

154 Colonnade Road
Ottawa, Ontario
Canada, K2E 7J5
Tel: (613) 226-7381

March 2, 2022
File: PH4407-LET.01.

Dymech Engineering Inc.
1359 Coker Street,
Ottawa (Greely), ON
K4P 1A1

Geotechnical Engineering
Environmental Engineering
Hydrogeology
Geological Engineering
Materials Testing
Building Science

www.patersongroup.ca

Attention: **Mat Main**

Subject: **Hydrogeological Assessment and Terrain Analysis**
1353 Coker Street
Ottawa (Greely), Ontario

HYDROGEOLOGICAL ASSESSMENT

INTRODUCTION

Further to your request, Paterson Group (Paterson) conducted a Hydrogeological Assessment and Terrain Analysis in support of a site plan application for the proposed warehouse addition to be located at 1353 Coker Street in Ottawa (Greely), Ontario. Please refer to Figure 1 - Key Plan attached for the site location.

The purpose of this work has been to determine the suitability of the water supply aquifer underlying the subject site to service the proposed development in support of a site plan application.

The subject site is an approximately 0.27 hectare (ha) parcel. The ground surface across the site is relatively flat, with a general downslope direction to the south. The general overburden groundwater flow direction is assumed to be south towards the Osgoode Gardens Cedar Acres municipal drain.

The subject site is bordered to the north, east and west by developed commercial properties and to the south by Coker Street followed by additional developed commercial properties. The subject site and all of the neighboring land parcels are zoned RG3 (Rural General Industrial Zone subzone 3).

A Hydrogeological and Terrain Analysis Pre-consultation was completed with a City of Ottawa Hydrogeologist on November 11, 2021, where it was determined that as the

application is for Site Plan application, that nitrate reduction technologies would be allowed in support of the Sewage System Impact Assessment (Terrain Analysis).

DESCRIPTION OF SUBJECT SITE

The subject site is an approximately 0.27 ha lot and is currently occupied by a one storey commercial building. The Site Plan application is for a proposed warehouse addition. Please refer to D.B. Grey Engineering Inc. Drawing A-002 - New Site Plan + Notes attached for proposed site layout. The subject site is currently serviced by an onsite sewage system and a private drilled well, and a new sewage system is proposed to be located in the same location as the old sewage system.

Paterson has completed a replacement sewage system design for the proposed development. A septic flow value of 1,900 L/day was used for the existing building and a septic flow value of 1,700 L/day was calculated for the proposed building addition. This results in a total daily water demand calculation of 3,600 L/day.

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

FIELDWORK PROGRAM

As a means to demonstrate the adequacy of the aquifer underlying the subject lands, with respect to water quality and quantity, the onsite water supply well tested. A WWR was not available for the well, however Paterson field staff measured the well while the existing submersible pump was removed for the constant rate pumping test. The well, referred to as TW1, was measured to have a 150 mm diameter steel casing extending to a depth of 16.1 m below the ground surface (bgs). The total depth of the well was measured to be 22.1 m bgs. Based upon available geological mapping, the drift thickness at TW1 varies from 5 to 10 m bgs. Refer to Paterson Drawing PH4407-3 for the location of TW1.

As a means to evaluate the water supply aquifer intercepted by the well, the well was subjected to a 8 hour constant rate pumping test. The pumping test was conducted on February 3, 2022 under the full-time supervision of Paterson personnel.

A submersible pump was provided by Air Rock for the 8 hour pumping test. A licensed water well technician was retained to complete the necessary plumbing related activities. The existing pump was removed from the well by a licensed well technician, and a rented submersible pump was used for the pumping test. 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. Upon completion of the test, the pump was removed, the existing pump was re-installed, and the well was disinfected by Air Rock.

The pumping test was carried out at a pumping rate of approximately 19 L/min for a duration of 8 hours, after which the pumping rate was reduced to 9 L/min for a half hour in an attempt to lower turbidity levels. During the pumping test, the pumping rate was periodically measured using the timed volume correlation method. The pump rate was maintained within 5% of the selected pump rate. The static water level was recorded manually and an electronic datalogger (VanEssen TD-Diver) was installed in the test well prior to the start of the pumping test.

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

Recovery data was collected from the well following the completion of the pumping. The well was noted to have achieved 100 % recovery in less than one minute after the completion of the pumping test.

Groundwater samples were collected at 4 hours and 8.5 hours after the start of pumping. Prior to collection of the groundwater samples, the free chlorine residual was verified to be 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, and Volatile Organic Compounds (VOC'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 the 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 8.5 hour pumping test. The parameters tested at the well head included: pH, total dissolved solids, conductivity, turbidity, apparent colour and temperature.

The generator which powered the rented submersible pump for the pumping test temporarily failed at approximately the 6 hour mark of the pumping test, however Paterson was able to quickly restart the generator to finish the 8 hour test. Due to the spike in the data from the generator failure, the data collected from the first 6 hours of the pumping test was used in support of this study, however the data from all 8.5 hours is included in this report.

The turbidity level recorded during the field program was higher than the maximum of 5 NTU (field measurement of approximately 6.5 NTU) during the 8 hour constant rate pumping test. After 8 hours of constant rate pumping at 19 L/min, the pumping rate was

lowered to 9 L/min for a half hour. The recorded field turbidity after lowering the rate was on the order of 3.4 NTU.

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.

AQUIFER PARAMETER	RESULT OF ANALYSIS
Transmissivity (m ² /day)	367
Pumping Rate (L/min)	19
Pre-test Static Water Level (m)	3.2
Maximum Drawdown (m)	1.9
Available Drawdown (m)	18.95
% Drawdown During Pumping Test	5
Specific Capacity (L/min/m drawdown)	10

The drawdown data was analyzed using the Theis and Cooper Jacob methods of analysis. Aquifer transmissivity is estimated to be approximately 367 m²/day.

The pumping test results show that TW1 has a high yield to support the water demands for the proposed development. Overall, maximum drawdown at a constant pumping rate for a period of 8 hrs was approximately 1.9 m (5 % of the available drawdown). 95% recovery was achieved in less than one minute after the end of pumping. The water level was observed to be rising during the constant rate pumping test, with the measured drawdown at the end of the pumping test recorded at 1.0 m.

The total volume of water pumped during the 8 hour pumping event was approximately 9,120 L. This is approximately three times the maximum total daily design volume of water required to support the development as part of the site plan application (approximately 3,600 L/day).

Observations from dataloggers placed in TW1 prior to and during the pumping test indicated that TW1 is hydraulically connected to other water supply wells. The aquifer drawdown recorded outside of the pumping test period is generally on the order of 0.5 m. The recovery from the observed drawdown was very quick, typically on the order of one

minute. Groundwater quantity issues are not expected due to the minimal volume of daily water takings required by the proposed development.

The suitability of the aquifer to supply the proposed development was assessed using the methodology provided in 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 development under typical usage.

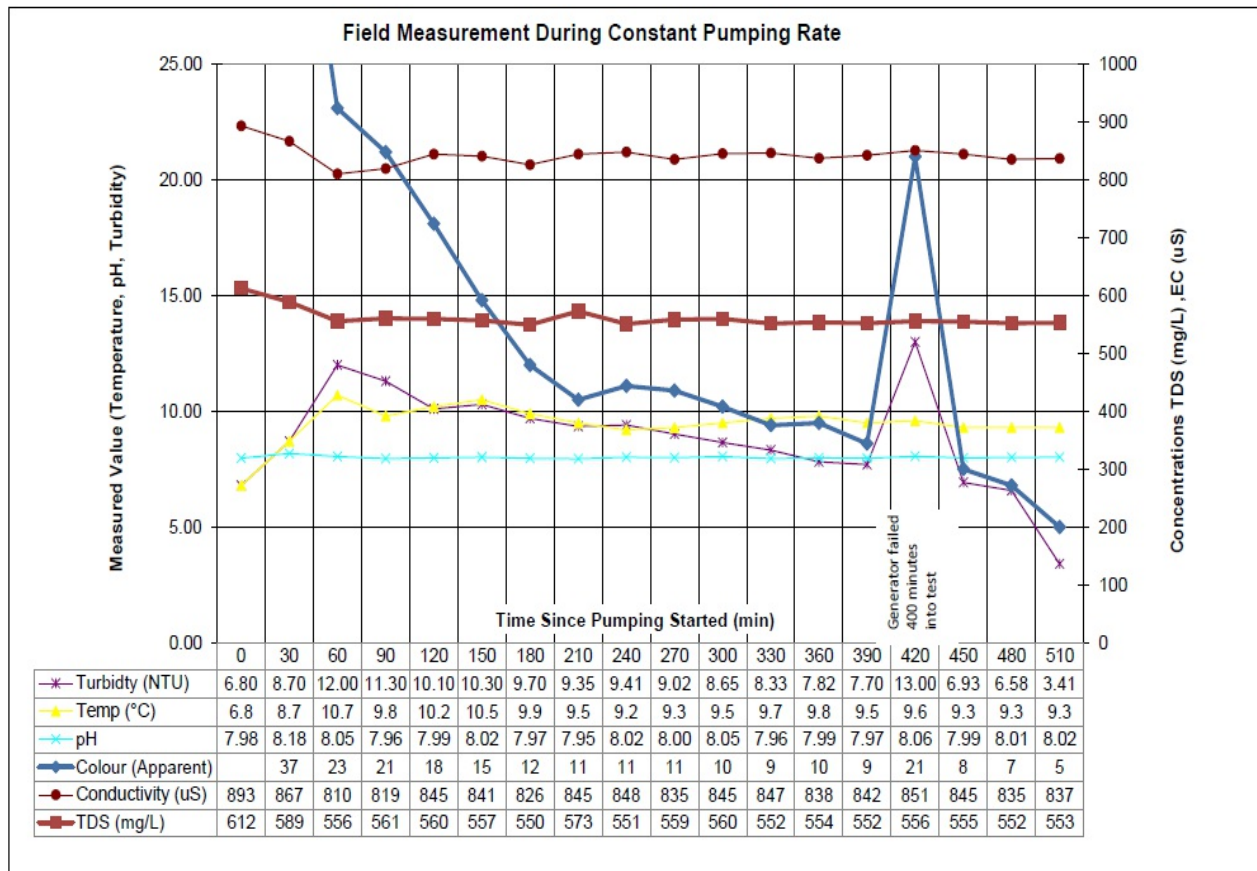
Given the analyses presented and summarized above, it is our opinion that there is an adequate supply of water to service the proposed development in addition to the neighboring lots whose wells may intercept a similar aquifer. Available water well records (WWR's) of the neighbouring properties on the MECP Well Record mapping website indicated that the wells have generally been screened in either a limestone or underlying sandstone bedrock unit. However, two (2) wells are recorded to be screened in gravel with casing extending to a minimum of 11.6 m. Surrounding WWR's are attached to this report.

Water Quality

TW1 is currently supplying the existing building on site, as such the client is familiar with the water quality which TW1 provides.

Field Data

Turbidity, electrical conductivity, total dissolved solids (TDS), pH, apparent 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 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.



Laboratory Data

The laboratory water quality obtained from the pumping test of TW1 is provided in Table 2a 2b, and 2c below and the laboratory analyses reports can be found attached.

TABLE 2a: GROUNDWATER MICROBIOLOGY & GENERAL GEOCHEMISTRY					
PARAMETER	UNITS	ODWS		TW1	
		LIMIT	TYPE	GW1 (4 hr) 2022-02-03	GW2 (8.5 hr) 2022-02-03
MICROBIOLOGICAL					
Escherichia Coli (E.Coli)	ct/100mL	0	MAC	0	0
Total Coliforms	ct/100mL	0	MAC	0	0
GENERAL CHEMICAL - HEALTH RELATED					
Fluoride (F)	mg/L	1.5	MAC	0.16	0.15
Ammonia (N-NH ₃)	mg/L	-	-	<0.010	<0.010
Nitrite (N-NO ₂)	mg/L	1	MAC	<0.10	<0.10
Nitrate (N-NO ₃)	mg/L	10	MAC	<0.10	<0.10
Total Kjeldahl Nitrogen	mg/L	-	-	0.210	0.402
Turbidity (Field)	NTU	1.0 (5.0)	MAC/AO	9.41	3.41
Turbidity (Laboratory)	NTU	1.0 (5.0)	MAC/AO	4.9	2.2
GENERAL CHEMICAL - AESTHETIC RELATED					
Alkalinity (as CaCO ₃)	mg/L	30-500	OG	246	244
Chloride (Cl)	mg/L	250	AO	97	96
Colour	TCU	5	AO	67	28
Colour (Field - Apparent)	TCU	5	AO	11	5
Conductivity	uS/cm	-	-	848	840
Dissolved Organic Carbon	mg/L	5	AO	2.4	2.5
Hardness (as CaCO ₃)	mg/L	100	OG	384	380
Ion Balance	unitless	-	-	0.98	0.98
pH	unitless	6.5-8.5	AO	8.02	8.07
Phenols	mg/L	-	-	<0.001	<0.001
Sulphate (SO ₄)	mg/L	500	AO	70	70
Sulphide (S ₂)	mg/L	0.05	AO		<0.02
Tannin & Lignin	mg/L	-	-	0.9	0.9
Total Dissolved Solids	mg/L	500	AO	551	546

- ODWS identifies the following types of parameters:
 - MAC = Maximum Allowable Concentration
 - AO = Aesthetic Objective
 - OG = Operational Guideline
- Shaded Concentration Indicates an Exceedance of the ODWS Objective

TABLE 2b: GROUNDWATER GEOCHEMISTRY - METALS					
PARAMETER	UNITS	ODWS		TW1	
		LIMIT	TYPE	GW1 (4 hr)	GW2 (8.5 hr)
				2022-02-03	2022-02-03
Volatiles					
Aluminum (Al)	mg/L	0.1	OG	<0.01	<0.01
Antimony (Sb)	mg/L	0.006	IMAC	<0.0005	<0.0005
Arsenic (As)	mg/L	0.01	IMAC	<0.001	<0.001
Barium (Ba)	mg/L	1.0	MAC	0.40	0.40
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	-	-	101	101
Chromium (Cr)	mg/L	0.05	MAC	<0.001	<0.001
Cobalt (Co)	mg/L	-	-	<0.0002	<0.0002
Copper (Cu)	mg/L	1.0	AO	0.008	0.003
Iron (Fe)	mg/L	0.3	AO	0.58	0.46
Lead (Pb)	mg/L	0.01	MAC	<0.001	<0.001
Magnesium (Mg)	mg/L	-	-	32	31
Manganese (Mn)	mg/L	0.05	AO	0.03	0.03
Mercury (Hg)	mg/L	0.001	MAC	<0.0001	<0.0001
Molybdenum (Mo)	mg/L	-	-	<0.005	<0.005
Nickle (Ni)	mg/L	-	-	<0.005	<0.005
Potassium (K)	mg/L	-	-	2	2
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	28	28
Strontium (Sr)	mg/L	-	-	0.306	0.293
Thallium (Tl)	mg/L	-	-	<0.0001	<0.0001
Uranium (U)	mg/L	0.02	MAC	<0.001	<0.001
Vanadium (V)	mg/L	-	-	<0.001	<0.001
Zinc (Zn)	mg/L	5.0	AO	<0.01	<0.01

1. ODWS identifies the following types of parameters:
MAC = Maximum Acceptable Concentration
IMAC = Interim Maximum Acceptable Concentration
AO = Aesthetic Objective
OG = Operational Guideline
2. Shaded Concentration Indicates an Exceedance of the ODWS Objective

TABLE 2c: GROUNDWATER GEOCHEMISTRY - VOLATILES					
PARAMETER	UNITS	ODWS		TW1	
		LIMIT	TYPE	GW1 (4 hr)	GW2 (8.5 hr)
				2022-02-03	2022-02-03
VOCs Surrogates					
1,2-dichloroethane-d4	%	-	-	110	120
4-bromofluorobenzene	%	-	-	82	73
Toluene-d8	%	-	-	119	103
Volatiles					
1,1,1,2-tetrachloroethane	µg/L	-	-	<0.5	<0.5
1,1,1-trichloroethane	µg/L	-	-	<0.4	<0.4
1,1,2,2-tetrachloroethane	µg/L	-	-	<0.5	<0.5
1,1,2-trichloroethane	µg/L	-	-	<0.4	<0.4
1,1-dichloroethane	µg/L	-	-	<0.4	<0.4
1,1-dichloroethylene	µg/L	14.0	MAC	<0.5	<0.5
1,2-dichlorobenzene	µg/L	200.0	MAC	<0.4	<0.4
1,2-dichloroethane	µg/L	5.0	IMAC	<0.2	<0.2
1,2-dichloropropane	µg/L	-	-	<0.5	<0.5
1,3,5-trimethylbenzene	µg/L	-	-	<0.3	<0.3
1,3-dichlorobenzene	µg/L	-	-	<0.4	<0.4
1,3-Dichloropropylene (cis+trans)	µg/L	-	-	<0.3	<0.3
1,4-dichlorobenzene	µg/L	5.0	MAC	<0.4	<0.4
Acetone	µg/L	-	-	<30	<30
Benzene	µg/L	1.0	MAC	<0.5	<0.5
Bromodichloromethane	µg/L	-	-	<0.3	<0.3
Bromoform	µg/L	-	-	<0.4	<0.4
Bromomethane	µg/L	-	-	<0.5	<0.5
c-1,2-Dichloroethylene	µg/L	-	-	<0.4	<0.4
c-1,3-Dichloropropylene	µg/L	-	-	<0.2	<0.2
Carbon Tetrachloride	µg/L	2.0	MAC	<0.2	<0.2
Chloroethane	µg/L	-	-	<0.2	<0.2
Chloroform	µg/L	-	-	<0.5	<0.5
Dibromochloromethane	µg/L	-	-	<0.3	<0.3
Dichlorodifluoromethane	µg/L	-	-	<0.5	<0.5
Dichloromethane	µg/L	50	MAC	<4.0	<4.0
Ethylbenzene	µg/L	140	MAC	<0.5	<0.5
Ethylene Dibromide	µg/L	-	-	<0.2	<0.2
Hexane	µg/L	-	-	<5	<5
m/p-xylene	µg/L	-	-	<0.4	<0.4
Methyl Ethyl Ketone (MEK)	µg/L	-	-	<10	<10
Methyl Isobutyl Ketone (MIBK)	µg/L	-	-	<10	<10
Methyl Tert Butyl Ether (MTBE)	µg/L	15	AO	<2	<2
Monochlorobenzene	µg/L	80	MAC	<0.5	<0.5
o-xylene	µg/L	-	-	<0.4	<0.4
Styrene	µg/L	-	-	<0.5	<0.5
t-1,2-Dichloroethylene	µg/L	-	-	<0.4	<0.4
t-1,3-Dichloropropylene	µg/L	-	-	<0.2	<0.2
Tetrachloroethylene	µg/L	10	MAC	<0.3	<0.3
Toluene	µg/L	60	MAC	<0.4	<0.4
Trichloroethylene	µg/L	5	MAC	<0.3	<0.3
Trichlorofluoromethane	µg/L	-	-	<0.5	<0.5
Vinyl Chloride	µg/L	1	MAC	<0.2	<0.2
Xylene; total	µg/L	90	MAC	<0.5	<0.5

- ODWS identifies the following types of parameters:
 - MAC = Maximum Acceptable Concentration
 - IMAC = Interim Maximum Acceptable Concentration
 - AO = Aesthetic Objective
 - OG = Operational Guideline
- Shaded Concentration Indicates an Exceedance of the ODWS Objective

The bacteriological test results from TW1 at 1353 Coker Street (Certificate of Analysis - Report No. 1971215) indicated that the test samples at the 4 and 8.5 hour interval were non-detect (0 ct/100 mL) for E.Coli and Total Coliforms.

Volatile Organic Compounds (VOC's) were not detected in the groundwater samples taken from TW1.

The water quality of the subject water supply well meets all the Ontario Drinking Water Standards maximum acceptable concentrations (MAC). Furthermore, the water meets all of the aesthetic objectives (AO) and operational guidelines (OG) with the exception of the following:

- Hardness (As CaCO_3)
- Total Dissolved Solids (TDS)
- Colour
- Iron

Exceedances of the above parameters are not uncommon of the water supply in the subject aquifer. As TW1 currently supplies potable water to the existing building, the client is familiar with the quality of the groundwater. Each of these groundwater parameters are discussed in detail below.

Hardness as CaCO_3

Hardness, expressed as calcium carbonate, an operational guideline, does not appear in the ODWS. Rather, it appears in the Technical Support Documents for Ontario Drinking Water Standards, Objectives and Guidelines as a parameter with an operational guideline of 100 mg/L. At the measured concentration of 384, and 380 mg/L in the test wells, the water is considered to be hard, however it is below the reasonable treatable limit of 500 mg/L specified in Table 3 of the MOECC guidance document Procedure D-5-5 (1996). The hardness concentration can be treated using conventional water softener technologies.

TDS

Total dissolved solids (TDS) refers to the concentration of inorganic substances dissolved in water. The main constituents are typically chloride, sulphates, calcium, magnesium and bicarbonates. There are various levels of the constituents at a low level and it is not anticipated that they will cause an issue with taste. 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 Saturation Index (Langelier, 1936) is used to predict the calcium carbonate stability of water. It indicates whether the water will precipitate, dissolve, or be in equilibrium with calcium carbonate. The Langelier calculation provided an LSI of 0.8. 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.

Colour

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

A Hach DR900 colorimeter was used to measure field colour (apparent colour) in the groundwater during the constant rate pumping test. Apparent colour in the groundwater was measured to be 5 TCU at the end of the pumping test. The elevated colour levels detected in the lab samples is attributed to the precipitation of iron out of the groundwater.

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 the test well is considered to be reasonably treatable in accordance with Procedure D-5-5. It is recommended that an iron filter be used to reduce the levels of iron and reduce the potential for excessive precipitate occurring in the water supply system, if desired.

Turbidity

Turbidity, which is generally an aesthetic parameter, was detected in the laboratory test samples at value of 4.9 NTU at the 4 hour portion of the test, and 2.2 NTU at the endpoint of the pumping test of the test well. Continued pumping showed a decrease towards the end of the test, and was especially noted when the pumping rate was reduced to 9 L/min. It is expected further development of the well would further reduce turbidity values.

The ODWS 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.

Sodium

Sodium (Na), an aesthetic parameter, was detected in the laboratory test samples at a concentration of 28 mg/L in both tests, which does not exceed the ODWS aesthetic objective of 200 mg/L. Although sodium is not toxic and no maximum acceptable concentration has been set, concentrations above 20 mg/L require that the Medical Officer of Health be notified of the water quality results, so that this information may be passed on to local physicians for use in treatment of those requiring a sodium-restricted diet.

TERRAIN ANALYSIS

Surficial Geology

A series of test pits were put down on the subject parcel to delineate the subsurface soil conditions as part of the geotechnical investigation (Paterson Report PG6052-1 dated January 16, 2022). On December 17, 2021 four (4) test pits were excavated on the property for the design of the proposed warehouse addition and its associated infrastructure. The location of the test pits on the property are delineated on the Test Hole Location Plan, Drawing No. PG6052-1, attached.

The test hole locations were recorded and the subsurface conditions, including the soil morphology and depth to the groundwater table (if encountered), were carefully observed and recorded. The soils encountered were classified texturally in the field, and later reviewed in the laboratory.

The test pits were advanced to a maximum depth of 3.2 m below ground surface (bgs). Bedrock was not encountered during the test pit program. Based upon available geological mapping, the drift thickness across the site varies from 5 to 10 m bgs

According to the test pit logs, the subsurface profile consisted of a fill of varying compositions extending to depths of 0.6 to 0.8 m bgs generally underlain by a brown silty sand. The underlying brown silty sand layer was not seen in TP2-21. Underlying the brown silty sand was a stiff to very stiff grey silty clay. Groundwater was observed at depths between 0.4 to 1.0 m bgs in the test pits.

Reference should be made to the test pit logs appended to this report for the details of the soil profiles encountered at each test hole location. The client should be aware that any information pertaining to soils are furnished as a matter of general information only and borehole descriptions are not to be interpreted as descriptive of conditions at locations other than those described by the boreholes themselves.

It should be noted that groundwater levels can fluctuate both seasonally and in conjunction with precipitation events. Therefore, groundwater levels could vary at the time of construction.

Hydrogeological Sensitivity of the Site

The subject site is currently occupied by a one storey commercial building which fronts onto Coker Street. The subject site is bordered to the north, east and west by developed commercial properties and to the south by Coker Street followed by additional developed commercial properties. All surrounding properties are on private services. The adjacent properties are serviced by private wells and septic systems.

The ground surface across the site is relatively flat, with a general downslope direction to the south. The general overburden groundwater flow direction is assumed to be south towards the Osgoode Gardens Cedar Acres municipal drain. The regional groundwater flow is considered to be in an southeasterly direction, towards the North Castor River.

The overburden generally consists of a fill overlying a brown silty sand which is underlain by a grey silty clay. Bedrock was not encountered during the field program. According to available geological mapping, the drift thickness within the site varies from 5 to 10 m bgs. According to the geotechnical field investigation, the overburden thickness was observed to be greater than 2 m.

As the proposed site does not have bedrock within 2.0 m of the ground surface, the site is not considered hydrogeologically sensitive. Separation distances are not required to be increased between the septic components and the onsite well.

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

Conceptual Lot Development Plan

It is proposed to add a warehouse to the existing site which is currently occupied by a one storey commercial building. The location of the existing and proposed structures can be found on the attached PH4407 - 3 - Water Well location Plan, attached. It illustrates that the proposed design layout is adequate to accommodate the associated private services and meet all the regulated separation criteria. Please note that the proposed design layout is not meant to restrict the location of the proposed buildings or private services and is designed to demonstrate that the minimum separation distances can be achieved.

Proposed Sewage System

Paterson has completed a replacement sewage system design for the proposed development. A septic flow value of 1,900 L/day was used for the existing building and a septic flow value of 1,700 L/day was calculated for the proposed building addition. This results in a total daily design sewage flow (TDDSF) of 3,600 L/day.

PREDICTIVE NITRATE IMPACT ASSESSMENT

In order to demonstrate that private services would adequately support the proposed commercial development, a predictive nitrate impact assessment for the subject site was completed. The values shown in the Predictive Nitrate Impact Assessment attached to this report are summarized below.

<input type="checkbox"/>	Site area	0.27 Ha
<input type="checkbox"/>	Impervious area %	45 %
<input type="checkbox"/>	Daily sewage flow	3.6 m ³
<input type="checkbox"/>	Concentration of nitrate in effluent (Value based on typical effluent concentration)	40 mg/L
<input type="checkbox"/>	Concentration of nitrate in effluent with treatment (Value based on tertiary treatment system with 90% nitrate reduction)	4 mg/L
<input type="checkbox"/>	Surplus Water (The surplus water value was estimated based on Environment Canada Climate Office values with a soil type comprised of fine sandy loam (Urban Lawns) and anthropogenic sources.)	379 mm/year
<input type="checkbox"/>	Combined infiltration factor based on:	0.70
	● Topography infiltration factor	0.30
	● Soil texture infiltration factor	0.30
	● Cover infiltration factor	0.10

The topography infiltration factor of 0.30 is based upon a flat land with average slope of < 0.6 m / km for the proposed development.

The soil texture infiltration factor was based upon an average of “open sandy loam” with a value of 0.4 and “medium combinations of clay and loam” with a value of 0.2 which is a reasonable generalization based upon the site investigations and available geological mapping.

The “vegetative cover infiltration factor” was calculated as 0.1 based upon the minimum value for cultivated land.

The calculation for a conventional sewage system results in a predicted nitrate concentration of 30.8 mg/L nitrate concentration for the subject site, using a value of 40 mg/L nitrate concentration within the effluent. This value was based upon using a septic flow value of 3,600 L/day for the daily sewage flow. It is expected that the actual usage should be lower.

An existing approved tertiary treatment system capable of reducing the nitrate loading in the effluent is the Waterloo Biofilter brand. The system has an available nitrate reduction of 25 to 35% based upon the standard single pass system and 50 to 65% based upon a double pass re-circulation system. With the addition of the WaterNOx system, 90 to 95% total nitrogen removal can be achieved. This would reduce the nitrate concentration in the

effluent from 40 mg/L down to as low as 4 mg/L. Provided the value of 30.8 mg/L of nitrates for the fully sized system, a 90% reduction would provide a value of 3.1 mg/L. A WaterNOx system has been included in the new septic design for the property, as shown in the attached Paterson drawing, PH4407-1-REV.02.

Based on the results of the predicted nitrate impact assessment, it is our opinion that the proposed property can adequately support the proposed commercial development without having an adverse impact on the underlying bedrock aquifer

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 warehouse addition.
2. As TW1 currently provides potable water to the existing building, the client is familiar with the quality of the groundwater.
3. The preferred water supply aquifer intercepted by the test wells contains a water supply that is potable, and contains only elevated concentrations of Hardness, TDS, Colour, and Iron. All of the parameters can be treated with current readily available water conditioning equipment.
4. The sodium concentrations were 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. A residential 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.
6. If desired, the client can use a iron filter to treat the potential iron values.
7. If desired, the client can use a carbon filter to treat the potential colour values.
8. Any private water supply wells (drilled) and the onsite sewage system components must have a minimum of 15 m horizontal separation as per the Ontario Building Code (2012).
9. The predicted nitrate concentrations at the property boundary is calculated to be below the required 10 mg/L threshold when a standard denitrification system such as the Waterloo Biofilter WaterNOx system is used.
10. The subject site is sufficient in size to accommodate a new sewage system and meet all the regulatory separation criteria

11. A Sewage System Permit and Building Permit need to be issued prior to the commencement of construction on the proposed warehouse addition or the proposed septic system.
12. The results of the Hydrogeological Assessment and Terrain Analysis have provided satisfactory evidence that the subject site can support the proposed warehouse addition with respect to water quality, quantity and sewage system placement.

We trust that this satisfies your present requirements. Should you have any questions regarding this submission, please do not hesitate to contact the undersigned.

Yours truly,

PATERSON GROUP INC.



Erik Ardley, BSc Geology.



Michael S. Killam, P.Eng.



Attachments:

- Figure 1 - Key Plan
- MECP Water Well Records
- Eurofins Certificate of Analysis
- Paterson Test Pit Logs
- AQTESOLV - Pumping Test Analysis Reports
- Nitrate Impact Assessment Calculations
- D.B. Grey Engineering Inc. Drawing A-002 - New Site Plan + Notes
- Paterson Drawing PG6052-1 - Test Hole Location Plan
- Paterson Drawing PH4407-1(Rev.02) - Sewage System Layout Plan
- Paterson Drawing PH4356-3 - Water Well Location Plan

Paterson Group Inc.

Head Office and Laboratory
154 Colonnade Road South
Ottawa - Ontario - K2E 7J5
Tel: (613) 226-7381 Fax: (613) 226-6344

Northern Office and Laboratory
63 Gibson Street
North Bay - Ontario - P1B 8Z4
Tel: (705) 472-5331 Fax: (705) 472-2334

St. Lawrence Office
993 Princess Street
Kingston - Ontario - K7L 1H3
Tel: (613) 542-7381



FIGURE 1

KEY PLAN

UTM 1182 454660 E
 151611121710 N

316/50



GROUND WATER BRANCH
 NOV 14 1961
 15 No. 7222
 ONTARIO WATER RESOURCES COMMISSION

Handwritten mark

Elev. 44 053212

WATER WELL RECORD

Basin 25 @ Carlton
 County or District

Township, Village, Town or City Osgoode

Con. 4 Lot PT 5

Date completed 21 Aug 61
 (day month year)

Address RR-1 Osgoode

Casing and Screen Record

Inside diameter of casing 2
 Total length of casing 38
 Type of screen -
 Length of screen -
 Depth to top of screen -
 Diameter of finished hole 2

Pumping Test

Static level 1
 Test-pumping rate 12 G.P.M.
 Pumping level 20
 Duration of test pumping 3 hr
 Water clear or cloudy at end of test Clear
 Recommended pumping rate 6 G.P.M.
 with pump setting of 20 feet below ground surface

Well Log

Water Record

Overburden and Bedrock Record

	From ft.	To ft.	Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
Sandy Clay	0	10	39	Fresh
sand	10	25		
Gravel + sand	25	36		
Gravel	36	39		

For what purpose(s) is the water to be used?

House upland

Is well on upland, in valley, or on hillside?

Drilling or Boring Firm

J.R. Conette

Address 1510 Base line RD
 Ottawa

Licence Number 246

Name of Driller or Borer

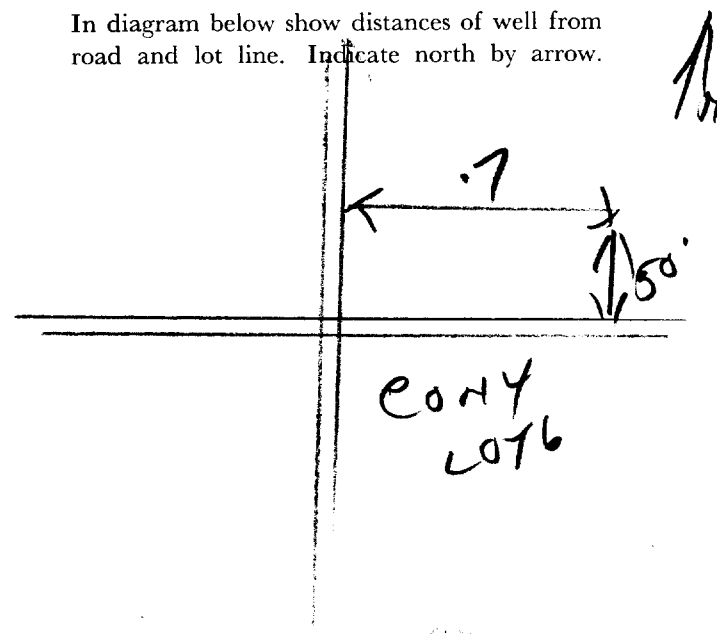
J Connel

Address
 Date Sept 16-61

J.R. Conette
 (Signature of Licensed Drilling or Boring Contractor)

Location of Well

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



JB

316/57



UTM 1182 455180E

WATER RESOURCES DIVISION 15 No 7224 SEP 28 1965 ONTARIO WATER RESOURCES COMMISSION

Co. 5 R 115 011619 The Ontario Water Resources Commission Act

Elev. 503.25

WATER WELL RECORD

Basin 215 | Carleton

Township, Village, Town or City Osgoode

Con. IV Lot 5

Date completed 26 July 1965

Address RR 2 Osgoode

Casing and Screen Record

Inside diameter of casing 6 1/4
 Total length of casing 18'
 Type of screen —
 Length of screen —
 Depth to top of screen —
 Diameter of finished hole 6"

Pumping Test

Static level 20'
 Test-pumping rate 5 G.P.M.
 Pumping level 65'
 Duration of test pumping 1/2 hr
 Water clear or cloudy at end of test cloudy
 Recommended pumping rate 5 G.P.M.
 with pump setting of 65 feet below ground surface

Well Log

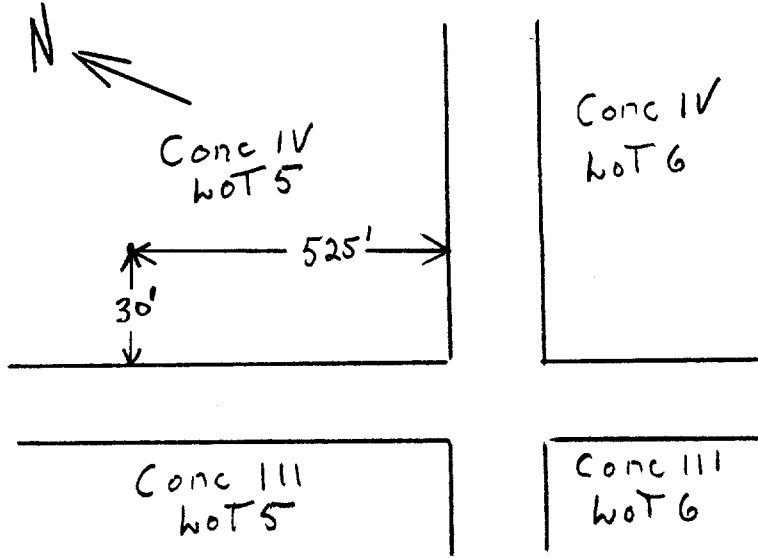
Water Record

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
sand & boulders	0	15		
grey limestone	15	68	55-68	Fresh

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 McLean Water Supply Ltd
 Address 1532 Raven Ave Ottawa 3
 Licence Number 1686
 Name of Driller or Borer H. Sally
 Address
 Date July 26 1965
 (Signature of Licensed Drilling or Boring Contractor)

Location of Well

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



1 8 Z 4 5 5 3 6 0
 4 R 5 0 1 1 1 7 7 0
 5 R 0 3 2 5
 2 5



1509840

316/59 B

The Ontario Water Resources Commission Act

WATER WELL RECORD

County or District Carleton Place Township, Village, Town or City Carleton Place
 Con. 5 Lot 4 Date completed 20 June 1968
 (day month year)
 Address Manastick

Casing and Screen Record

Inside diameter of casing 4 inch
 Total length of casing 13
 Type of screen
 Length of screen
 Depth to top of screen
 Diameter of finished hole 4 inch

Pumping Test

Static level 20
 Test-pumping rate 10 G.P.M.
 Pumping level 22
 Duration of test pumping 30 min
 Water clear or cloudy at end of test clearly
 Recommended pumping rate 5 G.P.M.
 with pump setting of 35 feet below ground surface

Well Log

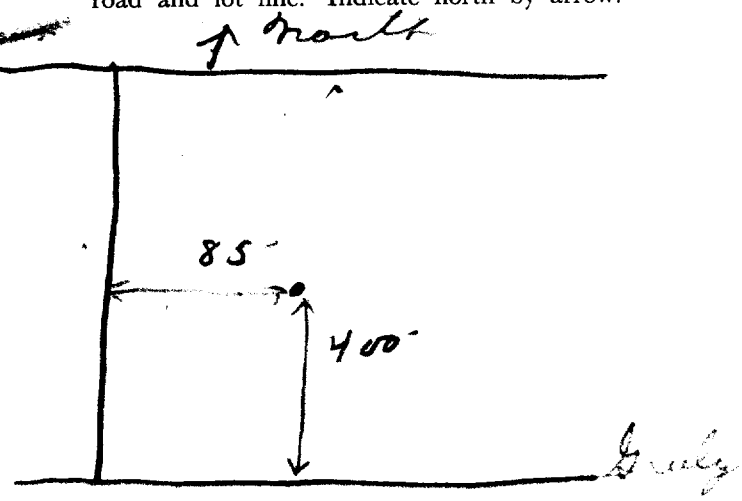
Water Record

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
<u>sandy soil</u>	<u>0</u>	<u>3</u>	<u>42</u>	<u>fresh</u>
<u>hard pan and stone</u>	<u>3</u>	<u>13</u>		
<u>hard grey limestone</u>	<u>13</u>	<u>42</u>		

For what purpose(s) is the water to be used? house
 Is well on upland, in valley, or on hillside? valley
 Drilling or Boring Firm Maurice Cayer
 Address Carletonman
Ont
 Licence Number 2911
 Name of Driller or Borer
 Address
 Date 20 June 1968
Maurice Cayer
 (Signature of Licensed Drilling or Boring Contractor)

Location of Well

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





The Ontario Water Resources Commission Act WATER WELL RECORD

Water management in Ontario

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK CORRECT BOX WHERE APPLICABLE

11

1510585

MUNICIP. 15009

CON. 36N

04

COUNTY OR DISTRICT: **CARLETON** TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: **OSGOODE** CON., BLOCK, TRACT, SURVEY, ETC.: **4** LOT: **006**

OWNER (SURNAME FIRST): [REDACTED] ADDRESS: **463 RIVERDALE AVE. OTTAWA,** DATE COMPLETED: DAY **14** MO **05** YR **70**

UTM: 21 18 455300 5011590 5 0322 8 25

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
	SAND	LOAM		0	5
	GRAVEL	BOULDERS SAND		5	17
GREY	LIMESTONE			17	108

31 0005 0209 0017 111309 010821

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER			
10-13	1 <input checked="" type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR	2 <input type="checkbox"/> SALTY	4 <input type="checkbox"/> MINERAL
15-18	1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR	2 <input type="checkbox"/> SALTY	4 <input type="checkbox"/> MINERAL
20-23	1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR	2 <input type="checkbox"/> SALTY	4 <input type="checkbox"/> MINERAL
25-28	1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR	2 <input type="checkbox"/> SALTY	4 <input type="checkbox"/> MINERAL
30-33	1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR	2 <input type="checkbox"/> SALTY	4 <input type="checkbox"/> MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET	
			FROM	TO
10-11	1 <input checked="" type="checkbox"/> STEEL			
10-11	2 <input type="checkbox"/> GALVANIZED			
10-11	3 <input type="checkbox"/> CONCRETE	188	0	0022
10-11	4 <input type="checkbox"/> OPEN HOLE			
17-18	1 <input type="checkbox"/> STEEL			
17-18	2 <input type="checkbox"/> GALVANIZED			
17-18	3 <input type="checkbox"/> CONCRETE		22	0108
17-18	4 <input checked="" type="checkbox"/> OPEN HOLE			108
24-25	1 <input type="checkbox"/> STEEL			
24-25	2 <input type="checkbox"/> GALVANIZED			
24-25	3 <input type="checkbox"/> CONCRETE			
24-25	4 <input type="checkbox"/> OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET

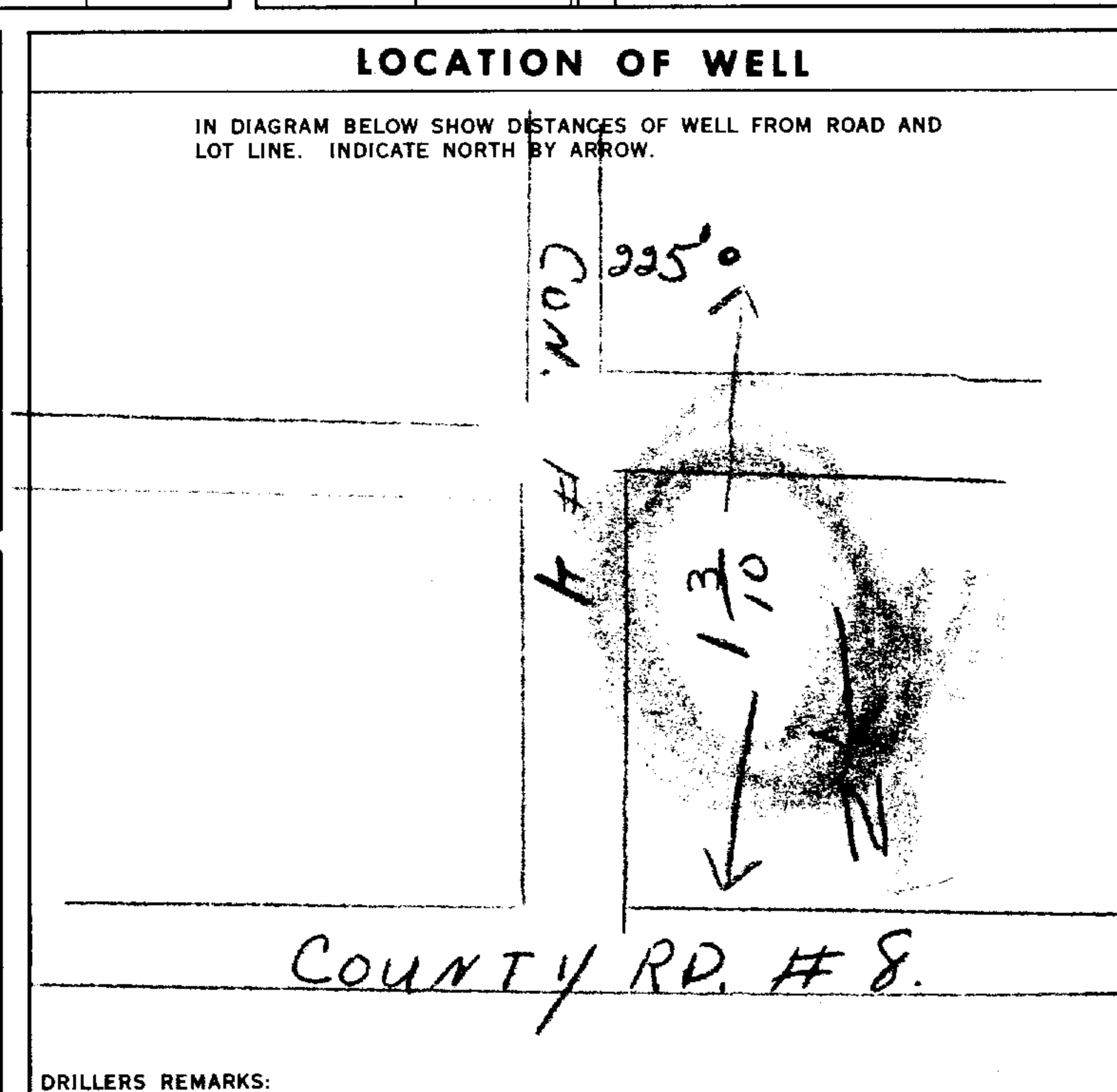
MATERIAL AND TYPE: _____ DEPTH TO TOP OF SCREEN: _____

61 PLUGGING & SEALING RECORD

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

71 PUMPING TEST

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 <input type="checkbox"/> PUMP 2 <input checked="" type="checkbox"/> BAILER	0010 GPM.	01 HOURS 00 MINS.
STATIC LEVEL: 015 FEET	WATER LEVEL END OF PUMPING: 030 FEET	WATER LEVELS DURING:
		15 MINUTES: 018 FEET
		30 MINUTES: 017 FEET
		45 MINUTES: 016 FEET
		60 MINUTES: 015 FEET
RECOMMENDED PUMP TYPE: <input checked="" type="checkbox"/> SHALLOW <input type="checkbox"/> DEEP	RECOMMENDED PUMP SETTING: 050 FEET	RECOMMENDED PUMPING RATE: 0008 GPM.



FINAL STATUS OF WELL

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

WATER USE

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

METHOD OF DRILLING

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

CONTRACTOR

NAME OF WELL CONTRACTOR: **MCLEAN WATER SUPPLY LTD** LICENCE NUMBER: **3504**
 ADDRESS: **1532 RAVEN AVE. OTTAWA 3,**
 NAME OF DRILLER OR BORER: **M. MALLON** LICENCE NUMBER: _____
 SIGNATURE OF CONTRACTOR: *[Signature]* SUBMISSION DATE: DAY **19** MO **5** YR **70**

OFFICE USE ONLY

DATA SOURCE: **1** CONTRACTOR: **3504** DATE RECEIVED: **280570**
 DATE OF INSPECTION: _____ INSPECTOR: *[Signature]*
 REMARKS: _____



WATER WELL RECORD

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK CORRECT BOX WHERE APPLICABLE

11

1522346

MUNICIPALITY 15009

CON.

COUNTY OR DISTRICT: OTTAWA-CARLETON
TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: TWP. OF OSSBOONE
CON. BLOCK, TRACT, SURVEY ETC: CONCESSION 4
LOT: 5

OWNER (SURNAME FIRST): DONWEL CONSTRUCTION
ADDRESS: 6979 SHADOW RIDGE, GREEZY, ONT.
DATE COMPLETED: DAY 18 MO 04 YR 88

21

ZONE EASTING NORTHING RC ELEVATION RC BASIN CODE II III IV

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
BROWN	SAND			0	8
GREY	SAND, GRAVEL	BOULDERS		8	56
GREY	LIMESTONE	SLATE		56	176

31

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
10-13 95	1 <input checked="" type="checkbox"/> FRESH 2 <input type="checkbox"/> SALTY 3 <input type="checkbox"/> SULPHUR 4 <input type="checkbox"/> MINERALS 6 <input type="checkbox"/> GAS
15-18	1 <input type="checkbox"/> FRESH 2 <input type="checkbox"/> SALTY 3 <input type="checkbox"/> SULPHUR 4 <input type="checkbox"/> MINERALS 6 <input type="checkbox"/> GAS
20-23	1 <input type="checkbox"/> FRESH 2 <input type="checkbox"/> SALTY 3 <input type="checkbox"/> SULPHUR 4 <input type="checkbox"/> MINERALS 6 <input type="checkbox"/> GAS
25-28	1 <input type="checkbox"/> FRESH 2 <input type="checkbox"/> SALTY 3 <input type="checkbox"/> SULPHUR 4 <input type="checkbox"/> MINERALS 6 <input type="checkbox"/> GAS
30-33	1 <input type="checkbox"/> FRESH 2 <input type="checkbox"/> SALTY 3 <input type="checkbox"/> SULPHUR 4 <input type="checkbox"/> MINERALS 6 <input type="checkbox"/> GAS

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET	
			FROM	TO
10-11 6 1/4"	1 <input checked="" type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE 5 <input type="checkbox"/> PLASTIC	.188	0	63
17-18 6"	1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE 5 <input type="checkbox"/> PLASTIC		63	126
24-25	1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE 5 <input type="checkbox"/> PLASTIC			27-30

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER	LENGTH
	INCHES	FEET
	DEPTH TO TOP OF SCREEN	

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET	MATERIAL AND TYPE	(CEMENT GROUT LEAD PACKER ETC.)
0-13 0	63	CEMENT GROUT
18-21		BENTONITE SLURRY
26-28		(Pressure grout)

71 PUMPING TEST

PUMPING TEST METHOD: PUMP BAILER

PUMPING RATE: 20 GPM

DURATION OF PUMPING: 15-16 HOURS 30 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING			
19-21 10	22-24 115	15 MINUTES 115	30 MINUTES 115	45 MINUTES 115	60 MINUTES 115

IF FLOWING, GIVE RATE: — GPM

PUMP INTAKE SET AT: 115 FEET

WATER AT END OF TEST: 1 CLEAR CLOUDY

RECOMMENDED PUMP TYPE: SHALLOW DEEP

RECOMMENDED PUMP SETTING: 115 FEET

RECOMMENDED PUMPING RATE: 620 GPM

FINAL STATUS OF WELL

1 WATER SUPPLY
2 OBSERVATION WELL
3 TEST HOLE
4 RECHARGE WELL

5 ABANDONED, INSUFFICIENT SUPPLY
6 ABANDONED POOR QUALITY
7 UNFINISHED
9 DEWATERING

WATER USE

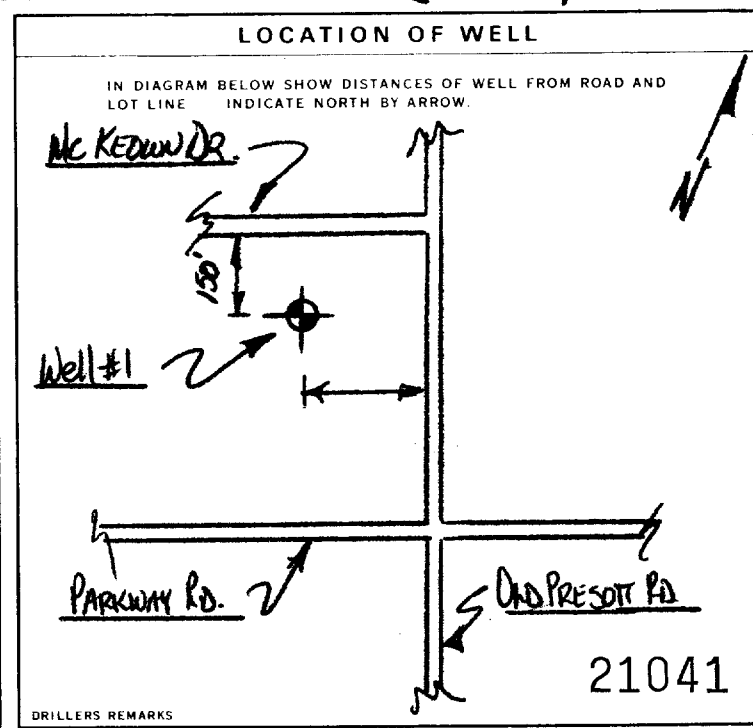
1 DOMESTIC
2 STOCK
3 IRRIGATION
4 INDUSTRIAL
5 OTHER

5 COMMERCIAL
6 MUNICIPAL
7 PUBLIC SUPPLY
8 COOLING OR AIR CONDITIONING
9 NOT USED

METHOD OF CONSTRUCTION

1 CABLE TOOL
2 ROTARY (CONVENTIONAL)
3 ROTARY (REVERSE)
4 ROTARY (AIR)
5 AIR PERCUSSION

6 BORING
7 DIAMOND
8 JETTING
9 DRIVING
10 DIGGING
11 OTHER



CONTRACTOR

NAME OF WELL CONTRACTOR: STANTON DRILLING INC
WELL CONTRACTOR'S LICENCE NUMBER: 4875

ADDRESS: BOX 429, GREEZY, ONT.

