Water and Sewage Servicing Study
Bare Bones Distillery, 705 Closson Road
Prince Edward County, Ontario

Prepared for:

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Submitted by:

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Water and Sewage Servicing Study
Bare Bones Distillery, 705 Closson Road
Prince Edward County, Ontario

Dear Carolyn,

We are pleased to submit this servicing study (water and wastewater) report for your client's proposed distillery at 705 Closson Road in Prince Edward County.

We trust that this report is complete within our terms of reference and sufficient for your requirements. Please call us if you have any questions about the report or any areas that require clarification. Once you have had the chance to review the draft, we will make any edits required and issue a final document.

Yours very truly,

THE GREER GALLOWAY GROUP INC.
CONSULTING ENGINEERS

Charles Mitz, Ph.D., P.Geo.
Senior Project Manager

Table of Contents

Drawings (appended after text)

Tables

Appendices

1. Introduction

The Greer Galloway Group was retained by Jason and Nicole Clarke to complete a servicing assessment for the proposed development of the Bare Bones Distillery at 705 Closson Road in Prince Edward County, Ontario. The 31.6 ha Property is located 0.4 km west of the intersection of Closson Road and Chase Road in Hillier, Ontario. The legal description of the property is Lot 7 and 8 of Concession 3, 46R-3899, Hillier Ward in the County of Prince Edward.

The proponents propose to rezone the property to allow for the development and operation of a distillery. The purpose of the work is to assess the soil and groundwater conditions at the site to demonstrate that development can be supported by groundwater as well as whether the property can accommodate the expanded private sewage treatment/disposal in accordance with Provincial standards. This investigation will also ensure that these activities will not affect surrounding private water sources.

2. Investigation Methods

The investigation included a review of water well records, available geologic and hydrogeologic information for the area, an inventory of water well supplies within a reasonable distance of the proposed development, performing at least a six (6) hour pumping test in the well along with chemical and bacteriological analysis, and monitoring water level response in observation wells prior, during, and after the pumping test. The investigation methods are described further in the following subsections:

2.1 Information Sources

The initial task was a review of available information to characterize existing soil and groundwater conditions, and to identify any potential hazards/constraints associated with the planned project. Information sources include topographic and geologic mapping, aerial photography and MECP Water Well Records.

2.2 Well Records Search and Survey

Twenty-one (21) water supply well records were found on the Ministry of the Environment Conservation and Parks wells database within a search radius of 500 kilometres from the subject lands. Recorded yields range from 0 to 114 L/min (see Appendix A: MECP Well Records).

On June 4, 2021, prior to the pumping test a door-to-door well survey was carried out by Greer Galloway staff for the neighbouring wells within an approximate 500 m radius of the proposed severance. A total of four (4) residences were successfully contacted within this search radius and two (2) of the closest (690 and 732 Closson Road) gave permission to have their wells monitored during the well testing.

Because of the COVID-19 pandemic, the door-to-door well survey was limited to the adjacent properties only. We relied on MECP water well records for more distant residences. MECP Water Well Record sheets for the general area are provided in Appendix A.

2.3 Water Supply Assessment

The water supply assessment was based on a pumping test of the dug well on the site, well ID A289467, which is located east of the residence. The well was installed by the owner on November 17, 2020, by Frank's Drilling and Blasting Ltd. to a depth of 6.68 m. There is also a drilled well on the property located within an old dug well immediately north of the residence. This well supplies the existing residence but it was not accessed by Greer Galloway for safety (confined space) reasons.

A seven (7) hour pumping test was performed on June 16, 2021. A submersible pump was set at a depth of approximately 6 m and the discharge was routed through a gate valve and trajectory meter which was marked at the level corresponding to the desired pumping rate and then into a 25 L capacity vessel for time-volume measurements. The pumping rate was checked periodically throughout the test.

Water levels were recorded during the pumping and recovery using datalogging pressure transducers (Solinst Model 3001). All dataloggers were synchronized prior to the testing and set to record at 60 second intervals. The discharge water was directed away from the pumped well a distance of approximately thirty 30 m (downgradient of the well) and was allowed to flow overland away from the well. Datalogging pressure transducers were also installed in residential wells located at 690 and 732 Closson Road to serve as observation wells.

Pumping was initiated at 10:42 AM on June 16, 2021, following a lengthy period with little or no rain. The static level of A239467 was recorded at 4.37 m below the top of the well casing (mTOC), or about 3.98 m below the ground surface. The initial pumping rate was 18 L/min, which was increased to 22 L/min after 273 minutes due to little observed drawdown. The pumping rate was again increased 34 minutes later to 60 L/min as there was still little drawdown observed. The water level observations during the test are included in Appendix B. Recovery data was not collected during the early part of the recovery as there was a programming error with the datalogging pressure transducers, and therefore only water levels manually measured in the field are available from the initial pump test.

An untreated groundwater sample was obtained from the well during the last hour of the testing. The sample was placed in variety of laboratory-prepared sample containers that were sealed, placed into a cooler with ice packs to maintain a temperature of approximately 4°C and transported to Caduceon Laboratories in Kingston, Ontario. Analytical parameters included pH, total hardness, total alkalinity; calcium, magnesium, sodium; potassium; iron, manganese; chloride; sulphate; nitrate (NO_3-N); nitrite (NO_2-N), ammonia/ ammonium NH_3-N; conductivity; dissolved organic carbon, suspended solids; and a variety of additional parameters (refer to the Laboratory Certificate of Analysis in Appendix D). The owner had previously done testing for E. coli and total coliform bacteria and after chlorination had received a clean result, as such these parameters were not tested for.

2.4 Septic System Sizing

The low permeability of the overburden soil requires the use of raised septic beds. Representative total daily design sanitary sewage flows were estimated using the Ontario Building Code (OBC) Table 8.2.1.3.A and shown in Table 1. For an initial estimate it was assumed that there would be up to 4 employees working 8-hour shifts, and 20 seats in a tasting room.

Table 1: Septic Design Flows

Establishment	Unit	# Units	L/day per unit	L/d
Production employees	8-hour shift	4	75	300
Tasting room	seat	20	125	2,500
Distillery operations	Distillery	1	500	500

Establishment	Unit	# Units	L/day per unit	L/d
Total Requirement				**3,300**

Flows from the distillery may not be treated using an on-site septic system approved under the Ontario Building Code and must be handled separately. The existing residence is already serviced by a septic bed and therefore is not included in the new septic sizing calculations.

3. Summarized Findings

3.1 Site Description

The property covers an area of 31.6 ha and is located at 705 Closson Road, Hillier, Ontario. The area is rolling terrain, with elevations ranging from 99 to 110 m above sea level (mASL). The northern and southern ends of the property are about 105 mASL. Near the centre of the property the elevation reaches a maximum of 110 mASL, and between this and the northern end of the property is a local low of 100 mASL. Generally, the area slopes down towards the southwest. Land use in the area is predominantly agricultural.

The property's land use is predominantly agricultural, with fields divided by hedgerows. A wooded area covers about 6.7 ha of the southern end of the property. The existing farm building, single-detached dwelling, shed, and barn (to be converted into a distillery) are located on the northwest end of the property, immediately south of Closson Road. The local major water bodies are Consecon Lake and Lake Ontario. The property is 2.6 km southeast of Consecon Lake and 5.7 km north of Wellington Beach (Lake Ontario). The site drainage is interpreted to be predominantly sheet flow to the south to existing grasses or vegetated areas. Municipal services are not provided with Hillier, and residences rely on private wells and septic systems.

3.2 Climate and Water Balance

The area is characterized by mild winters and relatively cool humid summers. Snow typically occurs during 5 months of the year from December to April. Precipitation is approximately 911 mm/a (Environment Canada, 2020) with an average annual evapotranspiration (ET) of roughly 500 mm/a based on the site location and the water holding capacity of the relatively shallow soils.

Mapping shows primarily thin surficial soils classified as thin soils over Paleozoic bedrock in the Surficial Geology of Southern Ontario (OGS, 2011). The infiltration factors for the area were calculated as per the Ontario Ministry of the Environment 1995 Hydrogeological Technical Information Requirements for Land Development Applications.

It is based on three sub-factors which are:

- Topography sub-factor;
- Soil sub-factor; and,
- Cover sub-factor.

The following table presents infiltration factors based on the details of the ground cover factors for the area under current conditions:

Table 2: Estimated Infiltration Factors

Site Characteristic	Infiltration Factor
Topography	
Flat Land	**0.3**
Rolling Land	0.2
Hilly Land	0.1
Soils	
Tight impervious clay	0.1
Medium combinations of clay and loam	**0.2**
Open Sandy loam	0.4
Cover	
Cultivated Land	**0.1**
Woodland	0.2
Sum of Infiltration Factors	**0.6**

Given an average annual moisture surplus (P-ET) of approximately 411 mm/a, and an infiltration factor of 0.6, we estimate an average infiltration of about 246 mm/a, or roughly 6,756 L/day per hectare for the purposes of nitrate loading calculations.

3.3 Geology

The surface physiography of the area has resulted primarily from glacial activity that took place during the Late Wisconsinan Substage of the Quaternary period (circa 23,000 to 10,000 BP). During this time, there were repeated advances and retreats of glacial ice lobes removing much of any pre-existing overburden and leaving the bedrock surface exposed or covered by only a thin mantle of unconsolidated sandy-loam textured material overlying Paleozoic bedrock (OGS, 2011).

The site is part of the Prince Edward Peninsula (Chapman and Putnam, 1984). The site is part of the Prince Edward Peninsula (Chapman and Putnam 1984). This region is separated from the mainland by the Bay of Quinte and is characterized by low relief and shallow soils. The geology consists of upper Middle Ordovician rocks that unconformably overlie Precambrian basement rocks of the Grenville Province. Overburden thickness is variable but generally thin and large portions of the County have less than 1 m of overburden.

The bedrock consists of limestones and shales laid down over older Precambrian-age rock beginning in the middle Ordovician (approximately 460 million years ago) as part of a continent-wide marine transgression. This transgression (a period of increasing sea levels) deposited, in order, the Shadow Lake, Gull River, Bobcaygeon, Verulam and Lindsay Formations (Armstrong and Carter, 2010). The Lindsay Formation is the uppermost bedrock unit beneath the subject site. It consists mainly of medium brown and grey, finely crystalline limestone, uniformly bedded with subequal thickness of pale to medium brown shale. These strata dip shallowly to the west.

The overburden geology is composed of unconsolidated deposits resulting primarily from glacial activity. The Soils Map of Prince Edward County, Ontario, Report No. 10, indicates that there four different soils on the property: Hillier clay loam, Darlington loam, muck, and bottom land.

The majority of the overburden on the property is identified as Hillier clay loam, which is identifiable as a stony surface soil with a reddish brown colour. Limestone fragments of 1 to 4 cm in size are commonly found in the upper 10 to 15 cm of the soil, with reddish brown to brown clay loam beneath. Darlingston

loam is found in the southern half of the site and is formed from limestone till. The soil is a dark bown loam with medium organic matter and frequent stones throughout its entire depth. Both Hillier clay loam and Darlington loam are noted as having good drianage and are well suited to dairy farming, gorwing alfalfa, clovers, and canning crops.

