFORMATION TO VERIFY THAT THE SITE BENCHMARK HAVE NOT BEEN ALTERED OR DISTURBED AND THAT ITS RELATIVE ELEVATION AND DESCRIPTION AGREES WITH THE INFORMATION SHOWN ON THIS DRAWING.
2. ELEVATIONS ARE GEODETIC AND REFERRED TO PUBLISHED CONTROL POINT 01019791716 HAVING A PUBLISHED ELEVATION OF 91.214 METRES (GVD28-78 DATUM)

No.	REVISIONS	DATE
08	ISSUED FOR REVIEW	2025-04-09
07	ISSUED FOR REVIEW	2025-04-03
06	ISSUED FOR COORDINATION	2025-03-06
05	ISSUED FOR COORDINATION	2024-10-04
04	ISSUED FOR COORDINATION	2024-09-26
04	ISSUED FOR COORDINATION	2024-08-08
03	ISSUED FOR CIVIL COORDINATION	2024-05-21
02	ISSUED FOR CLIENT REVIEW	2024-04-09
01	ISSUED FOR PHASE I PRE-CONSULT	2024-03-01

NOT AUTHENTIC UNLESS SIGNED AND DATED

P² concepts
2004 FURBER DR. UNIT 205
OTTAWA, ONTARIO, K1G 4E1

DESIGNED BY: S.A. DRAWN BY: P.S. APPROVED BY: P.R.

PROJECT

NEW OTTAWA SIVAN TEMPLE

DRAWING TITLE

SITE PLAN

PROJECT NO.
0399

DATE
APR, 09, 2025

SP01

Measurements recorded in: ☐ Metric ☒ Imperial

A395525

Regulation 903 Ontario Water Resources Act

Page _____ of _____

Well Owner's Information

First Name	Last Name/Organization Ottawa Sivan Temple	E-mail Address	☐ Well Constructed by Well Owner
Mailing Address (Street Number/Name) 2104 Roger Stevens Drive	Municipality North Gower	Province ON	Postal Code K0A 2T0
Telephone No. (inc. area code)			

Well Location

Address of Well Location (Street Number/Name) 2104 Roger Stevens Drive	Township Rideau	Lot P/L 21	Concession 3
County/District/Municipality Ottawa Carleton	City/Town/Village North Gower	Province Ontario	Postal Code
UTM Coordinates Zone Easting NAD 83 18 445192	Northing 4998614	Municipal Plan and Sublot Number 5R-6158	Other

Overburden and Bedrock Materials/Abandonment Sealing Record (see instructions on the back of this form)

General Colour	Most Common Material	Other Materials	General Description	Depth (m)
	Sand	Clay		0' 25'
	Gravel	Boulders	Hard Pan	25' 52'
Grey & Black	Limestone			52' 154'
Grey & Black	Limestone			154' 160'
Grey	Sandstone			160' 170'
Grey	Sandstone			170' 174'
Grey	Sandstone			174' 180'

*Owner - Vallavambiga Sri Taiyalayaki Sametha
Vaithiyanatha Swamy Koil Inc. AS Ottawa Sivan Temple*

Annular Space			
Depth Set at (m)	To	Type of Sealant Used (Material and Type)	Volume Placed (m ³)
58'	48'	Neat cement	10.92
48'	0'	Bentonite slurry	21.00

Method of Construction		Well Use	
☐ Cable Tool	☐ Diamond	☐ Public	☐ Commercial
☐ Rotary (Conventional)	☐ Jetting	☒ Domestic	☐ Not used
☐ Rotary (Reverse)	☐ Driving	☐ Municipal	☐ Dewatering
☐ Boring	☐ Digging	☐ Livestock	☐ Test Hole
☒ Air percussion		☐ Irrigation	☐ Monitoring
☐ Other, specify		☐ Industrial	☐ Cooling & Air Conditioning
		☐ Other, specify	

Construction Record - Casing				Status of Well	
Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m)	From	To
6 1/4"	Steel	.188"	+2'	58'	
6"	Open Hole			58'	180'

☒ Water Supply	☐ Replacement Well
☐ Test Hole	☐ Recharge Well
☐ Dewatering Well	☐ Observation and/or Monitoring Hole
☐ Alteration (Construction)	☐ Abandoned, Insufficient Supply
☐ Abandoned, Poor Water Quality	☐ Abandoned, other, specify
☐ Other, specify	

Construction Record - Screen			
Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m)
			From To

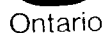
Water Details		Hole Diameter	
Water found at Depth 154' (m) 0' Gas	Kind of Water: ☐ Fresh ☒ Contested	Depth (m)	Diameter (cm/in)
Water found at Depth 170' (m) 0' Gas	Kind of Water: ☐ Fresh ☒ Contested	From To	
Water found at Depth 174' (m) 0' Gas	Kind of Water: ☐ Fresh ☒ Contested	0' 58'	9 3/4"
		58' 180'	6"

Well Contractor and Well Technician Information	
Business Name of Well Contractor Air Rock Drilling Co. Ltd.	Well Contractor's Licence No. 27881
Business Address (Street Number/Name) 5550 Frankton Road	Municipality Richmond

Province ON	Postal Code K0A 2Z0	Business E-mail Address air-rock@sympatico.ca
Bus. Telephone No. (inc. area code) 8138382170	Name of Well Technician (Last Name, First Name) Hanna, Jeremy	
Well Technician's Licence No. 13632	Signature of Technician and/or Contractor <i>[Signature]</i>	
Date 2024 09 30		

Results of Well Yield Testing				
After test of well yield, water was: ☐ Clear and sand free ☐ Other, specify Not tested	Draw Down		Recovery	
	Time (min)	Water Level (m/ft)	Time (min)	Water Level (m/ft)
If pumping discontinued, give reason: X	Static Level	14'3"		16.5"
Pump intake set at at (m/ft) 170	1	16.1	1	14.8
	2	16.2	2	14.5
Pumping rate (l/min / GPM) 20	3	16.2	3	14.4
	4	16.2	4	14.3
Duration of pumping 1 hrs + 0 min	5	16.2	5	14.3
	10	16.3	10	14.3
Final water level end of pumping (m/ft) 16.5"	15	16.3	15	14.3
If flowing give rate (l/min/GPM) X	20	16.4	20	14.3
	25	16.4	25	14.3
Recommended pump depth (m/ft) 100	30	16.4	30	14.3
Recommended pump rate (l/min/ GPM) 20	40	16.5	40	14.3
	50	16.5	50	14.3
Well production (l/min/ GPM) 20	60	16.5	60	14.3
Disturbed? ☒ Yes ☐ No				

Map of Well Location	
Please provide a map below following instructions on the back.	
Comments: LHP-20 GPM Set @ 100 FT	
Well owner's information package delivered ☒ Yes ☐ No	Date Package Delivered 2024 09 30
Ministry Use Only Audit No. 2427310	
Received 2024 09 09	



Ontario

31649

11

MUNICIP.
15004

CON.
CON

0.3

1. PRINT ONLY IN SPACES PROVIDED

2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

COUNTY OR DISTRICT

TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE

CON. BLOCK. TRACT SURVEY, ETC

020

LOT 25-27

Ottawa Carleton

Ride 211 - NORTH GOWER

19

DATE COMPLETED _____

DATE COMPLETED DAY 05 MO 06 YR 8

WORTH GOWER

NAME								COUNTY							
MINE								RC							
ELEVATION								RC							
BASIN CODE								II III IV							
998499								4 0300 4 26							

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

[illegible]

31 0003205

00532412

0105215

32

WATER RECORD

WATER FOUND AT - FEET		KIND OF WATER			
10-13 0/00	1 ☒ FRESH	3 ☐ SULPHUR	14		
	2 ☐ SALTY	4 ☐ MINERAL			
15-18	1 ☐ FRESH	3 ☐ SULPHUR	19		
	2 ☐ SALTY	4 ☐ MINERAL			
20-23	1 ☐ FRESH	3 ☐ SULPHUR	24		
	2 ☐ SALTY	4 ☐ MINERAL			
25-28	1 ☐ FRESH	3 ☐ SULPHUR	29		
	2 ☐ SALTY	4 ☐ MINERAL			
30-33	1 ☐ FRESH	3 ☐ SULPHUR	34		
	2 ☐ SALTY	4 ☐ MINERAL			

CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET	
			FROM	TO
10-11 6-14 06 5-18	☒ 1 STEEL ☐ 2 GALVANIZED ☐ 3 CONCRETE ☒ 4 OPEN HOLE	12 1.88	0' 0053	12-13
17-18 06	☐ 1 STEEL ☐ 2 GALVANIZED ☐ 3 CONCRETE ☒ 4 OPEN HOLE	19	55 105	20-21
24-25	☐ 1 STEEL ☐ 2 GALVANIZED ☐ 3 CONCRETE ☒ 4 OPEN HOLE	26	0105	27-30

SCREEN	SIZE (S) OF OPENING (SLOT NO.)	31-33	DIAMETER	34-38	LENGTH	39-40
	INCHES			FEET		
	MATERIAL AND TYPE		DEPTH TO TOP OF SCREEN		41-44	FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT FEET		MATERIAL AND TYPE (CEMENT GROUT LEAD PACKER, ETC.)
FROM	TO	
10-13	14-17	
18-21	22-25	
26-29	30-33	80

PUMPING TEST	PUMPING TEST METHOD		10 PUMPING RATE		11-14 DURATION OF PUMPING	
	1 ☒ PUMP 2 ☐ BAILER		0010 GPM		01 15-16 HOURS 00 17-18 MINS	
	STATIC LEVEL		25 WATER LEVELS DURING		1 ☒ PUMPING 2 ☐ RECOVERY	
	19-21	22-24	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
	015 FEET	055 FEET	055 FEET	055 FEET	055 FEET	055 FEET
IF FLOWING, GIVE RATE		PUMP INTAKE SET AT		WATER AT END OF TEST		
39-41 GPM		FEET		42		
RECOMMENDED PUMP TYPE		RECOMMENDED PUMP SETTING		RECOMMENDED PUMPING RATE		
☐ SHALLOW ☒ DEEP		43-45 055 FEET		46-49 0008 GPM		
50-53						

**FINAL
STATUS
OF WELL**

1 ☒ WATER SUPPLY 5 ☐ ABANDONED, INSUFFICIENT SUPPLY
2 ☐ OBSERVATION WELL 6 ☐ ABANDONED, POOR QUALITY
3 ☐ TEST HOLE 7 ☐ UNFINISHED
4 ☐ RECHARGE WELL

WATER USE

1 ☒ DOMESTIC	5 ☐ COMMERCIAL
2 ☐ STOCK	6 ☐ MUNICIPAL
3 ☐ IRRIGATION	7 ☐ PUBLIC SUPPLY
4 ☐ INDUSTRIAL	8 ☐ COOLING OR AIR CONDITIONING
☐ OTHER	9 ☐ NOT USED

METHOD OF DRILLING

1	☒ CABLE TOOL	6	☐ BORING
2	☐ ROTARY (CONVENTIONAL)	7	☐ DIAMOND
3	☐ ROTARY (REVERSE)	8	☐ JETTING
4	☐ ROTARY (AIR)	9	☐ DRIVING
5	☐ AIR PERCUSSION		

1723 LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE INDICATE NORTH BY ARROW.

A hand-drawn map showing the location of OCH 4 relative to Hwy 16 and North Tower. A horizontal line is labeled "OCH 4" and a vertical line is labeled "Hwy 16" and "North Tower". A horizontal arrow points from the vertical line to the horizontal line, labeled "1.6 Km". A vertical arrow points from the horizontal line down to a point marked with an "X", labeled "60'". Another "X" is marked on the vertical line below the intersection.

DRILLERS REMARKS

CONTRACTOR	NAME OF WELL CONTRACTOR	LICENCE NUMBER
	M. Kavanaugh's Son Well/Drilling 3142	
CONTRACTOR	ADDRESS	
	RR #2 Carleton Place Ont.	
	NAME OF DRILLER OR BORER	LICENCE NUMBER
CONTRACTOR	M. Kavanaugh	3142
	SIGNATURE OF CONTRACTOR	SUBMISSION DATE
	Michael Kavanaugh	DAY 20 MO. 1 YR. 00

OFFICE USE ONLY	DATA SOURCE	58 1	CONTRACTOR	59-62 3142	DATE RECEIVED	63-68 10 07 84
	DATE OF INSPECTION		INSPECTOR			
	REMARKS					

MINISTRY OF THE ENVIRONMENT COPY

FORM NO. 0506-4-77 FORM 7

Print only in spaces provided.

Mark correct box with a checkmark, where applicable.

11

1531768

Municipality **15004** Con. **CON** **03**

County or District CARLETON	Township/Borough/City/Town/Village RIDEAU	Con block tract survey, etc. 3	Lot Part of 2022
Address 6626 3RD Line RD KARS		Date completed 16 day 01 month 2001 year	
			

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)					
General colour	Most common material	Other materials	General description	Depth - feet	
				From	To
Brown	clay		thick	0	10
Grey	clay		Runny	10	20
Grey	Clay	Sandy, with Boulders,	HARD Pan	20	36
Grey	Limestone	BROKEN LAYERS,	Sand MED HARD	36	48
Grey	Limestone		MED HARD	48	65
		43' OF 6 1/4" casing			
		20' OF 5" casing			
		1 Heavy Duty DRIVE shoe			
		1 well cap			
		10 Bags OF Cement			

[illegible]

41	10	14	15	21	26	32	43	54	65	75	80	95	100	
WATER RECORD					CASING & OPEN HOLE RECORD					SCREEN				
Water found at - feet		Kind of water			Inside diam inches		Material		Wall thickness inches		Depth - feet		Sizes of opening (Slot No.) Diameter Length	
											From		To	
53		1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☒ Minerals 6 ☐ Gas			6 1/4		1 ☐ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic		.188		0		38	
15-18		1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas			5 1/4		1 ☒ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☒ Open hole 5 ☐ Plastic		.188		30		50	
20-23		1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas			4 3/8		1 ☐ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☒ Open hole 5 ☐ Plastic				50		65	
25-28		1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas			24-25		1 ☐ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic						27-30	
30-33		1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas												
										61 PLUGGING & SEALING RECORD ☒ Annular space ☐ Abandonment				
										Depth set at - feet From To Material and type (Cement grout, bentonite, etc.)				
										0 38 Cement Grout				

PUMPING TEST	Pumping test method ¹⁰ 1 ☐ Pump 2 ☒ Bailer		Pumping rate ¹¹⁻¹⁴ 10 GPM		Duration of pumping ¹⁵⁻¹⁸ 1 Hours _____ Mins	
	Static level		Water level end of pumping ²⁵		Water levels during 1 ☒ Pumping 2 ☐ Recovery	
	19-21 3 feet	22-24 40 feet	15 minutes ²⁶⁻²⁸ 40 feet	30 minutes ²⁹⁻³¹ 40 feet	45 minutes ³²⁻³⁴ 40 feet	60 minutes ³⁵⁻³⁷ 40 feet
	If flowing give rate ³⁸⁻⁴¹ _____ GPM		Pump intake set at _____ feet		Water at end of test ⁴² ☒ Clear ☐ Cloudy	
	Recommended pump type ☐ Shallow ☒ Deep		Recommended pump setting ⁴³⁻⁴⁵ 50 feet		Recommended pump rate ⁴⁶⁻⁴⁹ 7 GPM	
	50-53					

FINAL STATUS OF WELL			54
1 ☒ Water supply	5 ☐ Abandoned, insufficient supply	9 ☐ Unfinished	
2 ☐ Observation well	6 ☐ Abandoned, poor quality	10 ☐ Replacement well	
3 ☐ Test hole	7 ☐ Abandoned (Other)		
4 ☐ Recharge well	8 ☐ Dewatering		

WATER USE			55-56
1 ☒ Domestic	5 ☐ Commercial	9 ☐ Not use	
2 ☐ Stock	6 ☐ Municipal	10 ☐ Other	
3 ☐ Irrigation	7 ☐ Public supply		
4 ☐ Industrial	8 ☐ Cooling & air conditioning		

METHOD OF CONSTRUCTION			57
1 ☒ Cable tool	5 ☐ Air percussion	9 ☐ Driving	
2 ☐ Rotary (conventional)	6 ☐ Boring	10 ☐ Digging	
3 ☐ Rotary (reverse)	7 ☐ Diamond	11 ☐ Other	
4 ☐ Rotary (air)	8 ☐ Jetting		

LOCATION OF WELL

In diagram below show distances of well from road and lot line.
Indicate north by arrow.

Roger Stevens DR.

Pitless

H

G

3rd line RD

Hwy. 416

Pumped well for 49 hrs until clear

227611

Name of Well Contractor B. MOORE Well Drilling 6455		Well Contractor's Licence No. 6455	
Address Box 436 OSGOODS ONT K0A 2W0			
Name of Well Technician Bob MOORE		Well Technician's Licence No. T-0319	
Signature of Technician/Contractor <i>Bob Moore</i>		Submission date day 17 mo 01 yr 2001	

MINISTRY USE ONLY	Data source	58 6455	59-62 MAR 01 2001	63-68 00
	Date of inspection		Inspector	
	Remarks CSS.ES1			

Print only in spaces provided. Mark correct box with a checkmark, where applicable.