NAME OF WELL TECHNICIAN: PETER JA STANTON
WELL TECHNICIAN'S LICENCE NUMBER: T-0036

SIGNATURE OF TECHNICIAN/CONTRACTOR: [Signature]

SUBMISSION DATE: DAY 26 MO 04 YR 88

OFFICE USE ONLY

DATA SOURCE: 58 CONTRACTOR: 59-62 DATE RECEIVED: 63-68

DATE OF INSPECTION: JUN 21 1988

INSPECTOR: [Signature]

REMARKS: [Blank]

CSSEES

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK CORRECT BOX WHERE APPLICABLE

11

1522347

MUNICIP 15009

CON.

COUNTY OR DISTRICT: OTTAWA-CARLETON
TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: TWP. OF OSGOODE
CON. BLOCK, TRACT, SURVEY, ETC: CONCESSION 4
LOT: 5
OWNER (SURNAME FIRST): DONWEL CONSTRUCTION
ADDRESS: 6979 SHADOW RIDGE, GREEZY, ONT.
DATE COMPLETED: DAY 18 MO 04 YR 88

U ZONE EASTING NORTHING RC ELEVATION RC BASIN CODE III IV

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)					
GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
BROWN	SAND			0	9
GREY	SANDY GRAVEL	BOULDERS		9	57
GREY	LIMESTONE	SHALE		57	62

31
32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER					
60	<input checked="" type="checkbox"/> FRESH	<input type="checkbox"/> SALTY	<input type="checkbox"/> SULPHUR	<input type="checkbox"/> MINERALS	<input type="checkbox"/> GAS	
15-18	<input type="checkbox"/> FRESH	<input type="checkbox"/> SALTY	<input type="checkbox"/> SULPHUR	<input type="checkbox"/> MINERALS	<input type="checkbox"/> GAS	
20-23	<input type="checkbox"/> FRESH	<input type="checkbox"/> SALTY	<input type="checkbox"/> SULPHUR	<input type="checkbox"/> MINERALS	<input type="checkbox"/> GAS	
25-28	<input type="checkbox"/> FRESH	<input type="checkbox"/> SALTY	<input type="checkbox"/> SULPHUR	<input type="checkbox"/> MINERALS	<input type="checkbox"/> GAS	
30-33	<input type="checkbox"/> FRESH	<input type="checkbox"/> SALTY	<input type="checkbox"/> SULPHUR	<input type="checkbox"/> MINERALS	<input type="checkbox"/> GAS	

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET	
			FROM	TO
6 1/4"	1 <input checked="" type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE 5 <input type="checkbox"/> PLASTIC	.188	0	59
6"	1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE 5 <input type="checkbox"/> PLASTIC		59	62

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET

MATERIAL AND TYPE: _____
DEPTH TO TOP OF SCREEN: _____ FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)
0-59	CEMENT GROUT & BENTONITE SLURRY (Pressure grouted)

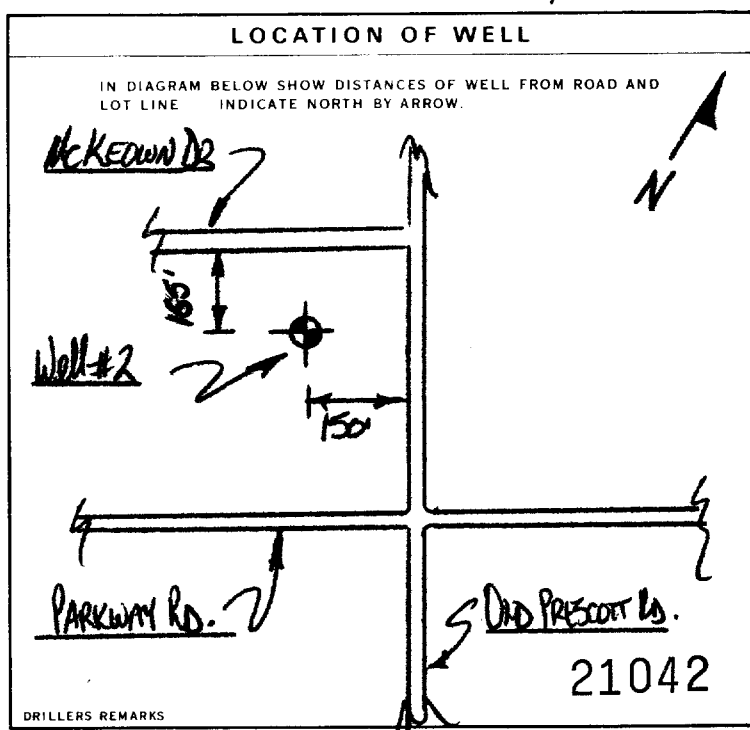
71 PUMPING TEST

PUMPING TEST METHOD: PUMP BAILER
PUMPING RATE: 40+ GPM
DURATION OF PUMPING: 0 HOURS 45 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING			
10 FEET	40 FEET	40 FEET	40 FEET	40 FEET	— FEET

IF FLOWING, GIVE RATE: _____ GPM
PUMP INTAKE SET AT: 40 FEET
WATER AT END OF TEST: 1 CLEAR 2 CLOUDY

RECOMMENDED PUMP TYPE: SHALLOW DEEP
RECOMMENDED PUMP SETTING: 40 FEET
RECOMMENDED PUMPING RATE: 40 GPM



FINAL STATUS OF WELL

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

WATER USE

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

METHOD OF CONSTRUCTION

1 CABLE TOOL
2 ROTARY (CONVENTIONAL)
3 ROTARY (REVERSE)
4 ROTARY (AIR)
5 AIR PERCUSSION
6 BORING
7 DIAMOND
8 JETTING
9 DRIVING
10 DIGGING
11 OTHER

CONTRACTOR

NAME OF WELL CONTRACTOR: STANTON DRILLING INC
ADDRESS: BOX 429, GREEZY, ONT.
WELL CONTRACTOR'S LICENCE NUMBER: 4875

NAME OF WELL TECHNICIAN: PETER VA STANTON
WELL TECHNICIAN'S LICENCE NUMBER: 710066

SIGNATURE OF TECHNICIAN / CONTRACTOR: _____
SUBMISSION DATE: DAY 26 MO 04 YR 88

OFFICE USE ONLY

DATA SOURCE: _____
DATE OF INSPECTION: _____
INSPECTOR: _____

CONTRACTOR: 4875
DATE RECEIVED: JUN 21 1988

REMARKS: _____

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK CORRECT BOX WHERE APPLICABLE

11

1522348

MUNICIPALITY 15009

CON. 15 22 23 24

COUNTY OR DISTRICT: **OTTAWA-CARLETON** TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: **TWP. OF OSGOODE** CON. BLOCK TRACT. SURVEY ETC.: **CONCESSION 4** LOT: **5**

OWNER (SURNAME FIRST): **DONWEL CONSTRUCTION** ADDRESS: **6975 SHADOW RIDGE, GREELY.** DATE COMPLETED: DAY **19** MO **04** YR **88**

21 ZONE EASTING NORTHING RC ELEVATION RC BASIN CODE II III IV

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
BROWN	SAND			0	9
GREY	SAND + GRAVEL	BOULDERS		9	57
GREY	LIMESTONE	SHALE		57	62

31 32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER		
10-13 60	<input checked="" type="checkbox"/> FRESH <input type="checkbox"/> SALTY	<input type="checkbox"/> SULPHUR <input type="checkbox"/> MINERALS <input type="checkbox"/> GAS	
15-18	<input type="checkbox"/> FRESH <input type="checkbox"/> SALTY	<input type="checkbox"/> SULPHUR <input type="checkbox"/> MINERALS <input type="checkbox"/> GAS	
20-23	<input type="checkbox"/> FRESH <input type="checkbox"/> SALTY	<input type="checkbox"/> SULPHUR <input type="checkbox"/> MINERALS <input type="checkbox"/> GAS	
25-28	<input type="checkbox"/> FRESH <input type="checkbox"/> SALTY	<input type="checkbox"/> SULPHUR <input type="checkbox"/> MINERALS <input type="checkbox"/> GAS	
30-33	<input type="checkbox"/> FRESH <input type="checkbox"/> SALTY	<input type="checkbox"/> SULPHUR <input type="checkbox"/> MINERALS <input type="checkbox"/> GAS	

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET	
			FROM	TO
10-11 6 1/4"	<input checked="" type="checkbox"/> STEEL <input type="checkbox"/> GALVANIZED <input type="checkbox"/> CONCRETE <input type="checkbox"/> OPEN HOLE <input type="checkbox"/> PLASTIC	1/8"	0	59
17-18 6"	<input type="checkbox"/> STEEL <input type="checkbox"/> GALVANIZED <input type="checkbox"/> CONCRETE <input type="checkbox"/> OPEN HOLE <input type="checkbox"/> PLASTIC		59	62
24-25	<input type="checkbox"/> STEEL <input type="checkbox"/> GALVANIZED <input type="checkbox"/> CONCRETE <input type="checkbox"/> OPEN HOLE <input type="checkbox"/> PLASTIC			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER	LENGTH
	INCHES	FEET
		41-44
		FEET

MATERIAL AND TYPE: _____ DEPTH TO TOP OF SCREEN: _____

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)
0-13 59	CEMENT GROUT & BENTONITE SLURRY
18-21	(Pressure grouted)
22-25	
26-28	
30-33	

71 PUMPING TEST

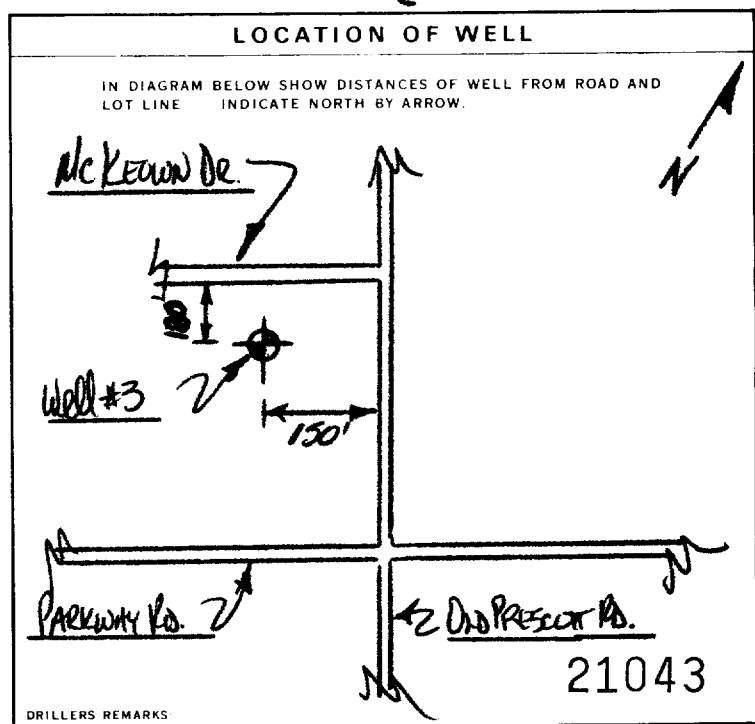
PUMPING TEST METHOD: **AK** PUMPING RATE: **40+** GPM DURATION OF PUMPING: **1** HOURS **0** MINS

1 PUMP 2 BAILER

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING			
19-21 10	22-24 40	15 MINUTES 40	30 MINUTES 40	45 MINUTES 40	60 MINUTES 40

IF FLOWING, GIVE RATE: _____ PUMP INTAKE SET AT: **40** FEET WATER AT END OF TEST: **40** FEET

RECOMMENDED PUMP TYPE: SHALLOW DEEP RECOMMENDED PUMP SETTING: **40** FEET RECOMMENDED PUMPING RATE: **640** GPM



FINAL STATUS OF WELL

1 WATER SUPPLY 6 ABANDONED, INSUFFICIENT SUPPLY
2 OBSERVATION WELL 7 ABANDONED, POOR QUALITY
3 TEST HOLE 8 UNFINISHED
4 RECHARGE WELL 9 DEWATERING

WATER USE

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

METHOD OF CONSTRUCTION

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

CONTRACTOR

NAME OF WELL CONTRACTOR: **STANTON DRILLING INC** WELL CONTRACTOR'S LICENSE NUMBER: **4875**

ADDRESS: **BOX 429, GREELY, ONT.**

NAME OF WELL TECHNICIAN: **PETER VA STANTON** WELL TECHNICIAN'S LICENSE NUMBER: **7-0006**

SIGNATURE OF TECHNICIAN/CONTRACTOR: _____ SUBMISSION DATE: DAY **16** MO **04** YR **88**

OFFICE USE ONLY

DATE RECEIVED: **JUN 21 1988**

DATE OF INSPECTION: _____ INSPECTOR: _____

REMARKS: _____

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

11

1529728

Municipality 15009 Con. CON 14

County or District: [Redacted] Township/Borough/City/Town/Village: **Osgoode** Con block tract survey, etc.: **4** Lot: **5**
Address: **P.O. Box 124 Greely Ontario K4P 1N4** Date completed: **23 day 10 month 97** year

General colour	Most common material	Other materials	General description	Depth - feet	
				From	To
Brown	Soil		Loose Fill	0	4
Brown	Clay		Packed	4	9
Gray	Clay		Sticky	9	34
Gray	Sand, Gravel, & Boulders			34	51
Gray	Limestone		Layered	51	62
Gray	Limestone		Medium	62	76

31 [] 32 []

41 WATER RECORD

Water found at - feet	Kind of water
10-13	1 <input type="checkbox"/> Fresh 3 <input type="checkbox"/> Sulphur 14
15-18	2 <input type="checkbox"/> Salty 4 <input type="checkbox"/> Minerals 15
56-62	NOT TESTED
20-23	1 <input type="checkbox"/> Fresh 3 <input type="checkbox"/> Sulphur 24
25-28	2 <input type="checkbox"/> Salty 4 <input type="checkbox"/> Minerals 25
30-33	1 <input type="checkbox"/> Fresh 3 <input type="checkbox"/> Sulphur 34
	2 <input type="checkbox"/> Salty 4 <input type="checkbox"/> Minerals 35

51 CASING & OPEN HOLE RECORD

Inside diam inches	Material	Wall thickness inches	Depth - feet	
			From	To
6 1/4	1 <input checked="" type="checkbox"/> Steel 12	.188	0	54
	2 <input type="checkbox"/> Galvanized			
	3 <input type="checkbox"/> Concrete			
	4 <input type="checkbox"/> Open hole			
	5 <input type="checkbox"/> Plastic			
6 1/8	1 <input type="checkbox"/> Steel 19		54	76
	2 <input type="checkbox"/> Galvanized			
	3 <input type="checkbox"/> Concrete			
	4 <input type="checkbox"/> Open hole			
	5 <input type="checkbox"/> Plastic			
24-25	1 <input type="checkbox"/> Steel 26			
	2 <input type="checkbox"/> Galvanized			
	3 <input type="checkbox"/> Concrete			
	4 <input type="checkbox"/> Open hole			
	5 <input type="checkbox"/> Plastic			

SCREEN

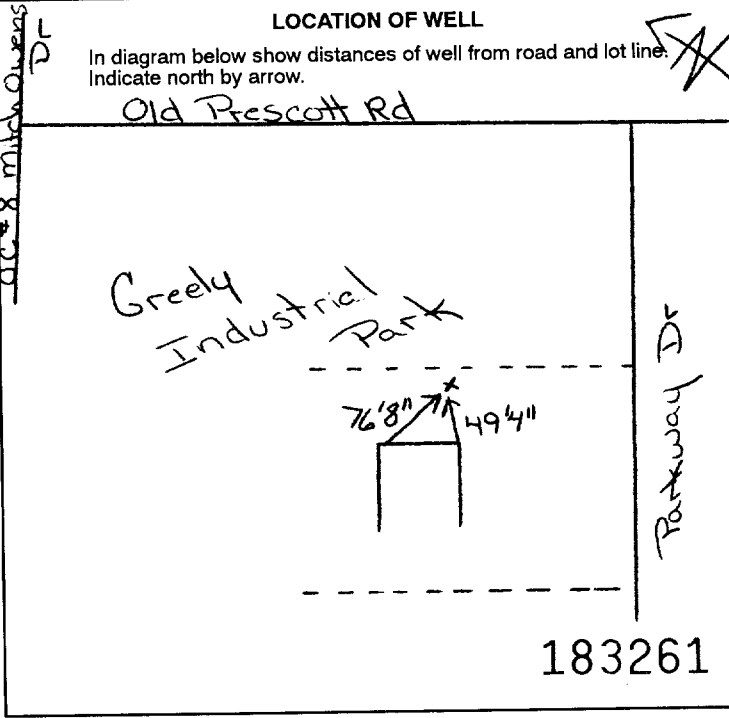
Sizes of opening (Slot No.)	Diameter inches	Length feet
Material and type		Depth at top of screen feet

61 PLUGGING & SEALING RECORD

Depth set at - feet		Material and type (Cement grout, bentonite, etc.)
From	To	
52	34	Bentonite (6)
34	0	Cement (10)

71 PUMPING TEST

Pumping test method	1 <input checked="" type="checkbox"/> Pump 2 <input type="checkbox"/> Bailer	Pumping rate	50 GPM	Duration of pumping	1 Hours
Static level	5.8 feet	Water level end of pumping	20 feet	Water levels during	15 minutes: 7.6 feet, 30 minutes: 6.1 feet, 45 minutes: 5.8 feet, 60 minutes: 5.8 feet
Recommended pump type	1 <input type="checkbox"/> Shallow 2 <input checked="" type="checkbox"/> Deep	Recommended pump setting	35 feet	Recommended pump rate	5 GPM



FINAL STATUS OF WELL

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

WATER USE

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

METHOD OF CONSTRUCTION

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

Name of Well Contractor: **Capital Water Supply Ltd.** Well Contractor's Licence No.: **1558**
 Address: **P.O. Box 490 Stittsville, Ontario K2S 1A6**
 Name of Well Technician: **S. Miller** Well Technician's Licence No.: **T0097**
 Signature of Technician/Contractor: [Signature] Submission date: **day 24 mo 10 yr 97**

MINISTRY USE ONLY

Data source: **1558** Date received: **DEC 22 1997**
 Date of inspection: Inspector: []
 Remarks: [Signature]

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

11

1531816

Municipality
15009

Con. CAN 04
Part of

County or District Ottawa-Carleton	Township/Borough/City/Town/Village Osgoode	Con block tract survey, etc. 4	Lot 304
Address Greedy Pt		Date completed 07 22 01 day month year	

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)					
General colour	Most common material	Other materials	General description	Depth - feet	
				From	To
	Sand	boulders		0	35
grey	limestone			35	142
grey	sandstone			142	240

31	32
----	----

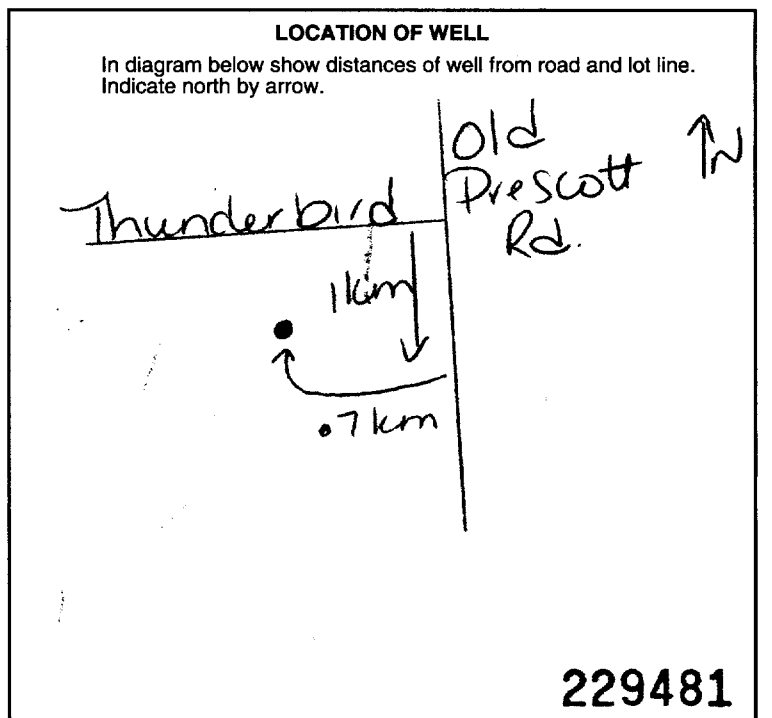
41 WATER RECORD	
Water found at - feet	Kind of water
89	1 <input checked="" type="checkbox"/> Fresh 2 <input type="checkbox"/> Salty 3 <input type="checkbox"/> Sulphur 4 <input type="checkbox"/> Minerals 5 <input type="checkbox"/> Gas
237	1 <input checked="" type="checkbox"/> Fresh 2 <input type="checkbox"/> Salty 3 <input type="checkbox"/> Sulphur 4 <input type="checkbox"/> Minerals 5 <input type="checkbox"/> Gas
	1 <input type="checkbox"/> Fresh 2 <input type="checkbox"/> Salty 3 <input type="checkbox"/> Sulphur 4 <input type="checkbox"/> Minerals 5 <input type="checkbox"/> Gas
	1 <input type="checkbox"/> Fresh 2 <input type="checkbox"/> Salty 3 <input type="checkbox"/> Sulphur 4 <input type="checkbox"/> Minerals 5 <input type="checkbox"/> Gas
	1 <input type="checkbox"/> Fresh 2 <input type="checkbox"/> Salty 3 <input type="checkbox"/> Sulphur 4 <input type="checkbox"/> Minerals 5 <input type="checkbox"/> Gas

51 CASING & OPEN HOLE RECORD				
Inside diam inches	Material	Wall thickness inches	Depth - feet	
			From	To
6 1/4	1 <input checked="" type="checkbox"/> Steel 2 <input type="checkbox"/> Galvanized 3 <input type="checkbox"/> Concrete 4 <input type="checkbox"/> Open hole 5 <input type="checkbox"/> Plastic	188	0	44
8 3/4	1 <input type="checkbox"/> Steel 2 <input type="checkbox"/> Galvanized 3 <input type="checkbox"/> Concrete 4 <input checked="" type="checkbox"/> Open hole 5 <input type="checkbox"/> Plastic		0	42
6	1 <input type="checkbox"/> Steel 2 <input type="checkbox"/> Galvanized 3 <input type="checkbox"/> Concrete 4 <input checked="" type="checkbox"/> Open hole 5 <input type="checkbox"/> Plastic		42	240

SCREEN	Sizes of opening (Slot No.)	Diameter	Length
	From To	inches	feet
			Depth at top of screen
			feet

61 PLUGGING & SEALING RECORD		
<input checked="" type="checkbox"/> Annular space <input type="checkbox"/> Abandonment		
Depth set at - feet		Material and type (Cement grout, bentonite, etc.)
From	To	
2	44	Cement grout
18-21	22-25	Bentonite
26-29	30-33	

71 PUMPING TEST	
Pumping test method 1 <input checked="" type="checkbox"/> Pump 2 <input type="checkbox"/> Bailer	Pumping rate 5 GPM
Static level 35 feet	Water level end of pumping 220 feet
Water levels during 15 minutes: 160 feet 30 minutes: 101 feet 45 minutes: 41 feet 60 minutes: 35 feet	Water at end of test <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Cloudy
Recommended pump type <input type="checkbox"/> Shallow <input checked="" type="checkbox"/> Deep	Recommended pump setting 220 feet
	Recommended pump rate 5 GPM



FINAL STATUS OF WELL		
1 <input checked="" type="checkbox"/> Water supply	5 <input type="checkbox"/> Abandoned, insufficient supply	9 <input type="checkbox"/> Unfinished
2 <input type="checkbox"/> Observation well	6 <input type="checkbox"/> Abandoned, poor quality	10 <input type="checkbox"/> Replacement well
3 <input type="checkbox"/> Test hole	7 <input type="checkbox"/> Abandoned (Other)	
4 <input type="checkbox"/> Recharge well	8 <input type="checkbox"/> Dewatering	

WATER USE		
1 <input checked="" type="checkbox"/> Domestic	5 <input type="checkbox"/> Commercial	9 <input type="checkbox"/> Not use
2 <input type="checkbox"/> Stock	6 <input type="checkbox"/> Municipal	10 <input type="checkbox"/> Other
3 <input type="checkbox"/> Irrigation	7 <input type="checkbox"/> Public supply	
4 <input type="checkbox"/> Industrial	8 <input type="checkbox"/> Cooling & air conditioning	

METHOD OF CONSTRUCTION		
1 <input type="checkbox"/> Cable tool	5 <input checked="" type="checkbox"/> Air percussion	9 <input type="checkbox"/> Driving
2 <input type="checkbox"/> Rotary (conventional)	6 <input type="checkbox"/> Boring	10 <input type="checkbox"/> Digging
3 <input type="checkbox"/> Rotary (reverse)	7 <input type="checkbox"/> Diamond	11 <input type="checkbox"/> Other
4 <input type="checkbox"/> Rotary (air)	8 <input type="checkbox"/> Jetting	

Name of Well Contractor Ar Koch Drilling Ltd	Well Contractor's Licence No. 1119
Address RR #2 Jasper, Ont	
Name of Well Technician Shannon Purcell	Well Technician's Licence No. 12122
Signature of Technician/Contractor <i>[Signature]</i>	Submission date 28 02 01 day mo yr

MINISTRY USE ONLY	Data source 1119	Contractor 1119	Date received APR 18 2001
	Date of inspection		Inspector
	Remarks CSS.ES1		

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

11

1531817

Municipality 15009

Con. CON

04

County or District: Ottawa Carleton Township/Borough/City/Town/Village: Osgoode Con. block tract survey, etc.: 4 Lot: 394

Owner's surname: Sunset Lakes First Name: _____ Address: Greely, Ont Date completed: 08 day 02 month 01 year

Zone: _____ Easting: _____ Northing: _____ RC: _____ Elevation: _____ RC: _____ Basin Code: _____

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)

General colour	Most common material	Other materials	General description	Depth - feet	
				From	To
	<u>sand</u>	<u>boulders</u>		<u>0</u>	<u>44</u>
<u>grey</u>	<u>limestone</u>			<u>44</u>	<u>80</u>

41 WATER RECORD

Water found at - feet	Kind of water
<u>69</u>	1 <input checked="" type="checkbox"/> Fresh 3 <input type="checkbox"/> Sulphur 4 <input type="checkbox"/> Minerals 5 <input type="checkbox"/> Gas
<u>73</u>	1 <input checked="" type="checkbox"/> Fresh 3 <input type="checkbox"/> Sulphur 4 <input type="checkbox"/> Minerals 5 <input type="checkbox"/> Gas
	1 <input type="checkbox"/> Fresh 3 <input type="checkbox"/> Sulphur 4 <input type="checkbox"/> Minerals 5 <input type="checkbox"/> Gas
	1 <input type="checkbox"/> Fresh 3 <input type="checkbox"/> Sulphur 4 <input type="checkbox"/> Minerals 5 <input type="checkbox"/> Gas
	1 <input type="checkbox"/> Fresh 3 <input type="checkbox"/> Sulphur 4 <input type="checkbox"/> Minerals 5 <input type="checkbox"/> Gas

51 CASING & OPEN HOLE RECORD

Inside diam inches	Material	Wall thickness inches	Depth - feet	
			From	To
<u>6 1/4</u>	<u>Steel</u>	<u>188</u>	<u>0</u>	<u>53</u>
<u>8 3/4</u>	<u>Steel</u>		<u>0</u>	<u>51</u>
<u>6</u>	<u>Steel</u>		<u>51</u>	<u>80</u>

SCREEN

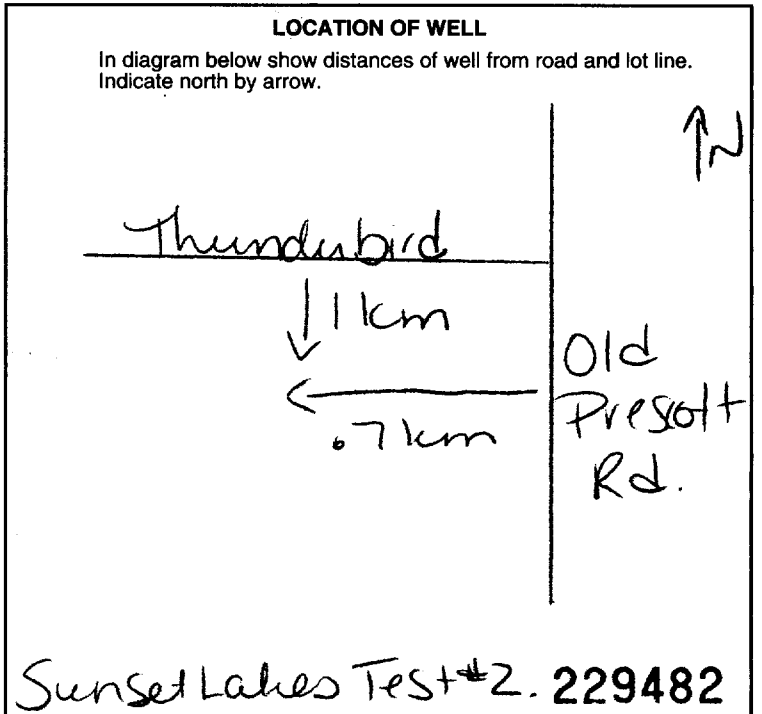
Sizes of opening (Slot No.)	Diameter inches	Length feet

61 PLUGGING & SEALING RECORD

Depth set at - feet	Material and type (Cement grout, bentonite, etc.)
<u>2 53</u>	<u>Cement grout</u>
<u>18-21</u>	<u>Bentonite</u>
<u>26-29</u>	

71 PUMPING TEST

Pumping test method	Pumping rate	Duration of pumping
1 <input checked="" type="checkbox"/> Pump 2 <input type="checkbox"/> Bailor	<u>45</u> GPM	<u>1</u> Hours <u> </u> Mins
Static level	Water level end of pumping	Water levels during
<u>12</u> feet	<u>70</u> feet	15 minutes <u>12</u> feet 30 minutes <u>12</u> feet 45 minutes <u>12</u> feet 60 minutes <u>12</u> feet
If flowing give rate	Pump intake set at	Water at end of test
	<u>70</u> feet	<input type="checkbox"/> Clear <input checked="" type="checkbox"/> Cloudy
Recommended pump type	Recommended pump setting	Recommended pump rate
<input type="checkbox"/> Shallow <input checked="" type="checkbox"/> Deep	<u>70</u> feet	<u>12</u> GPM



FINAL STATUS OF WELL

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

WATER USE

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

METHOD OF CONSTRUCTION

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

Name of Well Contractor: Art Koch Dr. Inc Ltd Well Contractor's Licence No.: 1119

Address: RR# 2 Jasper Ont

Name of Well Technician: Shannon Purcell Well Technician's Licence No.: T2122

Signature of Technician/Contractor: _____ Submission date: 02 day 01 mo 01 yr

MINISTRY USE ONLY

Data source: 1119 Contractor: _____ Date received: APR 18 2001

Date of inspection: _____ Inspector: _____

Remarks: _____

CSS.ES1

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

11

1532070

Municipality
15009

Con.
10 14 15 22 23 24

County or District Ottawa Carleton	Township/Borough/City/Town/Village Osgoode	Con block tract survey, etc.	Lot 25-27
Address Greely Lane Greely ONT		Date completed 06 12 2000	48-53 day month year

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)

General colour	Most common material	Other materials	General description	Depth - feet	
				From	To
Brown	Sand	with some stones		0	5'
Grey	clay	with some stones		5'	39'
Grey	Gravel	Course		39'	60'

31 _____
32 _____

41 WATER RECORD

Water found at - feet	Kind of water
55' <i>untested</i>	<input type="checkbox"/> Fresh <input type="checkbox"/> Salty <input type="checkbox"/> Sulphur <input type="checkbox"/> Minerals <input type="checkbox"/> Gas
20-23	<input type="checkbox"/> Fresh <input type="checkbox"/> Salty <input type="checkbox"/> Sulphur <input type="checkbox"/> Minerals <input type="checkbox"/> Gas
25-28	<input type="checkbox"/> Fresh <input type="checkbox"/> Salty <input type="checkbox"/> Sulphur <input type="checkbox"/> Minerals <input type="checkbox"/> Gas
30-33	<input type="checkbox"/> Fresh <input type="checkbox"/> Salty <input type="checkbox"/> Sulphur <input type="checkbox"/> Minerals <input type="checkbox"/> Gas

51 CASING & OPEN HOLE RECORD

Inside diam inches	Material	Wall thickness inches	Depth - feet	
			From	To
8	Steel		0	20
6	Galvanized	1/8"	2'	57'
6	Steel		57'	60'

SCREEN

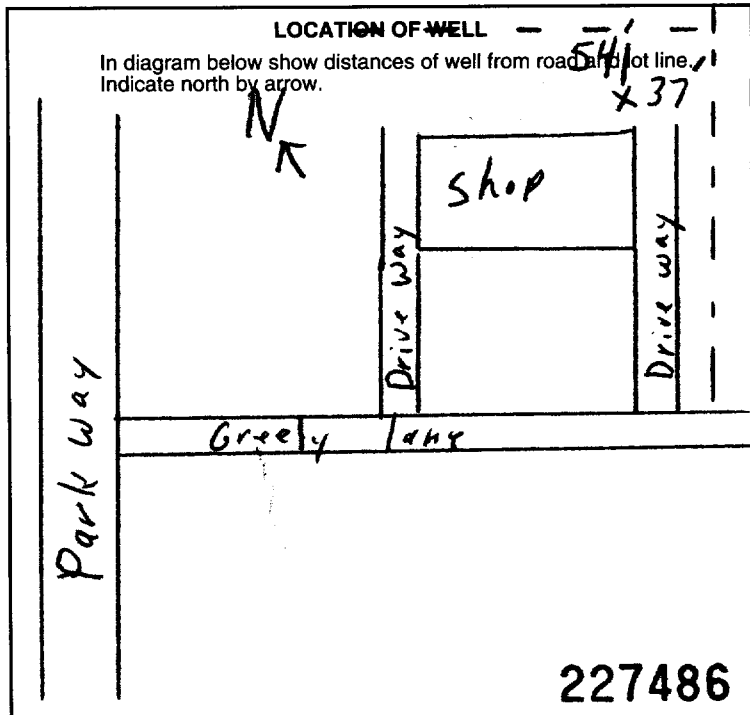
Sizes of opening (Slot No.) 35 slot	Diameter 5" inches	Length 4' feet
Material and type stainless steel	Depth at top of screen 55' feet	

61 PLUGGING & SEALING RECORD

<input type="checkbox"/> Annular space		<input type="checkbox"/> Abandonment	
Depth set at - feet		Material and type (Cement grout, bentonite, etc.)	
From	To	8 bags high early	
20' ¹³	0' ¹⁷		
18-21	22-25		
26-29	30-33		

71 PUMPING TEST

Pumping test method <input checked="" type="checkbox"/> Pump <input type="checkbox"/> Bailer	Pumping rate 10 GPM	Duration of pumping 1 Hours 0 Mins
Static level 12' feet	Water level end of pumping 16' feet	Water levels during 15 minutes: 13' feet 30 minutes: 13' feet 45 minutes: 14' feet 60 minutes: 16' feet
If flowing give rate GPM	Pump intake set at 30' feet	Water at end of test <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Cloudy
Recommended pump type <input type="checkbox"/> Shallow <input checked="" type="checkbox"/> Deep	Recommended pump setting 30 feet	Recommended pump rate 10 GPM



FINAL STATUS OF WELL

<input checked="" type="checkbox"/> Water supply	<input type="checkbox"/> Abandoned, insufficient supply	<input type="checkbox"/> Unfinished
<input type="checkbox"/> Observation well	<input type="checkbox"/> Abandoned, poor quality	<input type="checkbox"/> Replacement well
<input type="checkbox"/> Test hole	<input type="checkbox"/> Abandoned (Other)	
<input type="checkbox"/> Recharge well	<input type="checkbox"/> Dewatering	

WATER USE

<input type="checkbox"/> Domestic	<input checked="" type="checkbox"/> Commercial	<input type="checkbox"/> Not use
<input type="checkbox"/> Stock	<input type="checkbox"/> Municipal	<input type="checkbox"/> Other
<input type="checkbox"/> Irrigation	<input type="checkbox"/> Public supply	
<input type="checkbox"/> Industrial	<input type="checkbox"/> Cooling & air conditioning	

METHOD OF CONSTRUCTION

<input type="checkbox"/> Cable tool	<input type="checkbox"/> Air percussion	<input type="checkbox"/> Driving
<input type="checkbox"/> Rotary (conventional)	<input type="checkbox"/> Boring	<input type="checkbox"/> Digging
<input type="checkbox"/> Rotary (reverse)	<input type="checkbox"/> Diamond	<input type="checkbox"/> Other
<input checked="" type="checkbox"/> Rotary (air)	<input type="checkbox"/> Jetting	

Name of Well Contractor Olympic Drilling Co. Ltd.	Well Contractor's Licence No. 4006
Address 2320 SCRIVEN RD. METCALFE ONT.	
Name of Well Technician Wayne Renwick	Well Technician's Licence No. 327
Signature of Technician/Contractor <i>Wayne Renwick</i>	Submission date day mo yr

MINISTRY USE ONLY

Data source	Contractor 4006	Date received JUL 17 2001
Date of inspection	Inspector	
Remarks		
OSS.ES1		

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

11

1533428

Municipality: 15009 Con: 04

County or District Ottawa-Carleton	Township/Borough/City/Town/Village Osgoode	Con block tract survey, etc. 4	Lot 5
Address 1545 River Road Maontick, Ontario K4M 1B4		Date completed 27 day 11 month 02 year	

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)

General colour	Most common material	Other materials	General description	Depth - feet	
				From	To
Brown	Sandy Soil			0	4
Gray	Sand & Gravel		Wet	4	12
Gray	Sandy Clay			12	30
Gray	Sand, Gravel	Boulders	Wet	30	58
Gray	Limestone			58	160
Gray & White	SANDstone			160	223

31 _____

32 _____

41 WATER RECORD

Water found at - feet	Kind of water
10-13 216	1 <input type="checkbox"/> Fresh 2 <input type="checkbox"/> Salty 3 <input type="checkbox"/> Sulphur 4 <input type="checkbox"/> Minerals 5 <input type="checkbox"/> Gas
15-18	1 <input type="checkbox"/> Fresh 2 <input type="checkbox"/> Salty 3 <input type="checkbox"/> Sulphur 4 <input type="checkbox"/> Minerals 5 <input type="checkbox"/> Gas
20-23	1 <input type="checkbox"/> Fresh 2 <input type="checkbox"/> Salty 3 <input type="checkbox"/> Sulphur 4 <input type="checkbox"/> Minerals 5 <input type="checkbox"/> Gas
25-28	1 <input type="checkbox"/> Fresh 2 <input type="checkbox"/> Salty 3 <input type="checkbox"/> Sulphur 4 <input type="checkbox"/> Minerals 5 <input type="checkbox"/> Gas
30-33	1 <input type="checkbox"/> Fresh 2 <input type="checkbox"/> Salty 3 <input type="checkbox"/> Sulphur 4 <input type="checkbox"/> Minerals 5 <input type="checkbox"/> Gas

51 CASING & OPEN HOLE RECORD

Inside diam inches	Material	Wall thickness inches	Depth - feet	
			From	To
6 1/4	1 <input checked="" type="checkbox"/> Steel 2 <input type="checkbox"/> Galvanized 3 <input type="checkbox"/> Concrete 4 <input type="checkbox"/> Open hole 5 <input type="checkbox"/> Plastic	.188	+ 1.5	65 ⁶
5 7/8	1 <input type="checkbox"/> Steel 2 <input type="checkbox"/> Galvanized 3 <input type="checkbox"/> Concrete 4 <input checked="" type="checkbox"/> Open hole 5 <input type="checkbox"/> Plastic		65	223

SCREEN RECORD

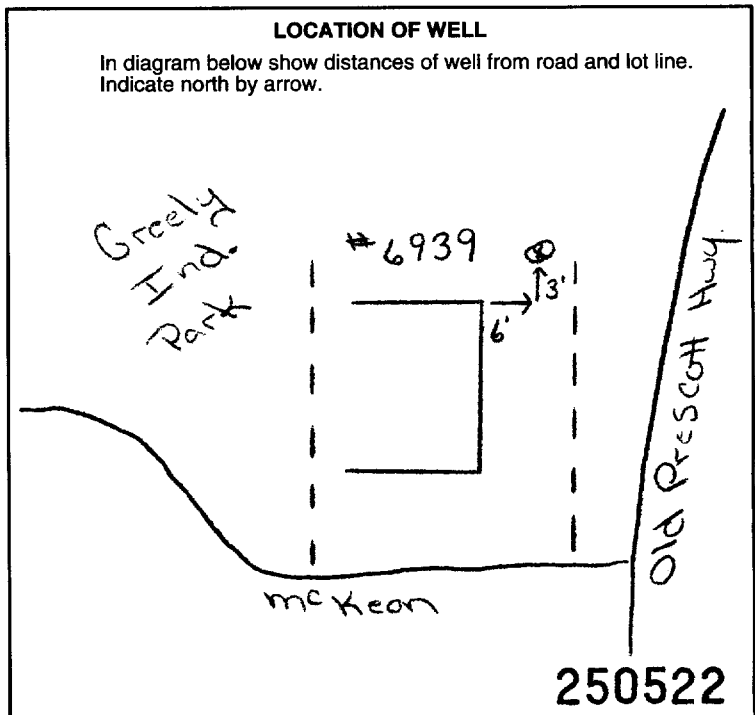
Sizes of opening (Slot No.)	Diameter inches	Length feet
Material and type		Depth at top of screen feet

61 PLUGGING & SEALING RECORD

<input checked="" type="checkbox"/> Annular space		<input type="checkbox"/> Abandonment
Depth set at - feet		Material and type (Cement grout, bentonite, etc.)
From	To	
10-13 64	14-17 0	Grouted - Cement (1) Bentonite (3)
18-21	22-25	
26-29	30-33	

71 PUMPING TEST

Pumping test method 1 <input checked="" type="checkbox"/> Pump 2 <input type="checkbox"/> Bailer	Pumping rate 10 GPM	Duration of pumping 1 Hours 17 Mins
Static level 34'6" feet	Water level end of pumping 75 feet	Water levels during pumping
		15 minutes 220 feet 30 minutes 175 feet 45 minutes 150 feet 60 minutes 75 feet
If flowing give rate GPM	Pump intake set at feet	Water at end of test <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Cloudy
Recommended pump type <input type="checkbox"/> Shallow <input checked="" type="checkbox"/> Deep	Recommended pump setting 150 feet	Recommended pump rate 5 GPM



FINAL STATUS OF WELL

1 <input checked="" type="checkbox"/> Water supply	5 <input type="checkbox"/> Abandoned, insufficient supply	9 <input type="checkbox"/> Unfinished
2 <input type="checkbox"/> Observation well	6 <input type="checkbox"/> Abandoned, poor quality	10 <input type="checkbox"/> Replacement well
3 <input type="checkbox"/> Test hole	7 <input type="checkbox"/> Abandoned (Other)	
4 <input type="checkbox"/> Recharge well	8 <input type="checkbox"/> Dewatering	

WATER USE

1 <input checked="" type="checkbox"/> Domestic	5 <input type="checkbox"/> Commercial	9 <input type="checkbox"/> Not use
2 <input type="checkbox"/> Stock	6 <input type="checkbox"/> Municipal	10 <input type="checkbox"/> Other
3 <input type="checkbox"/> Irrigation	7 <input type="checkbox"/> Public supply	
4 <input type="checkbox"/> Industrial	8 <input type="checkbox"/> Cooling & air conditioning	

METHOD OF CONSTRUCTION

1 <input type="checkbox"/> Cable tool	5 <input checked="" type="checkbox"/> Air percussion	9 <input type="checkbox"/> Driving
2 <input type="checkbox"/> Rotary (conventional)	6 <input type="checkbox"/> Boring	10 <input type="checkbox"/> Digging
3 <input type="checkbox"/> Rotary (reverse)	7 <input type="checkbox"/> Diamond	11 <input type="checkbox"/> Other
4 <input checked="" type="checkbox"/> Rotary (air mud)	8 <input type="checkbox"/> Jetting	

Name of Well Contractor Capital Water Supply Ltd	Well Contractor's Licence No. 1558
Address P.O. Box 490 Stittsville, Ontario K2S 1A6	
Name of Well Technician S. Miller	Well Technician's Licence No. T0097
Signature of Technician/Contractor	Submission date day 29 mo 11 yr 02

MINISTRY USE ONLY

Data source 1558	Contractor 1558	Date received DEC 17 2002
Date of inspection	Inspector	
Remarks CCS.EC2		

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

1533469

Municipality: 15009 CON
Cov: OS
Plan 4m389 Sublot 11

11

County or District Ottawa-Carleton	Township/Borough/City/Town/Village Osgoode	Con block tract survey, etc. 5	Lot 4
Address Greely, Ont		Date completed 13 12 02 day month year	

21

Northings: 10, 12, 17, 18, 24, 25, 26, 30, 31

RC: i, ii, iii, iv

Elevation: 10, 12, 17, 18, 24, 25, 26, 30, 31

Basin Code: ii, iii, iv

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)					
General colour	Most common material	Other materials	General description	Depth - feet	
				From	To
	sand	gravel & boulders		0	62
grey	limestone			62	188
grey	sandy limestone			188	227
white-grey	sandstone			227	333

31

32

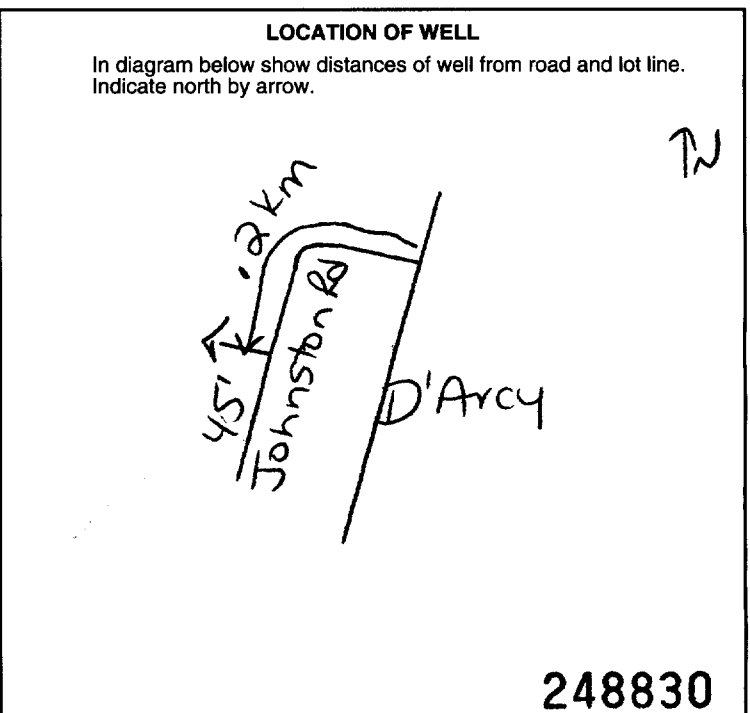
41 WATER RECORD			
Water found at - feet	Kind of water		
10-13 330	1 <input type="checkbox"/> Fresh 2 <input checked="" type="checkbox"/> Salty	3 <input type="checkbox"/> Sulphur 4 <input type="checkbox"/> Minerals 5 <input type="checkbox"/> Gas	14
15-18 75	1 <input type="checkbox"/> Fresh 2 <input checked="" type="checkbox"/> Salty	3 <input type="checkbox"/> Sulphur 4 <input type="checkbox"/> Minerals 5 <input type="checkbox"/> Gas	19
20-23	1 <input type="checkbox"/> Fresh 2 <input type="checkbox"/> Salty	3 <input type="checkbox"/> Sulphur 4 <input type="checkbox"/> Minerals 5 <input type="checkbox"/> Gas	24
25-28	1 <input type="checkbox"/> Fresh 2 <input type="checkbox"/> Salty	3 <input type="checkbox"/> Sulphur 4 <input type="checkbox"/> Minerals 5 <input type="checkbox"/> Gas	29
30-33	1 <input type="checkbox"/> Fresh 2 <input type="checkbox"/> Salty	3 <input type="checkbox"/> Sulphur 4 <input type="checkbox"/> Minerals 5 <input type="checkbox"/> Gas	34

51 CASING & OPEN HOLE RECORD				
Inside diam inches	Material	Wall thickness inches	Depth - feet	
			From	To
10-11 6 1/4	1 <input checked="" type="checkbox"/> Steel 2 <input type="checkbox"/> Galvanized 3 <input type="checkbox"/> Concrete 4 <input type="checkbox"/> Open hole 5 <input type="checkbox"/> Plastic	188	0	70
17-18 8 3/4	1 <input type="checkbox"/> Steel 2 <input type="checkbox"/> Galvanized 3 <input type="checkbox"/> Concrete 4 <input type="checkbox"/> Open hole 5 <input type="checkbox"/> Plastic		0	68
24-25 6	1 <input type="checkbox"/> Steel 2 <input type="checkbox"/> Galvanized 3 <input type="checkbox"/> Concrete 4 <input checked="" type="checkbox"/> Open hole 5 <input type="checkbox"/> Plastic		68	333

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

61 PLUGGING & SEALING RECORD		
<input checked="" type="checkbox"/> Annular space		<input type="checkbox"/> Abandonment
Depth set at - feet		Material and type (Cement grout, bentonite, etc.)
From	To	
18-21 2	22-25 30	bentonite
26-29	30-33	

71 PUMPING TEST			
Pumping test method 1 <input checked="" type="checkbox"/> Pump 2 <input type="checkbox"/> Bailer	Pumping rate 9 GPM	Duration of pumping 1 Hours 17 Mins	
Static level 50 feet	Water level end of pumping 160 feet	Water levels during	
		15 minutes 50 feet	30 minutes 50 feet
		45 minutes 50 feet	60 minutes 50 feet
If flowing give rate GPM	Pump intake set at feet	Water at end of test <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Cloudy	
Recommended pump type <input type="checkbox"/> Shallow <input checked="" type="checkbox"/> Deep	Recommended pump setting 160 feet	Recommended pump rate 9 GPM	



54 FINAL STATUS OF WELL		
1 <input checked="" type="checkbox"/> Water supply	5 <input type="checkbox"/> Abandoned, insufficient supply	9 <input type="checkbox"/> Unfinished
2 <input type="checkbox"/> Observation well	6 <input type="checkbox"/> Abandoned, poor quality	10 <input type="checkbox"/> Replacement well
3 <input type="checkbox"/> Test hole	7 <input type="checkbox"/> Abandoned (Other)	
4 <input type="checkbox"/> Recharge well	8 <input type="checkbox"/> Dewatering	

55-56 WATER USE		
1 <input checked="" type="checkbox"/> Domestic	5 <input type="checkbox"/> Commercial	9 <input type="checkbox"/> Not use
2 <input type="checkbox"/> Stock	6 <input type="checkbox"/> Municipal	10 <input type="checkbox"/> Other
3 <input type="checkbox"/> Irrigation	7 <input type="checkbox"/> Public supply	
4 <input type="checkbox"/> Industrial	8 <input type="checkbox"/> Cooling & air conditioning	

57 METHOD OF CONSTRUCTION		
1 <input type="checkbox"/> Cable tool	5 <input checked="" type="checkbox"/> Air percussion	9 <input type="checkbox"/> Driving
2 <input type="checkbox"/> Rotary (conventional)	6 <input type="checkbox"/> Boring	10 <input type="checkbox"/> Digging
3 <input type="checkbox"/> Rotary (reverse)	7 <input type="checkbox"/> Diamond	11 <input type="checkbox"/> Other
4 <input type="checkbox"/> Rotary (air)	8 <input type="checkbox"/> Jetting	

Name of Well Contractor Air Rock Drilling Ltd 1119	Well Contractor's Licence No. 1119
Address RR#1 Richmond, Ont	
Name of Well Technician Shannon Purcell	Well Technician's Licence No. 12122
Signature of Technician/Contractor <i>[Signature]</i>	Submission date 18 12 02 day mo year

MINISTRY USE ONLY	Data source	Contractor	Date received
		1119	DEC 23 2002
	Date of inspection	Inspector	
Remarks			
CSS.EC2			

Well Tag Number **A 004862**
A 004862

Instructions for Completing Form

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

Well Owner's Information and Location of Well Information

MUN **15009** CON **CON** LOT **04** CONCESSION **06**

Address of Well Location (County/District/Municipality) **Ottawa Carleton** Township **Osgoode** Lot **6** Concession **4**
 RR#/Street Number/Name _____ City/Town/Village **Glebe** Site/Compartment/Block/Tract etc. _____
 GPS Reading NAD Zone Easting Northing Unit Make/Model Mode of Operation: Undifferentiated Averaged
8.3 18 455214 5011633 Magellan Differentiated, specify _____

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Metres To
grey	Clay			0	10.06
grey	sandstone			10.06	15.24
grey	limestone			15.24	41.76

Hole Diameter

Depth From	Metres To	Diameter Centimetres
0	41.76	15.24

Water Record

Water found at **41.1** Metres Kind of Water **Not tested**

Gas Sulphur Minerals

Other: **Not tested**

After test of well yield, water was **Clear and sediment free**

Other, specify: **Not tested**

Chlorinated Yes No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Metres To
Casing				
15.88	<input checked="" type="checkbox"/> Steel <input type="checkbox"/> Fibreglass <input type="checkbox"/> Plastic <input type="checkbox"/> Concrete <input type="checkbox"/> Galvanized	.478	0	18.9
Screen				
Outside diam	<input type="checkbox"/> Steel <input type="checkbox"/> Fibreglass <input type="checkbox"/> Plastic <input type="checkbox"/> Concrete <input type="checkbox"/> Galvanized	Slot No.		
No Casing or Screen				
	<input checked="" type="checkbox"/> Open hole		18.3	41.76

Test of Well Yield See Attached.