Muck is organic soil made up of smei-decomposed vegetative material that is typically less than a meter deep. Muck is not suited for agriculture and for this reason areas with muck are typically wooded, as is the case on the property. Bottom land is low laying areas indicicative of stream beds or areas of periodic flooding; the bottom land on the property marks one of the areas of low elevation disucssed in the site description. Bottom land can be sandy to clayey loam, and is an alluvial soil with a dark surface horizon. Bottom land is typically used for pasture instead of agriculture.

3.4 Hydrogeology

The fractured limestone bedrock forms the primary source of exploitable groundwater in the area. A search of the Ministry of Environment, Conservation and Parks (MECP) Well Record Database retuned twenty-one (21) wells within a 500 m radius of the site (See Drawing 1, appended). The records suggest the groundwater table in the area is encountered within the limestone bedrock at depths between 2.5 and 20 m, and that yields range from zero to more than 100 L/min. The subject lands are located outside any mapped WHPA.

A summary of water well records for the site and immediately surrounding lands is shown below:

Table 3: Summary of well depths and yields in the vicinity of the subject property

Well Number	Water Found (m)	Static Level (m)	Yield (L/min)	Overburden Depth (m)	Hole Depth (m)	Water Type	Aquifer
5301301	13.72	5.49	0.00	3.66	36.58	Fresh	Bedrock
5301302	10.67	6.10	7.57	1.83	24.38	Fresh	Bedrock
5301303	12.19	7.01	0.00	1.22	13.11	Fresh	Bedrock
5301304	15.24	6.40	22.71	1.22	18.29	Fresh	Bedrock
5301305	15.24	10.67	0.00	…	22.86	Fresh	Bedrock
5301306	15.24	13.72	0.00	1.52	24.38	Fresh	Bedrock
5302001	18.29	1.83	11.36	2.44	25.91	Fresh	Bedrock
5302389	18.29	1.83	11.36	PRDG	41.15	Fresh	Bedrock
5302919	12.80	1.83	30.28	1.22	13.72	Fresh	Bedrock
5303344	12.19	1.22	18.93	1.22	13.72	Fresh	Bedrock
5304798	19.66	5.18	3.79	0.61	28.35	Fresh	Bedrock
5305242	18.29	6.10	11.36	0.91	30.48	Fresh	Bedrock
5305701	4.57	2.13	113.56	3.66	13.11	Sulphur	Bedrock
5306829				1.52	8.53		
5307203	5.03	1.83	56.78	0.91	9.14		Bedrock
5307336							
5307432		29.50		2.40	6.40		Bedrock
7051125	2.50		45.00	0.30	3.90	Fresh	Bedrock
7054157	3.00		14.00	0.30	6.50	Fresh	Bedrock

Well Number	Water Found (m)	Static Level (m)	Yield (L/min)	Overburden Depth (m)	Hole Depth (m)	Water Type	Aquifer
7357169	11.89	5.49	11.36	0.61	21.64	Untested	Bedrock

NOTES:
PRDG – Previously dug or bored

Individual well records are provided with this report as Appendix A.

Based on the recorded static levels and the topographic setting, the dominant groundwater flow direction is predicted to be in a west-northwesterly to northwesterly direction ultimately discharging into Consecon Lake. At the north end of the site there is the possibility of groundwater flowing in a southernly to southeasterly direction (Drawing 1).

4. Discussion

4.1 Water Availability

A 7-hour pumping test was completed on the blasted well on June 16, 2021. This well was pumped at an average rate of 30±0.5 L/min for 6.7 hours (for a total quantity of 13,918 L)[1]. During the first 4.5 hours, the well was pumped at 18/22 L/min with a total 0.13 m of drawdown. The pumping rate was then increased to approximately 60 L/min (the maximum rate achievable from the pump used for the testing) with little change in the drawdown rate. Total drawdown was 0.35 m. Due to the programming error of the dataloggers there was no recovery data collected immediately after the termination of the pumping but the levels had returned to static by midnight of June 16th (i.e. about 6 hours after the termination of the test). when the loggers were recovered the following day. Based on the results of the pumping test the available yield of the well is considered sufficient to meet anticipated distillery-related water requirements without the need for storage.

4.2 Water Quality

A groundwater sample was obtained from the tested well during the last hour of pumping. The results show the water is relatively good quality with respect to Ontario Drinking Water Standards (ODWS). The water was found to be moderately hard at 356 mg/L as $CaCO_3$, though the rest of the parameters tested are within the objectives established through ODWS. Moderately hard water can impact equipment that is used to treat, disinfect, and distribute water. Laboratory certificates of Analysis are included in Appendix D and summarized in Table 4.

[1] MECP Guideline D-5-5 calls for extended duration when a well is tested at less than 13.7 L/min however the tested well is a flowing artesian well which mimics an extended duration pumping. For this reason, we are comfortable drawing conclusions based on our six-hour test.

Table 4: Test Well – Water Quality Summary

Parameter	Units	ODWS	A289467
Alkalinity(CaCO3) to pH4.5	mg/L	30-500 (OG)	285
pH @25°C	pH Units	6.5-8.5 (OG)	7.88
Conductivity @25°C	µmho/cm	…	658
Fluoride	mg/L	1.5 (MAC)	< 0.1
Chloride	mg/L	250 (AO)	18.7
Nitrite (N)	mg/L	1 (MAC)	< 0.1
Nitrate (N)	mg/L	10 (MAC)	0.6
Sulphate	mg/L	500 (AO)	29
Total Suspended Solids	mg/L	…	<3
TDS (Calc. from Cond.)	mg/L	500 (AO)	342
Dissolved Organic Carbon	mg/L	5 (AO)	2.8
Hardness (as CaCO3)	mg/L	80-100 (OG)	356
Calcium	mg/L	…	112
Iron	mg/L	0.3 (AO)	<0.005
Magnesium	mg/L	…	18.4
Manganese	mg/L	0.05 (AO)	0.013
Potassium	mg/L	…	4.8
Sodium	mg/L	200 (AO)	11.3

NOTES:
ODWS – Ontario Drinking Water Quality Standards from the Ontario Safe Drinking Water Act, 2002
MAC – Maximum Acceptable Concentration (health-related)
AO – Aesthetic chemical/physical Objectives (not health-related)
OG – Operational guidelines (not health-related, impacts equipment)

Bacteria was not tested for in the samples collected as the property owner had, prior to the pumping test, received a clean test result. The results of the bacterial testing can be found in Appendix D.

Water for a tasting bar would be classified as a small drinking water system under O. Reg. 319/08 and treatment equipment must be capable of achieving, at all times, primary disinfection including at least 99 per cent removal or inactivation of Cryptosporidium oocysts, at least 99.9 per cent removal or inactivation of Giardia cysts and at least 99.99 per cent removal or inactivation of viruses by the time water enters the distribution system. The necessary treatment may be achieved in accordance with the Procedure for Disinfection of Drinking Water in Ontario using a combination of membrane filtration, ultraviolet disinfection and chlorine injection. This level of treatment is achievable using “off-the-shelf” equipment readily available in Ontario.

4.3 Potential for Well Interference

No observable drawdown attributable to the test pumping was noted in the two neighbouring wells. Given the small total drawdown, the potential for measurable off-site impacts is considered low.

The radius of influence (r, metres) between a pumped well and the neighbouring properties may be estimated using the estimated value for Q (i.e., the average amount pumped per day in litres) and the average recharge (R, mm per year) to the aquifer according to:

$$Q = \frac{R\pi r^2}{365}$$

This calculation yields zone of influence distances of approximately 40 m based on pumping at a rate of 3,300 L/day over the course of a year. This distance is less than the distance to the nearest offsite wells.

4.4 Onsite Sewage Treatment

The fine-grained soils across the site make the use of raised filter bed systems a more practical alternative than conventional in-ground tile beds. Representative total daily design sanitary sewage flows were estimated using the Ontario Building Code (OBC) Table 8.2.1.3.A. Given a daily sewage flow of 2,800 L from the tasting room and production facility (this does not include the flows from the distilling process itself), an appropriately sized filter bed and mantle covering an area of about 525 m^2 is required. The use of tertiary treatment systems would reduce the length of tile required for the tile beds but would not affect the overall size of the system which is governed by the hydraulic loading. Based on the site soils, the loading rate should not exceed 6 L/m^2.

Daily sewage flows from the distilling process are estimated to be roughly 500 L/day. Any distillery-related process wastewater would not be considered to be “domestic type sewage” and would normally be handled as a Non-Agricultural Source Material (NASM). This water may be land-applied under Ontario Regulation 267/03.

4.4 Environmental Impact from Onsite Sewage Treatment

Environmental impacts to groundwater from private sewage works are typically assessed under the MECP’s Guideline entitled “Technical Guideline for Individual On-site Sewage Systems: Water Quality Impact Risk Assessment”, dated August 1996 (Guideline D-5-4). Where proposed lot sizes are less than one hectare, it is necessary to assess the potential risk of sewage disposal systems to groundwater. In this case the property is of sufficient size that there is no concern of sewage influencing downgradient wells and the site conditions are considered suitable for the construction of private septic systems. Such systems must be constructed in accordance with Section 8 of the Ontario Building Code and must meet the following setback distances:

Table 5: Minimum Clearances for Distribution Piping

Object	Minimum Setback (m)
Structure	5
Well with a watertight casing to a depth of 6 m	15
Any other well	30
Pond	15
Stream	15
Property Line	3

5. Summary

The purpose of the work was to determine soil and groundwater conditions at the site and to demonstrate that the proposed distillery operation can be serviced with groundwater and private

sewage treatment/disposal systems in accordance with Provincial standards without affecting surrounding private water sources.

Our assessment found the following:

1. Servicing using a private groundwater well for water supply and septic system for sewage treatment/disposal is appropriate as there are no municipal services present or likely in the foreseeable future.
2. Well A289467 is able to produce an adequate amount of water to meet the requirements of the distillery operation.
3. Water quality is acceptable for the intended tasting bar. Water treatment to a level equivalent to surface water is required and additional treatment may be required depending on specialized distillery process water requirements.
4. Well interference is not anticipated to be a concern based on the results of this assessment.
5. The property is large enough to accommodate an individual Class 4 septic system while maintaining regulatory setbacks from structures and property lines.

All of which is respectfully submitted.