11

1532449

Municipality 15004 Con. CAN Plan # 4 11773

County or District: Ottawa-Carleton Township/Borough/City/Town/Village: North Gower Con block tract survey, etc.: 3 block 21 Lot: 5

Owner's surname: Hans and Jo construction First Name: Address: north Daniel 166 Date completed: 24/19/01

Zone Easting Northing RC Elevation RC Basin Code

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)

General colour	Most common material	Other materials	General description	Depth - feet	
				From	To
Brown	Till	Boulder	Dense	0	9
Gray	"	"	"	9	48
Gray	limestone Rock		Fractured	48	85

31 32

41 WATER RECORD

Water found at - feet	Kind of water
70	1 Fresh 3 Sulphur 4 Minerals 6 Gas

51 CASING & OPEN HOLE RECORD

Inside diam inches	Material	Wall thickness inches	Depth - feet	
			From	To
8 1/4	1 Steel 2 Galvanized 3 Concrete 4 Open hole 5 Plastic		0	48
6 1/4	1 Steel 2 Galvanized 3 Concrete 4 Open hole 5 Plastic		48	85

61 PLUGGING & SEALING RECORD

Sizes of opening (Slot No.)	Diameter inches	Length feet

71 PUMPING TEST

Pumping test method: 1 Pump 2 Bailor	Pumping rate: 12 GPM	Duration of pumping: 0 Hours 17 Mins
Static level: 25 feet	Water level end of pumping: 85 feet	Water levels during: 15 minutes: 25 feet, 30 minutes: 25 feet, 45 minutes: 25 feet, 60 minutes: 25 feet

FINAL STATUS OF WELL

1 Water supply 2 Observation well 3 Test hole 4 Recharge well

5 Abandoned, insufficient supply 6 Abandoned, poor quality 7 Abandoned (Other) 8 Dewatering

9 Unfinished 10 Replacement well

WATER USE

1 Domestic 2 Stock 3 Irrigation 4 Industrial

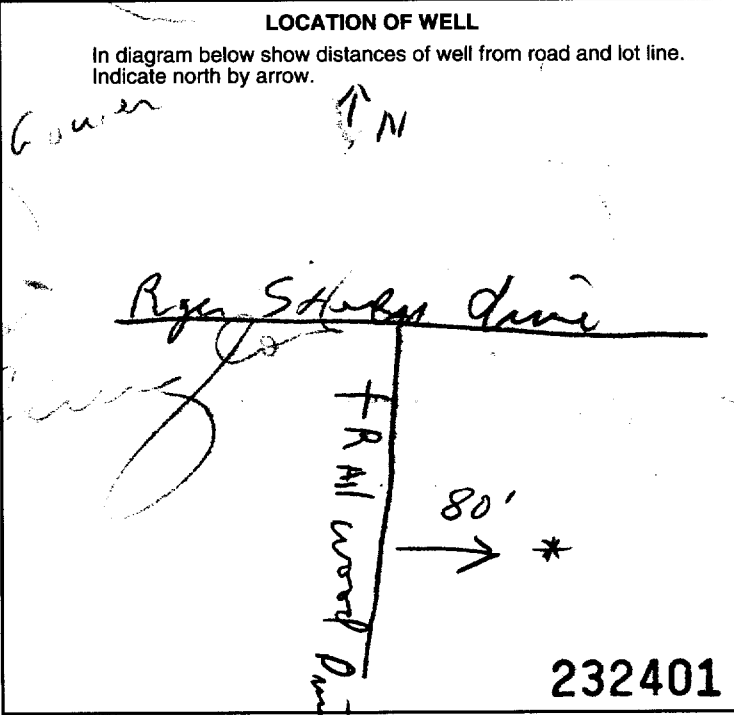
5 Commercial 6 Municipal 7 Public supply 8 Cooling & air conditioning

METHOD OF CONSTRUCTION

1 Cable tool 2 Rotary (conventional) 3 Rotary (reverse) 4 Rotary (air)

5 Air percussion 6 Boring 7 Diamond 8 Jetting

9 Driving 10 Digging 11 Other



Name of Well Contractor: Gilles Bourgeois well drill Well Contractor's Licence No.: 1414

Address: ST-ALBERT

Name of Well Technician: Jacques Raymond Well Technician's Licence No.: 0264

Signature of Technician/Contractor: Gilles Bourgeois Submission date: 24/10/01

MINISTRY USE ONLY

Data source: 1414 Date received: NOV 02 2001

Date of inspection: Inspector:

Remarks:



The Ontario Water Resources Act

WATER WELL RECORD

Print only in spaces provided.

Mark correct box with a checkmark, where applicable.

11

1532710

Municipality **15004** Con. **CON** **03**

County or District Ottawa Carleton	Township/Borough/City/Town/Village Rideau	Con block tract survey, etc. 3	Lot 1	25-27
Address Northower, Ont		Date completed 04 04 02 day month year		

21

1 2

0
T
M

10 12 13 14 15 16 17

Northing

18 19 20 21 22 23 24

RC

Elevation

25 26 27 28 29 30

Basin Code

ii iii iv

31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)

[illegible]

31

32

41		10		14		15		21	
WATER RECORD									
Water found at - feet			Kind of water						
10-13			1	☒ Fresh	3	☐ Sulphur	14		
142			2	☐ Salty	4	☐ Minerals	15-18		
									
15-18			1	☐ Fresh	3	☐ Sulphur	19		
			2	☐ Salty	4	☐ Minerals			
									
20-23			1	☐ Fresh	3	☐ Sulphur	24		
			2	☐ Salty	4	☐ Minerals			
									
25-28			1	☐ Fresh	3	☐ Sulphur	29		
			2	☐ Salty	4	☐ Minerals			
									
30-33			1	☐ Fresh	3	☐ Sulphur	34		
			2	☐ Salty	4	☐ Minerals			
									

CASING & OPEN HOLE RECORD				
Inside diam inches	Material	Wall thickness inches	Depth - feet	
			From	To
10-11 6 $\frac{1}{4}$	☒ Steel ☐ Galvanized ☐ Concrete ☐ Open hole ☐ Plastic	12 188	0	46
17-18 8 $\frac{3}{4}$	☐ Steel ☐ Galvanized ☐ Concrete ☒ Open hole ☐ Plastic	19	0	44
24-25 6	☐ Steel ☐ Galvanized ☐ Concrete ☒ Open hole ☐ Plastic	26	44	150

SCREEN	54	60	75	80		
	Sizes of opening (Slot No.)	31-33	Diameter	34-38	Length	39-40
			inches		feet	
	Material and type		Depth at top of screen		30	
			41-44			
			feet			

61				PLUGGING & SEALING RECORD			
☒ Annular space				☐ Abandonment			
Depth set at - feet		Material and type (Cement grout, bentonite, etc.)					
From	To						
10-13	14-17	bentonite					
246							
18-21	22-25						
26-29	30-33	80					

PUMPING TEST	Pumping test method ¹⁰ 1 ☒ Pump 2 ☐ Bailer		Pumping rate ¹¹⁻¹⁴ 20 GPM		Duration of pumping ¹⁵⁻¹⁸ 1 Hours ¹⁷⁻¹⁸ Mins	
	Static level ¹⁹⁻²¹ 8 feet		Water level end of pumping ²²⁻²⁴ 70 feet		Water levels during ²⁵ 1 ☐ Pumping 2 ☒ Recovery	
			15 minutes ²⁶⁻²⁸ 8 feet		30 minutes ²⁹⁻³¹ 8 feet	
			45 minutes ³²⁻³⁴ 8 feet		60 minutes ³⁵⁻³⁷ 8 feet	
	If flowing give rate ³⁸⁻⁴¹ GPM		Pump intake set at ⁴² feet		Water at end of test ⁴³ ☐ Clear ☒ Cloudy	
	Recommended pump type ⁴⁴⁻⁴⁵ ☐ Shallow ☒ Deep		Recommended pump setting ⁴⁶⁻⁴⁹ 70 feet		Recommended pump rate ⁵⁰⁻⁵³ 20 GPM	

FINAL STATUS OF WELL			54
1 ☒ Water supply	5 ☐ Abandoned, insufficient supply	9 ☐ Unfinished	
2 ☐ Observation well	6 ☐ Abandoned, poor quality	10 ☐ Replacement well	
3 ☐ Test hole	7 ☐ Abandoned (Other)		
4 ☐ Recharge well	8 ☐ Dewatering		

WATER USE			55-56
1 ☒ Domestic	5 ☐ Commercial	9 ☐ Not use	
2 ☐ Stock	6 ☐ Municipal	10 ☐ Other	
3 ☐ Irrigation	7 ☐ Public supply		
4 ☐ Industrial	8 ☐ Cooling & air conditioning		

METHOD OF CONSTRUCTION			57
1 ☐ Cable tool	5 ☒ Air percussion	9 ☐ Driving	
2 ☐ Rotary (conventional)	6 ☐ Boring	10 ☐ Digging	
3 ☐ Rotary (reverse)	7 ☐ Diamond	11 ☐ Other	
4 ☐ Rotary (air)	8 ☐ Jetting		

LOCATION OF WELL

In diagram below show distances of well from road and lot line.
Indicate north by arrow.

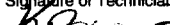
↑ N

100'

← 11 Km

Trailwood.

237826

Name of Well Contractor A. Koch Drilling Ltd	Well Contractor's Licence No. 1119
Address RR #1 Richmond, Ont	
Name of Well Technician Shannon Purcell	Well Technician's Licence No. T2122
Signature of Technician/Contractor 	Submission date 10 day 04 02 yr mo

MINISTRY USE ONLY	Data source	58	Contractor	59-62	Date received	63-68	80
			1119		APR 15 2002		
	Date of inspection		Inspector				
	Remarks	CSS.ES2					

Print only in spaces provided.
Mark correct box with a checkmark, where applicable.

11

1533234

15009

Con.

County or District OTTAWA CARLETON	Township/Borough/City/Town/Village OSGOOD	Con block tract survey, etc. PLAN 4/M-773	Lot 8
Address 2130 TRAILWOOD DRIVE NORTH Gower Ont.		Date completed 07/10/02	48-53 day month year

21	2	10	12	17	18	24	25	26	30	31	37	47
----	---	----	----	----	----	----	----	----	----	----	----	----

General colour	Most common material	Other materials	General description	Depth - feet	
				From	To
Brown	Till	Boulders	Gravel	0	10
Grey	Till	"	"	10	38
Grey	limestone Rock	"	Fractured	38	45
Grey	"	"	Layered	45	90

31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Water found at - feet	Kind of water
80	1 ☒ Fresh 3 ☐ Sulphur 14 ☐ Minerals 6 ☐ Gas
15-18	1 ☐ Fresh 3 ☐ Sulphur 19 ☐ Minerals 6 ☐ Gas
20-23	1 ☐ Fresh 3 ☐ Sulphur 24 ☐ Minerals 6 ☐ Gas
25-28	1 ☐ Fresh 3 ☐ Sulphur 29 ☐ Minerals 6 ☐ Gas
30-33	1 ☐ Fresh 3 ☐ Sulphur 34 ☐ Minerals 6 ☐ Gas

Inside diam inches	Material	Wall thickness inches	Depth - feet	
			From	To
8 3/4"	1 ☐ Steel 12 ☐ Galvanized 2 ☐ Concrete 3 ☐ Open hole 4 ☒ Plastic		0	45
6 1/4"	1 ☐ Steel 19 ☐ Galvanized 2 ☐ Concrete 3 ☐ Open hole 4 ☒ Plastic	1.88	45	90
6"	1 ☐ Steel 26 ☐ Galvanized 2 ☐ Concrete 3 ☐ Open hole 4 ☒ Plastic		45	90

Sizes of opening (Slot No.)	Diameter inches	Length feet

Depth set at - feet	Material and type (Cement grout, bentonite, etc.)
0-45	Cement Grout

Pumping test method	Pumping rate	Duration of pumping
1 ☒ Pump 2 ☐ Well	7 GPM	15-18 Hours 2 Mins
Static level	Water level during	Water levels during
18 feet	90 feet	15 minutes 24 feet 30 minutes 22 feet 45 minutes 20 feet 60 minutes 18 feet
If flowing give rate	Pump intake set at	Water at end of test
GPM	90 feet	☐ Clear ☒ Cloudy
Recommended pump type	Recommended pump setting	Recommended pump rate
☐ Shallow ☒ Deep	80 feet	6 GPM

1 ☒ Water supply	5 ☐ Abandoned, insufficient supply	9 ☐ Unfinished
2 ☐ Observation well	6 ☐ Abandoned, poor quality	10 ☐ Replacement well
3 ☐ Test hole	7 ☐ Abandoned (Other)	
4 ☐ Recharge well	8 ☐ Dewatering	

1 ☒ Domestic	5 ☐ Commercial	9 ☐ Not use
2 ☐ Stock	6 ☐ Municipal	10 ☐ Other
3 ☐ Irrigation	7 ☐ Public supply	
4 ☐ Industrial	8 ☐ Cooling & air conditioning	

1 ☐ Cable tool	5 ☐ Air percussion	9 ☐ Driving
2 ☐ Rotary (conventional)	6 ☐ Boring	10 ☐ Digging
3 ☐ Rotary (reverse)	7 ☐ Diamond	11 ☐ Other
4 ☒ Rotary (air)	8 ☐ Jetting	

In diagram below show distances of well from road and lot line. Indicate north by arrow.

Name of Well Contractor Gilles Bourgeois Woodrill	Well Contractor's Licence No. 1414
Address St-Albert Ont.	
Name of Well Technician Jacques Raymond	Well Technician's Licence No. T-0264
Signature of Technician/Contractor	Submission date day mo yr

Data source	Contractor	Date received
	1414	OCT 21 2002
Date of inspection	Inspector	
Remarks	CSS.ES2	

Print only in spaces provided.

Mark correct box with a checkmark, where applicable.

11

1533324

Municipality

15004

Con.

County or District <i>Ottawa Carleton</i>		Township/Borough/City/Town/Village <i>North Gower</i>	Con block tract survey, etc. <i>Plan 4M-773</i>	Lot <i>6</i>
Owner's surname <i>Ontario Ltd</i>	First Name <i>724471</i>	Address <i>2120 TRAILWOOD DR. N. GOWER</i>	Date completed <i>28/10/02</i> day month year	

Figure 1 illustrates the layout of a data record. The record consists of several fields: a box containing the number 21, followed by Zone, Easting, Northing, RC, Elevation, RC, Basin Code, and a final box containing the Roman numerals ii, iii, and iv. Below the fields are horizontal lines with tick marks and numbers indicating their positions: 1, 2, 10, 12, 17, 18, 24, 25, 26, 30, 31, and 47. To the left of the Zone field is a vertical stack of letters U, T, and M.

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)[illegible]

31

32      

41		14		13		21	
WATER RECORD							
Water found at - feet		Kind of water					
10-13		1	☒ Fresh	3	☐ Sulphur	14	
		2	☐ Salty	4	☐ Minerals		
				6	☐ Gas		
15-18		1	☐ Fresh	3	☐ Sulphur	19	
		2	☐ Salty	4	☐ Minerals		
				6	☐ Gas		
20-23		1	☐ Fresh	3	☐ Sulphur	24	
		2	☐ Salty	4	☐ Minerals		
				6	☐ Gas		
25-28		1	☐ Fresh	3	☐ Sulphur	29	
		2	☐ Salty	4	☐ Minerals		
				6	☐ Gas		
30-33		1	☐ Fresh	3	☐ Sulphur	34	
		2	☐ Salty	4	☐ Minerals		
				6	☐ Gas		

51 CASING & OPEN HOLE RECORD				
Inside diam inches	Material	Wall thickness inches	Depth - feet	
			From	To
10-11 8 3/4"	☐ Steel ☒ Galvanized ☐ Concrete ☒ Open hole ☐ Plastic	12	0	13-16 45
17-18 6 1/4"	☒ Steel ☐ Galvanized ☐ Concrete ☐ Open hole ☐ Plastic	19	188 + 2	20-23 45
24-25 6"	☐ Steel ☐ Galvanized ☐ Concrete ☐ Open hole ☐ Plastic	26	45	27-30 90

SCREEN	Sizes of opening (Slot No.)	31-33	Diameter	34-38	Length	39-40
			inches		feet	
	Material and type			Depth at top of screen	41-44	30
				feet		

61		PLUGGING & SEALING RECORD	
☒ Annular space		☐ Abandonment	
Depth set at - feet		Material and type (Cement grout, bentonite, etc.)	
From	To		
0-13	45	Cement grout	
18-21	22-25		
26-29	30-33		
		80	

PUMPING TEST	Pumping test method ¹⁰ 1 ☐ Pump At ¹ Bailer		Pumping rate ¹¹⁻¹⁴ 15 GPM		Duration of pumping ¹⁵⁻¹⁶ 1 Hours ¹⁷⁻¹⁸ 0 Mins	
	Static level ¹⁹⁻²¹ 16 feet		Water level end of pumping ²²⁻²⁴ 90 feet		Water levels during ²⁵ 1 ☐ Pumping 2 ☒ Recovery	
	²⁶⁻²⁸ 22 feet		²⁹⁻³¹ 20 feet		³²⁻³⁴ 18 feet	
	³⁵⁻³⁷ 16 feet		³⁸⁻⁴¹ 90 feet		⁴² 10 GPM	
	Recommended pump type ☐ Shallow ☒ Deep		Recommended pump setting ⁴³⁻⁴⁵ 75 feet		Recommended pump rate ⁴⁶⁻⁴⁹ 10 GPM	
	If flowing give rate		Pump intake set at ⁵⁰⁻⁵³ 90 feet		Water at end of test ☐ Clear ☒ Cloudy	

FINAL STATUS OF WELL			54
1 ☒ Water supply	5 ☐ Abandoned, insufficient supply	9 ☐ Unfinished	
2 ☐ Observation well	6 ☐ Abandoned, poor quality	10 ☐ Replacement well	
3 ☐ Test hole	7 ☐ Abandoned (Other)		
4 ☐ Recharge well	8 ☐ Dewatering		

WATER USE			55-56
1 ☒ Domestic	5 ☐ Commercial	9 ☐ Not use	
2 ☐ Stock	6 ☐ Municipal	10 ☐ Other	
3 ☐ Irrigation	7 ☐ Public supply		
4 ☐ Industrial	8 ☐ Cooling & air conditioning		

METHOD OF CONSTRUCTION			57
1 ☐ Cable tool	5 ☐ Air percussion	9 ☐ Driving	
2 ☐ Rotary (conventional)	6 ☐ Boring	10 ☐ Digging	
3 ☐ Rotary (reverse)	7 ☐ Diamond	11 ☐ Other	
4 ☒ Rotary (air)	8 ☐ Jetting		

LOCATION OF WELL

In diagram below show distances of well from road and lot line.
Indicate north by arrow.

252742

Name of Well Contractor <i>Gilles Bourgeois Well Drill</i>	Well Contractor's Licence No. <i>1414</i>
Address <i>St-Albert Ont.</i>	
Name of Well Technician <i>Jacques Raymond</i>	Well Technician's Licence No. <i>1-0264</i>
Signature of Technician/Contractor <i>[Signature]</i>	Submission date <i>28 11 02</i> day mo yr

MINISTRY USE ONLY	Data source	58 Contractor	59-62	Date received	63-68	80
	1414		NOV 08 2002			
	Date of inspection		Inspector			
	Remarks					
	CSS.ES2					

Instructions for Completing Form

- For use in the Province of Ontario only. This document is a permanent legal document. Please retain for future reference.
- All Sections must be completed in full to avoid delays in processing. Further instructions and explanations are available on the back of this form.
- Questions regarding completing this application can be directed to the Water Well Management Coordinator at 416-235-6203.
- All metre measurements shall be reported to 1/10th of a metre.
- Please print clearly in blue or black ink only.