Pumping test method	Draw Down		Recovery	
	Time min	Water Level Metres	Time min	Water Level Metres
Subpump				
Pump intake set at - (metres)	Static Level	2.66		9.85
Pumping rate 84 (litres/min) + 30	1	5.66	1	8.18
Duration of pumping 6 hrs + - min	2	8.26	2	7.40
Final water level end of pumping 9.8 metres	3		3	
Recommended pump type <input type="checkbox"/> Shallow <input checked="" type="checkbox"/> Deep	4	12.78	4	6.32
Recommended pump depth 39.6 metres	6	16.34	6	5.52
Recommended pump rate 36 (litres/min)	8	18.37	8	4.96
If flowing give rate - (litres/min)	10	19.98	10	4.60
	16	22.82	16	3.89
	20	24.14	20	3.67
	25	19.42	25	3.87
If pumping discontinued, give reason.	30	15.98	30	3.47
	40	11.66	40	3.19
	50	10.32	50	3.10
	60	9.94	60	3.04

Plugging and Sealing Record Annular space Abandonment

Depth set at - Metres From	To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
18.3	0	Cement grout slurry	250 gallons

Method of Construction

Cable Tool Rotary (air) Diamond Digging

Rotary (conventional) Air percussion Jetting Other

Rotary (reverse) Boring Driving

Water Use

Domestic Industrial Public Supply Other

Stock Commercial Not used

Irrigation Municipal Cooling & air conditioning

Final Status of Well

Water Supply Recharge well Unfinished Abandoned, (Other)

Observation well Abandoned, insufficient supply Dewatering

Test Hole Abandoned, poor quality Replacement well

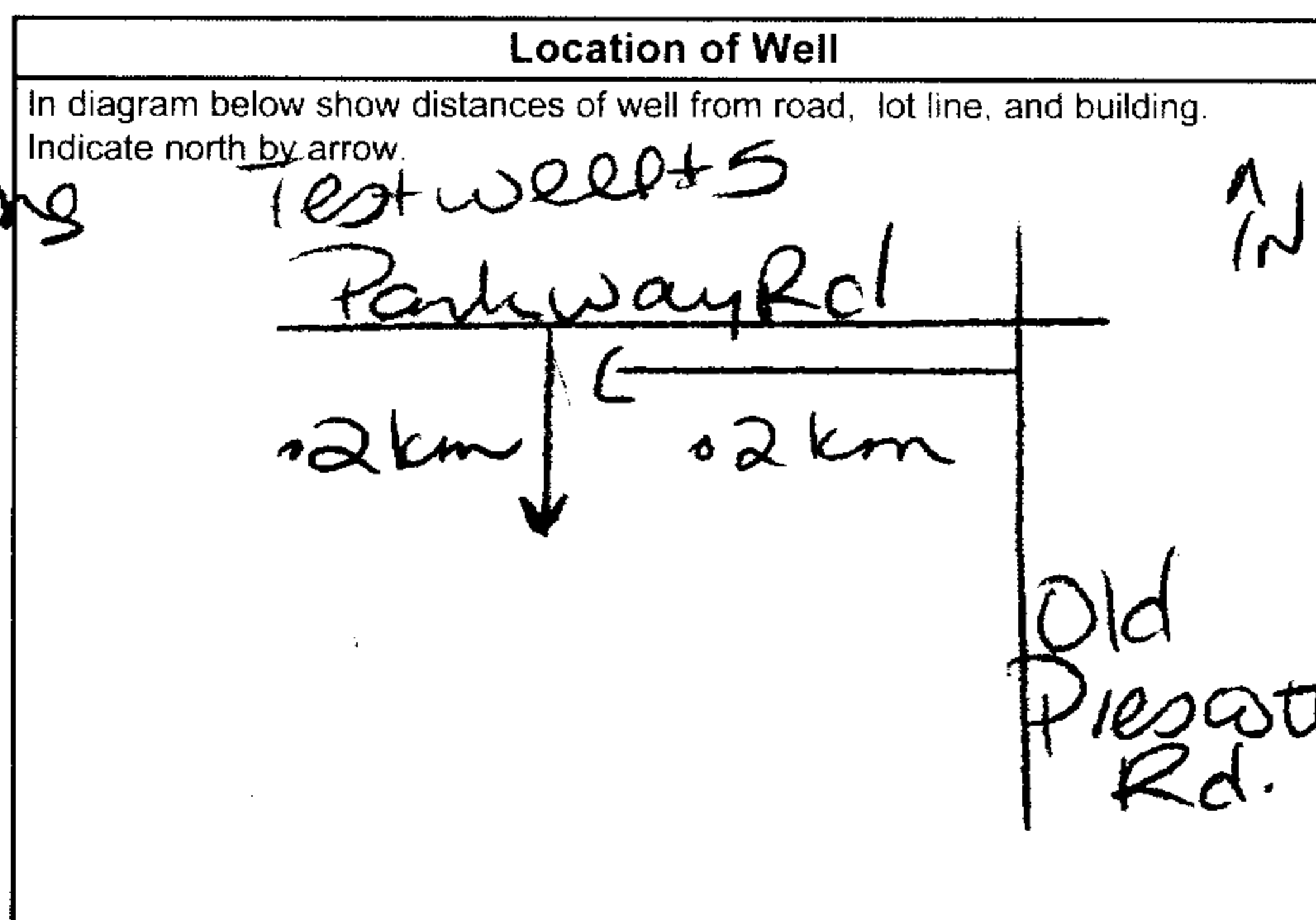
Well Contractor/Technician Information

Name of Well Contractor **Ar. Rock Drilling Ltd** Well Contractor's Licence No. **1119**

Business Address (street name, number, city etc.) **Rt 1 Richmond, Ont**

Name of Well Technician (last name, first name) **Shannon Pulwell** Well Technician's Licence No. **Ta 122**

Signature of Technician/Contractor **[Signature]** Date Submitted **2004 03 22**



Audit No. **Z 04877** Date Well Completed **2004 02 17**

Was the well owner's information package delivered? Yes No **NA** Date Delivered **NA**

Ministry Use Only

Data Source Contractor **1119**

Date Received **MAR 31 2004** Date of Inspection _____

Remarks **CS 153** Well Record Number **1534585**

Instructions for Completing Form

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

Well Owner's Information and Location of Well Information

Ministry Use Only											
MUN										CON	LOT

RR#/Street Number/Name: **6976 South Village Drive** City/Town/Village: **Georgetown** Site/Compartment/Block/Tract etc.: **1/1**

GPS Reading: NAD Zone Easting Northing: **83 18 455034 E 5012414** Unit Make/Model: **Magedan** Mode of Operation: Undifferentiated Averaged Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Metres To
brown	topsoil		soft	0	1.02
grey	sand	layers of clay	soft	1.02	10.36
grey	sand - gravel		packed	10.36	14.93
grey	gravel		packed	14.93	16.45
grey	limestone		layered	16.45	30.48

Hole Diameter		
Depth From	Metres To	Diameter Centimetres
0	17.37	21.23
17.37	30.48	15.55

Construction Record				
Inside diam centimetres	Material	Wall thickness centimetres	Depth Metres	
			From	To
Casing				
15.55	<input checked="" type="checkbox"/> Steel <input type="checkbox"/> Fibreglass <input type="checkbox"/> Plastic <input type="checkbox"/> Concrete <input type="checkbox"/> Galvanized	0.48	10.60	17.37
Screen				
Outside diam	<input type="checkbox"/> Steel <input type="checkbox"/> Fibreglass <input type="checkbox"/> Plastic <input type="checkbox"/> Concrete <input type="checkbox"/> Galvanized	Slot No.		
No Casing or Screen				
		<input type="checkbox"/> Open hole	17.37	30.48

Test of Well Yield				
Pumping test method	Draw Down Time min	Water Level Metres	Recovery	
			Time min	Water Level Metres
3 24 H.P. sub				
Pump intake set at - (metres) 24	Static Level	4.61		5.49
Pumping rate - (litres/min) 38	1		1	
Duration of pumping 1 hrs + 0 min	2		2	
Final water level end of pumping 5.19 metres	3	5.21		3
Recommended pump type <input type="checkbox"/> Shallow <input checked="" type="checkbox"/> Deep	4			4
Recommended pump depth. 24 metres	5	5.21		5 4.69
Recommended pump rate. 40 (litres/min)	10	5.36		10 4.61
If flowing give rate - (litres/min)	15	5.36		15
	20	5.43		20
If pumping discontinued, give reason.	25	5.45		25
	30	5.46		30
	40	5.48		40
	50	5.48		50
	60	5.49		60

Water Record

Water found at: **30** m Kind of Water: Fresh Sulphur Gas Salty Minerals

After test of well yield, water was Clear and sediment free Other, specify

Chlorinated Yes No

Plugging and Sealing Record			<input checked="" type="checkbox"/> Annular space	<input type="checkbox"/> Abandonment
Depth set at - Metres From	To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)	
0	16.38	cement grout	10 bags	

Method of Construction

Cable Tool Rotary (air) Diamond Digging
 Rotary (conventional) Air percussion Jetting Other
 Rotary (reverse) Boring Driving

Water Use

Domestic Industrial Public Supply Other
 Stock Commercial Not used
 Irrigation Municipal Cooling & air conditioning

Final Status of Well

Water Supply Recharge well Unfinished Abandoned, (Other)
 Observation well Abandoned, insufficient supply Dewatering
 Test Hole Abandoned, poor quality Replacement well

Location of Well

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

Audit No. **28003** Date Well Completed **05 09 27**

Was the well owner's information package delivered? Yes No Date Delivered

Well Contractor/Technician Information

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

Business Address (street name, number, city, etc.): **St A. Bourgeois**

Name of Well Technician (last name, first name): **Claude Bourgeois** Well Technician's Licence No.: **3310**

Signature of Technician/Contractor: *[Signature]* Date Submitted: **05 09 27**

Ministry Use Only

Data Source: Contractor **1414**

Date Received: **05 09 27** Date of Inspection: **05 09 27**

Remarks: Well Record Number

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 (County/District/Municipality) Ottawa Carleton Township Osgoode Lot 4 Concession 4 RR#/Street Number/Name #6958 South Village Dr City/Town/Village Greely Site/Compartment/Block/Tract etc PLAN 4M-1205 9/110 GPS Reading NAD 83 Zone 18 Easting 454913 Northing 5012338 Unit Make/Model Magellan Mode of Operation: Undifferentiated Averaged Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

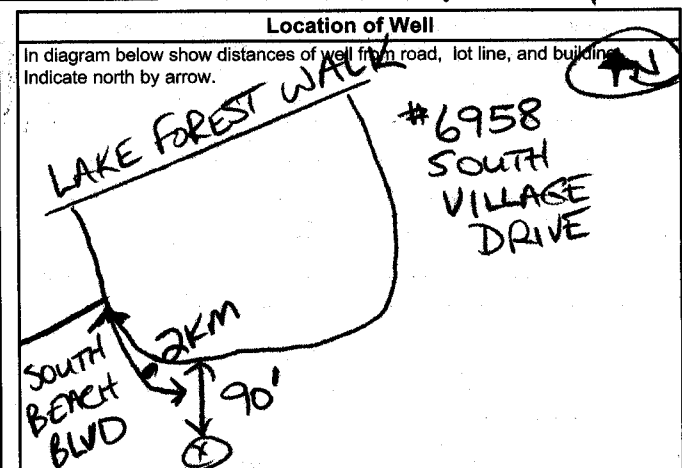
Table with columns: General Colour, Most common material, Other Materials, General Description, Depth From, Metres To. Handwritten entries: sand fill, clay, sand, grey limestone, sand, gravel. Depth ranges from 0 to 24.4 metres.

Hole Diameter table with columns: Depth From, Metres To, Diameter Centimetres. Handwritten: 0, 24.4, 14.9.

Construction Record table with columns: Inside diam centimetres, Material, Wall thickness centimetres, Depth From, Metres To. Handwritten: 15.88, Steel, .48, 0, 17.7.

Test of Well Yield table with columns: Pumping test method, Draw Down, Recovery. Handwritten: Sub Pump, 91, 4.34, 7.53, 6.22, 5.03, 6.85, 4.72, 7.07, 4.69, 7.19, 4.66, 7.24, 4.62, 7.38, 4.56, 7.42, 4.50, 7.44, 4.48, 7.47, 4.46, 7.48, 4.44, 7.50, 4.42, 7.52, 4.41, 7.53, 4.40.

Plugging and Sealing Record table with columns: Depth set at - Metres From, To, Material and type, Volume Placed. Handwritten: 17.1, 14.0, neat cement slurry, 11816; 14.0, 0, bentonite slurry, 490.



Method of Construction table with checkboxes for Cable Tool, Rotary (air), Rotary (conventional), Rotary (reverse), Air percussion, Boring, Diamond, Jetting, Digging, Other.

Water Use table with checkboxes for Domestic, Stock, Irrigation, Industrial, Commercial, Municipal, Public Supply, Not used, Cooling & air conditioning, Other.

Final Status of Well table with checkboxes for Water Supply, Observation well, Test Hole, Recharge well, Abandoned, insufficient supply, Abandoned, poor quality, Unfinished, Dewatering, Replacement well, Abandoned, (Other).

Well Contractor/Technician Information form with fields for Name of Well Contractor, Business Address, Name of Well Technician, Signature, Date Submitted. Handwritten: Air Rod Drilling Co Ltd, 2221 Richmond, Ont, Purcell Shannon, 2005/11/04.

Audit No. Z 23315, Date Well Completed 2005/10/18, Date Delivered 2005/10/19.

Ministry Use Only form with fields for Data Source, Date Received, Date of Inspection, Remarks, Well Record Number. Handwritten: 1119, NOV 14, 2005.

Instructions for Completing Form

A028641

- 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.
Questions regarding completing this application can be directed to the Water Well Management Coordinator at 416-235-6203.
All metre measurements shall be reported to 1/10th of a metre.
Please print clearly in blue or black ink only.

Well Owner's Information and Location of Well Information
First Name: [Redacted]
Mailing Address: 6779 LAKES PARK DRIVE
County/District/Municipality: eb Manor Development
Township/City/Town/Village: GREELY
Province: Ontario
Postal Code: K4P1P1
Telephone Number: [Redacted]

Log of Overburden and Bedrock Materials (see instructions)

Table with columns: General Colour, Most common material, Other Materials, General Description, Depth From, Metres To.
Rows: Sand, limestone, gravel; grey limestone; grey limestone, sandstone, mixed.

Hole Diameter
Depth From: 0, To: 54.9
Diameter Centimetres: 15.07

Water Record
Water found at: 28.3, 34.7, 50.6 metres
Kind of Water: NOT tested, tested

Construction Record
Casing: Steel, 15.88, 15.2
Screen: No casing or screen, 14.6, 54.9

Test of Well Yield
Pumping test method: Sub pump
Draw Down: 11.13, 12.95, 13.93, 14.82, 15.68, 16.53, 20.15, 22.80, 25.44, 27.62, 29.37, 32.73, 35.22, 37.51
Recovery: 36.15, 34.77, 33.64, 32.47, 30.53, 27.20, 24.10, 21.90, 20.14, 18.24, 16.58, 14.98, 14.11

Plugging and Sealing Record
Annular space checked
Depth set at: 14.6 to 11.6 (Cement slurry, 1.1362 cubic metres)
11.6 to 0 (bentonite slurry, 1.490 cubic metres)

Method of Construction: Air percussion checked
Water Use: Domestic checked
Final Status of Well: Water Supply checked

Well Contractor/Technician Information
Name of Well Contractor: Air Rock Drilling Ltd
Business Address: RR#1 Richmond, Ont
Name of Well Technician: Purcell Shannon

Location of Well
Diagram showing South Beach Blvd, South Village Dr, and well location #6935. Distances: 160' from road, 150' from building.

Ministry Use Only
Data Source: Contractor
Date Received: NOV 14, 2005
Date of Inspection: [Redacted]



Ontario

Ministry of the Environment

Well Tag Number

A 028715

Well Record

Regulation 903 Ontario Water Resources Act

Instructions for Completing Form

A028715

page ___ of ___

- 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 (County/District/Municipality) **Ottawa Carleton** Township **Osgoode** Lot **4** Concession **4**

RR#/Street Number/Name **#6945 South Village Dr** City/Town/Village **Greely** Site/Compartment/Block/Tract etc. **PLANAM-1265 5/126**

GPS Reading NAD **83** Zone **18** Easting **454807** Northing **5012421** Unit Make/Model **magellan** Mode of Operation: Undifferentiated Averaged Differentiated, specify _____

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth Metres	
				From	To
	sand	gravel		0	11.6
grey	limestone			11.6	30.5
grey	sandstone			30.5	54.9

Hole Diameter			Construction Record				Test of Well Yield					
Depth From	Metres To	Diameter Centimetres	Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Metres To	Pumping test method	Draw Down Time min	Water Level Metres	Recovery Time min	Water Level Metres
0	54.9	15.24	15.88	Steel	.48	0	14.0	Subpump		10.06		
Water Record			Casing				Test of Well Yield					
Water found at Metres	Kind of Water		Screen				Test of Well Yield					
35.0	Fresh Sulphur Gas Salty Minerals Other: NO+		Outside diam				Test of Well Yield					
51.5	Fresh Sulphur Gas Salty Minerals Other: TESTED		Slot No.				Test of Well Yield					
After test of well yield, water was			No Casing or Screen				Test of Well Yield					
Clear and sediment free			Open hole				Test of Well Yield					
Other, specify: cloudy							Test of Well Yield					
Chlorinated <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No							Test of Well Yield					

Plugging and Sealing Record Annular space Abandonment

Depth set at - Metres From	To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
13.4	10.4	neat cement slurry	.1362
10.4	0	bentonite slurry	.490

Method of Construction

Cable Tool Rotary (air) Diamond Digging

Rotary (conventional) Air percussion Jetting Other

Rotary (reverse) Boring Driving

Water Use

Domestic Industrial Public Supply Other

Stock Commercial Not used

Irrigation Municipal Cooling & air conditioning

Final Status of Well

Water Supply Recharge well Unfinished Abandoned, (Other)

Observation well Abandoned, insufficient supply Dewatering

Test Hole Abandoned, poor quality Replacement well

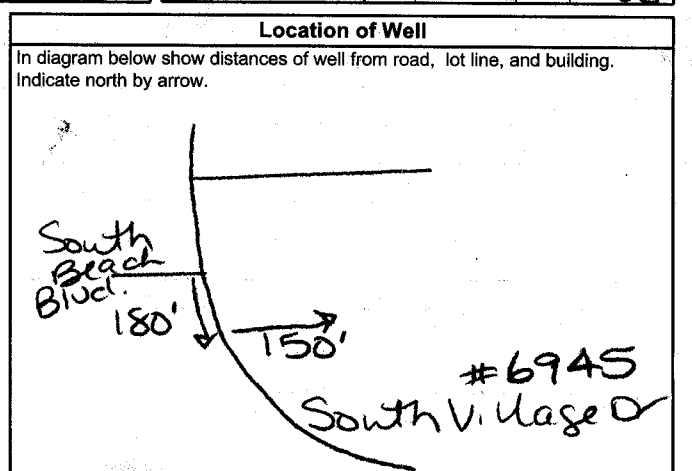
Well Contractor/Technician Information

Name of Well Contractor **A1 Rock Drilling Ltd** Well Contractor's Licence No. **1119**

Business Address (street name, number, city etc.) **Rte 1 Richmond, Ont**

Name of Well Technician (last name, first name) **Purcell Shannon** Well Technician's Licence No. **12122**

Signature of Technician/Contractor **[Signature]** Date Submitted **0005 11 04**



Audit No. **z 23364** Date Well Completed **2005 09 30**

Was the well owner's information package delivered? Yes No Date Delivered **2005 10 03**

Ministry Use Only

Data Source **1119** Contractor **1119**

Date Received **NOV 14 2005** Date of Inspection **YYYY MM DD**

Remarks _____ Well Record Number _____

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											
MUN										CON	LOT

Well Owner's Information and Location of Well Information

Ottawa Carleton / Ossonge
 RR#/Street Number/Name: **#6934 South Village Drive**
 City/Town/Village: **Ossonge** Site/Compartment/Block/Tract etc.: **4 4**
 GPS Reading: **8.3** NAD Zone Easting Northing: **10 45477 5012309** Unit Make/Model: **Mogelbon** Mode of Operation: Undifferentiated Averaged
 Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth Metres	
				From	To
	Sand gravel			0	12.19
	Gray limestone			12.19	45.72

Hole Diameter			Construction Record				Test of Well Yield					
Depth From	Metres To	Diameter Centimetres	Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Metres To	Pumping test method	Draw Down Time min	Water Level Metres	Recovery Time min	Water Level Metres
0	45.72	15.07	15.88	Steel <input checked="" type="checkbox"/> Fibreglass <input type="checkbox"/> Plastic <input type="checkbox"/> Concrete <input type="checkbox"/> Galvanized <input type="checkbox"/>	.48	0	14.63	Subpump	1	10.20	1	12.75
Water Record			Screen				Test of Well Yield					
Water found at: 43.08 m			Outside diam				Pumping rate (litres/min): 91					
Kind of Water: NOT TESTED			Slot No.				Duration of pumping: 1 hrs 0 min					
Fresh <input type="checkbox"/> Sulphur <input type="checkbox"/> Salty <input type="checkbox"/> Minerals <input type="checkbox"/>			Material				Final water level end of pumping: 12.75 metres					
Other: TESTED			Galvanized <input type="checkbox"/>				Recommended pump type: <input type="checkbox"/> Shallow <input checked="" type="checkbox"/> Deep					
Fresh <input type="checkbox"/> Sulphur <input type="checkbox"/> Salty <input type="checkbox"/> Minerals <input type="checkbox"/>			No Casing or Screen				Recommended pump depth: 39.62 metres					
Other: TESTED			<input checked="" type="checkbox"/> Open hole				Recommended pump rate (litres/min): 91					
Chlorinated: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			14.02				If flowing give rate - (litres/min): 91					
			45.72				If pumping discontinued, give reason:					

Plugging and Sealing Record Annular space Abandonment

Depth set at - Metres	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
14.02	Neat Cement Slurry	1.816
10.97	Bentonite Slurry	0.363

Method of Construction

Cable Tool Rotary (air) Diamond Digging
 Rotary (conventional) Air percussion Jetting Other
 Rotary (reverse) Boring Driving

Water Use

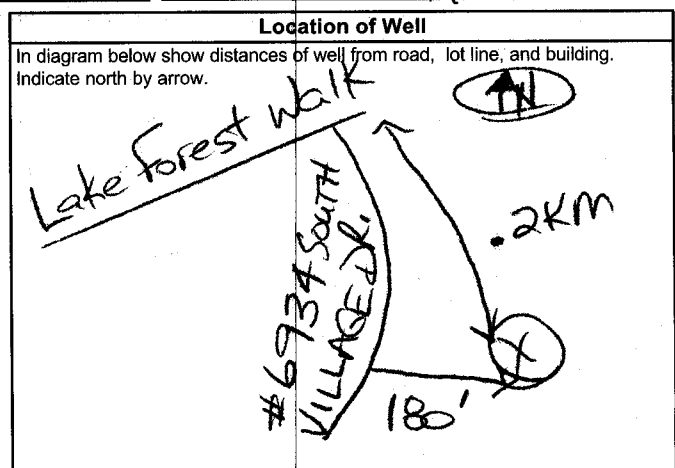
Domestic Industrial Public Supply Other
 Stock Commercial Not used
 Irrigation Municipal Cooling & air conditioning

Final Status of Well

Water Supply Recharge well Unfinished Abandoned, (Other)
 Observation well Abandoned, insufficient supply Dewatering
 Test Hole Abandoned, poor quality Replacement well

Well Contractor/Technician Information

Name of Well Contractor: **AIR ROCK DRILLING CO LTD 1119** Well Contractor's Licence No.: **1119**
 Business Address (street name, number, city etc.): **RR#1 RICHMOND ONT ROAD 20**
 Name of Well Technician (last name, first name): **HOSAN DAN** Well Technician's Licence No.: **T 3058**
 Signature of Technician/Contractor: **[Signature]** Date Submitted: **2006 04 05**



Audit No. **Z 39914** Date Well Completed: **2006 03 15**
 Was the well owner's information package delivered? Yes No Date Delivered: **2006 03 16**

Ministry Use Only

Data Source: Contractor **1119**
 Date Received: **APR 12 2006** Date of Inspection: **2006 03 16**
 Remarks: _____ Well Record Number: _____

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

MUN		CON		LOT	
-----	--	-----	--	-----	--

Well Owner's Information and Location of Well Information

First Name: Savvy Custom Building
Last Name: Building
Mailing Address: 555 Legget Dr. P.O. Box 73010
County/District/Municipality: Ottawa Carleton
Township/City/Town/Village: Kanata
Province: Ontario
Postal Code: K2K 3C5
Telephone Number: 613

Address of Well Location (County/District/Municipality): Ottawa Carleton
Township: Osgoode
City/Town/Village: Greely
Lot: 3
Concession: 4
RR#/Street Number/Name: Lot 23 South Village
Site/Compartment/Block/Tract etc.

GPS Reading: NAD 83 Zone 18 Easting 454882 Northing 5012483
Unit Make/Model: Garmin
Mode of Operation: Averaged

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth Metres	
				From	To
brown	sand			0	1.21
gray	sand & gravel		wet	1.21	3.04
gray	clay		packed	3.04	11.88
gray	sand & gravel			11.88	13.10
gray	limestone			13.10	48.76
gray & white	sandstone			48.76	95.09

Hole Diameter

Depth Metres	Diameter Centimetres
0 to 14.93	12.75
14.93 to 95.09	15.23

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth Metres	
			From	To
15.86	Steel	0.48	+ .45	14.93
Screen				
Outside diam	Material	Slot No.		
15.23	Open hole		14.93	95.09

Test of Well Yield

Pumping test method	Draw Down		Recovery	
	Time min	Water Level Metres	Time min	Water Level Metres
submersible				
Pump intake set at (metres)	Static Level			
60.95	1	10.32	1	10.21
Pumping rate (litres/min)	2	10.32	2	10.22
54.6				
Duration of pumping	3	10.33	3	10.22
1 hrs + min				
Final water level end of pumping	4	10.33	4	10.23
10.34				
Recommended pump type	5	10.33	5	10.22
Shallow/Deep				
Recommended pump depth	10	10.33	10	10.22
45.7 metres	15	10.33	15	10.22
Recommended pump rate (litres/min)	20	10.34	20	10.22
45.5	25	10.34	25	10.20
If flowing give rate (litres/min)	30	10.34	30	10.19
	40	10.34	40	10.19
If pumping discontinued, give reason.	50	10.34	50	10.19
	60	10.34	60	10.19

Plugging and Sealing Record

Depth set at - Metres	Material and type	Volume Placed (cubic metres)
14.93 to 0	Grouted Bentonite Slurry	1.38m3

Method of Construction

Cable Tool Rotary (air) Diamond Digging
 Rotary (conventional) Air percussion Jetting Other
 Rotary (reverse) Boring Driving

Water Use

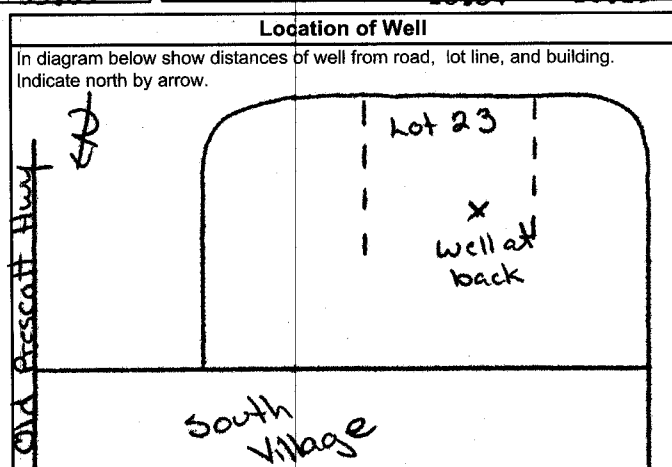
Domestic Industrial Public Supply Other
 Stock Commercial Not used
 Irrigation Municipal Cooling & air conditioning

Final Status of Well

Water Supply Recharge well Unfinished Abandoned, (Other)
 Observation well Abandoned, insufficient supply Dewatering
 Test Hole Abandoned, poor quality Replacement well

Well Contractor/Technician Information

Name of Well Contractor: Capital Water Supply Ltd.
Well Contractor's Licence No.: 1558
Business Address: Box 490 Stittsville, Ontario K3S 1A6
Name of Well Technician: Miller, Stephen
Well Technician's Licence No.: T0097
Signature: [Signature]
Date Submitted: 2006 03 31



Audit No.: 739272
Date Well Completed: 2006 03 30
Was the well owner's information package delivered? Yes No
Date Delivered: 2006 03 30

Ministry Use Only

Data Source: [Blank]
Contractor: 1558
Date Received: APR 19 2006
Date of Inspection: [Blank]
Remarks: [Blank]
Well Record Number: [Blank]

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. Questions regarding completing this application can be directed to the Water Well Management Coordinator at 416-235-6203. All metre measurements shall be reported to 1/10th of a metre. Please print clearly in blue or black ink only.

Well Owner's Information and Location of Well Information

Table with columns: MUN, CON, LOT

RR#/Street Number/Name: #6970 South Village Drive; City/Town/Village: Greely; Site/Compartment/Block/Tract etc: Pbn 4M-1265 S/L8

Log of Overburden and Bedrock Materials (see instructions)

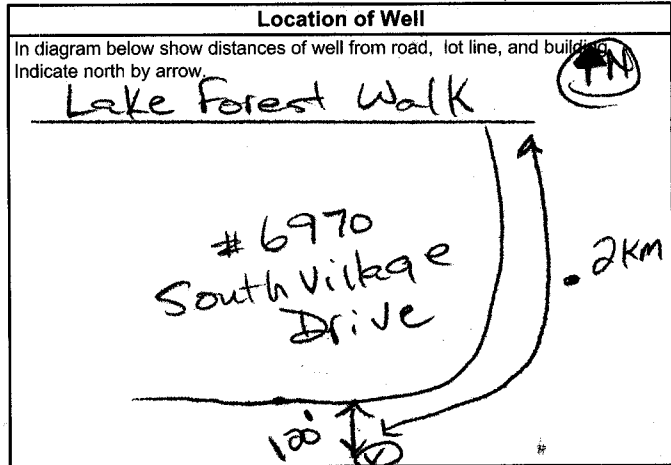
Table with columns: General Colour, Most common material, Other Materials, General Description, Depth From, Metres To

Hole Diameter, Water Record, Chlorinated sections

Construction Record, Casing, Screen, No Casing or Screen sections

Test of Well Yield table with columns: Pumping test method, Draw Down, Recovery

Plugging and Sealing Record table



Method of Construction, Water Use, Final Status of Well sections

Audit No. 239992, Date Well Completed 2006 04 19

Well Contractor/Technician Information section

Ministry Use Only section

Instructions for Completing Form

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

Well Owner's Information and Location of Well Information

Ministry Use Only											
MUN				CON				LOT			

RR#/Street Number/Name: **1332 South Beach Blvd** City/Town/Village: **Greely** Site/Compartment/Block/Tract etc.: **Plan 4M-1265 S/L 111**

GPS Reading: NAD **83** Zone **18** Easting **454569** Northing **5012144** Unit Make/Model: **Magellan** Mode of Operation: Undifferentiated Averaged Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth Metres	
				From	To
	Sand			0	13.10
	Grey limestone			13.10	28.95
	✓ Sandstone			28.95	34.44
	✓ Limestone			34.44	41.14
	✓ Sandstone			41.14	42.66

Hole Diameter

Depth From	Metres To	Diameter Centimetres
0	42.66	15.23

Water Record

Water found at: **35.35** m Kind of Water: **None**

Fresh Sulphur Gas Salty Minerals

Other: **None**

After test of well yield, water was **clear and NOT chlorinated**

Chlorinated: Yes No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Metres To
15.88	<input checked="" type="checkbox"/> Steel <input type="checkbox"/> Fibreglass <input type="checkbox"/> Plastic <input type="checkbox"/> Concrete <input type="checkbox"/> Galvanized	.48	0	15.84

Screen

Outside diam: Steel Fibreglass Plastic Concrete Galvanized

Slot No.:

No Casing or Screen

Open hole

Test of Well Yield

Pumping test method	Draw Down		Recovery	
	Time min	Water Level Metres	Time min	Water Level Metres
Subpump				
Pump intake set at (metres)	37.62	Static Level 28.6		41.72
Pumping rate (litres/min)	1	5.72	1	39.29
Duration of pumping (hrs + 0 min)	2	8.20	2	37.35
Final water level end of pumping (metres)	3	10.17	3	35.35
Recommended pump type: <input type="checkbox"/> Shallow <input checked="" type="checkbox"/> Deep	4	12.26	4	38.26
Recommended pump depth (metres)	5	14.10	5	37.79
Recommended pump rate (litres/min)	10	21.89	10	34.06
	15	26.88	15	17.51
If flowing give rate (litres/min)	20	30.53	20	15.90
	25	33.16	25	14.53
If pumping discontinued, give reason:	30	34.94	30	11.53
	40	37.60	40	9.34
	50	40.22	50	7.92
	60	41.72	60	5.48

Plugging and Sealing Record

Depth set at - Metres From	To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
15.23	12.19	Neat Cement Slurry	.227
12.19	0	Bentonite Slurry	.981

Method of Construction

Cable Tool Rotary (air) Diamond Digging

Rotary (conventional) Air percussion Jetting Other

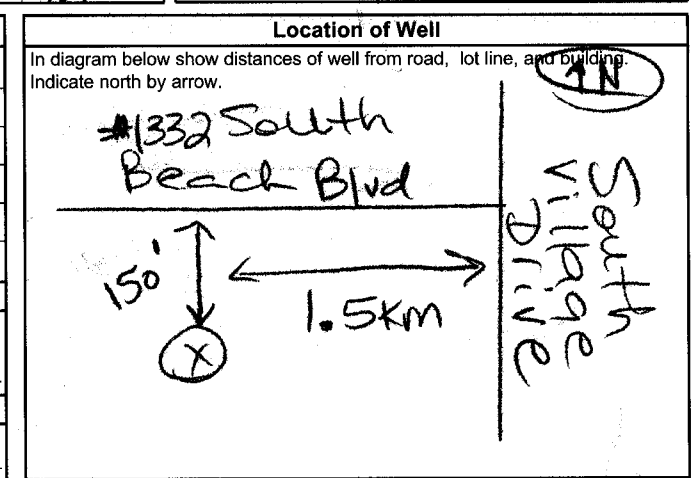
Rotary (reverse) Boring Driving

Water Use

Domestic Industrial Public Supply Other

Stock Commercial Not used

Irrigation Municipal Cooling & air conditioning



Final Status of Well

Water Supply Recharge well Unfinished Abandoned, (Other)

Observation well Abandoned, insufficient supply Dewatering

Test Hole Abandoned, poor quality Replacement well

Well Contractor/Technician Information

Name of Well Contractor: **Air Rock Drilling Co Ltd** Well Contractor's Licence No.: **1119**

Business Address (street name, number, city etc.): **RR#1 Richmond Ont K0A2Z0**

Name of Well Technician (last name, first name): **Desautniers Ken** Well Technician's Licence No.: **14**

Signature of Technician/Contractor: *[Signature]* Date Submitted: **2006 08 28**

Audit No. **Z 48636** Date Well Completed: **2006 07 27**

Was the well owner's information package delivered? Yes No Date Delivered: **2006 08 26**

Ministry Use Only

Data Source: Contractor **1119**

Date Received: **SEP 07 2006** Date of Inspection: **2006 08 28**

Remarks: Well Record Number

Instructions for Completing Form

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

Well Owner's Information and Location of Well Information

Ministry Use Only											
MUN										CON	LOT

RR#/Street Number/Name: **Ottawa - Carleton #1350 South Beach Blvd**
 City/Town/Village: **Ussoude Greeley**
 Site/Compartment/Block/Tract, etc.: **4 4 P44M-6655/L114**
 GPS Reading: NAD **813** Zone **18** Easting **454648** Northing **5012199**
 Unit Make/Model: **Magellan** Mode of Operation: Undifferentiated Averaged Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth Metres	
				From	To
	Sand & gravel			0	13.10
	Grey limestone			13.10	36.57
	Grey Sandstone			36.57	53.33

Hole Diameter		
Depth From	Metres To	Diameter Centimetres
0	53.33	15.23

Construction Record				
Inside diam centimetres	Material	Wall thickness centimetres	Depth Metres	
			From	To
15.88	<input checked="" type="checkbox"/> Steel <input type="checkbox"/> Fibreglass <input type="checkbox"/> Plastic <input type="checkbox"/> Concrete <input type="checkbox"/> Galvanized	1.48	0	15.84
Casing				
<input type="checkbox"/> Steel <input type="checkbox"/> Fibreglass <input type="checkbox"/> Plastic <input type="checkbox"/> Concrete <input type="checkbox"/> Galvanized				
Screen				
Outside diam	<input type="checkbox"/> Steel <input type="checkbox"/> Fibreglass <input type="checkbox"/> Plastic <input type="checkbox"/> Concrete <input type="checkbox"/> Galvanized	Slot No.		
No Casing or Screen				
<input checked="" type="checkbox"/> Open hole			15.23	53.33

Test of Well Yield				
Pumping test method	Draw Down		Recovery	
	Time min	Water Level Metres	Time min	Water Level Metres
SUBPUMP				
Pump intake set (metres)	48.75	Static Level	10.78	21.96
Pumping rate (litres/min)	24.6	1	12.73	19.60
Duration of pumping	1 hrs + 0 min	2	13.70	17.18
Final water level end of pumping (metres)	21.96	3	14.38	15.08
Recommended pump type	<input type="checkbox"/> Shallow <input checked="" type="checkbox"/> Deep	4	15.00	14.17
Recommended pump depth (metres)	48.75	5	15.45	13.08
Recommended pump rate (litres/min)	54.60	10	17.36	11.15
If flowing give rate (litres/min)		15	18.53	10.96
		20	19.40	10.89
		25	20.08	10.87
		30	20.57	10.85
		40	21.30	10.83
		50	21.63	10.80
		60	21.96	10.79

Plugging and Sealing Record			<input checked="" type="checkbox"/> Annular space	<input type="checkbox"/> Abandonment
Depth set at - Metres From	To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)	
15.23	12.19	Neat Cement Slurry	.227	
12.19	0	Bentonite Slurry	.735	

Method of Construction

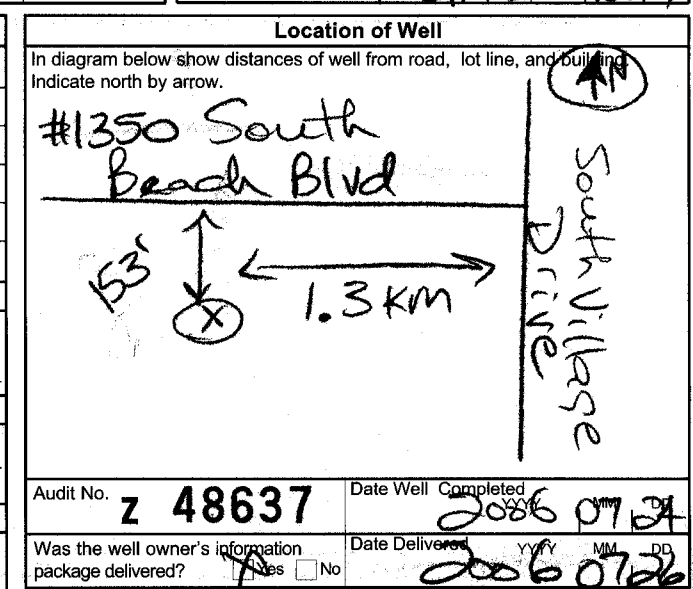
Cable Tool Rotary (air) Diamond Digging
 Rotary (conventional) Air percussion Jetting Other
 Rotary (reverse) Boring Driving

Water Use

Domestic Industrial Public Supply Other
 Stock Commercial Not used
 Irrigation Municipal Cooling & air conditioning

Final Status of Well

Water Supply Recharge well Unfinished Abandoned, (Other)
 Observation well Abandoned, insufficient supply Dewatering
 Test Hole Abandoned, poor quality Replacement well



Well Contractor/Technician Information

Name of Well Contractor: **AR ROCK DRILLING CO LTD** Well Contractor's Licence No. **1119**
 Business Address (street name, number, city etc.): **RR#1 RICHMOND ONT K0A2Z0**
 Name of Well Technician (last name, first name): **Desautniers Ken** Well Technician's Licence No. **T4**
 Signature of Technician/Contractor: *[Signature]* Date Submitted: **2006 08 28**

Ministry Use Only

Data Source: Contractor **1119**
 Date Received: **SEP 07 2006** Date of Inspection: **2006 07 24**
 Remarks: _____ Well Record Number: _____

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														
MUN							CON							LOT

Well Owner's Information and Location of Well Information

RR#/Street Number/Name: Ottawa-Carleton #6940 South Village Dr City/Town/Village: Uxbridge Site/Compartment/Block/Tract etc: 4 4 Plan 4M-1265 3/L13

GPS Reading: NAD 83 Zone 18 Easting 454807 Northing 502320 Unit/Make/Model: Mogellan Mode of Operation: Undifferentiated Averaged Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth Metres	
				From	To
	Sand			0	5.18
	Sandy clay, sand, gravel			5.18	10.97
	Limestone			10.97	24.99

Hole Diameter

Depth Metres	Diameter Centimetres
0	24.99
	15.24

Water Record

Water found at 16.10 m Kind of Water: Fresh Sulphur Gas Salty Minerals

23.16 m Fresh Sulphur Gas Salty Minerals

After test of well yield, water was Clear and sediment free Other, specify TESTED

Chlorinated Yes No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth Metres	
			From	To
15.38	<input checked="" type="checkbox"/> Steel <input type="checkbox"/> Fibreglass <input type="checkbox"/> Plastic <input type="checkbox"/> Concrete <input type="checkbox"/> Galvanized	48	0	16.00
Screen				
Outside diam	<input type="checkbox"/> Steel <input type="checkbox"/> Fibreglass <input type="checkbox"/> Plastic <input type="checkbox"/> Concrete <input type="checkbox"/> Galvanized	Slot No.		
No Casing or Screen				
<input checked="" type="checkbox"/> Open hole			15.39	24.99

Test of Well Yield

Pumping test method	Draw Down		Recovery	
	Time min	Water Level Metres	Time min	Water Level Metres
Sub Pump				
Pump intake set at <u>2.33</u> metres	Static Level	3.27		4.85
Pumping rate (litres/min) <u>91</u>	1	4.36	1	3.56
Duration of pumping <u>1</u> hrs + <u>0</u> min	2	4.50	2	3.51
Final water level at end of pumping <u>4.53</u> metres	3	4.56	3	3.46
Recommended pump type <input type="checkbox"/> Shallow <input checked="" type="checkbox"/> Deep	4	4.60	4	3.45
Recommended pump depth <u>0.33</u> metres	5	4.62	5	3.44
Recommended pump rate (litres/min) <u>91</u>	10	4.70	10	3.38
If flowing give rate - (litres/min)	15	4.72	15	3.34
	20	4.74	20	3.29
	25	4.75	25	3.27
	30	4.76	30	
	40	4.77	40	
	50	4.80	50	
	60	4.85	60	

Plugging and Sealing Record Annular space Abandonment

Depth set at - Metres	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
15.39	Neat Cement Slurry	.1816
12.34	bentonite Slurry	.858

Method of Construction

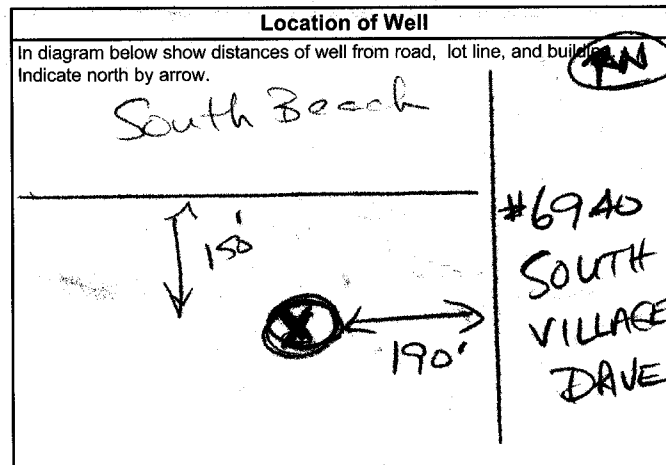
Cable Tool Rotary (air) Diamond Digging Rotary (conventional) Air percussion Jetting Other Rotary (reverse) Boring Driving

Water Use

Domestic Industrial Public Supply Other Stock Commercial Not used Irrigation Municipal Cooling & air conditioning

Final Status of Well

Water Supply Recharge well Unfinished Abandoned, (Other) Observation well Abandoned, insufficient supply Dewatering Test Hole Abandoned, poor quality Replacement well



Audit No. **z 48610** Date Well Completed 2006 07 28

Was the well owner's information package delivered? Yes No Date Delivered 2006 08 01

Well Contractor/Technician Information

Name of Well Contractor: AIR ROCK DRILLING CO LTD Well Contractor's Licence No. 1119

Business Address (street name, number, city etc.): RR#1 RICHMOND ONT K0A2Z0

Name of Well Technician (last name, first name): Desautniers Ken Well Technician's Licence No. 14

Signature of Technician/Contractor: [Signature] Date Submitted 2006 08 28

Ministry Use Only

Data Source: Contractor **1119**

Date Received SEP 07 2006 Date of Inspection 2006 08 01

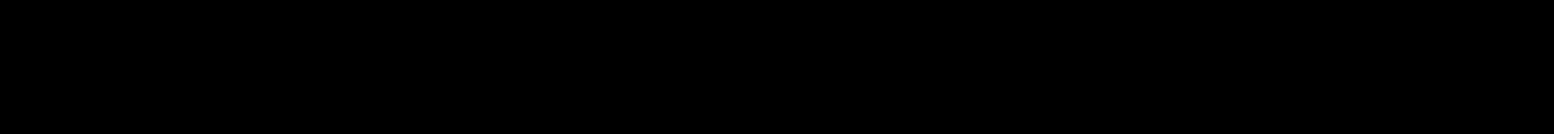
Remarks: _____ Well Record Number: _____

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. Questions regarding completing this application can be directed to the Water Well Management Coordinator at 416-235-6203. All metre measurements shall be reported to 1/10th of a metre. Please print clearly in blue or black ink only.

Well Owner's Information and Location of Well Information

Ministry Use Only table with columns for MUN, CON, LOT



Well location details: Ottawa-Carleton, 1362 South Beach Blvd, Greely Plan 4M-1065/1116, NAD 83, Easting 454725, Northing 5012231, Mogellan

Log of Overburden and Bedrock Materials (see instructions)

Table with columns: General Colour, Most common material, Other Materials, General Description, Depth From, Metres To. Includes handwritten entries for sand, gravel, limestone, and sandstone.

