

Consulting Engineers

9 Auriga Drive Ottawa, Ontario K2E 7T9 **Tel: (613) 226-7381**

Geotechnical Engineering Environmental Engineering Hydrogeology Materials Testing Building Science Rural Development Design Retaining Wall Design Noise and Vibration Studies

patersongroup.ca

February 26, 2024

PH4334-LET.02

Zena Investment Corporation

1200 Baseline Road, Unit 2 Ottawa, Ontario K2C 0A6

Attention: David Johnston

Subject: Hydrogeological Assessment Proposed Commercial Development Intersection of Elijah Court and Bankfield Road, Ottawa, Ontario

Dear David Johnston,

Further to your request, Paterson has completed a Hydrogeological Assessment in support of a rezoning and site plan application for the proposed commercial development to be located at 1464 Bankfield Road in Ottawa, Ontario.

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

Introduction

Paterson was retained by Zena Investment Corporation to conduct a Hydrogeological Assessment in support of a rezoning and site plan application for the proposed commercial development to be located at the subject site. The subject site consists of the following municipal addresses:

- □ 1450 Bankfield Road
- □ 1454 Bankfield Road
- □ 1458 Bankfield Road
- 1464 Bankfield Road
- 1468 Bankfield Road
- 5479 Elijah Court
- 5485 Elijah Court

Please refer to the Key Plan attached for the approximate site location.

Ottawa





Zena Investment Corporation Page 2 PH4334-LET.02.

The purpose of this work has been to determine the suitability of the water supply aquifer underlying the site to support the proposed commercial development, which is a new automotive dealership.

The subject site is situated in the Village of Manotick and is serviced by private water supplies and private on-site sewage systems. The site is bordered to the north by Bankfield Road followed by residential properties and agricultural land, to the west by Elijah Court followed by Prince of Wales Drive and then agricultural land, and to the south and east by undeveloped lands.

Hydrogeological Pre-Consultation

The most recent hydrogeological pre-consultation was the City of Ottawa Phase 2 Preconsultation which occurred on November 14, 2023. Additional discussions and consultations have occurred previously.

Description of Subject Site

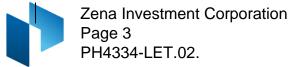
The total site area is approximately 1.91 hectares (ha) in area and is made up of various smaller lots that are currently occupied by residential and commercial properties. The existing properties are surrounded by treed areas and are serviced with private water supply wells and private onsite sewage systems.

The rezoning and site plan application is for a proposed new commercial building, specifically an automotive dealership, and associated infrastructure. Please refer to Figure 1 - Key Plan attached for the proposed site location.

An approximate location of the proposed automotive dealership along with an approximate septic system location and water supply well location can be seen on Paterson Drawing PH4334-1(Rev.5) – Preliminary Site Servicing Plan (Tertiary Treatment), attached to this report.

Based on Paterson's review of the available topographic survey information, ground surface at the subject site slopes downward from west to east with an approximate differential of 6 m. Onsite overburden groundwater flows are anticipated to be to the southeastern direction. General groundwater flow direction is anticipated to be east towards Mud Creek which then flows into the Rideau River.

A drilled potable supply well with Well ID A395662 was installed on December 12, 2023, hereafter referred to as Test Well 1 (TW1). TW1 was installed by Air Rock Drilling Co. and has a 158.7 mm steel casing extending to 30.8 m below ground surface (bgs). TW1 extends to a total depth of 33.5 bgs. TW1 is the service well for the proposed commercial development.



Theoretical Sewage System and Grey Water Volumes

The theoretical sewage system volumes for the proposed commercial building are calculated using the Ontario Building Code (OBC) Section 8.2.1.3 - Sewage System Design Flows. The proposed automotive dealership is anticipated to have 40 (8-hour) employee shifts (or equivalent) and 28 customer visits per day. Based on the aforementioned OBC, the total daily sewage system volumes are as follows:

- □ 40 (8-hour) employee shifts/day x 75 L per 8-hour employee shift = 3,000 L/day
- □ 28 customer visits/day x 8 L per customer visit = 224 L/day
- **Total daily volumes = 3,000 + 224 \text{ L/day} = 3,224 \text{ L/day} = 3.2 \text{ m}^{3}/\text{day}**

Please note that the OBC sewage system volumes are conservative flows and the actual daily flows are anticipated to be lower.

In addition to the sewage system volumes, grey water will be produced through car washing (manual wash/spray wash only). Approximately 20 such car washes are anticipated per day at a rate of 182 L/wash. Furthermore, the equivalent of 375 L/day can be assumed from snow melt through the floor drain during winter months. The expected daily grey water volumes are calculated as follows:

- \Box 20 car washes/day x 182 L/car wash = 3,640 L/day
- **Given Schleright Floor Drain = 375 L/day**
- Grey water volume = 3,640 +375 L/day = 4,015 L/day = 4.0 m³/d

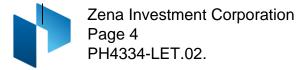
Therefore, approximately 4,015 L/day of grey water will be produced. It should be noted that the grey water will be treated prior to discharge and the grey water discharge will be subject to an Environmental Compliance Approval (ECA).

MISSISSIPPI-RIDEAU SOURCE PROTECTION PLAN

The Mississippi-Rideau Source Protection Plan (MRSPP) 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 and surrounding areas have been designated as a Significant Groundwater Recharge Area (SGRA) and a Highly Vulnerable Aquifer (HVA) within the MRSPP and are identified as two of four groundwater related vulnerable areas identified within the Clean Water Act (2006). The four vulnerable areas consist of SGRA, HVA, Intake Protection Zone (IPZ) and wellhead protection area (WHPA).

Based upon the designation of an SGRA and HVA, the MRSPP provides a list of activities that are prohibited, managed or encouraged to change dependent upon the vulnerable area type. There is no prohibition of land uses on the subject site based upon its proposed usage.

Therefore, there are no related requirements for an HVA or SGRA at this location.



Kars Esker

The subject site is mapped to be located on top of a small portion of the Kars Esker. The Kars Esker plays an important role in local groundwater supply. The primary concern regarding the Kars Esker is the protection of the esker as it relates to groundwater quality and quantity.

The Mud Creek Subwatershed Study (MCSS) completed by the City of Ottawa states that the significant groundwater recharge area (including the feature known as the Kars Esker) should be appropriately protected during the development review process. According to the MCSS this is *implemented through conditions of subdivision or site plan control approval under planning act application*.

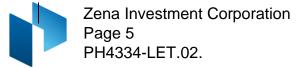
The Village of Manotick Secondary Plan has identified the subject site as a Mixed Residential / Commercial area. It further notes that for lands located at the south-west corner of Bankfield Road and First Line Road, a hydrogeological study must be submitted at the time of a development application. The study will identify the limit of the hydrogeological constraint area and the feasibility of development due to the presence of the Kars Esker. Public water and wastewater are not foreseen for this area of the village.

Stormwater design and requirements are not addressed as part of this report, however will be treated appropriately as per the MCSS recommendations.

The proponent is proposing to use regulated monitoring tools such as an Environmental Compliance Approval (ECA) for the greywater treatment system and the Ottawa Septic System Office (OSSO) annual monitoring program for tertiary treatment systems. These tools will enforce safe practices on the subject site, rather than leave the potentially contaminating current uses in place.

Decommissioning of existing wells and septic systems

It is implied that each of the existing municipal addresses at the subject site are serviced with private services. As there are seven (7) municipal addresses which comprise the subject site, it is implied that there are a minimum of seven (7) existing private sewage systems and private drilled wells currently existing on the subject site. All of the existing sewage systems and wells which will not be used as part of the site plan application will need to be properly decommissioned as part of the site plan application. It is not anticipated that any of the existing sewage systems or wells will be used as part of the Site Plan application, and therefore must all be decommissioned. Sewage systems will need to be decommissioned in accordance with the Ontario Building Code (OBC) and wells will need to be decommissioned in accordance with O.Reg 903.



Fieldwork Program

As a means to demonstrate the adequacy of the aquifer underlying the subject lands, with respect to water quality and quantity, the new drilled well (TW1) on the subject site was tested. TW1 has a Water Well Record (WWR) Well ID of A395662. TW1 has a 158.7 mm diameter steel casing that extends to 30.8 m bgs with a 0.6 m stick up above ground surface. The well itself extends to a total depth of 33.5 m bgs.

Based on available geological mapping, the drift thickness at TW1 varies from 15 to 25 m. Refer to Paterson Drawing PH4334-1(rev.5) – Preliminary Site Servicing Plan (Tertiary Treatment), 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 January 16, 2024 under the full-time supervision of Paterson personnel. Prior to the pumping test, a datalogger was installed to monitor background groundwater levels and the well was disinfected by Air Rock Drilling Co. Ltd. (Air Rock) personnel.

A submersible pump was provided by Air Rock for the 8-hour pumping test. A licensed water well technician completed the necessary plumbing related activities. A discharge hose assembly with a gate valve was connected to the rented pump. 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 pump was removed and the well was disinfected by Air Rock.

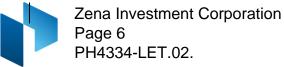
The static water level was recorded manually and an electronic datalogger (VanEssen TD-Diver) was installed in the test well prior to the start of the pumping test. The datalogger recorded water levels at 30 second intervals. In addition, manual water level readings were taken at periodic intervals during the test.

The pumping test was carried out at a pumping rate of 76 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 pumping rate was maintained within 5% of the selected pump rate.

The selected rate of 76 L/min provides approximately 5 times the design water taking volumes for the septic system and car washing (manual wash/spray wash only) 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 development would require.

Recovery data was collected from the well following the completion of the pumping. The well was noted to have achieved 100 % recovery approximately 1 minute after the completion of pumping.

Groundwater samples were collected at 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, Volatile Organic Compounds (VOC's), and Petroleum hydrocarbons (PHC's).

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 Eurofins 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, true colour, and temperature.

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 (m²/day)	4925.1					
Pumping Rate (L/min)	76					
Pre-test Static Water Level (m btoc)	8.6					
Drawdown (m)	0.2					
Available Drawdown (m)	25.0					
% Drawdown During Pump Test (%)	0.8					
Specific Capacity (L/min/m drawdown)	380					

The drawdown data was analyzed using the Theis and Cooper-Jacob methods of analysis. Aquifer transmissivity is estimated to be 4925.1 m²/day. Refer to the Theis and Cooper-Jacob methods of analysis data sheets attached to this report.

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 0.2 m at approximately 2 minutes into the pumping test (0.8 % of the available drawdown). The final drawdown at the end of the 8-hour pumping test was 0.2 m (0.8 % of the available drawdown). 100 % recovery was achieved approximately 1 minute after the end of pumping.



Zena Investment Corporation Page 7 PH4334-LET.02.

The total volume of water pumped during the 8-hour pumping event was approximately 36,480 L. This is approximately 5 times the design water taking volume for the septic system and car washing (manual wash/spray wash only).

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

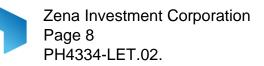
Based on the information summarized in Table 1, it is readily apparent that the water supply well has intercepted an adequately strong water supply aquifer which has sufficient quantity to service the proposed commercial development.

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

Water Quality

Field Data

Turbidity, electrical conductivity, total dissolved solids (TDS), pH, true colour 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 (Figure 2) 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.



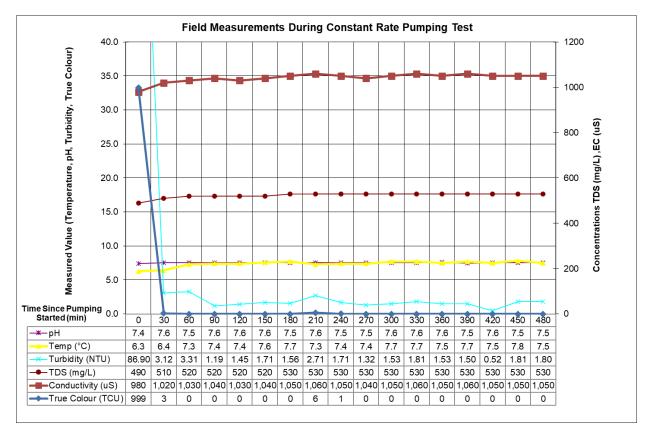


Figure 2 – Field Measurements During Constant Rate Pumping Test



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 and 2b below and the laboratory analyses reports can be found attached. VOC and PHC laboratory analytical testing (Table 2c and 2d) 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											
		OD	WS	TW1							
PARAMETER	UNITS	LIMIT	TYPE	GW1 (4 hr) 1/16/2024	GW2 (8 hr) 1/16/2024						
MICROBIOLOGICAL											
Escherichia Coli (E.Coli)	ct/100mL	0	MAC	0	0						
Total Coliforms	ct/100mL	0	MAC	0	0						
GENERAL CHEMICAL - HE	ALTH RELA	TED									
Fluoride (F)	mg/L	1.5	MAC	<0.10	<0.10						
Ammonia (N-NH ₃)	mg/L	-	-	<0.020	<0.020						
Nitrite (N-NO ₂)	mg/L	1	MAC	<0.10	<0.10						
Nitrate (N-NO ₃)	mg/L	10	MAC	0.31	0.41						
Total Kjeldahl Nitrogen	mg/L	-	-	0.202	0.23						
Turbidity (Field)	NTU	1.0 (5.0)	MAC/AO	1.7	1.8						
Turbidity (Laboratory)	NTU	1.0 (5.0)	MAC/AO	4.2	2.9						
GENERAL CHEMICAL - AE	STHETIC RE	LATED									
Alkalinity (as CaCO3)	mg/L	30-500	OG	306	317						
Chloride (CI)	mg/L	250	AO	146	134						
Colour (Apparent)	TCU	5	AO	20	19						
Colour (Field - True)	TCU	5	AO	1	0						
Conductivity	uS/cm	-	-	1,000	994						
Dissolved Organic Carbon	mg/L	5	AO	1.80	1.70						
Hardness (as CaCO3)	mg/L	100	OG	430	430						
lon Balance	unitless	-	-	0.96	0.97						
pH	unitless	6.5-8.5	AO	7.81	7.77						
Phenols	mg/L	-	-	<0.001	<0.001						
Sulphate (SO ₄)	mg/L	500	AO	66	66						
Sulphide (S ₂ ⁻)	mg/L	0.05	AO	<0.01	<0.01						
Tannin & Lignin	mg/L	-	-	<0.1	<0.1						
Total Dissolved Solids	mg/L	500	AO	650	646						

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



Zena Investment Corporation Page 10 PH4334-LET.02.

TABLE 2b: GROUNDWATER GEOCHEMISTRY - METALS							
		00	WS	TW1			
PARAMETER	UNITS	LIMIT	ТҮРЕ	GW1 (4 hr) 1/16/2024	GW2 (8 hr) 1/16/2024		
METALS							
Aluminum (Al)	mg/L	0.1	OG	< 0.01	<0.01		
Antimony (Sb)	mg/L	0.006	IMAC	0.0007	0.0005		
Arsenic (As)	mg/L	0.01	IMAC	< 0.001	< 0.001		
Barium (Ba)	mg/L	1.0	MAC	0.17	0.17		
Beryllium (Be)	mg/L	-	-	<0.0005	< 0.0005		
Boron (B)	mg/L	5.0	IMAC	0.02	0.02		
Cadmium (Cd)	mg/L	0.005	MAC	<0.0001	<0.0001		
Calcium (Ca)	mg/L	-	-	111	111		
Chromium (Cr)	mg/L	0.05	MAC	<0.001	<0.001		
Cobalt (Co)	mg/L	-	-	0.0003	0.0002		
Copper (Cu)	mg/L	1.0	AO	<0.001	<0.001		
Iron (Fe)	mg/L	0.3	AO	0.43	0.30		
Lead (Pb)	mg/L	0.01	MAC	<0.001	<0.001		
Magnesium (Mg)	mg/L	-	-	37	37		
Manganese (Mn)	mg/L	0.05	AO	0.02	0.02		
Molybdenum (Mo)	mg/L	-	-	< 0.005	< 0.005		
Nickle (Ni)	mg/L	-	-	< 0.005	< 0.005		
Potassium (K)	mg/L	-	-	5	5		
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	57	59		
Strontium (Sr)	mg/L	-	-	0.336	0.327		
Thallium (TI)	mg/L	-	-	<0.0001	<0.0001		
Uranium (U)	mg/L	0.02	MAC	0.002	0.002		
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



Zena Investment Corporation Page 11 PH4334-LET.02.

TABLE 2c: GROUNDWATER GEO	CHEMISTRY	- VOLATILE	ES			
			ws	T)4/4		
PARAMETER	UNITS			TW1		
FARAMETER	UNITS	LIMIT	TYPE	GW1 (4 hr) 1/16/2024	GW2 (8 hr) 1/16/2024	
VOCs Surrogates						
1,2-dichloroethane-d4	%	-	-		118	
4-bromofluorobenzene	%	-	-		75	
Toluene-d8	%	-	-		101	
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	

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 2d: GROUNDWATER GEOCHEMISTRY - PETROLEUM HYDROCARBONS							
		OD	WS	TW1			
PARAMETER	UNITS						
		GW1 (4 hr)	GW2 (8 hr)				
				1/16/2024	1/16/2024		
PHC Surrogate							
Alpha-androstrane	%	-	-		71		
HYDROCARBONS							
F1 (C6-C10)	ug/L	-	-		<20		
F2 (C10-C16)	ug/L	-	-		<20		
F3 (C16-C50)	ug/L	-	-		<50		
F4 (C34-C50)	ug/L	-	-		<50		

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

The bacteriological test results (Certificate of Analysis – Report No. 3004563) 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.

- Colour
- □ Hardness (as CaCO₃)
- Iron
- □ Total Dissolved Solids (TDS)
- □ Turbidity

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

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). The City's annotated Procedure D-5-5 in the HTAG 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.



Zena Investment Corporation Page 13 PH4334-LET.02.

During the field pumping test, a DR900 colorimeter was used to measure true colour in the groundwater at regular intervals. True colour in the groundwater was measured as 0 TCU at the end of the pumping test, which is below the provincial aesthetic guidelines of 5 TCU. The elevated colour levels detected in the lab samples are attributed to the precipitation of iron, calcium, and magnesium out of the groundwater.

Hardness as CaCO₃

Hardness, expressed as calcium carbonate, is an operational guideline and has an Ontario Drinking Water Objective of 500 mg/L. Hardness appears in the Technical Support Documents for Ontario Drinking Water Standards, Objectives and Guidelines (ODWSOG) as a parameter with an operational guideline at 100 mg/L. At the measured concentrations of 430 mg/L, the water is considered to be very hard, however, it is below the reasonable treatable limit of 500 mg/L specified in Table 3 of the City's annotated Procedure D-5-5 in the HTAG. The hardness concentration can be treated using conventional softening technologies.

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 0.43 and 0.3 mg/L at the 4-hour and 8-hour marks, respectively. It should be noted that the iron concentration decreased with time and may not exceed the aesthetic objective during normal operations. The concentration of iron in the groundwater in the test well is considered to be reasonably treatable in accordance with the annotated Procedure D-5-5 in the City's HTAG. 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.

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 concentration was found to be 650 and 646 mg/L at the 4-hour and 8-hour marks, respectively, which is above the aesthetic objective of 500 mg/L. As the concentration is above the aesthetic objective, a point of use reverse osmosis unit may be installed if the owner desires for drinking purposes. As such, no taste problems will occur when the system is used.

The Langelier calculation provided an LSI of 0.6. Based on the evaluation of the result, the water is super saturated and tends to precipitate a scale layer of calcium carbonate (scale forming but non-corrosive). Based on the range of stability in the positive direction, there are no mitigative measures needed. See Langelier Saturation Index Calculation attached for calculation details.



Zena Investment Corporation Page 14 PH4334-LET.02.

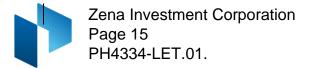
Turbidity

Turbidity, which is generally an aesthetic parameter, was detected in the laboratory test samples at values of 4.2 and 2.9 NTU in the 4 and 8 hours tests, respectively. Field testing detected the samples at values of 1.7 and 1.8 NTU in the 4 and 8 hour field tests, respectively. Continued pumping showed a decrease towards the end of the test. 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 and manganese.

The annotated Procedure D-5-5 in the City's HTAG indicates that the maximum acceptable concentration for turbidity in drinking water entering the distribution system is 1 NTU. The Aesthetic Objective for turbidity in drinking water reaching the consumer is 5 NTU. The field test parameters are below the 5 NTU objective. As turbidity was detected above 1 NTU, particular care must be taken during testing to ensure that the bacteria requirements of Table 1 are met. The bacteriological test results 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.

Sodium

Sodium (Na), an aesthetic parameter, was detected in the laboratory test samples at a concentration of 57 and 59 mg/L, which does not exceed the City's annotated Procedure D-5-5 in the HTAG 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.



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 development.
- 2. The preferred water supply intercepted by TW1 contains a water supply that is potable and contains only elevated concentrations of hardness, and TDS. The iron concentration was elevated at the 4-hour mark however there was a decrease in concentration to below the limits by the end of the pumping test. The noted parameters can be treated with current readily available water conditioning equipment.
- 3. A standard commercial grade water softener is recommended to facilitate the reduction of the hardness concentration. If a water softener is used for the proposed development, 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 used to provide a drinking tap source.
- 4. 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.
- 5. The results of the Hydrogeological Assessment have provided satisfactory evidence that the aquifer underlying the subject site can support the proposed commercial development with respect to water quality and quantity.

We trust that the current submission satisfies your immediate requirements. Best Regards,

Feb 26, 2024

ERIK ARDLEY

RACTISING MEMBER

3667

0

۴.

Paterson Group Inc.