Well Owner's Information and Location of Well Information

First Name Hansand ID		Last Name Construction		Mailing Address (Street Number/Name, RR, Lot, Concession) 2108 Regional Rd 8			
County/District/Municipality City of Ottawa		Township/City/Town/Village NORTH LOWER		Province Ontario	Postal Code K0A 2T0	Telephone Number (include area code) 613-838-2463	
Address of Well Location (County/District/Municipality) City of Ottawa				Township Osgoode		Lot 38	Concession 4
RR#/Street Number/Name 6647 Stillwood DRIVE				City/Town/Village NORTH LOWER		Site/Compartment/Block/Tract etc. Plan 4M-1209	
GPS Reading	NAD 83	Zone 18	Easting 445173 E	Northing 4998194	Unit Make/Model Magellan	Mode of Operation: ☐ Undifferentiated ☒ Averaged ☐ Differentiated, specify	

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Metres To
brown	fill		Hard	0	3.0
grey	fill	boulders	Hard	3.0	11.88
grey	limestone		layered	11.88	27.43

Hole Diameter			Construction Record				Test of Well Yield			
Depth From	Metres To	Diameter Centimetres	Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Metres To	Pumping test method	Draw Down	Recovery
0	11.88	22.23						34H.P.S. 46	Time min	Water Level Metres
11.88	27.43	15.55						Pump intake set at - (metres) 25	Static Level	5.10
								Pumping rate - (litres/min) 60	1	5.58
								Duration of pumping 1 hrs + 0 min	2	5.70
								Final water level end of pumping 5.90 metres	3	5.73
								Recommended pump type. ☐ Shallow ☒ Deep	4	5.80
								Recommended pump depth. 25 metres	5	5.90
								Recommended pump rate. (litres/min) 44	10	5.81
								If flowing give rate - (litres/min) 25	15	5.86
								If pumping discontinued, give reason.	20	5.89
									25	5.90
									30	5.90
									40	5.90
									50	5.90
									60	5.90

Plugging and Sealing Record			Annular space	Abandonment
Depth set at - Metres From	To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)	
0	11.88	neat cement grout	96 bag	

Method of Construction			
☐ Cable Tool	☒ Rotary (air)	☐ Diamond	☐ Digging
☐ Rotary (conventional)	☐ Air percussion	☐ Jetting	☐ Other
☐ Rotary (reverse)	☐ Boring	☐ Driving	

Water Use			
☒ Domestic	☐ Industrial	☐ Public Supply	☐ Other
☐ Stock	☐ Commercial	☐ Not used	
☐ Irrigation	☐ Municipal	☐ Cooling & air conditioning	

Final Status of Well	
☒ Water Supply	☐ Recharge well
☐ Observation well	☐ Abandoned, insufficient supply
☐ Test Hole	☐ Abandoned, poor quality
☐ Unfinished	☐ Dewatering
☐ Abandoned, (Other)	☐ Replacement well

Well Contractor/Technician Information	
Name of Well Contractor Gilles Bougeois	Well Contractor's Licence No. 1414
Business Address (street name, number, etc.) 5741 16th ave	
Name of Well Technician (last name, first name) SA me	Well Technician's Licence No. 0-193
Signature of Technician/Contractor x Gilles Bougeois	Date Submitted 04 09 16

Location of Well	
In diagram below show distances of well from road, lot line, and building. Indicate north by arrow.	

Audit No. 2	Well Completed 04 09 16
Was the well owner's information package delivered? ☒ Yes ☐ No	Date Delivered 04 09 16

Ministry Use Only	
Data Source	Contractor 1414
Date Received AUG 30 2004	Date of Inspection 04 09 16
Remarks	Well Record Number 1534867



Ministry of
the Environment

Well Tag

A 012062

Well Record

Regulation 903 Ontario Water Resources Act

page ____ of ____

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- All metre measurements shall be reported to 1/10th of a metre.
- Please print clearly in blue or black ink only.

Well Owner's Information and Location of Well Information

First Name Hans and Jo	Last Name Const Ruction	Mailing Address (Street Number/Name, RR Lot, Concession) 124471 on Ltd 2108 Regional Rd 8	
County/District/Municipality City of Ottawa	Township/City/Town/Village Osgoode	Province Ontario	Postal Code 613-838-2463
Address of Well Location (County/District/Municipality) City of Ottawa		Township Osgoode	Lot 37
RR#/Street Number/Name MA. Stillwood Drive		City/Town/Village NORTH Osgoode	Site/Compartment/Block/Tract etc. Plan 4M-1209
GPS Reading 8.3	NAD 18	Zone 44517.0 E	Easting 4998147
Unit Make/Model Magellan		Mode of Operation: ☐ Undifferentiated ☒ Averaged	☐ Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Metres To
brown	fill		Hard	0	2.90
grey	fill	solids	Hard	2.90	10.36
grey	limestone		layered	10.36	24.38

Hole Diameter			Construction Record				Test of Well Yield			
Depth From	Metres To	Diameter Centimetres	Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Metres To	Pumping test method	Draw Down	Recovery
0	10.36	22.23						34HP sub	Time min	Water Level Metres
10.36	24.38	15.55						Pump intake set at - (metres) 18	Static Level	3.90
				☒ Steel ☐ Fibreglass	0.48	0	10.36	Pumping rate - (litres/min) 60	1	4.28
				☐ Plastic ☐ Concrete				Duration of pumping 1 hrs + 0 min	2	4.33
				☐ Galvanized				Final water level end of pumping 4.52 metres	3	4.14
				☐ Steel ☐ Fibreglass				Recommended pump type ☐ Shallow ☒ Deep	4	4.37
				☐ Plastic ☐ Concrete				Recommended pump depth 18 metres	5	4.57
				☐ Galvanized				Recommended pump rate (litres/min) 44	10	4.46
								If flowing give rate - (litres/min)	15	4.46
									20	4.51
									25	4.54
									30	4.54
									40	4.54
									50	4.52
									60	4.52

Plugging and Sealing Record			☐ Annular space	☐ Abandonment
Depth set at	Metres From	Metres To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
0	10.00		cement slurry	8 bags

Method of Construction			
☐ Cable Tool	☒ Rotary (air)	☐ Diamond	☐ Digging*
☐ Rotary (conventional)	☐ Air percussion	☐ Jetting	☐ Other
☐ Rotary (reverse)	☐ Boring	☐ Driving	
Water Use			
☒ Domestic	☐ Industrial	☐ Public Supply	☐ Other
☐ Stock	☐ Commercial	☐ Not used	
☐ Irrigation	☐ Municipal	☐ Cooling & air conditioning	
Final Status of Well			
☒ Water Supply	☐ Recharge well	☐ Unfinished	☐ Abandoned, (Other)
☐ Observation well	☐ Abandoned, insufficient supply	☐ Dewatering	
☐ Test Hole	☐ Abandoned, poor quality	☐ Replacement well	

Well Contractor/Technician Information	
Name of Well Contractor Gilles Bourgeois	Well Contractor's Licence No. 1414
Business Address (street name, number, city etc.) 5741 Berrand Ave	
Name of Well Technician (last name, first name) SA me	Well Technician's Licence No. 0-193
Signature of Technician/Contractor x Gilles Bourgeois	Date Submitted 04/08/16

Location of Well	
In diagram below show distances of well from road, lot line, and building. Indicate north by arrow.	
Audit No. Z 12198	Date Well Completed 04/08/16
Was the well owner's information package delivered? ☐ Yes ☒ No	Date Delivered 04/08/16

Ministry Use Only	
Data Source	Contractor 1414
Date Received AUG 30 2004	Date of Inspection 04/08/16
Remarks	Well Record Number 1534868



022034

Well Record

Regulation 903 Ontario Water Resources Act

page _____ of _____

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Well Owner's Information and Location of Well Information

MUN

CON

LOT

Street Number/Name * 2134 TRAILWOOD DRIVE				City/Town/Village NORTH GOWER		Site/Compartment/Block/Tract/etc. PLAN 4M-113, S/L 9	
Grids Reading NAD 8 3		Zone 18		Easting 445119		Northing 4998321	
Unit Make/Model MAGELLAN				Mode of Operation: ☐ Undifferentiated ☒ Averaged ☐ Differentiated, specify			

Log of Overburden and Bedrock Materials (see instructions)

[illegible]

Hole Diameter			Construction Record				Test of Well Yield							
Depth	Metres	Diameter	Inside diam centimetres	Material	Wall thickness centimetres	Depth		Pumping test method	Draw Down		Recovery			
From	To	Centimetres				From	To		Time min	Water Level Metres	Time min	Water Level Metres		
0	36.54	15.23							Sub pump	Static Level	6.88		7.05	
			Casing						Pump intake set at - (metres)	1	7.77	1	7.06	
			15.88	☒ Steel ☐ Fibreglass	.48	0	17.37	Pumping rate - (litres/min)	91					
				☐ Plastic ☐ Concrete				Duration of pumping	2	7.23	2	7.95		
				☐ Galvanized				1 hrs + 0 min						
Water Record									Final water level end of pumping	3	7.23	3	7.90	
Water found at 33.32 m ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other: NOT TESTED									Recommended pump type	4	7.23	4	7.88	
									☐ Shallow ☒ Deep					
									Recommended pump depth	5	7.23	5		
									Recommended pump rate	91	10	7.23	10	
									(litres/min)	15	7.23	15		
									If flowing give rate - (litres/min)	20	7.23	20		
										25	7.23	25		
									If pumping discontinued, give reason	30	7.23	30		
										40	7.24	40		
										50	7.24	50		
										60	7.23	60		
After test of well yield, water was			Screen											
☐ Clear and sediment free			Outside diam	☐ Steel ☐ Fibreglass	Slot No.									
☐ Other, specify								☐ Plastic ☐ Concrete						
			☐ Galvanized											
Chlorinated			No Casing or Screen											
☒ Yes ☐ No			☒ Open hole						16.76 36.57					

Plugging and Sealing Record			☒ Annular space	☐ Abandonment
Depth set at - Metres		Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)	
From	To			
11.76	13.71	NEAT CEMENT SLURRY	- 454	
13.71	0	BENTONITE SLURRY	- 123	

Method of Construction			
☐ Cable Tool	☐ Rotary (air)	☐ Diamond	☐ Digging
☐ Rotary (conventional)	☒ Air percussion	☐ Jetting	☐ Other
☐ Rotary (reverse)	☒ Boring	☐ Driving	

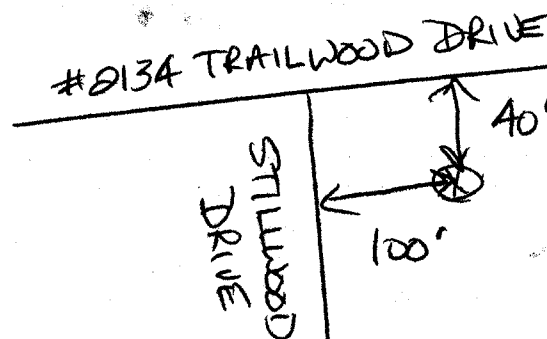
Water Use			
☒ Domestic	☐ Industrial	☐ Public Supply	☐ Other
☐ Stock	☐ Commercial	☐ Not used	
☐ Irrigation	☐ Municipal	☐ Cooling & air conditioning	

Final Status of Well			
☒ Water Supply	☐ Recharge well	☐ Unfinished	☐ Abandoned, (Other)
☐ Observation well	☐ Abandoned, insufficient supply	☐ Dewatering	
☐ Test Hole	☐ Abandoned, poor quality	☐ Replacement well	

Well Contractor/Technician Information	
Name of Well Contractor AIRLOCK DRILLING CO LTD	Well Contractor's Licence No. TU119
Business Address (street name, number, city etc.) RR #1 RICHMOND ONT K0A2Z0	
Name of Well Technician (last name, first name) HOSEAN DAN	Well Technician's Licence No. T3058
Signature of Technician/Contractor [Signature]	Date Submitted yyyy mm dd 2050502

Location of Well

In diagram below show distances of well from road, lot line, and building. Indicate north by arrow.



Audit No. z 23248	Date Well Completed 2005 04 27
Was the well owner's information package delivered? ☒ Yes ☐ No	Date Delivered 2005 04 27

Ministry Use Only			
Data Source	Contractor		
Date Received	YYYY	MM	DD
JUN 06 2005			
Remarks	Well Record Number		

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- Please print clearly in blue or black ink only.

Well Owner's Information and Location of Well Information

Ministry Use Only									
MUN								CON	LOT

City/Town/Village **City of Ottawa** North Corner **39**
 RR#/Street Number/Name **6643 5011 Wood DR.** City/Town/Village **NORTH Corner** Site/Compartment/Block/Tract etc. **Plan 4 M-1209**
 GPS Reading **8.3** NAD **1.8** Zone **445174 E** Easting **4998222** Northing **Magellan** Unit Make/Model **u+m** Mode of Operation: ☐ Undifferentiated ☒ Averaged ☐ Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Metres To
Brown	fill	boulders	Hard	0	4.26
grey	fill	boulders	Hard	4.26	9.14
grey	11 m. stone		Fracture	9.14	11.27
grey	11 m. stone		layered	11.27	27.43

Hole Diameter			Construction Record				Test of Well Yield					
Depth From	Metres To	Diameter Centimetres	Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Metres To	Pumping test method	Draw Down Time min	Water Level Metres	Recovery Time min	Water Level Metres
0	11.27	21.23						2. H.P. sub				
11.27	27.43	15.55	15.55	Steel	0.48	+0.60	11.27	Pump intake set at - (metres) 15	1	3.36	1	3.93
				Plastic				Pumping rate - (litres/min) 40	2		2	
				Galvanized				Duration of pumping 1 hrs + 0 min	3	3.70	3	3.36
				Steel				Final water level end of pumping 2.93 metres	4	3.78	4	
				Plastic				Recommended pump type. ☐ Shallow ☒ Deep	5	3.83	5	
				Galvanized				Recommended pump depth. 15 metres	10	3.93	10	
				Steel				Recommended pump rate. 40 (litres/min)	15	3.93	15	
				Plastic				If flowing give rate - (litres/min)	20	3.93	20	
				Galvanized				If pumping discontinued, give reason.	25	3.93	25	
									30	3.93	30	
									40	3.93	40	
									50	3.93	50	
									60	3.93	60	

Plugging and Sealing Record			
Depth set at - Metres From	Metres To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
0	11.27	neat cement slurry	6 Bags

Method of Construction			
☐ Cable Tool	☒ Rotary (air)	☐ Diamond	☐ Digging
☐ Rotary (conventional)	☐ Air percussion	☐ Jetting	☐ Other
☐ Rotary (reverse)	☐ Boring	☐ Driving	

Water Use			
☒ Domestic	☐ Industrial	☐ Public Supply	☐ Other
☐ Stock	☐ Commercial	☐ Not used	
☐ Irrigation	☐ Municipal	☐ Cooling & air conditioning	

Final Status of Well			
☒ Water Supply	☐ Recharge well	☐ Unfinished	☐ Abandoned, (Other)
☐ Observation well	☐ Abandoned, insufficient supply	☐ Dewatering	
☐ Test Hole	☐ Abandoned, poor quality	☐ Replacement well	

Well Contractor/Technician Information	
Name of Well Contractor Gilles Bourgeois	Well Contractor's Licence No. 1414
Business Address (street name, number, city etc.) 5011 Wood DR.	
Name of Well Technician (last name, first name) Claude Boucher	Well Technician's Licence No. 3310
Signature of Technician/Contractor Claude Boucher	Date Submitted 05/11/18

Location of Well			
In diagram below show distances of well from road, lot line, and building. Indicate north by arrow.			
Audit No. Z 40061	Date Well Completed 05/11/18		
Was the well owner's information package delivered? ☐ Yes ☒ No	Date Delivered		

Ministry Use Only			
Data Source	Contractor 1414		
Date Received DEC 20 2005	Date of Inspection		
Remarks	Well Record Number		

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Well Owner's Information and Location of Well Information

Ottawa Carleton	Rideau - North Gower	19/20	4
RR#/Street Number/Name	City/Town/Village	Site/Compartment/Block/Tract etc.	
Stirlwood Drive, Maple Forest	North Gower		
GPS Reading	NAD	Zone	Easting
8 3	18	44 51 45	499 82 79
Unit Make/Model		Mode of Operation:	
Garmin		☐ Undifferentiated ☒ Averaged	
		☐ Differentiated, specify	

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Metres To
Brown	Hardpan	Boulders	Packed	0	9.14
Gray	Sand & Gravel			9.14	12.19
Gray	Hardpan			12.19	13.71
Gray	Limestone	Sandstone Layers	Hard	13.71	52.72

Hole Diameter			Construction Record				Test of Well Yield			
Depth From	Metres To	Diameter Centimetres	Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Metres To	Pumping test method	Draw Down	Recovery
0	17.98	22.75						submersible	Time min	Water Level Metres
17.98	52.72	15.23						Pump intake set at - (metres)	Static Level	
			15.86	☒ Steel ☐ Fibreglass	.48	+	.45	17.98	1	5.61
				☐ Plastic ☐ Concrete				Pumping rate (litres/min)	6.17	5.57
				☐ Galvanized				Duration of pumping	2	5.57
				☐ Steel ☐ Fibreglass				1 hrs + min	6.23	
				☐ Plastic ☐ Concrete				Final water level end of pumping	3	5.57
				☐ Galvanized				6.34 metres	4	5.64
				☐ Steel ☐ Fibreglass				Recommended pump type	5	5.64
				☐ Plastic ☐ Concrete				☐ Shallow ☒ Deep	6.26	
				☐ Galvanized				Recommended pump depth	24.38 metres	
								Recommended pump rate	45.5 (litres/min)	
								If flowing give rate - (litres/min)	10	5.64
								If pumping discontinued, give reason.	15	5.63
									20	5.63
									25	5.63
									30	5.62
									40	5.62
									50	5.61
									60	5.61

Plugging and Sealing Record			☒ Annular space	☐ Abandonment
Depth set at - Metres	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)		
From To				
17.98 0	Grouted - Cement	.63m3		

Method of Construction			
☐ Cable Tool	☒ Rotary (air mud)	☐ Diamond	☐ Digging
☐ Rotary (conventional)	☒ Air percussion	☐ Jetting	☐ Other
☐ Rotary (reverse)	☐ Boring	☐ Driving	

Water Use			
☒ Domestic	☐ Industrial	☐ Public Supply	☐ Other
☐ Stock	☐ Commercial	☐ Not used	
☐ Irrigation	☐ Municipal	☐ Cooling & air conditioning	

Final Status of Well			
☒ Water Supply	☐ Recharge well	☐ Unfinished	☐ Abandoned, (Other)
☐ Observation well	☐ Abandoned, insufficient supply	☐ Dewatering	
☐ Test Hole	☐ Abandoned, poor quality	☐ Replacement well	

Well Contractor/Technician Information	
Name of Well Contractor	Well Contractor's Licence No.
Capital Water Supply Ltd.	1558
Business Address (street name, number, city etc.)	
Box 490 Stittsville, Ontario K2S 1A6	
Name of Well Technician (last name, first name)	Well Technician's Licence No.
Miller, Stephen	T0097
Signature of Technician/Contractor	Date Submitted
	2006 6 20

Location of Well	
In diagram below show distances of well from road, lot line, and building. Indicate north by arrow.	
Audit No.	Date Well Completed
Z 46988	2006 6 16
Was the well owner's information package delivered?	Date Delivered
☒ Yes ☐ No	2006 6 16

Ministry Use Only	
Data Source	Contractor
	1558
Date Received	Date of Inspection
JUL 11 2006	
Remarks	Well Record Number

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Well Owner's Information and Location of Well Information

Ministry Use Only									
MUN								CON	LOT

Ottawa Carleton				Rideau				21		3	
RR#/Street Number/Name				City/Town/Village				Site/Compartment/Block/Tract etc.			
Lot 36, Maple Forest				North Gower							
GPS Reading		NAD Zone		Easting		Northing		Unit Make/Model		Mode of Operation:	
8 3		18		44 51 85		49 981 12		Garmin		☐ Undifferentiated ☒ Averaged ☐ Differentiated, specify	