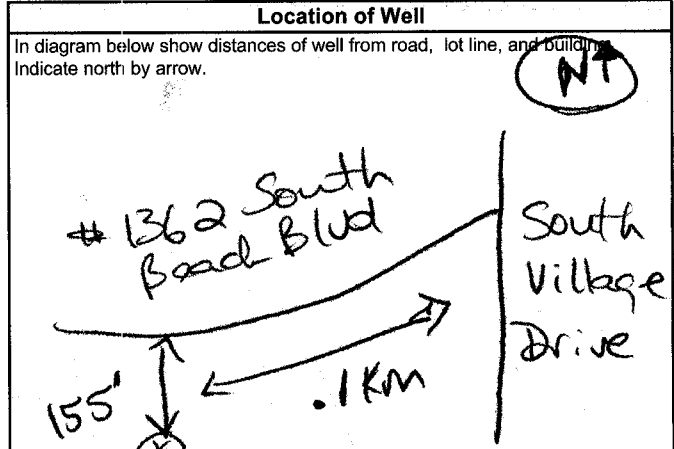
Hole Diameter table with columns: Depth, Metres, Diameter. Shows 0 to 56.69 metres depth and 15.23 centimetres diameter.

Construction Record table with columns: Inside diam, Material, Wall thickness, Depth, Metres. Includes sections for Casing and Screen.

Test of Well Yield table with columns: Pumping test method, Draw Down, Recovery. Includes data for Sublump test.

Water Record section with checkboxes for Fresh, Sulphur, Gas, Salty, Minerals, and Chlorinated.

Plugging and Sealing Record table with columns: Depth set at, Material and type, Volume Placed. Shows bentonite slurry and neat cement slurry.



Method of Construction, Water Use, and Final Status of Well sections with various checkboxes.

Audit No. 2 48653, Date Well Completed 2006 09 05, Date Delivered 2006 09 06

Well Contractor/Technician Information section with names and licence numbers.

Ministry Use Only section with Data Source, Date Received, Date of Inspection, and Well Record Number.

Instructions for Completing Form

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

Well Owner's Information and Location of Well Information

Ministry Use Only									
MUN	CON	LOT							

City/Town/Village: **City of Ottawa** / **City of Ottawa Osgoode 112**
 RR#/Street Number/Name: **1338 South Beach DR.**
 City/Town/Village: **GREELY** / Site/Compartment/Block/Tract etc.: **Plan HM 1265**
 GPS Reading: NAD **83** Zone **18** Easting **454616E** Northing **5012160** Unit Make/Model: **Magellan utm** Mode of Operation: Undifferentiated Averaged Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth Metres	
				From	To
yellow	sand		Soft	0	3.10
gray	sand		Soft	3.10	10.97
gray	gravel		Packed	10.97	13.41
red	illite shale		layered	13.41	42.67
purple	sandstone		Hard	42.67	48.76

Hole Diameter

Depth From	Metres To	Diameter Centimetres
0	14.63	2123
14.63	48.76	1555

Water Record

Water found at: **4.4** m / Fresh / Sulphur / Gas / Salty / Minerals / Other:

After test of well yield, water was Clear and sediment free / Other, specify

Chlorinated: Yes / No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth Metres	
			From	To
1555	<input checked="" type="checkbox"/> Steel <input type="checkbox"/> Fibreglass <input type="checkbox"/> Plastic <input type="checkbox"/> Concrete <input type="checkbox"/> Galvanized	0.48	14.63	14.63

Screen

Outside diam: Steel Fibreglass Plastic Concrete Galvanized / Slot No.:

No Casing or Screen

Open hole / 14.63 48.76

Test of Well Yield

Pumping test method	Draw Down		Recovery	
	Time min	Water Level Metres	Time min	Water Level Metres
Pump intake set at - (metres) 30		7.17		10.17
Pumping rate - (litres/min) 40	1	8.12	1	9.72
Duration of pumping 1 hrs + 0 min	2	8.40	2	9.37
Final water level end of pumping 10.7 metres	3	8.46	3	9.16
Recommended pump type <input type="checkbox"/> Shallow <input checked="" type="checkbox"/> Deep	4	8.67	4	8.99
Recommended pump depth 30 metres	5	8.70	5	8.90
Recommended pump rate (litres/min) 40	10	8.86	10	8.33
If flowing give rate - (litres/min)	15	9.32	15	8.62
	20	9.60	20	7.87
	25	9.79	25	7.72
If pumping discontinued, give reason.	30	9.79	30	7.62
	40	9.96	40	-
	50	10.10	50	-
	60	10.17	60	-

Plugging and Sealing Record Annular space Abandonment

Depth set at - Metres	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
0 14.63	neat cement slurry	11 bags

Method of Construction

Cable Tool Rotary (air) Diamond Digging Rotary (conventional) Air percussion Jetting Other Rotary (reverse) Boring Driving

Water Use

Domestic Industrial Public Supply Other Stock Commercial Not used Irrigation Municipal Cooling & air conditioning

Final Status of Well

Water Supply Recharge well Unfinished Abandoned, (Other) Observation well Abandoned, insufficient supply Dewatering Test Hole Abandoned, poor quality Replacement well

Location of Well

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

Audit No. **Z 52056** Date Well Completed **06/11/21**

Was the well owner's information package delivered? Yes No

Well Contractor/Technician Information

Name of Well Contractor: **Giles Bourgeois** Well Contractor's Licence No. **1414**

Business Address (street name, number, city etc.): **57A 16th Ave**

Name of Well Technician (last name, first name): **Alan Bourgeois** Well Technician's Licence No. **2710**

Signature of Technician/Contractor: **[Signature]** Date Submitted **06/11/21**

Ministry Use Only

Data Source: **1414** Contractor

Date Received: **JAN 25 2007** Date of Inspection: **06/11/21**

Remarks: _____ Well Record Number: _____



Well Tag No. **A 046216** (elow)

A046216

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 (County/District/Municipality) **City of Ottawa** Township **Osgoode** Lot **113** Concession

RR#/Street Number/Name **1344 South Beach DR** City/Town/Village **GREELY** Site/Compartment/Block/Tract, etc. **Plan 4M1265**

GPS Reading NAD **83** Zone **18** Easting **454626 E** Northing **5012175** Unit Make/Model **Magellan** Mode of Operation: Undifferentiated Averaged Differentiated, specify

Log of Overburden and Bedrock Materials (see Instructions)

General Colour	Most common material	Other Materials	General Description	Depth Metres	
				From	To
Yellow	sand		SOFT	0	3.10
grey	sand		SOFT	3.10	10.36
grey	gravel		Paired	10.36	13.41
grey	limestone		Hard	13.41	42.67
white	Sandstone		Hard	42.67	48.68

Hole Diameter

Depth From	Metres To	Diameter Centimetres
0	14.63	21.23
14.63	48.68	15.55

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth Metres	
			From	To
15.55	<input checked="" type="checkbox"/> Steel <input type="checkbox"/> Fibreglass <input type="checkbox"/> Plastic <input type="checkbox"/> Concrete <input type="checkbox"/> Galvanized	0.48	10.60	14.63

Screen

Outside diam Steel Fibreglass Plastic Concrete Galvanized Slot No.

No Casing or Screen

Open hole 14.63 48.68

Test of Well Yield

Pumping test method	Draw Down		Recovery	
	Time min	Water Level Metres	Time min	Water Level Metres
3 H.P.				
Pump intake set at - (metres) 3.0	Static Level	7.07		10.16
Pumping rate - (litres/min) 40	1	8.02	1	9.62
Duration of pumping 1 hrs + 0 min	2	8.30	2	9.27
Final water level end of pumping 10.16 metres	3	8.36	3	9.06
Recommended pump type <input type="checkbox"/> Shallow <input checked="" type="checkbox"/> Deep	4	8.57	4	8.91
Recommended pump depth 3.0 metres	5	8.66	5	8.80
Recommended pump rate 40 (litres/min)	10	8.86	10	8.23
If flowing give rate - (litres/min)	15	9.22	15	8.02
	20	9.50	20	7.77
	25	9.69	25	7.62
If pumping discontinued, give reason.	30	9.69	30	7.52
	40	9.86	40	
	50	10.00	50	
	60	10.16	60	

Plugging and Sealing Record Annular space Abandonment

Depth set at - Metres From	To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
0	14.63	pressure grout cement	12 bags

Location of Well

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

Audit No. **Z 52057** Date Well Completed **06 11 22**

Was the well owner's information package delivered? Yes No Date Delivered **06 11 22**

Method of Construction

Cable Tool Rotary (air) Diamond Digging

Rotary (conventional) Air percussion Jetting Other

Rotary (reverse) Boring Driving

Water Use

Domestic Industrial Public Supply Other

Stock Commercial Not used

Irrigation Municipal Cooling & air conditioning

Final Status of Well

Water Supply Recharge well Unfinished Abandoned, (Other)

Observation well Abandoned, insufficient supply Dewatering

Test Hole Abandoned, poor quality Replacement well

Well Contractor/Technician Information

Name of Well Contractor **Gilles Bourgeois** Well Contractor's Licence No. **1414**

Business Address (street name, number, city, etc.) **504 Bess ave**

Name of Well Technician (last name, first name) **Alain Bourgeois** Well Technician's Licence No. **2710**

Signature of Technician/Contractor **X Gilles Bourgeois** Date Submitted **06 11 22**

Ministry Use Only

Data Source **1414** Contractor

Date Received **JAN 23 2007** Date of Inspection **06 11 22**

Remarks Well Record Number

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 Help Desk (Toll Free) at 1-888-396-9355.
- **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 (County/District/Municipality) **Ottawa - Carleton** Township **Osgoode** Lot **4** Concession **4**
 RR#/Street Number/Name **1368 South Beach Blvd** City/Town/Village **Greely** Site/Compartment/Block/Tract etc. **4M-1263 S/L 117**
 GPS Reading NAD Zone Easting Northing Unit Make/Model Mode of Operation: Undifferentiated Averaged Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth	
				From	Metres To
	Sand			0	12.50
	Grey Limestone			12.50	45.72
	White Sandstone			45.72	48.77

Hole Diameter

Depth	Metres	Diameter
From	To	Centimetres
0	48.77	14.91

Water Record

Water found at **17.81** m / Kind of Water **NOT TESTED**

Fresh Sulphur Gas Salty Minerals Other: **NOT TESTED**

Fresh Sulphur Gas Salty Minerals Other: **NOT TESTED**

After test of well yield, water was **clear and sediment free** **NOT TESTED**

Chlorinated Yes No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth	
			From	Metres To
15.88	<input checked="" type="checkbox"/> Steel <input type="checkbox"/> Fibreglass <input type="checkbox"/> Plastic <input type="checkbox"/> Concrete <input type="checkbox"/> Galvanized	.48	0	14.93

Screen

Outside diam Steel Fibreglass Plastic Concrete Galvanized

No Casing or Screen

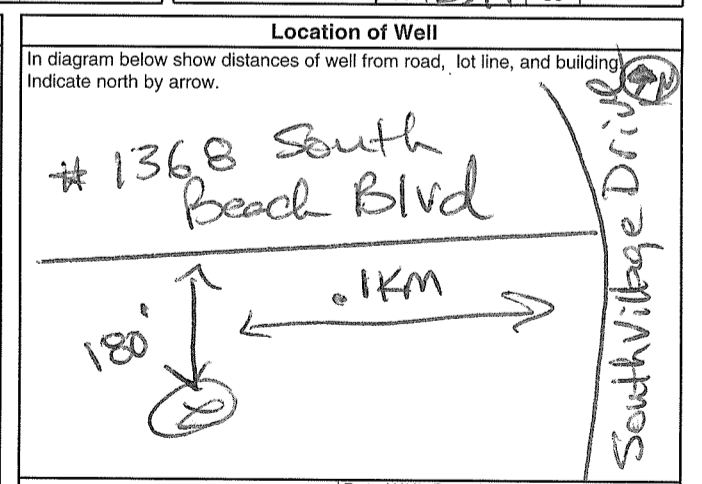
Open hole **14.32** **48.77**

Test of Well Yield

Pumping test method	Draw Down		Recovery	
	Time min	Water Level Metres	Time min	Water Level Metres
Sub Pump				
Pump intake set at (metres)		Static Level 10.40		13.44
Pumping rate (litres/min)	1	11.73	1	11.40
Duration of pumping	2	12.14	2	11.32
Final water level end of pumping	3	12.35 metres	3	11.16
Recommended pump type	4	12.47	4	11.08
Recommended pump depth	5	12.63 metres	5	10.99
Recommended pump rate (litres/min)	10	12.73	10	10.80
If flowing give rate (litres/min)	15	13.10	15	10.63
	20	13.20	20	10.57
	25	13.24	25	10.51
	30	13.28	30	10.45
	40	13.43	40	10.40
	50	13.43	50	
	60	13.44	60	

Plugging and Sealing Record Annular space Abandonment

Depth set at - Metres	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
From	To	
14.32	11.28 Neat Cement Slurry	.1362
11.28	0 Bentonite Slurry	.613



Method of Construction

Cable Tool Rotary (air) Diamond Digging Rotary (conventional) Air percussion Jetting Other Rotary (reverse) Boring Driving

Water Use

Domestic Industrial Public Supply Other Stock Commercial Not used Irrigation Municipal Cooling & air conditioning

Final Status of Well

Water Supply Recharge well Unfinished Abandoned, (Other) Observation well Abandoned, insufficient supply Dewatering Test Hole Abandoned, poor quality Replacement well

Audit No. **Z 55596** Date Well Completed **2007 01 05**

Was the well owner's information package delivered? Yes No Date Delivered **2007 01 12**

Well Contractor/Technician Information

Name of Well Contractor **HR Back Drilling Ltd 1119** Well Contractor's Licence No. **3058**
 Business Address (street name, number, city etc.) **RR1 RICHMOND ONT K0A2Z0**
 Name of Well Technician (last name, first name) **TOSAN DAN** Well Technician's Licence No. **3058**
 Signature of Technician/Contractor **[Signature]** Date Submitted **2007 01 05**

Ministry Use Only

Data Source Contractor **1119**

Date Received **FEB 12 2007** Date of Inspection **2007 01 05**

Remarks Well Record Number

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 Help Desk (Toll Free) at 1-888-396-9355.
- **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 (County/District/Municipality) Ottawa-Carleton Township Osgoode Lot 4 Concession 4
 RR#/Street Number/Name #6892 Lake Forest Walk City/Town/Village Greely Site/Compartment/Block/Tract/etc. Plan 4M-1265-1L27
 GPS Reading NAD 83 Zone 18 Easting 454770 Northing 5012405 Unit Make/Model Mazda Mode of Operation: Undifferentiated Averaged Differentiated, specify _____

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Metres To
	Sand Gravel			0	12.50
	Limestone			12.50	54.86

Hole Diameter

Depth From	Metres To	Diameter Centimetres
0	54.86	14.91

Water Record

Water found at 36.10 Metres

Kind of Water: Fresh Sulphur Gas Salty Minerals Other: _____

After test of well yield, water was Cloudy

Clear and sediment free Other, specify NOT TESTED

Chlorinated: Yes No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Metres To
15.88	<input checked="" type="checkbox"/> Steel <input type="checkbox"/> Fibreglass <input type="checkbox"/> Plastic <input type="checkbox"/> Concrete <input type="checkbox"/> Galvanized	.48	0	14.93

Screen

Outside diam	Material	Slot No.
	<input type="checkbox"/> Steel <input type="checkbox"/> Fibreglass <input type="checkbox"/> Plastic <input type="checkbox"/> Concrete <input type="checkbox"/> Galvanized	

No Casing or Screen

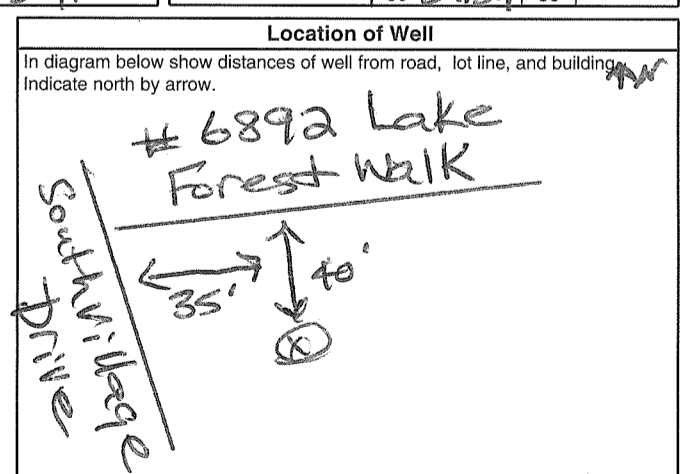
Open hole 14.32 54.86

Test of Well Yield

Pumping test method	Draw Down Time min	Water Level Metres	Recovery Time min	Water Level Metres
Sub Pump				
Pump intake set at (metres)	Static Level	10.61		21.27
Pumping rate (litres/min)	1	12.70	1	17.50
Duration of pumping (hrs + 0 min)	2	13.27	2	15.30
Final water level and of pumping (metres)	3	13.78	3	14.79
Recommended pump type	4	14.17	4	12.90
Recommended pump depth (metres)	5	14.50	5	12.37
Recommended pump rate (litres/min)	10	16.07	10	11.07
If flowing give rate (litres/min)	15	17.00	15	10.61
	20	17.78	20	
	25	18.51	25	
	30	19.00	30	
	40	19.92	40	
	50	20.73	50	
	60	21.27	60	

Plugging and Sealing Record

Depth set at - Metres From	To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
14.32	11.28	Neat Cement Slurry	.227
11.28	0	Bentonite Slurry	.490



Method of Construction

Cable Tool Rotary (air) Diamond Digging Rotary (conventional) Air percussion Jetting Other Rotary (reverse) Boring Driving

Water Use

Domestic Industrial Public Supply Other Stock Commercial Not used Irrigation Municipal Cooling & air conditioning

Final Status of Well

Water Supply Recharge well Unfinished Abandoned, (Other) Observation well Abandoned, insufficient supply Dewatering Test Hole Abandoned, poor quality Replacement well

Audit No. Z 55551 Date Well Completed 2006 11 23

Was the well owner's information package delivered? Yes No Date Delivered 2006 11 27

Well Contractor/Technician Information

Name of Well Contractor Airrock Drilling Co Ltd Well Contractor's Licence No. 1119
 Business Address (street name, number, city etc.) RR#1 RICHMOND ONT K0A2Z0
 Name of Well Technician (last name, first name) PURCELL SHANNON Well Technician's Licence No. 12122
 Signature of Technician/Contractor [Signature] Date Submitted 2007 01 22

Ministry Use Only

Data Source _____ Contractor 1119

Date Received FEB 12 2007 Date of Inspection _____

Remarks _____ Well Record Number _____

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 Help Desk (Toll Free) at 1-888-396-9355.
- **All metre measurements shall be reported to 1/10th of a metre.**
- Please print clearly in blue or black ink only.

Ministry Use Only

MUNICIPALITY: [] COUNTY: [] CONCESSION: [] LOT: []

Address of Well Location (County/District/Municipality): **Ottawa-Carleton** Township: **Osgoode** Lot: **4** Concession: **4**
 RR#/Street Number/Name: **#1369 South Beach Blvd** City/Town/Village: **Greenly** Site/Compartment/Block/Tract etc.: **Plan 4M-1265 S/L81**
 GPS Reading: NAD **83** Zone **18** Easting **454682** Northing **5012330** Unit/Make/Model: **Magellan** Mode of Operation: Undifferentiated Averaged Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth	
				From	To
	Till			0	1.52
	Sand, Gravel, boulders			1.52	13.11
	Limestone			13.11	38.10
	Sandstone			38.10	94.48

Hole Diameter

Depth	Metres	Diameter
From	To	Centimetres
0	79.24	14.91
79.24	94.48	14.59

Water Record

Water found at **0.83** m Kind of Water: **NOT TESTED**

Gas Sulphur Minerals

After test of well yield, water was **NOT TESTED**

Chlorinated Yes No

Construction Record

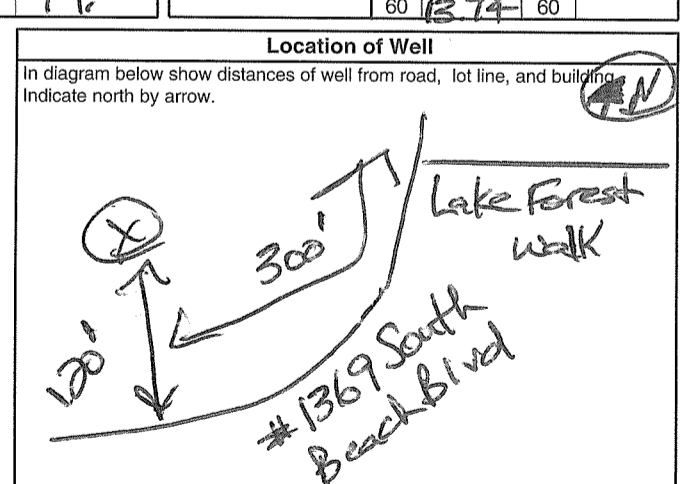
Inside diam centimetres	Material	Wall thickness centimetres	Depth	
			From	To
15.88	Steel <input checked="" type="checkbox"/> Fibreglass <input type="checkbox"/> Plastic <input type="checkbox"/> Concrete <input type="checkbox"/> Galvanized <input type="checkbox"/>	480	0	15.54
Screen				
Outside diam	Steel <input type="checkbox"/> Fibreglass <input type="checkbox"/> Plastic <input type="checkbox"/> Concrete <input type="checkbox"/> Galvanized <input type="checkbox"/>	Slot No.		
No Casing or Screen				
<input checked="" type="checkbox"/> Open hole			14.93	94.48

Test of Well Yield

Pumping test method	Time min	Draw Down		Recovery	
		Water Level Metres	Time min	Water Level Metres	Time min
Sub Pump		Static Level 11.90		13.74	
Pump intake set (metres) 82.29	1	13.15	1	11.97	
Pumping rate (litres/min) 91	2	13.40	2	11.90	
Duration of pumping 1 hrs + 0 min	3	13.50	3		
Final water level end of pumping 13.74 metres	4	13.54	4		
Recommended pump type <input type="checkbox"/> Shallow <input checked="" type="checkbox"/> Deep	5	13.57	5		
Recommended pump depth 82.29 metres	10	13.65	10		
Recommended pump rate (litres/min) 91	15	13.69	15		
If flowing give rate (litres/min)	20	13.72	20		
	25	13.74	25		
If pumping discontinued, give reason.	30	13.74	30		
	40	13.74	40		
	50	13.74	50		
	60	13.74	60		

Plugging and Sealing Record Annular space Abandonment

Depth set at - Metres	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
From	To	
14.93	11.87 Neat Cement Slurry	0.227
11.87	0 Bentonite Slurry	1.10



Method of Construction

Cable Tool Rotary (air) Diamond Digging

Rotary (conventional) Air percussion Jetting Other

Rotary (reverse) Boring Driving

Water Use

Domestic Industrial Public Supply Other

Stock Commercial Not used

Irrigation Municipal Cooling & air conditioning

Final Status of Well

Water Supply Recharge well Unfinished Abandoned, (Other)

Observation well Abandoned, insufficient supply Dewatering

Test Hole Abandoned, poor quality Replacement well

Audit No. **Z 64799** Date Well Completed **2007 03 17**

Was the well owner's information package delivered? Yes No Date Delivered **2007 05 20**

Well Contractor/Technician Information

Name of Well Contractor: **AIR ROCK DRILLING CO LTD** Well Contractor's Licence No.: **1119**

Business Address (street name, number, city etc.): **RR#1 RICHMOND ONT K0A2Z0**

Name of Well Technician (last name, first name): **Desaulniers Ken** Well Technician's Licence No.: **14**

Signature of Technician/Contractor: *[Signature]* Date Submitted: **2007 03 20**

Ministry Use Only

Data Source: Contractor **1119**

Date Received: **APR 11 2007** Date of Inspection: **YYYY MM DD**

Remarks: Well Record Number

A055252

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 Help Desk (Toll Free) at 1-888-396-9355. All metre measurements shall be reported to 1/10th of a metre. Please print clearly in blue or black ink only.

Well Owner's Information and Location of Well Information

Table with columns: MUN, CON, LOT. Includes 'Ministry Use Only' header.

RR#/Street Number/Name: #1374 South Beach Blvd; City/Town/Village: Greely; Site/Compartment/Block/Tract/etc.: Plan 4M-1265 5/L118

Log of Overburden and Bedrock Materials (see instructions)

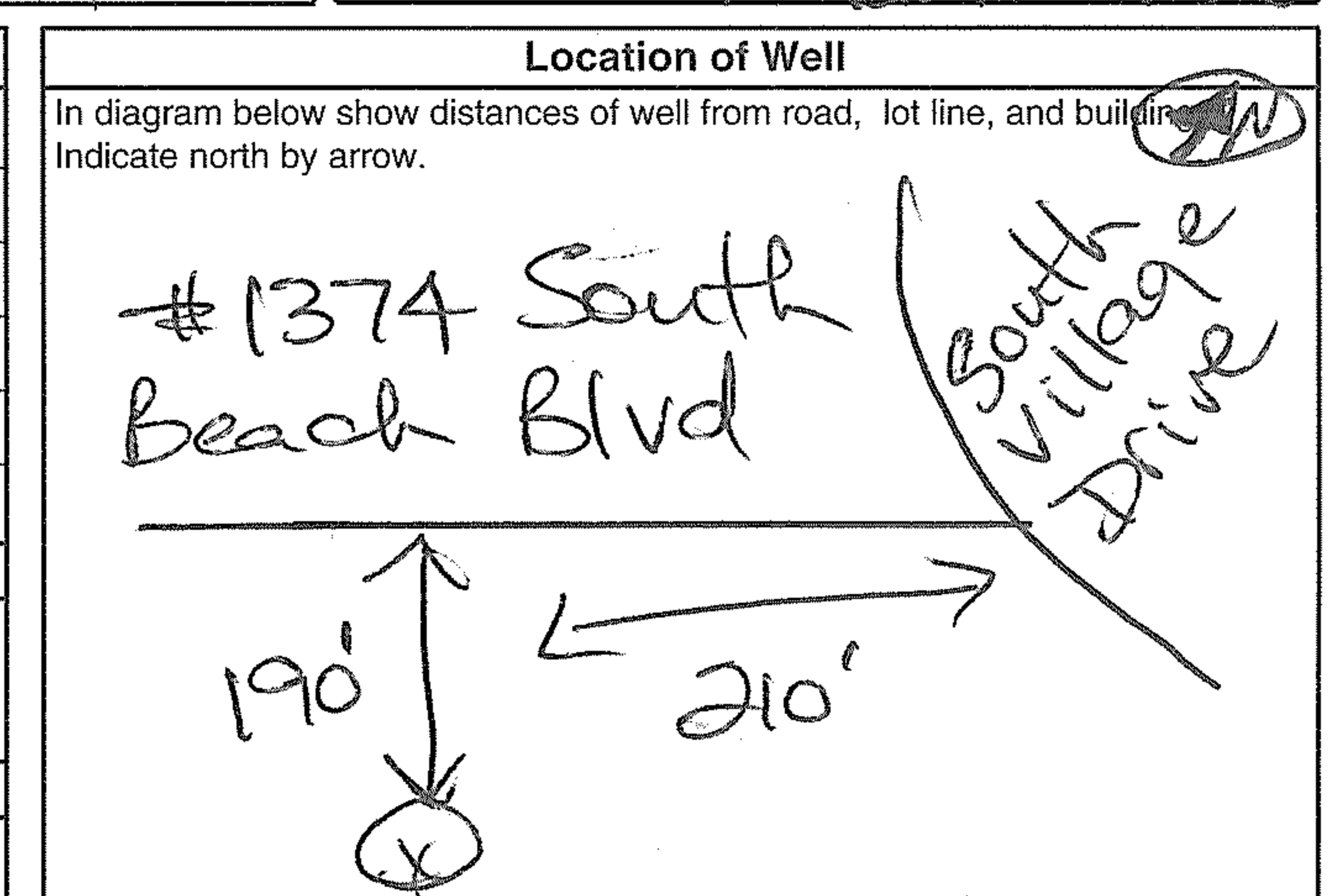
Table with columns: General Colour, Most common material, Other Materials, General Description, Depth From, Metres To. Includes handwritten entries: Sand Gravel, Boulders; Grey Limestone; White Sandstone.

Hole Diameter, Water Record, Chlorinated sections. Includes handwritten data for hole diameter and water test results.

Construction Record, Casing, Screen, No Casing or Screen sections. Includes handwritten data for casing material and depth.

Test of Well Yield table. Columns: Pumping test method, Draw Down, Recovery. Includes handwritten data for pumping rate and draw down.

Plugging and Sealing Record table. Columns: Depth set at, Material and type, Volume Placed. Includes handwritten data for slurry types.



Method of Construction, Water Use, Final Status of Well sections. Includes checkboxes for various construction methods and water uses.

Audit No. Z 65197, Date Well Completed 2007 06 05, Date Delivered 2007 06 18.

Well Contractor/Technician Information section. Includes names: AIR ROCK DRILLING CO LTD, RICHMOND ONE, PURCELL STAMMANN.

Ministry Use Only section. Includes Date Received AUG 2'S 2007, Contractor 1119, Well Record Number.

N/A

Well Owner's Information

First Name: Ken Gordon Holdings Inc Last Name: _____ E-mail Address: _____ Well Constructed by Well Owner

Mailing Address (Street Number/Name, RR): Box 310 Municipality: Manotick Province: Ont Postal Code: K4M1A4 Telephone No. (inc. area code): _____

Part A Construction and/or Major Alteration of a Well

Address of Well Location (Street Number/Name, RR): #6969 Parkway Road Township: Osgoode Lot: P/L 5 Concession: 4

County/District/Municipality: Ottawa-Carleton City/Town/Village: Greely Province: Ontario Postal Code: _____

UTM Coordinates: Zone 83 Easting 1845534 Northing 15011913 GPS Unit Make Magellan Model 200 Mode of Operation: Undifferentiated Averaged

Overburden and Bedrock Materials (see instructions on the back of this form)

General Colour	Most Common Material	Other Materials	General Description	Depth (Metres) From	Depth (Metres) To
	6" Drilled Well		Abandonment	0	13.90

Annular Space/Abandonment Sealing Record

Depth Set at (Metres) From	Depth Set at (Metres) To	Type of Sealant Used (Material and Type)	Volume Placed (Cubic Metres)
13.90	0.15	Hole Plug	
0.15	0	Dirt	

Results of Well Yield Testing

Check box if after test of well yield, water was:	Draw Down		Recovery	
	Time (Min)	Water Level (Metres)	Time (Min)	Water Level (Metres)
<input type="checkbox"/> Clear and sand free	Static Level		Static Level	
<input type="checkbox"/> Cannot develop to sand-free state	1		1	
If pumping discontinued, give reason:	2		2	
Pumping test method	3		3	
Pump intake set at (Metres)	4		4	
Pumping rate (Litres/min)	5		5	
Duration of pumping hrs + min	10		10	
Final water level end of pumping (Metres)	15		15	
Recommended pump type	20		20	
<input type="checkbox"/> Shallow <input type="checkbox"/> Deep	25		25	
Recommended pump depth	30		30	
Metres	40		40	
Recommended pump rate (Litres/min)	50		50	
If flowing give rate (Litres/min)	60		60	

Method of Construction

Cable Tool Diamond Public Commercial Not used

Rotary (Conventional) Jetting Domestic Municipal Dewatering

Rotary (Reverse) Driving Livestock Test Hole Monitoring

Rotary (Air) Digging Irrigation Cooling & Air Conditioning

Air percussion Boring Industrial Other, specify _____

Other, specify _____ Other, specify _____

Status of Well

Water Supply Dewatering Well Observation and/or Monitoring Hole

Replacement Well Abandoned, Insufficient Supply Alteration (Construction)

Test Hole Abandoned, Poor Water Quality Other, specify NOT USEABLE

Recharge Well Abandoned, other, specify _____

Location of Well

Please provide a map below showing:

- all property boundaries, and measurements sufficient to locate the well in relation to fixed points,
- an arrow indicating the North direction
- detailed drawings can be provided as attachments no larger than legal size (8.5" by 14")
- digital pictures of inside of well can also be provided



Water Details

Water found at Depth: _____ Metres Gas Fresh Salty Sulphur Minerals

Water found at Depth: _____ Metres Gas Fresh Salty Sulphur Minerals

Water found at Depth: _____ Metres Gas Fresh Salty Sulphur Minerals

Casing Used

Galvanized Steel Fibreglass Plastic Concrete

Screen Used

Galvanized Steel Fibreglass Plastic Concrete

Casing and Well Details

Diameter of the Hole (Centimetres): _____

Depth of the Hole (Metres): _____

Wall Thickness (Metres): _____

No Casing and Screen Used

Open Hole

Disinfected? Yes No

Inside Diameter of the Casing (Metres): _____

Depth of the Casing (Metres): _____

Date Well Completed (yyyy/mm/dd): 2008-03-22 Was the well owner's signature package delivered? Yes No Date the Well Record and Package Delivered to Well Owner (yyyy/mm/dd): _____

Well Contractor and Well Technician Information

Business Name of Well Contractor: AIR ROCK DRILLING CO. LTD (119) Well Contractor's Licence No.: _____

Business Address (Street No./Name, number, RR): RA#1 Municipality: RICHMOND

Province: ONT Postal Code: K0A2Z0 Business E-mail Address: _____

Bus. Telephone No. (inc. area code): 613-838-2170 Name of Well Technician (Last Name, First Name): Jesumierska

Well Technician's Licence No.: T14 Signature of Technician: _____ Date Submitted (yyyy/mm/dd): 2008-04-01

Ministry Use Only

Audit No.: z 78174 Well Contractor No.: _____

Date Received (yyyy/mm/dd): APR 28 2008 Date of Inspection (yyyy/mm/dd): _____

Remarks: _____

Well Owner's Information

First Name: Oakcraft Last Name: Momez Inc. E-mail Address: ebizprogen.com Well Constructed by Well Owner
 Mailing Address (Street Number/Name, RR): 6876 Lakes Park Dr. Municipality: Greely Province: On Postal Code: K4P1M6 Telephone No. (inc. area code): 613 724 0990

Part A Construction and/or Major Alteration of a Well

Address of Well Location (Street Number/Name, RR): 1326 South Beach Blvd Township: Ottawa Lot: 110 Concession:
 County/District/Municipality: Ottawa Carleton City/Town/Village: Ottawa/Greely Province: Ontario Postal Code: K4P1M6
 UTM Coordinates: Zone: 18 Easting: 4545525012125 Northing: UTM GPS Unit Make: Magellan Model: Magellan Mode of Operation: Undifferentiated Averaged Differentiated, specify _____

Overburden and Bedrock Materials (see instructions on the back of this form)

General Colour	Most Common Material	Other Materials	General Description	Depth (Metres) From	Depth (Metres) To
Brown	Sand		loose	0	5
Grey	Sand		loose	5	8
Grey	gravel	Boulder	packed	8	13
Grey	limestone		layered	13	48.7

Annular Space/Abandonment Sealing Record

Depth Set at (Metres) From	Depth Set at (Metres) To	Type of Sealant Used (Material and Type)	Volume Placed (Cubic Metres)
0	14.63	limerit grout	13 Bag

Results of Well Yield Testing

Check box if after test of well yield, water was: <input checked="" type="checkbox"/> Clear and sand free <input type="checkbox"/> Cannot develop to sand-free state	Draw Down		Recovery	
	Time (Min)	Water Level (Metres)	Time (Min)	Water Level (Metres)
<input type="checkbox"/> If pumping discontinued, give reason: Pumping test method: <u>1/2ph Sub</u> Pump intake set at (Metres): <u>38.7</u> Pumping rate (Litres/min): <u>53</u> Duration of pumping: <u>1</u> hrs + <u>0</u> min Final water level end of pumping (Metres): <u>23.54</u> Recommended pump type: <input type="checkbox"/> Shallow <input checked="" type="checkbox"/> Deep Recommended pump depth: <u>38</u> Metres Recommended pump rate (Litres/min): <u>53</u> If flowing give rate (Litres/min): _____	Static Level	3.8	Static Level	23.54
	1	6	1	
	2	7.01	2	20.90
	3	7.84	3	19.20
	4	9.20	4	15.51
	5	10.30	5	13.11
	10	14.50	10	9.08
	15	17.25	15	5.38
	20	18.78	20	3.90
	25	20.11	25	
	30	21.50	30	
	40	22.51	40	
50	23.24	50		
60	23.54	60		

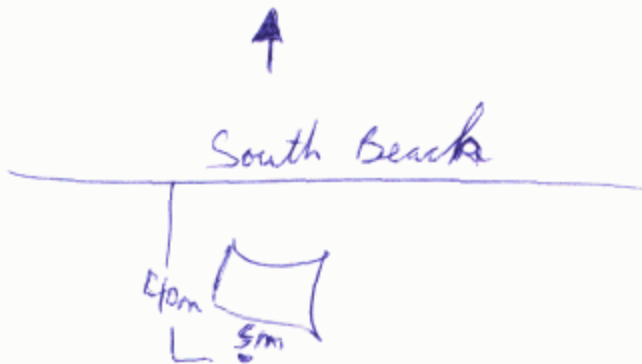
Method of Construction	Water Use
<input type="checkbox"/> Cable Tool <input type="checkbox"/> Rotary (Conventional) <input type="checkbox"/> Rotary (Reverse) <input checked="" type="checkbox"/> Rotary (Air) <input type="checkbox"/> Air percussion <input type="checkbox"/> Other, specify _____	<input checked="" type="checkbox"/> Public <input type="checkbox"/> Commercial <input type="checkbox"/> Not used <input type="checkbox"/> Domestic <input type="checkbox"/> Municipal <input type="checkbox"/> Dewatering <input type="checkbox"/> Livestock <input type="checkbox"/> Test Hole <input type="checkbox"/> Monitoring <input type="checkbox"/> Irrigation <input type="checkbox"/> Cooling & Air Conditioning <input type="checkbox"/> Industrial <input type="checkbox"/> Other, specify _____

Status of Well

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

Location of Well

Please provide a map below showing:
 - all property boundaries, and measurements sufficient to locate the well in relation to fixed points,
 - an arrow indicating the North direction
 - detailed drawings can be provided as attachments no larger than legal size (8.5" by 14")
 - digital pictures of inside of well can also be provided



Water Details

Water found at Depth: <u>4.2</u> Metres	Kind of Water: <input checked="" type="checkbox"/> Fresh <input type="checkbox"/> Salty <input type="checkbox"/> Sulphur <input type="checkbox"/> Minerals
Water found at Depth: _____ Metres	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Salty <input type="checkbox"/> Sulphur <input type="checkbox"/> Minerals
Water found at Depth: _____ Metres	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Salty <input type="checkbox"/> Sulphur <input type="checkbox"/> Minerals

Casing Used	Screen Used	Casing and Well Details
<input type="checkbox"/> Galvanized <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Fibreglass <input type="checkbox"/> Plastic <input type="checkbox"/> Concrete	<input type="checkbox"/> Galvanized <input type="checkbox"/> Steel <input type="checkbox"/> Fibreglass <input type="checkbox"/> Plastic <input type="checkbox"/> Concrete	Diameter of the Hole (Centimetres): <u>15.55</u> Depth of the Hole (Metres): <u>48.7</u> Wall Thickness (Metres): <u>0.48</u> Inside Diameter of the Casing (Metres): <u>15.55</u> Depth of the Casing (Metres): <u>14.63</u>
<input checked="" type="checkbox"/> No Casing and Screen Used <input type="checkbox"/> Open Hole		
Disinfected? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

Date Well Completed (yyyy/mm/dd): 2008/05/30 Was the well owner's information package delivered? Yes No Date the Well Record and Package Delivered to Well Owner (yyyy/mm/dd): _____

Well Contractor and Well Technician Information

Business Name of Well Contractor: Bourgeois well Drilling Well Contractor's Licence No.: 1414
 Business Address (Street No./Name, number, RR): 1782 900 East Municipality: Nation
 Province: Ontario Postal Code: K0A3C0 Business E-mail Address: NA
 Bus. Telephone No. (inc. area code): 613 987 9291 Name of Well Technician (Last Name, First Name): Michael Genier
 Well Technician's Licence No.: 3493 Signature of Technician: [Signature] Date Submitted (yyyy/mm/dd): 2008/05/30

Ministry Use Only

Audit No.: **z 79829** Well Contractor No.: _____
 Date Received (yyyy/mm/dd): JUN 25 2008 Date of Inspection (yyyy/mm/dd): _____
 Remarks: _____

Well Owner's Information

First Name: Dakera FT Homes Inc. Last Name: _____ E-mail Address: _____ Well Constructed by Well Owner

Mailing Address (Street Number/Name, RR): 6876 Lakes Park Dr. Municipality: Oreeby Province: Ont. Postal Code: K4P1M6 Telephone No. (inc. area code): 6137240990

Part A Construction and/or Major Alteration of a Well

Address of Well Location (Street Number/Name, RR): 1320 South Beach Blvd. Township: Ottawa Lot: 109 Concession: _____

County/District/Municipality: Ottawa Carleton City/Town/Village: Ottawa/Oreeby Province: **Ontario** Postal Code: _____

UTM Coordinates: Zone 18 Easting 454522 Northing 5012119 GPS Unit Make: UTM Model: Magellan Mode of Operation: Undifferentiated Averaged Differentiated, specify _____

Overburden and Bedrock Materials (see instructions on the back of this form)

General Colour	Most Common Material	Other Materials	General Description	Depth (Metres) From	Depth (Metres) To
Brown	Sand		loose	0	4
Grey	Sand		loose	4	8
Grey	gravel	Boulder	Packed	8	11
Grey	limestone		layered	11	418.7

Annular Space/Abandonment Sealing Record

Depth Set at (Metres) From	Depth Set at (Metres) To	Type of Sealant Used (Material and Type)	Volume Placed (Cubic Metres)
0	13.4	liment grout	10 Bags

Results of Well Yield Testing

Check box if after test of well yield, water was:
 Clear and sand free
 Cannot develop to sand-free state

If pumping discontinued, give reason: _____

Pumping test method: 1/2 ph Sub
 Pump intake set at (Metres): 38.7
 Pumping rate (Litres/min): 53
 Duration of pumping: 1 hrs + 0 min
 Final water level end of pumping (Metres): _____

Time (Min)	Draw Down		Recovery	
	Water Level (Metres)	Time (Min)	Water Level (Metres)	Time (Min)
Static Level	3.90	Static Level	23.89	
1	5.90	1		
2	6.99	2	20.14	
3	7.60	3	19.02	
4	9m	4	18.78	
5	10.28	5	9.14	
10	14.12	10	8.50	
15	17.35	15	4.75	
20	18.52	20	4.40	
25	19.96	25		
30	20.82	30		
40	22.43	40		
50	23.19	50		
60	23.89	60		

Recommended pump type: Shallow Deep
 Recommended pump depth: 38.7 Metres
 Recommended pump rate (Litres/min): 53
 If flowing give rate (Litres/min): _____

Method of Construction

Water Use

Method of Construction: Cable Tool Diamond Rotary (Conventional) Jetting Rotary (Reverse) Driving Rotary (Air) Digging Air percussion Boring Other, specify _____

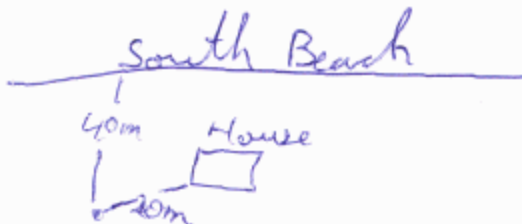
Water Use: Public Domestic Commercial Municipal Livestock Test Hole Irrigation Cooling & Air Conditioning Industrial Other, specify _____

Status of Well

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

Location of Well

Please provide a map below showing:
 - all property boundaries, and measurements sufficient to locate the well in relation to fixed points,
 - an arrow indicating the North direction
 - detailed drawings can be provided as attachments no larger than legal size (8.5" by 14")
 - digital pictures of inside of well can also be provided



NA

Water Details

Water found at Depth	Kind of Water
<u>42</u> Metres <input type="checkbox"/> Gas <input checked="" type="checkbox"/> Fresh <input type="checkbox"/> Salty <input type="checkbox"/> Sulphur <input type="checkbox"/> Minerals	
_____ Metres <input type="checkbox"/> Gas <input type="checkbox"/> Fresh <input type="checkbox"/> Salty <input type="checkbox"/> Sulphur <input type="checkbox"/> Minerals	
_____ Metres <input type="checkbox"/> Gas <input type="checkbox"/> Fresh <input type="checkbox"/> Salty <input type="checkbox"/> Sulphur <input type="checkbox"/> Minerals	

Casing Used

Screen Used

Casing and Well Details

Casing Used: Galvanized Steel Fibreglass Plastic Concrete

Screen Used: Galvanized Steel Fibreglass Plastic Concrete

Casing and Well Details: Diameter of the Hole (Centimetres): 15.55
 Depth of the Hole (Metres): 418.47
 Wall Thickness (Metres): 0.48
 Inside Diameter of the Casing (Metres): 15.55
 Depth of the Casing (Metres): 13.41

No Casing and Screen Used: Open Hole

Disinfected? Yes No

Date Well Completed (yyyy/mm/dd): 2008/05/30 Was the well owner's information package delivered? Yes No
 Date the Well Record and Package Delivered to Well Owner (yyyy/mm/dd): _____

Well Contractor and Well Technician Information

Business Name of Well Contractor: Bourgeois well Drilling Well Contractor's Licence No.: 14114
 Business Address (Street No./Name, number, RR): 1182 900 East Municipality: Nation
 Province: Ontario Postal Code: K0A3K0 Business E-mail Address: NA
 Bus. Telephone No. (inc. area code): 6139875291 Name of Well Technician (Last Name, First Name): Michael Genier
 Well Technician's Licence No.: 34193 Signature of Technician: _____ Date Submitted (yyyy/mm/dd): 2008/05/08

Ministry Use Only

Audit No.: **z 79830** Well Contractor No.: _____
 Date Received (yyyy/mm/dd): JUN 25 2008 Date of Inspection (yyyy/mm/dd): _____
 Remarks: _____

Measurements recorded in: Metric Imperial

Page _____ of _____

A 066957

Well Owner's Information

1363 South Beach Osgoode ~~1363~~ Lot 4 Con 4
 County/District/Municipality City/Town/Village Province Postal Code
 Ottawa Carlton Greely Ontario
 UTM Coordinates Zone Easting Northing Municipal Plan and Sublot Number Other
 NAD 83 18454592 5012292 4M-1265 S/L #80

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From To
	Sand & Boulders Grey Limestone White Sandstone			0 12.50 12.50 41.14 41.14 54.86

Annular Space		
Depth Set at (m/ft) From To	Type of Sealant Used (Material and Type)	Volume Placed (m ³ /ft ³)
14.32 11.21	Neat Cement Slurry	1.816
11.21 0	Bentonite Slurry	4.90

Method of Construction	Well Use
<input type="checkbox"/> Cable Tool <input type="checkbox"/> Rotary (Conventional) <input type="checkbox"/> Rotary (Reverse) <input type="checkbox"/> Boring <input checked="" type="checkbox"/> Air percussion <input type="checkbox"/> Other, specify	<input type="checkbox"/> Public <input checked="" type="checkbox"/> Domestic <input type="checkbox"/> Livestock <input type="checkbox"/> Irrigation <input type="checkbox"/> Industrial <input type="checkbox"/> Other, specify

Construction Record - Casing				Status of Well	
Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft)		<input checked="" type="checkbox"/> Water Supply <input type="checkbox"/> Replacement Well <input type="checkbox"/> Test Hole <input type="checkbox"/> Recharge Well <input type="checkbox"/> Dewatering Well <input type="checkbox"/> Observation and/or Monitoring Hole <input type="checkbox"/> Alteration (Construction) <input type="checkbox"/> Abandoned, Insufficient Supply <input type="checkbox"/> Abandoned, Poor Water Quality <input type="checkbox"/> Abandoned, other, specify <input type="checkbox"/> Other, specify
			From	To	
15.88	Steel	.48	4.6	14.32	
15.09	Open hole		14.32	54.86	

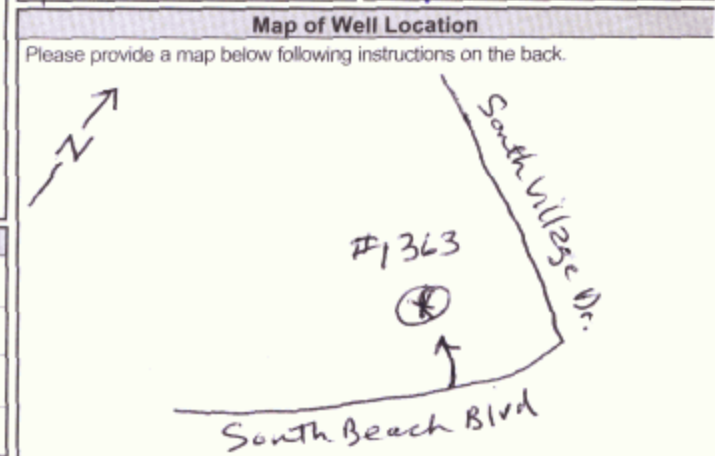
Construction Record - Screen				
Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft)	
			From	To
Screen Record				

Water Details		Hole Diameter	
Water found at Depth (m/ft)	Kind of Water: <input checked="" type="checkbox"/> Fresh <input type="checkbox"/> Untested <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	Depth (m/ft) From To	Diameter (cm/in)
52.72	Water	54.86 0	15.07

Well Contractor and Well Technician Information

Business Name of Well Contractor: Air Rock Drilling Co Ltd
 Well Contractor's Licence No.: 11119
 Business Address (Street Number/Name): RR1
 Municipality: Richmond
 Province: Ont Postal Code: K0A2Z0
 Bus. Telephone No. (inc. area code): 613 838 2170
 Name of Well Technician (Last Name, First Name): Purcell, Shannon
 Well Technician's Licence No.: T2122
 Signature of Technician and/or Contractor: [Signature]
 Date Submitted: 2008 08 01

Results of Well Yield Testing					
After test of well yield, water was:		Draw Down		Recovery	
<input type="checkbox"/> Clear and sand free <input type="checkbox"/> Other, specify	<input checked="" type="checkbox"/> NOT TESTED	Time (min)	Water Level (m/ft)	Time (min)	Water Level (m/ft)
If pumping discontinued, give reason:		Static Level	8.14		12.30
Pump intake set at (m/ft): 51.81		1	9.70	1	11.13
Pumping rate (l/min / GPM): 34.07		2	10.12	2	10.47
Duration of pumping: 1 hrs + 0 min		3	10.68	3	10.15
Final water level end of pumping (m/ft): 12.38		4	11.07	4	9.90
If flowing give rate (l/min / GPM):		5	11.29	5	9.73
Recommended pump depth (m/ft): 51.81		10	11.95	10	8.74
Recommended pump rate (l/min / GPM): 34.07		15	12.08	15	
Well production (l/min / GPM): 7 g.p.m.		20	12.31	20	
Disinfected? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		25	12.32	25	
		30	12.33	30	
		40	12.35	40	
		50	12.36	50	
		60	12.38	60	



Comments: #1363 South Beach

Well owner's information package delivered: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Date Package Delivered: 2008 07 24 Date Work Completed: 2008 05 21	Ministry Use Only Audit No. Z 80748 AUG 14 2008 Received
---	---	---

A085398

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

A 085398

10/19 Page 1 of 3

Address of Well Location (Street Number/Name, RR) **6906 McKeown Rd** Township _____ Lot _____ Concession _____
 County/District/Municipality _____ City/Town/Village **Greely** Province **Ontario** Postal Code _____

UTM Coordinates Zone Easting Northing GPS Unit Make Model Mode of Operation: Undifferentiated Averaged
 NAD **83** **18** **455060** **5011834** **Garmin** **Etrex** Differentiated, specify _____

Overburden and Bedrock Materials (see instructions on the back of this form)

General Colour	Most Common Material	Other Materials	General Description	Depth (Metres)	
				From	To
Gr	Gravel	Sand	soft, dry	0	.61
Brn	Sand		soft, dry	.61	1.5
br	clay		soft, moist	1.5	2.74
br	silt		Wet	2.74	4.88

Hole Details

Depth (Metres)	Diameter (Centimetres)	
	From	To
0	4.88	10.92

Water Use

Public Industrial Not used Other, specify _____
 Domestic Commercial Dewatering
 Livestock Municipal Monitoring
 Irrigation Test Hole Cooling & Air Conditioning

Method of Construction

Cable Tool Air Percussion Digging
 Rotary (Conventional) Diamond Boring
 Rotary (Reverse) Jetting Other, specify _____
 Rotary (Air) Driving **Direct Push**

Status of Well

Test Hole Abandoned, Insufficient Supply
 Replacement Well Abandoned, Poor Water Quality
 Dewatering Well Other, specify **monitoring**
 Alteration (Construction) Abandoned, other, specify _____

No Casing and Screen Used Yes No Metres _____

Screen

Galvanized Steel Fibreglass Concrete Plastic
 Outside Diameter (Centimetres) **6.03** Slot No. **10**

Construction Details

Inside Diameter (Centimetres)	Material (steel, plastic, fibreglass, concrete, galvanized)	Wall Thickness	Depth (Metres)	
			From	To
5.20	PVC Riser	.390	0	1.83
	PVC Screen		1.83	4.88

Water Details

Water found at Depth _____ Metres Gas Fresh Salty Sulphur Minerals
 Water found at Depth _____ Metres Gas Fresh Salty Sulphur Minerals
 Water found at Depth _____ Metres Gas Fresh Salty Sulphur Minerals

Annular Space/Abandonment Sealing Record

Depth Set at (Metres)		Type of Sealant Used (Material and Type)	Volume Used (Cubic Metres)
From	To		
0	.31	Concrete / Flushmount	
.31	1.5	Benseal	
1.5	4.88	sand	

Disinfected Yes No. If no, provide reason: _____ Date Master Well Completed (yyyy/mm/dd) **2009/08/31**

Cluster Information (Please also fill out the additional Cluster Well Information for Well Construction for each parcel of land and cluster.)