Alex Schopf PhD, EIT

Attachments:

- Key Plan
- MECP Water Well Records
- Eurofins Certificate of Analysis
- AQTESOLV Pumping Test Analysis Reports
- Langelier Saturation Index Calculation
- Paterson Drawing PH4334-1(Rev.5) Preliminary Site Servicing Plan (Tertiary Treatment)

Ottawa Head Office 9 Auriga Drive Ottawa – Ontario – K2E 7T9 Tel: (613) 226-7381 Ottawa Laboratory 28 Concourse Gate Ottawa – Ontario – K2E 7T7 Tel: (613) 226-73<u>81</u>____ Northern Office and Laboratory 63 Gibson Street North Bay – Ontario – P1B 8Z4 Tel: (705) 472-5331





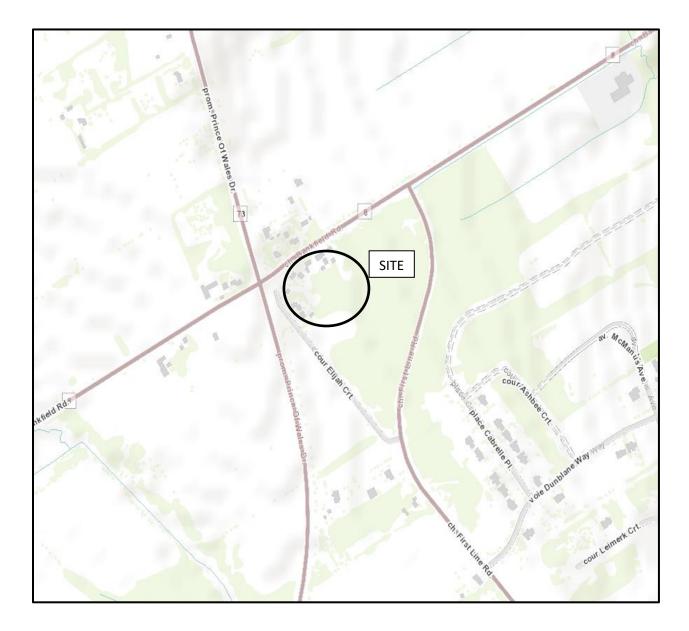


FIGURE 1

KEY PLAN



T	١٨	11
	V	/ I

Measurements re	Conserva	of the Environm tion and Parks letric	We	Tag#:A3956 A395662	nt Below)	Regulatio	on 903 Ont	Well I Pario Water Res	
Well Owner's I	mention states and a subscription with the								
First Name	La	ast Name/Organi BBS	Construct	ion (Ontario) Ltd	E-mail Address				Construct
Mailing Address (S 1805 V	treet Number/Name	_{e)} TVe		Municipality Offawa	Province	Postal Cod	OP9 Tel	ephone No. (inc.	area code
Well Location									
Address of Well Lo 5485 Ell	an Coun	ber/Name)		Township Rideau		PLPL 1	Co	A B,F	Ē,
County/District/Mu	nicipality Carleton			City/Town/Village			Province	Posta	I Code
UTM Coordinates 2	Zone . Easting	, Northing	1	Municipal Plan and Suble	ot Number		Ontar	10	
NAD 8 3	18 4438		07345	4R-10152			to the last shows a		
Overburden and General Colour	Most Commo	Service and a service of the service of	of Deligence address of the street	cord (see instructions on th Other Materials	a constraint of an of process active or	eral Description	n	Dep	th (m/ft)
		Sand		4 Gravel	+ Boe	iller	9	From	81
Black		Shale	Gr	actured)			9	91 '	108
Black		Shale	LFra	actured)				108	110
* ±	ENA IN	IVESTI	NENT	- Coll	DRACTIO	1			
-	11 -								
XJ YO	# 000	0-53	9-0	03-52	5		_		
Depth Set at (m/fi		Annular Spac		Volume Placed	After test of well yield	Results of W	Drout	The state of the s	ecovery
From To		Material and Type		(m ³ /ft ³)	Clear and sand	free Not tests	Time Wa	ater Level Time	Water Lev
101 91	Ales	P. Cen	entslu	TY 12.48	If pumping discontinu		Static 2	(m/ft) (min)	(m/ft) 28.5
910	Benste	nite!	Slurr	y 25.20	X	an give rodoull.	Level 1	29.2 1	28
				/	Pump intake set at (TH)	2	28.2 2	28
						0		20.2	- 28
Method of	Construction					-			20
	a second a second a second and second as		Well L	and the second	Pumping rate (Vmin /	em 2	3	29.3	
Cable Tool Rotary (Convention	Diamond	Public Domestic	Well &	nercial Not used	Duration of pumping	20	4	29.3 4	28
Rotary (Convention Rotary (Reverse)	Diamond () Jetting () Driving	Livestock	Comm Munici Test H	ipal Dewatering	Duration of pumping	min .	4	29.3 4 29.3 5	28 28
Rotary (Convention Rotary (Reverse) Boring Air percussion	Diamond nal) Jetting	Domestic Livestock	Comm Munici Test H	ipal Dewatering	Duration of pumping	min .	4 5 10	29.3 4 29.3 5 29.4 10	28 28 28
Rotary (Convention Rotary (Reverse) Boring Air percussion Other, specify	Diamond Diating Driving Digging	Comestic Livestock	Comm Munici Test H	nercial Not used ipal Dewatering tole Monitoring ig & Air Conditioning	Duration of pumping	min of pumping (m/it)	4	29.3 4 29.3 5 29.4 10 29.4 15	28 28 28 28 28
Rotary (Convention Rotary (Reverse) Boring Air percussion Other, specify Inside Open H	Diamond Diamond Disting Driving Digging Construction Rec tole OR Material	Comestic Livestock	Comm Munici Test H	ipal Dewatering	Duration of pumping hrs + Final water level end of 28.5	min of pumping (m/ft) in/GPM)	4 5 10	29.3 4 29.3 5 29.4 10 29.4 15 29.5 20	28 28 28 28 28 28
Rotary (Convention Rotary (Reverse) Goring Air percussion Other, specify Inside Diameter (Galvar	Diamond Diamond Disting Driving Digging Construction Rec tole OR Material	Comestic Livestock	Comm Munici Test H Coolin Cify	hercial Not used ipal Dewatering lole Monitoring g & Air Conditioning Status of Well Wyater Supply Replacement Well	Duration of pumping hrs + Final water level end of 28:5 If flowing give rate (/m Recommended pump 90	min of pumping (m/R) in/GPM) depth (n(18)	4 5 10 15	29.3 4 29.3 5 29.4 10 29.4 15 29.5 20 29.5 25	28 28 28 28 28 28 28 28
Rotary (Convention Rotary (Reverse) Goring Air percussion Other, specify Inside Diameter (Galvar	Diamond Jetting Driving Digging Construction Rec rote OR Material nized, Fibreglass, Take, Plastic, Steel	Comestic Livestock Inigation Industrial Other, spe Wall Thickness (cm/life) Fro	Comm Munici Test H Coolin Cify	ercial Not used ipal Dewatering tole Monitoring g & Air Conditioning Status of Well Water Supply Replacement Well Test Hole Recharge Well	Duration of pumping hrs + Final water level end of 29.5 If flowing give rate (//m Recommended pump	min of pumping (m/ft) in/GPM) depth (n(ft)) rate	4 5 10 15 20	29.3 4 29.3 5 29.4 10 29.4 15 29.5 20 29.5 25 29.5 30	28 28 28 28 28 28 28 28 28
Rotary (Convention Rotary (Reverse) Boring Air percussion Other, specify Inside Diameter (Galvar Concret 6 4	Diamond Jetting Driving Digging Construction Rec rote OR Material nized, Fibreglass, Take, Plastic, Steel	Convestic Livestock Infigation Industrial Cotter, spe Cord Casing Wall Thickness (cm/lfs) Fro	Comm Munici Test H Coolin cify Depth (m/f) m To	ercial Not used ipal Dewatering lole Monitoring g & Air Conditioning 	Duration of pumping hrs + Final water level end of 28.5 If flowing give rate (Jum Recommended pump 90 Recommended pump (Jumi/Get)	min of pumping (m/ft) in/GPM) depth (nft) rate	4 5 10 15 20 25	29.3 4 29.3 5 29.4 10 29.4 15 29.5 20 29.5 25	28 28 28 28 28 28 28 28 28
Rotary (Convention Rotary (Reverse) Boring Air percussion Other, specify Inside Inside Open + Cancre C	Diamond Detting Driving Digging	Convestic Livestock Infigation Industrial Cotter, spe Cord Casing Wall Thickness (cm/lfs) Fro	Comm Munici Test H Coolin Coolin Coolin To To T T T	ercial Not used ipal Dewatering lole Monitoring g & Air Conditioning Status of Well Water Supply Replacement Well Test Hole Recharge Well Dewatering Well	Duration of pumping hrs + Final water level, end of 28:5 If flowing give rate (Vm Recommended pump 90 Recommended pump (Vmin/GEN) Well production (Vmin/	min of pumping (m/tt) in/GPM) depth (nft) rate	4 5 10 15 20 25 30	29.3 4 29.3 5 29.4 10 29.4 15 29.5 20 29.5 25 29.5 30	28 28 28 28 28 28 28 28 28 28 28
Rotary (Convention Rotary (Reverse) Boring Air percussion Other, specify Inside Inside Open + Cancre C	Diamond Detting Driving Digging	Convestic Livestock Infigation Industrial Cotter, spe Cord Casing Wall Thickness (cm/lfs) Fro	Comm Munici Test H Coolin Coolin Depth (m Depth (m Depth 101	ercial Not used ipal Dewatering lole Monitoring g & Air Conditioning Status of Well Water Supply Replacement Well Recharge Well Dewatering Well Debservation and/or Monitoring Hole	Duration of pumping hrs + Final water level end of 28:5 If flowing give rate (/m Recommended pump (/min/GE) Well production (/min/	min of pumping (m/tt) in/GPM) depth (nft) rate	4 5 10 15 20 25 30 40	29.3 4 29.3 5 29.4 10 29.4 15 29.5 20 29.5 30 29.5 40	28 28 28 28 28 28 28 28 28 28 28 28
Rotary (Convention Rotary (Reverse) Boring Air percussion Other, specify Inside Diameter (Galvar Concer C1/41 Steri Open	Diamond Detting Driving Digging	Connestic Livestock Inigation Other, spe ord Casing Wall Thickness (cm/lk) Fro	Comm Munici Test H Coolin Coolin Depth (m Depth (m Depth 101	rercial Not used ipal Dewatering lole Monitoring ig & Air Conditioning 	Duration of pumping hrs + Final water level end of 28.5 If flowing give rate (I/m Recommended pump 90 Recommended pump (/min/GEA) Well production (/min/ Disfiglted? No	min of pumping (m/t) in/GPM) depth (n(12) rate CAM CAM CBM CAM CBM Map of W	4 5 10 15 20 25 30 40 50 60	29.3 4 29.3 5 29.4 10 29.4 15 29.5 20 29.5 20 29.5 30 29.5 50 29.5 60	28 28 28 28 28 28 28 28 28 28 28
Cutside Cutsi	Diamond Diging Digging Digging Digging Digging Digging Distruction Rec die OR Material ret, Plastic, Steel) el ren Hole Construction Rec Material	Condestic Clivestock Clivestock Clivestock Clivestock Clivestock Clivestock Clivestock Condestic Condesti	Comm Munici Test H Coolin Cofy Depth (m/ft) To Depth (m/ft) Depth (m/ft)	ercial Not used ipal Dewatering lole Monitoring g & Air Conditioning 	Duration of pumping hrs + Final water level, end of 28.5 If flowing give rate (I/m Recommended pump (I/min/GEA) Well production (I/min/ Definented?	min of pumping (m/t) in/GPM) depth (n(12) rate CAM CAM CBM CAM CBM Map of W	4 5 10 15 20 25 30 40 50 60	29.3 4 29.3 5 29.4 10 29.4 15 29.5 20 29.5 20 29.5 30 29.5 50 29.5 60	28 28 28 28 28 28 28 28 28 28 28
Country (Convention Convention C	Diamond Detting Driving Digging Digging Construction Rec role OR Material rized, Fibreglass, tet, Plastic, Steel) El THOLE Construction Rec	Convestic Civestock Infigation Industrial Cither, spe Cord - Casing Wall Thickness (crn/lh) Fro 188 + 1 Cord - Screen	Comm Munici Test H Coolin Cofy Depth (m/ft) To Depth (m/ft) Depth (m/ft)	ercial Not used ipal Dewatering lole Monitoring g & Air Conditioning Status of Well Replacement Well Replacement Well Pewatering Well Doservation and/or Monitoring Hole Alteration (Construction) Abandoned, Insufficient Supply Insufficient Supply Abandoned, Poor Water Qualify	Duration of pumping hrs + Final water level end of 28.5 If flowing give rate (I/m Recommended pump 90 Recommended pump (/min/GEA) Well production (/min/ Disfiglted? No	min of pumping (m/t) in/GPM) depth (n(12) rate CAM CAM CBM CAM CBM Map of W	4 5 10 15 20 25 30 40 50 60	29.3 4 29.3 5 29.4 10 29.4 15 29.5 20 29.5 20 29.5 30 29.5 50 29.5 60	28 28 28 28 28 28 28 28 28 28 28
Cutside Cutsi	Diamond Diging Digging Digging Digging Digging Digging Distruction Rec die OR Material ret, Plastic, Steel) el ren Hole Construction Rec Material	Condestic Clivestock Clivestock Clivestock Clivestock Clivestock Clivestock Clivestock Condestic Condesti	Comm Munici Test H Coolin Cofy Depth (m/ft) To Depth (m/ft) Depth (m/ft)	ercial Not used ipal Dewatering lole Monitoring ig & Air Conditioning Status of Well Water Supply Replacement Well Pecharge Well Observation and/or Monitoring Hole Alteration (Construction) Abandoned, Poor Water Quality Monitorit Supply Abandoned, Oror Water Quality Abandoned, Oror	Duration of pumping hrs + Final water level end of 28.5 If flowing give rate (I/m Recommended pump 90 Recommended pump (/min/GEA) Well production (/min/ Disfiglted? No	min of pumping (m/t) in/GPM) depth (n(12) rate CAM CAM CBM CAM CBM Map of W	4 5 10 15 20 25 30 40 50 60	29.3 4 29.3 5 29.4 10 29.4 15 29.5 20 29.5 20 29.5 30 29.5 50 29.5 60	28 28 28 28 28 28 28 28 28 28 28
Cutside Cutsi	Diamond Diamond Jetting Driving Digging Construction Rec tole OR Material rized, Fibreglass, en Hole Construction Rec Material Galvanized, Steel)	Comestic Livestock Inigation Other, spe ord - Casing Wall Thickness (cm/lb) Fro 188 + 1 ord - Screen	Comm Munici Test H Coolin Cify Depth (m/f0) To 2 101 01 110 Depth (m/ft) To To	rercial Not used ipal Dewatering lole Monitoring ig & Air Conditioning Water Supply Replacement Well Vell Recharge Well Observation and/or Monitoring Hole Alteration (Construction) Abandoned, Poor Water Quality Abandoned, other, specify Other, specify	Duration of pumping hrs + Final water level end of 28.5 If flowing give rate (I/m Recommended pump 90 Recommended pump (/min/GEA) Well production (I/min/ Districted? No Please provide a ma	min of pumping (m/it) in/GPM) depth (n@) rate CAM GPM GPM GPM Map.of W p below followi	4 5 10 15 20 25 30 40 50 60 60 eti Locatio	29.3 4 29.3 5 29.4 10 29.4 15 29.5 20 29.5 20 29.5 30 29.5 50 29.5 60	28 28 28 28 28 28 28 28 28 28 28
Rotary (Convention Rotary (Reverse) Boring Air percussion Other, specify Inside Diameter Carl (Galvar Concer Outside Diameter Carl (Aff) Outside Diameter (cm/0) Outside Diameter (cm/in)	Diamond Diamond Jetting Driving Digging Construction Rec die OR Material ized, Fibreglass, te, Plasto, Steel) el m Hole Construction Rec Material Galvanized, Steel Water Detail	Comestic Livestock Inigation Other, spe ord - Casing Wall Thickness (cm/lb) Fro .188 + 1 ord - Screen Slot No. Fro	Comm Munici Test H Coolin Coolin To To T 101 110 Depth (m/ft) T To To	Percial Not used ipal Dewatering lole Monitoring ig & Air Conditioning Vyater Supply Replacement Well Dewatering Well Observation and/or Monitoring Hole Aiteration (Construction) Abandoned, Poor Water Quality Abandoned, other, specify Other, specify Hole Diameter	Duration of pumping hrs + Final water level end of 28.5 If flowing give rate (I/m Recommended pump 90 Recommended pump (/min/GEA) Well production (I/min/ Districted? No Please provide a ma	min of pumping (m/it) in/GPM) depth (n@) rate CAM GPM GPM GPM Map.of W p below followi	4 5 10 15 20 25 30 40 50 60 60 eti Locatio	29.3 4 29.3 5 29.4 10 29.4 15 29.5 20 29.5 20 29.5 30 29.5 50 29.5 60	28 28 28 28 28 28 28 28 28 28 28
Rotary (Convention Rotary (Reverse) Boring Air percussion Other, specify Inside Diameter (cmf0) Concre (cmf0) Concre (cmf0) (Convention (Concre (cmf0) (Concre (cmf0) (Concre (cmf0) (Concre (cmf0) (Plastic, ((cmf0) (Plastic, ((cmf0) (Plastic, ((cmf0) (Concre	Diamond Delting Didy and Digging Digging Digging Digging Discretion Rec	Condestic Convestic Conve	Comm Munici Test H Coolin To Sted Depth (m/ft) To To Sted Depth Coolin To	Image: Status of Well Water Supply Replacement Well Water Supply Replacement Well Dewatering Well Description Aircraft Water Supply Replacement Well Description Adteration (Construction) Abandoned, Poor Water Quality Abandoned, other, specify Other, specify Hole: Diameter: To Cravity	Duration of pumping hrs + Final water level end of 28.5 If flowing give rate (I/m Recommended pump 90 Recommended pump (/min/GEA) Well production (I/min/ Districted? No Please provide a ma	min of pumping (m/it) in/GPM) depth (n@) rate CAM GPM GPM GPM Map.of W p below followi	4 5 10 15 20 25 30 40 50 60 60 eti Locatio	29.3 4 29.3 5 29.4 10 29.4 15 29.5 20 29.5 20 29.5 30 29.5 50 29.5 60	28 28 28 28 28 28 28 28 28 28 28
Rotary (Convention Rotary (Reverse) Boring Air percussion Other, specify Other, specify Inside Open Diameter (any	Diamond Diamond Detting Dinving Digging Donstruction Rec Construction Rec Rec Plastic, Steel) Construction Rec R	Slot No. Fresh Fresh Utest	Comm Munici Test H Coolin To Sted Depth (m/ft) To To Sted Depth Sted Depth Sted Sted	Image: Status of Well Water Supply Replacement Well Water Supply Replacement Well Observation and/or Monitoring Well Dewatering Well Deservation and/or Monitoring Hole Alteration (Construction) Abandoned, Poor Water Quality Other, specify Other, specify Other, Specify Image: Specify	Duration of pumping hrs + Final water level end of 28.5 If flowing give rate (I/m Recommended pump 90 Recommended pump (/min/GEA) Well production (I/min/ Districted? No Please provide a ma	min of pumping (m/t) in/GPM) depth (n(12) rate CAM CAM CBM CAM CBM Map of W	4 5 10 15 20 25 30 40 50 60 60 eti Locatio	29.3 4 29.3 5 29.4 10 29.4 15 29.5 20 29.5 20 29.5 30 29.5 50 29.5 60	28 28 28 28 28 28 28 28 28 28 28
Rotary (Convention Rotary (Reverse) Boring Air percussion Other, specify Inside Diameter (cmf0) Concre (cmf0) Concre (cmf0) (Convention (Concre (cmf0) (Concre (cmf0) (Concre (cmf0) (Concre (cmf0) (Plastic, ((cmf0) (Plastic, ((cmf0) (Plastic, ((cmf0) (Concre	Diamond Diamond Detting Driving Digging Digging Construction Rec tole OR Material traterial Galvanized, Steel) Water Detail h Kind of Water: as _ Other, specifi	Slot No. Fresh Unter Valianter	Comm Munici Test H Coolin To Sted Depth (m/ft) To Sted Depth Sted Depth Sted Depth Sted Ste	Image: Status of Well Water Supply Replacement Well Water Supply Replacement Well Dewatering Well Description Aircraft Water Supply Replacement Well Description Adteration (Construction) Abandoned, Poor Water Quality Abandoned, other, specify Other, specify Hole: Diameter: To Cravity	Duration of pumping hrs + Final water level end of 29.5 If flowing give rate (Ivm Recommended pump (Vmin/GEN) Well production (Ivmin/ Out of the second Districted? No Please provide a ma	A Second Control of the second control of th	4 5 10 15 20 25 30 40 50 60 60 eti Locatio	29.3 4 29.3 5 29.4 10 29.4 15 29.5 20 29.5 20 29.5 30 29.5 40 29.5 50 29.5 60 30 29.5 60 30 29.5 60	28 28 28 28 28 28 28 28 28 28 28 28
Rotary (Convention Rotary (Reverse) Boring Air percussion Other, specify Other, spe	Diamond Diamond Detting Driving Digging Digging Construction Rec tole OR Material traterial Galvanized, Steel) Water Detail h Kind of Water: as _ Other, specifi	Slot No. Fresh Unter Sresh Unter Utersh Unter Sresh Unter Fresh Fresh	Comm Munici Test H Coolin To Sted Depth (m/ft) To Sted Depth Sted Depth Sted Depth Sted Ste	nercial Not used ipal Dewatering lole Monitoring ig & Air Conditioning Monitoring g & Air Conditioning Monitoring Water Supply Replacement Well Pewatering Well Observation and/or Monitoring Hole Abandoned, Poor Hole Totameter Not used Insufficient Supply Abandoned, other, specify Other, specify Other, specify Diameter Totameter Totameter Totameter Not 101 9	Duration of pumping hrs + Final water level end of 29.5 If flowing give rate (Ivm Recommended pump (Vmin/GEN) Well production (Ivmin/ Out of the second Districted? No Please provide a ma	min of pumping (m/it) in/GPM) depth (n/B) rate CAM GPM GPM GPM Map.of W p below followi	4 5 10 15 20 25 30 40 50 60 60 eti Locatio	29.3 4 29.3 5 29.4 10 29.4 15 29.5 20 29.5 20 29.5 30 29.5 40 29.5 50 29.5 60 30 29.5 60 30 29.5 60	28 28 28 28 28 28 28 28 28 28 28 28
Rotary (Convention Rotary (Reverse) Boring Air percussion Other, specify Other, spe		Sich No. Fresh Unter Units Inigation Inidustrial Other, spe Ord Casing Wall Thickness (cm/lk) Fro .188 + 1 Other, spe ord - Casing Wall Fro .188 + 1 Other, spe Other, spe Other, spe Sich No. Fro Sich No. Frosh Unter Sich No. Frosh Unter Sich No. Sich No. Sic	Comm Munici Test H Coolin Cify m To 2 101 01 110 Depth (m/ft) m To 2 5ted Ested Sted Sted Sted	nercial Not used ipal Dewatering lole Monitoring ig & Air Conditioning Monitoring ig & Air Conditioning Monitoring Water Supply Replacement Well Pecharge Well Dewatering Well Observation and/or Monitoring Hole Alteration (Construction) Abandoned, Poor Water Quality Abandoned, other, specify Other, specify Other, specify Diameter ph (mA) Diameter To (cm/iff) 101 9/4/4 101 110 6/r 101	Duration of pumping hrs + Final water level end of 29.5 If flowing give rate (Ivm Recommended pump (Vmin/GEN) Well production (Ivmin/ Out of the second Districted? No Please provide a ma	A Second Control of the second control of th	4 5 10 15 20 25 30 40 50 60 60 eti Locatio	29.3 4 29.3 5 29.4 10 29.4 15 29.5 20 29.5 20 29.5 30 29.5 40 29.5 50 29.5 60 30 29.5 60 30 29.5 60	28 28 28 28 28 28 28 28 28 28 28 28
Rotary (Convention Rotary (Reverse) Boring Air percussion Other, specify Other, spe		Sich No. Fresh Unter Units Inigation Inidustrial Other, spe Ord Casing Wall Thickness (cm/lk) Fro .188 + 1 Other, spe ord - Casing Wall Fro .188 + 1 Other, spe Other, spe Other, spe Sich No. Fro Sich No. Frosh Unter Sich No. Frosh Unter Sich No. Sich No. Sic	Comm Munici Test H Coolin Cify m To 2 101 01 110 Depth (m/ft) m To 2 5ted Ested Sted Sted Sted	Image: Status of Well Water Supply Replacement Well Water Supply Replacement Well Observation and/or Monitoring Well Observation and/or Monitoring Hole Abandoned, plot Abandoned, plot Abandoned, other, specify Other, specify Other, specify Information Other, specify Information	Duration of pumping hrs + Final water level end of 29.5 If flowing give rate (Ivm Recommended pump (Vmin/GEN) Well production (Ivmir/ Out of the second Districted? No Please provide a ma	A Second Control of the second control of th	4 5 10 15 20 25 30 40 50 60 60 eti Locatio	29.3 4 29.3 5 29.4 10 29.4 15 29.5 20 29.5 20 29.5 30 29.5 40 29.5 50 29.5 60 29.5 60 29.5 60	28 28 28 28 28 28 28 28 28 28 28 28
Rotary (Convention Rotary (Reverse) Boring Air percussion Other, specify Other, spe		Cond - Screen Slot No. Fro Sl	Comm Munici Test H Coolin Cify Depth (m/ft) Depth (m/ft) To Sted Dej From Sted Sted	nercial Not used ipal Dewatering lole Monitoring ig & Air Conditioning Monitoring ig & Air Conditioning Monitoring Water Supply Replacement Well Pecharge Well Dewatering Well Observation and/or Monitoring Hole Alteration (Construction) Abandoned, Poor Water Quality Abandoned, other, specify Other, specify Other, specify Diameter ph (mA) Diameter To (cm/iff) 101 9/4/4 101 110 6/r 101	Duration of pumping hrs + Final water level end of 28.5 If flowing give rate (I/m Recommended pump 90 Recommended pump 90 Well production (I/min/ Well production (I/min/ Please provide a ma	20 min of pumping (mit) in/GPM) of depth (nCt) rate 20GAM 20	4 5 10 15 20 25 30 40 50 60 60 60 eti Locatio	29.3 4 29.3 5 29.4 10 29.4 15 29.5 20 29.5 20 29.5 25 29.5 30 29.5 40 29.5 50 29.5 60 29.5 60 29.5 60	28 28 28 28 28 28 28 28 28 28 28 28
Rotary (Convention Rotary (Reverse) Boring Air percussion Other, specify Other, spe		Slot No. Fresh Fr	Comm Munici Test H Coolin Cify m To 2 101 110 01 110 01 110 01 110 01 110 01 110 01 110 01 01	Image: Status of Well Image: Status of Well <td< td=""><td>Duration of pumping hrs + Final water level end of 29.5 If flowing give rate (Ivm Recommended pump (Vmin/GEN) Well production (Ivmir/ Out of the second Districted? No Please provide a ma</td><td>20 min of pumping (mit) in/GPM) of depth (nCt) rate 20GAM 20</td><td>4 5 10 15 20 25 30 40 50 60 60 60 eti Locatio</td><td>29.3 4 29.3 5 29.4 10 29.4 15 29.5 20 29.5 20 29.5 25 29.5 30 29.5 40 29.5 50 29.5 60 29.5 60 29.5 60</td><td>28 28 28 28 28 28 28 28 28 28 28 28 28 2</td></td<>	Duration of pumping hrs + Final water level end of 29.5 If flowing give rate (Ivm Recommended pump (Vmin/GEN) Well production (Ivmir/ Out of the second Districted? No Please provide a ma	20 min of pumping (mit) in/GPM) of depth (nCt) rate 20GAM 20	4 5 10 15 20 25 30 40 50 60 60 60 eti Locatio	29.3 4 29.3 5 29.4 10 29.4 15 29.5 20 29.5 20 29.5 25 29.5 30 29.5 40 29.5 50 29.5 60 29.5 60 29.5 60	28 28 28 28 28 28 28 28 28 28 28 28 28 2
Rotary (Convention Rotary (Reverse) Boring Air percussion Other, specify Other, spe		Cond - Screen Slot No. Fro Sl	Comm Munici Test H Coolin Cify m To 2 101 110 01 110 01 110 01 110 01 110 01 110 01 110 01 01	Image: Status of Well Image: Status of Well <td< td=""><td>Duration of pumping hrs + Final water level end of 28:5 If flowing give rate (Vm Recommended pump 90 ' Recommended pump 90 ' 90 ' Recommended pump 90 ' 80 '</td><td>20 min of pumping (mit) in/GPM) of depth (nCt) rate 20GAM 20</td><td>4 5 10 15 20 25 30 40 50 60 60 60 60 60 60 40 50 60 60 40 50 60 40 50 60 40 50 60 40 50 60 40 50 60 40 40 50 60 40 40 50 60 40 40 50 60 40 40 50 60 50 60 70 70 70 70 70 70 70 70 70 70 70 70 70</td><td>29.3 4 29.3 5 29.4 10 29.4 15 29.5 20 29.5 20 29.5 25 29.5 30 29.5 40 29.5 50 29.5 60 29.5 60 29.5 60</td><td>28 28 28 28 28 28 28 28 28 28 28 28 28 2</td></td<>	Duration of pumping hrs + Final water level end of 28:5 If flowing give rate (Vm Recommended pump 90 ' Recommended pump 90 ' 90 ' Recommended pump 90 ' 80 '	20 min of pumping (mit) in/GPM) of depth (nCt) rate 20GAM 20	4 5 10 15 20 25 30 40 50 60 60 60 60 60 60 40 50 60 60 40 50 60 40 50 60 40 50 60 40 50 60 40 50 60 40 40 50 60 40 40 50 60 40 40 50 60 40 40 50 60 50 60 70 70 70 70 70 70 70 70 70 70 70 70 70	29.3 4 29.3 5 29.4 10 29.4 15 29.5 20 29.5 20 29.5 25 29.5 30 29.5 40 29.5 50 29.5 60 29.5 60 29.5 60	28 28 28 28 28 28 28 28 28 28 28 28 28 2
Rotary (Convention Rotary (Reverse) Boring Air percussion Other, specify Other, spe		Slot No. Fresh Fr	Comm Munici Test H Coolin Cify Depth (m/ft) To To To To To To To To To To To To To	Image: Status of Well Water Supply Replacement Well Water Supply Replacement Well Observation and/or Monitoring Well Dewatering Well Deservation and/or Monitoring Hole Alteration (Construction) Abandoned, Poor Water Quality Abandoned, other, specify Other, specify Other, specify Interface to subject to	Duration of pumping hrs + Final water level end of 28.5 If flowing give rate (Ivm Recommended pump 90 Recommended pump (Vmin/GE) Well production (Ivmin/ Districted? (Vois I No Please provide a ma CO Competitie 20 GP Well owner's Date P information package	min of pumping (m/t) in/GPM) idepth (nG) rate CAM SEM Map of W p below followi 54-85 TAH URT	4 5 10 15 20 25 30 40 50 60 60 60 60 60 60 40 50 60 60 40 50 60 40 50 60 40 50 60 40 40 50 60 40 40 50 60 40 40 50 60 40 40 50 60 40 40 50 60 40 40 50 50 60 40 50 60 50 60 60 60 60 60 60 60 60 60 60 60 60 60	29.3 4 29.3 5 29.4 10 29.4 15 29.5 20 29.5 20 29.5 30 29.5 40 29.5 50 29.5 60 29.5 70 20.5 70	28 28 28 28 28 28 28 28 28 28 28 28 28 2
Rotary (Convention Rotary (Reverse) Boring Air percussion Other, specify Other, spe		Convestic Civestock Inigation Idustrial Other, spe Vall Vall ConvIA Store Store Store Fresh Fresh Fresh Fresh Fresh Fresh Fresh Fresh Fresh Outte Store Fresh Outte Store S	Comm Munici Test H Coolin Cify Depth (m/ft) m To To To To To To To To To To To To To	Image: Status of Well Image: Status of Well Image: Status of Well Image: Water Supply Image: Replacement Well Image: Replacement Well Image: Replacement Well Image: Developing Welle	Duration of pumping hrs + Final water level end of 28.5 If flowing give rate (Ivm Recommended pump 90 Recommended pump (Ivmin/GEA) Well production (Ivmin/ Well production (Ivmin/ Definition of the Point Please provide a ma Compensition of the Point Compensition of the Point Compensition of the Point Well owner's Date Pinformation of the Pinformation of the Point Well owner's Date Pinformation of the Pinformation of the Point Well owner's Date Pinformation of the Pinformation of	min of pumping (m/t) in/GPM) idepth (nG) rate CAM SEM Map of W p below followi 54-85 TAH URT	4 5 10 15 20 25 30 40 50 60 60 60 60 60 60 40 50 60 60 40 50 60 40 50 60 40 50 60 40 40 50 60 40 40 50 60 40 40 50 60 40 40 50 60 40 40 50 60 40 40 50 50 60 40 50 60 50 60 60 60 60 60 60 60 60 60 60 60 60 60	29.3 4 29.3 5 29.4 10 29.4 15 29.5 20 29.5 20 29.5 20 29.5 50 29.5 60 29.5 60 29.5 60 29.5 60 29.5 60 29.5 60 29.5 60 29.5 60 29.5 60 29.5 70 29.5 70 20.5 70	28 28 28 28 28 28 28 28 28 28 28 28 28 2