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Metres To
Brown	Soil	Stones	Packed	0	3.65
Gray	Sandy Soil		Packed	3.65	7.01
Gray	Hardpan		Packed	7.01	10.05
Gray	Limestone		Medium	10.05	29.86
Gray & White	Sandstone		Hard	29.86	48.76

Hole Diameter		
Depth From	Metres To	Diameter Centimetres
0	11.88	22.75
11.88	48.76	15.07

Water Record	
Water found at Metres	Kind of Water
46.63	☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other: not tested
	☐ m ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

After test of well yield, water was

☒ Clear and sediment free

☐ Other, specify _____

Chlorinated ☒ Yes ☐ No

Construction Record				
Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Metres To
Casing				
15.86	☒ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	.48	+ .45	11.88
Screen				
Outside diam	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
No Casing or Screen				
15.07	☒ Open hole		11.88	48.76

Test of Well Yield				
Pumping test method	Draw Down	Recovery		
	Time min	Water Level Metres	Time min	Water Level Metres
submersible				
Pump intake set at - (metres)	42.66	Static Level	3.78	
Pumping rate - (litres/min)	72.80	1	5.87	8.91
Duration of pumping	2 hrs + min	2	6.22	6.10
Final water level end of pumping	13.66 metres	3	7.01	4.87
Recommended pump type	☐ Shallow ☒ Deep	4	7.95	4.25
Recommended pump depth	22.85 metres	5	8.64	3.96
Recommended pump rate	45.5 (litres/min)	10	9.57	3.78
If flowing give rate - (litres/min)		15	11.46	3.77
If pumping discontinued, give reason.		20	12.29	3.78
		25	12.53	3.78
		30	12.65	3.78
		40	13.47	3.78
		50	13.54	3.78
		60	13.58	3.78

Plugging and Sealing Record		
Depth set at - Metres	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
11.88	0 Grouted - Cement Slurry	.42m3

Method of Construction			
☐ Cable Tool	☒ Rotary (air)	☐ Diamond	☐ Digging
☐ Rotary (conventional)	☒ Air percussion	☐ Jetting	☐ Other
☐ Rotary (reverse)	☐ Boring	☐ Driving	

Water Use			
☒ Domestic	☐ Industrial	☐ Public Supply	☐ Other
☐ Stock	☐ Commercial	☐ Not used	
☐ Irrigation	☐ Municipal	☐ Cooling & air conditioning	

Final Status of Well			
☒ Water Supply	☐ Recharge well	☐ Unfinished	☐ Abandoned, (Other)
☐ Observation well	☐ Abandoned, insufficient supply	☐ Dewatering	
☐ Test Hole	☐ Abandoned, poor quality	☐ Replacement well	

Well Contractor/Technician Information	
Name of Well Contractor	Well Contractor's Licence No.
Capital Water Supply Ltd.	1558
Business Address (street name, number, city etc.)	
Box 490 Stittsville, Ontario K2S 1A6	
Name of Well Technician (last name, first name)	Well Technician's Licence No.
Miller, Stephen	T0097
Signature of Technician/Contractor	Date Submitted
	2006 11 03

Location of Well	
In diagram below show distances of well from road, lot line, and building. Indicate north by arrow.	
Audit No.	Date Well Completed
Z 58707	2006 11 02
Was the well owner's information package delivered?	Date Delivered
☒ Yes ☐ No	2006 11 02

Ministry Use Only	
Data Source	Contractor
	1558
Date Received	Date of Inspection
JAN 25 2007	
Remarks	Well Record Number



Well Tag **A 055097** (see below)

A055097

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Ministry Use Only

Address of Well Location (County/District/Municipality) **Ottawa - Carleton** Township **Rideau** Lot **20** Concession **3**

RR#/Street Number/Name **# 2121 Roger Stevens** City/Town/Village **North Gower** Site/Compartment/Block/Tract/etc. **1**

GPS Reading NAD **83** Zone **18** Easting **444967** Northing **4998642** Unit Make/Model **Mogellon** Mode of Operation: ☐ Undifferentiated ☒ Averaged ☐ Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

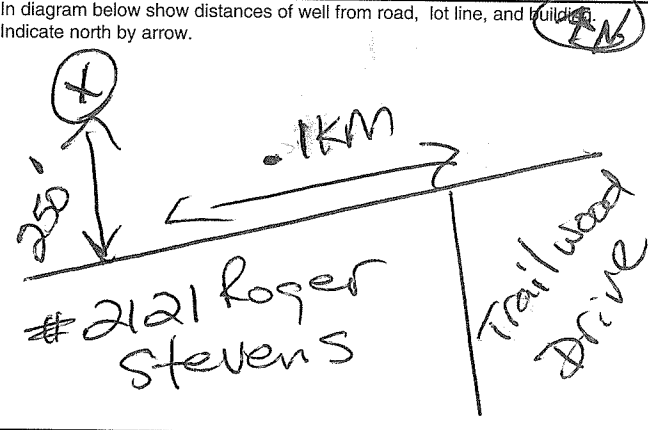
General Colour	Most common material	Other Materials	General Description	Depth	
				From	To
	Sand, Boulders			0	12.19
	Gray Limestone			12.19	36.57

Hole Diameter			Construction Record				Test of Well Yield					
Depth From	Metres To	Diameter Centimetres	Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Metres To	Pumping test method (metres)	Draw Down		Recovery	
									Time min	Water Level Metres	Time min	Water Level Metres
0	36.57	14.59						Sub Pump				
				☒ Steel ☐ Fibreglass				Pump intake set at	Static			
			15.88	☐ Plastic ☐ Concrete				30.48	2.75			10.50
				☐ Galvanized				Pumping rate -	1	5.24	1	5.73
								(litres/min)				
				☐ Steel ☐ Fibreglass				Duration of pumping	2	6.20	2	3.69
				☐ Plastic ☐ Concrete				1 hrs + 0 min				
				☐ Galvanized				Final water level end of pumping	3	7.06	3	2.75
								10.50 metres				
				☐ Steel ☐ Fibreglass				Recommended pump type	4	7.67	4	
				☐ Plastic ☐ Concrete				☐ Shallow ☒ Deep				
				☐ Galvanized				Recommended pump depth	5	8.22	5	
								30.48 metres				
								Recommended pump rate	10	9.48	10	
								(litres/min)	15	9.89	15	
								If flowing give rate -	20	10.36	20	
								(litres/min)	25	10.40	25	
								If pumping discontinued, give reason.	30	10.48	30	
									40	10.48	40	
									50	10.50	50	
									60	10.50	60	

Plugging and Sealing Record			☒ Annular space	☐ Abandonment
Depth set at - Metres From	To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)	
15.85	12.80	Neat Cement Slurry	.227	
12.80	0	Bentonite Slurry	.613	

Method of Construction			
☐ Cable Tool	☐ Rotary (air)	☐ Diamond	☐ Digging
☐ Rotary (conventional)	☒ Air percussion	☐ Jetting	☐ Other
☐ Rotary (reverse)	☐ Boring	☐ Driving	
Water Use			
☒ Domestic	☐ Industrial	☐ Public Supply	☐ Other
☐ Stock	☐ Commercial	☐ Not used	
☐ Irrigation	☐ Municipal	☐ Cooling & air conditioning	
Final Status of Well			
☒ Water Supply	☐ Recharge well	☐ Unfinished	☐ Abandoned, (Other)
☐ Observation well	☐ Abandoned, insufficient supply	☐ Dewatering	
☐ Test Hole	☐ Abandoned, poor quality	☐ Replacement well	

Well Contractor/Technician Information	
Name of Well Contractor AIR ROCK DRILLING CO LTD	Well Contractor's Licence No. 1119
Business Address (street name, number, city etc.) RR#1 RICHMOND ONT L6A2Z0	
Name of Well Technician (last name, first name) Dasamuniars Ken	Well Technician's Licence No. 14
Signature of Technician/Contractor <i>[Signature]</i>	Date Submitted 2007 07/27

Location of Well	
In diagram below show distances of well from road, lot line, and building. Indicate north by arrow.	
	
Audit No. Z 65105	Date Well Completed 2007 06/28
Was the well owner's information package delivered? ☒ Yes ☐ No	Date Delivered 2007 06/28

Ministry Use Only	
Data Source	Contractor 11119
Date Received AUG 07 2007	Date of Inspection YYYY MM DD
Remarks	Well Record Number

Measurements recorded in: ☒ Metric ☐ Imperial

Well Owner's Information

First Name <i>Mary and</i>	Last Name / Organization <i>Jo Construction</i>	E-mail Address <i>NA</i>		☐ Well Constructed by Well Owner
Mailing Address (Street Number/Name) <i>6639 Stillwood Drive</i>	Municipality <i>North York</i>	Province <i>Ontario</i>	Postal Code <i>K0A2E0</i>	Telephone No. (inc. area code) <i>613 838 2463</i>

Well Location

Address of Well Location (Street Number/Name) 6639 Stillwood Drive		Township Osgood (Rideau)	Lot 4021	Concession 3
County/District/Municipality Ottawa		City/Town/Village North Gower	Province Ontario	Postal Code K0A2T0
UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number
NAD	8	3	118445166	4998242
		4m 1209- Lot 40		
		Other		

Overburden and Bedrock Materials/Abandonment Sealing Record (see instructions on the back of this form)

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft)	
				From	To
Brown	Clay	Silt, Boulder	Hard	0	4.6
Grey	Clay	Silt, Boulder	Hard	4.6	10.2
Grey	gravel		packed	10.2	10.9
Grey	limestone		layered	10.9	30.48

Annular Space			
Depth Set at (m/ft)		Type of Sealant Used	Volume Placed
From	To	(Material and Type)	(m ³ /ft ³)
0	12.8	Cement grout	10 Bag

Method of Construction		Well Use		
☐ Cable Tool	☐ Diamond	☐ Public	☐ Commercial	☐ Not used
☐ Rotary (Conventional)	☐ Jetting	☒ Domestic	☐ Municipal	☐ Dewatering
☐ Rotary (Reverse)	☐ Driving	☐ Livestock	☐ Test Hole	☐ Monitoring
☐ Boring	☐ Digging	☐ Irrigation	☐ Cooling & Air Conditioning	
☒ Air percussion		☐ Industrial		
☐ Other, <i>specify</i> _____		☐ Other, <i>specify</i> _____		

Construction Record - Casing					Status of Well
Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft)		☒ Water Supply ☐ Replacement Well ☐ Test Hole ☐ Recharge Well ☐ Dewatering Well ☐ Observation and/or Monitoring Hole ☐ Alteration (Construction) ☐ Abandoned
			From	To	
15.55	Steel	0.48	4.6	12.8	
15.55	open Hole		12.8	30.48	

Construction Record - Screen				
Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft)	
			From	To

Insufficient Supply

☐ Abandoned, Poor Water Quality

☐ Abandoned, other, specify _____

☐ Other, specify _____

Water Details		Hole Diameter	
Water found at Depth 26 (m/ft) ☐ Gas	Kind of Water: ☒ Fresh ☐ Untested ☐ Other, specify	Depth (m/ft) From To	Diameter (cm/in)
Water found at Depth (m/ft) ☐ Gas	Kind of Water: ☐ Fresh ☐ Untested ☐ Other, specify	0 12.8	21.23
Water found at Depth (m/ft) ☐ Gas	Kind of Water: ☐ Fresh ☐ Untested ☐ Other, specify	12.8 30.48	15.55

Well Contractor and Well Technician Information			
Business Name of Well Contractor		Well Contractor's Licence No.	
Bourgeois well Drilling		1414	
Business Address (Street Number/Name)		Municipality	
1182 900 East		Nation	
Province	Postal Code	Business E-mail Address	
Ontario	K0A3C0	NA	
Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)		
6139875291	Michael Genier		
Well Technician's Licence No.	Signature of Technician and/or Contractor		Date Submitted
3493			2008/11/28

Results of Well Yield Testing

Results of Well Yield Testing		Draw Down		Recovery	
After test of well yield, water was:		Time (min)	Water Level (m/ft)	Time (min)	Water Level (m/ft)
☒ Clear and sand free ☐ Other, specify _____		Static Level	4.84		7.69
If pumping discontinued, give reason:		1	6.05	1	5.56
Pump intake set at (m/ft)		2	6.58	2	4.95
24		3	6.90	3	4.84
Pumping rate (l/min / GPM)		4	7.00	4	4.84
60		5	7.14	5	
Duration of pumping		10	7.40	10	
1 hrs + _____ min		15	7.54	15	
Final water level end of pumping (m/ft)		20	7.56	20	
7.69		25	7.54	25	
If flowing give rate (l/min / GPM)		30	7.60	30	
Recommended pump depth (m/ft)		40	7.60	40	
24		50	7.61	50	
Recommended pump rate		60	7.69	60	
(l/min / GPM)					
60					
Well production (l/min / GPM)					
85					
Disinfected?					
☒ Yes ☐ No					

Map of Well Location

Please provide a map below following instructions on the back.



Comments:

Well owner's information package delivered	Date Package Delivered	<table><tr><th colspan="6">Ministry Use Only</th></tr><tr><td>Audit No.</td><td colspan="5">Z 90529</td></tr><tr><td>Received</td><td colspan="5"></td></tr></table>	Ministry Use Only						Audit No.	Z 90529					Received					
	Ministry Use Only																			
Audit No.	Z 90529																			
Received																				
☐ Yes ☒ No	Date Work Completed																			

Ministry of
the Environment

A113230

W _____ (Print Below)

Well Record

Regulation 903 Ontario Water Resources Act

Measurements recorded in: ☐ Metric ☒ Imperial

Page _____ of _____

Well Owner's Information

First Name	Last Name / Organization Grizzly Homes	E-mail Address	☐ Well Constructed by Well Owner
Mailing Address (Street Number/Name) PO Box 422, RR#4	Municipality Ashton	Province On	Postal Code K0A 1B0

Well Location

Address of Well Location (Street Number/Name) 2134 Maple Forest Drive	Township Rideau	Lot 21	Concession 3
County/District/Municipality Ottawa-Carleton	City/Town/Village North Gower	Province Ontario	Postal Code
UTM Coordinates Zone Easting NAD 8 3 18 445224	Northings 4998033	Municipal Plan and Sublot Number 4M-1209	Other S/L 32

Overburden and Bedrock Materials/Abandonment Sealing Record (see instructions on the back of this form)

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft)
				From To
	Sand & Gravel	Boulders		0' 30'
Grey + Brown	Limestone			30' 88'
Grey + Brown	Limestone			88' 157'
Grey + Brown	Limestone			157' 162'

Annular Space		
Depth Set at (m/ft)	Type of Sealant Used (Material and Type)	Volume Placed (m³)
From To		
40' 0'	Neat cement slurry	26.5

Method of Construction	Well Use
☐ Cable Tool ☐ Rotary (Conventional) ☐ Rotary (Reverse) ☐ Boring ☒ Air percussion ☐ Other, specify	☐ Public ☒ Domestic ☐ Livestock ☐ Irrigation ☐ Industrial ☐ Other, specify

Construction Record - Casing			Status of Well	
Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft)	
			From To	
6"	Steel	.188"	+2' 40'	
515/16"	Open Hole		40' 162'	

Construction Record - Screen			Status of Well	
Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft)	
			From To	

Water Details		Hole Diameter	
Water found at Depth	Kind of Water: ☐ Fresh ☒ Untested	Depth (m/ft)	Diameter (cm/in)
88 (m/ft) ☐ Gas ☒ Other, specify		From To	
Water found at Depth	Kind of Water: ☐ Fresh ☒ Untested		
157 (m/ft) ☐ Gas ☒ Other, specify		0' 40'	6"
Water found at Depth	Kind of Water: ☐ Fresh ☐ Untested	40' 162'	515/16"
(m/ft) ☐ Gas ☐ Other, specify			

Well Contractor and Well Technician Information	
Business Name of Well Contractor Air Rock Drilling Co. Ltd.	Well Contractor's Licence No. 1119
Business Address (Street Number/Name) 6659 Franktown Road, RR#1	Municipality Richmond
Province ON	Postal Code K0A 2Z0
Business E-mail Address air-rock@sympatico.ca	

Bus. Telephone No. (inc. area code) 6138382170	Name of Well Technician (Last Name, First Name) Hogan, Dan	Date Submitted 2011 03 31
Well Technician's Licence No. T3058	Signature of Technician and/or Contractor 	

Results of Well Yield Testing			
After test of well yield, water was: ☐ Clear and sand free ☐ Other, specify Not tested		Draw Down	
If pumping discontinued, give reason:		Time (min)	Water Level (m/ft)
Pump intake set at (m/ft) 140'		Static Level	9.2'
Pumping rate (l/min / GPM) 12		1	15.5
Duration of pumping 1 hrs + 0 min		2	18.5
Final water level end of pumping (m/ft) 28.9'		3	21.5
If flowing give rate (l/min / GPM)		4	24.6
Recommended pump depth (m/ft) 100'		5	27.7
Recommended pump rate (l/min / GPM) 12		10	27.9
Well production (l/min / GPM) 12		15	28
Disinfected? ☒ Yes ☐ No		20	28.1
		25	28.2
		30	28.2
		40	28.4
		50	28.7
		60	28.9'

Map of Well Location

Please provide a map below following instructions on the back.