THE GREER GALLOWAY GROUP INC.
CONSULTING ENGINEERS

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29/07/21
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5. References

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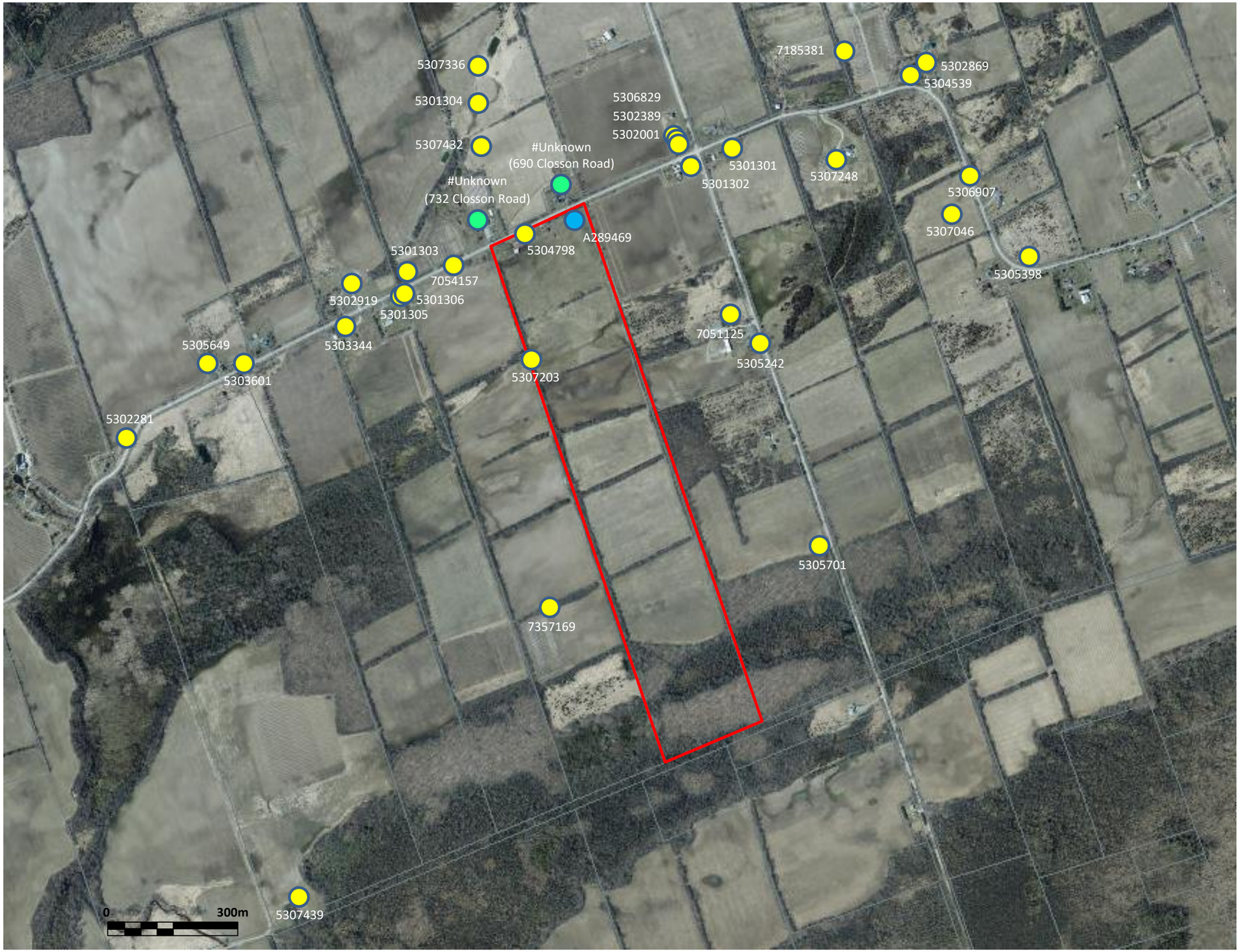

Scale as shown

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NOTES:

1) Base drawing and information: obtained from the Ontario Ministry of Natural Resources and Forestry (MNRF); "Make a Map" Natural Heritage Areas; https://www.gisapplication.lrc.gov.on.ca/, accessed April 2021

LEGEND:

Property boundary

5302104 MECP Water Well Location (as per MECP database)

Test Well Location

Observation Well Location

PROJECT 2138425:

SERVICING STUDY
BARE BONES DISTILLERY, 705 CLOSSON ROAD
PRINCE EDWARD COUNTY, ONTARIO

DRAWING 1:

SITE PLAN SHOWING WATER WELL RECORDS AND INTERPRETED GROUNDWATER FLOW DIRECTION

Appendix A

MECP Well Records

Ontario Ministry of the Environment, Conservation and Parks

Measurements recorded in: ☑ Metric ☐ Imperial

Well Tag No. (Place Sticker and/or Print Below) Tag#:A289467

Well Record

Regulation 903 Ontario Water Resources Act

Page ____ of ____

Well Owner's Information

First Name	Last Name/Organization	E-mail Address	☐ Well Constructed by Well Owner
JASON	CLARKE	clarke_je@yahoo.com	

Mailing Address (Street Number/Name)	Municipality	Province	Postal Code	Telephone No. (inc. area code)
705 CLOSSON RD	HILLIER	ON	K0K2J0	6475343115

Well Location

Address of Well Location (Street Number/Name)	Township	Lot	Concession
705 CLOSSON RD	HILLIER	PT LOT 7	3

County/District/Municipality	City/Town/Village	Province	Postal Code
PRINCE EDWARD COUNTY	HILLIER	Ontario	K0K2J0

UTM Coordinates NAD 83	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
	18	307877	4874428		

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
BLACK	TOPSOIL			0	.3
BROWN	CLAY			.3	1
GREY	LIMESTONE			1	6.68

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0	2.5	CLAY	20

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	Depth (m/ft) To
90	CONCRETE	7.6	0	6.68

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 ☐ Other, specify

Construction Record - Screen

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

Water Details

Water found at Depth (m/ft)	Kind of Water	
3	☑ Fresh ☐ Untested ☐ Gas ☐ Other, specify	
	☐ Fresh ☐ Untested ☐ Gas ☐ Other, specify	
	☐ Fresh ☐ Untested ☐ Gas ☐ Other, specify	

Hole Diameter

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

Results of Well Yield Testing

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

If pumping discontinued, give reason:

Pump intake set at (m/ft): 6.68

Pumping rate (l/min / GPM): 675

Duration of pumping: ____ hrs + 21 min

Final water level end of pumping (m/ft): 5.77

If flowing give rate (l/min/GPM):

Recommended pump depth (m/ft): 6.68

Recommended pump rate (l/min/GPM):

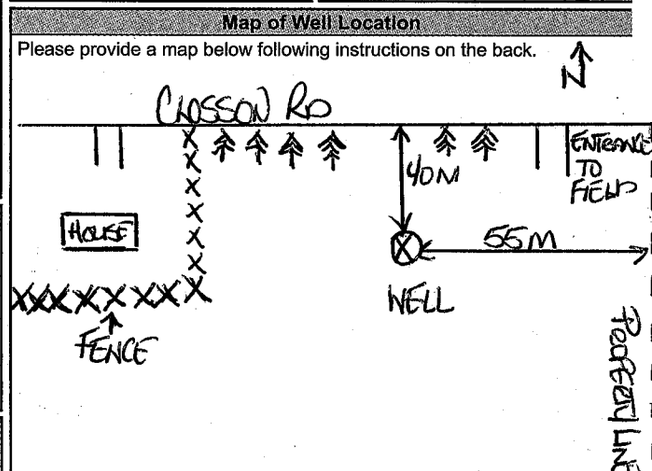
Well production (l/min/GPM): 39

Disinfected? ☑ Yes ☐ No

Draw Down Time (min)	Water Level (m/ft)	Recovery Time (min)	Water Level (m/ft)
Static Level	4.66		5.77
1		1	
2	DUG WELL		
3	RESERVE=3150GAL		
4	RECOVERY=9GPM		
5		5	
10		10	
15		15	
20	5.77	20	
25		25	
30		30	
40		40	
50		50	
60		60	5.61

Map of Well Location

Please provide a map below following instructions on the back.



Comments:

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
FRANKS DRILLING & BLASTING LTD	6881

Business Address (Street Number/Name)	Municipality
P.O. BOX 100	NEWBURGH

Province	Postal Code	Business E-mail Address
ON	K0K2S0	info@fdbltd.com

Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)
613 378 2178	FORR, GREG

Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
2603		2020/11/17

Well owner's information package delivered	Date Package Delivered	Date Work Completed
☑ Yes ☐ No	2020/11/17	2020/11/03

Ministry Use Only

Audit No. Z349539

Received

Ministry's Copy

UTM | | Z | | | | | | | E

| 9 | R | | | | | | | N

Elev. | 9 | R | 0 | 3 | 6 | 0 |

Co. 111

Basin | 2 | 4 | | | |

ONTARIO

The Water-well Drillers Act, 1954

Department of Mines

53 NW 1301

Water-Well Record

County or Territorial District: PRINCE EDWD. Township, Village, Town or City: HILLIER

[redacted] Village, Town or City)

[redacted] ddress: HILLIER

[redacted] (day) (month) (year)

Pipe and Casing Record

Casing diameter(s): 6 1/4"

Length(s): 13'

Type of screen: NONE

Length of screen:

Pumping Test

Static level: 18

Pumping rate: 30 GPH

Pumping level: EMPTY

Duration of test: 1HR

Well Log / Water Record

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	No. of feet water rises	Kind of water (fresh, salty, or sulphur)
CLAY & GRAVEL	0	12			
GREY LIMESTONE	12	120	45	27	FRESH

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

Is water clear or cloudy? CLEAR

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

Drilling firm: L. HACKLEMAN

Address: WELLINGTON

Name of Driller: L. HACKLEMAN

Address:

Licence Number: 545

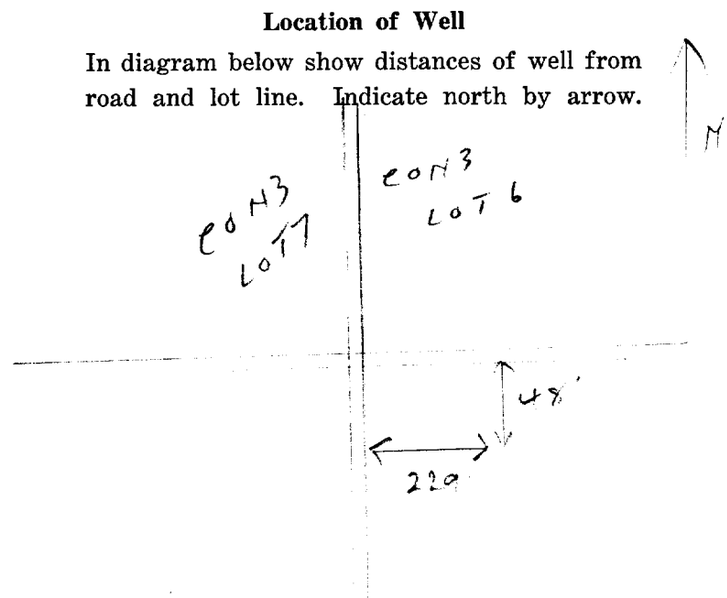
I certify that the foregoing statements of fact are true.