UTM $18i^{2}$ $4i4i318ic$ $19i^{R}$ $5i01017i^{2}$ Elev. $19i^{R}$ 013301 Basin 1251 11	<u> 0 </u> N The W	ont ater-well D Departmen	t of	s Act, 1954	ACTORIAN PARA	
County or Territorial District.		-	nship		on Moile	
(day)	(month)	(year)				
Pipe and Casing			u		Pumping Test	
Casing diameter(s) Length(s) Type of screen Length of screen			Pui Pui	tic level	the set of	. 22
Well Log					Water Record	
Overburden and Bedrock Record	From ft.	To ft.		Depth(s) at which water(s) found	No. of feet water rises	Kind of water (fresh, salty, or sulphur)
Clay	1	22'	·			······································
Jund	22'	30'				
- quand	5.0	60		\$0'	4 5·1	Jush.
For what purpose (s) is the water Is water clear or cloudy?	hillside ?		I	In diagram below road and lot line.		
Name of Driller	oregoing are true.		200	Mepran unty Rd.		N R R R R R R R R R R R R R R R R R R R

UTM 0/1812 141413 131		42 R		15°	Nº \$575
	20	ONT	ARIO		
Elev. $\frac{ 9 ^{R}}{ 2 ^{S}}$			rillers Act, 1954		
$Basin \begin{array}{ c c c c c } 2 & \hline \\ \hline$		_	t of Mines	_	
		-	ell Reco	-	$\mathbf{h}_{i,j}$
County or Territorial District	Pullo	ጥດምም	nahin Willows Marry	or City North	Jam
County of Territorial District	······································	10w.	n Village, <u>To</u> wn	or City)	
			Address	or City)	
(day)	(month)	(year)			
Pipe and Casin	g Record			Pumping Test	
Casing diameter(s)	· · · · · · · · · · · · · · · · · · ·	<u></u>	Static level	1	
Casing diameter(s) Length(s)			Pumping rate	225-4. P.Z	/
Type of screen			Pumping level	15	
Length of screen				rk.	
	<u></u>		<u>. </u>		
Well Log	<u> </u>			Water Record	
Overburden and Bedrock Record	From ft.	To ft.	Depth (s) at which water (s) found	No. of feet water rises	Kind of water (fresh, salty, or sulphur)
<u> </u>					
lay		20		······	
		<u> </u>			
Nand	20 '	45.			
frauel	45-	\$-5-	3-5-1	\$15-1	has
	_				
For what purpose(s) is the water				Location of Well	
Is water clear or cloudy?	1			elow show distances of line. Indicate north	
Is well on upland, in valley, or or	n hillside?		Toau anu iot	M Indicate north	t by arrow.
Drilling firm				1 1	
Address 639 Moura		le.			¥1
	<u>.</u>		Mexicantemp	5 15 mi	
Name of Driller	regtus	:		A second se	
Address	~			Cty C.t.	
Licence Number			-> 1/	105' *	
I certify that the			n. Janua		
statements of fact					$-/\otimes/$
Date Theb17 M. Z	lignature of Licensed	<u></u>			1 * 1
S	ng haunte of License	e			, y/

UTM 1/18 2 14143 1814 1918 SIDIOI71/17 Elev. 191, 101330	IDN The W	ater-well Di	ARIO rillers Act, 1954	CROUND WAT 15 177 1877 1	3 19 58 //
Basin 25 4 J	Vater	_	ll Recor	City	
			Address	ng (the	•••••
(day)	(month)	(year)			
Pipe and Casing		<u> </u>		Pumping Test	
Casing diameter(s)	•••••••••••••••••••••••		Static level Pumping rate Pumping level Duration of test	500 1-P	<u>+/</u>
Well Log				Water Record	
Overburden and Bedrock Record	From ft.	To ft.	Depth (s) at which water (s) found	No. of feet water rises	Kind of water (fresh, salty, or sulphur)
Boldus y sand	8	18	84	63	Frish
Band	10 75	75			
			· · · · · · · · · · · · · · · · · · ·		
For what purpose(s) is the water Is water gear or cloudy? Is well on upland, in valley, or on	Hau hillide?		In diagram below road and lot line	ecation of Well show distances of a. Indicate north	
Drilling firm A. R. Ca Address Address B. A. S. OTTA MIA Name of Driller Address SAME Licence Number 3.25 I certify that the f statements of fact Date Oct 23/55 A. Sig	ioregoing are true.			80.	To MANSTICK
Form 5				WATTER	SONG COR'S

F

	31(249			e
UTM 118 2 41413181010 E	ſ	1.E.T		_ 15	Nº 6585/
5 R 1 5 0 0 7 12110	N			GROUND WA	
Elev. 5 . 0330 The Ontari	o Water Resc	ources Comm	nission Act, 195	. 1	4
				· ·	
WAII	ER WI	ELL J	RECORI	ONTARIO RESOURCES CO	WATER DMMISSION
County or District Carleton		Township,	Village, Town or	City	6 OWER
Con. A Lot		Date com	pleted day	u 3/6	() year)
		ress	V	-	
Cusing and Jergen Record			Pui	mping Test	
Inside diameter of casing		Static le	vel 🗲	32'	
Total length of casing		Test-pu	mping rate 5	- GPM	G.P.M.
		. Pumpin	g level 33	- /	
Length of screen		. Duratio	n of test pumpin	g J his	1
Depth to top of screen		. Water o	clear or cloudy at	end of test	ear
Diameter of finished hole		Recomm	nended pumping	rate 5	GPM G.P.M.
		with	pumping level of	of <u> </u>	
Well Log			We	ater Record	
Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	No. of feet water rises	Kind of water (fresh, salty, sulphur)
- Rellin	0	.90		-	
Sinduel Boldins	20	46-	45	23	fresh
	-		-		
			-		_
			-		-
	-				
	-				-
			-		
	-			_	
		<u> </u>			1. /
For what purpose(s) is the water to be used?	,		Loca	ition of Well	
Household				v show distances	
Is well on upland, in valley, or on hillside?			road and lot line	e. Indicate nortl	1 by arrow.
Hollsede			SAH		
Drilling Firm B. Sufrem	-		MEPEAN		1
Address 1014 Donac	Eland	···	_		
Mawa			CON3 LUTJ		
Licence Number 565			a a secondaria da companya da companya Deserva da companya da comp	;1 K 7	Y RDZ
Name of Driller	qe s			1 . 60) [#]
Address \$2/ Jelmour	Mar	era		115-34	
Date Joune 20/6	D _			170'	
	kin				
(Signature of Licensed Drilling Contracto	r)			//	
*					
Form 5				1	

Ch.(1.58

.

		The Ontario Water Reso	ources Comr		316/4
Water management in	Ontario 1. PRINT ONLY IN SPA 2. CHECK X CORREC	T BOX WHERE APPLICABLE	11510	MUNICIP. 1.5.0.0.4 10 14 5.6.10.14 10 14 14 14 14 14 14 14 14 14 14	ETC.
CARLE	TON	TOWNSHIP. BOROUGH, CITY, TOWN, VILLAGE	ER.	4	DATE COMPLETED 48-53
		O TILLBO	LRIA ELEFATION	YE DITAWA	DATE COMPLETED 40-53 DAY
		NG 7 260		RC. BASIN CODE	
\nearrow	LO	G OF OVERBURDEN AND BEDR	OCK MATERIA	ALS (SEE INSTRUCTIONS)	
GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS		GENERAL DESCRIPTION	DEPTH - FEET FROM TO
	GRAVEL	SAND			0 76
GREY	LIMESTONE			HARD	76 87
/					
					*
31 007	16 11/19 1 1008				
32			43	54 SIZE (S) OF OPENING 31	65 75 1-33 DIAMETER 34-38 LENGTH 31
41 WAT		51 CASING & OPEN HOL	E RECORD	Ш Ш	INCHES F
10-13 1	RESH 3 SULPHUR	INCHES INCHES F	ROM TO 13-16		OF SCREEN
15-18 1	FRESH 3 SULPHUR	06 2 GALVANIZED 3 CONCRETE 4 OPEN HOLE ,188	0 76		SEALING RECORD
20-23 1	□ SALTY 4 □ MINERAL □ FRESH 3 □ SULPHUR	06 2 GALVANIZED	0087	DEPTH SET AT - FEET MAT FROM TO 10-13 14-17	ERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.
25-28 1	□ SALTY 4 □ MINERAL □ FRESH 3 □ SULPHUR 29	3 □ CONCRETE 4 OPEN HOLE 24-25 1 □ STEEL 26	26 - FZ 27-30	15 30 CB	MENT GROUT
30-33 1	$\square SALTY \qquad 4 \square MINERAL \\ \square FRESH \qquad 3 \square SULPHUR \qquad 34 80 \\ \square SULPHUR \qquad 4 \square MINERAL $	2 🔲 GALVANIZED 3 🗍 CONCRETE		26-29 30-33 80	
PUMPING TEST M	SALTY 4 MINERAL	4 OPEN HOLE] [LOCATION O	F WELL
	25 BAILER 00	205 GPM	- IN	DIAGRAM BELOW SHOW DISTANCES C T LINE. INDICATE NORTH BY ARROW	OF WELL FROM ROAD AND
STATIC LEVEL	END OF WATER PUMPING	2 RECOVERY		No	
020 FEE	NUE DON	SET AT WATER AT END OF TEST 42		2	
C IF FLOWING, GIVE RATE	GPM.			A.	
RECOMMENDED P	PUMP	43-45 RECOMMENDED 46-45 PUMPING 050 FEET RATE 0005 GPM		HWY#	
50-53 00	<u>0.2</u>			1 10 6	
FINAL STATUS	⁵⁴ 1 WATER SUPPLY ² OBSERVATION WE ³ TEST HOLE	 ⁵ ABANDONED, INSUFFICIENT SUPPLY ⁶ ABANDONED, POOR QUALITY ⁷ UNFINISHED 		321- 82	
OF WELL			4	0-20 Xar -	
WATER		6 I MUNICIPAL 7 I PUBLIC SUPPLY			> N
USE (8 COOLING OR AIR CONDITIONING 9 O NOT USED			
METHOD	57 LE CABLE TOOL 2 ROTARY (CONVEN	6 🗆 BORING TIONAL) 7 🗆 DIAMOND			
OF	³ ROTARY (REVERS) ⁴ ROTARY (AIR)	_			
NAME OF WELL	5 AIR PERCUSSION	LICENCE NUMBER			
OMCLE		SUPPLY AD, 3504	DATE OF INS	PECTION INSPECTOR	280570
0	RAVEN A	VE, OTTAWA3.			5 5 Mine
Z La G	IBBONS		11 1		
O SIGNATURE OF	CONTRACTOB	SUBMISSION DATE DAY 7 MO 5 YR7L	OFFICE		a
OWRC C	COPY M				

MY 18 Z 4443 800	and the	G4g			5 No	588/3
9 R 5101017 121610 N	Ę			RECE	VED	
$e_{\mathbf{W}_{\mathbf{S}}} = \begin{bmatrix} 9 \\ R \end{bmatrix} \begin{bmatrix} 0 \\ 3 \\ 3 \\ 4 \end{bmatrix} \begin{bmatrix} 0 \\ 4 \end{bmatrix} \begin{bmatrix} 0 \\ 4 \\ 4 \end{bmatrix} \begin{bmatrix} 0 \\ 4 \end{bmatrix} \begin{bmatrix} 0 \\ 4 \\ 4 \end{bmatrix} \begin{bmatrix} 0 \\ 4 \end{bmatrix} $	01	NTARIO		A10 0	1954	* \
single = TK	The Well	l Drillers .	Act	CEGLOGICAL		
ot - l. Departm	nent of Min	ies, Provin	ice of Ont	tario DEPARTAINT	OI LILL LI	
Wate	r W	ell	Rec	ord		
P 1 F		ip, Vil	age, Town	ror City. M. Le	eran	
		Town	or City)	Vien		
Date Completed	Cost of W			••••••••••••••••••		
Pipe and Casing Record				Pumping Test		
Casing diameter(s)	Da	ate	cune.	//	••••••	
Length(s) of casing(s)				0.*		
Length of screen	Pu	imping rate		300 G.P.H.	••••••	· · · · · · · · · · · · ·
Distance from top of screen to ground level		uration of t			••••	
Is well a gravel-wall type?	1		n cylinder	or bowls to ground	level	•••••
	wate	r Record				
Kind (fresh or mineral)Quality (hard, soft, contains iron, sulphur, etc.)	hard		• • • • • • • • • • •	Depth(s) to Water Horizon(s)	Kind of Water	No. of F Water R
Assessment (strong strong to strong the set	1 11 1		· · · · · · · · · · · · · · · · · · ·		100d.	40'
	• •	/				
For what purpose(s) is the water to be used?	resid.	inter			/	
For what purpose(s) is the water to be used?			• • • • • • • • • •	· · ·	/	_
For what purpose(s) is the water to be used? How far is well from possible source of contamin	nation?		• • • • • • • • • •	······································		
For what purpose(s) is the water to be used?	nation?		· · · · · · · · · · · · · · · · · · ·	•••	/	
For what purpose(s) is the water to be used? How far is well from possible source of contamin What is the source of contamination? Enclose a copy of any mineral analysis that has Well Log	nation?	of water	· · · · · · · · · · · · · · · · · · ·		tion of Well	
For what purpose(s) is the water to be used? How far is well from possible source of contamin What is the source of contamination? Enclose a copy of any mineral analysis that has	nation?		· · · · · · · · · · · · · · · · · · ·			
For what purpose(s) is the water to be used? How far is well from possible source of contamin What is the source of contamination? Enclose a copy of any mineral analysis that has Well Log	nation?	of water		 Loca In diagram b well from ro	elow show dist ad and lot lir	an
For what purpose(s) is the water to be used? How far is well from possible source of contamin What is the source of contamination? Enclose a copy of any mineral analysis that has Well Log Overburden and Bedrock Record	nation?	of water From 0 ft.	To ft. 601	 Loca In diagram b	elow show dist ad and lot lir	an
For what purpose(s) is the water to be used? How far is well from possible source of contamin What is the source of contamination? Enclose a copy of any mineral analysis that has Well Log Overburden and Bedrock Record	nation?	of water	 ft.	 Loca In diagram b well from ro	elow show dist ad and lot lir	an
For what purpose(s) is the water to be used? How far is well from possible source of contamin What is the source of contamination? Enclose a copy of any mineral analysis that has Well Log Overburden and Bedrock Record	nation?	of water From 0 ft.	To ft. 601	 Loca In diagram b well from ro	elow show dist ad and lot lir	an
For what purpose(s) is the water to be used? How far is well from possible source of contamin What is the source of contamination? Enclose a copy of any mineral analysis that has Well Log Overburden and Bedrock Record	nation?	of water From 0 ft.	To ft. 601	 Loca In diagram b well from ro	elow show dist ad and lot lir	an
For what purpose(s) is the water to be used? How far is well from possible source of contamin What is the source of contamination? Enclose a copy of any mineral analysis that has Well Log Overburden and Bedrock Record	nation?	of water From 0 ft.	To ft. 601	 Loca In diagram b well from ro	elow show dist ad and lot lir	an
For what purpose(s) is the water to be used? How far is well from possible source of contamin What is the source of contamination? Enclose a copy of any mineral analysis that has Well Log Overburden and Bedrock Record	nation?	of water From 0 ft.	To ft. 601	 Loca In diagram b well from ro	elow show dist ad and lot lir	an
For what purpose(s) is the water to be used? How far is well from possible source of contamin What is the source of contamination? Enclose a copy of any mineral analysis that has Well Log Overburden and Bedrock Record	nation?	of water From 0 ft.	To ft. 601	 Loca In diagram b well from ro	elow show dist ad and lot lir	an
For what purpose(s) is the water to be used? How far is well from possible source of contamin What is the source of contamination? Enclose a copy of any mineral analysis that has Well Log Overburden and Bedrock Record	nation?	of water From 0 ft.	To ft. 601	 Loca In diagram b well from ro	elow show dist ad and lot lir	an
For what purpose(s) is the water to be used? How far is well from possible source of contamin What is the source of contamination? Enclose a copy of any mineral analysis that has Well Log Overburden and Bedrock Record	nation?	of water From 0 ft.	To ft. 601	 Loca In diagram b well from ro	elow show dist ad and lot lir	an
For what purpose(s) is the water to be used? How far is well from possible source of contamin What is the source of contamination? Enclose a copy of any mineral analysis that has Well Log Overburden and Bedrock Record	nation?	of water From 0 ft.	To ft. 601	 Loca In diagram b well from ro	elow show dist ad and lot lir	an
For what purpose(s) is the water to be used? How far is well from possible source of contamin What is the source of contamination? Enclose a copy of any mineral analysis that has Well Log Overburden and Bedrock Record May Junt	been made o	9 / of water From 0 ft. / 60 0 /	To ft. 60 ' 70'	 Loca In diagram b well from ro	elow show dist ad and lot lir	an
For what purpose(s) is the water to be used? How far is well from possible source of contamin What is the source of contamination? Enclose a copy of any mineral analysis that has Well Log Overburden and Bedrock Record May Junt	been made o	9 / of water From 0 ft. / 60 0 /	To ft. 60 ' 70'	 Loca In diagram b well from ro	elow show dist ad and lot lir	an
For what purpose(s) is the water to be used? How far is well from possible source of contamin What is the source of contamination? Enclose a copy of any mineral analysis that has Well Log Overburden and Bedrock Record May Junt Situation: Is well on upland, in valley, or on h Drilling Firm M. M. S. S. M.	illside?	9 / of water From 0 ft. / 60 0 /	To ft. 60' 70'	 Loca In diagram b well from ro	elow show dist ad and lot lin by arrow.	an ie.
For what purpose(s) is the water to be used? How far is well from possible source of contamin What is the source of contamination? Enclose a copy of any mineral analysis that has Well Log Overburden and Bedrock Record Clay grand Gray Situation: Is well on upland, in valley, or on h Drilling Firm Address	illside?	9 / of water From 0 ft. / 60 0 /	To ft. 60' 70'	Loca In diagram b well from ro dicate north	elow show dist ad and lot lin by arrow.	an 1e.
For what purpose(s) is the water to be used? How far is well from possible source of contamin What is the source of contamination?	illside?	of water	To ft. 60' 70'	Loca In diagram b well from ro dicate north	elow show dist ad and lot lin by arrow.	an 1e.
For what purpose(s) is the water to be used? How far is well from possible source of contamin What is the source of contamination? Enclose a copy of any mineral analysis that has Well Log Overburden and Bedrock Record Clay grand Gray Situation: Is well on upland, in valley, or on h Drilling Firm Address	illside?	of water	To ft. 60' 70' ft. 	Loca In diagram b well from ro dicate north	elow show dist ad and lot lin by arrow.	an 1e.