Roger Stevens Drive

Trailwood Drive 1KM

Maple Forest 50'

#2134 Maple Forest Drive

Comments:

Well owner's information package delivered ☒ Yes ☐ No	Date Package Delivered 20110325	Ministry Use Only
Date Work Completed 20110328	Audit No. z119813	Received APR 26 2011

Address of Well Location (Street Number/Name) 2130 Maple Forest Drive		Township Rideau	Lot 21	Concession 3
County/District/Municipality Ottawa-Carleton		City/Town/Village North Gower	Province Ontario	Postal Code
UTM Coordinates Zone 18	Easting 445253	Northing 4998049	Municipal Plan and Sublot Number 4M-1209	Other S/L 33

Overburden and Bedrock Materials/Abandonment Sealing Record (see instructions on the back of this form)

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft)
	Sand & Gravel	Clay		0' 26'
Grey	Limestone			26' 68'
Grey	Limestone			68' 156'
Grey	Limestone			156' 162'

Annular Space		
Depth Set at (m/ft)	Type of Sealant Used (Material and Type)	Volume Placed (m³/gal)
36' 0'	Neat cement slurry	20.3

Method of Construction	Well Use
☐ Cable Tool ☐ Rotary (Conventional) ☐ Rotary (Reverse) ☐ Boring ☒ Air percussion ☐ Other, specify	☐ Public ☒ Domestic ☐ Livestock ☐ Irrigation ☐ Industrial ☐ Other, specify

Construction Record - Casing			Status of Well	
Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft)	
6"	Steel	.188	+2'	36'
515/16"	Open Hole		36'	162'

Construction Record - Screen			Status of Well	
Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft)	
			From	To

Water Details		Hole Diameter	
Water found at Depth (m/ft)	Kind of Water: ☐ Fresh ☒ Untested	Depth (m/ft)	Diameter (cm/in)
68' (n/ft)	☐ Gas ☒ Other, specify	From	To
156' (n/ft)	☐ Gas ☒ Other, specify	0' 36'	6"
	☐ Gas ☐ Other, specify	36' 162'	515/16"

Well Contractor and Well Technician Information	
Business Name of Well Contractor Air Rock Drilling Co. Ltd.	Well Contractor's Licence No. 1119
Business Address (Street Number/Name) 6659 Franktown Road, RR#1	Municipality Richmond

Province ON	Postal Code K0A 2Z0	Business E-mail Address air-rock@sympatico.ca
Bus. Telephone No. (inc. area code) 6138382170		
Name of Well Technician (Last Name, First Name) Hogan, Dan		
Well Technician's Licence No. T3058	Signature of Technician and/or Contractor 	Date Submitted 2011 03 31

Results of Well Yield Testing			
After test of well yield, water was:	Draw Down	Recovery	
☐ Clear and sand free ☐ Other, specify Not tested	Time (min)	Water Level (m/ft)	Time (min)
If pumping discontinued, give reason:	Static Level	6.8'	10.7'
Pump intake set at (m/ft) 140'	1	9.3	6.8
Pumping rate (l/min / GPM) 20	2	10.7	6.8
Duration of pumping 1 hrs + 0 min	3	10.7	6.8
Final water level end of pumping (m/ft) 10.7'	4	10.7	6.8
If flowing give rate (l/min / GPM)	5	10.7	6.8
Recommended pump depth (m/ft) 100'	10	10.7	6.8
Recommended pump rate (l/min / GPM) 20	15	10.7	6.8
Well production (l/min / GPM) 20+	20	10.7	6.8
Disinfected? ☒ Yes ☐ No	25	10.7	6.8
	30	10.7	6.8
	40	10.7	6.8
	50	10.7	6.8
	60	10.7	6.8

Map of Well Location

Please provide a map below following instructions on the back.

Rogar Stevens Drive

Trailwood Drive 1KM

45'

2130

Maple Forest Drive

Comments: **Maple Forest Drive**

Well owner's information package delivered ☒ Yes ☐ No	Date Package Delivered 2011 03 25	Date Work Completed 2011 03 23
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Ministry Use Only	
Audit No. z119812	Received APR 26 2011



Ontario

Ministry of
the Environment

Well Tag No. (Place Sticker and/or Print Below)

A117425

Well Record

Regulation 903 Ontario Water Resources Act

Measurements recorded in: ☐ Metric ☒ Imperial

Page _____ of _____

Well Owner's Information

First Name 1504107 Ontario Inc	Last Name / Organization da Lockwood Brothers Construction	E-mail Address	☒ Well Constructed by Well Owner
Mailing Address (Street Number/Name) 2010 Totem Ranch Road	Municipality Oxford Station	Province ON	Postal Code K0G 1T0
Telephone No. (inc. area code) 613 258 4225			

Well Location

Address of Well Location (Street Number/Name) 2127 Rodger Stevens Drive	Township Rideau	Lot 20	Concession 3
County/District/Municipality Ottawa	City/Town/Village North Gower	Province Ontario	Postal Code K0A 2T0
UTM Coordinates Zone 18	Easting 444956	Northing 4998590	Municipal Plan and Sublot Number Plan 4R 16097
Other			

Overburden and Bedrock Materials/Abandonment Sealing Record (see instructions on the back of this form)

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	To
Brown	Fill	Cement	Packed	0	3'
Brown	Clay	Stone's	Packed	3'	24'
Gray	Clay	Stone's	Packed	24'	47'
Gray	Limestone		Hard	47'	115'
Gray	Limestone	Sandstone	Hard	115'	141'

Annular Space		
Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)
52'	40'	Cement Pressure Grouted
40'	0	Bentonite Pressure Grouted

Method of Construction		Well Use	
☐ Cable Tool	☐ Diamond	☐ Public	☐ Commercial
☒ Rotary (Conventional)	☐ Jetting	☒ Domestic	☐ Municipal
☐ Rotary (Reverse)	☐ Driving	☐ Livestock	☐ Test Hole
☐ Boring	☐ Digging	☐ Irrigation	☐ Cooling & Air Conditioning
☒ Air percussion		☐ Industrial	
☐ Other, specify		☐ Other, specify	

Construction Record - Casing			Status of Well	
Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	To
9 7/8"	Open Hole		0	52'
6 1/4"	Steel	0.188	0	52'
6 1/8"	Open Hole		52'	141'

☐ Water Supply	☒ Replacement Well
☐ Test Hole	☐ Recharge Well
☐ Dewatering Well	☐ Observation and/or Monitoring Hole
☐ Alteration (Construction)	☐ Abandoned, Insufficient Supply
☐ Abandoned, Poor Water Quality	☐ Abandoned, other, specify
☐ Other, specify	

Construction Record - Screen			Status of Well	
Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	To

☐ Water Supply	☒ Replacement Well
☐ Test Hole	☐ Recharge Well
☐ Dewatering Well	☐ Observation and/or Monitoring Hole
☐ Alteration (Construction)	☐ Abandoned, Insufficient Supply
☐ Abandoned, Poor Water Quality	☐ Abandoned, other, specify
☐ Other, specify	

Water Details		Hole Diameter	
Water found at Depth 128' (m/ft)	Kind of Water: ☐ Fresh ☒ Untested	Depth (m/ft) From	To
	☐ Gas ☐ Other, specify	0	52'
Water found at Depth 52' (m/ft)	Kind of Water: ☐ Fresh ☐ Untested	52'	141'
	☐ Gas ☐ Other, specify		
Water found at Depth 52' (m/ft)	Kind of Water: ☐ Fresh ☐ Untested		
	☐ Gas ☐ Other, specify		

Business Name of Well Contractor 1425486 Ontario Ltd		Well Contractor's Licence No. 4877
Business Address (Street Number/Name) PO Box 1083		Municipality Prescott
Province ON	Postal Code K0E 1T0	Business E-mail Address
Telephone No. (inc. area code) 39254885	Name of Well Technician (Last Name, First Name) Ferguson, Todd	
Technician's Licence No. 478	Signature of Technician and/or Contractor Todd Ferguson	Date Submitted 2011/11/10

Results of Well Yield Testing			
After test of well yield, water was: ☒ Clear and sand free ☐ Other, specify		Draw Down	
If pumping discontinued, give reason:		Time (min)	Water Level (m/ft)
Pump intake set at (m/ft) 120'		Static Level	17.9
Pumping rate (l/min / GPM) 21 gpm		1	18.1
Duration of pumping 1 hrs + 0 min		2	18.2
Final water level end of pumping (m/ft) 18.4		3	18.3
If flowing give rate (l/min / GPM)		4	18.3
Recommended pump depth (m/ft) 120'		5	18.3
Recommended pump rate (l/min / GPM) 10 gpm		10	18.4
Well production (l/min / GPM)		15	18.4
Disinfected? ☒ Yes ☐ No 150		20	18.4
		25	18.4
		30	18.4
		40	18.4
		50	18.4
		60	18.4

Map of Well Location

Please provide a map below following instructions on the back.

Map of Well Location

1 Mile to North

Rodger Stevens Drive

Comments:
150 Chlorine after Drilling
Chlorine after Yield Test

Well owner's Information package delivered ☒ Yes ☐ No	Date Package Delivered 2011/11/04	Date Work Completed 2011/10/26
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Ministry Use Only	
Audit No. 2138522	Received DEC 05 2011



Measurements recorded in: ☐ Metric ☒ Imperial

Page of

Address of Well Location (Street Number/Name) 2126 Maple Forest Drive		Township Rideau	Lot 21	Concession 3
County/District/Municipality Ottawa-Carleton		City/Town/Village North Gower	Province Ontario	Postal Code
UTM Coordinates NAD 83	Zone 18	Easting 445286	Northings 4998074	Municipal Plan and Sublot Number 4M-1209
		Other S/I 34		

Overburden and Bedrock Materials/Abandonment Sealing Record (see instructions on the back of this form)

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	To
	Sandy	Clay		0'	15'
	Gravel	Boulders		15'	37'
Grey	Limestone			37'	162'
Grey	Limestone			162'	168'

Annular Space			
Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
47'	0'	Neat cement	32.8

Method of Construction	Well Use
☐ Cable Tool ☐ Rotary (Conventional) ☐ Rotary (Reverse) ☐ Boring ☒ Air percussion ☐ Other, specify	☐ Diamond ☐ Jetting ☐ Driving ☐ Digging ☐ Public ☐ Commercial ☐ Not used ☒ Domestic ☐ Municipal ☐ Dewatering ☐ Livestock ☐ Test Hole ☐ Monitoring ☐ Irrigation ☐ Cooling & Air Conditioning ☐ Industrial ☐ Other, specify

Construction Record - Casing				Status of Well	
Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	To	
6 1/4"	Steel	.188"	+2'	47'	☒ Water Supply
5 15/16"	Open Hole		47'	168'	☐ Replacement Well
					☐ Test Hole
					☐ Recharge Well
					☐ Dewatering Well
					☐ Observation and/or Monitoring Hole
					☐ Alteration (Construction)
					☐ Abandoned, Insufficient Supply
					☐ Abandoned, Poor Water Quality
					☐ Abandoned, other, specify
					☐ Other, specify

Construction Record - Screen				
Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	To

Water Details		Hole Diameter	
Water found at Depth 162 (m/ft) ☐ Gas	Kind of Water: ☐ Fresh ☒ Untested ☐ Other, specify	Depth (m/ft) From	To
Water found at Depth (m/ft) ☐ Gas	Kind of Water: ☐ Fresh ☐ Untested ☐ Other, specify	0'	47'
Water found at Depth (m/ft) ☐ Gas	Kind of Water: ☐ Fresh ☐ Untested ☐ Other, specify	47'	168'
			9 3/4"
			5 15/16"

Well Contractor and Well Technician Information			
Business Name of Well Contractor Air Rock Drilling Co. Ltd.		Well Contractor's Licence No. 1119	
Business Address (Street Number/Name) 6659 Franktown Road, RR#1		Municipality Richmond	
Province ON	Postal Code K0A 2Z0	Business E-mail Address air-rock@sympatico.ca	
Bus. Telephone No. (inc. area code) 613 838 2170		Name of Well Technician (Last Name, First Name) Hanna, Jeremy	
Well Technician's Licence No. T B632		Signature of Technician and/or Contractor [Signature]	
		Date Submitted 2013 07 31	

Results of Well Yield Testing				
After test of well yield, water was: ☐ Clear and sand free ☐ Other, specify Not tested	Draw Down		Recovery	
	Time (min)	Water Level (m/ft)	Time (min)	Water Level (m/ft)
If pumping discontinued, give reason: X	Static Level	10.4'		77'
	1	14.8	1	56.3
Pump intake set at (m/ft) 150	2	17.3	2	43.2
Pumping rate (l/min / GPM) 20	3	19.7	3	34.6
Duration of pumping 1 hrs + 0 min	4	22	4	27.3
Final water level end of pumping (m/ft) 77'	5	24.2	5	20.9
If flowing give rate (l/min / GPM) X	10	33	10	10.4
	15	38.6	15	10.4
Recommended pump depth (m/ft) 100' (3/4 HP - 157 m)	20	44.2	20	10.4
Recommended pump rate (l/min / GPM) 20	25	48.7	25	10.4
Well production (l/min / GPM) 20	30	53.2	30	10.4
Disinfected? ☒ Yes ☐ No	40	62.2	40	10.4
	50	70	50	10.4
	60	77'	60	10.4'

Map of Well Location	
Please provide a map below following instructions on the back.	

Comments: 3/4 HP - 15 GPM - SET @ 100 FT	
Well owner's information package delivered ☒ Yes ☐ No	Date Package Delivered 2013 07 30
Date Work Completed 2013 07 29	Ministry Use Only Audit No. 2155162 AUG 19 2013

OFFICIAL CERTIFICATE OF ANALYSIS : 4102006
WORK REQUEST : 100315477
Report Date : 2024-10-01
Paterson Group

9 Auriga Dr
Nepean, Ontario
K2E 7T9
Attention : Alex Schopf

Reception Date : 2024-09-25

Project : PH4905

Sampler : NA

PO Number : 61375

Temperature : 15 °C

Analysis	Quantity	External Method
Alkalinity (Water, Automated)	2	Modified from SM 2320 B
Ammonia, Total (Water, Colorimetry)	2	Modified from EPA 350.1
Chloride (Water, IC)	2	Modified from SM 4110 B and C
Colour, Apparent (Water, Spectrophotometry)	2	Modified from SM 2120 C
Conductivity (Water, Automated)	2	Modified from SM 2510 B
DOC (Water, IR)	2	Modified from SM 5310 B
Escherichia coli (DC Plate)	2	Modified from MECP E3407
Fluoride (Water, Auto/ISE)	2	Modified from SM 4500-F A and 4500-F C
Hardness (Water, Calculation Only)	2	SM 2340 B
Ion Balance (Water, Calculation)	2	Modified from SM1030 E
Metals Scan (Water, ICP/MS)	2	Modified from EPA 200.8
Metals Scan (Water, ICP/OES)	2	Modified from SM 3120 B
Nitrate (Water, IC)	2	Modified from SM 4110 B and C
Nitrite (Water, IC)	2	Modified from SM 4110 B and C
pH (25°C) (Water, Automated)	2	Modified from SM 4500-H+ B
Phenols (Water, Colorimetry)	2	Modified from EPA 420.2
Sulphate (Water, IC)	2	Modified from SM 4110 B and C
Sulphide (Water, Colorimetry)	2	Modified from SM 4500-S2 D
Tannin and Lignin (Water, Spec)	2	Modified from SM 5550 B
TDS (Estimated)	2	Modified from SM 2510 A
Total Coliforms (DC Plate)	2	Modified from MECP E3407
Total Kjeldahl Nitrogen (Water, Colorimetry)	2	Modified from EPA 351.2
Turbidity (Water, Turbidimeter)	2	Modified from SM 2130 B
VOCs (Water, GC/MS)	1	Modified from EPA 8260

Criteria :
A : Ontario Regulation 169/03 (Non-Regulated Drinking Water)

Sample status upon receipt :

8059996 8059998

Compliant
Notes :

- All analysis is completed at Eurofins Environment Testing Canada Inc. (Ottawa, Ontario) unless otherwise stated.
- Eurofins Environment Testing Canada Inc. is accredited by CALA, Canadian Association for Laboratory Accreditation to ISO/IEC 17025 for tests which appear on the scope of accreditation. The scope is available at <https://directory.cala.ca/>
- Please note: Field data, where presented on the report, has been provided by the client and is presented for informational purposes only. Guideline or regulatory limits listed on this report are provided for ease of use (informational purposes) only. Eurofins recommends consulting the official guideline or regulation as required. Unless otherwise stated, measurement uncertainty is not taken into account when determining guideline or regulatory exceedances.

Legend :

RL : Reporting limit

QC : Reference material (QC)

N/A : Not applicable

1 : Results in annex

* : Analysis conducted by external subcontracting

^ : Analysis not accredited

OFFICIAL CERTIFICATE OF ANALYSIS - EXCEEDENCE SUMMARY

Client : Paterson Group
Project : PH4905

Reception Date : 2024-09-25

Eurofins Sample No	Client Sample Identification	Analyte	Result	Units	Exceeded Criteria		
					A	B	C
Colour, Apparent (Water, Spectrophotometry)							
8059996	TW1 - GW1	Colour (Apparent)	6	TCU	5		
8059998	TW1 - GW2	Colour (Apparent)	7	TCU	5		
Hardness (Water, Calculation Only)							
8059996	TW1 - GW1	Hardness as CaCO3 (Calculation)	226	mg/L	80-100		
8059998	TW1 - GW2	Hardness as CaCO3 (Calculation)	226	mg/L	80-100		
Metals Scan (Water, ICP/MS)							
8059998	TW1 - GW2	Iron	0.33	mg/L	0.3		
TDS (Estimated)							
8059996	TW1 - GW1	TDS (Estimated)^	508	mg/L	500		

OFFICIAL CERTIFICATE OF ANALYSIS - RESULTS

Client : Paterson Group
Project : PH4905

Reception Date: 2024-09-25

Eurofins Sample No :				8059996	8059998			
Matrix :				Groundwater	Groundwater			
Sampling Date :				2024-09-24	2024-09-24			
Client Sample Identification :				TW1 - GW1	TW1 - GW2			
Anions	RL	Unit	Criteria					
			A	B	C			
Chloride	0.5	mg/L	250			90.2	85.2	
Nitrate (as Nitrogen)	0.1	mg/L	10.0			<0.1	<0.1	
Nitrite (as Nitrogen)	0.1	mg/L	1.0			<0.1	<0.1	
Sulphate	1	mg/L	500			47	47	

Eurofins Sample No :				8059996	8059998			
Matrix :				Groundwater	Groundwater			
Sampling Date :				2024-09-24	2024-09-24			
Client Sample Identification :				TW1 - GW1	TW1 - GW2			
Calculations	RL	Unit						
			A	B	C			
Ion Balance (Calculation)^	0.1		1.01	1.00				

Eurofins Sample No :				8059996	8059998			
Matrix :				Groundwater	Groundwater			
Sampling Date :				2024-09-24	2024-09-24			
Client Sample Identification :				TW1 - GW1	TW1 - GW2			
General Chemistry	RL	Unit	Criteria					
			A	B	C			
Alkalinity (as CaCO ₃)	5	mg/L	500			229	236	
Colour (Apparent)	2	TCU	5			6	7	
Conductivity @ 25°C	5	µS/cm				781	766	
Dissolved Organic Carbon	0.5	mg/L	5			0.7	1.1	
Fluoride	0.1	mg/L	1.5			0.64	0.63	
Hardness as CaCO ₃ (Calculation)	1	mg/L	80-100			226	226	
pH @ 25°C	1		6.5-8.5			7.99	7.95	
Phenols-4AAP	0.001	mg/L				<0.001	<0.001	
Sulphide (S ₂ -)	0.01	mg/L	0.05			<0.01	<0.01	
Tannin and Lignin	0.1	mg/L				0.1	<0.1	
TDS (Estimated)^	5	mg/L	500			508	498	
Turbidity	0.1	NTU	5			1.6	2.3	