Total Wells in Cluster **4** Please indicate Number of Cluster Well Information Log Sheets Submitted **1**
 Total Wells on this Property **4**

Location of Well Cluster

Detailed Map must be provided as an attachment no larger than legal size (8.5"x 14"). Sketches are not allowed.
 Check box to confirm detailed map is provided as per Section 11.1 (3)

Well Contractor and Well Technician Information

Business Name of Well Contractor **Strata Soil Sampling** Well Contractor's Licence No. **7241**
 Business Address (Street No./Name, number, RR) **#2-147 West Beaver Creek** Municipality **Richmond Hill**
 Province **ON** Postal Code **L4B1C6** Business E-mail Address _____
 Bus. Telephone No. (inc. area code) **(905) 764-9301** Name of Well Technician (Last Name, First Name) **Robynne Toas**
 Well Technician's Licence No. **31659** Signature of Technician _____ Date Submitted (yyyy/mm/dd) **2009/09/11**

Ministry Use Only

Audit No. **M 02599** Well Contractor No. _____
 Date Received (yyyy/mm/dd) **SEP 22 2009** Date of Inspection (yyyy/mm/dd) _____
 Remarks _____

A085398

1679 Page 2 of 3

Address of Well Location (Street Number/Name, RR) 6906 McKeown Rd			Lot	Concession	Township	County/District/Municipality
City/Town/Village Greely	Province Ontario	Postal Code	GPS Unit Make Garmin	Model Etrex	Unit Mode of Operation <input type="checkbox"/> Undifferentiated <input checked="" type="checkbox"/> Averaged	

upon request	
Signature of Technician/Contractor	Date (yyyy/mm/dd)

Well # on Sketch	UTM Coordinates		Full Depth of Hole (metres)	Hole Diameter (cm)	Method of Construction	Casing Material	Casing Length (metres)	Screen Interval (metres)		Annular Space Sealant Used	Static Water Level (metres)	Abandonment Sealant Used	Comments	Date of Completion (yyyy/mm/dd)
	Zone	Easting						Northing	From					
2	18	455042	5011837	4.88	10.92	Direct Push	PVC	1.83	1.83	4.88	Benseal			2009/08/31
3	18	455051	5011843	4.88	10.92	Direct Push	PVC	1.83	1.83	4.88	Benseal			2009/08/31
4	18	455052	5011837	4.88	10.92	Direct Push	PVC	1.83	1.83	4.88	Benseal			2009/08/31

Well Contractor and Well Technician Information					
Business Name of Well Contractor Strata Soil Sampling		Business Address (Street Number/Name, RR) #2-147 West Beaver Creek		Municipality Richmond Hill	Province ON
Postal Code L4B 1C6	Business Telephone No. (inc. area code) (905) 769-9304	Well Contractor's Licence No. 72411	Business E-mail Address		
Name of Well Technician (First Name, Last Name) Trevor Robinson		Well Technician's Licence No. 8159	Date Submitted (yyyy/mm/dd) 08/09/11	Signature of Technician	

Date 1st Well in Cluster Constructed (yyyy/mm/dd) 2009/08/31	Date Last Well in Cluster Constructed (yyyy/mm/dd) 2009/08/31
Ministry Use Only	
Date Received (yyyy/mm/dd) SEP 22 2009	Date Inspected (yyyy/mm/dd)
Audit No. C 03827	Remarks M02599



Trow Associates Inc. 154 Colonnade Road South, Tel: (613) 225-9940
Ottawa, Ontario K2E 7J5 Fax: (613) 225-7337

DATE JULY 2009	CLIENT VINTAGE PAVING	JOB No. OTEN00020135A
DESIGN CB	CHECKED CH	SCALE 1:1250±
DRAWN RG	TITLE SITE LAYOUT 6906 McKEOWN DRIVE, GREELY (OTTAWA)	FIG 2

SEP 22 2009
C-7241 M02599 203827

A085398

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

A 085398

10/19 Page 1 of 3

Address of Well Location (Street Number/Name, RR) **6906 McKeown Rd** Township _____ Lot _____ Concession _____
 County/District/Municipality _____ City/Town/Village **Greely** Province **Ontario** Postal Code _____

UTM Coordinates Zone Easting Northing GPS Unit Make Model Mode of Operation:
 NAD **83** **18** **455060** **5011834** **Garmin** **Etrex** Undifferentiated Averaged
 Differentiated, specify _____

Overburden and Bedrock Materials (see instructions on the back of this form)

General Colour	Most Common Material	Other Materials	General Description	Depth (Metres)	
				From	To
Grn	Gravel	Sand	soft, dry	0	.61
Brn	Sand		soft, dry	.61	1.5
brn	clay		soft, moist	1.5	2.74
brn	silt		Wet	2.74	4.88

Hole Details

Depth (Metres)	Diameter (Centimetres)	
	From	To
0	4.88	10.92

Water Use

Public Industrial Not used Other, specify _____
 Domestic Commercial Dewatering
 Livestock Municipal Monitoring
 Irrigation Test Hole Cooling & Air Conditioning

Method of Construction

Cable Tool Air Percussion Digging
 Rotary (Conventional) Diamond Boring
 Rotary (Reverse) Jetting Other, specify _____
 Rotary (Air) Driving **Direct Push**

Status of Well

Test Hole Abandoned, Insufficient Supply
 Replacement Well Abandoned, Poor Water Quality
 Dewatering Well Other, specify **monitoring**
 Alteration (Construction) Abandoned, other, specify _____

No Casing and Screen Used Yes No

Static Water Level Test _____ Metres

Screen

Galvanized Steel Fibreglass Concrete Plastic

Outside Diameter (Centimetres) **6.03** Slot No. **10**

Water Details

Water found at Depth _____ Metres Gas Fresh Salty Sulphur Minerals
 Water found at Depth _____ Metres Gas Fresh Salty Sulphur Minerals
 Water found at Depth _____ Metres Gas Fresh Salty Sulphur Minerals

Disinfected Yes No. If no, provide reason: _____ Date Master Well Completed (yyyy/mm/dd) **2009/08/31**

Cluster Information (Please also fill out the additional Cluster Well Information for Well Construction for each parcel of land and cluster.)

Total Wells in Cluster **4** Please indicate Number of Cluster Well Information Log Sheets Submitted
 Total Wells on this Property **4** **1**

Location of Well Cluster

Detailed Map must be provided as an attachment no larger than legal size (8.5"x 14"). Sketches are not allowed.
 Check box to confirm detailed map is provided as per Section 11.1 (3)

Construction Details

Inside Diameter (Centimetres)	Material (steel, plastic, fibreglass, concrete, galvanized)	Wall Thickness	Depth (Metres)	
			From	To
5.20	PVC Riser	.390	0	1.83
	PVC Screen		1.83	4.88

Annular Space/Abandonment Sealing Record

Depth Set at (Metres)		Type of Sealant Used (Material and Type)	Volume Used (Cubic Metres)
From	To		
0	.31	Concrete / Flushmount	
.31	1.5	Benseal	
1.5	4.88	sand	

Well Contractor and Well Technician Information

Business Name of Well Contractor **Strata Soil Sampling** Well Contractor's Licence No. **7241**
 Business Address (Street No./Name, number, RR) **#2-147 West Beaver Creek** Municipality **Richmond Hill**
 Province **ON** Postal Code **L4B1C6** Business E-mail Address _____
 Bus. Telephone No. (inc. area code) **(905) 764-9301** Name of Well Technician (Last Name, First Name) **Robynne Toas**
 Well Technician's Licence No. **31659** Signature of Technician _____ Date Submitted (yyyy/mm/dd) **2009/09/11**

Ministry Use Only

Audit No. **M 02599** Well Contractor No. _____
 Date Received (yyyy/mm/dd) **SEP 22 2009** Date of Inspection (yyyy/mm/dd) _____
 Remarks _____

A085398

Address of Well Location (Street Number/Name, RR) 6906 McKeown Rd		Lot	Concession	Township	County/District/Municipality
City/Town/Village Greely	Province Ontario	Postal Code	GPS Unit Make Garmin	Model Etrex	Unit Mode of Operation <input type="checkbox"/> Undifferentiated <input checked="" type="checkbox"/> Averaged <input type="checkbox"/> Differentiated, specify:

upon request	
Signature of Technician/Contractor	Date (yyyy/mm/dd)

Well # on Sketch	UTM Coordinates		Full Depth of Hole (metres)	Hole Diameter (cm)	Method of Construction	Casing Material	Casing Length (metres)	Screen Interval (metres)		Annular Space Sealant Used	Static Water Level (metres)	Abandonment Sealant Used	Comments	Date of Completion (yyyy/mm/dd)
	Zone	Easting						Northing	From					
2	18	455042	5011837	4.88	10.92	Direct Push	PVC	1.83	1.83	4.88	Benseal			2009/08/31
3	18	455051	5011843	4.88	10.92	Direct Push	PVC	1.83	1.83	4.88	Benseal			2009/08/31
4	18	455052	5011837	4.88	10.92	Direct Push	PVC	1.83	1.83	4.88	Benseal			2009/08/31

Well Contractor and Well Technician Information			
Business Name of Well Contractor Strata Soil Sampling		Business Address (Street Number/Name, RR) #2-147 West Beaver Creek	
Municipality Richmond Hill		Province ON	
Postal Code L4B 1C6	Business Telephone No. (inc. area code) (905) 769-9304	Well Contractor's Licence No. 72411	Business E-mail Address
Name of Well Technician (First Name, Last Name) Trevor Robinson		Well Technician's Licence No. 8159	Date Submitted (yyyy/mm/dd) 08/09/11
		Signature of Technician	

Date 1st Well in Cluster Constructed (yyyy/mm/dd) 2009/08/31	Date Last Well in Cluster Constructed (yyyy/mm/dd) 2009/08/31
Ministry Use Only	
Date Received (yyyy/mm/dd) SEP 22 2009	Date Inspected (yyyy/mm/dd)
Audit No. C 03827	Remarks M02599



Trow Associates Inc. 154 Colonnade Road South, Tel: (613) 225-9940
Ottawa, Ontario K2E 7J5 Fax: (613) 225-7337

DATE JULY 2009	CLIENT VINTAGE PAVING	JOB No. OTEN00020135A
DESIGN CB	CHECKED CH	SCALE 1:1250±
DRAWN RG	TITLE SITE LAYOUT 6906 McKEOWN DRIVE, GREELY (OTTAWA)	FIG 2

SEP 22 2009
C-7241 M02599 203827



A 085398

A085398

Address of Well Location (Street Number/Name, RR) 6906 McKeown Rd Township Lot Concession County/District/Municipality Greely Province Ontario Postal Code

UTM Coordinates Zone Easting Northing GPS Unit Make Model Mode of Operation: [] Undifferentiated [x] Averaged [] Differentiated, specify

Table with 5 columns: General Colour, Most Common Material, Other Materials, General Description, Depth (Metres) From To. Rows include Gravel, Sand, clay, silt.

Hole Details table with 3 columns: Depth (Metres) From To, Diameter (Centimetres). Row: 0 to 4.88, 10.92.

Water Use section with checkboxes for Public, Industrial, Domestic, Commercial, Livestock, Municipal, Irrigation, Test Hole, etc.

Method of Construction section with checkboxes for Cable Tool, Rotary, Air Percussion, Diamond, Jetting, Driving Direct Push.

Status of Well section with checkboxes for Test Hole, Replacement Well, Dewatering Well, Abandoned, etc.

No Casing and Screen Used / Static Water Level Test section.

Screen section with checkboxes for Galvanized, Steel, Fibreglass, Concrete, Plastic.

Construction Details table with 4 columns: Inside Diameter (Centimetres), Material, Wall Thickness, Depth (Metres) From To.

Water Details section with multiple rows for Water found at Depth, Kind of Water (Gas, Fresh, Salty, Sulphur, Minerals).

Annular Space/Abandonment Sealing Record table with 4 columns: Depth Set at (Metres) From To, Type of Sealant Used, Volume Used (Cubic Metres).

Disinfected [] Yes [] No. If no, provide reason: Date Master Well Completed (yyyy/mm/dd) 2009/08/31

Cluster Information section: Total Wells in Cluster 4, Total Wells on this Property 4, Please indicate Number of Cluster Well Information Log Sheets Submitted 1.

Location of Well Cluster section: Detailed Map must be provided as an attachment no larger than legal size (8.5"x 14").

Well Contractor and Well Technician Information section: Business Name of Well Contractor, Well Contractor's Licence No., Business Address, Municipality, Province, Postal Code, Business E-mail Address, Name of Well Technician, Well Technician's Licence No., Signature of Technician, Date Submitted.

Ministry Use Only section: Audit No. M 02599, Well Contractor No., Date Received (yyyy/mm/dd) SEP 22 2009, Date of Inspection (yyyy/mm/dd), Remarks.

A085398

Address of Well Location (Street Number/Name, RR) 6906 McKeown Rd		Lot	Concession	Township	County/District/Municipality
City/Town/Village Greely	Province Ontario	Postal Code	GPS Unit Make Garmin	Model Etrex	Unit Mode of Operation <input type="checkbox"/> Undifferentiated <input checked="" type="checkbox"/> Averaged <input type="checkbox"/> Differentiated, specify:

upon request	
Signature of Technician/Contractor	Date (yyyy/mm/dd)

Well # on Sketch	UTM Coordinates		Full Depth of Hole (metres)	Hole Diameter (cm)	Method of Construction	Casing Material	Casing Length (metres)	Screen Interval (metres)		Annular Space Sealant Used	Static Water Level (metres)	Abandonment Sealant Used	Comments	Date of Completion (yyyy/mm/dd)
	Zone	Easting						Northing	From					
2	18	455042	5011837	4.88	10.92	Direct Push	PVC	1.83	1.83	4.88	Benseal			2009/08/31
3	18	455051	5011843	4.88	10.92	Direct Push	PVC	1.83	1.83	4.88	Benseal			2009/08/31
4	18	455052	5011837	4.88	10.92	Direct Push	PVC	1.83	1.83	4.88	Benseal			2009/08/31

Well Contractor and Well Technician Information					
Business Name of Well Contractor Strata Soil Sampling		Business Address (Street Number/Name, RR) #2-147 West Beaver Creek		Municipality Richmond Hill	Province ON
Postal Code L4B 1C6	Business Telephone No. (inc. area code) (905) 769-9304	Well Contractor's Licence No. 72411	Business E-mail Address		
Name of Well Technician (First Name, Last Name) Trevor Robinson		Well Technician's Licence No. 8159	Date Submitted (yyyy/mm/dd) 08/09/11	Signature of Technician	

Date 1st Well in Cluster Constructed (yyyy/mm/dd) 2009/08/31	Date Last Well in Cluster Constructed (yyyy/mm/dd) 2009/08/31
Ministry Use Only	
Date Received (yyyy/mm/dd) SEP 22 2009	Date Inspected (yyyy/mm/dd)
Audit No. C 03827	Remarks M02599



Trow Associates Inc. 154 Colonnade Road South, Tel: (613) 225-9940
Ottawa, Ontario K2E 7J5 Fax: (613) 225-7337

DATE JULY 2009	CLIENT VINTAGE PAVING	JOB No. OTEN00020135A
DESIGN CB	CHECKED CH	SCALE 1:1250±
DRAWN RG	TITLE SITE LAYOUT 6906 McKEOWN DRIVE, GREELY (OTTAWA)	FIG 2

SEP 22 2009
C-7241 M02599 203827

A085398

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

A 085398

10/19 Page 1 of 3

Address of Well Location (Street Number/Name, RR) **6906 McKeown Rd** Township _____ Lot _____ Concession _____
 County/District/Municipality _____ City/Town/Village **Greely** Province **Ontario** Postal Code _____

UTM Coordinates Zone Easting Northing GPS Unit Make Model Mode of Operation: Undifferentiated Averaged
NAD 83 18 455060 5011834 **Garmin** **Etrex** Differentiated, specify _____

Overburden and Bedrock Materials (see instructions on the back of this form)

General Colour	Most Common Material	Other Materials	General Description	Depth (Metres)	
				From	To
Grn	Gravel	Sand	soft, dry	0	.61
Brn	Sand		soft, dry	.61	1.5
brn	clay		soft, moist	1.5	2.74
brn	silt		Wet	2.74	4.88

Hole Details

Depth (Metres) From	Depth (Metres) To	Diameter (Centimetres)

Water Use

Public Industrial Not used Other, specify _____
 Domestic Commercial Dewatering
 Livestock Municipal Monitoring
 Irrigation Test Hole Cooling & Air Conditioning

Method of Construction

Cable Tool Air Percussion Digging
 Rotary (Conventional) Diamond Boring
 Rotary (Reverse) Jetting Other, specify _____
 Rotary (Air) Driving **Direct Push**

Status of Well

Test Hole Abandoned, Insufficient Supply
 Replacement Well Abandoned, Poor Water Quality
 Dewatering Well Other, specify **monitoring**
 Alteration (Construction) Abandoned, other, specify _____

No Casing and Screen Used Yes No **Static Water Level Test** _____ Metres

Screen

Galvanized Steel Fibreglass Concrete Plastic
 Outside Diameter (Centimetres) **6.03** Slot No. **10**

Water Details

Water found at Depth _____ Metres Gas Fresh Salty Sulphur Minerals
 Water found at Depth _____ Metres Gas Fresh Salty Sulphur Minerals
 Water found at Depth _____ Metres Gas Fresh Salty Sulphur Minerals

Disinfected Yes No. If no, provide reason: _____ Date Master Well Completed (yyyy/mm/dd) **2009/08/31**

Cluster Information (Please also fill out the additional Cluster Well Information for Well Construction for each parcel of land and cluster.)

Total Wells in Cluster **4** Please indicate Number of Cluster Well Information Log Sheets Submitted
 Total Wells on this Property **4** **1**

Location of Well Cluster

Detailed Map must be provided as an attachment no larger than legal size (8.5"x 14"). Sketches are not allowed.
 Check box to confirm detailed map is provided as per Section 11.1 (3)

Construction Details

Inside Diameter (Centimetres)	Material (steel, plastic, fibreglass, concrete, galvanized)	Wall Thickness	Depth (Metres)	
			From	To
5.20	PVC Riser	.390	0	1.83
	PVC Screen		1.83	4.88

Annular Space/Abandonment Sealing Record

Depth Set at (Metres)		Type of Sealant Used (Material and Type)	Volume Used (Cubic Metres)
From	To		
0	.31	Concrete / Flushmount	
.31	1.5	Benseal	
1.5	4.88	sand	

Well Contractor and Well Technician Information

Business Name of Well Contractor **Strata Soil Sampling** Well Contractor's Licence No. **7241**
 Business Address (Street No./Name, number, RR) **#2-147 West Beaver Creek** Municipality **Richmond Hill**
 Province **ON** Postal Code **L4B1C6** Business E-mail Address _____
 Bus. Telephone No. (inc. area code) **(905) 764-9301** Name of Well Technician (Last Name, First Name) **Robynne Toas**
 Well Technician's Licence No. **31659** Signature of Technician _____ Date Submitted (yyyy/mm/dd) **2009/09/11**

Ministry Use Only

Audit No. **M 02599** Well Contractor No. _____
 Date Received (yyyy/mm/dd) **SEP 22 2009** Date of Inspection (yyyy/mm/dd) _____
 Remarks _____

A085398

Address of Well Location (Street Number/Name, RR) 6906 McKeown Rd		Lot	Concession	Township	County/District/Municipality
City/Town/Village Greely	Province Ontario	Postal Code	GPS Unit Make Garmin	Model Etrex	Unit Mode of Operation <input type="checkbox"/> Undifferentiated <input checked="" type="checkbox"/> Averaged <input type="checkbox"/> Differentiated, specify:

upon request	
Signature of Technician/Contractor	Date (yyyy/mm/dd)

Well # on Sketch	UTM Coordinates		Full Depth of Hole (metres)	Hole Diameter (cm)	Method of Construction	Casing Material	Casing Length (metres)	Screen Interval (metres)		Annular Space Sealant Used	Static Water Level (metres)	Abandonment Sealant Used	Comments	Date of Completion (yyyy/mm/dd)
	Zone	Easting						Northing	From					
2	18	455042	5011837	4.88	10.92	Direct Push	PVC	1.83	1.83	4.88	Benseal			2009/08/31
3	18	455051	5011843	4.88	10.92	Direct Push	PVC	1.83	1.83	4.88	Benseal			2009/08/31
4	18	455052	5011837	4.88	10.92	Direct Push	PVC	1.83	1.83	4.88	Benseal			2009/08/31

Well Contractor and Well Technician Information					
Business Name of Well Contractor Strata Soil Sampling		Business Address (Street Number/Name, RR) #2-147 West Beaver Creek		Municipality Richmond Hill	Province ON
Postal Code L4B 1C6	Business Telephone No. (inc. area code) (905) 769-9304	Well Contractor's Licence No. 72411	Business E-mail Address		
Name of Well Technician (First Name, Last Name) Trevor Robinson		Well Technician's Licence No. 8159	Date Submitted (yyyy/mm/dd) 08/09/11	Signature of Technician	

Date 1st Well in Cluster Constructed (yyyy/mm/dd) 2009/08/31	Date Last Well in Cluster Constructed (yyyy/mm/dd) 2009/08/31
Ministry Use Only	
Date Received (yyyy/mm/dd) SEP 22 2009	Date Inspected (yyyy/mm/dd)
Audit No. C 03827	Remarks M02599



Trow Associates Inc. 154 Colonnade Road South, Tel: (613) 225-9940
Ottawa, Ontario K2E 7J5 Fax: (613) 225-7337

DATE JULY 2009	CLIENT VINTAGE PAVING	JOB No. OTEN00020135A
DESIGN CB	CHECKED CH	SCALE 1:1250±
DRAWN RG	TITLE SITE LAYOUT 6906 McKEOWN DRIVE, GREELY (OTTAWA)	FIG 2

SEP 22 2009
C-7241 M02599 203827

Measurements recorded in: Metric Imperial

A095924

Well Owner's Information

First Name: **MANOR** Last Name / Organization: **DEVELOPMENTS** E-mail Address: _____ Well Constructed by Well Owner

Mailing Address (Street Number/Name): **1269 South Beach Blvd** Municipality: **Greely Ont** Province: **Ont** Postal Code: **K4P 0A5** Telephone No. (inc. area code): _____

Well Location

Address of Well Location (Street Number/Name): **#1363 South Beach Blvd** Township: **Osgoode** Lot: **4** Concession: **4**

County/District/Municipality: **Ottawa-Carleton** City/Town/Village: **Greely** Province: **Ontario** Postal Code: _____

UTM Coordinates Zone: **18** Easting: **454641** Northing: **5012313** Municipal Plan and Sublot Number: **PLAN 4M-1265** Other: **S/L 80**

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	Depth (m/ft) To
	Sand, Gravel + boulders			0	45' 6"
	Grey limestone			45' 2"	145'
	Grey Sandstone			145'	215'
	Grey limestone + Sandstone Mix			215'	248'
	Grey + White Sandstone			248'	301'

Annular Space

Depth Set at (m/ft) From	Depth Set at (m/ft) To	Type of Sealant Used (Material and Type)	Volume Placed (m ³ /ft ³)
54'	44'	Neat Cement Slurry	7.8
44'	0'	Neat Bentonite Slurry	29.4

Results of Well Yield Testing

After test of well yield, water was: <input type="checkbox"/> Clear and sand free <input type="checkbox"/> Other, specify	Draw Down		Recovery	
	Time (min)	Water Level (m/ft)	Time (min)	Water Level (m/ft)
TESTED If pumping discontinued, give reason: X	Static Level	31' 3"		52' 5"
	1	35' 8"	1	41' 6"
	2	40'	2	34' 2"
	3	44'	3	31' 3"
	4	48'	4	
	5	50'	5	
	Final water level end of pumping (m/ft)	52' 5"	10	52' 1"
	15	↓	15	
	20	52' 2"	20	
	25	↓	25	
Recommended pump rate (l/min / GPM)	20	30	52' 4"	30
Well production (l/min / GPM)	20	40	↓	40
Disinfected?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	50	52' 5"	50
		60	↓	60

Method of Construction

Cable Tool Diamond Public Commercial Not used

Rotary (Conventional) Jetting Domestic Municipal Dewatering

Rotary (Reverse) Driving Livestock Test Hole Monitoring

Boring Digging Irrigation Cooling & Air Conditioning

Air percussion Industrial Other, specify _____

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft)		Status of Well
			From	To	
6"	Steel	188"	12' 54'		<input checked="" type="checkbox"/> Water Supply
6"	Openhole		54' 301'		<input type="checkbox"/> Replacement Well

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft)		Status of Well
			From	To	
					<input type="checkbox"/> Test Hole

Water Details

Water found at Depth (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input checked="" type="checkbox"/> Untested	Depth (m/ft) From	Depth (m/ft) To	Diameter (cm/in)
146'	<input type="checkbox"/> Gas <input checked="" type="checkbox"/> Other, specify _____	0'	301'	6"
295'	<input type="checkbox"/> Gas <input checked="" type="checkbox"/> Other, specify _____			

Well Contractor and Well Technician Information

Business Name of Well Contractor: **Air Rock Drilling Co Ltd** Well Contractor's Licence No.: **11119**

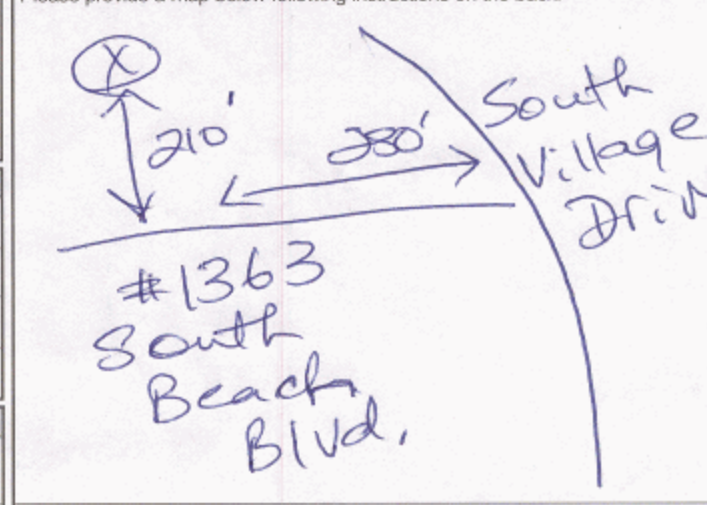
Business Address (Street Number/Name): **Richmond** Municipality: **Richmond**

Province: **Ont** Postal Code: **K0A 2Z0** Business E-mail Address: _____

Bus. Telephone No. (inc. area code): **6138380170** Name of Well Technician (Last Name, First Name): **GRAHAM RYAN**

Well Technician's Licence No.: **T3484** Signature of Technician and/or Contractor: **[Signature]** Date Submitted: **20100510**

Map of Well Location



Comments: _____

Well owner's information package delivered: Yes No

Date Package Delivered: **20100405** Date Work Completed: **20100315**

Ministry Use Only

Audit No.: **Z 108300**

Regulated: **JUN 01 2010**

Well ID: A095990

Address of Well Location (Street Number/Name) #1385 South Beach Blvd Township Osgoode Lot 4 Concession 4
 County/District/Municipality Ottawa-Carleton City/Town/Village Greely Province Ontario Postal Code
 UTM Coordinates Zone 18 Easting 454728 Northing 5012346 Municipal Plan and Sublot Number PLAN 4M-1265 Other 3/L82

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	Depth (m/ft) To
	Sand, Gravel + boulders			0ft	42'
	Gray limestone			42'	155'
	Gray Sandstone			155'	172'
	Gray + White Sandstone + limestone Mix			172'	300'

Annular Space

Depth Set at (m/ft) From	Depth Set at (m/ft) To	Type of Sealant Used (Material and Type)	Volume Placed (m ³ /ft ³)
50'	40'	Neat Cement Slurry	7.8
40'	0'	Neat Bentonite Slurry	18.90

Method of Construction

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

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft)		Status of Well
			From	To	
6"	Steel	.188"	0'	50'	<input checked="" type="checkbox"/> Water Supply
6 1/4"	open hole		50'	300'	<input type="checkbox"/> Replacement Well

Status of Well

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

Construction Record - Screen

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

Water Details

Water found at Depth (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input checked="" type="checkbox"/> Untested	Depth (m/ft) From	Depth (m/ft) To	Diameter (cm/in)
172	<input type="checkbox"/> Gas <input type="checkbox"/> Other, specify <u> </u>	0'	50'	6"
294	<input type="checkbox"/> Gas <input type="checkbox"/> Other, specify <u> </u>	50'	300'	6 1/4"

Well Contractor and Well Technician Information

Business Name of Well Contractor AIR ROCK DRILLING CO LTD Well Contractor's Licence No. 1119
 Business Address (Street Number/Name) RR#1 RICHMOND Municipality
 Province ONT Postal Code K0A2Z0 Business E-mail Address

Bus. Telephone No. (inc. area code) 613 838 2170 Name of Well Technician (Last Name, First Name) GRAHAM RYAN
 Well Technician's Licence No. T3484 Signature of Technician and/or Contractor [Signature] Date Submitted 20100510

Results of Well Yield Testing

After test of well yield, water was: Clear and sand free Other, specify TESTED

If pumping discontinued, give reason:

Pump intake set at (m/ft) 250'

Pumping rate (l/min / GPM) 20

Duration of pumping 1 hrs 0 min

Final water level end of pumping (m/ft) 36'6"

If flowing give rate (l/min / GPM)

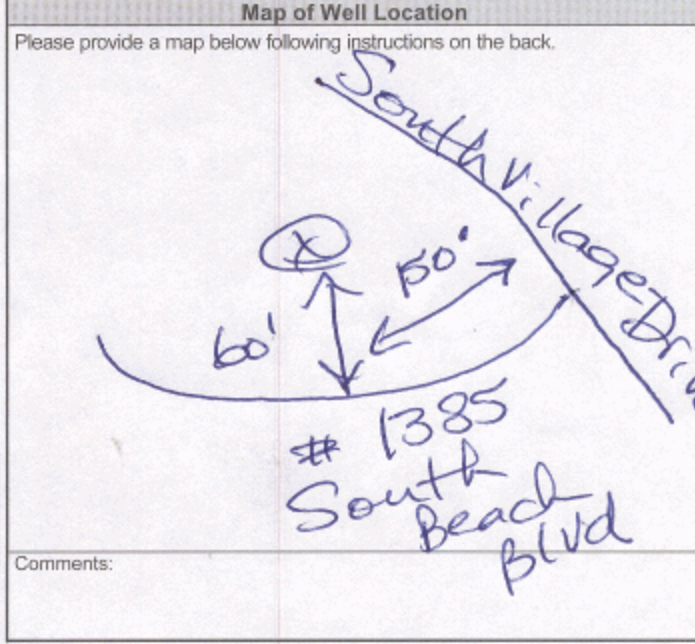
Recommended pump depth (m/ft)

Recommended pump rate (l/min / GPM) 20

Well production (l/min / GPM) 20

Disinfected? Yes No

Time (min)	Draw Down		Recovery	
	Water Level (m/ft)	Time (min)	Water Level (m/ft)	Time (min)
Static Level	35'6"		36'6"	
1	36'3"	1	35'6"	
2	↓	2		
3	↓	3		
4	36'4"	4		
5	↓	5		
10	↓	10		
15	↓	15		
20	36'5"	20		
25	↓	25		
30	↓	30		
40	↓	40		
50	36'6"	50		
60	↓	60		



Well owner's information package delivered Yes No

Date Package Delivered 20100427

Date Work Completed 20100421

Ministry Use Only

Audit No. Z108320

Received JUN 01 2010

Well Location

Address of Well Location (Street Number/Name) **1344 Barfield Street** Township **Osgoode** Lot **Part 62, 63 + 64** Concession

County/District/Municipality **Ottawa Carleton** City/Town/Village **Greely** Province **Ontario** Postal Code

UTM Coordinates Zone Easting Northing Municipal Plan and Sublot Number Other

NAD 83 **18 454720 5011766 4M-351 PT BLK 5 RP 4R054 27**

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m(ft))	
				From	To
			Silty Sand	0'	26'
			Sand, Gravel + Boulders	26	54
			Grey + Brown limestone	54	120

Annular Space			
Depth Set at (m(ft))	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)	
From 60' To 50'	Neat cement	7.8	
From 50' To 0'	Bentonite slurry	25.2	

Method of Construction		Well Use	
<input type="checkbox"/> Cable Tool	<input type="checkbox"/> Diamond	<input type="checkbox"/> Public	<input type="checkbox"/> Commercial
<input type="checkbox"/> Rotary (Conventional)	<input type="checkbox"/> Jetting	<input checked="" type="checkbox"/> Domestic	<input type="checkbox"/> Municipal
<input type="checkbox"/> Rotary (Reverse)	<input type="checkbox"/> Driving	<input type="checkbox"/> Livestock	<input type="checkbox"/> Test Hole
<input type="checkbox"/> Boring	<input type="checkbox"/> Digging	<input type="checkbox"/> Irrigation	<input type="checkbox"/> Cooling & Air Conditioning
<input checked="" type="checkbox"/> Air percussion		<input type="checkbox"/> Industrial	
<input type="checkbox"/> Other, specify		<input type="checkbox"/> Other, specify	

Construction Record - Casing				Status of Well	
Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m(ft))	<input checked="" type="checkbox"/> Water Supply	<input type="checkbox"/> Replacement Well
			From To		
6"	Steel	.188"	+2' 60'	<input type="checkbox"/> Test Hole	<input type="checkbox"/> Recharge Well
515/16"	Open Hole		60' 120'	<input type="checkbox"/> Dewatering Well	<input type="checkbox"/> Observation and/or Monitoring Hole

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

Water Details		Hole Diameter	
Water found at Depth 65 (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input checked="" type="checkbox"/> Untested	Depth (m/ft) From 0 To 60	Diameter (cm/in) 6"
Water found at Depth 105 (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input checked="" type="checkbox"/> Untested	Depth (m/ft) From 60 To 120	Diameter (cm/in) 515/16"
Water found at Depth 113 (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input checked="" type="checkbox"/> Untested		

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

Well Contractor and Well Technician Information	
Bus. Telephone No. (inc. area code) 6138382170	Name of Well Technician (Last Name, First Name) Graham, Ryan
Well Technician's Licence No. T3484	Signature of Technician and/or Contractor
Date Submitted 2010 01 29	

Results of Well Yield Testing				
After test of well yield, water was:	Draw Down		Recovery	
	Time (min)	Water Level (m/ft)	Time (min)	Water Level (m/ft)
<input type="checkbox"/> Clear and sand free <input type="checkbox"/> Other, specify Not tested				
If pumping discontinued, give reason:	Static Level	4		41.7
XXXXXXXXXX	1	12.8	1	23.5
Pump intake set at (m(ft)) 80'	2	17.2	2	15.5
Pumping rate (l/min / GPM) 20	3	20.2	3	10.3
Duration of pumping 1 hrs + 0 min	4	22.5	4	6.7
Final water level end of pumping (m/ft) 41.7'	5	24	5	5.1
If flowing give rate (l/min / GPM)	10	29.7	10	4
XXXXXXXXXX	15	32.6	15	4
Recommended pump depth (m(ft)) 80'	20	35	20	4
Recommended pump rate (l/min / GPM) 20	25	36.8	25	4
Well production (l/min / GPM) 20	30	38.2	30	4
Disinfected? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	40	40.2	40	4
	50	40.2	50	4
	60	41.7	60	4

Map of Well Location

Please provide a map below following instructions on the back.

Well owner's information		Date Package Delivered		Ministry Use Only	
Well owner's information package delivered <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Date Package Delivered 2010 01 17	Audit No. z119920	Received DEC 29 2010		
Date Work Completed 2010 01 16					



Measurements recorded in: Metric Imperial

Page of

Well Location

Address of Well Location (Street Number/Name) 6906 McKeown Drive, Township Osgoode, Lot P/L5, Concession 4, County/District/Municipality Ottawa Carleton, City/Town/Village Greely, Province Ontario, Postal Code, UTM Coordinates Zone Easting Northing, Municipal Plan and Sublot Number Plan 4M-351 P/Block 3 less 4RS327

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

Table with columns: General Colour, Most Common Material, Other Materials, General Description, Depth From, Depth To. Includes handwritten entries: Sand & Gravel & Clay, Grey Limestone, 0' to 56', 56' to 180'.

Annular Space table with columns: Depth Set at (m/ft) From, To, Type of Sealant Used (Material and Type), Volume Placed (m³/ft³). Includes entries for Neat cement and Bentonite slurry.

Method of Construction and Well Use checkboxes. Includes options like Cable Tool, Rotary, Boring, Air percussion, and various well uses like Domestic, Commercial, etc.

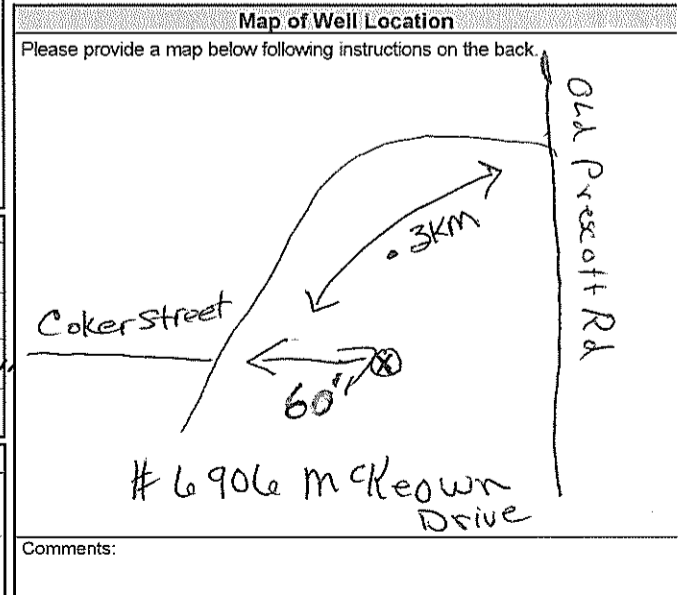
Construction Record - Casing table with columns: Inside Diameter (cm/in), Open Hole OR Material, Wall Thickness (cm/in), Depth (m/ft) From, To, Status of Well. Includes entries for Steel and Open Hole casing.

Construction Record - Screen table with columns: Outside Diameter (cm/in), Material, Slot No., Depth (m/ft) From, To. Includes handwritten entries.

Water Details and Hole Diameter tables. Includes columns for Water found at Depth, Kind of Water, and Hole Diameter (Depth and Diameter).

Well Contractor and Well Technician Information section. Includes Business Name of Well Contractor (Air Rock Drilling Co. Ltd.), Well Contractor's Licence No., Business Address, Municipality, Province, Postal Code, Business E-mail Address, Bus. Telephone No., Name of Well Technician (Last Name, First Name), Well Technician's Licence No., Signature of Technician and/or Contractor, Date Submitted.

Results of Well Yield Testing table. Includes columns: Draw Down (Time, Water Level), Recovery (Time, Water Level). Includes handwritten entries for pumping rate, duration, and water level.



Ministry Use Only section. Includes Audit No. (z119918), Date Package Delivered (2010 01 25), Date Work Completed (2010 01 24), and Received date (JAN 17 2011).

Measurements recorded in: Metric Imperial

Well Location

Address of Well Location (Street Number/Name) 1333 South Beach Boulevard Township City Ottawa Lot Sublot 75 Concession 4
 County/District/Municipality Osgoode City/Town/Village Osgoode Province Ontario Postal Code K0A 2W0
 UTM Coordinates Zone Easting Northing Municipal Plan and Sublot Number Other
 NAD 83 184545615012104 R Plan 4M 1265

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft)	
				From	To
Brown	Sand	clay	soft	0	3.1
Grey	Sand coarse	gravel, Stone	soft/packed	3.1	12.5
Grey	gravel	stone, Boulder	packed	12.5	14.6
Grey	Limestone		layered	14.6	25.9

Annular Space

Depth Set at (m/ft)	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0 to 16.6	cement grout	7 Bag

Results of Well Yield Testing

After test of well yield, water was:	Draw Down		Recovery	
	Time (min)	Water Level (m/ft)	Time (min)	Water Level (m/ft)
<input checked="" type="checkbox"/> Clear and sand free <input type="checkbox"/> Other, specify	Static Level	3.24		3.32
If pumping discontinued, give reason:	1	3.25	1	3.26
Pump intake set at (m/ft)	2	3.27	2	3.24
Pumping rate (l/min / GPM)	3	3.28	3	7
Duration of pumping	4	3.28	4	
1 hrs + min	5	2.29	5	
Final water level end of pumping (m/ft)	10	3.30	10	
If flowing give rate (l/min / GPM)	15	3.30	15	
Recommended pump depth (m/ft)	20	3.31	20	
Recommended pump rate (l/min / GPM)	25	3.31	25	
Well production (l/min / GPM)	30	3.32	30	
Disinfected?	40	3.32	40	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	50	3.32	50	
	60	3.32	60	

Method of Construction Well Use

<input type="checkbox"/> Cable Tool	<input type="checkbox"/> Diamond	<input type="checkbox"/> Public	<input type="checkbox"/> Commercial	<input type="checkbox"/> Not used
<input type="checkbox"/> Rotary (Conventional)	<input type="checkbox"/> Jetting	<input checked="" type="checkbox"/> Domestic	<input type="checkbox"/> Municipal	<input type="checkbox"/> Dewatering
<input type="checkbox"/> Rotary (Reverse)	<input type="checkbox"/> Driving	<input type="checkbox"/> Livestock	<input type="checkbox"/> Test Hole	<input type="checkbox"/> Monitoring
<input type="checkbox"/> Boring	<input type="checkbox"/> Digging	<input type="checkbox"/> Irrigation	<input type="checkbox"/> Cooling & Air Conditioning	
<input type="checkbox"/> Air percussion		<input type="checkbox"/> Industrial		
<input checked="" type="checkbox"/> Other, specify <u>Air Rotary</u>		<input type="checkbox"/> Other, specify		

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft)		Status of Well
			From	To	
15.55	Steel	0.48	4.6	16.6	<input checked="" type="checkbox"/> Water Supply <input type="checkbox"/> Replacement Well <input type="checkbox"/> Test Hole <input type="checkbox"/> Recharge Well <input type="checkbox"/> Dewatering Well <input type="checkbox"/> Observation and/or Monitoring Hole <input type="checkbox"/> Alteration (Construction) <input type="checkbox"/> Abandoned, Insufficient Supply <input type="checkbox"/> Abandoned, Poor Water Quality <input type="checkbox"/> Abandoned, other, specify <input type="checkbox"/> Other, specify
15.55	Open Hole		16.6	25.9	

Construction Record - Screen

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

Water Details Hole Diameter

Water found at Depth (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input checked="" type="checkbox"/> Untested	Depth (m/ft)		Diameter (cm/in)
		From	To	
24	<input type="checkbox"/> Gas <input type="checkbox"/> Other, specify			
	<input type="checkbox"/> Gas <input type="checkbox"/> Other, specify			
	<input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	0	16.6	21.23
	<input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	16.6	25.9	15.55

Well Contractor and Well Technician Information

Business Name of Well Contractor Bourgeois Well Drilling Ltd Well Contractor's Licence No. 74117
 Business Address (Street Number/Name) 151 Montee D'Abust Municipality Nation
 Province On Postal Code K0A 3C0 Business E-mail Address N/A
 Bus. Telephone No. (inc. area code) 613 987 5291 Name of Well Technician (Last Name, First Name) Gempier Michael
 Well Technician's Licence No. 3493 Signature of Technician and/or Contractor [Signature] Date Submitted 2011/01/23

Map of Well Location

Please provide a map below following instructions on the back.