•,1

GROUND WATER BRANCH 61 UTM | 18 (2) 443171510 E 15 No 5884 MAY 30 1957 5 R 50071300N ONTARIO WATER RESCURCES COMMISSION Elev. 14 R 0330 The Water-well Drillers Act, 1954 Basin 125 Liter **Department** of Mines Water-Well Record Inf Township, Village, Town or City. or Territorial District Garleton h Village, Town or City)..... Iddress 9 Balan St- Ottanta (month) (year) (day) Pipe and Casing Record **Pumping Test** Static level 2 2 ' Length(s) 65 f Y with 9 of S at work Pumping rate 360 GPH. Type of screen Length of screen Water Record Well Log Depth(s) at which Kind of water No. of feet From (fresh, salty, or sulphur) Overburden and Bedrock Record ater(s) water rises ft. ft. found 25 O'fresh. 60 5-8 10 80' For what purpose(s) is the water to be used? Location of Well Alonestic In diagram below show distances of well from road and lot line. Indicate north by arrow. Is well on upland, in valley, or on hillside?..... Upland Drilling firm Blais had in Ottanta S- Ont-Name of Driller Lev. Vachow Ottawa 5 on I certify that the foregoing statements of fact are true. Date 15 mark 5, 9 y Walk

4 ←

		J161	tg		• . ^/
UTM 1/8 z 4141317171		TA		15 N	VO 5885
15 R 510 171215K	⊃ N			GROUND WATER	BRANCH
Eley. 4 R 01330		ONT	ARIO	050104	057
Basin 125			rillers Act, 1954 of Mines	DEC 1 6 1	
		-		ONTARIO WARD	
V	Vater-	we	ll Recor	G	nan a san markina ka dan kilo di kilo di
			tip, Village, Town or		
			n Village, Town or C Address	Xi ty) ΩTγ'c/Y	
Date completed	SEPT	195.7	7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
(uay)		(year)		Denning Most	
Pipe and Casing				Pumping Test	
Casing diameter (s)			Static level	$p \in PL$	
Length(s)3.8' Type of screenNONE				4	
Length of screen				HOUR	•••••••
Well Log	<u></u>			Water Record	
			Depth(s)	1	Kind of water
Overburden and Bedrock Record	From ft.	To ft.	at which water (s) found	No. of feet water rises	(fresh, salty, or sulphur)
BOULDERS + HARD PAN	0	32	50	30	FRESH
HARD GREY LIMESTONE	32	- 89		49	ir
		•			
		······		·····	-
	• • • •				
For what purpose(s) is the water t				ocation of Well	
Is water clear or cloudy?			-	v show distances o e. Indicate north	
Is well on upland, in valley, or on I	hillside?	ND			\mathcal{I}_{\wedge}
Drilling firm Makau GHNRY			• · · ·		2 7 1
Address SI. MCEWAN AVE	O.IIAWA			·	
Name of Driller W. G.U.A.Y.				K-A-	٥. ۲
Address			NEPERH N GOWER	<u> </u>	an a
Licence Number			λγε Ο- Ο ∞ σ αγ		,
I certify that/the f	oregoing				2 2 1
statements of fact :	are true.			1 Ju	NATIOTIEK
Date Mat. 1. 5.7 N. X. M. Sig	signey.				
Sig	nacure of License	Ð		THI!	
Form 5					

County of Electron	LL RE	ECO	RD	ontario w Resources com North	1961 ATER MISSION
	Date completed	(day	8~	Augue month gree	year)
Casing and Screen Record	dress	//	Pumping	g Test	
Inside diameter of casing 614 " Total length of casing 5.2 Type of screen 14 Length of screen 48 Depth to top of screen 48 Diameter of finished hole 614	Test-pump Pumping l Duration o Water clea Recommen	oing rate evel of test pun ar or cloud nded pun	iping y at end of pping rate	15- 26' 20~~~~ test _ cle 5'	.
Well Log	" with pump	p setting c	of		r Record
Overburden and Bedrock Record	Fro ft.		To ft.	Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
clay loom gravel	•	5	15	45'	fresh
For what purpose(s) is the water to be used? Louise Is well on upland, in valley, or on hillside? Drilling or Boring Firm Mel M. Jourghlin	In roa	diagram id and lo	Location below show t line. In	of Well distances of we dicate north by	ell from 3 N arrow. 7 N
Address Licence Number Name of Driller or Borer Address Date Mulle (Signature of Licensed Drilling or Boring Contractor) Form 7 15M Sets 60-5930	30'	7.0	RO # 3	1.2.3'MILEES	MANDTIE
OWRIC COPY	-			(°.	

UTM $\frac{1}{18}$ $\frac{2}{443}$ $\frac{443}{28}$ $\frac{9}{18}$ $\frac{500700}{200}$ Elev. $\frac{9}{18}$ $\frac{9320}{120}$ Basin $\frac{125}{1}$ $\frac{1}{1}$ County or Territorial District	n The Wa N Nater	ater-well D Departmen - We	APR - 3 G APR - 3 G APR - 3 G ACT, 1954 TARIO ACT, 1955 TARIO ACT, 1955 T	956 Granch of INES	Nº 6699
			n Village, Town or Address	City)	•••••
(day)	(month)	(year)			
Pipe and Casing	Record			Pumping Test	۰۰۰ ۲۰۰۰ ۲۰۰۰ ۲۰۰۰ ۲۰۰۰ ۲۰۰۰ ۲۰۰۰ ۲۰۰۰
Casing diameter (s) Length (s) Type of screen Length of screen Well Log			Static level	50 91 7 9'	
wen Log	r	1	Depth(s)	Water Record	· · · · · · · · · · · · · · · · · · ·
Overburden and Bedrock Record	From ft.	To ft.	at which water (s) found	No. of feet water rises	Kind of water (fresh, salty, or sulphur)
Jaam		20	4121	2,2 "	
9	20	241			- prese
					<u> </u>
- Um istone	24	-13"			
					-
	,				
For what purpose (s) is the water to Is water clear or cloudy ?	nillside?	kid.	In diagram below road and lot line	cation of Well y show distances of the Indicate north N ceans M-C I Con.	by arrow.

CSS.88

, n ⁽			_	•		
UTM 1/18 2 141414101610 E))			5-1.75	F\$7102V
5 R 5101016181415 N 30	FTA CAN	2		RE	CEIVE	
 ,	ONTAR	10		0	CT 1 4 1952	
Elev. $ 4 _{R} 0 3 2 0 $ Th	ne Well Dri	llers A	ct	0501	OCICAL BRAN	CH
Basin 25 Department	of Mines, l	Provinc	e of Ontari	io DEPA	RTMENT of MI	NED
Water	Wol	1 I	Reco	rd		
valei		.1 4			40	
	Townsh	io, Villa		Sim From	A. So.	net
		ower	City).	ons Cor	mer	
Date Completed	of Well I					
Date Completed (day) (month) (year)						
Pipe and Casing Record M	ACE GO	LDEN	Pı	umping Test		
Casing diameter(s)	Date.		Lept	3/52	<u>.</u>	
Length(s) of casing(s)	Static	level				
Type of screen		ng level	. 2.8.			
Length of screen	1		50	fins	•••••	
Distance from top of screen to ground level Is well a gravel-wall type?			,	bowls to ground		
is wen a graver wan type: 2 2.0.000	Water R			······································		
Kind (fresh or mineral)	1.15	<u> </u>		Depth(s) to Water	Kind of Water	No. of Feet Water Rises
Quality (hard, soft, contains iron, sulphur, etc.).		•••••••	 <i>1</i>	Horizon(s)		8-4
Appearance (clear, cloudy, coloured)	anne	ale		6	Jun	
How far is well from possible source of contaminatio				1		
What is the source of contamination?						·
Enclose a copy of any mineral analysis that has been	n made of w	ater	· · · · · · · · · · · · · · · · · · ·	•		- <u> </u>
Overburden and Bedrock Record		From	To	Loc	ation of Well	
		0 ft.	ft.	In diagram b	elow show dist	ances of
Granet. C		0	63		and lot lin	ie. In-
				dicate north	by arrow.	
Similar		63	20	1		
				14	aleson (omer
					ton ga	ver
				Ĩ	DAEF	
		<u></u>		F		
		<u></u>		Λ		
						1
				I	. /	
					· N	;
			<u> </u>		/ *	
		.00.	inter and the second se		<u>, , , , , , , , , , , , , , , , , , , </u>	
Situation: Is well on upland, in valley, or on hillsin	de?	L. M.	<i>¢</i> ; <i>Ų</i> ,Ę,,			•••••
Name of Driller F. Consepter			Address			
Date			.Licence N	umber		~~~
EOPU 5				Signature		
Form 5			Y	2		

UTM 18^{12} $414318215E 31649$ 5R 50061765N The Ontario Water Reso			15 N	0 ^{6.704}
Basin 25 County or District CarleTon	Jata completed	e, Town or Cit	Hog	yer 1964 Newq
Casing and Screen Record Inside diameter of casing 6 14 4 Total length of casing 51 ' Type of screen move Length of screen 6 Depth to top of screen 6 4	Pumping lev Duration of Water clear Recommend	g rate rel test pumping or cloudy at end led pumping ra	40 /21- of test C/0	G.P.M. G.P.M. G.P.M. low ground surface
Well Log Overburden and Bedrock Record Clay Sandy Clay Limestone	From ft. 0 70 48	To ft. 20 48 65	Water(s) at which water(s) found	kind of water (fresh, salty, sulphur)
For what purpose(s) is the water to be used? House Is well on upland, in valley, or on hillside? upland Drilling or Boring Firm M.C. L. EAN WATER Supply LTD Address 1532 RAVEN ALE. CTIAWA 3 Licence Number 1328 Name of Driller or Borer. SCHARFE SMART Address Date AL'GO24: 1964 (Signature of Licensed Drilling or Boring Contractor) Form 7 15M-60-4138	In di road	agram below sl and lot line.	on of Well now distances of w Indicate north b Kars Miles y 12d We 11	by arrow.
OWRC COPY				C51.53

	ی میں بینے میں اور		IISTRY OF THE E			at le recent		/
(P)			Ontario Water			RD	3/G,	4
Ontario	VV/	~ 1 her 1 ~		1151382	0 MUNICI		CON.	/
	1. PRINT ONLY IN S 2. CHECK 🛛 CORR	ECT BOX WHERE APPLICABL		3	9 CON., BLOCK, TR			22 23 24 LOT 25-27
COUNTY OR DISTRICT	ton	TOWNSHIP, BOROUGH.	GOURT		CON., BLOCK, TR	1		00/
		5	96. Park	view Rd	. Otta		ATE COMPLETED	18-53 VR 23
		NG D	7066 4	ELEVATION 013125	S 26	E		
1 2	<u>" 10 12</u>	OG OF OVERBURD	EN AND BEDRO	CK MATERIAL	30 31 S (SEE INSTRUCTI	ONS)		
GENERAL COLOUR	MOST COMMON MATERIAL	OTHER	MATERIALS		GENERAL DESCR	IPTION	DEP FROM	TH - FEET
Bown	Sand				:		0	65
Bhown	Jand	Grave	1				65	14
Grey	limestone						- 14	25
			• 					
	<u>, , / </u>							
			W					
31 006	5628111007	4628111 00	03215					
32				43				75 80 8 LENGTH 39-40
41 WA	TER RECORD	51 CASING		DEPTH - FEET	Z (SLOT NO.)	ING 31-3	3 DIAMETER 34-3	S`FEET
AT - FEET	KIND OF WATER	DIAM. MATERIAL INCHES 10-11 1 STEEL	THICKNESS	то то 13-16		TYPE	DEPTH TO TH OF SCREEN	OP 41-44 80
	SALTY 4 \square MINERAL FRESH 3 \square SULPHUR ¹⁹		re 100 (0 0076	61 PI		SEALING RE	CORD
2] SALTY 4 ☐ MINERAL] FRESH 3 ☐ SULPHUR ²⁴	4 OPEN HO 17-18 1 STEEL 2 GALVAN	19	20-23	DEPTH SET AT - F	EET MAT	ERIAL AND TYPE	CEMENT GROUT. ND PACKER, ETC.)
2	SALTY 4 MINERAL FRESH 3 SULPHUR ²⁹		TE	0083	10-13	14-17		
2 [□ SALTY 4 □ MINERAL □ FRESH 3 □ SULPHUR ³⁴ 8	24-25 1 🗋 STEEL 2 🗌 GALVAN 3 🗌 CONCRE		27-30	26-29	30-33 80		
2 PUMPING TEST ME	SALTY 4 MINERAL	4 OPEN H		J				18.7
		30 GPM 02	15-16 0 17-18 HOURS 0 MINS	IN DIA	GRAM BELOW SHOW	DISTANCES O		
STATIC LEVEL	PUMPING		I DMPING I RECOVERY NUTES 60 MINUTES	LOT LI		ORTH BY ARRC		
FO20	257 257"	23 29-31 EEO 50FEET 0 5	32-34 35-37 Dreet 050FEET			V		
U IF FLOWING, GIVE RATE RECOMMENDED P	38-41 PUMP INTAKE		LEAR 2 CLOUDY				(
	UNP TYPE RECOMMENDE PUMP	ED 43-45 RECOMM	A6-49					
50-53	001.0							
FINAL STATUS	54 1 DWATER SUPPLY 2 OBSERVATION W	ELL 6 🗌 ABANDONED.					ì	
OF WELL	4 🗌 RECHARGE WELL						مل تيم	
WATER	2 C STOCK 3 C IRRIGATION	5 🗌 COMMERCIAL 8 🗌 MUNICIPAL 7 🔲 PUBLIC SUPPLY					17	
USE C	4 🗌 INDUSTRIAL	8 🗌 COOLING OR AIR 9 [CONDITIONING NOT USED				1	
METHOD	57 1 [] CABLE TOOL 2 [] ROTARY (CONVE	6 🗍 BOF NTIONAL) 7 🗍 DIA		-	0			
OF DRILLING	5 3 D ROTARY (REVERS	SE) 8 🗍 JET 9 🗍 DRI	TING			C ‡	-8	
NGAR DE WELL	L CONTRACTOR	AL A JI	LICENCE NUMBER	DRILLERS REMAR	58 CONTRACTO	R 59-62 DA		63-68 80
CTOR	y Mains We	& Unifing	3644	SOURCE	36	INSPECTOR	1 102 7	4
	326, Ru	chmord C	LICENCE NUMBER		,		h.	~
I Rob	at Bisso					C	160 6 8 20.2 3	
	F CONTRACTOR	DAY		OF				
MINISTRY	OF THE ENVIE	ONMENT CO	РҮ				F	ORM 7 07-091

	Ministry of the	÷.		The (Ontario	Water Res	ources Act	316-6	U U
	Ontario Environm	1. PRINT ONLY IN SPACES PROVIDED Z. CHECK 🛛 CORRECT BOX WHERE APPLICABLE	11	' ER 15174			. RE		DRD
		TOWNSHIP. BOROUGH. CITY. TOW	WN. VILLAGE		CON	BLOCK, TRACT, SK	JRVEN: ETC.		22 73 74 LOT 25-27
		THING -	man	Tich	(DAT	DATE COM	MO.	10 YR 50
		, <u>0.06.95</u>				BASIN CODE			
	GENERAL COLOUR COM	LOG OF OVERBURDEN AN		K MATERIA		AL DESCRIPTION			H FEET
	cle	& Doufders						FROM	TO 62
	9 /9 /	nee/me						42	110
it. A								110	160
 (31 00,62 1951	3 1 61.10215 1 0160218	<u></u>						
[/	32 10 14 15				ului L				
	41 WATER REC WATER FOUND KIND OF	WATER INSIDE WALE	L DEPI				31-33 DIAMETE	R 34-38 L	75 80 ENGTH 39-40 FEET
	10-13 2 SALTY 4 15-18 1 D ERESH 3	SULPHUR 14 10615 10.00 STEEL 14 10.00	FROM	10		AL AND, TYPE		DEPTH TO TOP	41-44 30 FEET
	15-18 1 FRESH 3 2 SALTY 4 20-23 1 FRESH 3	SULPHUR SI CONCRETE	80	025	61		IG & SEALI		
-	2 SALTY 4 25-28 1 FRESH 3	Imineral Imineral Imineral I			FROM 10-13	то	MATERIAL AND T		NT GROUT CKER. ETC)
$\left \right $	2 SALTY 4	USULPHUR 34 00 2 GALVANIZED 3 CONCRETE		27-30	18-21	30-33 80)	
Ĩ	2 SALTY 4	10 PUMPING RATE II-14 DURATION OF PUMPING							,
	TRATIC STATIC LEVEL PUMPING	25 GPM HOURS	5	IN DIAGR	AM BELOW	CATION (ES OF WELL FR	OM ROAD AN	ID 0
	035 0 9	20-20 29-31 32-34	4Y MINUTES 35-37	LOT LINE		ATE NORTH BY A	RROW.		
	IF FLOWING 30 GIVE RATE	WATER AT END OF TEST	FEET 42				1	e	
	SHALLOW TEEP	RECOMMENDED 43-45 RECOMMENDED PUMP SETTING STEET RATE 00/2	45-49 GPM		B	$\not\leftarrow$			
	50-53 FINAL 54 1	ATER SUPPLY 3 ABANDONED INSUFFICIENT)/					
	STATUS	ATER SUPPLY S ABANDONED, INSUFFICIENT S BSERVATION WELL 6 ABANDONED POOR QUALITY EST HOLE 7 UNFINISHED CEMARGE WELL		Ion Le	γ.			, [[
		DMESTIC S COMMERCIAL					-1m;	k	\$
	USE 4 🛛 🗤	RISATION 7 DUBLIC SUPPLY IDUSTRIAL • DOLING OR AIR CONDITIONING OTHER • DOLING OR AIR CONDITIONING						₩erş.	
F		BUE TOOL 6 DORING TARY (CONVENTIONAL) 7 DIAMOND				and a	25	•	
		TARY (REVERSE) DISTING TARY (4IR) DISTING R FERCUSSION						<u>`</u>	
	NAME OF WELL CONTRACTOR Air- Rock	Da-11: CITA LICENCE NUMB		DATA SOURCE	58 CONTR	[128	53-64 80
CONTRACTOR	ADDRESS PARA	Drilling Calip. 1119 Tagoer Q. T.		DATE OF INSPECTION		INSPECTOR			
ONTR	NAME OF DRILLER OR BORER	Desaufniers 1/19		REMARKS					
	2 allan	Deserver and 30 Mp /						< <u></u> <ss< td=""><td>Go</td></ss<>	Go
-	WINISTRY OF THI	ENVIRONMENT COPY	1					FORM NO.	

Ministry of the			Îne C	Intario Water Reso	316 4g
Ontario Environment	PRINT ONLY IN SPACES PROVIDED		ER 15174		RECORD
COUNTY OR DISTRICT	CHECK CORRECT BOX WHERE APPLIC	GH. CITY. TOWN. VILLAGE		CON. BLOCK, TRACT, SUR	14 157
	s s	N. Grow	rer	E	DATE COMPLETED 44-53
		6.9.9.9	eneration 103201	AC BASIN CODE	DAY MO YR
	LOG OF OVERBUF	RDEN AND BEDRO	CK MATERIAL	S ISEE INSTRUCTIONS	
GENERAL COLOUR COMMON	IST	ER MATERIALS		GENERAL DESCRIPTION	DEPTH - FEET FROM TO
Clay	s Tore & bauld	ers			0 90
Ster Line	cs inc			······································	90 160
					•
31 0090 051211	3 01602151.1.1.				
				┶┶┘╘ <u>╷╷╷╎╎╷╿╷</u> ╎╷╎╎╷╷╎╎╷╷	
41 WATER RECOR		& OPEN HOLE RE	CORD	SIZE (S) OF OPENING (SLOT NO)	31-33 DIAMETER 34-38 LENGTH 39-40
10-13 1 FRESH 3 . SL	DIAM MATERIAL INGHES ULPHUR 14	WALL DEI THICKNESS INCHES FRUM	TH - FEET	C (SLOT NO)	INCHES FEET DEPTH TO TOP 41-44 50 OF SCREEN 41-44 50
0155 ² SALTY 4 MI 15-18 ¹ FRESH 3 D SU	JLPHUR 19 3 CONCRET	TE			FEET
2 [] SALTY 4 [] MI 20-23 1 [] FRESH 3 [] SU 2 [] SALTY 4 [] MI	17-18 1 STEEL		2074	OLPTH SET AT - FEET	ATERIAL AND TYPE
25-24 1 FRESH 3 SU 2 SALTY 4 MI	JLPHUR 29 4 OPEN HO			10-13 14-17	
30-33 1 FRESH 3 SU 2 SALTY 4 MI	JLPHUR 34 60 2 GALVANI 3 CONCRET	E	27-30	18-21 22-25 26-29 30-33 80	
<u>A</u>	PUNPING RATE N-14 DURATION				
Static	25	15-16 30 17-18 HOURS 30 MINS	IN DIAGRA	LOCATION O	
LEVEL BUMBING		TES 60 MINUTES	LOT LINE	INDICATE NORTH BY ARI	ROW.
19-21 22-24 O SO FEET O O FEET O SIVE RATE GPH RECOMMENDED PUMP TYPE R	070 FEET 070 FEET	32-34 . 35-37 FEET FEET END OF TEST 42			N
GPM GPM	FEET 1 CL	EAR 2 CLOUDY			1
FINAL 54 1 🕅 WATER		NSUFFICIENT SUPPLY			•
STATUS 2 OBSERV 3 TEST H OF WELL 4 RECHAI		OOR QUALITY		Nort A-	
55-56 1 DOMES				AN 40	ro '
USE		1 1			
57 I CABLE	TOOL 6 D BORING	NOT USED	Ņ	laple 87.	
METHOD 2 R ROTARY OF 2 3 ROTARY DRILLING 4 ROTARY	(CONVENTIONAL) 7 DIAMO (REVERSE) 8 DIAMO	n D G			
S 🗋 AIR PER		DR	ILLERS REMARKS		
B HODRESS ROCK D	rilling B.L.D.	LICENCE NUNBER		58 CONTRACTOR 59-62 DA	"0"2028 I """
5 20 # ~ +	adper Ont.	1 i w		INSPECTOR	
NAME OF OMILLER OR BORER		LICENCE NUMBER	REMARKS:		
SIGNATURE OF CONTRACTOR	SUBMISSION DATE				
MINISTRY OF T		СОРҮ	.		FORM NO. 0506-4-77 FORM 7



Ministry of the Environment Well Tag Number (Place sticker and print number below) A 006946

A006946

Well Record

Regulation 903 Ontario Water Resources Act

page _ _ of

- 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.