OFFICIAL CERTIFICATE OF ANALYSIS - RESULTS

Client : Paterson Group
Project : PH4905

Reception Date: 2024-09-25

Eurofins Sample No :						8059996	8059998			
Matrix :						Groundwater	Groundwater			
Sampling Date :						2024-09-24	2024-09-24			
Client Sample Identification :						TW1 - GW1	TW1 - GW2			
Metals	RL	Unit	Criteria							
			A	B	C					
Metals Scan (Water, ICP/MS)										
Aluminum	0.01	mg/L	0.1			0.03	0.01			
Antimony	0.0005	mg/L	0.006			<0.0005	<0.0005			
Arsenic	0.001	mg/L	0.01			<0.001	<0.001			
Barium	0.001	mg/L	1			0.066	0.062			
Beryllium	0.0005	mg/L				<0.0005	<0.0005			
Boron	0.01	mg/L	5			0.20	0.20			
Cadmium	0.0001	mg/L	0.005			<0.0001	<0.0001			
Chromium	0.001	mg/L	0.05			<0.001	<0.001			
Cobalt	0.0002	mg/L				<0.0002	<0.0002			
Copper	0.001	mg/L	1			<0.001	<0.001			
Iron	0.03	mg/L	0.3			0.19	0.33			
Lead	0.001	mg/L	0.01			<0.001	<0.001			
Manganese	0.01	mg/L	0.05			<0.01	<0.01			
Mercury	0.0001	mg/L	0.001			<0.0001	<0.0001			
Molybdenum	0.005	mg/L				<0.005	<0.005			
Nickel	0.005	mg/L				<0.005	<0.005			
Selenium	0.001	mg/L	0.05			<0.001	<0.001			
Silver	0.0001	mg/L				<0.0001	<0.0001			
Strontium	0.001	mg/L				1.75	1.77			
Thallium	0.0001	mg/L				<0.0001	<0.0001			
Uranium	0.001	mg/L	0.02			<0.001	<0.001			
Vanadium	0.001	mg/L				<0.001	<0.001			
Zinc	0.01	mg/L	5			<0.01	<0.01			
Metals Scan (Water, ICP/OES)										
Calcium	1	mg/L				42	42			
Magnesium	1	mg/L				30	29			
Potassium	1	mg/L				8	8			
Sodium	1	mg/L	200			81	78			
Eurofins Sample No :						8059996	8059998			
Matrix :						Groundwater	Groundwater			
Sampling Date :						2024-09-24	2024-09-24			
Client Sample Identification :						TW1 - GW1	TW1 - GW2			
Microbiology	RL	Unit	Criteria							
			A	B	C					
Escherichia coli (DC)	0	CFU/100mL	0			0	0			
Total Coliforms (DC)	0	CFU/100mL	0			0	0			

OFFICIAL CERTIFICATE OF ANALYSIS - RESULTS

Client : Paterson Group
Project : PH4905

Reception Date: 2024-09-25

Eurofins Sample No :			8059996	8059998					
Matrix :			Groundwater	Groundwater					
Sampling Date :			2024-09-24	2024-09-24					
Client Sample Identification :			TW1 - GW1	TW1 - GW2					
Nutrients	RL	Unit							
Ammonia (Total, as Nitrogen)	0.02	mg/L	0.154	0.153					
Total Kjeldahl Nitrogen	0.1	mg/L	0.231	0.236					

OFFICIAL CERTIFICATE OF ANALYSIS - RESULTS

Client : Paterson Group
Project : PH4905

Reception Date: 2024-09-25

Eurofins Sample No : 8059998					Groundwater				
Matrix :									
Sampling Date : 2024-09-24									
Client Sample Identification : TW1 - GW2									
Volatile Organic Compounds	RL	Unit	Criteria						
			A	B	C				
VOCs (Water, GC/MS)									
1,1,1,2-Tetrachloroethane	0.5	ug/L				<0.5			
1,1,1-Trichloroethane	0.4	ug/L				<0.4			
1,1,2,2-Tetrachloroethane	0.5	ug/L				<0.5			
1,1,2-Trichloroethane	0.4	ug/L				<0.4			
1,1-Dichloroethane	0.4	ug/L				<0.4			
1,1-Dichloroethene	0.4	ug/L	14			<0.5			
1,2-Dibromoethane	0.2	ug/L				<0.2			
1,2-Dichlorobenzene	0.4	ug/L	200			<0.4			
1,2-Dichloroethane	0.2	ug/L	5			<0.2			
1,2-Dichloropropane	0.5	ug/L				<0.5			
1,3,5-Trimethylbenzene	0.3	ug/L				<0.3			
1,3-Dichlorobenzene	0.4	ug/L				<0.4			
1,4-Dichlorobenzene	0.4	ug/L	5			<0.4			
Acetone	5	ug/L				<5.0			
Benzene	0.5	ug/L	1			<0.5			
Bromodichloromethane	0.3	ug/L				<0.3			
Bromoform	0.4	ug/L				<0.4			
Bromomethane	0.5	ug/L				<0.5			
Carbon tetrachloride	0.2	ug/L	2			<0.2			
Chloroethane	0.2	ug/L				<0.5			
Chloroform	0.5	ug/L				<0.5			
Chloromethane	0.2	ug/L				<0.2			
cis-1,2-Dichloroethene	0.4	ug/L				<0.4			
cis-1,3-Dichloropropene	0.5	ug/L				<0.5			
Dibromochloromethane	0.3	ug/L				<0.3			
Dichloromethane	4	ug/L	50			<4.0			
Diethyl ether	5	ug/L				<5.0			
Ethylbenzene	0.5	ug/L	140			<0.5			
m/p-Xylene	0.4	ug/L				<0.4			
Methyl ethyl ketone (MEK)	2	ug/L				<2.0			
Methyl isobutyl ketone (MIBK)	5	ug/L				<5.0			
Methyl tert-butyl ether (MTBE)	2	ug/L				<2.0			
Monochlorobenzene	0.5	ug/L	80			<0.5			
o-Xylene	0.4	ug/L				<0.4			
Styrene	0.5	ug/L				<0.5			
Tetrachloroethylene (PCE)	0.3	ug/L	10			<0.3			
Toluene	0.4	ug/L	60			<0.4			
trans-1,2-dichloroethene	0.4	ug/L				<0.4			
trans-1,3-dichloropropene	0.5	ug/L				<0.5			
Trichloroethylene (TCE)	0.3	ug/L	5			<0.3			
Trichlorofluoromethane	0.5	ug/L				<0.5			
Vinyl chloride	0.2	ug/L	1			<0.2			
Xylene (Total)	0.5	ug/L	90			<0.5			
1,2-dichloroethane-d4 (surrogate)	0	%				113			
4-bromofluorobenzene (surrogate)	0	%				81			

OFFICIAL CERTIFICATE OF ANALYSIS - RESULTS

Client : Paterson Group
Project : PH4905

Reception Date: 2024-09-25

			Eurofins Sample No :			8059998				
			Matrix :			Groundwater				
			Sampling Date :			2024-09-24				
			Client Sample Identification :			TW1 - GW2				
Volatile Organic Compounds			Criteria							
	RL	Unit	A	B	C					
Toluene-d8 (surrogate)	0	%				99				

Approved by : 
Emma-Dawn Ferguson, M.Sc.
Environmental Chemist

Approved by : 
Jason Kennedy,
Project Manager

OFFICIAL CERTIFICATE OF ANALYSIS - QUALITY CONTROL

Client : Paterson Group
Project : PH4905

Reception Date: 2024-09-25

Parameter	Unit	RL	Blank	QC		Matrix Spike		Duplicate	
				Recovery %	Range %	Recovery %	Range %	RPD %	Range %
Alkalinity (Water, Automated)									
Method : Alkalinity (water, titration to pH 4.5, automated). Internal method: OTT-I-AT-WI45398.									
Alkalinity (as CaCO3)	mg/L	5	<5	99	95-105			1	0-20
Associated Samples : 8059996, 8059998								Prep Date: 2024-09-26 Analysis Date: 2024-09-30	
Ammonia, Total (Water, Colorimetry)									
Method : Ammonia (Water, Colorimetry). Internal method: OTT-I-NUT-WI46201.									
Ammonia (Total, as Nitrogen)	mg/L	0.02	<0.020	112	80-120	112	80-120	0	0-20
Associated Samples : 8059996, 8059998								Prep Date: 2024-09-29 Analysis Date: 2024-10-01	
Chloride (Water, IC)									
Method : Anions (Water, Ion Chromatography). Internal method: OTT-I-IC-WI45985.									
Chloride	mg/L	0.5	<0.5	102	80-120	105	80-120	2	0-20
Associated Samples : 8059996, 8059998								Prep Date: 2024-09-26 Analysis Date: 2024-09-27	
Colour, Apparent (Water, Spectrophotometry)									
Method : Colour (Water, Spectrophotometric). Internal method: OTT-I-SPEC-WI45980.									
Colour (Apparent)	TCU	2	<2	99	39-159			9	0-40
Associated Samples : 8059996, 8059998								Prep Date: 2024-09-30 Analysis Date: 2024-09-30	
Conductivity (Water, Automated)									
Method : Conductivity (Water, Autotitrator). Internal Method: OTT-I-AT-WI45398.									
Conductivity @ 25°C	uS/cm	5	<5	101	98-102			1	0-20
Associated Samples : 8059996, 8059998								Prep Date: 2024-09-26 Analysis Date: 2024-09-30	
DOC (Water, IR)									
Method : Organic carbon (water, IR, combustion). Internal method: OTT-I-DEM-WI46148.									
Dissolved Organic Carbon	mg/L	0.5	<0.5	100	84-116	85	80-120	-	0-15
Associated Samples : 8059996, 8059998								Prep Date: 2024-09-30 Analysis Date: 2024-10-01	
Escherichia coli (DC Plate)									
Method : Total Coliforms and E.Coli by MF (Water, DC plate). Internal method: OTT-M-BAC-WI45296.									
Escherichia coli (DC)	CFU/100mL	0	0					-	0-30
Associated Samples : 8059996, 8059998								Prep Date: 2024-09-25 Analysis Date: 2024-09-26	
Fluoride (Water, Auto/ISE)									
Method : Fluoride by autotitrator, ion selective electrode. Internal method: OTT-I-AT-WI45398.									
Fluoride	mg/L	0.1	<0.10	98	90-110			-	0-20
Associated Samples : 8059996, 8059998								Prep Date: 2024-09-26 Analysis Date: 2024-09-30	

OFFICIAL CERTIFICATE OF ANALYSIS - QUALITY CONTROL

Client : Paterson Group

Project : PH4905

Reception Date: 2024-09-25

Parameter	Unit	RL	Blank	QC		Matrix Spike		Duplicate	
				Recovery %	Range %	Recovery %	Range %	RPD %	Range %
Metals Scan (Water, ICP/MS)									
Method : Metals (Water, ICP/MS). Internal method: AMMTFQE1.									
Aluminum	mg/L	0.01	<0.01	100	80-120	114	70-130	-	0-20
Antimony	mg/L	0.0005	<0.0005	87	80-120	93	70-130	-	0-20
Arsenic	mg/L	0.001	<0.001	99	80-120	106	70-130	-	0-20
Barium	mg/L	0.001	<0.001	100	80-120	91	70-130	0	0-20
Beryllium	mg/L	0.0005	<0.0005	108	80-120	108	70-130	-	0-20
Boron	mg/L	0.01	<0.01	100	80-120	102	70-130	-	0-20
Cadmium	mg/L	0.0001	<0.0001	106	80-120	100	70-130	-	0-20
Chromium	mg/L	0.001	<0.001	100	80-120	105	70-130	-	0-20
Cobalt	mg/L	0.0002	<0.0002	102	80-120	94	70-130	-	0-20
Copper	mg/L	0.001	<0.001	110	80-120	93	70-130	-	0-20
Iron	mg/L	0.03	<0.03	100	80-120	101	70-130	-	0-20
Lead	mg/L	0.001	<0.001	110	80-120	86	70-130	-	0-20
Manganese	mg/L	0.01	<0.01	100	80-120	99	70-130	-	0-20
Mercury	mg/L	0.0001	<0.0001	106	80-120	78	70-130	-	0-20
Molybdenum	mg/L	0.005	<0.005	90	80-120	100	70-130	-	0-20
Nickel	mg/L	0.005	<0.005	100	80-120	96	70-130	-	0-20
Selenium	mg/L	0.001	<0.001	102	80-120	101	70-130	-	0-20
Silver	mg/L	0.0001	<0.0001	117	80-120	93	70-130	-	0-20
Strontium	mg/L	0.001	<0.001	100	80-120	88	70-130	0	0-20
Thallium	mg/L	0.0001	<0.0001	104	80-120	87	70-130	-	0-20
Uranium	mg/L	0.001	<0.001	90	80-120	92	70-130	-	0-20
Vanadium	mg/L	0.001	<0.001	100	80-120	108	70-130	-	0-20
Zinc	mg/L	0.01	<0.01	110	80-120	88	70-130	-	0-20
Associated Samples : 8059996, 8059998								Prep Date: 2024-09-26 Analysis Date: 2024-09-27	
Metals Scan (Water, ICP/OES)									
Method : Metals (Water, ICP/OES). Internal method: OTT-I-MET-WI48491.									
Calcium	mg/L	1	<1	104	86-115	101	70-130	1	0-20
Magnesium	mg/L	1	<1	100	91-109	100	70-130	-	0-20
Potassium	mg/L	1	<1	107	87-113	114	70-130	-	0-20
Sodium	mg/L	1	<1	106	85-115	107	70-130	-	0-20
Associated Samples : 8059996, 8059998								Prep Date: 2024-09-30 Analysis Date: 2024-09-25	
Nitrate (Water, IC)									
Method : Anions (Water, Ion Chromatography). Internal method: OTT-I-IC-WI45985.									
Nitrate (as Nitrogen)	mg/L	0.1	<0.1	106	80-120				
Associated Samples : 8059996, 8059998								Prep Date: 2024-09-26 Analysis Date: 2024-09-27	
Nitrite (Water, IC)									
Method : Anions (Water, Ion Chromatography). Internal method: OTT-I-IC-WI45985.									
Nitrite (as Nitrogen)	mg/L	0.1	<0.1	105	80-120				
Associated Samples : 8059996, 8059998								Prep Date: 2024-09-26 Analysis Date: 2024-09-27	
pH (25°C) (Water, Automated)									
Method : pH (Water, Automated Meter). Internal method: OTT-I-AT-WI45398.									
pH @ 25°C		1	5.71	100	97-103			1	0-20
Associated Samples : 8059996, 8059998								Prep Date: 2024-09-26 Analysis Date: 2024-09-30	

OFFICIAL CERTIFICATE OF ANALYSIS - QUALITY CONTROL

Client : Paterson Group

Project : PH4905

Reception Date: 2024-09-25

Parameter	Unit	RL	Blank	QC		Matrix Spike		Duplicate	
				Recovery %	Range %	Recovery %	Range %	RPD %	Range %
Phenols (Water, Colorimetry)									
Method : Phenols (Water, Colorimetry). Internal method: OTT-I-4AAP-WI46150.									
Phenols-4AAP	mg/L	0.001	<0.001	114	75-125	118	70-130	-	0-20
Associated Samples : 8059996, 8059998								Prep Date: 2024-09-27 Analysis Date: 2024-09-27	
Sulphate (Water, IC)									
Method : Anions (Water, Ion Chromatography). Internal method: OTT-I-IC-WI45985.									
Sulphate	mg/L	1	<1	105	90-110	110	80-120	1	0-20
Associated Samples : 8059996, 8059998								Prep Date: 2024-09-26 Analysis Date: 2024-09-27	
Sulphide (Water, Colorimetry)									
Method : Sulphide, S2- (Water, Colorimetry). Internal method: OTT-I-SPEC-WI45931.									
Sulphide (S2-)	mg/L	0.01	<0.01	100	80-120			-	0-20
Associated Samples : 8059996, 8059998								Prep Date: 2024-09-26 Analysis Date: 2024-09-26	
Tannin and Lignin (Water, Spec)									
Method : Tannin and Lignin (Water, Spec), Internal method: OTT-I-SPEC-WI57693.									
Tannin and Lignin	mg/L	0.1	<0.1	92	80-120			-	0-20
Associated Samples : 8059996, 8059998								Prep Date: 2024-09-30 Analysis Date: 2024-09-30	
Total Coliforms (DC Plate)									
Method : Total Coliforms and E.Coli by MF (Water, DC plate). Internal method: OTT-M-BAC-WI45296.									
Total Coliforms (DC)	CFU/100mL	0	0					-	0-30
Associated Samples : 8059996, 8059998								Prep Date: 2024-09-25 Analysis Date: 2024-09-26	
Total Kjeldahl Nitrogen (Water, Colorimetry)									
Method : TKN (Water, colorimetry). Internal method: OTT-I-NUT-WI46201.									
Total Kjeldahl Nitrogen	mg/L	0.1	<0.100	98	70-130	111	70-130	3	0-20
Associated Samples : 8059996, 8059998								Prep Date: 2024-09-27 Analysis Date: 2024-09-29	
Turbidity (Water, Turbidimeter)									
Method : Turbidity (Water, Turbidimeter). Internal method: OTT-I-TUR-WI46288.									
Turbidity	NTU	0.1	<0.1	103	80-120			-	0-30
Associated Samples : 8059996, 8059998								Prep Date: 2024-09-26 Analysis Date: 2024-09-26	