Date: MARCH 5/58 L. H. McClumon

Signature of Licensee

Location of Well

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



Form 5

UTM | | Z | | | | | | | E
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Elev. | 4 | R | 0 3 6 0 |
Basin | 2 4 | | | |

The Ontario Water Resources Commission Act, 1957

53 No. 1302
FEB 9 1960
WATER RESOURCES COMMISSION

WATER WELL RECORD

County ~~or District~~ Prince Edward Township, [redacted] Hillier

[redacted] completed 26 (day) Nov. (month) 1959 (year)

[redacted] ess Hillier R.R.1

Casing and Screen Record

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

Pumping Test

Static level 20'
Test-pumping rate 5 G.P.M.
Pumping level Empty
Duration of test pumping 1 hr
Water clear or cloudy at end of test Clear
Recommended pumping rate 2 G.P.M.
with pumping level of 36'

Well Log

Overburden and Bedrock Record	From ft.	To ft.
Clay gravel	0	6
grey limestone	6	80'

Water Record

Depth(s) at which water(s) found	No. of feet water rises	Kind of water (fresh, salty, sulphur)
35'	15'	fresh

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

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

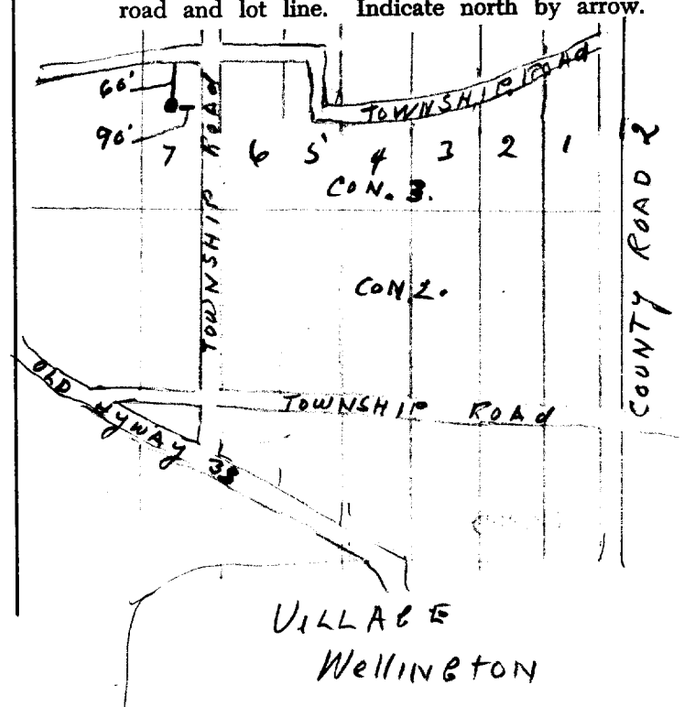
Drilling Firm L.H. McClennon
Address Wellington Ont

Licence Number 10
Name of Driller Wm Blackman
Address Wellington Ont
Date Jan 7 1960

L H McClennon
(Signature of Licensed Drilling Contractor)

Location of Well

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



20

UTM | | Z | | | | | | | | E

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Elev. | 9 | R | 0 | 3 | 3 | 5 |

Basin | 2 | 4 | | | | |

Conc - III

Lot - 8

ONTARIO

The Well Drillers Act

Department of Mines, Province of Ontario

53 № 1303

RECEIVED
DEC 20 1950
GEOLOGICAL BRANCH
DEPARTMENT OF MINES

Water Well Record

(8) Prince Edward [redacted], ~~Village, Town or City~~ Hillier

[redacted] Town or City) Hillier R.R.1

[redacted] Hillier

Date Completed 30 (day) Aug (month) 1950 (year) Cost of Well (excluding pump)

Pipe and Casing Record	Pumping Test
Casing diameter(s) 6 in	Date Aug 30/50
Length(s) of casing(s) 10 ft	Static level ~~27 ft~~ 23'
Type of screen	Pumping level dry
Length of screen	Pumping rate 20 gal per hour
Distance from top of screen to ground level	Duration of test
Is well a gravel-wall type?	Distance from cylinder or bowls to ground level

Water Record

Kind (fresh or mineral) fresh

Quality (hard, soft, contains iron, sulphur, etc.) Hard

Appearance (clear, cloudy, coloured) Clear

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

How far is well from possible source of contamination? 20 ft

What is the source of contamination? Toilet

Enclose a copy of any mineral analysis that has been made of water

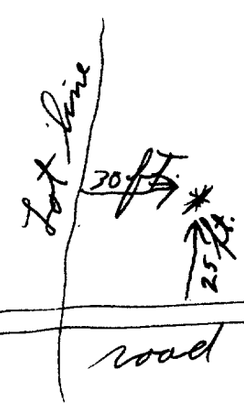
Depth(s) to Water Horizon(s)	Kind of Water	No. of Feet Water Rises
40 ft	Hard	20 ft

Well Log

Overburden and Bedrock Record	From	To
Soil	0 ft.	4 ft.
Lime lime (19)	4	43

Location of Well

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



Situation: Is well on upland, in valley, or on hillside? Valley

Drilling Firm L.B. Macdonald

Address Verona

Name of Driller K.L. McIlroy Address Verona Ont

Date Aug 30/50 Licence Number [redacted] 268

K.L. McIlroy
Signature of Licensee

FORM 5

53 No 1304
WATER RESOURCES DIVISION
OCT 28 19
ONTARIO WATER RESOURCES COMMISSION

UTM | | |Z | | | | | | | |E

|15|R | | | | | | | | |N
Con III

Elev. |5|R |8|3|40|
Lot 8

Basin |24| | |

The Ontario Water Resources Commission Act

WATER WELL RECORD

County ~~or District~~ Prince Edward
Township, ~~Village, Town or City~~ Hillier

Con. 3 Lot 8
Date completed August 25, 1964 (day month year)

[redacted]ress RR#1, Hillier, Ont.

Casing and Screen Record

Inside diameter of casing 8''
Total length of casing 4'
Type of screen
Length of screen
Depth to top of screen
Diameter of finished hole 8''

Pumping Test

Static level 21 ft.
Test-pumping rate 10 G.P.M.
Pumping level 36
Duration of test pumping 1 hr.
Water clear or cloudy at end of test clear
Recommended pumping rate 6 G.P.M.
with pump setting of 57 feet below ground surface

Well Log

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
clay gravel	0	4	50 ft.	fresh
grey limestone	4	60		

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

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

Drilling or Boring Firm L.H.McClennon & Son

Address Wellington, Ont.

Licence Number 1329

Name of Driller or Borer L.H.McClennon

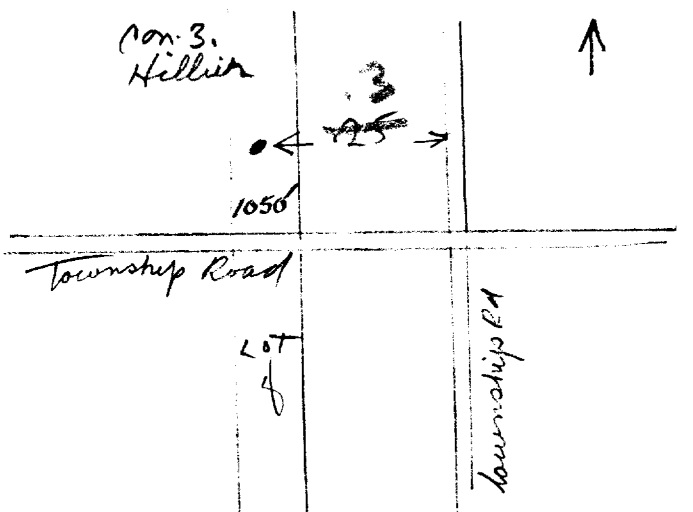
Address Wellington, Ont.

Date August 29, 1964

L.H. McClennon
(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.



Form 7 15M-60-4138

OWRC COPY

UTM | | Z | | | | | | | E
| 9 | R | | | | | | | N

Elev. | 9 | R | 0 | 3 | 3 | 5 |

Basin | 2 | 4 | | | |

ONTARIO

The Well Drillers Act
Department of Mines, Province of Ontario

Water Well Record

[redacted], ~~Village, Town or City~~ Hillier Township
[redacted]wn or City) Hillier R.R.1
[redacted] Owner
Date Completed 10 (day) July (month) 1952 (year). Cost of Well (excluding pump) $75.

Pipe and Casing Record

Casing diameter(s) 6"
Length(s) of casing(s) —
Type of screen
Length of screen
Distance from top of screen to ground level
Is well a gravel-wall type?

Pumping Test

Date
Static level 35' was reduced to 50
Pumping level pump chug
Pumping rate 75 est. 500 g.p.d. in a day
Duration of test 6
Distance from cylinder or bowls to ground level

Water Record

Kind (fresh or mineral) fresh
Quality (hard, soft, contains iron, sulphur, etc.) Medium hard
Appearance (clear, cloudy, coloured) Clear
For what purpose(s) is the water to be used? Stock

How far is well from possible source of contamination?
What is the source of contamination?
Enclose a copy of any mineral analysis that has been made of water

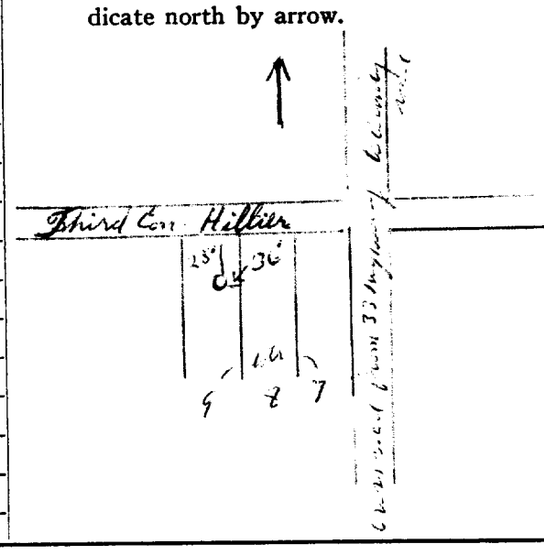
Depth(s) to Water Horizon(s)	Kind of Water	No. of Feet Water Rises
~~35~~	med hard	~~[illegible]~~ est
50		15

Well Log

Overburden and Bedrock Record	From	To
Old well	0 ft.	50 ft.
Limestone	50	75'

Location of Well

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



Situation: Is well on upland, in valley, or on hillside? level ground
Drilling Firm Leonard McClennan
Address Wallenstein
Name of Driller Leonard McClennan Address Wallenstein Ont.
Date May 7 1953 Licence Number
Leonard McClennan
Signature of Licensee

FORM 5

UTM | | Z | | | | | | | E
| 9 | R | | | | | | | | N

Elev. | 9 | R | 0 | 3 | 3 | 5

Basin | 2 | 4 |

ONTARIO

RECEIVED
JAN - 8 1954
GEOLOGICAL BRANCH
DEPARTMENT of MINES

53 № 1306

The Well Drillers Act
Department of Mines, Province of Ontario

Water Well Record

[redacted], ~~Village, Town or City~~ Township Hillier
[redacted] town or City) Hillier Ont
[redacted]
Date Completed 23 (day) Oct. (month) 1953 (year) Cost of Well (excluding pump) $250.00

Pipe and Casing Record

Casing diameter(s) 6"
Length(s) of casing(s) 5'
Type of screen
Length of screen
Distance from top of screen to ground level
Is well a gravel-wall type?