Ministry Use Only

Address of Well Location (C	ounty/District/Mu	unicipality)	Т	ownship		Lot		Conce	ession	
Ottawa Carleton				Rideau	9 North (Gover	1/2	1		A
RR#/Street Number/Name Test Well #5, Fir	at Tino Do	ad		City/Town/V	0	Site/Compa	artmen	t/Block/Tr	act et	C.
GPS Reading NAD	Zone Eastir	**	na	Unit Make/N	otick Model Mod	e of Operation: Unc	lifferenti	ated C	Aver	
8_3	18 44	44 29 50	07 44 6			· · · ·		d, specify	3 / WCI	igea
Log of Overburden an	d Bedrock M	aterials (see instr	uctions)							
General Colour Most con	nmon material	Other Mate	erials		Gener	al Description		Dep Fre	oth om	Metres To
Brown C1	ay				Pac	:ked				
Gray C1	-					ckey			65	12.19
	ndy Soil	Stone	8			See 3.		12.		18.28
· · · · · · · · · · · · · · · · · · ·	mestone							18.		25.90
								10.	20	23,90
						·······				
						·····		1 		
Hole Diameter	<u> </u>	<u> </u>				1/				
Depth Metres Diam	eter	Constr	uction Re					ell Yield w Down		ecovery
From To Centim	Inside	Material	Wall thickness	Depth	Metres	Pumping test method		Water Leve		Water Level
0 19.20 22.	centimetres		centimetres	From	То	11	min	Metres	min	Metres
			Casing			Pump intake set at - (metres)	Static Level	.58		
19.20 25.90 15.	15.81	Steel Fibreglass	0.48	+ 0.45	5 19.20	Pumping rate -	1	.5	1	.38
Water Record		Plastic Concrete				(litres/min) 1245 Duration of pumping	2	.60	2	
Water found at Metres Kind of Water	ter	Galvanized				1 hrs + min		•00	2	.37
20.72 FreshSul		Steel Fibreglass Plastic Concrete				Final water level end			3	.36
Gas Salty Min	erals	Galvanized				of pumping 69				_
Other:	· ·	Steel Fibreglass				Recommended pump	4	.60	4	.36
ter ter a day of the second second	ohur erals	Plastic Concrete				Shallow Deep Recommended pump	5	.61	5	.35
Other:		Galvanized				depth15.24 metres		•01		
	ohur		Screen			Recommended pump	10	.63	10	.33
Gas Salty Min Other:	erals Outside diam	Steel Fibreglass	Slot No.			rate 45 (litres/min) If flowing give rate -	15 20	.64	15 20	.31
After test of well yield, water w	'as	Plastic Concrete				(litres/min)	20	.64	20	.30
Clear and sediment free		Galvanized				If pumping discontin- ued, give reason.	30	.66	30	.29
Other, specify		No Ca	sing or Sc	reen			40	.66	40	.28
Chlorinated Yes No	15.23	Open hole		19.20	25,90		50 60	.68	50 60	.28
Plugging an	d Sealing Reco	rd 🕅 Annular s		Abandonment		Location			00	
Dopth pot at Matras		slurry, neat cement slurry) e	tc Volu	me Placed	In diagram belo	w show distances of well fr			and bu	ldina.
From To			(CUD	pic metres)	Indicate north b			,		Ç.
19,20 0 Grou	ted - Bent	onite Slurry	0.9)86a3		Le the				
		······································				·				
								j	1	
									. And	
Cable Tool	Ditary (Fig) mud	Diamond	Γ	Digging		V.		1		
	r percussion	Jetting		Other		N.	_	Q	6	
Rotary (reverse)	oring	Driving					511	and the		
Ne Domostio	Wate dustrial	r Use		7.04		K I	\ -			
	ommercial	Public Supply Not used		Other						
Irrigation	unicipal	Cooling & air o	conditioning		Audit No. Z	N7077 Dat	e Well	Completed	 γ	MM DD
Water Supply Rechai	Final Stat	tus of Well		dama d. (Others)			e Delive	200	4	3 18
	oned, insufficient su	Unfinished		doned, (Other)	package deliver		C Della	200	1111 14	MM DD 3 25
	oned, poor quality	Replacement				Ministry Us	- Omlu			
Well Name of Well Contractor	Contractor/Tec	hnician Information	Contractor's	Licence No	Data Source		e Only ntractor	4 P	20	>
Capital Water Sup Business Address (street name,	ply Ltd.		1558			·		10	20	>
1					Date Received		e of Ins	pection Y	YYY	MM DD
P.O. Box 490 Still Name of Well Technician (last na	ttsville,0 ame, first name)	ntario K2S 1A	5 Technician's	Licence No.	Remarks	We We	Reco	d Number		
Signature of Transhinician/Contrac			10097		CC	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			~ ~	
1 17.001. 17	tor	Dates	Submitted yyy			<.3 ¥	1	5340	o7	U
0506E (09/03)	151	ractor's Copy 🗍 Mini	<u>2004</u> stry's Copy	▲ <u>3 26</u> □ Well Owr	Ler's Copy	Cette fo	ormule	est dispo	nible i	en français

Ontario Ministry of the Enviro	nment		Regulation 903 Ontario	Well Record
 All Sections must be completed in Questions regarding completing th All metre measurements shall be 	o only. This document is a permanen full to avoid delays in processing. Fu is application can be directed to the reported to 1/10 th of a metre.	rther instructions an	d explanations are available on Desk (Toll Free) at 1-888-396	the back of this form.
 Please print clearly in blue or black N F C 	ink only.		Ministry Use Only	
Address of Well Location (County/District/Mu RR#/Street Number/Name GPS Reading NAD Zone Eastin 813	Line Read I 4121 Bagg 6734	<u>Videau</u> pwn/Village Manofic	Lot Site/Compartment/Blo of Operation: Undifferentiated	Averaged
Log of Overburden and Bedrock Ma General Colour Most common material	other Materials	Genera	I Description	Depth Metres
Sand, G	Scarel Bent	les		From To
Sand a	Gravel		2	0,4-2,24,38
Linest	one		24	4.33 30,48
			-	
Hole Diameter Depth Metres Diameter	Construction Record		Test of Well	
From To Centimetres diam	Material thickness	pth Metres	C D D Time Wate	er Level Time Water Level
0 30,48 14,911 centimetres	centimetres Fr	om To	Cart All Comments	97 8,39
	Steel Fibreglass		(Includo)	27 1 7,97
Water Record	Plastic Concrete	2621		2 2
at Metres Kind of Water	Steel Fibreglass		Final water level end 3	32 3
Gas Saito D Minerais	Plastic Concrete Galvanized		or pumping metres	2.4
Other:	Steel Fibreglass		Shallow Deep	327 4
Gas Salty Minerals	Plastic Concrete		depth depth	5
Gas Salty Minerals Outside	Screen		Recommended pump 10	10
Other: diam	Steel Fibreglass Slot No.		(litrestmih) 15 If flowing give rate - 20	15 20
After test of well yield, water was	Galvanized		(litres/min) 25 If pumping discontin- ued, give reason. 30	25 30
Nother, specify PSTED	No Casing or Screen		40 50	7 40 50
Chlorinated Yes No		30,4-8		37 60
Plugging and Sealing Reco	urny neat cement slurny) etc. Volume Place	d In diagram below	Location of Well	t line, and building
DELOOSSAN 1	rest Slux (- 272) Indicate north by		· · · · · , · · · · · · · · · · · · · ·
23,55 0 Bartonit	e. Slurny .981		antfield	2011733 (1000) 100 (1000) 100 (1000)
· · · · · · · · · · · · · · · · · · ·		 personance as an object point of the first operation opera	A	
			IKM 3	t in 1
Method of C				
Rotary (conventional)	Diamond Digging		Que de la la	3 6
Rotary (reverse) Boring Wate	Driving		40	
Domestic Industrial	Public Supply Other Not used			****>
Irrigation Municipal	Cooling & air conditioning	Audit No.	55539 Date Well Com	Pleted MY PD
Water Supply Recharge well Observation well Abandoned, insufficient su	Unfinished Abandoned, (O	ther) Was the well ow package delivered	ner's information 1? Vres No	2006 11 27
Test Hole Abandoned, poor quality Well Contractor/Tecl	Replacement well		Ministry Use Only	L = <u>L</u> P = <u>L</u>
Name of Well Pontractor	Mall Continents de Linement	No. Data Source	Contractor	1119
Business Address (street name, number, city etc.)	6	Zc Date Received	112 ZOOM DD Date of Inspection	DN YYYY MM DD
Name of Well Technician (last name, first name)	Well Technician's Licence		Well Record Nu	imber
Signature of Technician/Contractor	Date Submitted			
0506E (08/2006)	Ministry's (Cette formule est	disponible en français

	ntario		ironment	Imperial	Well Tag	g No. (Place Sticker and A102416	d/or Print Below) A10241	6 "	903 On		er Reso	ecord urces Act
Measuremen Well Owne				Imperiar	1000	The Manual Market			9414			
First Name		La		Organization n Urban		opments	E-mail Address			E		onstructed I Owner
Mailing Addr	ess (Street 1	Number/Nam	1000 C 100 C	II OI Dall		Iunicipality	Province	Postal Code	T	613 2		
		nt Dr.,	Suite	300		Nepean	Ontario	K2G 5X3		015 2.	40 01	
Well Locat		(Street Num	ber/Name)	۲	ownship		Lot	C	concession	1	
Lot 37	Maple	Creek				Rideau			Provinc	0	Postal	Code
County/Distr	Carlet				(City/Town/Village Manotick			Onta			111
UTM Coordin		Easting		lorthing		Municipal Plan and Sublo	ot Number		Other			
NAD	8 3 1 8			500707		ord (see instructions on the	back of this form)		11123	10000		
General Co	-	Most Comm	Contraction of the local division of the loc	The second se		ner Materials		eral Description			Dept From	th (<i>m/ft</i>) To
Brown		Sandy S	Soil								0	3.35
Grey		Sand &	100 B 100	1							3.35	10.35
Grey		Till								1	0.35	16.76
Grey		Limest	one							1	6.76	37.48
,												
									-			
									1			
		<u>.</u>										
										d Teating		
Depth Se	at at (m/ff)		and the second second second	ar Space ealant Used		Volume Placed	After test of well yiel	Results of W		aw Down		ecovery
From	То	<u></u>	(Material	and Type)		(m³/ft³)	Clear and san		Time (min)	Water Lev (m/ft)	el Time (min)	Water Level (m/ft)
18.59	0	Grouted	Bento	onite S1	urry	.69m ³	If pumping discontin		Static	3.72		
				<u>6</u>					1	4.18	1	4.27
		Sec. New	3				Pump intake set at	t (m/ft)	2		2	3.90
1.1.1.							30.4		3	4.29	3	3.82
The second second	nod of Con	struction		DE SAN	Well U		Pumping rate (Vmin 54.0		4	4.38	4	
Cable To	ol Conv Mntic hal)	Diamond	_	Public Domestic	Comm		Duration of pumpin	-	5	4.44	5	3.76
Rotary (F		Driving	Carlor and a second	Livestock Irrigation	Coolin	Iole Monitoring	hrs + Final water level en	min d of pumping (m/fl		4.50	10	
Air percu		C Digging		Industrial	_	g of fail of failed in the	4.8	89	10	4.68	15	
Other, s		struction R		Other, specify		Status of Well	If flowing give rate	(I/min / GPM)	15	4.72		
Inside	Open Hole	OR Material	Wall	Dep	th (<i>m/ft)</i>	VVater Supply	Recommended pu		20	4.79	20	
Diameter (cm/in)		d, Fibreglass, Plastic, Steel)	Thicknes (cm/in)	s From	То	Replacement Well	22.3 Recommended pu		25	4.83	25	
15.86	St	tee1	.48	+.45	18.59	Recharge Well	(Vmin / GPM)		30	4.85	30	
						Observation and/or	45 Well production (//		40	4.88	40	
The star						Monitoring Hole	Disinfected?		50	4.89	50	
						(Construction)	X Yes 🗌 No		60	4.89	60	
TREAM	Co	onstruction R	Record - S			Insufficient Supply	Please provide a n	Map of V			o book	
Outside Diameter		aterial Ivanized, Steel)	Slot No		oth (<i>m/ft</i>)	Water Quality Abandoned, other,	Please provide a n	FIRST			e baun.	
(cm/in)					10	specify	1	[[]][]]	HIVE	100.		
						Other, specify	-A-7	-				
		Mater De	taila			Hole Diameter		REEK I		•	1	
Water four	nd at Depth	Water De Kind of Wate		h VInteste	and the second se	epth (m/ft) Diameter		STATES	L	-1	1	
27.43	n/ft) 🗌 Gas	Other, sp	ecify		From	To (cm/in) 18.59 15.86	-	1			1	
Water four 34.40	nd at Depth	Kind of Wate	er: Fres	in X Unteste				:			I	n
Water four	nd at Depth	Kind of Wate	er: 🗌 Fres	h 🗌 Unteste	18.59	37.48 15.25		1		100	1	0
(r		Other, sp		all Teshnin	ion Inform	ation				207.	# 37	
Business N	We Name of Well	ell Contract I Contractor	or and W	en rechnic		Well Contractor's Licence No						
		r Supply				1 5 5 8 Municipality	Comments:					
Business A Box 49		eet Number/N	anie)			Stittsville	Commenta.					
Province	P	ostal Code		ess E-mail A				te Package Delive	have		nistry LL	se Only
Ontari Bus Teleph		AZS 1A6				lwater.ca ne, First Name)	information		1	Audit No		747
613 8	36 1766		Mil.	ler, Ste	ephen		delivered Da	10 1 1 0 M		Z	115	111
Well Techni	cian's Licence	No. Signatur	e/of/Tech	fician and/or		Date Submitted	XYes	0 1 1 0	1	Receive		2011
0 0	(12) © Oues	an's Printer the	lin	m	V ł	Ministry's Cor			4 49 13	Income	00 0	2011