OFFICIAL CERTIFICATE OF ANALYSIS - QUALITY CONTROL

Client : Paterson Group
Project : PH4905

Reception Date: 2024-09-25

Parameter	Unit	RL	Blank	QC		Matrix Spike		Duplicate	
				Recovery %	Range %	Recovery %	Range %	RPD %	Range %
VOCs (Water, GC/MS)									
Method : Volatile Organic Compounds (Water, GC/MS). Internal method: AMVOMSE8.									
1,1,1,2-Tetrachloroethane	ug/L	0.5	<0.5	121	70-130	126	70-130	-	0-30
1,1,1-Trichloroethane	ug/L	0.4	<0.4	116	70-130	122	70-130	-	0-30
1,1,2,2-Tetrachloroethane	ug/L	0.5	<0.5	117	70-130	116	70-130	-	0-30
1,1,2-Trichloroethane	ug/L	0.4	<0.4	109	70-130	115	70-130	-	0-30
1,1-Dichloroethane	ug/L	0.4	<0.4	102	70-130	125	70-130	-	0-30
1,1-Dichloroethene	ug/L	0.4	<0.5	122	70-130	125	70-130	-	0-30
1,2-Dibromoethane	ug/L	0.2	<0.2	100	70-130	105	70-130	-	0-30
1,2-Dichlorobenzene	ug/L	0.4	<0.4	100	70-130	102	70-130	-	0-30
1,2-Dichloroethane	ug/L	0.2	<0.2	87	70-130	120	70-130	-	0-30
1,2-Dichloropropane	ug/L	0.5	<0.5	107	70-130	117	70-130	-	0-30
1,3,5-Trimethylbenzene	ug/L	0.3	<0.3	112	70-130	115	70-130	-	0-30
1,3-Dichlorobenzene	ug/L	0.4	<0.4	98	70-130	100	70-130	-	0-30
1,4-Dichlorobenzene	ug/L	0.4	<0.4	101	70-130	104	70-130	-	0-30
Acetone	ug/L	5	<5.0	117	70-130	89	70-130	-	0-30
Benzene	ug/L	0.5	<0.5	121	70-130	126	70-130	-	0-30
Bromodichloromethane	ug/L	0.3	<0.3	119	70-130	128	70-130	-	0-30
Bromoform	ug/L	0.4	<0.4	90	70-130	95	70-130	-	0-30
Bromomethane	ug/L	0.5	<0.5	87	70-130	87	70-130	-	0-30
Carbon tetrachloride	ug/L	0.2	<0.2	111	70-130	118	70-130	-	0-30
Chloroethane	ug/L	0.2	<0.5	101	70-130	112	70-130	-	0-30
Chloroform	ug/L	0.5	<0.5	121	70-130	127	70-130	-	0-30
Chloromethane	ug/L	0.2	<0.2	86	70-130	89	70-130	-	0-30
cis-1,2-Dichloroethene	ug/L	0.4	<0.4	118	70-130	125	70-130	-	0-30
cis-1,3-Dichloropropene	ug/L	0.5	<0.5	75	70-130	85	70-130	-	0-30
Dibromochloromethane	ug/L	0.3	<0.3	103	70-130	108	70-130	-	0-30
Dichloromethane	ug/L	4	<4.0	77	70-130	110	70-130	-	0-30
Diethyl ether	ug/L	5	<5.0	100	70-130	95	70-130	-	0-30
Ethylbenzene	ug/L	0.5	<0.5	129	70-130	110	70-130	-	0-30
m/p-Xylene	ug/L	0.4	<0.4	124	70-130	106	70-130	-	0-30
Methyl ethyl ketone (MEK)	ug/L	2	<2.0	124	70-130	124	70-130	-	0-30
Methyl isobutyl ketone (MIBK)	ug/L	5	<5.0	107	70-130	114	70-130	-	0-30
Methyl tert-butyl ether (MTBE)	ug/L	2	<2.0	110	70-130	113	70-130	-	0-30
Monochlorobenzene	ug/L	0.5	<0.5	110	70-130	114	70-130	-	0-30
o-Xylene	ug/L	0.4	<0.4	123	70-130	112	70-130	-	0-30
Styrene	ug/L	0.5	<0.5	123	70-130	106	70-130	-	0-30
Tetrachloroethylene (PCE)	ug/L	0.3	<0.3	82	70-130	86	70-130	-	0-30
Toluene	ug/L	0.4	<0.4	122	70-130	128	70-130	-	0-30
trans-1,2-dichloroethene	ug/L	0.4	<0.4	126	70-130	111	70-130	-	0-30
trans-1,3-dichloropropene	ug/L	0.5	<0.5	90	70-130	101	70-130	-	0-30
Trichloroethylene (TCE)	ug/L	0.3	<0.3	97	70-130	101	70-130	-	0-30
Trichlorofluoromethane	ug/L	0.5	<0.5	116	70-130	118	70-130	-	0-30
Vinyl chloride	ug/L	0.2	<0.2	95	70-130	108	70-130	-	0-30
Xylene (Total)	ug/L	0.5	<0.5				-		-
Associated Samples : 8059998									
Prep Date: 2024-09-26 Analysis Date: 2024-10-01									

Where RPD % is reported as "-" the calculation is not available because one or both of the duplicates is within 5 times the RL.



STANDARD CHAIN-OF-CUSTODY

146 Colonnade Road, Unit #8, Ottawa, ON K2E 7Y1 • Phone 613-271-5692, Fax 613-271-5222

CLIENT INFORMATION

INVOICE INFORMATION

100315477

Order #: ☒ YES ☐ NO

Company: Paterson Group

Contact: Alex Schopf

Address: 9 Auriga Drive

Telephone: 613-218-3444

Email: #1: eardley@patersongroup.ca, mlatlamme@patersongroup.ca

Email: #2: aschopf@patersongroup.ca

Project: PH4905

TURN-AROUND TIME (Business Days)

☐ 1 Day* (100%) ☐ 2 Day** (50%) ☐ 3-5 Days (25%) ☒ 5-7 Days (Standard)

*For results reported after rush due date, surcharges will apply: before 12:00 - 100%, after 12:00 - 50%.

**For results reported after rush due date, surcharges will apply: before 12:00 - 50%, after 12:00 - 25%.

The optimal temperature conditions during transport should be less than 10°C. Sample(s) cannot be frozen, unless otherwise indicated or agreed upon with the Laboratory. Note that this COC is not to be used for drinking water samples. The COC must be complete upon submission of the samples, there will be a \$25 surcharge if required information is missing (required fields are shaded in grey).

Sample ID

Date/Time Collected

Sample Matrix

of Containers

PHC F1 - F4

BTEX

VOCs

PAHs

PCBs

Metals + Inorganics

Metals only

See attached paper

Subdivision Supply Bact 2 (Ec/TC only)

TSS

pH

Total Metals

Hg

RM# (Lab Use Only)

Printed On: 2024-09-25 16:08:48

PO #: 61375

REGULATION/GUIDELINE REQUIRED

☐ Sanitary Sewer, City: Ottawa

☐ Storm Sewer, City: Ottawa

☒ ODWSOG

☐ PWGO

☐ O. Reg 347/558

☐ Other:

☐ None

☐ O. Reg 153

Table #: Course / line, Surface / subsurface.

Type: Combind / Res-Park / Agr / GW / All Other / Sediment

☐ Incest Soil Table: Type:

The sample results from this submission will form part of a formal Record of Site Condition (RSC) under O. Reg. 153/04

☐ Yes ☐ No

DATE/TIME

TEMP (°C)

COMMENTS:

Total and Trace Metals

CUSTODY SEAL: ☐ YES ☐ NO

Ice packs submitted: ☐ Yes ☐ No

Received By: Alex Schopf

Relinquished By: Alex Schopf

PRINT

SIGN

DATE/TIME

TEMP (°C)

COMMENTS:

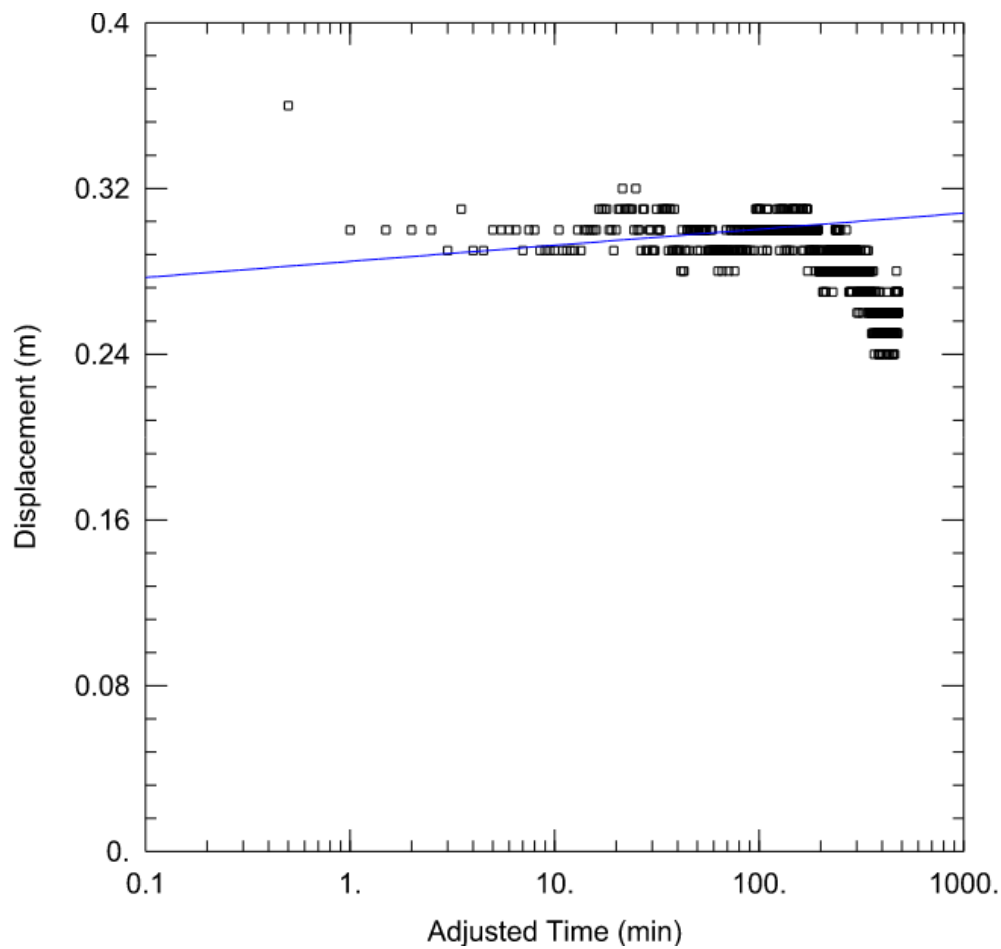
Total and Trace Metals

CUSTODY SEAL: ☐ YES ☐ NO

Ice packs submitted: ☐ Yes ☐ No

Pumping Test Analysis Report

File No.	PH4905	Well ID:	TW1
Date:	Tuesday, September 24, 2024	Solution Method:	Cooper-Jacob
Client:	Ottawa Sivan Temple	Transmissivity (m ² /day):	1970.7
Site Address:	2104 Roger Stevens Road	Discharge Rate (L/min)	58
Project:	Proposed Redevelopment	Analysis performed by:	AS



Pumping Test Analysis Report

File No. PH4905
Date: Tuesday, September 24, 2024
Client: Ottawa Sivan Temple
Site Address: 2104 Roger Stevens Road
Project: Proposed Redevelopment

Summary Table:		
Solution Method:	Well ID:	Transmissivity (m ² /day):
Cooper-Jacob	TW1	1970.7
Average:		1970.70

MW1 inputs		
pH	7.95	A 0.17
TDS	498	B 2.09
Calcium	42	C 1.22
Alkalinity	236	D 2.37
Temp.	25	
		pHs = 7.961844256

Langelier Saturation Index (LSI) Calculation		(Langelier, 1936)
$LSI = pH - pH_s$ $pH_s = (9.3 + A + B) - (C + D)$ Where: $A = (\log_{10} [TDS] - 1) / 10$ $B = -13.12 \times \log_{10} (°C + 273) + 34.55$ $C = \log_{10} [Ca^{2+} \text{ as } CaCO_3] - 0.4$ $D = \log_{10} [\text{alkalinity as } CaCO_3]$		
		LSI = 0.0
LSI	Effect	
0.5 to 2	Water is super saturated and tends to precipitate a scale layer of calcium carbonate (scale forming but non-corrosive)	
0 to 0.5	Water is super saturated and tends to precipitate a scale layer of calcium carbonate (slightly scale forming and corrosive).	
0	Water is saturated (in equilibrium) with calcium carbonate. A scale layer of calcium carbonate is neither precipitated nor dissolved.	
0 to -0.5	Water is under saturated and tends to dissolve solid calcium carbonate (slightly corrosivebut non-scale forming).	
-0.5 to -2	Water is under saturated and tends to dissolve solid calcium carbonate (seriously corrosive).	



**PATERSON
GROUP**

SOIL PROFILE AND TEST DATA

GEOTECHNICAL INVESTIGATION

2104 Roger Stevens Drive, Ottawa, Ontario

DATUM: Geodetic **EASTING:** 367934.449 **NORTHING:** 5000149.976 **ELEVATION:** 91.00

PROJECT: Proposed Hindu Temple

FILE NO. PG6832

BORINGS BY: CME 55 Low Clearance Drill

REMARKS:

DATE: September 19, 2023

HOLE NO. BH 1-23

SAMPLE DESCRIPTION	STRATA PLOT	SAMPLE		SAMPLE % RECOVERY	N VALUE or RQD	WATER CONTENT %	DEPTH (m)	Remoulded Shear Strength (kPa)					Peak Shear Strength (kPa)					Pen. Resist. Blows/0.3m (50 mm Dia. Cone)					Piezometer Construction
		No.	Type					0	25	50	75	100	0	25	50	75	100	0	25	50	75	100	
Ground Surface																							
EL 91 m																							
TOPSOIL							0																
0.05 m EL 90.95 m		AU 1	●				1																
		SS 2	▽	75	46																		
		SS 3	▽	60	50+		2																
GLACIAL TILL: Dense to very dense, brown silty sand to sandy silt with gravel, cobbles and boulders, trace clay		SS 4	▽	50	50+		3																
		SS 5	▽	58	50+		4																
		SS 6	▽	67	24		5																
4.95 m EL 86.05 m		SS 7	▽	25	50+		6																
End of Borehole							7																
Practical refusal to augering at 4.98m depth.							8																
(GWL @ 2.20m - Sep. 21, 2023)							9																
							10																
							11																
							12																
							13																
							14																

DISCLAIMER: THE DATA PRESENTED IN THIS LOG IS THE PROPERTY OF PATERSON GROUP AND THE CLIENT FOR WHO IT WAS PRODUCED. THIS LOG SHOULD BE READ IN CONJUNCTION WITH ITS CORRESPONDING REPORT. PATERSON GROUP IS NOT RESPONSIBLE FOR THE UNAUTHORIZED USE OF THIS DATA.

SOIL PROFILE AND TEST DATA

GEOTECHNICAL INVESTIGATION

2104 Roger Stevens Drive, Ottawa, Ontario

DATUM: Geodetic **EASTING:** 367950.643 **NORTHING:** 5000130.909 **ELEVATION:** 90.49

PROJECT: Proposed Hindu Temple

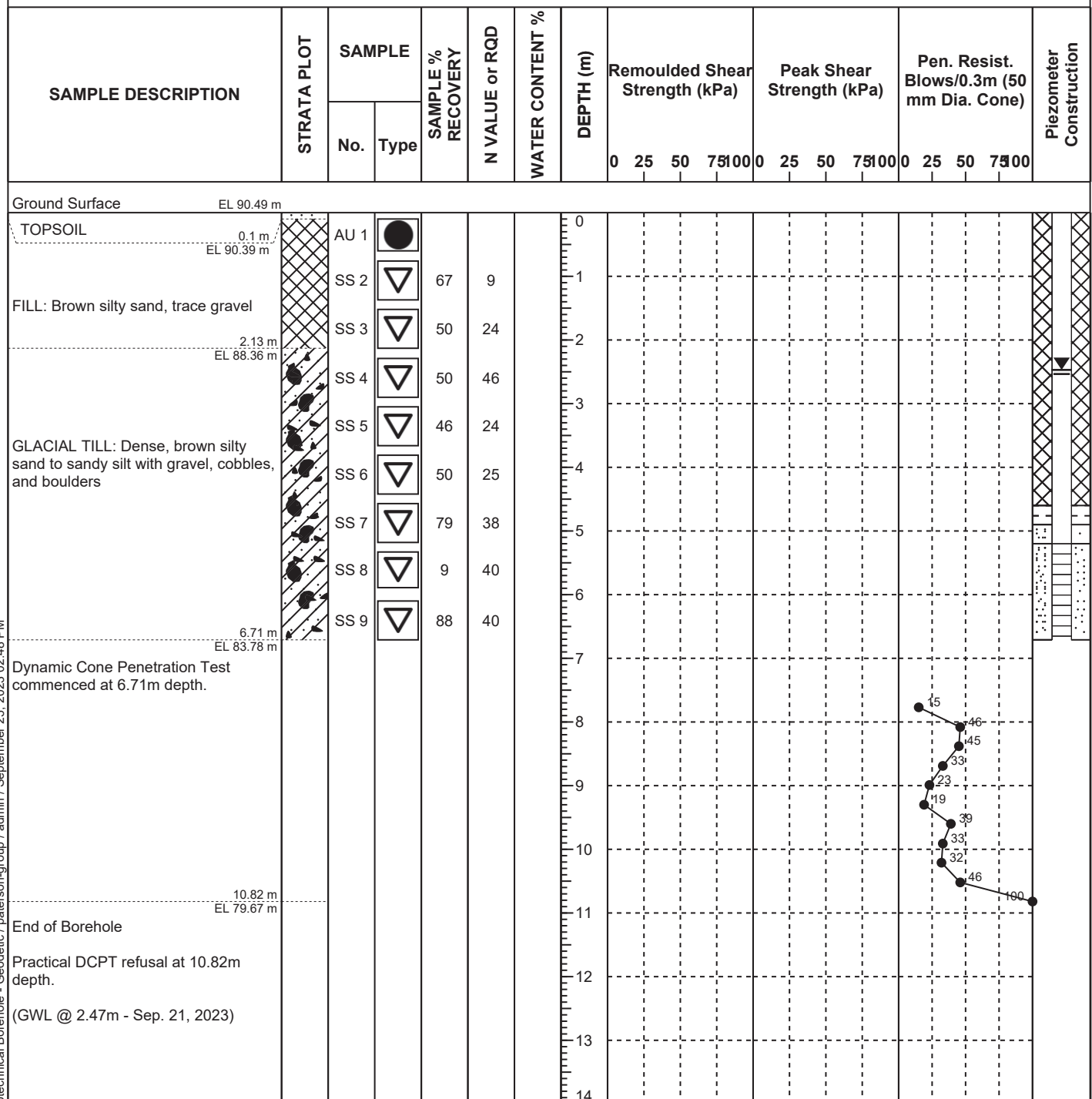
FILE NO. PG6832

BORINGS BY: CME 55 Low Clearance Drill

REMARKS:

DATE: September 19, 2023

HOLE NO. BH 2-23



DISCLAIMER: THE DATA PRESENTED IN THIS LOG IS THE PROPERTY OF PATERSON GROUP AND THE CLIENT FOR WHO IT WAS PRODUCED. THIS LOG SHOULD BE READ IN CONJUNCTION WITH ITS CORRESPONDING REPORT. PATERSON GROUP IS NOT RESPONSIBLE FOR THE UNAUTHORIZED USE OF THIS DATA.