Pumping Test

Date
Static level 45'
Pumping level This well will deliver about 75 gallons in 24 hrs. Pump dry
Pumping rate
Duration of test 24 hrs.
Distance from cylinder or bowls to ground level

Water Record

Kind (fresh or mineral) fresh
Quality (hard, soft, contains iron, sulphur, etc.) mud Hard
Appearance (clear, cloudy, coloured) clear
For what purpose(s) is the water to be used? Stock

How far is well from possible source of contamination? 70'
What is the source of contamination? barn yard
Enclose a copy of any mineral analysis that has been made of water

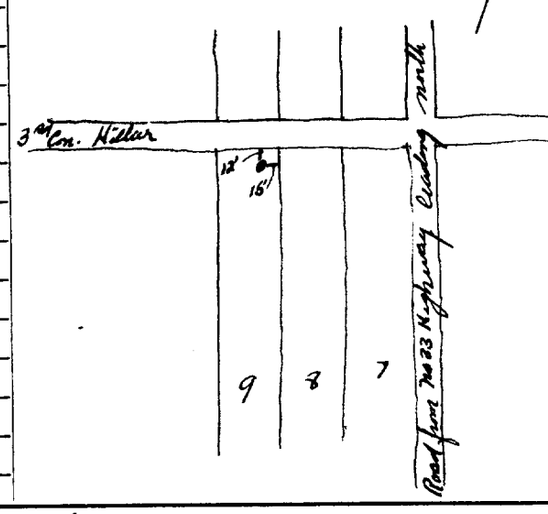
Depth(s) to Water Horizon(s)	Kind of Water	No. of Feet Water Rises
50'		5'

Well Log

Overburden and Bedrock Record	From	To
Clay & shale	0 ft.	5 ft.
limestone	5	80'

Location of Well

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



Situation: Is well on upland, in valley, or on hillside? level ground
Drilling Firm Leonard McClemmon
Address Wellington
Name of Driller Leonard McClemmon Address Wellington Ont
Date Jan. 4 1954 Licence Number 546
Leonard McClemmon
Signature of Licensee

FORM 5

UTM 18 Z 308120 E
CODED
18 R 4827320 N
Elev. 38 0188
Basin 29

Con III
Lot 7

5302001

DIVISION OF WATER RESOURCES
JAN 31 1969
ONTARIO WATER RESOURCES COMMISSION

The Ontario Water Resources Commission Act

WATER WELL RECORD

County or District: Prince Edward
Township, ~~Village, Town or City~~: Hillier
Con. 3 Lot 7
Date completed: Dec 11, 1968 (day month year)
[redacted]ress: RR#1, Hillier, Ont.

Casing and Screen Record

Inside diameter of casing: 8"
Total length of casing: 9 ft.
Type of screen:
Length of screen:
Depth to top of screen:
Diameter of finished hole: 8"

Pumping Test

Static level: 6 ft.
Test-pumping rate: 10 G.P.M.
Pumping level: empty
Duration of test pumping: 1 hr.
Water clear or cloudy at end of test: clear
Recommended pumping rate: 3 G.P.M.
with pump setting of: 82 feet below ground surface

Well Log

Overburden and Bedrock Record	From ft.	To ft.	Water Record: Depth(s) at which water(s) found	Water Record: Kind of water (fresh, salty, sulphur)
clay gravel	0	8		
grey limestone	8	85	60 ft.	fresh

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

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

Drilling or Boring Firm: L.H. McClennon & Son

Address: Wellington, Ont.

Licence Number: 2919

Name of Driller or Borer: Howard Everall

Address: Bloomfield, Ont.

Date: Dec 30, 1968

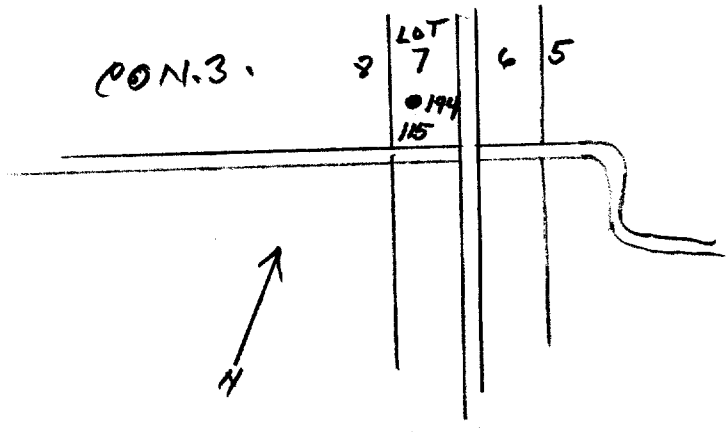
L.H. McClennon
(Signature of Licensed Drilling or Boring Contractor)

Form 7 15M-60-4138

OWRC COPY

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

30N/14E

WATER WELL RECORD

Water management in Ontario

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

11 | 5302389 | MUNICIP. 53004 | CON. CON | 03

COUNTY ~~OR DISTRICT~~: PRINCE EDWARD | TOWNSHIP, ~~BOROUGH, CITY, TOWN, VILLAGE~~: Hillier | CON., ~~BLOCK, TRACT, SURVEY, ETC.~~: 3 | LOT: 007

[redacted] Hillier R.R.1.

DATE COMPLETED: DAY 12 MO. 11 YR. 71

[redacted] 74400 | RC. 4 | ELEVATION 0362 | RC. 5 | BASIN CODE 24

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH – FEET FROM	DEPTH – FEET TO
	PREVIOUS DRILLED WELL				85
GREY	LIMESTONE			85	135

31: 0085 24 | 0135 2/15

32:

41 WATER RECORD

WATER FOUND AT – FEET	KIND OF WATER
0060	1 ☒ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH – FEET FROM	DEPTH – FEET TO
08	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE			0135
~~8~~	~~1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE~~		~~85~~	~~135~~
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

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 FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)

71 PUMPING TEST

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 ☐ PUMP 2 ☒ BAILER	0020 GPM.	00 HOURS 30 MINS.

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING (1 ☐ PUMPING 2 ☒ RECOVERY) 15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
006 FEET	135 FEET	105 FEET	075 FEET	050 FEET	025 FEET

IF FLOWING, GIVE RATE: GPM.

PUMP INTAKE SET AT: FEET

WATER AT END OF TEST: 1 ☒ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE: ☐ SHALLOW ☒ DEEP

RECOMMENDED PUMP SETTING: 132 FEET

RECOMMENDED PUMPING RATE: 0003 GPM.

50-53: 000.2 GPM./FT. SPECIFIC CAPACITY

LOCATION OF WELL

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

N

DRILLERS REMARKS:

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

WATER USE 12: 1 ☒ DOMESTIC 2 ☒ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL ☐ OTHER 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING 9 ☐ NOT USED

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

CONTRACTOR

NAME OF WELL CONTRACTOR: L H McClemon & son | LICENCE NUMBER: 35-16

ADDRESS: Wellington Ont

NAME OF DRILLER OR BORER: Howard Everall | LICENCE NUMBER:

SIGNATURE OF CONTRACTOR: L H McClemon | SUBMISSION DATE: DAY ___ MO. ___ YR. ___

OFFICE USE ONLY

DATA SOURCE: 1 | CONTRACTOR: 3516 | DATE RECEIVED: 280172

DATE OF INSPECTION | INSPECTOR

REMARKS:

P | WI

OWRC COPY

MINISTRY OF THE ENVIRONMENT
The Ontario Water Resources Act

WATER WELL RECORD

30N/14E

Ontario

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

11 | 5302919 | MUNICIP. 53004 | CON. CON 03

COUNTY ~~OR DISTRICT~~	TOWNSHIP, ~~BOROUGH, CITY, TOWN, VILLAGE~~	CON., BLOCK, TRACT, SURVEY, ETC.	LOT
[redacted]	Hillier	3	009

[redacted] #1 HILLIER ONT.

DATE COMPLETED: DAY 30 MO. 04 YR. 74

G	RC.	ELEVATION	RC.	BASIN CODE	II	III	IV
5302919 18 307321	3874075	4	340	4	24	MAR 03, 1977	263

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
Brown	clay	& gravel	packed	0	4
Grey	limestone		layered	4	45

31 | 0004460511 | 0045215

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
0042 (10-13)	1 ☑ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL (14)
(15-18)	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL (19)
(20-23)	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL (24)
(25-28)	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL (29)
(30-33)	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL (34)

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
08" (10-11)	1 ☑ STEEL (12) 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	.188	0	0010 (13-16)
08" (17-18)	1 ☐ STEEL (19) 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☑ OPEN HOLE		10	~~45~~ 0045 (20-23) (27-30)
(24-25)	1 ☐ STEEL (26) 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

SCREEN

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

61 PLUGGING & SEALING RECORD

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

71 PUMPING TEST

PUMPING TEST METHOD (10)	PUMPING RATE (11-14)	DURATION OF PUMPING
1 ☒ PUMP 2 ☐ BAILER	0008 GPM.	01 (15-16) HOURS 00 (17-18) MINS

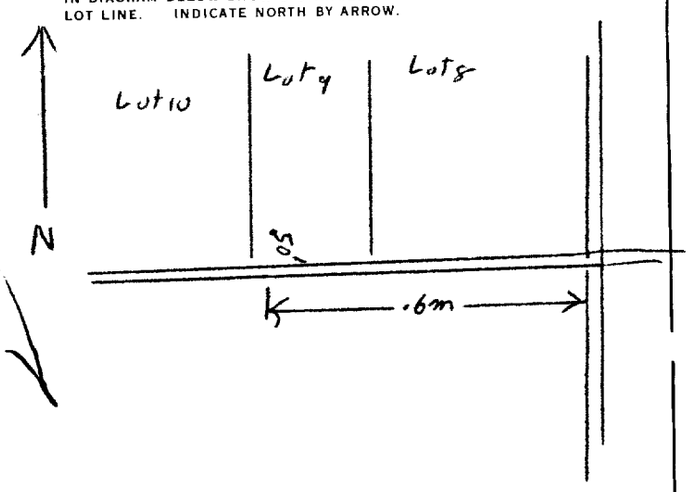
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING (25) 1 ☐ PUMPING 2 ☑ RECOVERY			
		15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
006 6' (19-21) FEET	045 (22-24) FEET	010 (26-28) FEET	006 (29-31) FEET	006 (32-34) FEET	006 (35-37) FEET

IF FLOWING, GIVE RATE (38-41) GPM	PUMP INTAKE SET AT FEET	WATER AT END OF TEST (42) 1 ☑ CLEAR 2 ☐ CLOUDY
RECOMMENDED PUMP TYPE ☐ SHALLOW ☑ DEEP	RECOMMENDED PUMP SETTING 042 ~~12~~ (43-45) FEET	RECOMMENDED PUMPING RATE 0008 (46-49) GPM

(50-53) ——.—— GPM./FT. SPECIFIC CAPACITY

LOCATION OF WELL 0774

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



DRILLERS REMARKS:

FINAL STATUS OF WELL (54) 1
1 ☑ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 5 ☐ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED, POOR QUALITY 7 ☐ UNFINISHED

WATER USE (55-56) 12
1 ☑ DOMESTIC 2 ☑ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL ☐ OTHER 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING 9 ☐ NOT USED

METHOD OF DRILLING (57) 4
1 ☐ CABLE TOOL 2 ☐ ROTARY (CONVENTIONAL) 3 ☐ ROTARY (REVERSE) 4 ☑ ROTARY (AIR) 5 ☐ AIR PERCUSSION 6 ☐ BORING 7 ☐ DIAMOND 8 ☐ JETTING 9 ☐ DRIVING

CONTRACTOR

NAME OF WELL CONTRACTOR: McClennon Drilling Ltd — LICENCE NUMBER: 3516
ADDRESS: Wellington Ont
NAME OF DRILLER OR BORER: Ken McClennon — LICENCE NUMBER:
SIGNATURE OF CONTRACTOR: Kenneth W McClennon — SUBMISSION DATE: DAY ____ MO. ____ YR. ____

OFFICE USE ONLY

DATA SOURCE (58) 1 | CONTRACTOR (59-62) 3516 | DATE RECEIVED (63-68) 230175 | (80)
DATE OF INSPECTION | INSPECTOR
REMARKS:
P
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FORM 7 07-091

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The Ontario Water Resources Act

WATER WELL RECORD

30N/14e

Ontario

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11 | 5303344 | MUNICIP 53004 | CON. CON 03

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON. BLOCK, TRACT, SURVEY, ETC.	LOT
[redacted]	HILLIER	3	909

DATE COMPLETED: DAY 12 MO 04 YR 76

[redacted] HILLIER R.R.1.