/

Measurements Prog Of Fiel Name Life and Varies Components Machine and Varies Machinde	Do	ntari	the En	vironme		Well Tag No. (Place Sticker and/or A102457			2 The second			on	Well Record on 903 Ontario Water Resources Act				
Pipe Name Last Name / Opportation Enter Madees Pipe Name Used Name / Opportation Mailing Address (Breat Numerin Num) Microcastla Microcastla Provide Cast Pipe Name / Cast <			~	letric	Imperial								1	Pag	e	of	_
Main of Status Monicolative Protocol Period Code Priod Code	and the second second		L				opmonts		E-mail Addr	ress		100					
Well Location Junch	Mailing Add	dress (Str			III OIDA				Province Postal Code			Code					
Addition Toronation Toronatio			pointe Dr.	Suit	e 300		Nepean		Ontari	io	K2G	5X3	1	613 2	25 07	70	1
Lot: 33 Maple Creek Rideu 3 A Construction Number of Contario Ottario Ottario Moli Cisi Lit. 4 Add 201 (5007182) Owner Montal Content Literation Content Literation Content Literation Provin Soil Stones Packed 3.04 Grey Soil Stones Packed 3.04 8.83 Grey Till Packed 3.04 8.83 Grey Till Packed 3.04 8.83 Grey Till Packed 3.06 4.2.00 Provin Stati Till Cisicitititititititititititititititititit			ation (Street Nur	nber/Nam	ie)		Township		<u>alana a</u>		Lot			Concess	on		
Ottaka Onlario Onlario No.0 [31] 11.4 [464:30] [5007152] Ottaka Control Storing Municpli Than and Eublish Number Other Brown Solil Storing Municpli Than and Eublish Number Other Brown Solil Storing Municpli Than and Eublish Number Other Brown Solil Stories 0 4.8.83 17.67 Grey Standstone Layer Hard 17.67 45.10 Grey Titleestone Sandstone Layer Hard 17.67 45.10 Grey Titleestone Sandstone Layer Hard 17.67 45.10 The second and the Grey Titleestone Concerver Free of an other F	Lot 32	3 Mapi	le Creek										А				
Open Set of (mm) Open Set of (mm) Description Open Set of (mm) Brown Sol1 Stones Qeneral Description Does Brewn Sol1 Stones Qeneral Description Does Sol Greew Sol1 Stones Packed 3,04 8,83 Greey Sand Qeneral Description Does 0 3,04 Greey Sand Packed 8,83 15,76 Greey Sandatone Layer Hard 17,67 45,10 Dept Set r(mm) The of only Set with rask Monther Secon The of only Set with rask The of only Set with rask No.6 1,60 1															Post	al Code	11
Arrula Back Manual Stores Other Maria Other Maria <th< td=""><td></td><td></td><td></td><td>-</td><td>Northing</td><td colspan="3"></td><td colspan="4"></td><td></td><td></td><td></td><td></td><td>Ш</td></th<>				-	Northing												Ш
General Color Mest Convon Marina Other Materials General Description Duply Infty Type / Marine Standstone Brown Soil Stones 0 3.04 8.83 17.67 Grey Till	NAD	8 3	1 8 44430	1	50071	52											
Outcome Deck Solid Stones Dom Manage Grey Sand 0 3.04 8.83 17.67 Grey Sand 1 Stones Packed 3.04 8.83 17.67 Grey Till Sandstone Layer Bard 17.67 45.10 Grey Limestone Sandstone Layer Bard 17.67 45.10 Grey Limestone Sandstone Layer Bard 17.67 45.10 Grey Concertant Grey Sandstone Eaver Bard 17.67 45.10 Grey Concertant Grey Sandstone Eaver Bard								on the b			1.0	- Alam			De	pth (m/#)	
Grey Sand Packed 3.04 8.83 Grey Titl 8.83 17.67 Grey Limestone Sandstone Layer Hard 17.67 45.10 Bern difference Free difference <t< td=""><td></td><td>olour</td><td></td><td>ion Mater</td><td></td><td></td><td></td><td></td><td></td><td>Genera</td><td>Desc</td><td>nption</td><td></td><td></td><td>From</td><td>To</td><td></td></t<>		olour		ion Mater						Genera	Desc	nption			From	To	
Grey Till 8.83 17.67 Grey Linestone Sandstone Layer Hard 17.67 45.10 Promotion Construction Sandstone Layer Hard 17.67 45.10 Promotion Construction Type of Batent Used Withme Bated Promotion	Brown					Sto	nes										
Grey Linestone Sandstone Layer Hard 17.67 45.10 Annular Space	Grey								Packed								
Annular Space Results of Well Yield Testing Deth Set (mt) Type of Bustom Huad Volume Flaced Port Set (mt) Type of Bustom Huad Volume Flaced 19,50 Grouted Bentonite Slurry .69m3 19,50 Grouted Bentonite Slurry .69m3 Affer tool of Construction Well Use Particle of Well Vield Testing Construction Record - Group Particle of Well Vield Testing Sol 3 2 2 21 Particle of Vield Well Vield Testing Particle of Well Vield Testing Sol 3 1 2 10 Demony Conting Construction Record - Groung Well Vield Testing		Grey Till													10000000		
Deck bet af (r/m) Type of Bjannet Used (m/m) Volume Bjace (m/m) Method of Construction Recovery (m/m) Recovery (m/m) Method of Construction Recovery (m/m) Reco	Grey		Limes	tone		Sandsto	le Layer		Hard						17.67	45.	10
Deck bet af (r/m) Type of Bjannet Used (m/m) Volume Bjace (m/m) Method of Construction Recovery (m/m) Recovery (m/m) Method of Construction Recovery (m/m) Reco																	
Deck bet af (r/m) Type of Bjannet Used (m/m) Volume Bjace (m/m) Method of Construction Recovery (m/m) Recovery (m/m) Method of Construction Recovery (m/m) Reco																	_
Frim To (Material prot Type) (mml) 19.50 0 Grouted Bentonite Slurry .69m3 19.50 0 Grouted Bentonite Slurry .69m3 1 2,20	Donth S.	at at (m/8)		and the second se	and the second se		Mahura Diasa		After test of well						-	Pacovanu	165
19,50 0 Grouted Bentonite Slurry .69m3 Image: Second Structure 1 2.00 1 2.00 Image: Second Structure Image: Second Structure 1 2.00 1 2.00 Image: Second Structure Image: Second Structure Image: Second Structure 1 2.00 1 2.00 1 2.00 1 2.00 1 2.00 1 2.00 1 2.00 1 2.00 1 2.00 1 2.00 1 2.00 1 2.00 1 2.00 1 2.00 1 2.00 1 2.00 1 2.00 1 2.00 1 1.00 10 1.00 10 1.00 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>3</td><td>🕅 Clear and s</td><td>and fre</td><td></td><td>5.</td><td>Time</td><td>Water Le</td><td>vel Time</td><td>Water Le</td><td>evel</td></t<>								3	🕅 Clear and s	and fre		5.	Time	Water Le	vel Time	Water Le	evel
Image: Second	19.50	0	Grouted	Bent	onite S	lurry	.69m ³				ab a na					(m/ft)	
Method of Construction Well Use Cable Tool Barnon									in pumping aisco	nanuea,	give re	ason.	Level	2.20			
15.23 2.3.05 2.2.21 Method of Construction Plane of the state Pumping rate (then / GPM) 3.0.05 3.2.21 Method of Construction Plane of the state Pumping rate (the state from / GPM) 3.0.05 4.2.20 Method of Construction Plane spectry Pumping rate (the state from / GPM) 3.0.05 4.2.20 Method of Construction Record - Cating Pumping rate (the state from / GPM) 3.0.7 5 Method of Construction Record - Cating Status of Weil Method of Weil 3.1.7 10 3.1.1 10 Construction Record - Screen Water Suspit Prom To Person ro 2.3.1.3 20 Construction Record - Screen Construction Record - Screen Person ro Person ro 2.3.1.7 20 3.1.7 20 Cuade room of Weter State Water Suspit Prom ro Person ro Abandond, other specify Water Suspit Macro of Weter Catily Abandone Promoter Water Suspit Water Suspit Water Suspit Person ro 3.1.7 20 Construction Record - Screen Water									D		-		1	2.96	1	2.23	1
Method of Construction Weil Use Cable Tool Cable Tool 3 3 0.05 3 2.21 Cable Tool Cable Tool Cable Tool Cable Tool 54.6 4 3.06 4 2.20 Rebury (Com/Med) Denving Develop Develop 54.6 5 3.07 5 Rebury (Com/Med) Develop Develop Develop 53.07 5 3 3.11 10 3.11 10 3.11 10 3.11 10 3.11 10 3.11 10 3.11 10 3.11 10 3.11 10 3.11 10 3.11 10 3.11 10 3.11 10 3.11 10 3.11 10 3.11 20 3.11 20 3.11 20 3.11 20 3.11 20 3.11 20 3.11 20 3.11 20 3.11 20 3.11 20 3.11 20 3.11 20 3.11					1						π)		2	3.05	2	2.21	
Calaber Tool Commend Based Commended Extract S54.6 4 3.06 4 2.20 Restary (Com-Migd an) Ownershop Ownershop Ownershop Signad	Method of Construction			Well II					PM)		3	3.05	3	2.21			
Water found at Depth Water Status Bornestic Huncipal Development Status Bornestic Bornestic <td></td> <td></td> <td></td> <td></td> <td>Public</td> <td></td> <td></td> <td>ed</td> <td></td> <td></td> <td></td> <td></td> <td>4</td> <td>3.06</td> <td>4</td> <td>2.20</td> <td>,</td>					Public			ed					4	3.06	4	2.20	,
Borng Organization The part of the second of pump of											n		5				
Xi Ar procussion industrial industrial 0 industria <	Boring Digging Irri			Irrigation						g (<i>mvfit</i>)	10						
Construction Record - Cesing Status of Well Insuring over rate (mm/r) 0 3.12 10 Insuring over rate (mm/r) 0 3.12 10 Dammeter (mm/r) Construction Record - Cesing Well Depth (mm/r) Prom To Issue Status of Well Percent with Supply Prom To Percent with Supply Issue Status of Well Percent with Supply Percent with Supply Percent with Supply Percent with Supply Issue Status of Well Percent with Supply Percent with Supply Percent with Supply Percent with Supply Output for Material (mm/r) Supply Percent with Supply Percent with Supply Percent with Supply Other Supply Well Contractor and Well Contractor Depth (mm/r) Percent with Supply Percent with Supply Well forduced with Supply Well Contractor Supply Percent with Supply Percent with Supply Well formation (mm/r) Supply Supply Percent with Supply Percent with Supply Percent with Supply Percent with Supply <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>1001</td><td></td><td>15</td><td></td><td>1.0</td><td></td><td></td></t<>											1001		15		1.0		
Inside (min) Open Hele OR Material (min) Walk (min) Depth (min) Depth (min) Feedman depth (min) Feedman depth (min) 15,86 Steel .48 +.45 19.50 Becommended pump rate (min) 3.14 25 15,86 Steel .48 +.45 19.50 Devatering Well Open Hele OR Material (min) 3.14 25 15,86 Steel .48 +.45 19.50 Devatering Well 3.0 3.15 3.0 15 .3 .4 25 .3 .40 3.16 40 16 .48 +.45 19.50 .5 .5 .5 .5 .3 .6 40 .6<		0	onstruction Re				Status of We	_	In nowing give is	ate (<i>vm</i>	n / GPW	"	-				
(cm/m) Concrete, Plastic, Steel (cm/m) First Hole I					A REAL PROPERTY AND A REAL	oth (m/ft)	11						-	3.13			
15.86 Steel .48 +.45 19.50 Precharge Well 30 3.15 30 15.86 Steel .48 +.45 19.50 Precenting Well 40 3.16 40 15.86 Steel .48 +.45 19.50 Well production (Mini / GPM) 40 3.16 40 16 Construction Construction Construction Construction Construction Construction Construction Construction Construction Material So 3.15 30 3.15 30 3.16 40 3.16 40 3.16 40 3.16 40 3.16 40 3.16 40 3.17 50 60 3.17 50 60 3.17 50 60 3.17 50 60 3.17 60 70 <						То							25	3.14	25		
Construction Record - Screen Construction Record - Screen Add 3, 16 40 Construction Record - Screen Construction Address Support Bioinfected? 80 3, 17 50 Construction Record - Screen Construction Address Support Bioinfected? 80 3, 17 50 Construction Record - Screen Construction Address Support Bioinfected? 80 3, 17 60 Construction Record - Screen Construction Construction Construction Bioinfected? 80 90 Nap of Well Location Value Found at Depth Kind of Water: Fresh Untested Depth (m?t) Construction Record - Screen Construction Record - Screen Construction Record - Screen Water found at Depth Kind of Water: Fresh Untested Depth (m?t) Construction Record - Screen Construction Record - Screen Mater found at Depth Kind of Water: Fresh Untested Disponder Rom Screent Construction Record - Screent Mater found at Depth Kind of Water: Fresh Untested Disponder Rom Screent Files function Construction Rom Capital Water Contractor <	15.86	5	Steel	.48	+.45	19.50			(Vmin / GPM)				30	3.15	30		
Alteration (Construction Record - Screen Dubinetic (cm/shg) Autonomal (Construction) Abandoned, there (cm/shg) Disinfected? (Construction) Abandoned, there specify Disinfected? (Construction) Abandoned, there specify Disinfected? (Construction) Abandoned, there specify Disinfected? (Construction) Abandoned, there specify Disinfected? (Construction) Abandoned, there specify Disinfected? (Construction) Abandoned, there specify Water found at Depth Kind of Water: (Construction) Abandoned, there specify From To Depth (m/th) (Plastic, Galvanized, Steel) Stot No. (Construction) (Plaster Galvanized, Steel) Nap of Well Location Water found at Depth Kind of Water: (m/th) Gas Fresh Unitested Depth (m/th) (Plaster Galvanized, Steel) Diameter From To Diameter (cm/shy) If D T # 33 (Construction) Water found at Depth Kind of Water: (m/th) Gas Coher, specify Unitested D 19,50 15,23 (m/th) If D T # 33 (Constructor) Well Contractor On ario (K2S) 1A6 (D of fice & capital water : ca bus Telephone No, (nc. see code) Miller, Stephen (Mill Contractor) Municipality Stittsville Date Package Delivered (Mill Contractor) Ministry Use Only Z 115743 (M Vol 2 2011 (M Vol 2 2011							Observation and	i/or	successive and an experimental section of the secti		GPM)		40	3.16	40		
Construction Record - Screen Construction Record - Screen Cutside Material Dameter Depth (m/l) Abandone, Poor Water Cuality Abandone, Aber, specify Depth (m/l) Water Dotails Bool Diameter Water Coulity Abandone, other, specify Other, specify Other, specify Water found at Depth Kind of Water: From Yes No Water found at Depth Kind of Water: From (m/l) Gas Other, specify Water found at Depth Kind of Water: From Yes No 0 Water found at Depth Kind of Water: From Susiness Name of Well Contractor Well Contractor Capital Water Supply Ltd. 1 5 5 Box affers (Street Number/Name) Municipality Stittsville Province Postal Code Business E-mail Address Ministry									Disisfordada				50	3.17	50		
Construction Record - Screen Cuttide Dameter (em/in) Map of Well Location Outwater (em/in) Map of Well Location Water Guality (em/in) Map of Well Location Water Guality (em/in) No Depth (m/it) Abandoned, other, specify Water found at Depth Kind of Water: Freesh Untested Depth (m/it) Diameter Water found at Depth Kind of Water: Freesh Untested Depth (m/it) Diameter Water found at Depth Kind of Water: Freesh Untested Depth (m/it) Diameter Water found at Depth Kind of Water: Freesh Untested 19.50 15.86 (m/it) Gasi Other, specify Untested 19.50 15.86 Water found at Depth Kind of Water: Fresh Untested 19.50 5.86 (m/it) Gasiness Name of Well Contractor Well Contractor's Licence No. Endst Licence No. Capital Water Supply Ltd. 1 5 5 8 Box 490 Postal Code Business E-mail Address Municipality Date Package Delivered Ministry Use Only Stelephone No. (m.: area code) M										10			60	3.17	60		
Outside (ansig) Material (Pleate, Galvanized, Steel) Sut No. Depth (m/t) From Water Cuality abandoned, other, specify Please provide a map below following instructions on the back. Please provide a map below following instructions on the back. Please provide a map below following instructions on the back. Water found at Depth Kind of Water: Fresh Untested Depth (m/t) Diameter Water found at Depth Kind of Water: Fresh Untested Depth (m/t) Diameter (m/til) Gas Other, specify Untested 0 19.50 15.86 (m/til) Gas Other, specify Untested 19.50 45.10 15.23 Water found at Depth Kind of Water: Fresh Untested 19.50 45.10 15.23 (m/til) Gas Other, specify Well Contractor S Licence No. Exist Lux Road Comments: Susiness Name of Well Contractor Well Contractor S Licence No. Municipality Comments: Comments: Box 490 Stittsville Minicipality Stittsville Plate Package Delivered Ministry Use Only Aus. Telephone No. (inc. area code) Name of Well Te	Construction Record - Sc			creen	1							ellio	cation				
(cm/m) (Presce, Galvaluese, Sales) From To Instruction, construction, constructind, construtent construction, construction, constructio				Slot No		oth (m/ft)	Water Quality	11	Please provide a	a map b	elow fol	lowing	instruc	tions on th	e back.		
Water Details Hole Diameter Water found at Depth Kind of Water: Fresh Untested Depth (m/N) Diameter 41.75m/ft) Gas Other, specify 0 19.50 15.86 (m/R) Gas Other, specify 0 19.50 15.86 (m/R) Gas Other, specify 0 19.50 15.86 (m/R) Gas Other, specify 0 19.50 45.10 15.23 Water found at Depth Kind of Water: Fresh Untested 19.50 5.88 Susiness Name of Well Contractor and Well echnician information Business Rame of Well Contractor Well Contractor and Well Echnician information Business Name of Well Contractor Municipality Stittsville Comments: Comments: Box 490 Stittsville office 2 capital Water . ca Municipality Date Package Delivered Ministry Use Only Lus. Telephone No. (inc. area code) Name of Well Technician (Las Name, First Name) Date Work Completed Multi No. 2 //// /// // // // // // // // // // //		(Plastic,	Galvanized, Steel)		From	То		ner,		1				1		1	
Water Details Hole Diameter Water found at Depth Kind of Water: Fresh Untested Depth (m/R) Diameter 41.75 m/R) Gas Other, specify 0 19.50 15.86 (m/R) Gas Other, specify 0 19.50 15.86 (m/R) Gas Other, specify 19.50 45.10 15.23 Water found at Depth Kind of Water: Fresh Untested 19.50 Business Name of Well Contractor Well Contractor and Well Technician Information Susiness Address (Street Number/Name) Municipality Comments: Box 490 office 9 capitalwater.ca Municipality Comments: Date Package Delivered Ministry Use Only Lus Telephone No. (inc. area code) Name of Well Technician (Last Name, Fi								$- \parallel$	KI	1	1	_		i	07#	33	
Water found at Depth Kind of Water: Fresh Wuntested Depth (m/th) Diameter (cm/sh) 41.75{m/th} Gas Other, specify 0 19.50 15.86 (m/th) Gas Other, specify 0 19.50 15.86 (m/th) Gas Other, specify 19.50 45.10 15.23 Water found at Depth Kind of Water: Fresh Untested 0 19.50 45.10 15.23 Water found at Depth Kind of Water: Fresh Untested 19.50 45.10 15.23 Water found at Depth Kind of Water: Fresh Untested 19.50 45.10 15.23 Well Contractor and Well Contractor's Licence No. Enclose No. Enclose No. Enclose No. Gapital Water Supply Ltd. 1 5 5 8 Municipality Comments: Box 490 Stittsville Stittsville Information 20 15.74.3 Jus. Telephone No. (inc. area code) Name of Well Technician (Last Name, First Name) Date Work Completed NOV 0.2 2011 Gal 3 836 1766 Miller							Curer, specify		.W	1				1	MAPL	E	
41.75m/ft) Gas Other, specify Image: constraint of the specify Water found at Depth Kind of Water: Fresh Untested 0 19.50 15.86 (m/ft) Gas Other, specify 19.50 45.10 15.23 Water found at Depth Kind of Water: Fresh Untested 19.50 45.10 15.23 Water found at Depth Kind of Water: Fresh Untested 19.50 45.10 15.23 Water found at Depth Kind of Water: Fresh Untested 19.50 45.10 15.23 Water found at Depth Kind of Water: Fresh Untested 19.50 45.10 15.23 Water found at Depth Kind of Water: Fresh Untested 19.50 88 Jusiness Name of Well Contractor Well Contractor Well Contractor Encode Comments: Box 490 Stittsville Stittsville Comments: Comments: Pate Package Delivered Ministry Use Only Nus. Telephone No. (inc. area code) Name of Well Technician (Last Name, First Name) Date Work Completed Pate Work Completed Pate Work Completed NOV 0 2			And and a supervised on the supervised of the su		R Part	No. of Concession, Name of Street, or other	The second design of the secon			-				1	GRE	EK	
Water found at Depth Kind of Water: Fresh Untested 0 19.50 15.86 (m/#) Gas Other, specify 19.50 45.10 15.23 Water found at Depth Kind of Water: Fresh Untested 19.50 45.10 15.23 Water found at Depth Kind of Water: Fresh Untested 19.50 45.10 15.23 Water found at Depth Kind of Water: Fresh Untested 19.50 45.10 15.23 Water found at Depth Kind of Water: Fresh Untested 19.50 45.10 15.23 Water found at Depth Kind of Water: Fresh Untested 19.50 45.10 15.23 Water found at Depth Kind of Water: Fresh Untested 19.50 45.10 15.23 Well Contractor Well Contractor Well Contractor's Licence No. Email Address Comments: Comments: Box 490 Stittsville Stittsville Young package Delivered Young package Young package Young package Young package Young package Young package Young					h X Unteste					1				i			
(m/ft) Gas Other, specify 19,50 45,10 15,23 Water found at Depth Kind of Water: Fresh Untested 19,50 45,10 15,23 (m/ft) Gas Other, specify Intested 19,50 45,10 15,23 Water found at Depth Kind of Water: Fresh Untested Intested Intested Waiter found at Depth Well Contractor and Well Technician Information Information Intested Intested <td></td> <td></td> <td></td> <td></td> <td>h 🗍 Unteste</td> <td>d O</td> <td>19.50 15.8</td> <td>36</td> <td>1</td> <td>1</td> <td></td> <td></td> <td></td> <td>i</td> <td></td> <td>-</td> <td></td>					h 🗍 Unteste	d O	19.50 15.8	36	1	1				i		-	
Water found at Depth Kind of Water:PreshUntested Well Contractor and Well Technician Information Business Name of Well Contractor Well Contractor and Well Technician Information Business Name of Well Contractor Capital Water Supply Ltd. 1 5 5 8 Susiness Address (Street Number/Name) Municipality Box 490 Ontario K2S 1A6 office D capitalwater.ca Nus, Telephone No. (inc. area code) Name of Well Technician (Last Name, First Name) 6]13 836 1766 Miller, Stephen Vell Technician's Licence No. Signature of Technician and/or Contractor Date Submitted O I I I 0 7 I 8	(n	n/ft) 🗌 G	as Other, spe	cify		10 50	45.10 15.3	23	/		-						
Well Contractor and Well Technician Information Business Name of Well Contractor Well Contractor's Licence No. Capital Water Supply Ltd. 1 5 5 8 Suiness Address (Street Number/Name) Municipality Box 490 Province Postal Code Business E-mail Address Municipality Comments: Ontario K2S 1A6 office 2 capitalwater.ca Municipality Date Package Delivered Munistry Use Only Mustry Use Only Miller, Stephen Miller, Stephen Vell Technician and/or Contractor Date Submitted Date Version Date Version No No </td <td></td> <td></td> <td></td> <td></td> <td>h 🗋 Unteste</td> <td>bd 19450</td> <td>140.10 15.</td> <td></td> <td>\rangle</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td></td>					h 🗋 Unteste	bd 19450	140.10 15.		$ \rangle$							1	
Business Name of Well Contractor Capital Water Supply Ltd. 1 5 8 Business Address (Street Number/Name) Municipality Stittsville Fillst Live Road Box 490 Stittsville Ontario K2S 1A6 office D capital Water.ca Municipality Date Package Delivered Ministry Use Only Jus. Telephone No. (inc. area code) Name of Well Technician (Last Name, First Name) Miller, Stephen Date Package Delivered Ministry Use Only Well Technician's Licence No. Signature of Technician and/or Contractor Date Submitted 2 0 1 0 7 1 <td>(n</td> <td>_</td> <td></td> <td>_</td> <td>ell Technic</td> <td>ian Informa</td> <td>ation</td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	(n	_		_	ell Technic	ian Informa	ation	-									
Business Address (Street Number/Name) Municipality Comments: Box 490 Stittsville Province Postal Code Business E-mail Address Ontario K2S 1A6 office 2 capitalwater.ca Jus.Telephone No. (inc. area code) Name of Well Technician (Last Name, First Name) Date Package Delivered 613 836 1766 Miller, Stephen Well Technician's Licence No. Signature of Technician and/or Contractor Date Submitted Date Work Completed 0 0 7 Municipality No 2 0 1 1 0 7 1 8		lame of V	Vell Contractor		en roomine			No.			-					1	
Box 490 Stittsville Province Postal Code Business E-mail Address Ontario K2S 1A6 office 2 capitalwater.ca Dus.Telephone No. (inc. area code) Name of Well Technician (Last Name, First Name) 613 836 1766 Well conner's Date Package Delivered Vell Technician's Licence No. Signature of Technician and/or Contractor Date Submitted 0 0 7 0 9 7								8	Commente	1	FIL	251	LIN	E KOR	2	1	_
Province Postal Code Business E-mail Address Ontario K2S 1A6 office 2 capitalwater.ca Bus.Telephone No. (inc. area code) Name of Well Technician (Last Name, First Name) Date Package Delivered Ministry Use Only 613 836 1766 Miller, Stephen Miller, Stephen Date Work Completed No Ministry Use Only Vell Technician's Licence No. Signature of Technician and/or Contractor Date Submitted Date Work Completed No No 2 0 1 1 0 7 1 8 No			sieet number/Na	me)					comments:								
bus. Telephone No. (inc. area code) Name of Well Technician (Last Name, First Name) 613 836 1766 Miller, Stephen Date Work Completed Vell Technician's Licence No. Signature of Technician and/or Contractor Date Submitted 0 0 9 7 Multi No. 2 0 1 0 9 7	Province					ddress								-			_
613 836 1766 Miller, Stephen Vell Technician's Licence No. Signature of Technician and/or Contractor Date Submitted Date Work Completed 0 0 9 7 Multiplication and/or Contractor Date Submitted 2 0 1 0 7 1 0 0 1 0 7 1 0 0 1 0 0 1 0 0 1 0 0 0 1 0 0 0 0 1 0 <td></td> <td></td> <td></td> <td>Call Contraction</td> <td>ALC: NOT THE REAL PROPERTY OF</td> <td>-</td> <td></td> <td></td> <td>information</td> <td>Date Par</td> <td>ckage D</td> <td>)elivere</td> <td>bd</td> <td></td> <td>1.11</td> <td>1285000</td> <td></td>				Call Contraction	ALC: NOT THE REAL PROPERTY OF	-			information	Date Par	ckage D)elivere	bd		1.11	1285000	
Vell Technician's Licence No. Signature of Technician and/or Contractor Date Submitted 0 0 9 7 Multi Multi 2 0 1 1 0 7 1 8 0 0 2 0 1 1 0 7 1 8 0 0 2 0 1 1 0 7 1 8 0 0 2 2011 No 2 0 1 1 0 7 1 8 0 0 2 2011							, rinst marne)		delivered					Z	115	743	3
	Vell Technic	cian's Licer				Contractor D			X Yes			1)	IN VOI	2 2011	
			7		m	2			LI NO	20	1/1	10 M7	D1 D4	Received			

Deasurements re	the Environment	Well Tag M A_116	No. (A11628 286	36	Regulation	n 903 Ontario I Pag		
Address of Well La	bcation (Street Number/Name)	Rd. L	Pepean 10th	awa	Lot	Concess	sion	
County/District/Mu UTM Coordinates		rthing Mur	Town/Village	nber	ZRF	Province Ontario Other	Postal KO	Code 12E0
NAD 8 3	Bedrock Materials/Abando	007532	I RP 5R5	the second se	ZKI			
General Colour	Most Common Material		Materials	the second se	eral Description	1	Dept	h (m/ft) To
Down Grey Grey	Course Sand Course San Medium San grave (1	es gravel vel, store lium Sard	Fla Ha Pac	rd		7.9 18.4 21.7	7.9 18.4 21.7 25.9
					Dere Ver ef Mi	all Vield Tosti		

		Anna land				Dec. No. of the	II Vield Testing	
Donth Cat at	(m/#)	Annular Space	ad	Velume	Diagod	After test of well yield, water was:	Draw Down	Recovery
Depth Set at From		Type of Sealant Use (Material and Type)		Volume F (m ³ /f		Clear and sand free		Time Water Level
1.2.00	21.22 2.22		46	0	3	Other, specify	(min) (m/tt)	(min) (m/ft)
0	6 cim	ent gr	out	id 1	m	If pumping discontinued, give reason:	Static 695	826
		5					Level 6.8	0.00
				1999			1 7,22	1728
						Pump intake set at (m/ft)	2 221	2 7.26
				Sec. Sec.		2d	7121	100
Mathod	of Construction		Well Us	0		Pumping rate (Vmin / GPM)	3 77,22	3 724
Cable Tool	Diamond	Public	Commer		lot used	68	4 7.22	4 193
Rotary (Conv		Domestic	Municipa		ewatering	Duration of pumping	1 1 00	- 0,0
Rotary (Reve	erse) Driving	Livestock	Test Hol	e 🗆 M	Aonitoring	hrs + min	5 722	5 687
Boring	Digging	Irrigation	Cooling	& Air Condition	ning	Final water level end of pumping (m/lt)	10 752	10 186
Other, specif		Other, spec				8.36	15 7.1	6.00
Ly other, specif			my			If flowing give rate (Vmin / GPM)	15 7.47	15 6.86
	Construction Re		anth (40)	Status o			20 7.47	206.86
	Open Hole OR Material Galvanized, Fibreglass,	Thickness	lepth (m/ft)	Water Su		Recommended pump depth (m/ft)	25 -110	25 000
	oncrete, Plastic, Steel)	(cm/in) From	n To	Test Hole		ad	25 +42	25 6-85
1111	Steel	-48 +-6	250	Recharge		Recommended pump rate (Vmin / GPM)	30 7.40	306.85
15.55	Stel	048 +.e	\$ 25.9	Dewateri	ng Well	68	40 1110	40 1 85
				Observati		Well production (I/min / GPM)	40 7.40	40 6.05
1. 19 2. 19 2.1	Carl Constants			Monitoring			50 7.49	50 6.85
				(Construc		Disinfected?	60 8 3/0	ED C OT
				Abandon		Yes No	00 8,30	606.85
	Construction Re	ecord - Screen	C.F. C. C. C. C.	Abandon	nt Supply ed. Poor		ell Location	
Outside	Material	D	epth (m/ft)	Water Qu	uality	Please provide a map below following		
Diameter (Pla (cm/in)	astic, Galvanized, Steel)	Slot No. From	m To	Abandon specify	ed, other,		riace of	Wales Di
1. 5 53	State of the second			specify				
				Other, sp	ecify		60	m
							00.	· · · · · · · · · · · · · · · · · · ·
	Water Det	ails	н	ole Diamete	r			mage
Water found at	t Depth Kind of Water			h (<i>m/ft</i>)	Diameter		1/	og P
	Gas Other, spe		From	To	(cm/in)		Son_ "	
	t Depth Kind of Water		sted 🔿	6	241	E .	1	U
	Gas Other, spec		0	0	200	1	1 000	
	t Depth Kind of Water		sted G	25.9	5.55	4		
(m/ft)	Gas Other, spec	cify				X	4	
		r and Well Techn	ician Informat	ion		X	1 st	
Business Name	e of Well Contractor	and wen rechn		I Contractor's L	icence No.	M	House	-9-
Arrerac	the .	milling	1	41	1			P
	ss (Street Number/Nar	med	Mu	nicipality .		Comments:		
151N	ontée D	Sand		Natio	m			
Province	Postal Code	Business E-mail	Address	1 - count				
On	KIDIABCI		JIA			Well owner's Date Package Delivere	d Minist	ry Use Only
Bus. Telephone I	No. (inc. area code) Nai	me of Well Technicia	1.	First Name)		information ROVALAD	Audit No.	
61348		BENJEK	e MI	CHAP	EL	delivered	Z Z	L40777
Well Technician's		of Technician and/o	r Contractor Dat	e Submitted		Yes Date Work Completed		
346	13 4	417	R	OKHU	0 30	No ROLING	5 Received	
0506E (2007/12)	@ Queen's Printer for Onta	ano, 2007			's Copy		NOV	1 7 2011
	-						1101	1 10 0 1 1

	ntaric) Minist the Er	vironment	Imperial		g No. (Place Sticker a A165049			Regulation	n 903 C		ater Re	Record sources Act
	ner's Info				<u> </u>	`ag #: A16	504	9	J				
First Name	gen and the second			Organizatio	า		E-ma	ail Address				trought of	Constructed
Mailing Add	dress (Stree	et Number/Na	Phoenix ^{me)}	Homes	N	Iunicipality	Provi	nce	Postal Code	•	Telephone	-	/ell Owner . area code)
	tley A	ve.				Ottawa	Ont	tario	K2E 6T8		613 7	23 92	27
Well Loca Address of	egyelek territiki tirtiri	ion (Street Nu	mber/Name)	T	ownship			Lot		Concessi	on	
Lot 35	Cabre	lle - Ma			2	Rideau				Desuis		Deet	al Code
County/Dis Ottawa	strict/Munici Carlet				1	City/Town/Village Manotick				Provin Ont:		POSIE	
UTM Coord		-	1	lorthing		Iunicipal Plan and Subl	ot Number			Other			1
		3 4 4 4 1 drock Materi				rd (see instructions on the	back of thi	s form)					
General C			non Materia			er Materials			eral Description	1		De From	pth (<i>m/ft)</i> To
Brown		Sand			Gravel	& Stones		Loo	se			0	7.61
Grey		Sand & (Gravel		Large	Boulders						7.61	15.84
Grey		Limesto	пе					Med	ium Hard			15.84	45.71