Comments:

Well owner's information package delivered: Yes No

Date Package Delivered: 2011/01/23

Date Work Completed: 2011/01/23

Ministry Use Only

Audit No: 2127020

Received: JAN 21 2011

Measurements recorded in: Metric Imperial

Page _____ of _____

N/A

Well Owner's Information

First Name: **KEN GORDON** Last Name / Organization: **HOLDINGS** E-mail Address: _____ Well Constructed by Well Owner

Mailing Address (Street Number/Name): **Box 310** Municipality: **Manotick Ont** Province: **Ont** Postal Code: **K4M 1A4** Telephone No. (inc. area code): _____

Well Location

Address of Well Location (Street Number/Name): **Parkway Road** Township: **Osgoode** Lot: **6** Concession: **4**

County/District/Municipality: **Ottawa-Carleton** City/Town/Village: **Greely** Province: **Ontario** Postal Code: _____

UTM Coordinates Zone: **18** Easting: **455214** Northing: **5011633** Municipal Plan and Sublot Number: _____ Other: _____

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft)
				From To
			6" Drilled Well Abandonment	0' 137'

TW#5 - Tag A004862 - Audit 204877 - Feb 17, 2004

Annular Space

Depth Set at (m/ft)	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
From To		
137' 6'	Grout	
6' 0'	Backfill	

Results of Well Yield Testing

	Draw Down		Recovery	
	Time (min)	Water Level (m/ft)	Time (min)	Water Level (m/ft)
After test of well yield, water was: <input type="checkbox"/> Clear and sand free <input type="checkbox"/> Other, specify _____				
If pumping discontinued, give reason:	Static Level			
Pump intake set at (m/ft)	1		1	
Pumping rate (l/min / GPM)	2		2	
Duration of pumping _____ hrs + _____ min	3		3	
Final water level end of pumping (m/ft)	4		4	
If flowing give rate (l/min / GRM)	5		5	
Recommended pump depth (m/ft)	10		10	
Recommended pump rate (l/min / GPM)	15		15	
Well production (l/min / GPM)	20		20	
Disinfected? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	25		25	
	30		30	
	40		40	
	50		50	
	60		60	

Method of Construction

Cable Tool Diamond Rotary (Conventional) Jetting Rotary (Reverse) Driving Boring Digging Air percussion Other, specify _____

Well Use

Public Commercial Not used Domestic Municipal Dewatering Livestock Test Hole Monitoring Irrigation Cooling & Air Conditioning Industrial Other, specify _____

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft)	
			From	To

Status of Well

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

Construction Record - Screen

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

Water Details

Water found at Depth (m/ft) Gas Other, specify _____ Kind of Water: Fresh Untested

Water found at Depth (m/ft) Gas Other, specify _____ Kind of Water: Fresh Untested

Water found at Depth (m/ft) Gas Other, specify _____ Kind of Water: Fresh Untested

Hole Diameter

Depth (m/ft)	Diameter (cm/in)
From To	

Well Contractor and Well Technician Information

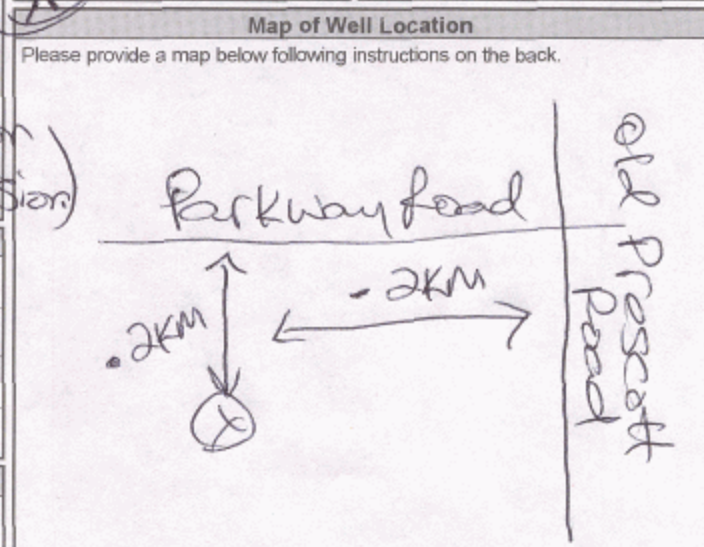
Business Name of Well Contractor: **AIR ROCK DRILLING CO LTD 1119** Well Contractor's Licence No.: _____

Business Address (Street Number/Name): **RR#1** Municipality: **RICHMOND**

Province: **ONT** Postal Code: **K0A2Z0** Business E-mail Address: _____

Bus. Telephone No. (inc. area code): **6138382170** Name of Well Technician (Last Name, First Name): **Desautels Ken**

Well Technician's Licence No.: **T4** Signature of Technician and/or Contractor: **Ken Desautels** Date Submitted: **20110131**



Comments: **TW#5 - A004862**

Well owner's information package delivered <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Date Package Delivered: Y Y Y Y M M D D 20110118	Ministry Use Only Audit No. z119939 Received FEB 10 2011
--	---	---

Address of Well Location (Street Number/Name) 1356 South Beach Blvd		Township Osgoode	Lot 4	Concession 4
County/District/Municipality Ottawa-Carleton		City/Town/Village Greely	Province Ontario	Postal Code
UTM Coordinates Zone	Easting	Northing	Municipal Plan and Sublot Number	
NAD 83	18 454663	5012212	4M-1265	
Other			S/L 115	

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft)	
				From	To
	Sand & Gravel	Boulders		0'	42'
Grey	Limestone			42'	55'
Grey	Limestone			55'	94'
Grey	Limestone			94'	100'

Annular Space			
Depth Set at (m/ft)	Type of Sealant Used (Material and Type)	Volume Placed (m ³ /ft ³)	
50' / 40'	Neat cement slurry	9.36	
40' / 0'	Bentonite slurry	29.4	

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

Construction Record - Casing				Status of Well	
Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft)	<input checked="" type="checkbox"/> Water Supply	<input type="checkbox"/> Replacement Well
			From To		
6"	Steel	.188"	+2' / 50'	<input type="checkbox"/> Test Hole	<input type="checkbox"/> Recharge Well
57 3/4"	Open Hole		50' / 100'	<input type="checkbox"/> Dewatering Well	<input type="checkbox"/> Observation and/or Monitoring Hole

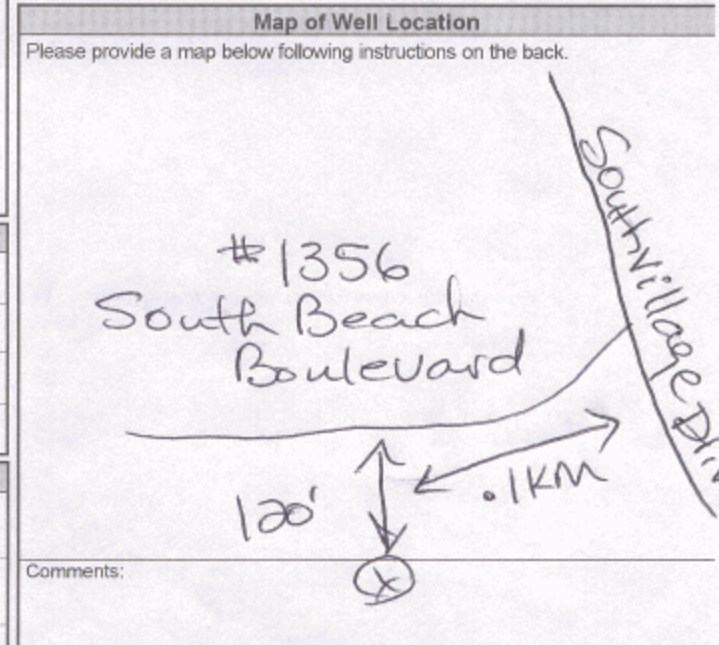
Construction Record - Screen				Status of Well
Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft)	
			From To	<input type="checkbox"/> Alteration (Construction)
				<input type="checkbox"/> Abandoned, Insufficient Supply
				<input type="checkbox"/> Abandoned, Poor Water Quality
				<input type="checkbox"/> Abandoned, other, specify
				<input type="checkbox"/> Other, specify

Water Details		Hole Diameter	
Water found at Depth 55 (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input checked="" type="checkbox"/> Untested	Depth (m/ft)	Diameter (cm/in)
Water found at Depth 94 (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input checked="" type="checkbox"/> Untested	0' / 50'	6"
Water found at Depth (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested	50' / 100'	57 3/4"

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

Bus. Telephone No. (inc. area code) 6138882170	Name of Well Technician (Last Name, First Name) Hogan, Dan
Well Technician's Licence No. T3058	Signature of Technician and/or Contractor
	Date Submitted 2011 07 29

Results of Well Yield Testing					
After test of well yield, water was:		Draw Down		Recovery	
<input type="checkbox"/> Clear and sand free	<input type="checkbox"/> Other, specify Not tested	Time (min)	Water Level (m/ft)	Time (min)	Water Level (m/ft)
If pumping discontinued, give reason:		Static Level	8.6'		12.9'
<input checked="" type="checkbox"/>		1	10.5	1	10.8
Pump intake set at (m/ft) 80'		2	10.8	2	9.8
Pumping rate (l/min / GPM) 20		3	11	3	8.6
Duration of pumping 1 hrs + 0 min		4	11.2	4	8.6
Final water level end of pumping (m/ft) 12.9'		5	11.3	5	8.6
If flowing give rate (l/min / GPM)		10	11.7	10	8.6
<input checked="" type="checkbox"/>		15	11.9	15	8.6
Recommended pump depth (m/ft) 80'		20	12.1	20	8.6
Recommended pump rate (l/min / GPM) 20		25	12.2	25	8.6
Well production (l/min / GPM) 20		30	12.3	30	8.6
Disinfected?		40	12.5	40	8.6
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		50	12.8	50	8.6
		60	12.9'	60	8.6'



Well owner's information package delivered <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Date Package Delivered 2011 06 24	Ministry Use Only Audit No. z119752
Date Work Completed 2011 06 23	Received AUG 22 2011	



Measurements recorded in: Metric Imperial

Well Owner's Information

First Name, Last Name / Organization (SiteCast Construction Corp.), E-mail Address, Mailing Address (16 Concourse Gate #200), Municipality (Ottawa), Province (ON), Postal Code (K2E 7S8), Telephone No.

Well Location

Address of Well Location (6815 McKeown Road), Township (Osgoode), Lot (P/L 5), Concession (4), County/District/Municipality (Ottawa-Carleton), City/Town/Village (Greely), Province (Ontario), UTM Coordinates, Municipal Plan and Sublot Number (4M-351), Other (P/L 6)

Overburden and Bedrock Materials/Abandonment Sealing Record

Table with columns: General Colour, Most Common Material, Other Materials, General Description, Depth (m/ft) From, To. Rows include Sand & Gravel, Clay, Limestone, Sandstone.

Annular Space table with columns: Depth Set at (m/ft) From, To; Type of Sealant Used; Volume Placed (m³/ft³). Rows for Neat cement and Bentonite slurry.

Method of Construction and Well Use checkboxes. Includes Cable Tool, Rotary, Boring, Air percussion, Public, Commercial, Domestic, etc.

Construction Record - Casing table with columns: Inside Diameter, Open Hole OR Material, Wall Thickness, Depth (m/ft) From, To. Rows for Steel and Open Hole.

Construction Record - Screen table with columns: Outside Diameter, Material, Slot No., Depth (m/ft) From, To.

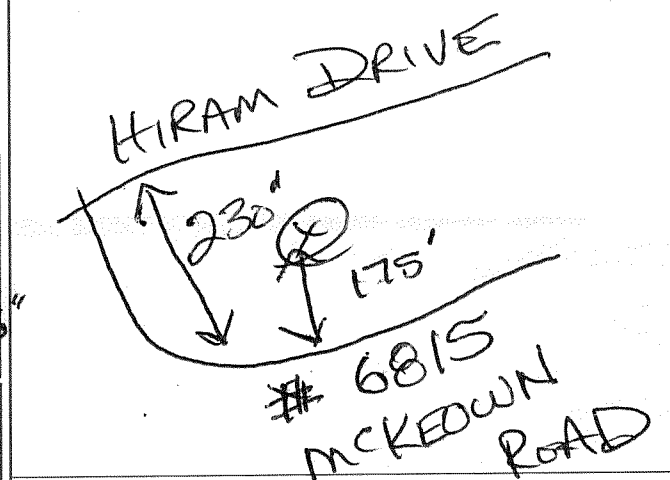
Water Details and Hole Diameter tables. Water found at depths 179, 185, and 201 m/ft. Hole diameter 5 15/16 inches.

Well Contractor and Well Technician Information. Business Name: Air Rock Drilling Co. Ltd., Business Address: 8659 Franktown Road, RR#1, Municipality: Richmond.

Well owner's information package delivered (Yes/No), Date Package Delivered (2012 05 08), Date Work Completed (2012 05 03), Name of Well Technician (Purcell, Shannon), Date Submitted (2012 05 31).

Results of Well Yield Testing table with columns: Time (min), Water Level (m/ft), Recovery Time (min), Water Level (m/ft). Includes pumping rate (12 GPM) and recommended pump depth (140').

Map of Well Location



Comments: 1/2 HP - 10 GPM set @ 140 ft

Ministry Use Only section with Audit No. Z128551 and Received date JUN 29 2012.



Measurements recorded in: Metric Imperial

Address of Well Location (Street Number/Name) 6946 South Village Drive Township Osgoode Lot 4 Concession 4
County/District/Municipality Ottawa-Carleton City/Town/Village Greely Province Ontario Postal Code
UTM Coordinates Zone Easting Northing Municipal Plan and Sublot Number Other S/I 12

Overburden and Bedrock Materials/Abandonment Sealing Record (see instructions on the back of this form)
Table with columns: General Colour, Most Common Material, Other Materials, General Description, Depth (m) From To

Annular Space
Table with columns: Depth Set at (m) From To, Type of Sealant Used (Material and Type), Volume Placed (m³)

Method of Construction Well Use
List of construction methods and well uses with checkboxes.

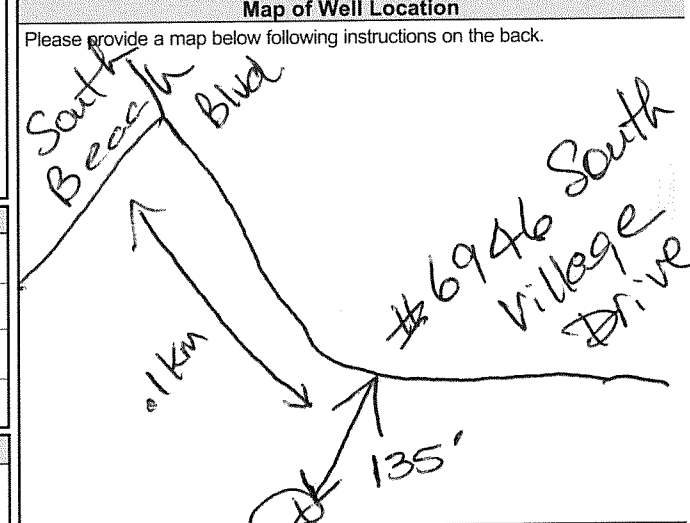
Construction Record - Casing Status of Well
Table with columns: Inside Diameter (cm), Open Hole OR Material, Wall Thickness (cm/in), Depth (m/ft) From To, Status of Well

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

Water Details Hole Diameter
Table with columns: Water found at Depth, Kind of Water, Depth (m/ft) From To, Diameter (cm/in)

Well Contractor and Well Technician Information
Business Name of Well Contractor: Air Rock Drilling Co. Ltd.
Well Contractor's Licence No.: 1119
Business Address: 6659 Franktown Road, RR#1
Municipality: Richmond
Province: ON Postal Code: K0A 2Z0 Business E-mail Address: air-rock@sympatico.ca
Bus. Telephone No.: 6138382170 Name of Well Technician: Purcell, Shannon
Well Technician's Licence No.: T2122 Signature of Technician and/or Contractor: [Signature] Date Submitted: 2012 06 29

Results of Well Yield Testing
Table with columns: Draw Down (Time, Water Level), Recovery (Time, Water Level)
Includes notes: After test of well yield, water was: Not tested. Pump intake set at 160'. Pumping rate 20. Duration of pumping 1 hrs + 0 min. Final water level end of pumping 74.9".



Comments: 3/4 HP - 15 GPM SET @ 100.
Ministry Use Only: Audit No. Z 144600 Date Work Completed: 2012 06 06

Measurements recorded in: Metric Imperial

Page _____ of _____

Well Owner's Information

First Name	Last Name / Organization M. Scapillati Flooring Inc.	E-mail Address	<input type="checkbox"/> Well Constructed by Well Owner
Mailing Address (Street Number/Name) P.O. Box 13090	Municipality Kanata	Province Ontario	Postal Code K2K 1X3
Telephone No. (inc. area code) 613 839 3462			

Well Location

Address of Well Location (Street Number/Name) 6786 Hiram Drive	Township Osgoode	Lot 5	Concession 4
County/District/Municipality Ottawa Carleton	City/Town/Village Greely	Province Ontario	Postal Code
UTM Coordinates	Zone Easting NAD 83 18 454621	Northing 5011602	Municipal Plan and Sublot Number

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft)	
				From	To
Brown	Clay		Packed	0	2.43
Grey	Clay		Sticky	2.43	4.87
Grey	Sand	Boulders	Loose	4.87	17.67
Grey	Limestone			17.67	29.86

Annular Space			
Depth Set at (m/ft)	Type of Sealant Used	Volume Placed	
From	(Material and Type)	(m³/ft³)	
19.50	0 Grouted Bentonite Slurry	.92m³	

Results of Well Yield Testing					
After test of well yield, water was:		Draw Down		Recovery	
<input checked="" type="checkbox"/> Clear and sand free <input type="checkbox"/> Other, specify _____		Time (min)	Water Level (m/ft)	Time (min)	Water Level (m/ft)
If pumping discontinued, give reason:		Static Level	1.73		
Pump intake set at (m/ft) 22.85		1	2.74	1	4.81
Pumping rate (l/min / GPM) 45.5		2	2.70	2	3.11
Duration of pumping 7 hrs + 28 min		3	4.25	3	2.23
Final water level end of pumping (m/ft) 6.31		4	4.62	4	1.90
If flowing give rate (l/min / GPM)		5	4.88	5	1.83
Recommended pump depth (m/ft) 22.85		10	5.49	10	1.81
Recommended pump rate (l/min / GPM) 45.5		15	5.68	15	
Well production (l/min / GPM)		20	5.78	20	
Disinfected? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		25	5.82	25	
		30	5.85	30	
		40	5.88	40	
		50	5.92	50	
		60	5.95	60	

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

Construction Record - Casing				Status of Well	
Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft)		<input checked="" type="checkbox"/> Water Supply <input type="checkbox"/> Replacement Well <input type="checkbox"/> Test Hole <input type="checkbox"/> Recharge Well <input type="checkbox"/> Dewatering Well <input type="checkbox"/> Observation and/or Monitoring Hole <input type="checkbox"/> Alteration (Construction) <input type="checkbox"/> Abandoned, Insufficient Supply <input type="checkbox"/> Abandoned, Poor Water Quality <input type="checkbox"/> Abandoned, other, specify _____ <input type="checkbox"/> Other, specify _____
			From	To	
15.86	Steel	.48	+ .45	19.50	

Construction Record - Screen					
Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft)		<input type="checkbox"/> Other, specify _____
			From	To	

Water Details		Hole Diameter		
Water found at Depth 21.33 (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input checked="" type="checkbox"/> Untested	Depth (m/ft)	Diameter (cm/in)	
	<input type="checkbox"/> Gas <input type="checkbox"/> Other, specify _____	From	To	
Water found at Depth 28.95 (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input checked="" type="checkbox"/> Untested	0	19.50	15.86
	<input type="checkbox"/> Gas <input type="checkbox"/> Other, specify _____	19.50	29.86	15.23
Water found at Depth (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested			
	<input type="checkbox"/> Gas <input type="checkbox"/> Other, specify _____			

Well Contractor and Well Technician Information			
Business Name of Well Contractor Capital Water Supply Ltd.	Well Contractor's Licence No. 1 5 5 8		
Business Address (Street Number/Name) Box 490	Municipality Stittsville		
Province Ontario	Postal Code K2S 1A6	Business E-mail Address office@capitalwater.ca	
Bus. Telephone No. (inc. area code) 613 836 1766	Name of Well Technician (Last Name, First Name) Miller, Stephen		
Well Technician's Licence No. 0 0 9 7	Signature of Technician and/or Contractor	Date Submitted 20120131	

Map of Well Location	
Please provide a map below following instructions on the back.	
<p>Comments:</p>	

Ministry Use Only	
Well owner's information package delivered <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Date Package Delivered 2 0 1 2 0 1 2 7 Date Work Completed 2 0 1 2 0 1 2 4
Audit No. Z139740 SEP 20 2012	



Measurements recorded in: Metric Imperial

Well Owner's Information

First Name, Last Name / Organization (Slavko Concrete Finishing), E-mail Address, Mailing Address (6789 Sunset Blvd), Municipality (Greely), Province (ON), Postal Code (K4P 1M6), Telephone No.

Well Location

Address of Well Location (6828 McKeown Drive), Township (Osgoode), Lot (P/L 4), Concession (4), County/District/Municipality (Ottawa-Carleton), City/Town/Village (Greely), Province (Ontario), UTM Coordinates, Municipal Plan and Sublot Number (4M-351 - S/L 19), Other (Block 6)

Overburden and Bedrock Materials/Abandonment Sealing Record

Table with columns: General Colour, Most Common Material, Other Materials, General Description, Depth (m/ft) From, To. Rows show Sand & Gravel, Boulders, Limestone at various depths.

GRAVEL SEAM - KEEP PUMP ABOVE 100 FEET

Annular Space table with columns: Depth Set at (m/ft) From, To, Type of Sealant Used, Volume Placed (m³/ft³). Rows show Neat cement and Bentonite slurry.

Method of Construction and Well Use checkboxes. Includes Cable Tool, Rotary, Boring, Air percussion, and various well uses like Domestic, Commercial, etc.

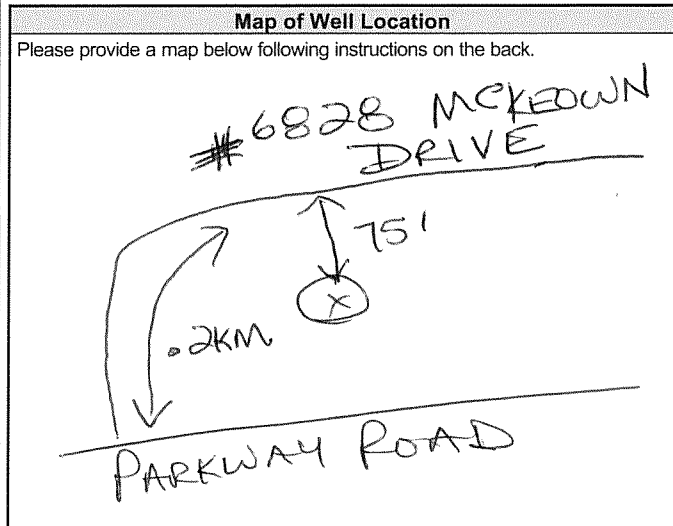
Construction Record - Casing and Status of Well. Includes Inside Diameter, Open Hole OR Material, Wall Thickness, Depth, and checkboxes for Water Supply, Replacement Well, etc.

Construction Record - Screen. Includes Outside Diameter, Material, Slot No., and Depth.

Water Details and Hole Diameter. Includes Water found at Depth, Kind of Water, and Hole Diameter (Depth and Diameter).

Well Contractor and Well Technician Information. Includes Business Name (Air Rock Drilling Co. Ltd.), Business Address (6659 Franktown Road), and Well Technician (Graham, Ryan).

Results of Well Yield Testing. Includes Draw Down and Recovery tables with columns for Time, Water Level, and Pumping rate.



Comments and Ministry Use Only section. Includes Comments (3/4 HP - 15 GPM - SET AT 100 FEET), Date Package Delivered (2013 01 28), and Audit No. (Z144877).

Measurements recorded in: Metric Imperial

A135268

Page ___ of ___

Well Owner's Information

First Name: _____ Last Name / Organization: **1850563 Ontario Ltd** E-mail Address: _____ Well Constructed by Well Owner

Mailing Address (Street Number/Name): **146 Tartan Drive** Municipality: **Ottawa** Province: **ON** Postal Code: **K2J 3X2** Telephone No. (inc. area code): _____

Well Location

Address of Well Location (Street Number/Name): **1358 Coker Street** Township: **Osgoode** Lot: **P/L5** Concession: **4**

County/District/Municipality: **Ottawa-Carleton** City/Town/Village: **Greely** Province: **Ontario** Postal Code: _____

UTM Coordinates Zone: **18** Easting: **454059** Northing: **5011925** Municipal Plan and Sublot Number: **4M 351** Other: **RP4R-5427 Part 26, 27, 28 P/B 4**

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft)
				From To
	Sand & Gravel	Boulders		0' 45'
Grey	Limestone			45' 138'
Grey & White	Sandstone	Mix		138' 154'
Grey & White	Sandstone	Mix		154' 182'
Grey & White	Sandstone	Mix		182' 200'

Annular Space

Depth Set at (m/ft)	Type of Sealant Used (Material and Type)	Volume Placed (m ³ /ft ³)
From To		
52' 42'	Neat cement	10.9
42' 0'	Bentonite slurry	21

Results of Well Yield Testing

After test of well yield, water was:
 Clear and sand free
 Other, specify **Not tested**

If pumping discontinued, give reason: _____

Pump intake set at (m/ft): **180'**

Pumping rate (l/min / GPM): **20**

Duration of pumping: **1** hrs + **0** min

Final water level end of pumping (m/ft): **34' 1"**

If flowing give rate (l/min / GPM): _____

Recommended pump depth (m/ft): **100'**

Recommended pump rate (l/min / GPM): **20**

Well production (l/min / GPM): **20**

Disinfected? Yes No

Time (min)	Draw Down		Recovery	
	Water Level (m/ft)	Time (min)	Water Level (m/ft)	Time (min)
Static Level	15' 9"		34' 9"	
1	25.6	1	25.5	
2	29.1	2	21.2	
3	32.5	3	18.4	
4	34.9	4	15.9	
5	34.9	5		
10		10		
15		15		
20		20		
25		25		
30		30		
40		40		
50		50		
60		60		

Method of Construction

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

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft)		Status of Well
			From	To	
6 1/4"	Steel	188"	+2'	52'	<input checked="" type="checkbox"/> Water Supply <input type="checkbox"/> Replacement Well <input type="checkbox"/> Test Hole <input type="checkbox"/> Recharge Well <input type="checkbox"/> Dewatering Well <input type="checkbox"/> Observation and/or Monitoring Hole <input type="checkbox"/> Alteration (Construction) <input type="checkbox"/> Abandoned, Insufficient Supply <input type="checkbox"/> Abandoned, Poor Water Quality <input type="checkbox"/> Abandoned, other, specify _____ <input type="checkbox"/> Other, specify _____
5 7/8"	Open Hole		52'	200'	

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft)		Status of Well
			From	To	
					<input type="checkbox"/> Other, specify _____

Water Details

Water found at Depth (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input checked="" type="checkbox"/> Untested	Hole Diameter
	<input type="checkbox"/> Gas <input type="checkbox"/> Other, specify _____	Depth (m/ft) From To Diameter (cm/in)
154 (m/ft)	<input checked="" type="checkbox"/> Fresh <input type="checkbox"/> Untested	0' 52' 9 3/4" 52' 200' 5 7/8"
182 (m/ft)	<input checked="" type="checkbox"/> Fresh <input type="checkbox"/> Untested	
	<input type="checkbox"/> Gas <input type="checkbox"/> Other, specify _____	

Well Contractor and Well Technician Information

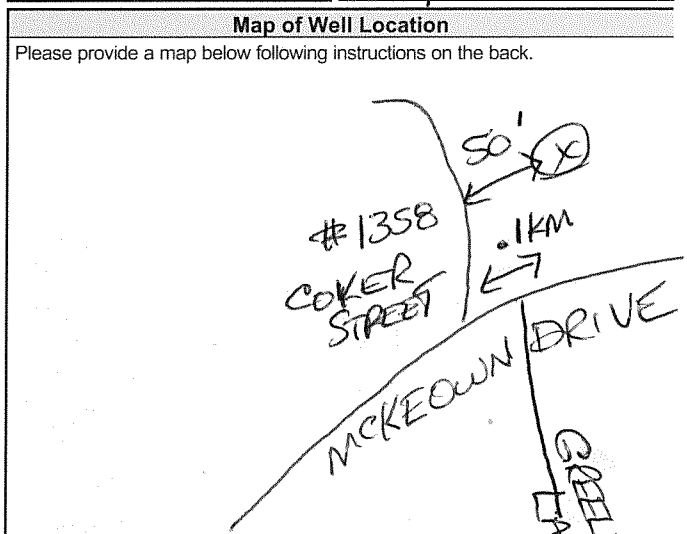
Business Name of Well Contractor: **Air Rock Drilling Co. Ltd** Well Contractor's Licence No.: **1119**

Business Address (Street Number/Name): **6659 Franktown Road, RR#1** Municipality: **Richmond**

Province: **ON** Postal Code: **K0A 2Z0** Business E-mail Address: **air-rock@sympatico.ca**

Bus. Telephone No. (inc. area code): **613-832-170** Name of Well Technician (Last Name, First Name): **Graham, Ryan**

Well Technician's Licence No.: **T3484** Signature of Technician and/or Contractor: _____ Date Submitted: **2013 03 28**



Comments: **3/4HP - 15GPM @ 100 FT**

Well owner's information package delivered: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Date Package Delivered: 2013 03 12	Ministry Use Only Audit No. Z 155046
Date Work Completed: 2013 03 11	Reg. No. 15 2013	



Measurements recorded in: Metric Imperial

Well Owner's Information

First Name, Last Name / Organization (1384341 Ontario Limited (c/o Cavanagh Const)), E-mail Address, Mailing Address (9094 Cavanagh Road), Municipality (Ashton), Province (On), Postal Code (K0A 1B0), Telephone No.

Well Location

Address of Well Location (1240 Old Prescott Road), Township (Osgoode), Lot (P/L 4), Concession (4S), County/District/Municipality (Ottawa-Carleton), City/Town/Village (Greely), Province (Ontario), UTM Coordinates, Northing (5012245), Other (TEST WELL # 1)

Overburden and Bedrock Materials/Abandonment Sealing Record

Table with columns: General Colour, Most Common Material, Other Materials, General Description, Depth (From/To). Rows include Sand, Sand y, Sand - Course + Gravel & Boulders, Limestone, Sandstone, Limestone, Sandstone, Limestone, Sandstone, Limestone, Sandstone.

Annular Space table with columns: Depth Set at (From/To), Type of Sealant Used, Volume Placed. Rows for Neat cement and Bentonite slurry.

Method of Construction and Well Use checkboxes. Includes Cable Tool, Rotary, Boring, Air percussion, and various well uses like Domestic, Commercial, Municipal, etc.

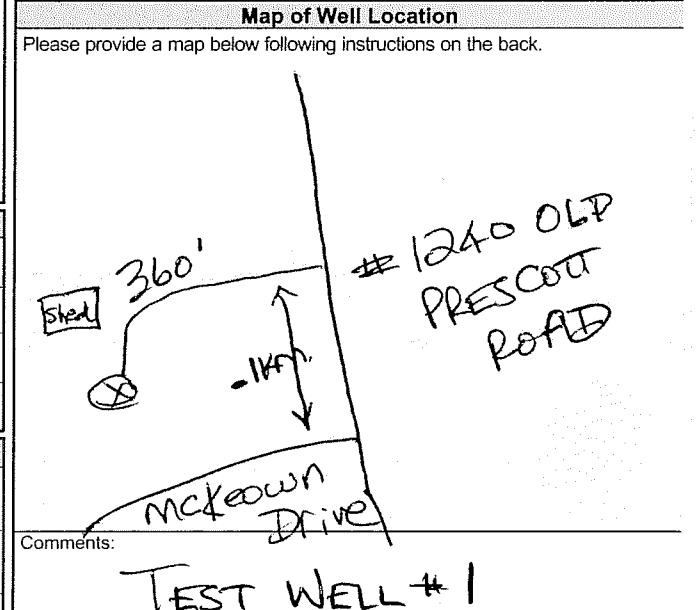
Construction Record - Casing and Status of Well. Includes Inside Diameter, Open Hole OR Material, Wall Thickness, Depth, and checkboxes for Water Supply, Replacement Well, etc.

Construction Record - Screen. Includes Outside Diameter, Material, Slot No., and Depth.

Water Details and Hole Diameter. Includes Water found at Depth, Kind of Water, and Hole Diameter (Depth/Diameter).

Well Contractor and Well Technician Information. Includes Business Name (Air Rock Drilling Co. Ltd.), Licence No., Business Address (6659 Franktown Road), Municipality (Richmond), Province (ON), Postal Code (K0A 2Z0), Business E-mail Address (air-rock@sympatico.ca), Name of Well Technician (Graham, Ryan), and Licence No. (T3484).

Results of Well Yield Testing table. Includes Draw Down (Time, Water Level) and Recovery (Time, Water Level) data for various pumping rates and durations.



Well owner's information package delivered (Yes/No), Date Package Delivered (2013 05 29), Date Work Completed (2013 05 27), Ministry Use Only (Audit No. Z 155095, Received JUL 16 2013).



Measurements recorded in: Metric Imperial

Well Owner's Information

First Name, Last Name / Organization (1384341 Ontario Limited (c/o Cavanagh Const)), E-mail Address, Mailing Address (9094 Cavanagh Road), Municipality (Ashton), Province (On), Postal Code (K0A 1B0), Telephone No.

Well Location

Address of Well Location (1240 Old Prescott Road), Township (Osgoode), Lot (P/L 4), Concession (4S), County/District/Municipality (Ottawa-Carleton), City/Town/Village (Greely), Province (Ontario), UTM Coordinates, Northing (5012227), Municipal Plan and Sublot Number, Other (TEST WELL # 2)

Overburden and Bedrock Materials/Abandonment Sealing Record

Table with columns: General Colour, Most Common Material, Other Materials, General Description, Depth (m/ft) From, To. Includes entries for Sand, Silty Sand & Gravel, Boulders, Limestone, and Sandstone Mix.

Annular Space table with columns: Depth Set at (m/ft) From, To; Type of Sealant Used; Volume Placed (m³). Includes entries for Neat cement and Bentonite slurry.

Method of Construction and Well Use checkboxes. Includes options like Cable Tool, Rotary, Boring, Air percussion, and Well Use categories like Domestic, Commercial, Industrial.

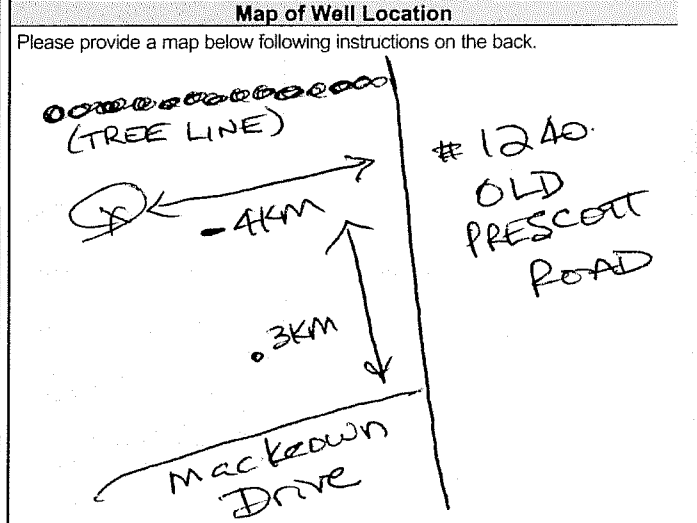
Construction Record - Casing and Status of Well. Includes columns for Inside Diameter, Open Hole OR Material, Wall Thickness, Depth, and checkboxes for Water Supply, Replacement Well, etc.

Construction Record - Screen. Includes columns for Outside Diameter, Material, Slot No., and Depth.

Water Details and Hole Diameter. Includes columns for Water found at Depth, Kind of Water, and Hole Diameter (Depth and Diameter).

Well Contractor and Well Technician Information. Includes Business Name (Air Rock Drilling Co. Ltd.), Licence No., Business Address (6658 Franktown Road), Municipality (Richmond), Province (ON), Postal Code (K0A 2Z0), Business E-mail Address (air-rock@sympatico.ca), Name of Well Technician (Graham, Ryan), Signature, and Date Submitted (2013 08 28).

Results of Well Yield Testing. Includes Draw Down and Recovery data table with columns: Time (min), Water Level (m/ft), Time (min), Water Level (m/ft). Includes notes on pumping rate (12 GPM), duration (1 hr + 0 min), and final water level (98.7').



Comments: 3/4 HP - 10 GPM SET AT 190 FT TESTWELL#2. Includes Well owner's information package delivered (Yes/No), Date Package Delivered (2013 06 04), Date Work Completed (2013 05 30), and Ministry Use Only (Audit No. 2155104, JUL 16 2013).

Follow the **[COVID-19 restrictions and public health measures \(https://covid-19.ontario.ca/public-health-measures\)](https://covid-19.ontario.ca/public-health-measures)** and **[book your appointment to get vaccinated \(https://covid-19.ontario.ca/book-vaccine/\)](https://covid-19.ontario.ca/book-vaccine/)**.



[\(/page/government-ontario\)](/page/government-ontario)

Français (/fr/page/registre-de-puits)
FR (/FR/PAGE/REGISTRE-DE-PUITS)

Menu

Map: Well records

This map allows you to search and view well record information from reported wells in Ontario.

Full dataset is available in the [Open Data catalogue \(https://data.ontario.ca/dataset/well-records\)](https://data.ontario.ca/dataset/well-records).

[Go Back to Map \(\)](#)

Well ID

Well ID Number: 7206661

Well Audit Number: Z155129

Well Tag Number: A128106

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location

6808 HIRAM DRIVE

Township	OSGOODE TOWNSHIP
Lot	005
Concession	CON 04
County/District/Municipality	OTTAWA-CARLETON
City/Town/Village	GREELV
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 18 Easting: 454576.00 Northing: 5011680.00
Municipal Plan and Sublot Number	

Other

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	CLAY			0 ft	5 ft
GREY	CLAY			5 ft	18 ft
	SAND	GRVL	BLDR	18 ft	52 ft
GREY	LMSN			52 ft	135 ft
GREY	LMSN	SNDS		135 ft	153 ft
GREY	LMSN	SNDS		153 ft	160 ft

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
50 ft	0 ft	BENTONITE SLURRY	
60 ft	50 ft	CONCRETE	

Method of Construction & Well Use

Method of Construction Well Use

Air Percussion

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
6.25 inch	STEEL	-2 ft	60 ft
6 inch	OPEN HOLE	60 ft	160 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 1119

Results of Well Yield Testing

After test of well yield, water was

If pumping discontinued, give reason

Pump intake set at 150 ft

Pumping Rate 20 GPM

Duration of Pumping 1 h:0 m

Final water level 36.6 ft

If flowing give rate

Recommended pump depth 100 ft

Recommended pump rate 20 GPM

Well Production

Disinfected? Y

Draw Down & Recovery

Draw Down Time(min)	Draw Down Water level	Recovery Time(min)	Recovery Water level
SWL	18.3 ft		
1	22.5 ft	1	27.6 ft
2	24.5 ft	2	26.6 ft
3	25.7 ft	3	26 ft

4	26.6 ft	4	25.4 ft
5	27.4 ft	5	24.8 ft
10	29.5 ft	10	21.8 ft
15	31.1 ft	15	19 ft
20	32.7 ft	20	18.3 ft
25	33 ft	25	18.3 ft
30	33.3 ft	30	18.3 ft
40	34.5 ft	40	18.3 ft
45		45	
50	35.7 ft	50	18.3 ft
60	36.6 ft	60	18.3 ft

Water Details

Water Found at Depth Kind

153 ft	Untested
--------	----------

Hole Diameter

Depth Depth Diameter From To

0 ft	60 ft	9.75 inch
------	-------	-----------

60 ft	160 ft	6 inch
-------	--------	--------

Audit Number: Z155129

Date Well Completed: June 24, 2013

Date Well Record Received by MOE: August 19, 2013

Related

[How to use a Ministry of the Environment map \(/page/how-use-ministry-environment-map#wells\)](/page/how-use-ministry-environment-map#wells)

Technical documentation: Metadata record (<https://data.ontario.ca/dataset/well-records/resource/3031344e-e3f2-48d5-888c-c1deadfd2f77>)

Updated: October 18, 2021

Published: March 20, 2014

[about Ontario \(https://www.ontario.ca/page/about-ontario\)](https://www.ontario.ca/page/about-ontario).

[accessibility \(https://www.ontario.ca/page/accessibility\)](https://www.ontario.ca/page/accessibility).

[news \(http://news.ontario.ca/newsroom/en\)](http://news.ontario.ca/newsroom/en).

[privacy \(https://www.ontario.ca/page/privacy-statement\)](https://www.ontario.ca/page/privacy-statement).

[terms of use \(https://www.ontario.ca/page/terms-use\)](https://www.ontario.ca/page/terms-use).

[© Queen's Printer for Ontario, 2012-22 \(https://www.ontario.ca/page/copyright-information-c-queens-printer-ontario\)](https://www.ontario.ca/page/copyright-information-c-queens-printer-ontario).



Measurements recorded in: Metric Imperial

W

A135367

Well Owner's Information

First Name, Last Name / Organization, E-mail Address, Mailing Address (Street Number/Name), Municipality, Province, Postal Code, Telephone No. (inc. area code)

Well Location

Address of Well Location (Street Number/Name), Township, Lot, Concession, County/District/Municipality, City/Town/Village, Province, Postal Code, UTM Coordinates, Zone, Easting, Northing, Municipal Plan and Sublot Number, Other

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

Table with columns: General Colour, Most Common Material, Other Materials, General Description, Depth (m/ft) From, To

TEST WELL # 4

Annular Space

Table with columns: Depth Set at (m/ft) From, To, Type of Sealant Used (Material and Type), Volume Placed (m³/ft³)

Results of Well Yield Testing

Table with columns: After test of well yield, water was: (Clear and sand free, Other), Draw Down (Time, Water Level), Recovery (Time, Water Level), Pumping rate, Duration of pumping, Final water level end of pumping, If flowing give rate, Recommended pump depth, Recommended pump rate, Well production, Disinfected?

Method of Construction

Well Use

Checkboxes for Method of Construction (Cable Tool, Rotary, Boring, etc.) and Well Use (Public, Commercial, Domestic, etc.)

Construction Record - Casing

Status of Well

Table with columns: Inside Diameter (cm/in), Open Hole OR Material, Wall Thickness (cm/in), Depth (m/ft) From, To, Status of Well (Water Supply, Replacement Well, etc.)

Construction Record - Screen

Table with columns: Outside Diameter (cm/in), Material (Plastic, Galvanized, Steel), Slot No., Depth (m/ft) From, To

Water Details

Hole Diameter

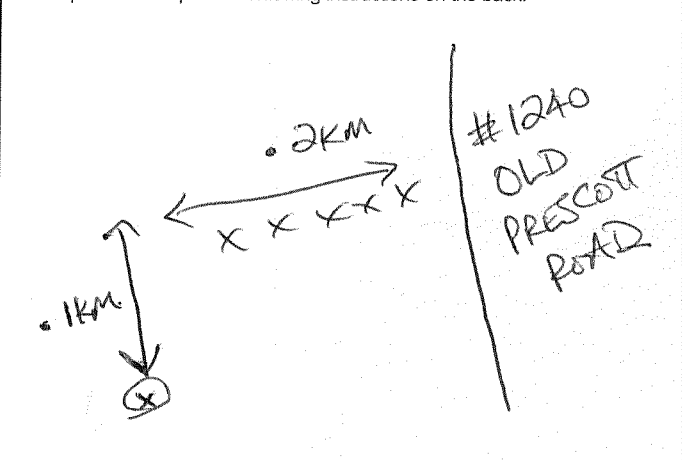
Table with columns: Water found at Depth, Kind of Water, Hole Diameter (Depth, Diameter)

Well Contractor and Well Technician Information

Business Name of Well Contractor, Well Contractor's Licence No., Business Address (Street Number/Name), Municipality, Province, Postal Code, Business E-mail Address

Bus. Telephone No. (inc. area code), Name of Well Technician (Last Name, First Name), Well Technician's Licence No., Signature of Technician and/or Contractor, Date Submitted

Map of Well Location



Comments: 3/4 HP - 15 GPM SET @ 100 FT

Well owner's information package delivered, Date Package Delivered, Date Work Completed, Ministry Use Only (Audit No., Received)



Measurements recorded in: Metric Imperial

Well ID: A144873

Well Owner's Information

First Name, Last Name / Organization (1384341 Ontario Limited (c/o Cavanagh Const)), E-mail Address, Mailing Address (9094 Cavanagh Road), Municipality (Ashton), Province (On), Postal Code (K0A 1B0), Telephone No.

Well Location

Address of Well Location (1240 Old Prescott Road), Township (Osgoode), Lot (P/L 4), Concession (4S), County/District/Municipality (Ottawa-Carleton), City/Town/Village (Greely), Province (Ontario), UTM Coordinates, Municipal Plan and Sublot Number, Other (TEST WELL #3)

Overburden and Bedrock Materials/Abandonment Sealing Record

Table with columns: General Colour, Most Common Material, Other Materials, General Description, Depth From, Depth To. Rows include Sand, Sand & Gravel, Limestone, and Sandstone Mix.

Annular Space table with columns: Depth Set at (From/To), Type of Sealant Used, Volume Placed.

Results of Well Yield Testing table with columns: Draw Down (Time, Water Level), Recovery (Time, Water Level). Includes pumping rate and final water level.

Method of Construction and Well Use checkboxes. Includes Cable Tool, Rotary, Boring, Air percussion, and various well uses like Domestic, Commercial, etc.

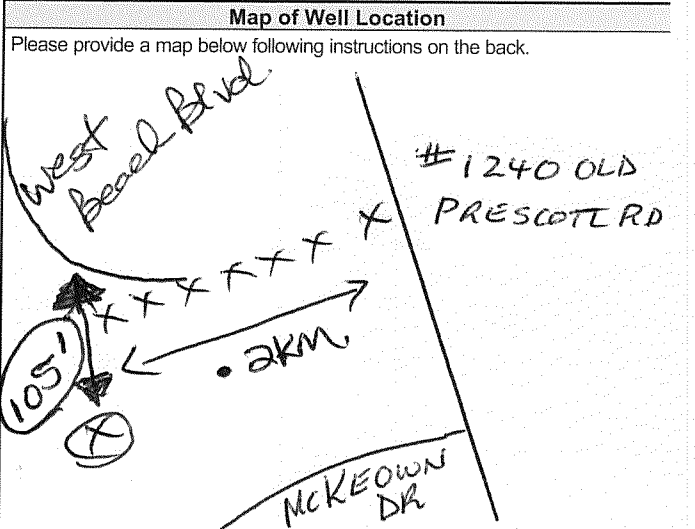
Construction Record - Casing table with columns: Inside Diameter, Open Hole OR Material, Wall Thickness, Depth (From/To).

Status of Well checkboxes. Includes Water Supply, Replacement Well, Test Hole, etc.

Construction Record - Screen table with columns: Outside Diameter, Material, Slot No., Depth (From/To).

Water Details and Hole Diameter tables. Water Details includes depth and kind of water. Hole Diameter includes depth and diameter.

Well Contractor and Well Technician Information. Includes Business Name (Air Rock Drilling Co. Ltd.), Licence No., Address, and Technician Name (Grant, Andrew).



Additional information fields: Province (ON), Postal Code (K0A 2Z0), Business E-mail Address (air-rock@sympatico.ca), Bus. Telephone No., Name of Well Technician, Signature, Date Submitted.

Ministry Use Only section: Well owner's information package delivered (Yes/No), Date Package Delivered (2013/08/19), Date Work Completed (2013/08/14), Audit No. (2155193), Date (OCT 10 2013).

Measurements recorded in: Metric Imperial

Well Owner's Information

First Name	Last Name / Organization Direct Bore Inc.	E-mail Address	<input type="checkbox"/> Well Constructed by Well Owner
Mailing Address (Street Number/Name) 5689 Power Road		Municipality Gloucester	Province ON
		Postal Code K1G 3N4	Telephone No. (inc. area code)

Well Location

Address of Well Location (Street Number/Name) 6834 Hiram Drive		Township Osgoode	Lot P/L 5	Concession 4
County/District/Municipality Ottawa-Carleton		City/Town/Village Green	Province Ontario	Postal Code
UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number 4m-351
NAD	8	3	19	454568
				5011739
		Other P/L 6		

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft)	
				From	To
	Sand			0'	10'
Grey	Clay	Gravel		10'	21'
	Gravel	Boulders		21'	60'
Grey	Limestone			60'	77'
Grey	Limestone			77'	83'
Grey	Limestone			83'	94'
Grey	Limestone			94'	101'

Annular Space			
Depth Set at (m/ft)	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)	
From: 66' To: 56'	Neat cement	9.36	
From: 56' To: 0'	Bentonite slurry	29.4	

Method of Construction	Well Use
<input type="checkbox"/> Cable Tool <input type="checkbox"/> Rotary (Conventional) <input type="checkbox"/> Rotary (Reverse) <input type="checkbox"/> Boring <input checked="" type="checkbox"/> Air percussion <input type="checkbox"/> Other, specify _____	<input type="checkbox"/> Diamond <input type="checkbox"/> Jetting <input type="checkbox"/> Driving <input type="checkbox"/> Digging <input type="checkbox"/> Public <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Domestic <input type="checkbox"/> Livestock <input type="checkbox"/> Irrigation <input type="checkbox"/> Industrial <input type="checkbox"/> Other, specify _____

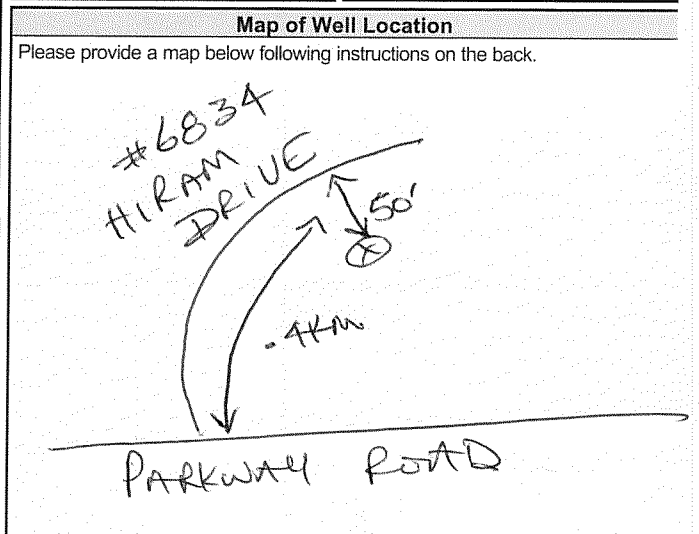
Construction Record - Casing			Status of Well		
Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft)		
6 1/4"	Steel	.188"	From: +2' To: 66'	<input checked="" type="checkbox"/> Water Supply	
6"	Open Hole		66' to 101'	<input type="checkbox"/> Replacement Well <input type="checkbox"/> Test Hole <input type="checkbox"/> Recharge Well <input type="checkbox"/> Dewatering Well <input type="checkbox"/> Observation and/or Monitoring Hole <input type="checkbox"/> Alteration (Construction) <input type="checkbox"/> Abandoned, Insufficient Supply <input type="checkbox"/> Abandoned, Poor Water Quality <input type="checkbox"/> Abandoned, other, specify _____ <input type="checkbox"/> Other, specify _____	

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

Water Details		Hole Diameter	
Water found at Depth: 77' (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input checked="" type="checkbox"/> Untested	Depth (m/ft) From: 0' To: 66'	Diameter (cm/in): 9 3/4"
Water found at Depth: 83' (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input checked="" type="checkbox"/> Untested	Depth (m/ft) From: 66' To: 101'	Diameter (cm/in): 6"
Water found at Depth: 94' (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input checked="" type="checkbox"/> Untested		

Well Contractor and Well Technician Information			
Business Name of Well Contractor Air Rock Drilling Co. Ltd.		Well Contractor's Licence No. 1119	
Business Address (Street Number/Name) 6699 Franktown Road, RR#1		Municipality Richmond	
Province ON	Postal Code K0A 2Z0	Business E-mail Address air-rock@sympatico.ca	
Bus. Telephone No. (inc. area code) 513832170	Name of Well Technician (Last Name, First Name) Furcell, Shannon		
Well Technician's Licence No. T2122	Signature of Technician and/or Contractor <i>[Signature]</i>	Date Submitted 2013 08 30	

Results of Well Yield Testing				
After test of well yield, water was: <input type="checkbox"/> Clear and sand free <input type="checkbox"/> Other, specify Not tested	Draw Down		Recovery	
	Time (min)	Water Level (m/ft)	Time (min)	Water Level (m/ft)
If pumping discontinued, give reason: X	Static Level	8.9'		11'
	1	10.9	1	8.9
	2	10.9	2	8.9
	3	10.9	3	8.9
	4	10.9	4	8.9
	5	10.9	5	8.9
Final water level end of pumping (m/ft) 11	10	11	10	8.9
If flowing give rate (l/min / GPM) X	15	11	15	8.9
Recommended pump depth (m/ft) 80'	20	11	20	8.9
Recommended pump rate (l/min / GPM) 20	30	11	30	8.9
Well production (l/min / GPM) 20+	40	11	40	8.9
Disinfected? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	50	11	50	8.9
	60	11'	60	8.9'


 Comments:
1/2 HP - 10 GPM - SET @ 90 FT

Well owner's information package delivered	Date Package Delivered	Ministry Use Only
<input checked="" type="checkbox"/> Yes	2013 08 09	Audit No. z 155176
<input type="checkbox"/> No	Date Work Completed 2013 08 08	Received OCT 10 2013

Follow the **COVID-19 restrictions and public health measures** (<https://covid-19.ontario.ca/public-health-measures>) and **book your appointment to get vaccinated** (<https://covid-19.ontario.ca/book-vaccine/>).



[\(/page/government-ontario\)](/page/government-ontario)

Français (/fr/page/registre-de-puits)
FR (/FR/PAGE/REGISTRE-DE-PUITS)

Menu

Map: Well records

This map allows you to search and view well record information from reported wells in Ontario.

Full dataset is available in the [Open Data catalogue](https://data.ontario.ca/dataset/well-records) (<https://data.ontario.ca/dataset/well-records>).