UTM 73980 | RC 4 | ELEVATION 0328 | RC 4 | BASIN CODE 24

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	TO
BROWN	TOPSOIL			0	5
				5	45
GREY	LIMESTONE				

31 0005602 0045215

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
0040	1 ☒ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☒ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	TO
08	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	188	0	10
				0010
				0045
08	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE		10	45
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

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 FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)

71 PUMPING TEST

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 ☒ PUMP AIR 2 ☐ BAILER	0006 GPM	01 HOURS 00 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING (1 ☐ PUMPING 2 ☒ RECOVERY) 15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
004' FEET	045 FEET	015 FEET	005 FEET	004 FEET	004 FEET

IF FLOWING, GIVE RATE: / GPM

PUMP INTAKE SET AT: FEET

WATER AT END OF TEST: 1 ☒ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE: ☐ SHALLOW ☒ DEEP

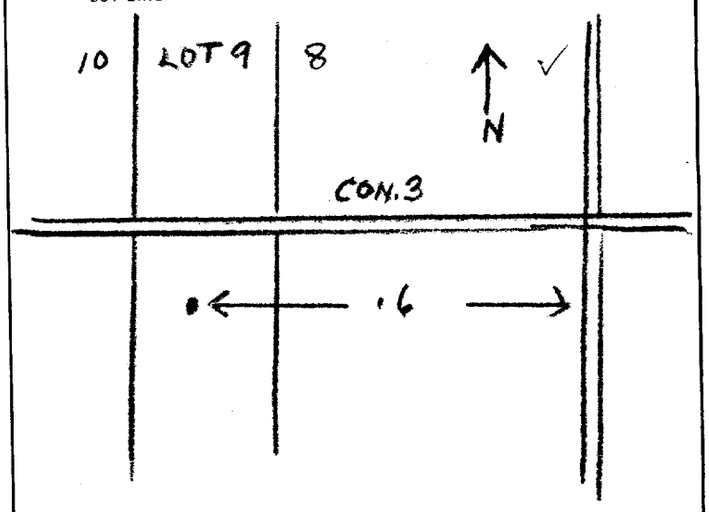
RECOMMENDED PUMP SETTING: 042 FEET

RECOMMENDED PUMPING RATE: 0005 GPM

50-53 ___.___ GPM./FT. SPECIFIC CAPACITY

LOCATION OF WELL 0773

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



DRILLERS REMARKS:

FINAL STATUS OF WELL 54: 1 ☒ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 5 ☐ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED, POOR QUALITY 7 ☐ UNFINISHED

WATER USE 55-56 / 2: 1 ☒ DOMESTIC 2 ☒ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL ☐ OTHER 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING 9 ☐ NOT USED

METHOD OF DRILLING 57 / 4: 1 ☐ CABLE TOOL 2 ☐ ROTARY (CONVENTIONAL) 3 ☐ ROTARY (REVERSE) 4 ☒ ROTARY (AIR) 5 ☐ AIR PERCUSSION 6 ☐ BORING 7 ☐ DIAMOND 8 ☐ JETTING 9 ☐ DRIVING

CONTRACTOR

NAME OF WELL CONTRACTOR: McCLENNON DRILLING LTD — LICENCE NUMBER: 3516

ADDRESS: WELLINGTON ONT

NAME OF DRILLER OR BORER: Ken McClennon — LICENCE NUMBER:

SIGNATURE OF CONTRACTOR: L H McClennon — SUBMISSION DATE: DAY ___ MO. ___ YR. ___

OFFICE USE ONLY

DATA SOURCE 58: 1 — CONTRACTOR 59-62: 3516 — DATE RECEIVED 63-68: 091276 — 80

DATE OF INSPECTION: — INSPECTOR:

REMARKS:

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Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

5304798

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COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC	LOT
[redacted]	Hillier	III	8
	R. R. # 1, Hillier, Ontario		DATE COMPLETED: DAY 30 MO 10 YR 87

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
Brown	Topsoil		Loose	0	1
Brown	Clay	Shale	Packed	1	2
Grey	Shale		Loose	2	3
Grey	Limestone		Hard	3	93

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
45	1 ☒ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
84	1 ☒ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6¼	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC	.188	0	22
6¼	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE 5 ☐ PLASTIC		22	93
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC			

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 FROM	DEPTH SET AT - FEET TO	MATERIAL AND TYPE (CEMENT GROUT LEAD PACKER, ETC.)

71 PUMPING TEST

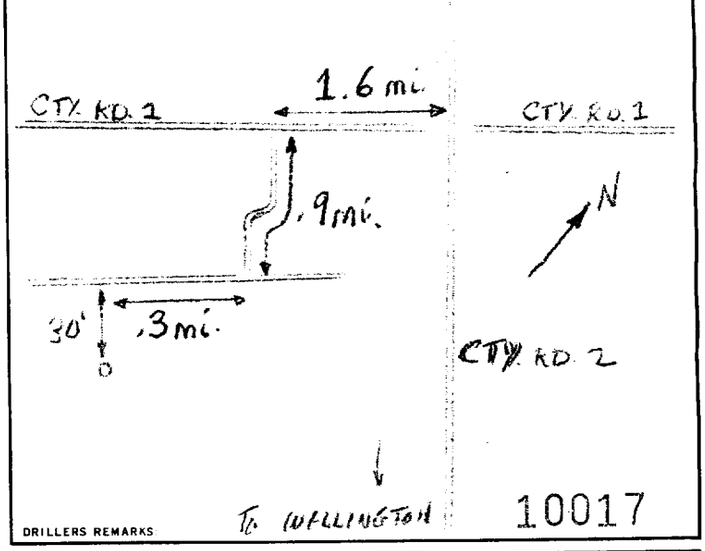
PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 ☐ PUMP 2 ☐ BAILER air	1 GPM	1 HOURS 30 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING (1 ☐ PUMPING 2 ☒ RECOVERY) 15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
17 FEET	93 FEET	80 FEET	70 FEET	61 FEET	52 FEET

IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
GPM	FEET	1 ☒ CLEAR 2 ☐ CLOUDY
RECOMMENDED PUMP TYPE: ☐ SHALLOW ☒ DEEP	RECOMMENDED PUMP SETTING 90 FEET	RECOMMENDED PUMPING RATE 1 GPM

LOCATION OF WELL

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



DRILLERS REMARKS: 10017

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 ☐ 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 ☐ DIGGING ☐ OTHER

CONTRACTOR

NAME OF WELL CONTRACTOR: CHALK WELL DRILLING LTD.	WELL CONTRACTOR'S LICENCE NUMBER: 1507
ADDRESS: R. R. # 6, Napanee, Ontario	
NAME OF WELL TECHNICIAN: George R. Chalk	WELL TECHNICIAN'S LICENCE NUMBER: T-0024
SIGNATURE OF TECHNICIAN/CONTRACTOR: CHALK WELL DRILLING LTD.	SUBMISSION DATE: DAY 30 MO. 10 YR. 87

OFFICE USE ONLY

DATA SOURCE	CONTRACTOR	DATE RECEIVED
		FEB 03 1988
DATE OF INSPECTION	INSPECTOR	
REMARKS		CSS.ES

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Ontario

The Ontario Water Resources Act

WATER WELL RECORD

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11 | 5305242 | MUNICIP 53004 | CON. CON 03

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC.	LOT
Prince Edward	Hillier	III	7
[redacted] Wellington			

DATE COMPLETED: DAY 26 MO. 11 YR. 89

21 | M | RC. | ELEVATION | RC. | 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	DEPTH - FEET TO
Grey	Shale		Loose	0	3
Grey	Limestone		Hard	3	100

31

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
40	1 ☒ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
80	1 ☒ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6¼"	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC	.188	0	22
6¼"	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE 5 ☐ PLASTIC		22	100
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC			

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 FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)
20	8	Cement
8	0	Cuttings

71 PUMPING TEST

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 ☐ PUMP 2 ☐ BAILER — Air	3 GPM	1 HOURS 0 MINS.

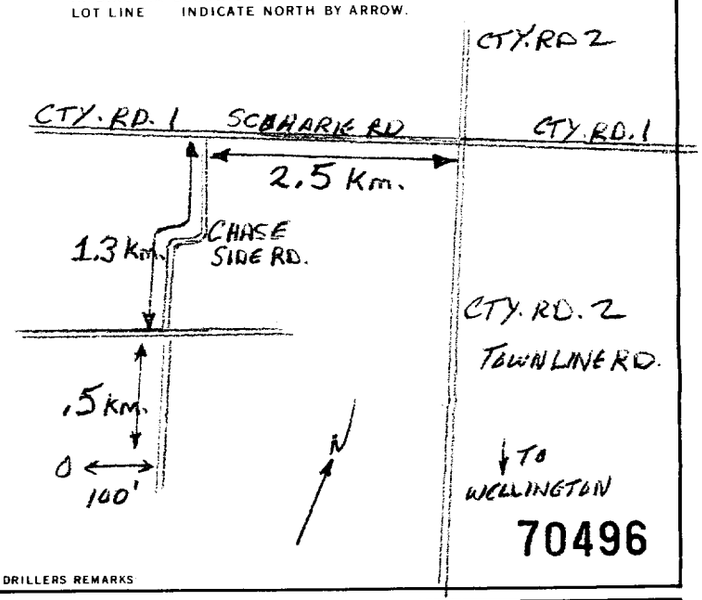
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING (1 ☐ PUMPING 2 ☒ RECOVERY) 15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
20 FEET	100 FEET	62 FEET	40 FEET	32 FEET	28 FEET

IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
GPM	FEET	1 ☒ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
☐ SHALLOW ☒ DEEP	97 FEET	3 GPM