1011													
								www					
			Annula	r Space					Results of We	ell Yiel	d Testin	9	
Depth Se From	et at (<i>m/ft)</i> To		Type of Se (Material a			Volume Placed (m³/ft³)		of well yield, ir and sand t			aw Down Water Lev		Recovery Water Level
18.28	0	Grouted		nite Sl	urrv	.69m ³	Othe	er, specify		(min) Static	(m/ft)	(min)	(m/ft)
					,		lf pumpin	ig discontinue	ed, give reason:	Level	5.30		
							Durania	take set at <i>(</i> /		1	5.33	1	5.33
							Pumpin	22.85		2	5.33	2	5.31
Meth	hod of Co	nstruction			Well Us	e	Pumping	rate (l/min /	GPM)	3	5.34	3	5.29
Cable To X Rotary (C		Diamono		ublic omestic	Comme		Duration	54.6 of pumping		4	5.34	4	5.30
Rotary (F		Driving	📋 Liv	vestock	Test Ho	e 🗌 Monitoring	a the second		min of pumping <i>(m/ft)</i>	5	5.34	5	5.30
Boring		Digging	🗌 🗌 Inc	igation dustrial		& Air Conditioning	Fillal Wat	5.39	n purnping (<i>min</i>)	10	5.35	10	5.30
Other, sp		nstruction R		her, specify _		Status of Well	If flowing	give rate (1/	min / GPM)	15	5.36	15	5.30
Inside	Open Hol	e OR Material	Wall		n (<i>m/ft</i>)	Water Supply	Recomm	ended pum	p depth <i>(m/ft)</i>	20	5.36	20	5.30
Diameter (cm/in)		ed, Fibreglass, Plastic, Steel)	Thickness (cm/in)	From	То	Replacement Well	Besomm	22.85 iended pum	o rato	25	5.37	25	5.30
27.31	Ope	en		0	18.28	Recharge Well	(I/min / Gi		D Tale	30	5.37	30	5.30
15.86	Ste	eel	.48	+1.82	18.28	Observation and/or Monitoring Hole	Well proc	duction (I/mir	n / GPM)	40	5.38	40	5.30
						Alteration (Construction)	Disinfecte	ed?		50	5.38	50	5.30
						Abandoned, Insufficient Supply	X Yes	🗌 No		60	5.39	60	5.30
Outside		onstruction R	ecord - Scr	T	(<i>m/ft</i>)	Abandoned, Poor Water Quality	Please pr	rovide a map	Map of W below following			back.	
Diameter <i>(cm/in)</i>		aterial Ivanized, Steel)	Slot No.	From	То	Abandoned, other,	X		FIRST	LINE			
								/	FIRST				and a second
						Other, <i>specify</i>		(LOTH	35	
		Water De				ole Diameter					1		1
		Kind of Wate	(county	X Untested	From	h (<i>m/ft</i>) Diameter To (<i>cm/in</i>)					1	BEAL	
Water foun	d at Depth	Kind of Wate	r: 🗌 Fresh	X Untested	0	18.28 15.86					1	HOU	5E
		Other, spe Kind of Wate		Untested	18.28	45.71 15.55						101-10-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-	
	ı∕ft) ⊡Gas	Other, spe	1						CABR	euc			
Business Na		ell Contractor	or and Well	Technicia	and a start for the start of a st	ion Il Contractor's Licence No.							1
		Supply	Ltd.		1	5 5 8		/	MAPLE	ĊŀĊ	EK		
	ddress (Stre	et Number/Na				nicipality	Comment	ls:					
BOX 490 Province		ostal Code	Busines	s E-mail Add	St ress	tittsville							
Ontario		2 S 1 A area code) Na		fice@c	apital		Well owner information		ackage Delivere		Mini Audit No.	stry Us	
6 1 3 8	8 3 6 1	766	Mille	r/ Step	hen		package delivered		1 5 0 6 0	<u>] 5</u>		-18	8496
Well Technici	ian's Licence	No. Signature	of Technicia	an and/or Co	ntractor Dat		X Yes		1 5 0 6 () S	JUN	125	2015
0506E (2007/1	12) © Quee	n's Printer 10-Ont	2007 ariq 2007	in		0 1 5 0 6 0 9 Ministry's Copy		t Υ			neceived :		

Ministry of the Environment Measurements recorded in:	A199917	ow) Regulation 903 Ontario Wa Page	of				
		Lot Concessio					
Address of Well Location (Street Number/Name)	Township		A A				
232 Cabrelle Place County/District/Municipality	Rideau City/Town/Village	Province	Postal Code				
		Ontario					
Ottawa-Carleton UTM Coordinates Zone , Easting	Manotick Municipal Plan and Sublot Number	Olher					
NAD 8 3 18 444222 500	7163 4M-1407	S/L 34					
Overburden and Bedrock Materials/Abandonment	Sealing Record (see instructions on the back of this form	ϑ . The second secon					
General Colour Most Common Material	Other Materials	General Description	Depth (mm) From To				
Sand	A Boulders		0 29				
Gravel	A- Boulders		29 ' 84 '				
Grey Limestone			64' 133'				
Grey Limestone			133 / 152 /				
Grey Limestone			152 180 1				

: • • •

> . · [·] ·

.

· ..

: • • • * · · • . •

· . . ·

· · ·

· . * · · · .

· . ·

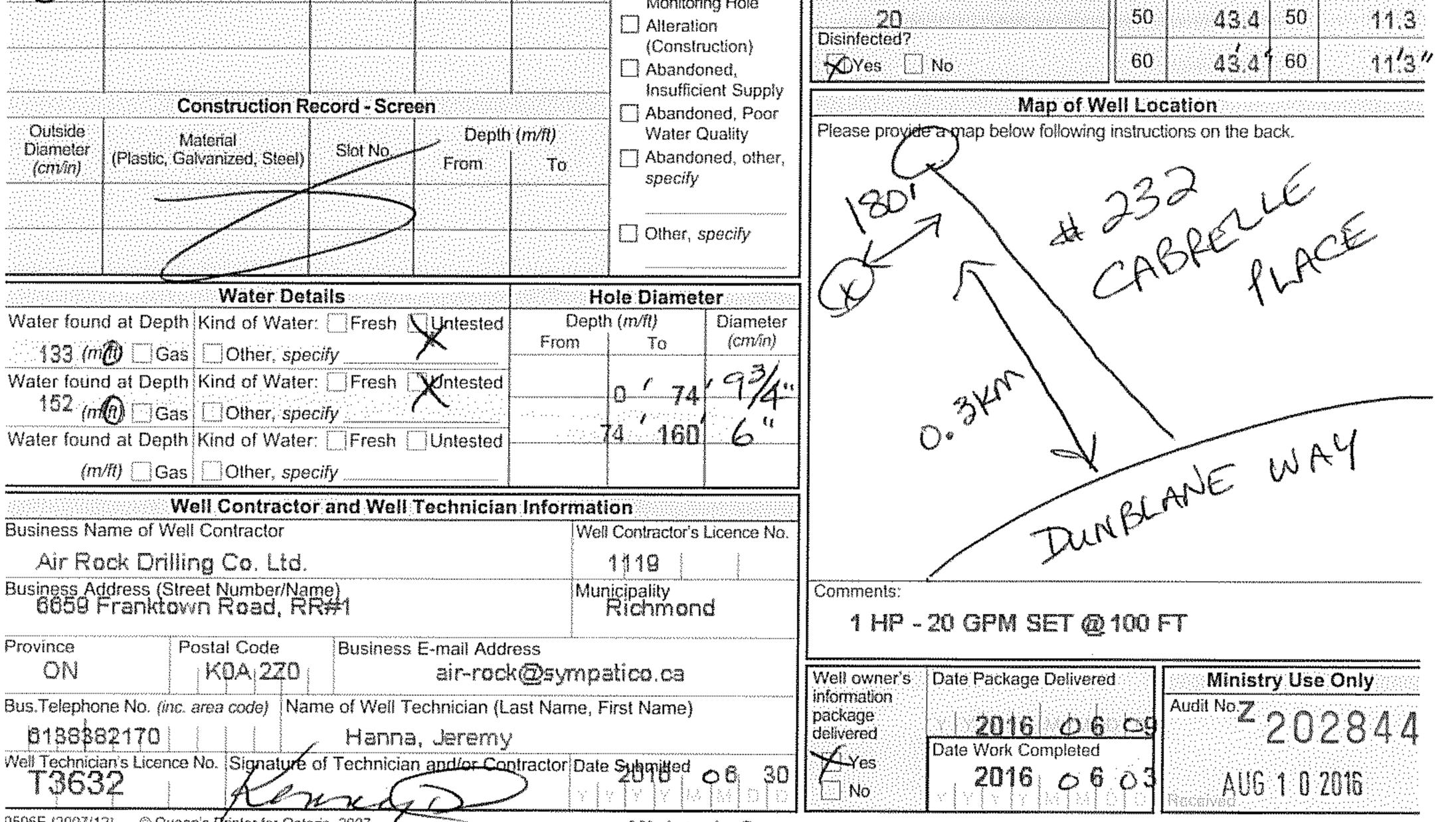
.

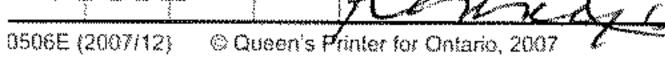
.. ·• • • • • • • • <u>.</u> . . . • • . . • · · . : · · · . in the the the · . · . · · · . · 1. . · ^{*} · · • • • .. · · .·

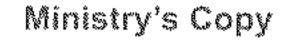
. . .

. • • : · · · · ·

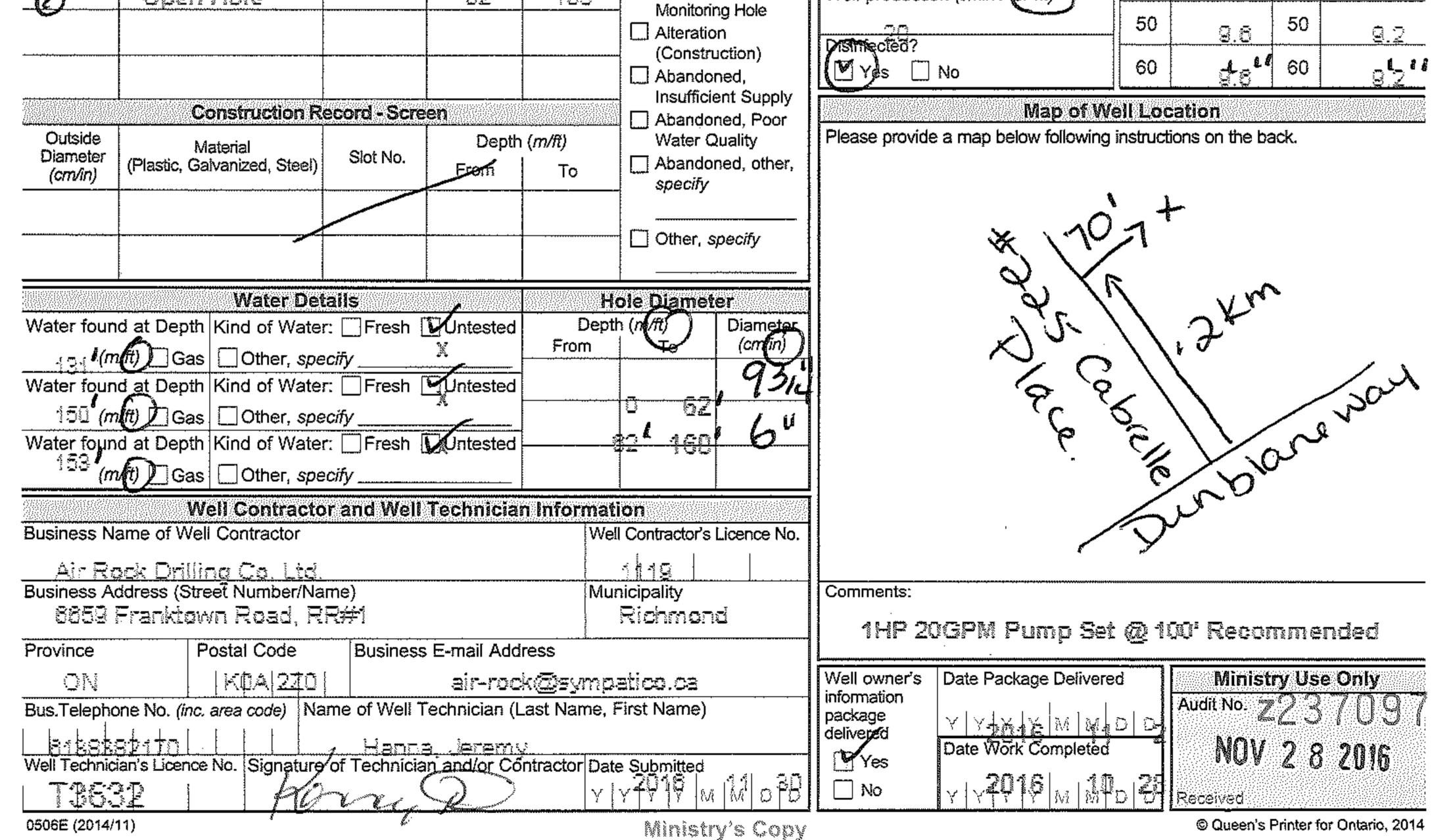
			Annular	Space			Results of We	Il Yiel	d Testing		
Depth S	et at (m@) To		Type of Sea (Material an			Volume Placed	After test of well yield, water was:		aw Down		Recovery
71	n'	Neat c	***************************************	a iype)		37.4	Clear and sand free	(min)	Water Level (m/ft)	(min)	Water Level (<i>m/tt</i>)
***** 	• • • • • • • • • • • • • • • • • • •		1				If pumping discontinued, give reason:	Static	11'3"		43.4
							$ \times$	1	21.5	1	23.6
							Pump intake set at (mm)	2	28.8	2	18.4
							140 Pumping rate (1/min / GPMP	3	30.4	3	15.7
Cable To	hod of Cor	Istruction	Pul		Well Us		20	4	33.5		12.9
Rolary (Conventional)	Jetting		meslic	🗍 Municipa	I Dewatering	Duration of pumping hrs + nin	5	35.7	5	11.3
_] Rolary (I] Boring	Keverse)	Driving		**********************	Cooling	e 🗌 Monitoring & Air Conditioning	Final water level end of pumping (m/ft)	10	42.3	10	11.3
Air percu	·			ustrial ier, specify			4344	15			
	· · · · · · · · · · · · · · · · · · ·	struction R				Status of Well	If flowing give rate (I/min / GPM)		43.2	15	11.3
Inside	**********	OR Material	Wall		(n@	Water Supply	Recommended pump depth (mm)	20	43.3	20	11.3
Diameter (cm)	(Galvanized	d, Fibreglass, Plastic, Steel)	Thickness (cm(m)	From	То	Replacement Well		25	43.4	25	11.3
614"	Steel		.188	+2 (74 (Test Hole	Recommended pump rate	30	43.4	30	11.3
6"	Open I	Hole		74	160	Dewatering Well Observation and/or	20 Well production (I/min / GPM)	40	43.4	40	11.3
0	Town from them it it	C W Row & Yes		p tenge	0 Www Www		I wen moonman (anan a car ba)				







Measurements record	and the second	A-7	Tag#: 207712	A 207712	Regulatio	n 903 Ontai	Well R rio Water Res Page	
Address of Well Location	on (Street Number/Name) <u>a Placa</u> ality	······································	nip Ideau wn/Village		Lot	Province	Cession	Code
UTM Coordinates Zone NAD 8 3			Applick Sal Plan and Suble <u>1407</u>			Ontario Other Stl 3	<u>,</u>	
General Colour	Most Common Material	Other Mat	terials		al Descriptior)	Dep From	th (m(ft)
······································	Sand y Sand	and	<u>Gravel</u>	and boi	Ide	<u> </u>	 	5'
<u>Grey</u> <u>Grey</u>	Limestone Limestone			······································			52 / 131 /	131 /
<u>Grey</u> Grev	<u>Limestone</u> Limestone						<u>150</u> 153 ¹	153 / 180 /
Depth Set at (<i>m(ft)</i>)	Annular Space Type of Sealant Us	<u></u>	/olume Placed	After test of well yield, v	tesults of Works water was:	el l Yield T e Draw D		ecovery
From To	(Material and Type Neat cement)	(<i>mi(กิง</i>) 31.2	Clear and sand fr	Notteste	(min) Static	er Level Time (mft) (min)	Water Level (mft)
						Level 1	₽ <u>8.6</u> 1	9.0 9.4
			,	Pump intake set at (m 120		2	<u>9.6</u> 2	<u> </u>
Method of Cor		Well Use	Not used	Pumping rate (I/min /	SPM)	4	<u>9.8</u> 9.8 4	<u>9.2</u> 9.2
Rotary (Conventional) Rotary (Reverse) Boring	Jetting Jetting Driving Driving Digging Irrigation	Municipal Image: Test Hole Image: Cooling & Air C	Dewatering Monitoring Conditioning	· · · -	in pumping (n(/ft)	5	<u>9.6</u> 5	9.2
Air percussion	Industrial			SS If flowing give rate (I/n		10	<u>9.8</u> 10 9.8 15	<u>9.2</u> 9.2
Inside Open Hole		Depth (r_1/f_1)	tatus of Well	Recommended pump		20	<u>9.8</u> 20	3.2
(cm(n) Concrete, F	Plastic, Šteel) (cm(in) Fro		Replacement Well Fest Hole Recharge Well	Recommended pump	rate	25 30	<u>9.8</u> 25 9.6 30	<u>9.2</u> -
614 Steel			Dewatering Well Observation and/or	20 Well production (I/min	/ GPM)	40	<u>8.8</u> 40	<u> </u>



Environment Testing

Client:	Paterson Group		Report Number:	3004563
Oliciti.	•		•	
	9 Auriga Dr		Date Submitted:	2024-01-17
	Nepean, ON		Date Reported:	2024-01-23
	K2E 7T9		Project:	PH4334
A 11 12			COC #:	912648
Attention:	Mr. Alex Schopf		888 #:	512040
PO#:	59243			
Invoice to:	Paterson Group	Page 1 of 14		

Dear Alex Schopf:

🛟 eurofins

Please find attached the analytical results for your samples. If you have any questions regarding this report, please do not hesitate to call (613-727-5692).

Report Comments:

Emma-Dawn Ferguson 2024.01.23 11:42:01 -05'00'

APPROVAL:

Emma-Dawn Ferguson, Chemist

All analysis is completed at Eurofins Environment Testing Canada Inc. (Ottawa, Ontario) unless otherwise indicated.

Eurofins Environment Testing Canada Inc. (Ottawa, Ontario) 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: <u>https://directory.cala.ca/</u>.

Eurofins Environment Testing Canada Inc. (Ottawa, Ontario) is licensed by the Ontario Ministry of the Environment, Conservation, and Parks (MECP) for specific tests in drinking water (license #2318). A copy of the license is available upon request.

Eurofins Environment Testing Canada Inc. (Ottawa, Ontario) is accredited by the Ontario Ministry of Agriculture, Food, and Rural Affairs for specific tests in agricultural soils.

Please note: Field data, where presented on the report, has been provided by the client and is presented for informational purposes only. Guideline values listed on this report are provided for ease of use (informational purposes) only. Eurofins recommends consulting the official provincial or federal guideline as required. Unless otherwise stated, measurement uncertainty is not taken into account when determining guideline or regulatory exceedances.