[Go Back to Map \(\)](#)

Well ID

Well ID Number: 7228021

Well Audit Number: Z166988

Well Tag Number: A128102

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location

6823 HIRAM DRIVE

Township

OSGOODE TOWNSHIP

Lot**Concession****County/District/Municipality**

OTTAWA-CARLETON

City/Town/Village

GREELY

Province

ON

Postal Code

n/a

UTM Coordinates

NAD83 — Zone 18

Easting: 454579.00

Northing: 5011728.00

Municipal Plan and Sublot Number**Other**

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
	SAND	GRVL	BLDR	0 ft	52 ft
GREY	LMSN			52 ft	87 ft
GREY	LMSN			87 ft	135 ft
GREY	SNDS			135 ft	155 ft
GREY	SNDS			155 ft	162 ft

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
------------	----------	--	---------------

48 ft	0 ft	BENTONITE SLURRY
-------	------	------------------

58 ft	48 ft	NEAT CEMENT
-------	-------	-------------

Method of Construction & Well Use

Method of Construction	Well Use
------------------------	----------

Air Percussion	
----------------	--

	Domestic
--	----------

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
6.25 inch	STEEL	-2 ft	58 ft
5.9375 inch	OPEN HOLE	58 ft	162 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To
------------------	----------	------------	----------

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 1119

Results of Well Yield Testing

After test of well yield, water was

If pumping discontinued, give reason

Pump intake set at 150 ft

Pumping Rate 5 GPM

Duration of Pumping 1 h:0 m

Final water level 114.5 ft

If flowing give rate

Recommended pump depth 140 ft

Recommended pump rate 5 GPM

Well Production

Disinfected? Y

Draw Down & Recovery

Draw Down Time(min)	Draw Down Water level	Recovery Time(min)	Recovery Water level
SWL	15.5 ft		
1	19.417 ft	1	96.583 ft
2	28.5 ft	2	79.25 ft
3	33.167 ft	3	72.167 ft
4	36.417 ft	4	69.167 ft
5	40.583 ft	5	66.417 ft

10	55.333 ft	10	50.667 ft
15	63.667 ft	15	36.333 ft
20	71.583 ft	20	23.167 ft
25	78.5 ft	25	15.5 ft
30	87.25 ft	30	15.5 ft
40	94.5 ft	40	15.5 ft
45		45	
50	103.583 ft	50	15.5 ft
60	114.5 ft	60	15.5 ft

Water Details

Water Found at Depth	Kind
155 ft	Untested

Hole Diameter

Depth From	Depth To	Diameter
0 ft	58 ft	9.75 inch
58 ft	162 ft	5.9375 inch

Audit Number: Z166988

Date Well Completed: August 13, 2014

Date Well Record Received by MOE: September 22, 2014

Related

[How to use a Ministry of the Environment map \(/page/how-use-ministry-environment-map#wells\)](/page/how-use-ministry-environment-map#wells)

Technical documentation: Metadata record (<https://data.ontario.ca/dataset/well-records/resource/3031344e-e3f2-48d5-888c-c1deadfd2f77>)

Updated: October 18, 2021

Published: March 20, 2014

[about Ontario \(https://www.ontario.ca/page/about-ontario\)](https://www.ontario.ca/page/about-ontario)

[accessibility \(https://www.ontario.ca/page/accessibility\)](https://www.ontario.ca/page/accessibility)

[news \(http://news.ontario.ca/newsroom/en\)](http://news.ontario.ca/newsroom/en)

[privacy \(https://www.ontario.ca/page/privacy-statement\)](https://www.ontario.ca/page/privacy-statement)

[terms of use \(https://www.ontario.ca/page/terms-use\)](https://www.ontario.ca/page/terms-use)

[© Queen's Printer for Ontario, 2012–22 \(https://www.ontario.ca/page/copyright-information-c-queens-printer-ontario\)](https://www.ontario.ca/page/copyright-information-c-queens-printer-ontario)



Measurements recorded in: Metric Imperial

A144876

Page ___ of ___

Well Owner's Information

First Name, Last Name / Organization, E-mail Address, Mailing Address (Street Number/Name), Municipality, Province, Postal Code, Telephone No. (inc. area code)

Well Location

Address of Well Location (Street Number/Name), Township, Lot, Concession, County/District/Municipality, City/Town/Village, Province, Postal Code, UTM Coordinates, Northing, Municipal Plan and Sublot Number, Other

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

Table with columns: General Colour, Most Common Material, Other Materials, General Description, Depth (m/ft) From, To. Includes handwritten 'Test Well # 5'.

Annular Space table with columns: Depth Set at (m/ft) From, To, Type of Sealant Used (Material and Type), Volume Placed (m³/ft³)

Method of Construction and Well Use checkboxes: Cable Tool, Rotary, Boring, Air percussion, etc.

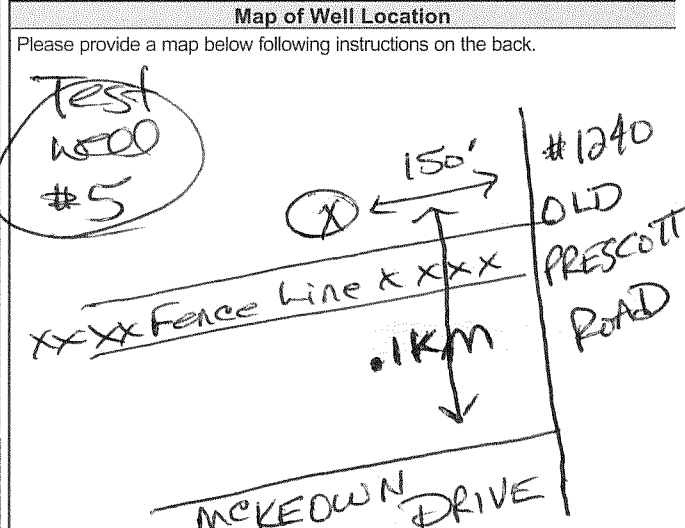
Construction Record - Casing table with columns: Inside Diameter (cm/in), Open Hole OR Material, Wall Thickness (cm/in), Depth (m/ft) From, To, Status of Well

Construction Record - Screen table with columns: Outside Diameter (cm/in), Material, Slot No., Depth (m/ft) From, To

Water Details and Hole Diameter tables with columns for water depth, kind of water, hole depth, diameter

Well Contractor and Well Technician Information: Business Name, Licence No., Address, E-mail, Technician Name

Results of Well Yield Testing table with columns: Draw Down (Time, Water Level), Recovery (Time, Water Level), Pumping rate, Duration of pumping, Final water level end of pumping, Recommended pump depth, Recommended pump rate, Well production, Disinfected?



Comments: 1 HP - 10 GPM SET @ 250 FT TW#5

Well owner's information package delivered, Date Package Delivered, Date Work Completed, Ministry Use Only: Audit No., Received

Measurements recorded in: Metric Imperial

Well Owner's Information

First Name: Last Name / Organization: **Waiko Construction Ltd.** E-mail Address: Well Constructed by Well Owner

Mailing Address (Street Number/Name): **811 Kennedy Road** Municipality: **Kemptville** Province: **ON** Postal Code: **K0G 1J0** Telephone No. (inc. area code):

Well Location

Address of Well Location (Street Number/Name): **6945 McKeown Drive** Township: **Osgoode** Lot: **P/L 5** Concession: **4**

County/District/Municipality: **Ottawa-Carleton** City/Town/Village: **Greely** Province: **Ontario** Postal Code:

UTM Coordinates Zone: **18** Easting: **435080** Northing: **5012157** Municipal Plan and Sublot Number: **4M-351** Other: **Part Block 1**

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft)
				From To
	Clay	Sand	Boulders	0' 55'
Grey	Limestone			55' 137'
Grey	Limestone			137' 170'
Grey & White	Sandstone			170' 194'
Grey & White	Sandstone			194' 200'

Annular Space

Depth Set at (m/ft)	Type of Sealant Used (Material and Type)	Volume Placed (m ³ /ft ³)
From To		
61' 51'	Neat cement	10.9
51' 0'	Bentonite slurry	29.4

Method of Construction

Cable Tool Diamond Rotary (Conventional) Jetting Rotary (Reverse) Driving Boring Digging Air percussion Other, specify

Well Use

Public Commercial Not used Domestic Municipal Dewatering Livestock Test Hole Monitoring Irrigation Cooling & Air Conditioning Industrial Other, specify

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft)		Status of Well
			From	To	
6 1/4"	Steel	188"	+2'	61'	<input checked="" type="checkbox"/> Water Supply <input type="checkbox"/> Replacement Well <input type="checkbox"/> Test Hole <input type="checkbox"/> Recharge Well <input type="checkbox"/> Dewatering Well <input type="checkbox"/> Observation and/or Monitoring Hole <input type="checkbox"/> Alteration (Construction) <input type="checkbox"/> Abandoned, Insufficient Supply <input type="checkbox"/> Abandoned, Poor Water Quality <input type="checkbox"/> Abandoned, other, specify <input type="checkbox"/> Other, specify
5 15/16"	Open Hole		61'	200'	

Construction Record - Screen

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

Water Details

Water found at Depth (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input checked="" type="checkbox"/> Untested <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify
137'	
194'	

Hole Diameter

Depth (m/ft)	Diameter (cm/in)
From To	
0' 61'	93/4"
61' 200'	5 15/16"

Well Contractor and Well Technician Information

Business Name of Well Contractor: **Air Rock Drilling Co. Ltd.** Well Contractor's Licence No.: **1119**

Business Address (Street Number/Name): **8859 Frankton Road, Richmond** Municipality: **Richmond**

Province: **ON** Postal Code: **R6L 2C0** Business Email Address: **airrock@sympatico.ca**

Bus. Telephone No. (inc. area code): **613-332-170** Name of Well Technician (Last Name, First Name): **Hogan, Dan**

Well Contractor's Licence No.: **13058** Signature of Technician and/or Contractor: *[Signature]* Date Submitted: **2015-02-27**

Results of Well Yield Testing

Time (min)	Draw Down (m/ft)		Recovery (m/ft)	
	Water Level (m/ft)	Static Level	Time (min)	Water Level (m/ft)
	13.2'	58.8'		
1	20.4		1	44.8
2	24.4		2	39
3	28.3		3	34.4
4	31.8		4	30.5
5	34.5		5	27.3
10	43.8		10	17.2
15	49		15	14
20	52.3		20	13.2
25	54.5		25	13.2
30	55.8		30	13.2
40	56.9		40	13.2
50	58		50	13.2
60	58.5'		60	13.2'

After test of well yield, water was: Clear and sand free Other, specify **Not tested**

If pumping discontinued, give reason: **X**

Pump intake set at (m/ft): **180**

Pumping rate (l/min / GPM): **8**

Duration of pumping: **1** hrs + **0** min

Final water level end of pumping (m/ft): **58.8'**

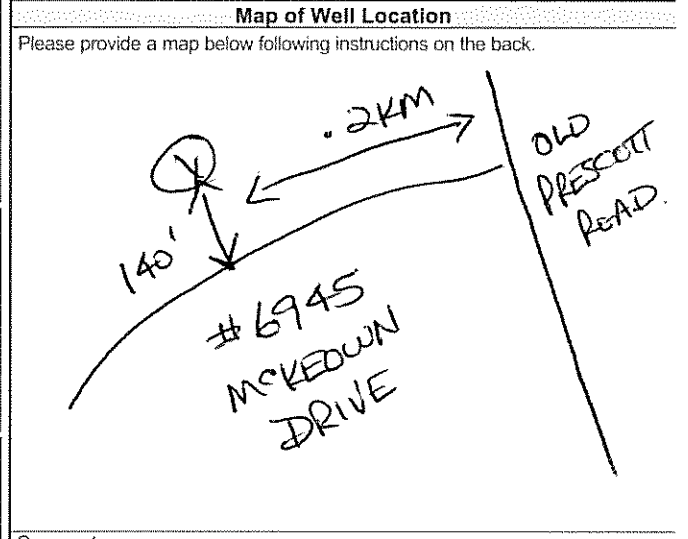
If flowing give rate (l/min / GPM): **X**

Recommended pump depth (m/ft): **140'**

Recommended pump rate (l/min / GPM): **8**

Well production (l/min / GPM): **8**

Disinfected? Yes No



Comments: **1/2 HP - 5 GPM SET @ 140 FT**

Well owner's information package delivered: Yes No

Date Package Delivered: **2015 02 11**

Date Work Completed: **2015 02 06**

Ministry Use Only

Audit No.: **Z191365**

Received: **APR 24 2015**

Measurements recorded in: Metric Imperial

Page ___ of ___

A177769

Well Owner's Information

First Name: _____ Last Name / Organization: **Marathon Drilling Co. Ltd.** E-mail Address: _____ Well Constructed by Well Owner

Mailing Address (Street Number/Name): **6847 Hiram Road** Municipality: **Greely** Province: **ON** Postal Code: **K4P 1A2** Telephone No. (inc. area code): _____

Well Location

Address of Well Location (Street Number/Name): **6847 Hiram Road** Township: **Osgoode** Lot: **P1L4** Concession: **45**

County/District/Municipality: **Ottawa-Carleton** City/Town/Village: **Greely** Province: **Ontario** Postal Code: _____

UTM Coordinates Zone: **18** Easting: **454596** Northing: **5011876** Municipal Plan and Sublot Number: _____ Other: _____

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft)
				From To
	Sand	Clay		0' 28'
	Sand & Gravel	Boulders		28' 54'
Grey	Limestone			54' 143'
Grey	Sandstone			143' 161'
Grey	Sandstone			161' 232'
Grey	Sandstone			232' 247'
Grey	Sandstone			247' 260'

Annular Space

Depth Set at (m/ft)	Type of Sealant Used (Material and Type)	Volume Placed (m ³ /ft ³)
From To		
64' 54'	Neat cement	21.8
54' 0'	Bentonite slurry	16.8

Method of Construction

Cable Tool Diamond Public Commercial Not used

Rotary (Conventional) Jetting Domestic Municipal Dewatering

Rotary (Reverse) Driving Livestock Test Hole Monitoring

Boring Digging Irrigation Cooling & Air Conditioning

Air percussion Industrial Other, specify _____

Other, specify _____

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft)		Status of Well
			From	To	
6 1/4"	Steel	.188"	+2'	64'	<input checked="" type="checkbox"/> Water Supply <input type="checkbox"/> Replacement Well <input type="checkbox"/> Test Hole <input type="checkbox"/> Recharge Well <input type="checkbox"/> Dewatering Well <input type="checkbox"/> Observation and/or Monitoring Hole <input type="checkbox"/> Alteration (Construction) <input type="checkbox"/> Abandoned, Insufficient Supply <input type="checkbox"/> Abandoned, Poor Water Quality <input type="checkbox"/> Abandoned, other, specify _____ <input type="checkbox"/> Other, specify _____
6"	Open Hole		64'	260'	

Construction Record - Screen

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

Water Details

Water found at Depth (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input checked="" type="checkbox"/> Untested
161 (m/ft)	<input type="checkbox"/> Gas <input checked="" type="checkbox"/> Other, specify _____
232 (m/ft)	<input type="checkbox"/> Gas <input checked="" type="checkbox"/> Other, specify _____
247 (m/ft)	<input type="checkbox"/> Gas <input checked="" type="checkbox"/> Other, specify _____

Hole Diameter

Depth (m/ft)	Diameter (cm/in)
From To	
0' 64'	9 3/4"
64' 260'	6"

Well Contractor and Well Technician Information

Business Name of Well Contractor: **Air Rock Drilling Co. Ltd.** Well Contractor's Licence No.: **1119**

Business Address (Street Number/Name): **6639 Franktown Road, RR#1** Municipality: **Richmond**

Province: **ON** Postal Code: **K0A 2Z0** Business E-mail Address: **air-rock@sympatico.ca**

Bus. Telephone No. (inc. area code): **6138382170** Name of Well Technician (Last Name, First Name): **Hanna, Jeremy**

Well Technician's Licence No.: **T3632** Signature of Technician and/or Contractor: _____ Date Submitted: **2015 10 30**

Results of Well Yield Testing

After test of well yield, water was: Clear and sand free Other, specify **Not tested**

If pumping discontinued, give reason: _____

Pump intake set at (m/ft): **200'**

Pumping rate (l/min / GPM): **20**

Duration of pumping: **1 hrs + 0 min**

Final water level end of pumping (m/ft): **86'6"**

If flowing give rate (l/min / GPM): _____

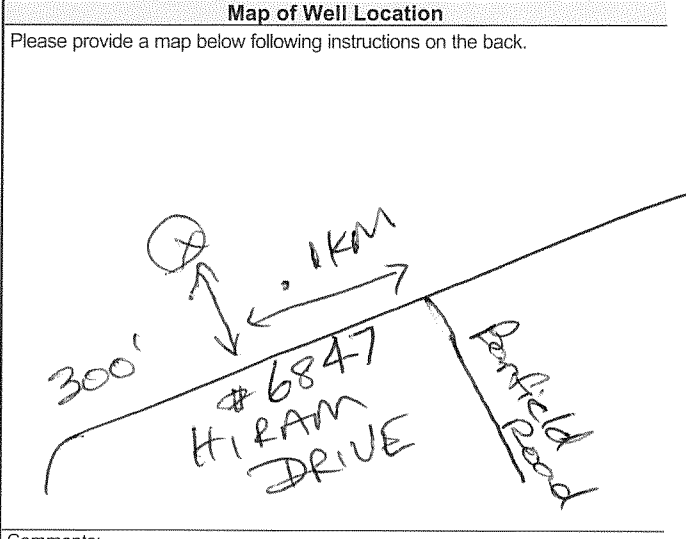
Recommended pump depth (m/ft): **200'**

Recommended pump rate (l/min / GPM): **20+**

Well production (l/min / GPM): **20+**

Disinfected? Yes No

Time (min)	Draw Down		Recovery	
	Water Level (m/ft)	Time (min)	Water Level (m/ft)	Time (min)
Static Level	26'6"		86.6"	
1	35.5	1	60	
2	41.3	2	50.8	
3	45.6	3	45.6	
4	49.2	4	42.2	
5	52.1	5	39.5	
10	61.3	10	33	
15	66.6	15	27	
20	69.9	20	26.6	
25	72.3	25	26.6	
30	74.5	30	26.6	
40	78.7	40	26.6	
50	82.7	50	26.6	
60	86.6"	60	26.6"	



Comments: _____

Well owner's information package delivered: Yes No

Date Package Delivered: **2015 10 06**

Date Work Completed: **2015 10 01**

Ministry Use Only

Audit No: **202618**

Retrieved: **NOV 17 2015**



Measurements recorded in: Metric Imperial

A229022

Page _____ of _____

Address of Well Location (Street Number/Name) **6820 McKeown Drive** Township **Osgoode** Lot **P/L 4** Concession **4**

County/District/Municipality **Ottawa-Carleton** City/Town/Village **Greely** Province **Ontario** Postal Code _____

UTM Coordinates Zone **18** Easting **454770** Northing **5011553** Municipal Plan and Sublot Number **4M-351** Other **Part Block 6**

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m)
				From To
	Clay			0' 10'
	Gravel	☒ Boulders		10' 58'
Grey	Limestone			58' 151'
Grey	Sandstone			151' 209'
Grey	Sandstone			209' 213'
Grey	Sandstone			213' 220'

Annular Space

Depth Set at (m)	Type of Sealant Used (Material and Type)	Volume Placed (m³)
From To		
66' 58'	Neat cement	10.8
58' 0'	Bentonite slurry	18.8

Method of Construction

Cable Tool Diamond Public Commercial Not used

Rotary (Conventional) Jetting Domestic Municipal Dewatering

Rotary (Reverse) Driving Livestock Test Hole Monitoring

Boring Digging Irrigation Cooling & Air Conditioning

Air percussion Industrial Other, specify _____

Construction Record - Casing

Inside Diameter (cm)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm)	Depth (m)	Status of Well
			From To	
6 1/4"	Steel	.188"	+2' 66'	<input checked="" type="checkbox"/> Water Supply
6"	Open Hole		66' 220'	<input type="checkbox"/> Replacement Well

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft)	Status of Well
			From To	
				<input type="checkbox"/> Abandoned, Insufficient Supply
				<input type="checkbox"/> Abandoned, Poor Water Quality
				<input type="checkbox"/> Abandoned, other, specify _____
				<input type="checkbox"/> Other, specify _____

Water Details

Water found at Depth (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input checked="" type="checkbox"/> Intested	Depth (m/ft)	Diameter (cm/in)
	<input type="checkbox"/> Gas <input type="checkbox"/> Other, specify _____	From To	
209' (m/ft)	<input checked="" type="checkbox"/> Intested	0' 66'	9 3/4"
213' (m/ft)	<input checked="" type="checkbox"/> Intested	66' 220'	6"

Well Contractor and Well Technician Information

Business Name of Well Contractor **Air Rock Drilling Co. Ltd.** Well Contractor's Licence No. **1119**

Business Address (Street Number/Name) **6820 McKeown Drive, RR#1** Municipality **Richmond**

Province **ON** Postal Code **K0A 2Z0** Business E-mail Address **air-rock@sympatico.ca**

Bus. Telephone No. (inc. area code) **813882170** Name of Well Technician (Last Name, First Name) **Hanna, Jeremy**

Well Technician's Licence No. **13632** Signature of Technician and/or Contractor Date Submitted **09 29**

Results of Well Yield Testing

After test of well yield, water was: Clear and sand free Other, specify **Not tested**

If pumping discontinued, give reason: **X**

Pump intake set at (m) **180**

Pumping rate (l/min / GPM) **20**

Duration of pumping **1** hrs + **0** min

Final water level end of pumping (m/ft) **51.1'**

If flowing give rate (l/min / GPM) **X**

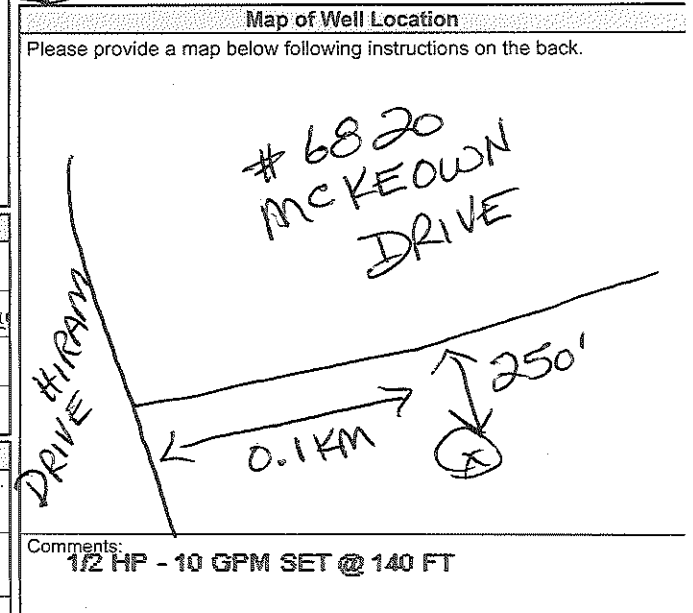
Recommended pump depth (m) **140'**

Recommended pump rate (l/min / GPM) **20 gpm**

Well production (l/min / GPM) **20**

Disinfected? Yes No

Time (min)	Draw Down (m/ft)		Recovery (m/ft)	
	Water Level	Static Level	Water Level	Static Level
		23.5'		51.1'
1	30		1	32.5
2	33.1		2	28.9
3	35.4		3	27.3
4	37		4	26.7
5	38.3		5	26.4
10	41.5		10	25.2
15	43.1		15	24.2
20	44.2		20	23.5
25	45.2		25	23.5
30	46.1		30	23.5
40	47.8		40	23.5
50	49.4		50	23.5
60	51.1'		60	23.5'



Comments: **1/2 HP - 10 GPM SET @ 140 FT**

Well owner's information package delivered Yes No

Date Package Delivered **2017 09 19**

Date Work Completed **2017 09 18**

Ministry Use Only

Audit No. **2262386**

Received **OCT 13 2017**

Follow the **[COVID-19 restrictions and public health measures \(https://covid-19.ontario.ca/public-health-measures\)](https://covid-19.ontario.ca/public-health-measures)** and **[book your appointment to get vaccinated \(https://covid-19.ontario.ca/book-vaccine/\)](https://covid-19.ontario.ca/book-vaccine/)**.



[\(/page/government-ontario\)](/page/government-ontario)

Français (/fr/page/registre-de-puits)
FR (/FR/PAGE/REGISTRE-DE-PUITS)

Menu

Map: Well records

This map allows you to search and view well record information from reported wells in Ontario.

Full dataset is available in the [Open Data catalogue \(https://data.ontario.ca/dataset/well-records\)](https://data.ontario.ca/dataset/well-records).

[Go Back to Map \(\)](#)

Well ID

Well ID Number: 7310034

Well Audit Number: Z262192

Well Tag Number: A229069

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location

1314 SOUTH BEACH BLVD

Township	OSGOODE TOWNSHIP
Lot	004
Concession	CON 04
County/District/Municipality	OTTAWA-CARLETON
City/Town/Village	GREELY
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 18 Easting: 454482.00 Northing: 5012159.00
Municipal Plan and Sublot Number	
Other	

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
	SAND	GRVL		0 ft	44 ft
GREY	LMSN			44 ft	95 ft
GREY	LMSN			95 ft	116 ft
GREY	LMSN			116 ft	134 ft
GREY	LMSN			134 ft	140 ft

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
------------	----------	--	---------------

40 ft	0 ft	BENTONITE SLURRY 21
-------	------	---------------------

50 ft	40 ft	NEAT CEMENT 12.5
-------	-------	------------------

Method of Construction & Well Use

Method of Construction	Well Use
------------------------	----------

Air Percussion	
----------------	--

	Domestic
--	----------

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
6.25 inch	STEEL	-2 ft	50 ft
6 inch	OPEN HOLE	50 ft	140 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To
------------------	----------	------------	----------

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 1119

Results of Well Yield Testing

After test of well yield, water was

If pumping discontinued, give reason

Pump intake set at 80 ft

Pumping Rate 20 GPM

Duration of Pumping 1 h:0 m

Final water level 7.333 ft

If flowing give rate

Recommended pump depth 80 ft

Recommended pump rate 20 GPM

Well Production

Disinfected? Y

Draw Down & Recovery

Draw Down Time(min)	Draw Down Water level	Recovery Time(min)	Recovery Water level
SWL	6 ft		
1	7 ft	1	6 ft
2	7 ft	2	6 ft
3	7.1 ft	3	6 ft
4	7.1 ft	4	6 ft
5	7.1 ft	5	6 ft

10	7.1 ft	10	6 ft
15	7.1 ft	15	6 ft
20	7.1 ft	20	6 ft
25	7.1 ft	25	6 ft
30	7.1 ft	30	6 ft
40	7.1 ft	40	6 ft
45		45	
50	7.1 ft	50	6 ft
60	7.1 ft	60	6 ft

Water Details

Water Found at Depth	Kind
95 ft	Untested
116 ft	Untested
134 ft	Untested

Hole Diameter

Depth From	Depth To	Diameter
0 ft	50 ft	9.75 inch
50 ft	140 ft	6 inch

Audit Number: Z262192

Date Well Completed: November 14, 2017

Date Well Record Received by MOE: April 24, 2018

Related

[How to use a Ministry of the Environment map \(/page/how-use-ministry-environment-map#wells\)](/page/how-use-ministry-environment-map#wells)

Technical documentation: Metadata record (<https://data.ontario.ca/dataset/well-records/resource/3031344e-e3f2-48d5-888c-c1deadfd2f77>)

Updated: October 18, 2021

Published: March 20, 2014

[about Ontario \(https://www.ontario.ca/page/about-ontario\)](https://www.ontario.ca/page/about-ontario)

[accessibility \(https://www.ontario.ca/page/accessibility\)](https://www.ontario.ca/page/accessibility)

[news \(http://news.ontario.ca/newsroom/en\)](http://news.ontario.ca/newsroom/en)

[privacy \(https://www.ontario.ca/page/privacy-statement\)](https://www.ontario.ca/page/privacy-statement)

[terms of use \(https://www.ontario.ca/page/terms-use\)](https://www.ontario.ca/page/terms-use)

[© Queen's Printer for Ontario, 2012–22 \(https://www.ontario.ca/page/copyright-information-c-queens-printer-ontario\)](https://www.ontario.ca/page/copyright-information-c-queens-printer-ontario)

Measurements recorded in: Metric Imperial

Address of Well Location (Street Number/Name) 1366 Johnston Drive		Township Osgoode	Lot N/A	Concession N/A
County/District/Municipality Ottawa		City/Town/Village Ottawa	Province Ontario	Postal Code K4P 1W6
UTM Coordinates Zone NAD 83	Easting 180455360501	Northing 21104	Municipal Plan and Sublot Number N/A	Other

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From To
			raised casing above Grade in accordance off regulation 903	
			well was sanitized	

Annular Space		
Depth Set at (m/ft) From To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
	N/A	

Results of Well Yield Testing				
After test of well yield, water was: <input type="checkbox"/> Clear and sand free <input type="checkbox"/> Other, specify	Draw Down		Recovery	
	Time (min)	Water Level (m/ft)	Time (min)	Water Level (m/ft)
If pumping discontinued, give reason:	Static Level			
	1		1	
Pump intake set at (m/ft)	2		2	
Pumping rate (l/min / GPM)	3		3	
Duration of pumping hrs + min	4		4	
Final water level end of pumping (m/ft)	5		5	
If flowing give rate (l/min / GPM)	10		10	
	15		15	
Recommended pump depth (m/ft)	20		20	
	25		25	
Recommended pump rate (l/min / GPM)	30		30	
	40		40	
Well production (l/min / GPM)	50		50	
	60		60	
Disinfected? <input type="checkbox"/> Yes <input type="checkbox"/> No				

Method of Construction		Well Use	
<input type="checkbox"/> Cable Tool	<input checked="" type="checkbox"/> Diamond	<input type="checkbox"/> Public	<input type="checkbox"/> Commercial
<input type="checkbox"/> Rotary (Conventional)	<input type="checkbox"/> Jetting	<input type="checkbox"/> Domestic	<input type="checkbox"/> Municipal
<input type="checkbox"/> Rotary (Reverse)	<input type="checkbox"/> Driving	<input type="checkbox"/> Livestock	<input type="checkbox"/> Test Hole
<input type="checkbox"/> Boring	<input checked="" type="checkbox"/> Digging	<input type="checkbox"/> Irrigation	<input type="checkbox"/> Cooling & Air Conditioning
<input type="checkbox"/> Air percussion		<input type="checkbox"/> Industrial	
<input type="checkbox"/> Other, specify		<input type="checkbox"/> Other, specify	

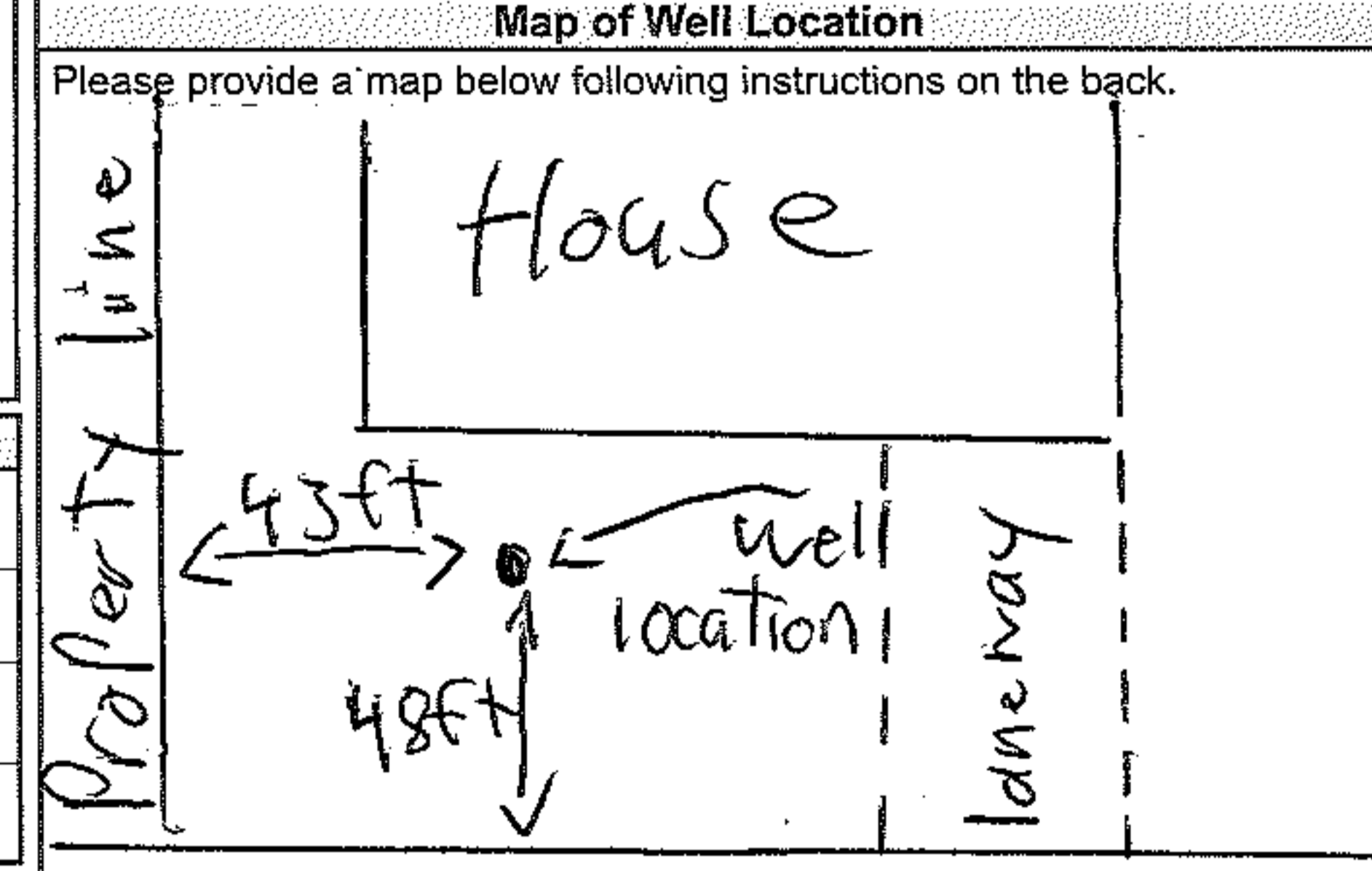
Construction Record - Casing			Status of Well	
Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft)	
			From	To
	N/A		6"	6"

<input checked="" type="checkbox"/> Water Supply
<input type="checkbox"/> Replacement Well
<input type="checkbox"/> Test Hole
<input type="checkbox"/> Recharge Well
<input type="checkbox"/> Dewatering Well
<input type="checkbox"/> Observation and/or Monitoring Hole
<input type="checkbox"/> Alteration (Construction)
<input type="checkbox"/> Abandoned, Insufficient Supply
<input type="checkbox"/> Abandoned, Poor Water Quality
<input type="checkbox"/> Abandoned, other, specify
<input type="checkbox"/> Other, specify

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

Water Details		Hole Diameter	
Water found at Depth (m/ft) <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	Kind of Water: <input type="checkbox"/> Fresh <input checked="" type="checkbox"/> Untested	Depth (m/ft) From To	Diameter (cm/in)
	11ft		N/A

Well Contractor and Well Technician Information			
Business Name of Well Contractor CN electric & Plumbing		Well Contractor's Licence No. 6684	
Business Address (Street Number/Name) 5640 Manotick main		Municipality Ottawa	
Province ON	Postal Code K4M 1D3	Business E-mail Address CN-electric.ca	
Bus. Telephone No. (inc. area code) 613 692 3284	Name of Well Technician (Last Name, First Name) Sadler Johnston		
Well Technician's Licence No. 3689	Signature of Technician and/or Contractor		Date Submitted 20190816



Johnston Drive

Comments:

Well owner's information package delivered <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Date Package Delivered 20180816	Ministry Use Only Audit No. 2319379 SEP 06 2019 Received
	Date Work Completed 20180816	

Follow the **[COVID-19 restrictions and public health measures \(https://covid-19.ontario.ca/public-health-measures\)](https://covid-19.ontario.ca/public-health-measures)** and **[book your appointment to get vaccinated \(https://covid-19.ontario.ca/book-vaccine/\)](https://covid-19.ontario.ca/book-vaccine/)**.



[\(/page/government-ontario\)](/page/government-ontario)

Français [\(/fr/page/registre-de-puits\)](/fr/page/registre-de-puits)
FR [\(/FR/PAGE/REGISTRE-DE-PUITS\)](/FR/PAGE/REGISTRE-DE-PUITS)

Menu

Map: Well records

This map allows you to search and view well record information from reported wells in Ontario.

Full dataset is available in the [Open Data catalogue \(https://data.ontario.ca/dataset/well-records\)](https://data.ontario.ca/dataset/well-records).

[Go Back to Map \(\)](#)

Well ID

Well ID Number: 7372157

Well Audit Number: Z344080

Well Tag Number: A305154

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location

Township	OSGOODE TOWNSHIP
Lot	004
Concession	CON 04
County/District/Municipality	OTTAWA-CARLETON
City/Town/Village	
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 18 Easting: 454691.00 Northing: 5012376.00
Municipal Plan and Sublot Number	
Other	

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
----------------	----------------------	-----------------	---------------------	------------	----------

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
------------	----------	--	---------------

Method of Construction & Well Use

Method of Construction	Well Use
------------------------	----------

Status of Well

Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
--------------------	-----------------------	---------------	-------------

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To
---------------------	----------	---------------	-------------

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 7681

Results of Well Yield Testing

After test of well yield, water was

If pumping discontinued, give reason

Pump intake set at

Pumping Rate

Duration of Pumping

Final water level

If flowing give rate

Recommended pump depth

Recommended pump rate

Well Production

Disinfected?

Draw Down & Recovery

Draw Down Time(min)	Draw Down Water level	Recovery Time(min)	Recovery Water level
SWL			
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	

40

40

45

45

50

50

60

60

Water Details

Water Found at Depth	Kind

Hole Diameter

Depth From	Depth To	Diameter

Audit Number: Z344080

Date Well Completed: September 11, 2020

Date Well Record Received by MOE: November 03, 2020

Related

[How to use a Ministry of the Environment map \(/page/how-use-ministry-environment-map#wells\)](/page/how-use-ministry-environment-map#wells)

Technical documentation: Metadata record (<https://data.ontario.ca/dataset/well-records/resource/3031344e-e3f2-48d5-888c-c1deadfd2f77>)

Updated: October 18, 2021

Published: March 20, 2014

[about Ontario \(https://www.ontario.ca/page/about-ontario\)](https://www.ontario.ca/page/about-ontario)

[accessibility_ \(https://www.ontario.ca/page/accessibility\)](https://www.ontario.ca/page/accessibility)

[news \(http://news.ontario.ca/newsroom/en\)](http://news.ontario.ca/newsroom/en)

[privacy_ \(https://www.ontario.ca/page/privacy-statement\)](https://www.ontario.ca/page/privacy-statement)

[terms of use \(https://www.ontario.ca/page/terms-use\)](https://www.ontario.ca/page/terms-use)

[© Queen's Printer for Ontario, 2012–22 \(https://www.ontario.ca/page/copyright-information-c-queens-printer-ontario\)](https://www.ontario.ca/page/copyright-information-c-queens-printer-ontario)

Client: Paterson Group
154 Colonnade Rd. South
Nepean, ON
K2E 7T7
Attention: Mr. Kirby Magee-Dittburner
PO#: 33729
Invoice to: Paterson Group

Report Number: 1971215
Date Submitted: 2022-02-04
Date Reported: 2022-02-10
Project: PH4407
COC #: 885852

Page 1 of 13

Dear Kirby Magee-Dittburner:

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:



Addrine
Thomas
2022.02.10
14:16:00 -05'00'

APPROVAL:

Addrine Thomas, Inorganics Supervisor

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: <http://www.cala.ca/scopes/2602.pdf>.

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.

Certificate of Analysis

Client: Paterson Group
 154 Colonnade Rd. South
 Nepean, ON
 K2E 7T7
 Attention: Mr. Kirby Magee-Dittburner
 PO#: 33729
 Invoice to: Paterson Group

Report Number: 1971215
 Date Submitted: 2022-02-04
 Date Reported: 2022-02-10
 Project: PH4407
 COC #: 885852

Group	Analyte	MRL	Units	Guideline	1608980 GW 2022-02-03 GW1	1608981 GW 2022-02-03 GW2
Anions	Cl	1	mg/L	AO 250	97	96
	F	0.10	mg/L	MAC 1.5	0.16	0.15
	N-NO2	0.10	mg/L	MAC 1.0	<0.10	<0.10
	N-NO3	0.10	mg/L	MAC 10.0	<0.10	<0.10
	SO4	1	mg/L	AO 500	70	70
General Chemistry	Alkalinity as CaCO3	5	mg/L	OG 30-500	246	244
	Colour (Apparent)	2	TCU	AO 5	67*	28*
	Conductivity	5	uS/cm		848	840
	DOC	0.5	mg/L	AO 5	2.4	2.5
	pH	1.00		6.5-8.5	8.02	8.07
	Phenols	0.001	mg/L		<0.001	<0.001
	S2-	0.02	mg/L	AO 0.05		<0.02
		0.05	mg/L	AO 0.05	<0.05	
TDS (COND - CALC)	1	mg/L	AO 500	551*	546*	
Turbidity	0.1	NTU	AO 5	4.9	2.2	
Hardness	Hardness as CaCO3	1	mg/L	OG 80-100	384*	380*
Indices/Calc	Ion Balance	0.01			0.98	0.98
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
	B	0.01	mg/L	IMAC 5.0	0.02	0.02
	Ba	0.01	mg/L	MAC 1.0	0.40	0.40
	Be	0.0005	mg/L		<0.0005	<0.0005
	Ca	1	mg/L		101	101
	Cd	0.0001	mg/L	MAC 0.005	<0.0001	<0.0001

Guideline = ODWSOG

* = Guideline Exceedence

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

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
 154 Colonnade Rd. South
 Nepean, ON
 K2E 7T7
 Attention: Mr. Kirby Magee-Dittburner
 PO#: 33729
 Invoice to: Paterson Group

Report Number: 1971215
 Date Submitted: 2022-02-04
 Date Reported: 2022-02-10
 Project: PH4407
 COC #: 885852

Group	Analyte	MRL	Units	Guideline	Lab I.D.	1608980	1608981
					Sample Matrix	GW	GW
					Sample Type	2022-02-03	2022-02-03
					Sampling Date	GW1	GW2
					Sample I.D.		
Metals	Co	0.0002	mg/L			<0.0002	<0.0002
	Cr	0.001	mg/L	MAC 0.05		<0.001	<0.001
	Cu	0.001	mg/L	AO 1		0.008	0.003
	Fe	0.03	mg/L	AO 0.3		0.58*	0.46*
	Hg	0.0001	mg/L	MAC 0.001		<0.0001	<0.0001
	K	1	mg/L			2	2
	Mg	1	mg/L			32	31
	Mn	0.01	mg/L	AO 0.05		0.03	0.03
	Mo	0.005	mg/L			<0.005	<0.005
	Na	1	mg/L	AO 200		28	28
	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		<0.0005	<0.0005
	Se	0.001	mg/L	MAC 0.05		<0.001	<0.001
	Sr	0.001	mg/L			0.306	0.293
	Tl	0.0001	mg/L			<0.0001	<0.0001
	U	0.001	mg/L	MAC 0.02		<0.001	<0.001
	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
	Total Coliforms	0	ct/100mL	MAC 0		0	0
Nutrients	N-NH3	0.010	mg/L			<0.010	<0.010
	Total Kjeldahl Nitrogen	0.100	mg/L			0.210	0.402
Subcontract	Tannin & Lignin	0.1	mg/L			0.9	0.9
VOCs Surrogates	1,2-dichloroethane-d4	0	%			110	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.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

Client: Paterson Group
 154 Colonnade Rd. South
 Nepean, ON
 K2E 7T7
 Attention: Mr. Kirby Magee-Dittburner
 PO#: 33729
 Invoice to: Paterson Group

Report Number: 1971215
 Date Submitted: 2022-02-04
 Date Reported: 2022-02-10
 Project: PH4407
 COC #: 885852

Group	Analyte	MRL	Units	Guideline	1608980 GW 2022-02-03 GW1	1608981 GW 2022-02-03 GW2
VOCs Surrogates	4-bromofluorobenzene	0	%		82	73
	Toluene-d8	0	%		119	103
Volatiles	1,1,1,2-tetrachloroethane	0.5	ug/L		<0.5	<0.5
	1,1,1-trichloroethane	0.4	ug/L		<0.4	<0.4
	1,1,2,2-tetrachloroethane	0.5	ug/L		<0.5	<0.5
	1,1,2-trichloroethane	0.4	ug/L		<0.4	<0.4
	1,1-dichloroethane	0.4	ug/L		<0.4	<0.4
	1,1-dichloroethylene	0.5	ug/L	MAC 14	<0.5	<0.5
	1,2-dichlorobenzene	0.4	ug/L	MAC 200	<0.4	<0.4
	1,2-dichloroethane	0.2	ug/L	IMAC 5	<0.2	<0.2
	1,2-dichloropropane	0.5	ug/L		<0.5	<0.5
	1,3,5-trimethylbenzene	0.3	ug/L		<0.3	<0.3
	1,3-dichlorobenzene	0.4	ug/L		<0.4	<0.4
	1,3-Dichloropropylene (cis+trans)	0.3	ug/L		<0.3	<0.3
	1,4-dichlorobenzene	0.4	ug/L	MAC 5	<0.4	<0.4
	Acetone	30	ug/L		<30	<30
	Benzene	0.5	ug/L	MAC 1	<0.5	<0.5
	Bromodichloromethane	0.3	ug/L		<0.3	<0.3
	Bromoform	0.4	ug/L		<0.4	<0.4
	Bromomethane	0.5	ug/L		<0.5	<0.5
c-1,2-Dichloroethylene	0.4	ug/L		<0.4	<0.4	
c-1,3-Dichloropropylene	0.2	ug/L		<0.2	<0.2	
Carbon Tetrachloride	0.2	ug/L	MAC 2	<0.2	<0.2	
Chloroethane	0.2	ug/L		<0.2	<0.2	
Chloroform	0.5	ug/L		<0.5	<0.5	

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.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

Client: Paterson Group
 154 Colonnade Rd. South
 Nepean, ON
 K2E 7T7
 Attention: Mr. Kirby Magee-Dittburner
 PO#: 33729
 Invoice to: Paterson Group

Report Number: 1971215
 Date Submitted: 2022-02-04
 Date Reported: 2022-02-10
 Project: PH4407
 COC #: 885852

Group	Analyte	MRL	Units	Guideline	Lab I.D.	1608980	1608981
					Sample Matrix	GW	GW
					Sample Type	2022-02-03	2022-02-03
					Sampling Date	GW1	GW2
					Sample I.D.		
Volatiles	Dibromochloromethane	0.3	ug/L			<0.3	<0.3
	Dichlorodifluoromethane	0.5	ug/L			<0.5	<0.5
	Dichloromethane	4.0	ug/L	MAC 50		<4.0	<4.0
	Ethylbenzene	0.5	ug/L	MAC 140		<0.5	<0.5
	Ethylene Dibromide	0.2	ug/L			<0.2	<0.2
	Hexane	5	ug/L			<5	<5
	m/p-xylene	0.4	ug/L			<0.4	<0.4
	Methyl Ethyl Ketone (MEK)	10	ug/L			<10	<10
	Methyl Isobutyl Ketone (MIBK)	10	ug/L			<10	<10
	Methyl Tert Butyl Ether (MTBE)	2	ug/L	AO 15		<2	<2
	Monochlorobenzene	0.5	ug/L	MAC 80		<0.5	<0.5
	o-xylene	0.4	ug/L			<0.4	<0.4
	Styrene	0.5	ug/L			<0.5	<0.5
	t-1,2-Dichloroethylene	0.4	ug/L			<0.4	<0.4
	t-1,3-Dichloropropylene	0.2	ug/L			<0.2	<0.2
	Tetrachloroethylene	0.3	ug/L	MAC 10		<0.3	<0.3
	Toluene	0.4	ug/L	MAC 60		<0.4	<0.4
	Trichloroethylene	0.3	ug/L	MAC 5		<0.3	<0.3
	Trichlorofluoromethane	0.5	ug/L			<0.5	<0.5
	Vinyl Chloride	0.2	ug/L	MAC 1		<0.2	<0.2
Xylene; total	0.5	ug/L	MAC 90		<0.5	<0.5	

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.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

Certificate of Analysis

Client: Paterson Group
 154 Colonnade Rd. South
 Nepean, ON
 K2E 7T7
 Attention: Mr. Kirby Magee-Dittburner
 PO#: 33729
 Invoice to: Paterson Group

Report Number: 1971215
 Date Submitted: 2022-02-04
 Date Reported: 2022-02-10
 Project: PH4407
 COC #: 885852

QC Summary

Analyte	Blank	QC % Rec	QC Limits
Run No 416630 Analysis/Extraction Date 2022-02-05 Analyst DRA Method AMBCOLM1			
Escherichia Coli			
Total Coliforms			
Run No 416636 Analysis/Extraction Date 2022-02-04 Analyst AaN Method C SM2130B			
Turbidity	<0.1 NTU	99	70-130
Run No 416668 Analysis/Extraction Date 2022-02-07 Analyst AsA Method C SM2120C			
Colour (Apparent)	<2 TCU	109	90-110
Run No 416675 Analysis/Extraction Date 2022-02-07 Analyst SKH Method EPA 350.1			
N-NH3	<0.010 mg/L	104	80-120
Run No 416691 Analysis/Extraction Date 2022-02-07 Analyst SKH Method EPA 351.2			
Total Kjeldahl Nitrogen	<0.100 mg/L	98	70-130
Run No 416692 Analysis/Extraction Date 2022-02-07 Analyst AsA Method C SM4500-S2-D			
S2-	<0.01 mg/L	92	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.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

Client: Paterson Group
 154 Colonnade Rd. South
 Nepean, ON
 K2E 7T7
 Attention: Mr. Kirby Magee-Dittburner
 PO#: 33729
 Invoice to: Paterson Group

Report Number: 1971215
 Date Submitted: 2022-02-04
 Date Reported: 2022-02-10
 Project: PH4407
 COC #: 885852

QC Summary

Analyte	Blank	QC % Rec	QC Limits
Run No 416703 Analysis/Extraction Date 2022-02-07 Analyst Z S Method M SM3120B-3500C			
Calcium	<1 mg/L	99	90-110
Potassium	<1 mg/L	90	87-113
Magnesium	<1 mg/L	98	76-124
Sodium	<1 mg/L	97	82-118
Run No 416719 Analysis/Extraction Date 2022-02-08 Analyst AaN Method SM 4110			
Chloride	<1 mg/L	100	90-110
N-NO2	<0.10 mg/L	101	90-110
N-NO3	<0.10 mg/L	105	90-110
SO4	<1 mg/L	105	90-110
Run No 416755 Analysis/Extraction Date 2022-02-07 Analyst AsA Method SM2320,2510,4500H/F			
Alkalinity (CaCO3)	<5 mg/L	104	90-110
Conductivity	<5 uS/cm	100	90-110
F	<0.10 mg/L	105	90-110
pH		99	90-110

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.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

Client: Paterson Group
 154 Colonnade Rd. South
 Nepean, ON
 K2E 7T7
 Attention: Mr. Kirby Magee-Dittburner
 PO#: 33729
 Invoice to: Paterson Group

Report Number: 1971215
 Date Submitted: 2022-02-04
 Date Reported: 2022-02-10
 Project: PH4407
 COC #: 885852

QC Summary

Analyte	Blank	QC % Rec	QC Limits
Run No 416780 Analysis/Extraction Date 2022-02-08 Analyst YH Method EPA 8260			
Tetrachloroethane, 1,1,1,2-	<0.5 ug/L	86	60-130
Trichloroethane, 1,1,1-	<0.4 ug/L	94	60-130
Tetrachloroethane, 1,1,2,2-	<0.5 ug/L	100	60-130
Trichloroethane, 1,1,2-	<0.4 ug/L	105	60-130
Dichloroethane, 1,1-	<0.4 ug/L	91	60-130
Dichloroethylene, 1,1-	<0.5 ug/L	93	60-130
Dichlorobenzene, 1,2-	<0.4 ug/L	82	60-130
Dichloroethane, 1,2-	<0.2 ug/L	97	60-130
Dichloropropane, 1,2-	<0.5 ug/L	88	60-130
1,3,5-trimethylbenzene	<0.3 ug/L	85	60-130
Dichlorobenzene, 1,3-	<0.4 ug/L	90	60-130
Dichloropropene, 1,3-	<0.3 ug/L		
Dichlorobenzene, 1,4-	<0.4 ug/L	85	60-130
Acetone	<30 ug/L		60-130
Benzene	<0.5 ug/L	88	60-130
Bromodichloromethane	<0.3 ug/L	92	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.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

Client: Paterson Group
 154 Colonnade Rd. South
 Nepean, ON
 K2E 7T7
 Attention: Mr. Kirby Magee-Dittburner
 PO#: 33729
 Invoice to: Paterson Group

Report Number: 1971215
 Date Submitted: 2022-02-04
 Date Reported: 2022-02-10
 Project: PH4407
 COC #: 885852

QC Summary

Analyte	Blank	QC % Rec	QC Limits
Bromoform	<0.4 ug/L	101	60-130
Bromomethane	<0.5 ug/L	91	60-130
Dichloroethylene, 1,2-cis-	<0.4 ug/L	87	60-130
Dichloropropene, 1,3-cis-	<0.2 ug/L	81	60-130
Carbon Tetrachloride	<0.2 ug/L	90	60-130
Chloroethane	<0.2 ug/L	92	60-130
Chloroform	<0.5 ug/L	90	60-130
Dibromochloromethane	<0.3 ug/L	103	60-130
Dichlorodifluoromethane	<0.5 ug/L	89	60-130
Methylene Chloride	<4.0 ug/L	117	60-130
Ethylbenzene	<0.5 ug/L	82	60-130
Ethylene dibromide	<0.2 ug/L	100	60-130
Hexane (n)	<5 ug/L	90	60-130
m/p-xylene	<0.4 ug/L	84	60-130
Methyl Ethyl Ketone	<10 ug/L	100	60-130
Methyl Isobutyl Ketone	<10 ug/L		60-130
Methyl tert-Butyl Ether (MTBE)	<2 ug/L	80	60-130
Chlorobenzene	<0.5 ug/L	99	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.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

Client: Paterson Group
 154 Colonnade Rd. South
 Nepean, ON
 K2E 7T7
 Attention: Mr. Kirby Magee-Dittburner
 PO#: 33729
 Invoice to: Paterson Group

Report Number: 1971215
 Date Submitted: 2022-02-04
 Date Reported: 2022-02-10
 Project: PH4407
 COC #: 885852

QC Summary

Analyte	Blank	QC % Rec	QC Limits
o-xylene	<0.4 ug/L	91	60-130
Styrene	<0.5 ug/L	87	60-130
Dichloroethylene, 1,2-trans-	<0.4 ug/L	85	60-130
Dichloropropene, 1,3-trans-	<0.2 ug/L	84	60-130
Tetrachloroethylene	<0.3 ug/L	81	60-130
Toluene	<0.4 ug/L	88	60-130
Trichloroethylene	<0.3 ug/L	88	60-130
Trichlorofluoromethane	<0.5 ug/L	92	60-130
Vinyl Chloride	<0.2 ug/L	89	60-130
Run No 416789 Analysis/Extraction Date 2022-02-08 Analyst YH Method EPA 8260			
Xylene Mixture			
Run No 416791 Analysis/Extraction Date 2022-02-08 Analyst IP Method SM5530D/EPA420.2			
Phenols	<0.001 mg/L	57	50-120
Run No 416797 Analysis/Extraction Date 2022-02-08 Analyst AET Method C SM2340B			
Hardness as CaCO ₃			
Ion Balance			

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.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

Certificate of Analysis

Client: Paterson Group
 154 Colonnade Rd. South
 Nepean, ON
 K2E 7T7
 Attention: Mr. Kirby Magee-Dittburner
 PO#: 33729
 Invoice to: Paterson Group

Report Number: 1971215
 Date Submitted: 2022-02-04
 Date Reported: 2022-02-10
 Project: PH4407
 COC #: 885852

QC Summary

Analyte	Blank	QC % Rec	QC Limits
TDS (COND - CALC)			
Run No 416800 Analysis/Extraction Date 2022-02-08 Analyst AsA Method SM 5310B			
DOC	<0.5 mg/L	92	80-120
Run No 416836 Analysis/Extraction Date 2022-02-08 Analyst SD Method EPA 200.8			
Silver	<0.0001 mg/L	102	80-120
Aluminum	<0.01 mg/L	115	80-120
Arsenic	<0.001 mg/L	101	80-120
Boron (total)	<0.01 mg/L	116	80-120
Barium	<0.01 mg/L	95	80-120
Beryllium	<0.0005 mg/L	114	80-120
Cadmium	<0.0001 mg/L	99	80-120
Cobalt	<0.0002 mg/L	111	80-120
Chromium Total	<0.001 mg/L	110	80-120
Copper	<0.001 mg/L	115	80-120
Iron	<0.03 mg/L	112	80-120
Manganese	<0.01 mg/L	106	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.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

Certificate of Analysis

Client: Paterson Group
 154 Colonnade Rd. South
 Nepean, ON
 K2E 7T7
 Attention: Mr. Kirby Magee-Dittburner
 PO#: 33729
 Invoice to: Paterson Group

Report Number: 1971215
 Date Submitted: 2022-02-04
 Date Reported: 2022-02-10
 Project: PH4407
 COC #: 885852

QC Summary

Analyte	Blank	QC % Rec	QC Limits
Molybdenum	<0.005 mg/L	102	80-120
Nickel	<0.005 mg/L	116	80-120
Lead	<0.001 mg/L	108	80-120
Antimony	<0.0005 mg/L	111	80-120
Selenium	<0.001 mg/L	90	80-120
Strontium	<0.001 mg/L	93	80-120
Thallium	<0.0001 mg/L	109	80-120
Uranium	<0.001 mg/L	112	80-120
Vanadium	<0.001 mg/L	106	80-120
Zinc	<0.01 mg/L	104	80-120
Run No 416840 Analysis/Extraction Date 2022-02-07 Analyst AET Method SUBCONTRACT-A			
Tannin & Lignin	<0.10 mg/L	108	
Run No 416883 Analysis/Extraction Date 2022-02-09 Analyst SD Method EPA 200.8			
Mercury	<0.0001 mg/L	119	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.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

Certificate of Analysis

Client: Paterson Group
154 Colonnade Rd. South
Nepean, ON
K2E 7T7
Attention: Mr. Kirby Magee-Dittburner
PO#: 33729
Invoice to: Paterson Group

Report Number: 1971215
Date Submitted: 2022-02-04
Date Reported: 2022-02-10
Project: PH4407
COC #: 885852

Sample Comment Summary

Sample ID: 1608980	GW1	S2- MRL elevated due to matrix interference (dilution was done).
Sample ID: 1608981	GW2	S2- MRL elevated due to matrix interference (dilution was done).