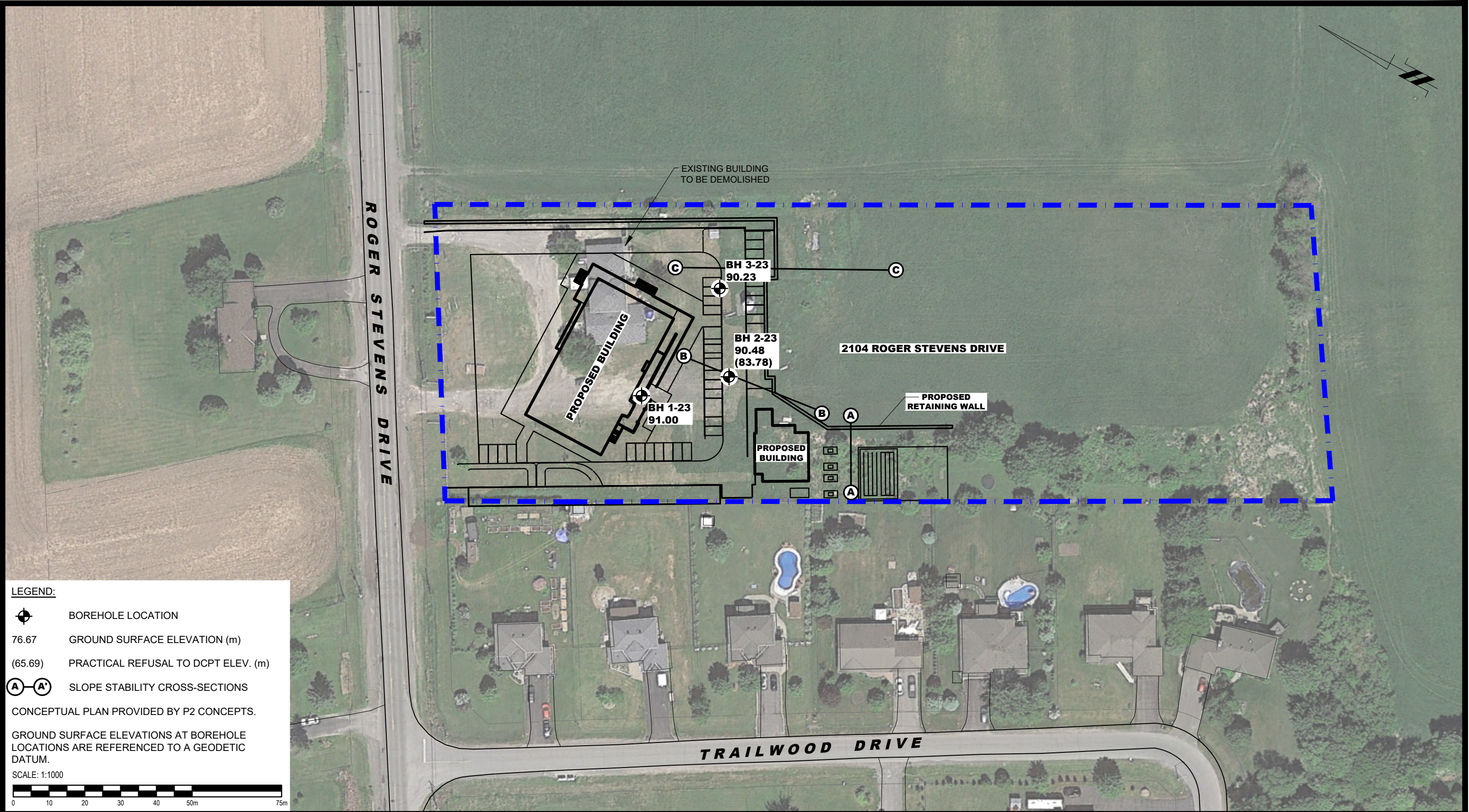


2104 Roger Stevens Drive, Ottawa, Ontario

REMARKS: DATE: September 19, 2023

DISCLAIMER: THE DATA PRESENTED IN THIS LOG IS THE PROPERTY OF PATERSON GROUP AND THE CLIENT FOR WHO IT WAS PRODUCED. THIS LOG SHOULD BE READ IN CONJUNCTION WITH ITS CORRESPONDING REPORT. PATERSON GROUP IS NOT RESPONSIBLE FOR THE UNAUTHORIZED USE OF THIS DATA.

PREDICTIVE NITRATE IMPACT ASSESSEMENT		
Infiltration Factors		
Topography	0.20	
Soil	0.40	
Cover	0.10	
Total	0.70	
Site Characteristics		
Area of Site :	20405	m ²
Total of roof areas:	1040	m ²
Total area of paved driveway areas:	4448	m ²
Roof + paved driveway areas	5488	m ²
Impervious Area	5488	m ²
Percent Impervious Area =	27	%
Infiltration Area =	14917	m ²
Septic Effluent		
Concentration of Effluent (Cs) =	20	mg/L
Infiltration Calculation		
Nitrate concentration in precipitation (C _i) =	0	mg/L
Surplus Water (Environment Canada)	378	mm/yr
Factored Water Surplus =	265	mm/yr
Infiltration % due to stormwater management measures	-	%
Infiltration rate from stormwater management measures =	0	mm/yr
Infiltration Flow Entering the System (Q _i) =	11	m ³ /day
Mass Balance Model (MOEE, 1995)		
$C_T = (Q_b C_b + Q_e C_e + Q_i C_i) / (Q_b + Q_e + Q_i)$ = Cumulative Nitrate Concentration		
Q _b = flow entering the system across the upgradient area	0	m ³ /day
C _b = background nitrate concentration	0	mg/L
Q _e = flow entering the system from the septic drainfield	7.25	m ³ /day
C _e = concentration of nitrates in the septic effluent	20	mg/L
Q _i = flow entering the system from infiltration	11	m ³ /day
C _i = Concentration of nitrates in the infiltrate	0	mg/L
C_T =	8.03	mg/L
Sewage Flow Volume		
Daily Sewage Flow (Q _s)=	7.25	m³
Notes: Site characteristic values were measured as approximate values from the available site plans and GeoOttawa.		



LEGEND:

BOREHOLE LOCATION

76.67 GROUND SURFACE ELEVATION (m)

(65.69) PRACTICAL REFUSAL TO DCPT ELEV. (m)

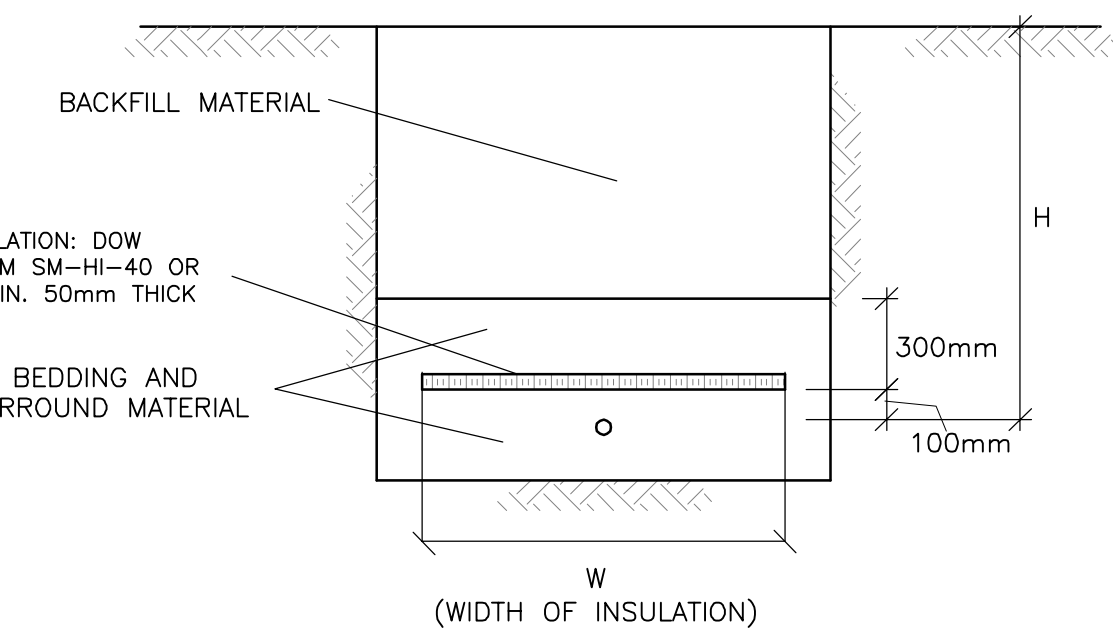
SLOPE STABILITY CROSS-SECTIONS

CONCEPTUAL PLAN PROVIDED BY P2 CONCEPTS.

GROUND SURFACE ELEVATIONS AT BOREHOLE LOCATIONS ARE REFERENCED TO A GEODETIC DATUM.

SCALE: 1:1000

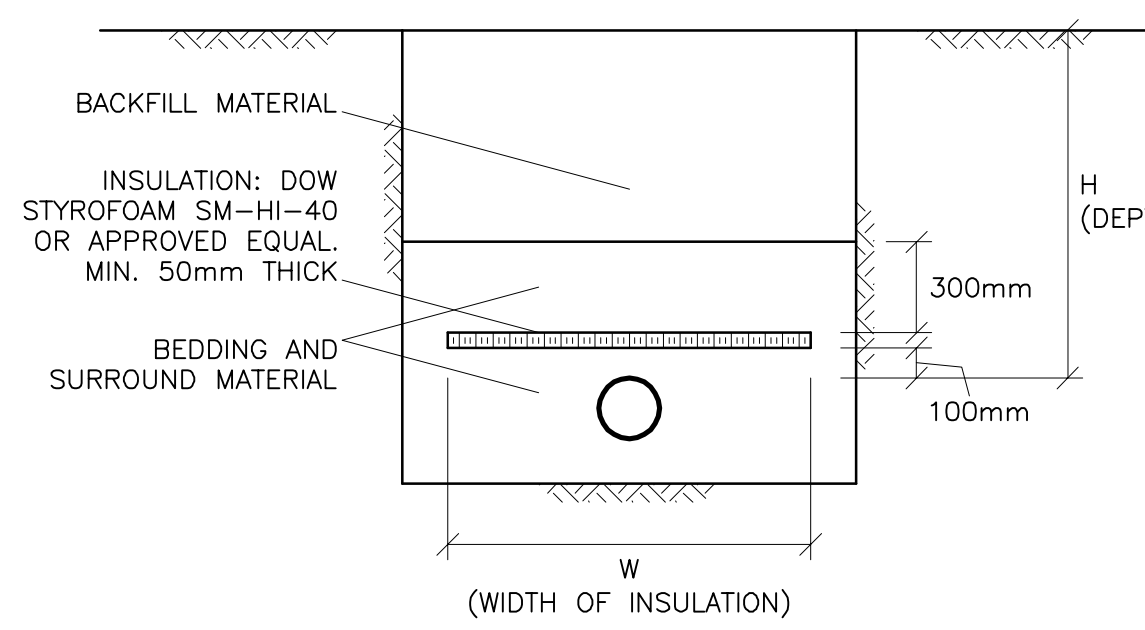
 PATERSON GROUP 9 AURIGA DRIVE OTTAWA, ON K2E 7T9 TEL: (613) 226-7381					OTTAWA, Title:TEST HOLE LOCATION PLAN	OTTAWA SIVAN TEMPLE GEOTECHNICAL INVESTIGATION PROPOSED HINDU TEMPLE 2104 ROGER STEVENS DRIVE ONTARIO	Scale: 1:1000	Date: 09/2023
							Drawn by: NFRV	Report No.: PG6832-1
	2	ADDED SLOPE STABILITY CROSS SECTION C-C TO PLAN	27/01/2025	DR			Checked by: OM	Dwg. No.: PG6832-1
	1	AS PER REVISED CONCEPTUAL PLAN	24/06/2024	OM			Approved by: SD	
	NO.	REVISIONS	DATE	INITIAL				Revision No.: 2



H (DEPTH OF COVER)	INSULATION THICKNESS	W (WIDTH OF INSULATION)
1800 TO 2400mm	50mm	1200mm
1500 TO 1800mm	75mm	1800mm
1200 TO 1500mm	100mm	2400mm

INSULATE SEWER AS INDICATED AND WHERE DEPTH OF COVER IS LESS THAN 2400mm. PROVIDE A MINIMUM 1200mm COVER. CENTER INSULATION OVER PIPE. JOINTS BETWEEN SHEETS OF INSULATION SHALL BE STAGGERED.

INSULATION OF WELL WATER LINE SHALLOW TRENCHES N.T.S.



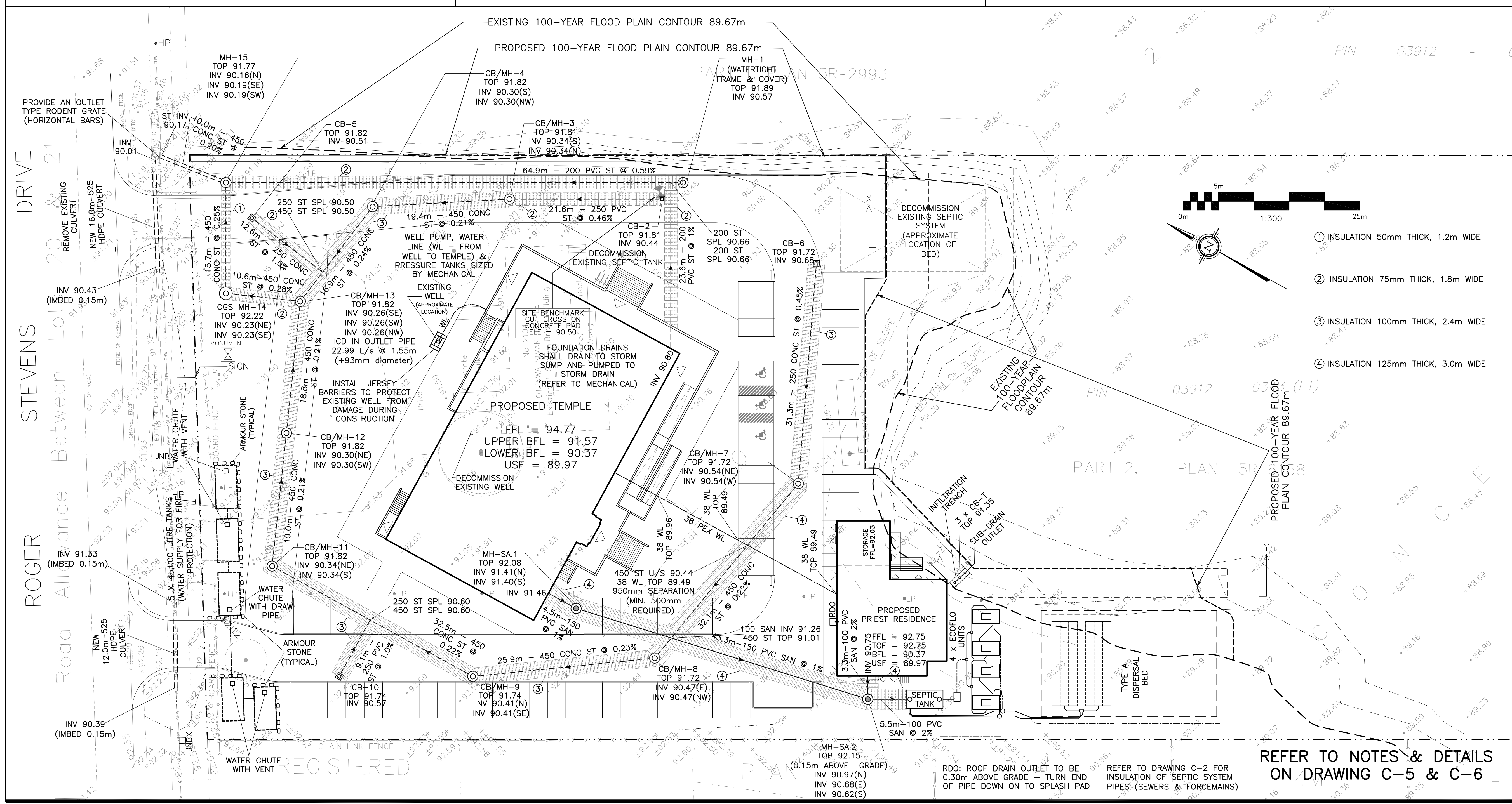
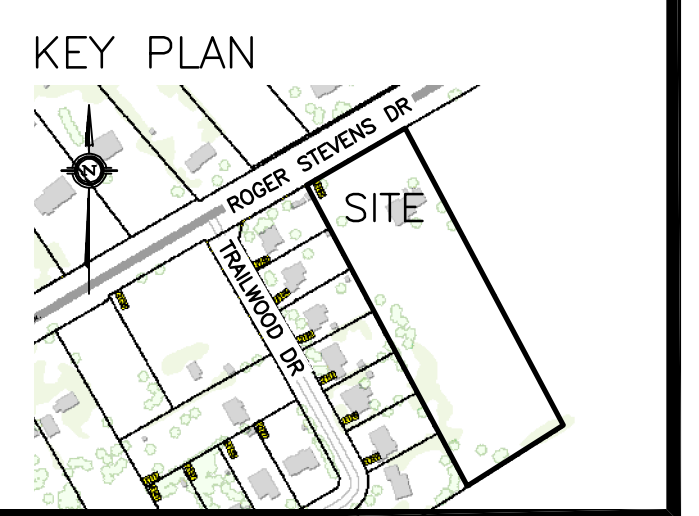
H (DEPTH OF COVER)	INSULATION THICKNESS	W (WIDTH OF INSULATION)
1400 TO 2000mm	50mm	1200mm + DIAMETER OF PIPE
1100 TO 1400mm	75mm	1800mm + DIAMETER OF PIPE
800 TO 1100mm	100mm	2400mm + DIAMETER OF PIPE
500 TO 800mm	125mm	3000mm + DIAMETER OF PIPE

INSULATE SEWER AS INDICATED AND AS PER CITY DRAWING S35 AND WHERE DEPTH OF COVER IS LESS THAN 2000mm. CENTER INSULATION OVER PIPE. JOINTS BETWEEN SHEETS OF INSULATION SHALL BE STAGGERED.

INSULATION OF SEWERS IN SHALLOW TRENCHES AS PER CITY OF OTTAWA DRAWING No. S35 N.T.S.

LEGEND

FFL FIRST FLOOR ELEVATION
TOF TOP OF FOUNDATION
BFL BASEMENT FLOOR ELEVATION
USF UNDERSIDE OF FOOTING
--- PROPERTY LINE
CB CATCH BASIN
MH STORM MANHOLE
CB/MH CATCH BASIN/MANHOLE
MH SANITARY MANHOLE
SAN SANITARY SEWER
ST STORM SEWER
WL WELL WATER LINE
INV INVERT OF PIPE
RDO ROOF DRAIN OUTLET
+99.99 EXISTING GRADE ELEVATION



- ① INSULATION 50mm THICK, 1.2m WIDE
- ② INSULATION 75mm THICK, 1.8m WIDE
- ③ INSULATION 100mm THICK, 2.4m WIDE
- ④ INSULATION 125mm THICK, 3.0m WIDE

No.	DATE	REVISION
7	APR 10-25	RE-ISSUED FOR APPROVAL
6	OCT 25-24	ISSUED FOR APPROVAL
5	OCT 18-24	ISSUED FOR COORDINATION
4	OCT 15-24	ISSUED FOR COORDINATION
3	SEP 20-24	ISSUED FOR COORDINATION
2	AUG 6-24	ISSUED FOR COORDINATION
1	OCT 23-24	ISSUED FOR APPROVAL

D. B. GRAY ENGINEERING INC.
Stormwater Management - Grading & Drainage - Storm & Sanitary Sewers - Watermain
700 Long Point Circle
Ottawa, Ontario
613-425-8044
d.gray@dbgrayengineering.com

Project
PROPOSED HINDU TEMPLE
2104 ROGER STEVENS DR
NORTH GOWER, ONTARIO

Drawing Title
SITE SERVICING PLAN

Engineer's Seal

Drawn D.B.G.
H. Scale 1:300
V. Scale
Date JUN 11-24
Job No. 20029

Drawing No.
C-1
of 7

REFER TO NOTES & DETAILS
ON DRAWING C-5 & C-6