LOCATION OF WELL

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



70496

DRILLERS REMARKS

FINAL STATUS OF WELL	WATER USE	METHOD OF CONSTRUCTION
1 ☒ WATER SUPPLY	1 ☒ DOMESTIC	1 ☐ CABLE TOOL
2 ☐ OBSERVATION WELL	2 ☐ STOCK	2 ☐ ROTARY (CONVENTIONAL)
3 ☐ TEST HOLE	3 ☐ IRRIGATION	3 ☐ ROTARY (REVERSE)
4 ☐ RECHARGE WELL	4 ☐ INDUSTRIAL	4 ☒ ROTARY (AIR)
5 ☐ ABANDONED, INSUFFICIENT SUPPLY	☐ OTHER	5 ☐ AIR PERCUSSION
6 ☐ ABANDONED, POOR QUALITY	5 ☐ COMMERCIAL	6 ☐ BORING
7 ☐ UNFINISHED	6 ☐ MUNICIPAL	7 ☐ DIAMOND
☐ DEWATERING	7 ☐ PUBLIC SUPPLY	8 ☐ JETTING
	8 ☐ COOLING OR AIR CONDITIONING	9 ☐ DRIVING
	9 ☐ NOT USED	☐ DIGGING ☐ OTHER

CONTRACTOR

NAME OF WELL CONTRACTOR: CHALK WELL DRILLING LTD.
WELL CONTRACTOR'S LICENCE NUMBER: 1507
ADDRESS: R.R. # 6, Napanee
NAME OF WELL TECHNICIAN: George R. Chalk
WELL TECHNICIAN'S LICENCE NUMBER: T-0024
SIGNATURE OF TECHNICIAN/CONTRACTOR: CHALK WELL DRILLING LTD.
SUBMISSION DATE: DAY 26 MO. 11 YR. 89

OFFICE USE ONLY

DATA SOURCE | CONTRACTOR 1507 | DATE RECEIVED FEB 27 1990
DATE OF INSPECTION | INSPECTOR
REMARKS

CSS.ES

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Ontario

The Ontario Water Resources Act

WATER WELL RECORD

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11 | 5305701 | MUNICIP 53004 | CON. CON 03

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON. BLOCK, TRACT, SURVEY, ETC	LOT
Prince Edward	Hillier	III	7

[redacted] R. R. # 1, Hillier, Ontario — DATE COMPLETED: DAY 08 MO 05 YR 91

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
Brown	Clay		Boulders, Gravel	0	12
Brown	Limestone		Hard	12	15
Brown	Limestone		Broken	15	18
Brown	Limestone		Hard	18	43

31

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
15	☐ FRESH ☐ SALTY ☐ SULPHUR ☐ MINERALS ☐ GAS
	☐ FRESH ☐ SALTY ☐ SULPHUR ☐ MINERALS ☐ GAS
	☐ FRESH ☐ SALTY ☐ SULPHUR ☐ MINERALS ☐ GAS
	☐ FRESH ☐ SALTY ☐ SULPHUR ☐ MINERALS ☐ GAS
	☐ FRESH ☐ SALTY ☐ SULPHUR ☐ MINERALS ☐ GAS

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6¼"	☑ STEEL ☐ GALVANIZED ☐ CONCRETE ☐ OPEN HOLE ☐ PLASTIC	.188	0	13'6"
6¼"	☐ STEEL ☐ GALVANIZED ☐ CONCRETE ☑ OPEN HOLE ☐ PLASTIC		13'6"	43
	☐ STEEL ☐ GALVANIZED ☐ CONCRETE ☐ OPEN HOLE ☐ PLASTIC			

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 FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)
0	5	Cuttings
5	12	Cement

71 PUMPING TEST

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
☐ PUMP ☑ BAILER	30 GPM	1 HOURS 0 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING (☐ PUMPING ☐ RECOVERY) 15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
7 FEET	15 FEET	15 FEET	15 FEET	15 FEET	15 FEET

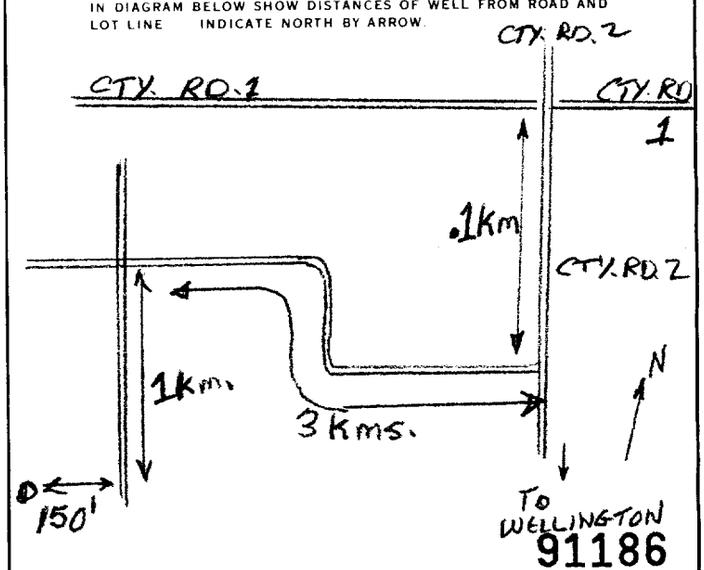
IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
GPM	FEET	☑ CLEAR ☐ CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
☐ SHALLOW ☑ DEEP	40 FEET	30 GPM

FINAL STATUS OF WELL	☑ WATER SUPPLY ☐ OBSERVATION WELL ☐ TEST HOLE ☐ RECHARGE WELL ☐ ABANDONED, INSUFFICIENT SUPPLY ☐ ABANDONED, POOR QUALITY ☐ UNFINISHED ☐ DEWATERING
WATER USE	☑ DOMESTIC ☐ STOCK ☐ IRRIGATION ☐ INDUSTRIAL ☐ OTHER ☐ COMMERCIAL ☐ MUNICIPAL ☐ PUBLIC SUPPLY ☐ COOLING OR AIR CONDITIONING ☐ NOT USED
METHOD OF CONSTRUCTION	☑ CABLE TOOL ☐ ROTARY (CONVENTIONAL) ☐ ROTARY (REVERSE) ☐ ROTARY (AIR) ☐ AIR PERCUSSION ☐ BORING ☐ DIAMOND ☐ JETTING ☐ DRIVING ☐ DIGGING ☐ OTHER

LOCATION OF WELL

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



DRILLERS REMARKS

CONTRACTOR

NAME OF WELL CONTRACTOR	WELL CONTRACTOR'S LICENCE NUMBER
CHALK WELL DRILLING LTD.	1507
ADDRESS: R. R. # 6, Napanee, Ontario	
NAME OF WELL TECHNICIAN: Dave Grose	WELL TECHNICIAN'S LICENCE NUMBER: 88-202
SIGNATURE OF TECHNICIAN/CONTRACTOR: CHALK WELL DRILLING LTD.	SUBMISSION DATE: DAY 08 MO 05 YR 91

OFFICE USE ONLY

DATA SOURCE	CONTRACTOR	DATE RECEIVED
	1507	JAN 27 1992
DATE OF INSPECTION	INSPECTOR	
REMARKS		

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Ontario — Ministry of the Environment

The Ontario Water Resources Act
WATER WELL RECORD

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

11 — 5306829 — Municipality 53004 — Con. CON 03

County or District	Township/Borough/City/Town/Village	Con block tract survey, etc.	Lot
[redacted]	City of Hillier - Prince Edward	3	7

Address: RR#1 Hillier

Date completed: day 25 month 07 year 96

21 — 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	Depth - feet To
Black	Topsoil			0	1'
Brown	Clay & Gravel			1'	5'
Brown	Shale			5'	6'
Grey	Limestone			6'	28'

31

32

41 WATER RECORD

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

51 CASING & OPEN HOLE RECORD

Inside diam inches	Material	Wall thickness inches	Depth - feet From	Depth - feet To
10-11 6¼"	1 ☒ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic 12	.188	18' above ground	13-16 20'
17-18 6"	1 ☐ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☒ Open hole 5 ☐ Plastic 19		20'	20-23 28'
24-25	1 ☐ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic 26			27-30

SCREEN

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

61 PLUGGING & SEALING RECORD

☒ Annular space ☐ Abandonment

Depth set at - feet From	To	Material and type (Cement grout, bentonite, etc.)
10-13 0	14-17 20	CONCRETE
18-21	22-25	
26-29	30-33	80

71 PUMPING TEST

Pumping test method 10: 1 ☐ Pump 2 ☐ Bailer

Pumping rate 11-14 GPM

Duration of pumping 15-16 Hours ..... 17-18 Mins

Static level	Water level end of pumping	Water levels during 25: 1 ☐ Pumping 2 ☐ Recovery			
19-21 feet	22-24 feet	15 minutes 26-28 feet	30 minutes 29-31 feet	45 minutes 32-34 feet	60 minutes 35-37 feet

If flowing give rate 38-41 GPM

Pump intake set at feet

Water at end of test 42: ☐ Clear ☐ Cloudy

Recommended pump type: ☐ Shallow ☐ Deep 50-53

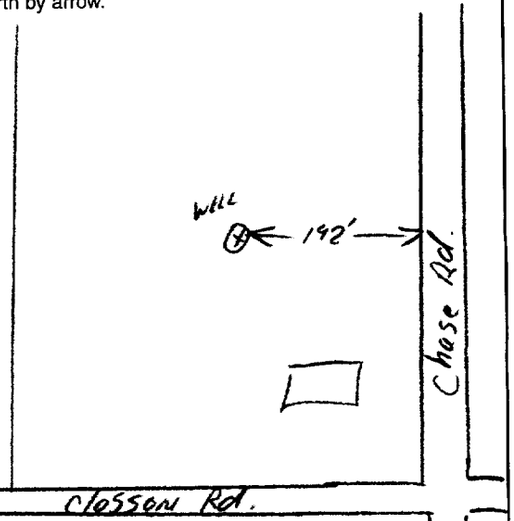
Recommended pump setting 43-45 feet

Recommended pump rate 46-49 GPM

LOCATION OF WELL

N

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



214911

FINAL STATUS OF WELL 54

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

WATER USE 55-56

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

METHOD OF CONSTRUCTION 57

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

Name of Well Contractor	Well Contractor's Licence No.
Alexander Well Drilling	6663
Address: RR #2 Carrying Place	
Name of Well Technician	Well Technician's Licence No.
Larry Alexander	T-2533
Signature of Technician/Contractor: Larry Alexander	Submission date: day 31 mo 07 yr 01

MINISTRY USE ONLY

Data source 58	Contractor 59-62	Date received 63-68
	6663	AUG 24 2001
Date of inspection	Inspector	
Remarks		

0506 (11/98) Front Form 9

2 - MINISTRY OF THE ENVIRONMENT COPY

Ontario — Ministry of Environment and Energy

The Ontario Water Resources Act
WATER WELL RECORD

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

11 — 5307203 — Municipality 53004 — Con. CON 03

County or District	Township/Borough/City/Town/Village	Con block tract survey, etc.	Lot
[redacted]	Hillier	III	8
	Address of Well Location: 690 Closson Rd, R.R.#1 Hillier	Date completed: 28 day, 05 month, 03 year	