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.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

DATUM Geodetic


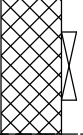
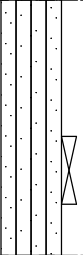
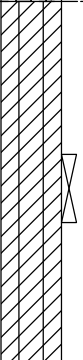
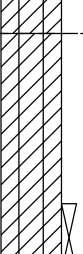
FILE NO. **PG6052**

REMARKS

HOLE NO. **TP 1-21**

BORINGS BY Backhoe

DATE December 17, 2021

SOIL DESCRIPTION	STRATA PLOT	SAMPLE				DEPTH (m)	ELEV. (m)	Pen. Resist. Blows/0.3m ● 50 mm Dia. Cone				Piezometer Construction	
		TYPE	NUMBER	RECOVERY %	N VALUE or RQD			20	40	60	80		
GROUND SURFACE						0	100.05						
Asphaltic concrete													
FILL: Brown silty sand with gravel and crushed stone		G	1										
Compact, brown SILTY SAND		G	2			1	99.05						▽
Very stiff to stiff, grey SILTY CLAY - silt content increasing with depth		G	3			2	98.05						▲
Stiff, grey CLAYEY SILT		G	4			3	97.05						
End of Test Pit (Groundwater infiltration at 1.0m depth)													

20 40 60 80 100
Shear Strength (kPa)
▲ Undisturbed △ Remoulded

DATUM Geodetic




FILE NO. PG6052

REMARKS

HOLE NO. TP 2-21

BORINGS BY Backhoe

DATE December 17, 2021

SOIL DESCRIPTION	STRATA PLOT	SAMPLE				DEPTH (m)	ELEV. (m)	Pen. Resist. Blows/0.3m ● 50 mm Dia. Cone				Piezometer Construction	
		TYPE	NUMBER	RECOVERY %	N VALUE or RQD			20	40	60	80		
GROUND SURFACE						0	100.06						
FILL: Crushed stone with sand													
FILL: Brown silty sand with gravel		G	1										▽
Very stiff to stiff, grey SILTY CLAY		G	2										▲
End of Test Pit (Groundwater infiltration at 0.4m depth)													

20 40 60 80 100
Shear Strength (kPa)
▲ Undisturbed ▽ Remoulded

DATUM Geodetic

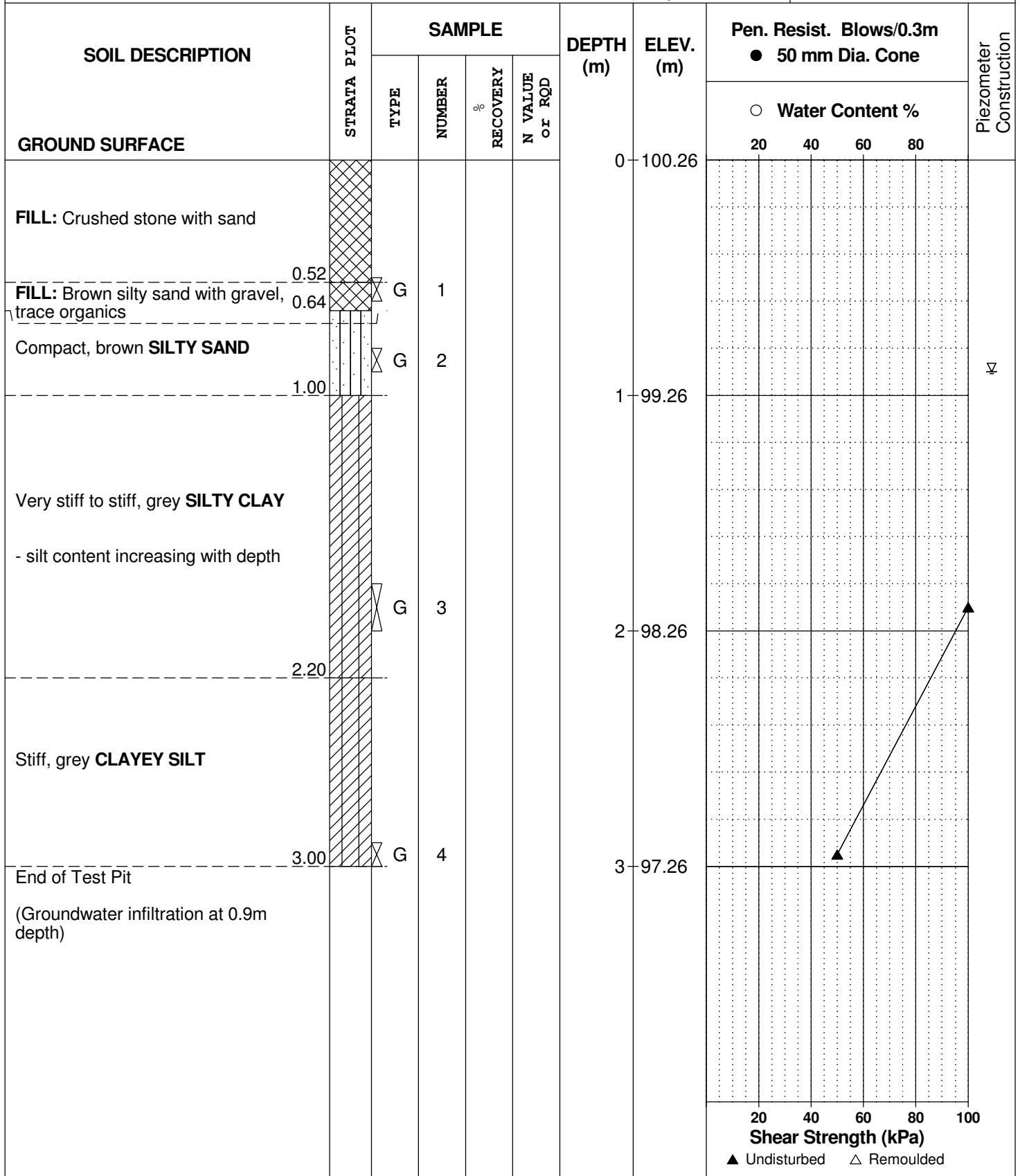
REMARKS

BORINGS BY Backhoe

DATE December 17, 2021

FILE NO. **PG6052**

HOLE NO. **TP 3-21**



SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Proposed Building Addition - 1353 Coker Street
Ottawa, Ontario

DATUM Geodetic





REMARKS

BORINGS BY Backhoe

DATE December 17, 2021

FILE NO. **PG6052**

HOLE NO. **TP 4-21**

SOIL DESCRIPTION	STRATA PLOT	SAMPLE				DEPTH (m)	ELEV. (m)	Pen. Resist. Blows/0.3m ● 50 mm Dia. Cone				Piezometer Construction
		TYPE	NUMBER	RECOVERY	N VALUE or RQD			○ Water Content %				
GROUND SURFACE						0	100.14	20	40	60	80	
FILL: Crushed stone with sand												
0.40												
FILL: Brown silty sand with gravel		G	1									∇
0.82												
Compact, brown SILTY SAND		G	2									
1.00												
Very stiff, grey SILTY CLAY		G	3			1	99.14					▲
1.20												
End of Test Pit (Groundwater infiltration at 0.6m depth)												
								20	40	60	80	100
								Shear Strength (kPa)				
								▲ Undisturbed △ Remoulded				

SYMBOLS AND TERMS

SOIL DESCRIPTION

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

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

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

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

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

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

SYMBOLS AND TERMS (continued)

SOIL DESCRIPTION (continued)

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

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

ROCK DESCRIPTION

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

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

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

SAMPLE TYPES

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

SYMBOLS AND TERMS (continued)

GRAIN SIZE DISTRIBUTION

MC%	-	Natural moisture content or water content of sample, %
LL	-	Liquid Limit, % (water content above which soil behaves as a liquid)
PL	-	Plastic limit, % (water content above which soil behaves plastically)
PI	-	Plasticity index, % (difference between LL and PL)
Dxx	-	Grain size which xx% of the soil, by weight, is of finer grain sizes These grain size descriptions are not used below 0.075 mm grain size
D10	-	Grain size at which 10% of the soil is finer (effective grain size)
D60	-	Grain size at which 60% of the soil is finer
Cc	-	Concavity coefficient = $(D_{30})^2 / (D_{10} \times D_{60})$
Cu	-	Uniformity coefficient = D_{60} / D_{10}

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

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

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

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

Cc and Cu are not applicable for the description of soils with more than 10% silt and clay (more than 10% finer than 0.075 mm or the #200 sieve)

CONSOLIDATION TEST

p'_o	-	Present effective overburden pressure at sample depth
p'_c	-	Preconsolidation pressure of (maximum past pressure on) sample
Ccr	-	Recompression index (in effect at pressures below p'_c)
Cc	-	Compression index (in effect at pressures above p'_c)
OC Ratio		Overconsolidation ratio = p'_c / p'_o
Void Ratio		Initial sample void ratio = volume of voids / volume of solids
Wo	-	Initial water content (at start of consolidation test)

PERMEABILITY TEST

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

SYMBOLS AND TERMS (continued)

STRATA PLOT



Topsoil



Asphalt



Fill



Peat



Sand



Silty Sand



Silt



Sandy Silt



Clay



Silty Clay



Clayey Silty Sand



Glacial Till



Shale



Bedrock

MONITORING WELL AND PIEZOMETER CONSTRUCTION

MONITORING WELL CONSTRUCTION

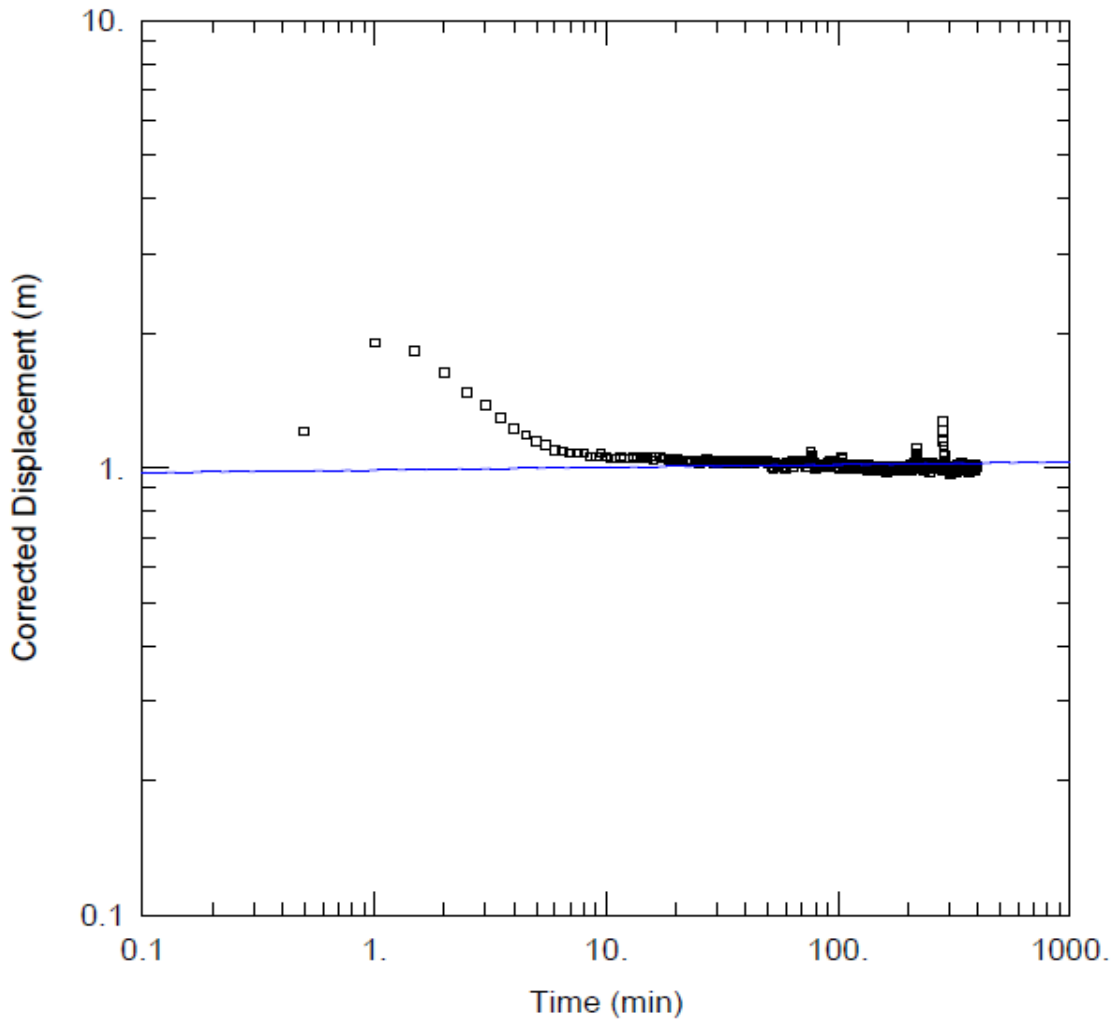


PIEZOMETER CONSTRUCTION



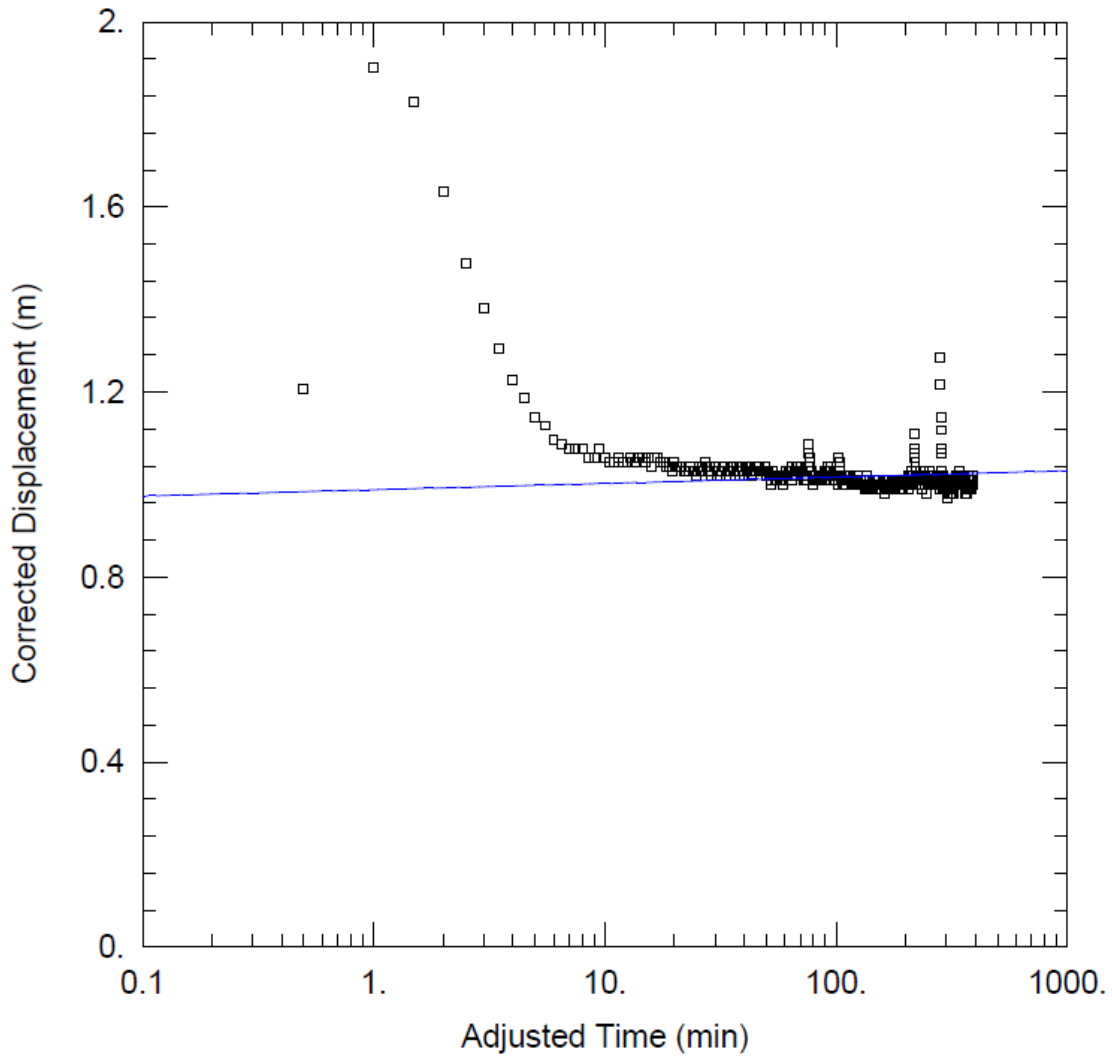
Pumping Test Analysis Report

File No.	PH4407	Well ID:	TW1
Date:	February 22, 2022	Solution Method:	Theis
Client:	Dymech Engineering Inc.	Transmissivity (m ² /day):	367.2
Site Address:	1353 Coker Street, Ottawa, ON	Discharge Rate (L/min)	19
Project:	Site Plan Application	Analysis performed by:	EA



Pumping Test Analysis Report

File No.	PH4407	Well ID:	TW1
Date:	February 22, 2022	Solution Method:	Cooper-Jacob
Client:	Dymech Engineering Inc.	Transmissivity (m ² /day):	367.2
Site Address:	1353 Coker Street, Ottawa, ON	Discharge Rate (L/min)	19
Project:	Site Plan Application	Analysis performed by:	EA



Pumping Test Analysis Report

File No. PH4407
Date: February 22, 2022
Client: Dymech Engineering Inc.
Site Address: 1353 Coker Street, Ottawa, ON
Project: Site Plan Application

Summary Table:		
Solution Method:	Well ID:	Transmissivity (m ² /day):
Theis	TW1	367.2
Cooper-Jacob	TW1	367.2
Average:		367.20

PREDICTIVE NITRATE IMPACT ASSESSEMENT		
Infiltration Factors		
Topography	0.30	
Soil	0.30	
Cover	0.10	
Total	0.70	
Site Characteristics		
Area of Site :	2675	m ²
Total of roof areas:	729	m ²
Total area of paved driveway areas:	475	m ²
Roof + paved driveway areas	1204	m ²
Impervious Area	1204	m ²
Percent Impervious Area =	45	%
Infiltration Area =	1471	m ²
Septic Effluent		
Concentration of Effluent (Cs) =	4	mg/L
Daily Sewage Flow (Qs)=	3.6	m ³
See Notes below.		
Infiltration Calculation		
Nitrate concentration in precipitation (C _i) =	0	mg/L
Surplus Water (Environment Canada)	379	mm/yr
Factored Water Surplus =	265	mm/yr
Infiltration % due to stormwater management measures	-	%
Infiltration rate from stormwater management measures =	0	mm/yr
Infiltration Flow Entering the System (Q _i) =	1	m ³ /day
Mass Balance Model (MOEE, 1995)		
$C_T = (Q_b C_b + Q_e C_e + Q_i C_i) / (Q_b + Q_e + Q_i)$ = Cumulative Nitrate Concentration		
Q _b = flow entering the system across the upgradient area	0	m ³ /day
C _b = background nitrate concentration	0	mg/L
Q _e = flow entering the system from the septic drainfield	3.6	m ³ /day
C _e = concentration of nitrates in the septic effluent	4	mg/L
Q _i = flow entering the system from infiltration	1	m ³ /day
C _i = Concentration of nitrates in the infiltrate	0	mg/L
C_T =	3.08	mg/L
Estimate Number of Lots	1	lots
<i>Notes: Site characteristic values were measured as approximate values from the available site plan. Daily Sewage Flow volume was calculated by Paterson Group as a preliminary design flow.</i>		

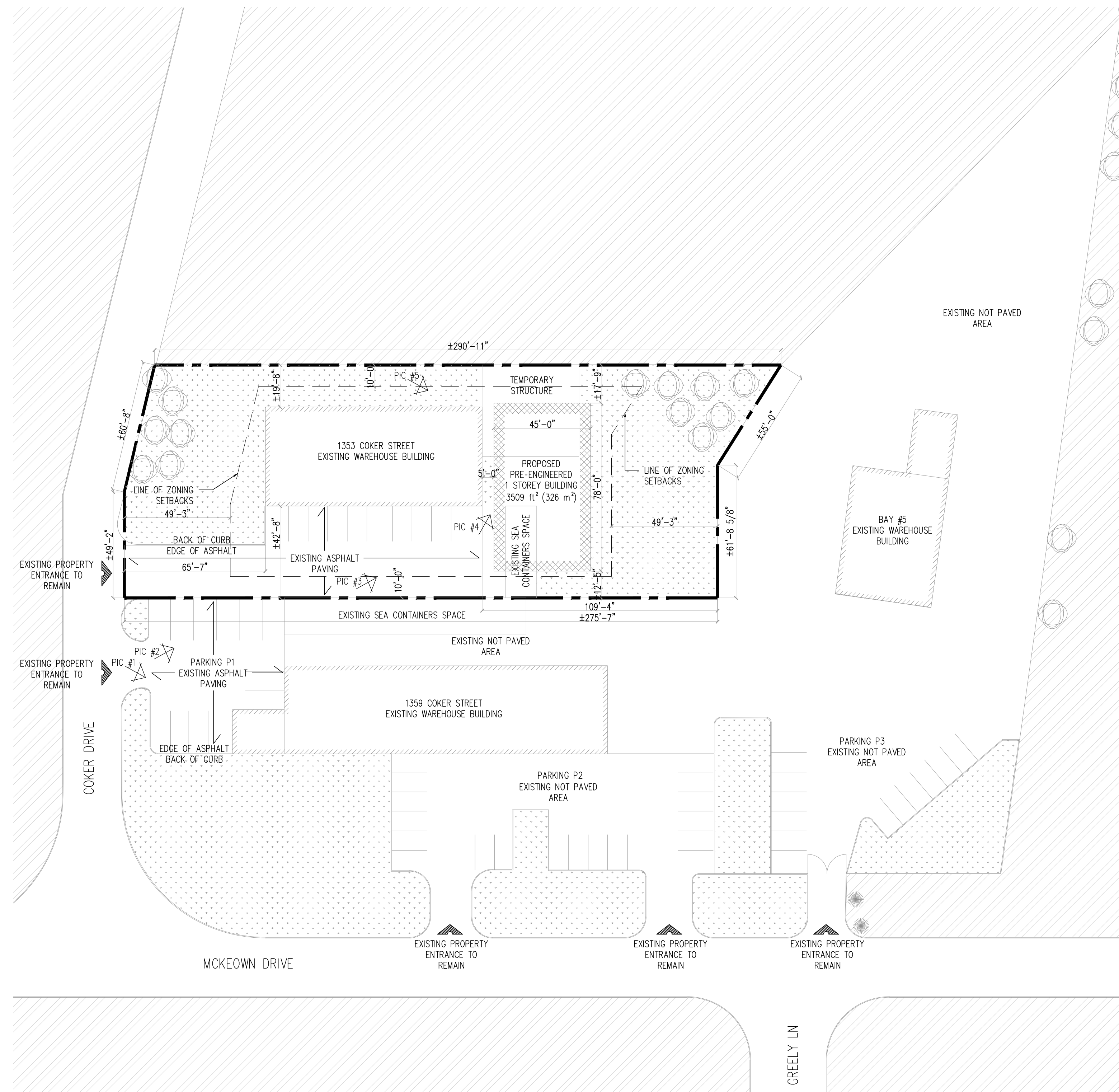
DRAWING LIST:

ARCHITECTURAL

- A000 - COVER PAGE
- A002 - DRAWING LIST, LEGEND + NEW SITE PLAN + ZONING COMPLIANCE + O.B.C. MATRIX
- A050 - EXCAVATION PLAN + NOTES
- A100 - NEW FLOOR PLAN + NOTES
- A200 - EXTERIOR ELEVATIONS + NOTES

LEGEND:

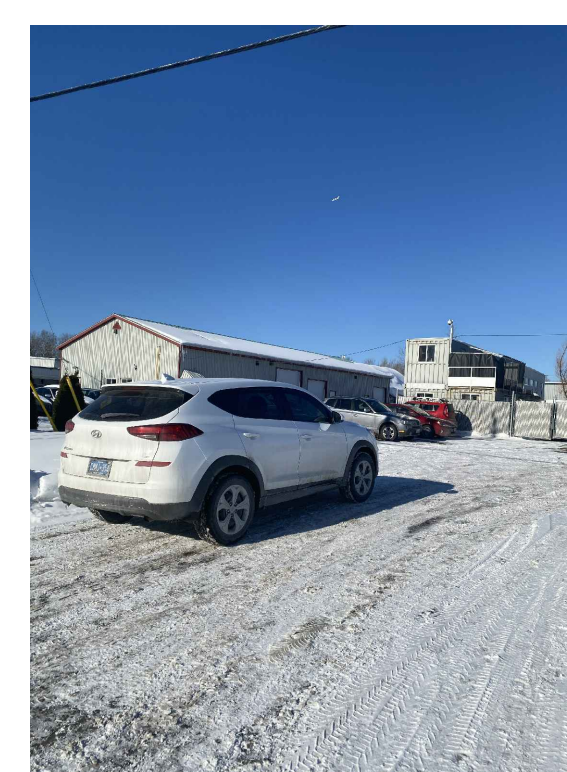
- NOT INCLUDED IN CONTRACT (N.I.C.)
- EXISTING GRASS



1 NEW SITE PLAN
A-002 1/32" = 1'-0"



PICTURE #1



PICTURE #2



PICTURE #3



PICTURE #4



PICTURE #5

LOCATION PLAN: GROUND FLOOR



CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND REPORT ANY OMISSIONS OR DISCREPANCIES TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.
DO NOT SCALE DRAWINGS.

REVISIONS		
NO.	DESCRIPTION	DATE
1	Issued for Class D estimate	Feb. 22, 2021

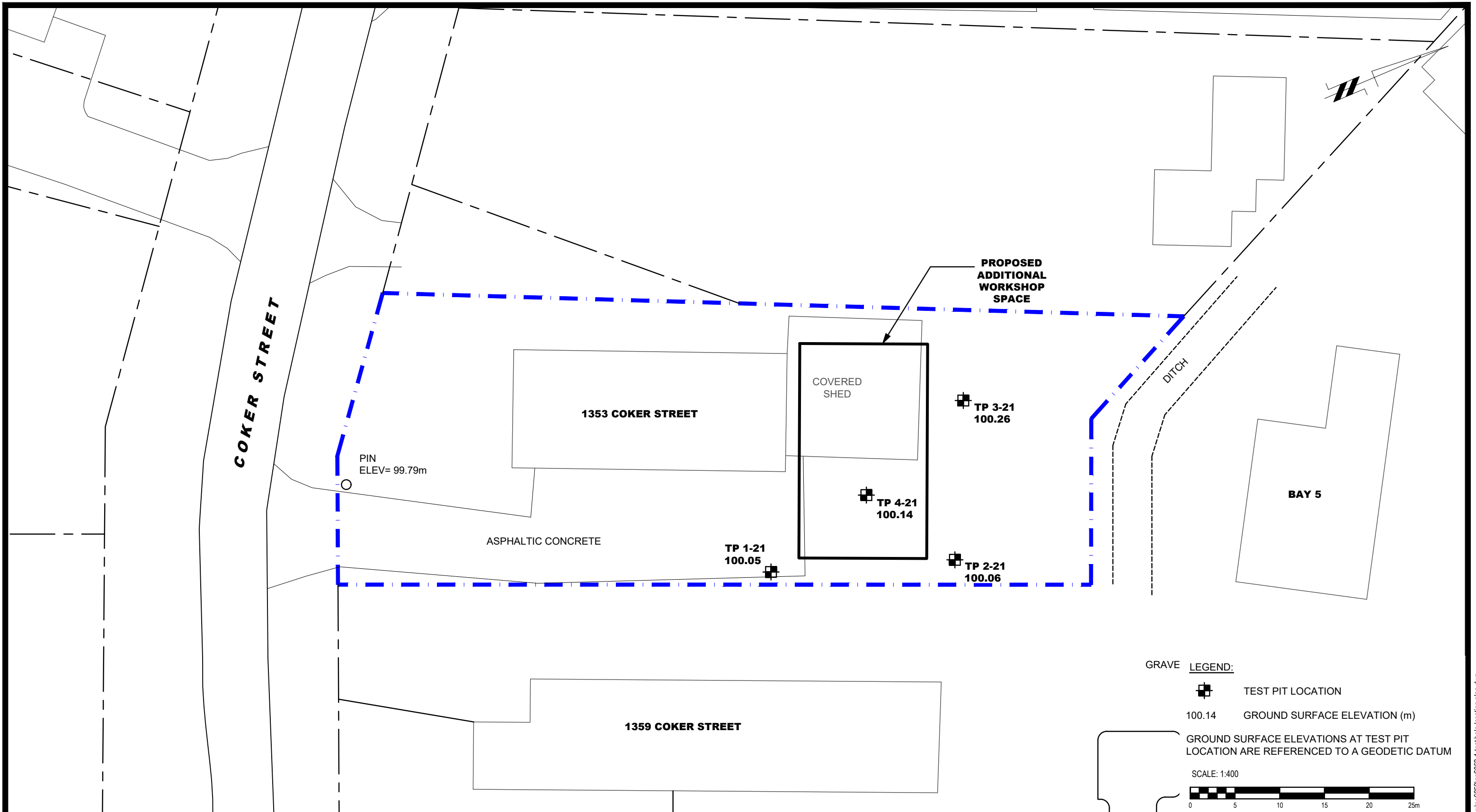
PROJECT NORTH	DATE
	DRAWN PB
	CHECKED AB
	DATE PRINTED -

NOT TO BE USED FOR CONSTRUCTION PURPOSES UNTIL SIGNED BY THE ARCHITECT.

DYMECH WAREHOUSE ADDITION
ADDRESS: 1359 COKER STREET, GREELY, ON, K4P 1A1
DRAWING TITLE

NEW SITE PLAN + NOTES

SCALE AS SHOWN	DRAWING NO.: A-002
PROJECT NO. 059-20	



patersongroup
consulting engineers

154 Colonnade Road South
Ottawa, Ontario K2E 7J5
Tel: (613) 226-7381 Fax: (613) 226-6344

NO.	REVISIONS	DATE	INITIAL

GREELY,
Title:

DYMECH ENGINEERING INC.
GEOTECHNICAL INVESTIGATION
PROPOSED BUILDING ADDITION
1353 COKER STREET

ONTARIO

TEST HOLE LOCATION PLAN

Scale:

1:400

Date:

01/2022

Drawn by:

YA

Report No.:

PG6052-1

Checked by:

MS

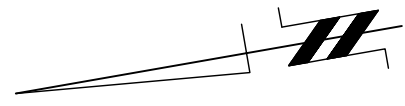
Dwg. No.:

PG6052-1

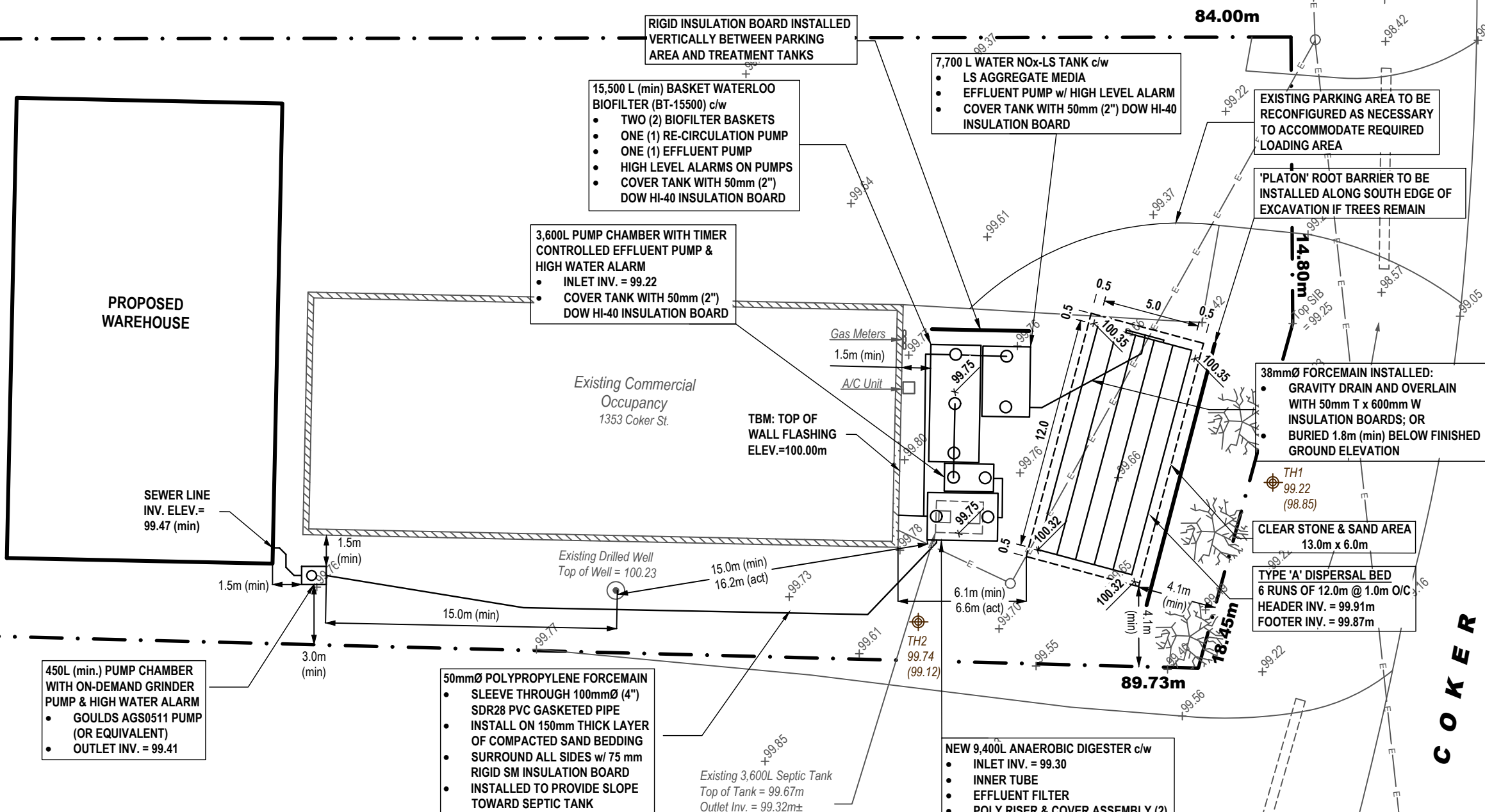
Approved by:

DJG

Revision No.:



CONTRACTOR TO EXERCISE CAUTION DURING CONSTRUCTION NOT TO IMPACT EXISTING OVERHEAD HYDRO LINES, AND UNDERGROUND HYDRO AND GAS LINES



PROPOSED WAREHOUSE

SEWER LINE
INV. ELEV. = 99.47 (min)

15,500 L (min) BASKET WATERLOO BIOFILTER (BT-15500) c/w

- TWO (2) BIOFILTER BASKETS
- ONE (1) RE-CIRCULATION PUMP
- ONE (1) EFFLUENT PUMP
- HIGH LEVEL ALARMS ON PUMPS
- COVER TANK WITH 50mm (2") DOW HI-40 INSULATION BOARD

3,600L PUMP CHAMBER WITH TIMER CONTROLLED EFFLUENT PUMP & HIGH WATER ALARM

- INLET INV. = 99.22
- COVER TANK WITH 50mm (2") DOW HI-40 INSULATION BOARD

7,700 L WATER NOx-LS TANK c/w

- LS AGGREGATE MEDIA
- EFFLUENT PUMP w/ HIGH LEVEL ALARM
- COVER TANK WITH 50mm (2") DOW HI-40 INSULATION BOARD

EXISTING PARKING AREA TO BE RECONFIGURED AS NECESSARY TO ACCOMMODATE REQUIRED LOADING AREA

'PLATON' ROOT BARRIER TO BE INSTALLED ALONG SOUTH EDGE OF EXCAVATION IF TREES REMAIN

38mmØ FORCEMAIN INSTALLED:

- GRAVITY DRAIN AND OVERLAIN WITH 50mm T x 600mm W INSULATION BOARDS; OR
- BURIED 1.8m (min) BELOW FINISHED GROUND ELEVATION

CLEAR STONE & SAND AREA
13.0m x 6.0m

TYPE 'A' DISPERSAL BED
6 RUNS OF 12.0m @ 1.0m O/C
HEADER INV. = 99.91m
FOOTER INV. = 99.87m

450L (min.) PUMP CHAMBER WITH ON-DEMAND GRINDER PUMP & HIGH WATER ALARM

- GOULDS AGS0511 PUMP (OR EQUIVALENT)
- OUTLET INV. = 99.41

50mmØ POLYPROPYLENE FORCEMAIN

- SLEEVE THROUGH 100mmØ (4") SDR28 PVC GASKETED PIPE
- INSTALL ON 150mm THICK LAYER OF COMPACTED SAND BEDDING
- SURROUND ALL SIDES w/ 75 mm RIGID SM INSULATION BOARD
- INSTALLED TO PROVIDE SLOPE TOWARD SEPTIC TANK

Existing 3,600L Septic Tank
Top of Tank = 99.67m
Outlet Inv. = 99.32m±

- TO BE PUMPED AND REMOVED

NEW 9,400L ANAEROBIC DIGESTER c/w

- INLET INV. = 99.30
- INNER TUBE
- EFFLUENT FILTER
- POLY RISER & COVER ASSEMBLY (2)
- COVER TANK WITH 50mm (2") DOW HI-40 INSULATION BOARD

LEGEND:		BENCHMARK INFORMATION:	
○	Test Hole Location	GFL	Garage Floor Level
x 70.81	Existing Ground Surface Elev. (m)	USF	Underside of Footing
x 72.70	Proposed Ground Surface Elev. (m)	←	Surficial Flow Direction
(70.7)	Groundwater Elev. (m) - Dec.14/21	TTT	Terrace Grade 3H:1V Max.
MFL	Main Floor Level	▤	Existing Structure
BFL	Basement Floor Level	└	Proposed Structure
T/C	Top of Foundation Wall		

REFERENCE:
Base Plan Information Obtained from GeoOttawa Imagery.
A LEGAL SURVEY DESCRIBING THE PROPERTY BOUNDARY WAS NOT AVAILABLE TO THIS FIRM AT THE TIME OF THESE WORKS. AS SUCH, PROPERTY BOUNDARIES SHOULD BE CONFIRMED PRIOR TO CONSTRUCTION

patersongroup
consulting engineers
154 Colonnade Road, Ottawa, Ontario K2E 7J5

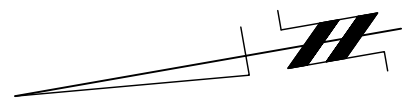
DD/MM/YY	Description	Rev.
17/02/22	Issued for Permit Approval	2
11/02/22	Revised per Treatment Requirements	1
21/12/21	Issued for Client Review	0

Client
DYMECH ENGINEERING INC.
Project
PROPOSED REPLACEMENT SEWAGE SYSTEM
1353 COKER STREET
OTTAWA (GEELEY), ONTARIO

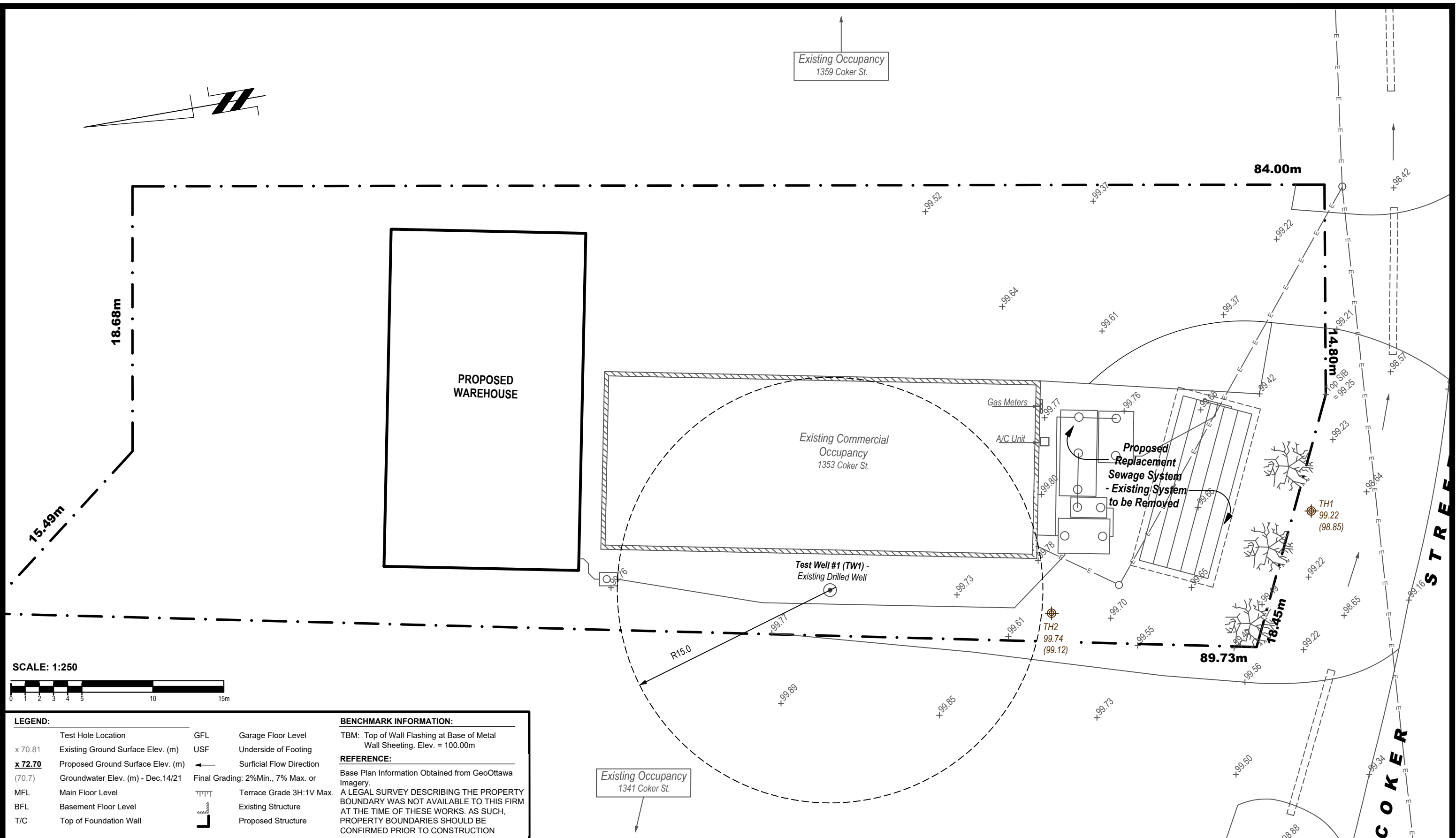
Drawing
SEWAGE SYSTEM LAYOUT PLAN

Scale:	1:250	Drawn by:	AD
Date:	02/2022	Checked by:	MK
Drawing no.:	PH4407-1(rev.2)		

p:\autocad\drawings\hydrology\ph4407\ph4407-dymech-engineering-1353 coker slph4407-1.dwg



Existing Occupancy
1359 Coker St.



LEGEND:		BENCHMARK INFORMATION:	
○	Test Hole Location	GFL	Garage Floor Level
x 70.81	Existing Ground Surface Elev. (m)	USF	Underside of Footing
x 72.70	Proposed Ground Surface Elev. (m)	←	Surficial Flow Direction
(70.7)	Groundwater Elev. (m) - Dec.14/21	Final Grading: 2%Min., 7% Max. or	
MFL	Main Floor Level	TTTT	Terrace Grade 3H:1V Max.
BFL	Basement Floor Level	Existing Structure	
T/C	Top of Foundation Wall	Proposed Structure	
		TBM: Top of Wall Flashing at Base of Metal Wall Sheeting. Elev. = 100.00m	
		REFERENCE:	
Base Plan Information Obtained from GeoOttawa Imagery.			
A LEGAL SURVEY DESCRIBING THE PROPERTY BOUNDARY WAS NOT AVAILABLE TO THIS FIRM AT THE TIME OF THESE WORKS. AS SUCH, PROPERTY BOUNDARIES SHOULD BE CONFIRMED PRIOR TO CONSTRUCTION			

patersongroup
consulting engineers
154 Colonnade Road, Ottawa, Ontario K2E 7J5

DD/MM/YY	Description	Rev.
18/02/22	Issued for City Comment	0

Client
DYMECH ENGINEERING INC.

Drawing
WATER WELL LOCATION PLAN

Project
PROPOSED WAREHOUSE ADDITION
1353 COKER STREET
OTTAWA (GEELEY), ONTARIO

Scale:	1:250	Drawn by:	AD
Date:	02/2022	Checked by:	MK
Drawing no.:	PH4407-3		

p:\autocad\drawings\hydrogeology\p4407\p4407-1.dwg