Environment Testing

Client:	Paterson Group
	9 Auriga Dr
	Nepean, ON
	K2E 7T9
Attention:	Mr. Alex Schopf
PO#:	59243
Invoice to:	Paterson Group

Report Number:	3004563
Date Submitted:	2024-01-17
Date Reported:	2024-01-23
Project:	PH4334
COC #:	912648

				Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.	1716148 GW 2024-01-16 TW1-GW1	1716149 GW 2024-01-16 TW1-GW2
Group	Analyte	MRL	Units	Guideline		
Anions	CI	1	mg/L	AO 250	146	134
	F	0.10	mg/L	MAC 1.5	<0.10	<0.10
	N-NO2	0.10	mg/L	MAC 1.0	<0.10	<0.10
	N-NO3	0.10	mg/L	MAC 10.0	0.31	0.41
	SO4	1	mg/L	AO 500	66	66
General Chemistry	Alkalinity as CaCO3	5	mg/L	OG 30-500	306	317
	Colour (Apparent)	2	TCU	AO 5	20*	19*
	Conductivity	5	uS/cm		1000	994
	DOC	0.5	mg/L	AO 5	1.8	1.7
	рН	1.00		6.5-8.5	7.81	7.77
	Phenols	0.001	mg/L		<0.001	<0.001
	S2-	0.01	mg/L	AO 0.05	<0.01	<0.01
	Tannin & Lignin	0.1	mg/L		<0.1	<0.1
	TDS (COND - CALC)	1	mg/L	AO 500	650*	646*
	Turbidity	0.1	NTU	AO 5	4.2	2.9
Hardness	Hardness as CaCO3	1	mg/L	OG 80-100	430*	430*
Hydrocarbons	F1 (C6-C10)	20	ug/L			<20
	F1-BTEX (C6-C10)	20	ug/L			<20
	F2 (C10-C16)	20	ug/L			<20
	F3 (C16-C34)	50	ug/L			<50
	F4 (C34-C50)	50	ug/L			<50
Indices/Calc	Ion Balance	0.01			0.96	0.97
Metals	Ag	0.0001	mg/L		<0.0001	<0.0001
	Al	0.01	mg/L	OG 0.1	<0.01	<0.01
	As	0.001	mg/L	IMAC 0.01	<0.001	<0.001

Guideline = ODWSOG

* = Guideline Exceedence

🔅 eurofins

Certificate of Analysis

Environment Testing

Client:	Paterson Group
	9 Auriga Dr
	Nepean, ON
	K2E 7T9
Attention:	Mr. Alex Schopf
PO#:	59243
Invoice to:	Paterson Group

Report Number:	3004563
Date Submitted:	2024-01-17
Date Reported:	2024-01-23
Project:	PH4334
COC #:	912648

				Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.	1716148 GW 2024-01-16 TW1-GW1	1716149 GW 2024-01-16 TW1-GW2
Group	Analyte	MRL	Units	Guideline		
Metals	В	0.01	mg/L	IMAC 5.0	0.02	0.02
	Ва	0.01	mg/L	MAC 1.0	0.17	0.17
	Be	0.0005	mg/L		<0.0005	<0.0005
	Са	1	mg/L		111	111
	Cd	0.0001	mg/L	MAC 0.005	<0.0001	<0.0001
	Со	0.0002	mg/L		0.0003	0.0002
	Cr	0.001	mg/L	MAC 0.05	<0.001	<0.001
	Cu	0.001	mg/L	AO 1	<0.001	<0.001
	Fe	0.03	mg/L	AO 0.3	0.43*	0.30
	Hg	0.0001	mg/L	MAC 0.001	<0.0001	<0.0001
	К	1	mg/L		3	3
	Mg	1	mg/L		37	37
	Mn	0.01	mg/L	AO 0.05	0.02	0.02
	Мо	0.005	mg/L		<0.005	<0.005
	Na	1	mg/L	AO 200	57	59
	Ni	0.005	mg/L		<0.005	<0.005
	Pb	0.001	mg/L	MAC 0.010	<0.001	<0.001
	Sb	0.0005	mg/L	IMAC 0.006	0.0007	0.0005
	Se	0.001	mg/L	MAC 0.05	<0.001	<0.001
	Sr	0.001	mg/L		0.336	0.327
	TI	0.0001	mg/L		<0.0001	<0.0001
	U	0.001	mg/L	MAC 0.02	0.002	0.002
	V	0.001	mg/L		<0.001	<0.001
	Zn	0.01	mg/L	AO 5	<0.01	<0.01
Microbiology	Escherichia Coli	0	ct/100mL	MAC 0	0	0

Guideline = ODWSOG

* = Guideline Exceedence



Environment Testing

Client:	Paterson Group
	9 Auriga Dr
	Nepean, ON
	K2E 7T9
Attention:	Mr. Alex Schopf
PO#:	59243
Invoice to:	Paterson Group

Report Number:	3004563
Date Submitted:	2024-01-17
Date Reported:	2024-01-23
Project:	PH4334
COC #:	912648

0				Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.	1716148 GW 2024-01-16 TW1-GW1	1716149 GW 2024-01-16 TW1-GW2
Group	Analyte	MRL	Units	Guideline		
Microbiology	Total Coliforms	0	ct/100mL	MAC 0	0	0
Nutrients	N-NH3	0.020	mg/L		<0.020	<0.020
	Total Kjeldahl Nitrogen	0.100	mg/L		0.202	0.225
PHC Surrogate	Alpha-androstrane	0	%			71
VOCs Surrogates	1,2-dichloroethane-d4	0	%			118
	4-bromofluorobenzene	0	%			75
	Toluene-d8	0	%			101
Volatiles	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-dichloroethylene	0.5	ug/L	MAC 14		<0.5
	1,2-dichlorobenzene	0.4	ug/L	MAC 200		<0.4
	1,2-dichloroethane	0.5	ug/L	IMAC 5		<0.5
	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
	1,3-Dichloropropylene (cis+trans)	0.5	ug/L			<0.5
-	1,4-dichlorobenzene	0.4	ug/L	MAC 5		<0.4
	Acetone	5	ug/L			<5
	Benzene	0.5	ug/L	MAC 1		<0.5
	Bromodichloromethane	0.3	ug/L			<0.3
	Bromoform	0.4	ug/L			<0.4
-	Bromomethane	0.5	ug/L			<0.5

Guideline = ODWSOG

* = Guideline Exceedence



Environment Testing

Client:	Paterson Group
	9 Auriga Dr
	Nepean, ON
	K2E 7T9
Attention:	Mr. Alex Schopf
PO#:	59243
Invoice to:	Paterson Group

Report Number:	3004563
Date Submitted:	2024-01-17
Date Reported:	2024-01-23
Project:	PH4334
COC #:	912648

Group	Analyte	MRL	Units	Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D. Guideline	1716148 GW 2024-01-16 TW1-GW1	1716149 GW 2024-01-16 TW1-GW2
Volatiles	c-1,2-Dichloroethylene	0.4	ug/L			<0.4
	c-1,3-Dichloropropylene	0.5	ug/L			<0.5
	Carbon Tetrachloride	0.2	ug/L	MAC 2		<0.2
	Chloroethane	0.5	ug/L			<0.5
	Chloroform	0.5	ug/L			<0.5
	Dibromochloromethane	0.3	ug/L			<0.3
	Dichlorodifluoromethane	0.5	ug/L			<0.5
	Dichloromethane	4.0	ug/L	MAC 50		<4.0
	Ethylbenzene	0.5	ug/L	MAC 140		<0.5
	Ethylene Dibromide	0.2	ug/L			<0.2
	Hexane	5	ug/L			<5
	m/p-xylene	0.4	ug/L			<0.4
	Methyl Ethyl Ketone (MEK)	2	ug/L			<2
	Methyl Isobutyl Ketone (MIBK)	5	ug/L			<5
	Methyl Tert Butyl Ether (MTBE)	2	ug/L	AO 15		<2
	Monochlorobenzene	0.5	ug/L	MAC 80		<0.5
	o-xylene	0.4	ug/L			<0.4
	Styrene	0.5	ug/L			<0.5
	t-1,2-Dichloroethylene	0.4	ug/L			<0.4
	t-1,3-Dichloropropylene	0.5	ug/L			<0.5
	Tetrachloroethylene	0.3	ug/L	MAC 10		<0.3
	Toluene	0.4	ug/L	MAC 60		<0.4
	Trichloroethylene	0.3	ug/L	MAC 5		<0.3
	Trichlorofluoromethane	0.5	ug/L			<0.5
	Vinyl Chloride	0.2	ug/L	MAC 1		<0.2

Guideline = ODWSOG

* = Guideline Exceedence

Results relate only to the parameters tested on the samples submitted. Methods references and/or additional QA/QC information available on request.

Certificate of Analysis

Client:	Paterson Group	Report Number:	3004563
	9 Auriga Dr	Date Submitted:	2024-01-17
	Nepean, ON	Date Reported:	2024-01-23
	K2E 7T9	Project:	PH4334
Attention:	Mr. Alex Schopf	COC #:	912648
PO#:	59243		
Invoice to:	Paterson Group		

Group	Analyte	MRL	Units	Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D. Guideline	1716148 GW 2024-01-16 TW1-GW1	1716149 GW 2024-01-16 TW1-GW2
Volatiles	Xylene; total	0.5	ug/L	MAC 90		<0.5

Guideline = ODWSOG

🛟 eurofins

* = Guideline Exceedence

Results relate only to the parameters tested on the samples submitted. Methods references and/or additional QA/QC information available on request.

Environment Testing

Paterson Group
9 Auriga Dr
Nepean, ON
K2E 7T9
Mr. Alex Schopf
59243
Paterson Group

🛟 eurofins

Report Number:	3004563
Date Submitted:	2024-01-17
Date Reported:	2024-01-23
Project:	PH4334
COC #:	912648

QC Summary

An	alyte	Blank		QC % Rec	QC Limits
Run No 454854 Method AMBCOLM1	Analysis/Extraction Date 20)24-01-18 A r	nalyst	DRA	
Escherichia Coli					
Total Coliforms					
Run No 454855 Method C SM2130B	Analysis/Extraction Date 20)24-01-17 A r	alyst	AsA	
Turbidity		<0.1 NTU		101	70-130
Run No 454889 Method C SM2120C	Analysis/Extraction Date 20)24-01-18 A r	alyst	AsA	
Colour (Apparent)		<2 TCU		119	90-110
Run No 454896 Method M SM3120B-3	Analysis/Extraction Date 20)24-01-18 A r	alyst	Z S	
Calcium		<1 mg/L		100	90-110
Potassium		<1 mg/L		96	87-113
Magnesium		<1 mg/L		96	76-124
Sodium		<1 mg/L		95	82-118
Run No 454898 Method EPA 351.2	Analysis/Extraction Date 20)24-01-18 A r	alyst	SKH	
Total Kjeldahl Nitr	ogen	<0.100 mg/L		95	70-130

Guideline = ODWSOG

* = Guideline Exceedence

Results relate only to the parameters tested on the samples submitted. Methods references and/or additional QA/QC information available on request.

Environment Testing

Client:	Paterson Group	
	9 Auriga Dr	
	Nepean, ON	
	K2E 7T9	
Attention:	Mr. Alex Schopf	
PO#:	59243	
Invoice to:	Paterson Group	

🛟 eurofins

Report Number:	3004563
Date Submitted:	2024-01-17
Date Reported:	2024-01-23
Project:	PH4334
COC #:	912648

QC Summary

Analyte	Blank	QC % Rec	QC Limits
Run No 454909 Analysis/Extraction Date 20 Method C SM5550B	24-01-18 An a	alyst AsA	
Tannin & Lignin	<0.1 mg/L	90	80-120
Run No454910Analysis/Extraction Date20MethodC SM4500-S2-D	24-01-18 An a	alyst AsA	
S2-	<0.01 mg/L	108	80-120
Run No454912Analysis/Extraction Date20MethodSM 4110	24-01-18 An a	alyst AaN	
N-NO2	<0.10 mg/L	103	90-110
N-NO3	<0.10 mg/L	104	90-110
SO4	<1 mg/L	100	90-110
Run No454913Analysis/Extraction Date20MethodEPA 8260	24-01-18 An a	alyst SS	
Tetrachloroethane, 1,1,1,2-	<0.5 ug/L	122	60-130
Trichloroethane, 1,1,1-	<0.4 ug/L	115	60-130
Tetrachloroethane, 1,1,2,2-	<0.5 ug/L	119	60-130
Trichloroethane, 1,1,2-	<0.4 ug/L	121	60-130
Dichloroethane, 1,1-	<0.4 ug/L	117	60-130
Dichloroethylene, 1,1-	<0.5 ug/L	108	60-130

Guideline = ODWSOG

* = Guideline Exceedence

Results relate only to the parameters tested on the samples submitted. Methods references and/or additional QA/QC information available on request.

Client:	Paterson Group	
	9 Auriga Dr	
	Nepean, ON	
	K2E 7T9	
Attention:	Mr. Alex Schopf	
PO#:	59243	
Invoice to:	Paterson Group	

🛟 eurofins

Report Number:	3004563
Date Submitted:	2024-01-17
Date Reported:	2024-01-23
Project:	PH4334
COC #:	912648

Analyte	Blank	QC % Rec	QC Limits
Dichlorobenzene, 1,2-	<0.4 ug/L	120	60-130
Dichloroethane, 1,2-	<0.5 ug/L	121	60-130
Dichloropropane, 1,2-	<0.5 ug/L	124	60-130
1,3,5-trimethylbenzene	<0.3 ug/L	115	60-130
Dichlorobenzene, 1,3-	<0.4 ug/L	120	60-130
Dichlorobenzene, 1,4-	<0.4 ug/L	121	60-130
Acetone	<5 ug/L	120	60-130
Benzene	<0.5 ug/L	113	60-130
Bromodichloromethane	<0.3 ug/L	120	60-130
Bromoform	<0.4 ug/L	118	60-130
Bromomethane	<0.5 ug/L	105	60-130
Dichloroethylene, 1,2-cis-	<0.4 ug/L	121	60-130
Dichloropropene,1,3-cis-	<0.5 ug/L	118	60-130
Carbon Tetrachloride	<0.2 ug/L	115	60-130
Chloroethane	<0.5 ug/L	99	60-130
Chloroform	<0.5 ug/L	121	60-130
Dibromochloromethane	<0.3 ug/L	120	60-130
Dichlorodifluoromethane	<0.5 ug/L	114	60-130

QC Summary

Guideline = ODWSOG

* = Guideline Exceedence

Results relate only to the parameters tested on the samples submitted. Methods references and/or additional QA/QC information available on request.

Client:	Paterson Group
	9 Auriga Dr
	Nepean, ON
	K2E 7T9
Attention:	Mr. Alex Schopf
PO#:	59243
Invoice to:	Paterson Group

🛟 eurofins

Report Number:	3004563
Date Submitted:	2024-01-17
Date Reported:	2024-01-23
Project:	PH4334
COC #:	912648

Analyte	Blank	QC % Rec	QC Limits
Methylene Chloride	<4.0 ug/L	102	60-130
Ethylbenzene	<0.5 ug/L	116	60-130
Ethylene dibromide	<0.2 ug/L	120	60-130
Hexane (n)	<5 ug/L	110	60-130
m/p-xylene	<0.4 ug/L	119	60-130
Methyl Ethyl Ketone	<2 ug/L	120	60-130
Methyl Isobutyl Ketone	<5 ug/L	120	60-130
Methyl tert-Butyl Ether (MTBE)	<2 ug/L	120	60-130
Chlorobenzene	<0.5 ug/L	115	60-130
o-xylene	<0.4 ug/L	117	60-130
Styrene	<0.5 ug/L	117	60-130
Dichloroethylene, 1,2-trans-	<0.4 ug/L	120	60-130
Dichloropropene,1,3-trans-	<0.5 ug/L	119	60-130
Tetrachloroethylene	<0.3 ug/L	119	60-130
Toluene	<0.4 ug/L	115	60-130
Trichloroethylene	<0.3 ug/L	115	60-130
Trichlorofluoromethane	<0.5 ug/L	116	60-130
Vinyl Chloride	<0.2 ug/L	106	60-130

QC Summary

Guideline = ODWSOG

* = Guideline Exceedence

Results relate only to the parameters tested on the samples submitted. Methods references and/or additional QA/QC information available on request.

Environment Testing

Client:	Paterson Group	
	9 Auriga Dr	
	Nepean, ON	
	K2E 7T9	
Attention:	Mr. Alex Schopf	
PO#:	59243	
Invoice to:	Paterson Group	

🛟 eurofins

Report Number:	3004563
Date Submitted:	2024-01-17
Date Reported:	2024-01-23
Project:	PH4334
COC #:	912648

QC Summary

Analyte	Blank	QC % Rec	QC Limits
Run No 454931 Analysis/Extraction Date Method EPA 350.1	2024-01-19 Ana	ilyst SKH	
N-NH3	<0.020 mg/L	97	80-120
Run No454939Analysis/Extraction DateMethodEPA 200.8	2024-01-18 Ana	alyst AaN	
Silver	<0.0001 mg/L	119	80-120
Aluminum	<0.01 mg/L	100	80-120
Arsenic	<0.001 mg/L	94	80-120
Boron (total)	<0.01 mg/L	104	80-120
Barium	<0.01 mg/L	92	80-120
Beryllium	<0.0005 mg/L	105	80-120
Cadmium	<0.0001 mg/L	95	80-120
Cobalt	<0.0002 mg/L	97	80-120
Chromium Total	<0.001 mg/L	110	80-120
Copper	<0.001 mg/L	97	80-120
Iron	<0.03 mg/L	92	80-120
Mercury	<0.0001 mg/L	101	80-120
Manganese	<0.01 mg/L	98	80-120

Guideline = ODWSOG

* = Guideline Exceedence

Results relate only to the parameters tested on the samples submitted. Methods references and/or additional QA/QC information available on request.

Client:	Paterson Group
	9 Auriga Dr
	Nepean, ON
	K2E 7T9
Attention:	Mr. Alex Schopf
PO#:	59243
Invoice to:	Paterson Group

🛟 eurofins

Report Number:	3004563
Date Submitted:	2024-01-17
Date Reported:	2024-01-23
Project:	PH4334
COC #:	912648

Analyte	Blank	QC % Rec	QC Limits
Molybdenum	<0.005 mg/L	86	80-120
Nickel	<0.005 mg/L	92	80-120
Lead	<0.001 mg/L	94	80-120
Antimony	<0.0005 mg/L	86	80-120
Selenium	<0.001 mg/L	100	80-120
Strontium	<0.001 mg/L	93	80-120
Thallium	<0.0001 mg/L	95	80-120
Uranium	<0.001 mg/L	89	80-120
Vanadium	<0.001 mg/L	95	80-120
Zinc	<0.01 mg/L	100	80-120
Run No 454945 Analysis/Extraction Date 20 Method CCME O.Reg 153/04	24-01-19 Ana	lyst SS	
Petroleum Hydrocarbons F1	<20 ug/L	95	60-140
Run No454950Analysis/Extraction Date20MethodEPA 8260	24-01-19 Ana	lyst SS	
Xylene Mixture			
Run No454951Analysis/Extraction Date20MethodEPA 8260	24-01-19 Ana	lyst SS	
Dichloropropene,1,3-			

QC Summary

Guideline = ODWSOG

* = Guideline Exceedence

Results relate only to the parameters tested on the samples submitted. Methods references and/or additional QA/QC information available on request.

Environment Testing

Client:	Paterson Group
	9 Auriga Dr
	Nepean, ON
	K2E 7T9
Attention:	Mr. Alex Schopf
PO#:	59243
Invoice to:	Paterson Group

🛟 eurofins

3004563
2024-01-17
2024-01-23
PH4334
912648

QC Summary

Analyte	Blank	QC % Rec	QC Limits
Run No 454952 Analysis/Extraction Date 20 Method CCME O.Reg 153/04)24-01-19 Ana	ilyst SS	
Petroleum Hydrocarbons F1-BTEX			
Run No454970Analysis/Extraction Date20MethodSM 4110)24-01-19 Ana	alyst AET	
Chloride	<1 mg/L	100	90-110
N-NO2	<0.10 mg/L		90-110
N-NO3	<0.10 mg/L	104	90-110
SO4	<1 mg/L	100	90-110
Run No 454987 Analysis/Extraction Date 20 Method SM 5310B)24-01-19 Ana	alyst AsA	
DOC	<0.5 mg/L	100	80-120
Run No455011Analysis/Extraction Date20MethodCCME O.Reg153/04)24-01-22 Ana	alyst PJ	
Petroleum Hydrocarbons F2	<20 ug/L	108	60-140
Petroleum Hydrocarbons F3	<50 ug/L	108	60-140
Petroleum Hydrocarbons F4	<50 ug/L	108	60-140
Run No455033Analysis/Extraction Date20MethodSM5530D/EPA420.2)24-01-22 Ana	alyst IP	

Guideline = ODWSOG

* = Guideline Exceedence

Environment Testing

Client:	Paterson Group
	9 Auriga Dr
	Nepean, ON
	K2E 7T9
Attention:	Mr. Alex Schopf
PO#:	59243
Invoice to:	Paterson Group

🛟 eurofins

Report Number:	3004563
Date Submitted:	2024-01-17
Date Reported:	2024-01-23
Project:	PH4334
COC #:	912648

QC Summary

Analyte	Blank	QC % Rec	QC Limits
Phenols	<0.001 mg/L	112	50-120
Run No 455054 Analysis/Extraction Date 20 Method SM2320,2510,4500H/F	024-01-22 Ana	lyst AsA	
Alkalinity (CaCO3)	<5 mg/L	103	90-110
Conductivity	<5 uS/cm	99	90-110
F	<0.10 mg/L	102	90-110
рН		100	90-110
Run No455056Analysis/Extraction Date20MethodSM 4110	024-01-23 Ana	lyst IP	
Chloride	<1 mg/L	100	90-110
Run No 455066 Analysis/Extraction Date 20 Method C SM2340B	024-01-23 Ana	lyst AET	
Hardness as CaCO3			
Ion Balance			
TDS (COND - CALC)			

Guideline = ODWSOG

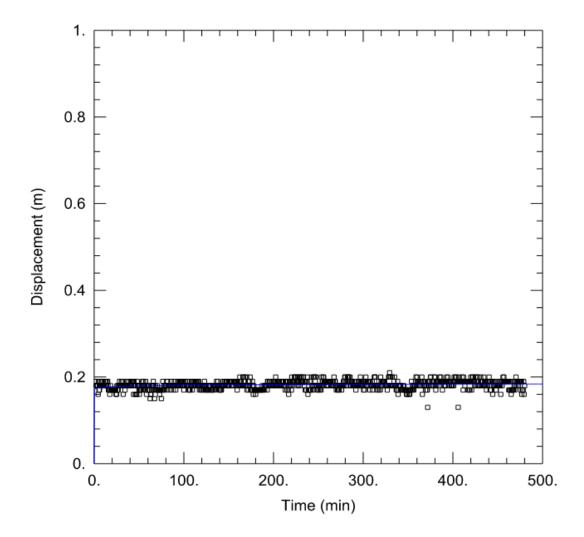
* = Guideline Exceedence

Results relate only to the parameters tested on the samples submitted. Methods references and/or additional QA/QC information available on request.

PH4334-LET.02

Pumping Test Analysis Report

File No.	PH4334	Well ID:	TW1
Date:	Tuesday, January 16, 2024	Solution Method:	Theis
Client:	Myers Automotive Group	Transmissitivity (m2/day):	4925.1
Site Address:	1468 Bankfield Road	Discharge Rate (L/min)	76
Project:	Re-zoning and Site Plan Control Application	Analysis performed by:	AS

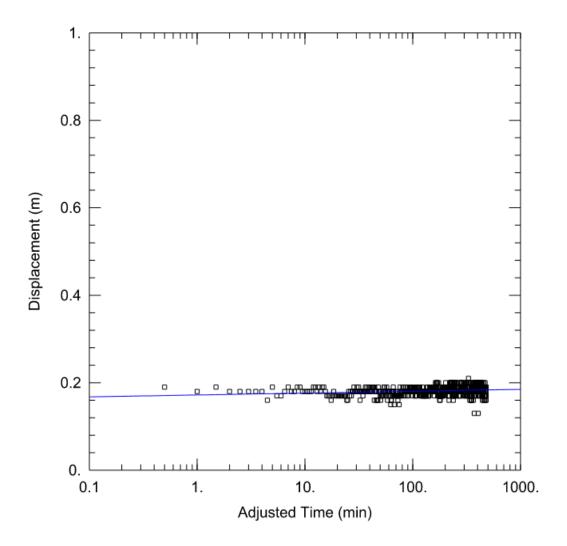




PH4334-LET.02

Pumping Test Analysis Report

File No.	PH4334	Well ID:	TW1
Date:	Tuesday, January 16, 2024	Solution Method:	Cooper-Jacob
Client:	Myers Automotive Group	Transmissitivity (m2/day):	4925.1
Site Address:	1468 Bankfield Road	Discharge Rate (L/min)	76
Project:	Re-zoning and Site Plan Control Application	Analysis performed by:	AS





Pumping Test Analysis Report

File No.	PH4334
Date:	Tuesday, January 16, 2024
Client:	Myers Automotive Group
Site Address:	1468 Bankfield Road
Project:	Re-zoning and Site Plan Control Application

Summary Table:							
Solution Method:	Well ID: Transmissitivity (m2/day						
Theis	TW1	4925.1					
Cooper-Jacob	TW1	4925.1					
Average:		4925.10					





TW1 In	puts						
pH TDS Hardness Alkalinity	7.77 646 430 317 7.5	A B C D		0.18 2.43 2.23 2.50			
Temp.	7.5	pHs =		7.179616337			
Lange	ier Saturation Ind	k (LSI) Calculation	(Lan	gelier, 1936)			
	LSI = pH - pHs	A = (Log10 [TDS	A = (Log10 [TDS] - 1) / 10				
	pHs = (9.3 + A + B) - (C +	B = -13.12 x Log	B = -13.12 x Log10 (oC + 273) + 34.55				
	Where:	C = Log10 [Ca2+	C = Log10 [Ca2+ as CaCO3] - 0.4				
		D = Log10 [alka	D = Log10 [alkalinity as CaCO3]				
			LSI =	0.6	[
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).						