21 — Zone — Easting — Northing — RC — Elevation — RC — 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	Depth - feet To
Brown	Clay		Packed	0	3
Brown	Limestone		Broken	3	8
Grey	Limestone		Hard	8	30

31

32

WATER RECORD

Water found at - feet	Kind of water
15	☐ Fresh ☐ Sulphur ☐ Minerals ☐ Gas — Untested
18	☐ Fresh ☐ Sulphur ☐ Salty ☐ Minerals ☐ Gas — Untested
	☐ Fresh ☐ Sulphur ☐ Salty ☐ Minerals ☐ Gas
	☐ Fresh ☐ Sulphur ☐ Salty ☐ Minerals ☐ Gas
	☐ Fresh ☐ Sulphur ☐ Salty ☐ Minerals ☐ Gas

CASING & OPEN HOLE RECORD

Inside diam inches	Material	Wall thickness inches	Depth - feet From	Depth - feet To
6¼	☑ Steel, ☐ Galvanized, ☐ Concrete, ☐ Open hole, ☐ Plastic	.188	0	12
6	☐ Steel, ☐ Galvanized, ☑ Concrete, ☑ Open hole, ☐ Plastic		10'6"	30
	☐ Steel, ☐ Galvanized, ☐ Concrete, ☐ Open hole, ☐ Plastic			

SCREEN

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

Material and type	Depth at top of screen feet

PLUGGING & SEALING RECORD

☑ Annular space ☐ Abandonment

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

PUMPING TEST

71 — Pumping test method: ☐ Pump ☑ Bailer — Pumping rate: 15 GPM — Duration of pumping: 2 Hours 0 Mins

Static level	Water level end of pumping	Water levels during (☑ Pumping ☐ Recovery) 15 minutes	30 minutes	45 minutes	60 minutes
6 feet	25 feet	25 feet	25 feet	25 feet	25 feet

If flowing give rate: GPM — Pump intake set at: feet — Water at end of test: ☐ Clear ☑ Cloudy

Recommended pump type: ☐ Shallow ☑ Deep — Recommended pump setting: 27 feet — Recommended pump rate: 15 GPM

FINAL STATUS OF WELL

☑ Water supply; ☐ Observation well; ☐ Test hole; ☐ Recharge well; ☐ Abandoned, insufficient supply; ☐ Abandoned, poor quality; ☐ Abandoned (Other); ☐ Dewatering; ☐ Unfinished; ☐ Replacement well

WATER USE

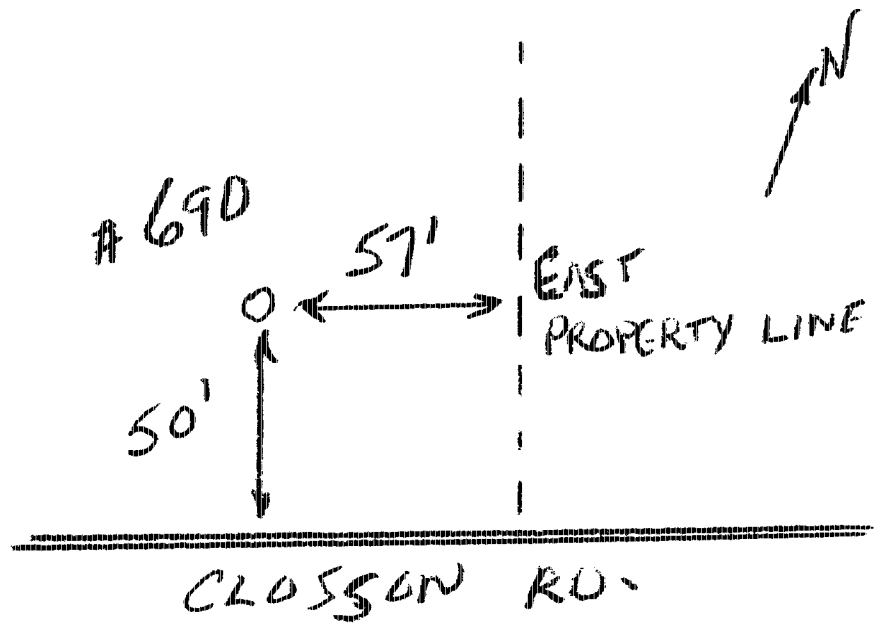
☑ Domestic; ☐ Stock; ☐ Irrigation; ☐ Industrial; ☐ Commercial; ☐ Municipal; ☐ Public supply; ☐ Cooling & air conditioning; ☐ Not use; ☐ Other

METHOD OF CONSTRUCTION

☑ Cable tool; ☐ Rotary (conventional); ☐ Rotary (reverse); ☐ Rotary (air); ☐ Air percussion; ☐ Boring; ☐ Diamond; ☐ Jetting; ☐ Driving; ☐ Digging; ☐ Other

LOCATION OF WELL

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



260530

Name of Well Contractor	Well Contractor's Licence No.
CHALK WELL DRILLING LTD.	1507
Address: R.R. # 6 Napanee Ont.	
Name of Well Technician: Jeff Hogle	Well Technician's Licence No.: 02-1036
Signature of Technician/Contractor: R. Ian Chalk	Submission date: 28 day 05 mo 03 yr
CHALK WELL DRILLING LTD.	T-0047

MINISTRY USE ONLY: Data source — Contractor 1507 — Date received NOV 18 2003 — Date of inspection — Inspector — Remarks

2 - MINISTRY OF ENVIRONMENT AND ENERGY COPY

0506 (06/02) Front Form 9

Ontario Ministry of the Environment

Well Tag Number (Place sticker and print number below)

Well Record

Regulation 903 Ontario Water Resources Act

page ___ of ___

Instructions for Completing Form

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

Ministry Use Only

MUN 53004 CON CON 03 LOT 07

Well Owner's Information and Location of Well Information

[redacted]

PRENCE EDWARD | HILLIER | 708 | 3

RR#/Street Number/Name: 719 CLOSSON ROAD

City/Town/Village: HILLIER

Site/Compartment/Block/Tract etc.:

GPS Reading: NAD 83 | Zone 18 | Easting 307671 | Northing 4874821

Unit Make/Model: MAGELLAN

Mode of Operation: ☐ Undifferentiated ☑ Averaged ☐ Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Metres To

Hole Diameter

Depth From	Metres To	Diameter Centimetres

Water Record

Water found at ___ Metres / Kind of Water

___ m ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

___ m ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

___ m ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

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

Chlorinated ☐ Yes ☐ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Metres To
	Casing			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	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 Time min	Draw Down Water Level Metres	Recovery Time min	Recovery Water Level Metres
Pump intake set at - (metres)	Static Level			
Pumping rate - (litres/min)	1		1	
Duration of pumping ___hrs +___ min	2		2	
Final water level end of pumping ___metres	3		3	
Recommended pump type. ☐ Shallow ☐ Deep	4		4	
Recommended pump depth. ___metres	5		5	
Recommended pump rate. (litres/min)	10		10	
If flowing give rate - (litres/min)	15		15	
	20		20	
	25		25	
If pumping discontinued, give reason.	30		30	
	40		40	
	50		50	
	60		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	2.14	CLAY	
2.14	2.44	CONCRETE	
2.44	3.05	CLAY	
3.05	4.58	3/4 STONE	

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.

FARM

Audit No. Z 00155

Date Well Completed YYYY MM DD

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

Date Delivered YYYY MM DD

Well Contractor/Technician Information

Name of Well Contractor: A-1 EXCAVATING

Well Contractor's Licence No.: 6456

Business Address (street name, number, city etc.): 245 STATION RD, BOX 19, HILLIER ON. K0K2J0

Name of Well Technician (last name, first name): WAYNE HYNDE

Well Technician's Licence No.: T-1639

Signature of Technician/Contractor: X Wayne Hynde

Date Submitted YYYY MM DD: 04 10 04

Ministry Use Only

Data Source

Contractor: 6456

Date Received YYYY MM DD: OCT 06 2004

Date of Inspection YYYY MM DD

Remarks: D.W.C. via fax 2004/30/09

Well Record Number: 5307336

0506E (09/03) Contractor's Copy ☐ Ministry's Copy ☐ Well Owner's Copy ☐

Cette formule est disponible en français

Ontario Ministry of the Environment

Well Tag (see below): A 000064

A 000064

Well Record

Regulation 903 Ontario Water Resources Act

page ___ of ___

Instructions for Completing Form

- For use in the **Province of Ontario** only. This document is a permanent **legal** document. Please retain for future reference.
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- 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

[redacted]

PRINCE EDWARD	HILLIER	PT. 1-8	3

RR#/Street Number/Name: 237 CLOSSON ROAD

City/Town/Village: HILLIER

Site/Compartment/Block/Tract etc.:

GPS Reading — NAD: 83 | Zone: 18 | Easting: 307663 | Northing: 4874622

Unit Make/Model: MAGELLAN

Mode of Operation: ☐ Undifferentiated ☑ Averaged ☐ Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Metres To
BROWN	TOPSOIL			0	.6
BROWN	SAND LIME MATERIAL WITH MIXED SHALE			.6	2.4
GRAY	LIGHT SHALE			2.4	4.8
GRAY	HARD SHALE			4.8	6.4

Hole Diameter

Depth From	Metres To	Diameter Centimetres

Water Record

Water found at ___ Metres / Kind of Water

___ m ☑ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other: ___

___ m ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other: ___

___ m ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other: ___

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

Chlorinated ☐ Yes ☐ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Metres To
Casing				
91.44	☐ Steel ☐ Fibreglass ☐ Plastic ☑ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen				
Outside diam	☐ Steel ☐ Fibreglass ☑ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
No Casing or Screen				
	☐ Open hole			

Test of Well Yield

Pumping test method: GAS 2" PUMP

Pump intake set at - (metres): 29 1/2

Pumping rate - (litres/min): 36 LITRES

Duration of pumping: 1 hrs + ___ min

Final water level end of pumping: ___ metres

Recommended pump type: ☐ Shallow ☐ Deep

Recommended pump depth: ___ metres

Recommended pump rate: ___ (litres/min)

If flowing give rate - (litres/min):

If pumping discontinued, give reason:

Draw Down Time min	Water Level Metres	Recovery Time min	Water Level Metres
Static Level			
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
50		50	
60	6.5	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)

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.

THIS WELL HAS A RESERVE OF 550 GAL
FARM
PT. LOT 7, 8
CON. 3. HILLIER.

Audit No. Z 20671

Date Well Completed: YYYY 2005 MM 07 DD 06

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

Date Delivered: YYYY 2005 MM 07 DD 07

Well Contractor/Technician Information

Name of Well Contractor: A-1 EXCAVATING

Well Contractor's Licence No.: 6456

Business Address (street name, number, city etc.): 245 STATION ROAD, BOX 19, HILLIER ON. K0K 2J0

Name of Well Technician (last name, first name): HYNDE, WAYNE

Well Technician's Licence No.: T-1639

Signature of Technician/Contractor: X Wayne Hynde

Date Submitted: YYYY 2005 MM 07 DD

Ministry Use Only

Data Source:

Contractor: 6456

Date Received: JUL 13 2005

Date of Inspection: YYYY MM DD

Remarks:

Well Record Number:

0506E (09/03) Contractor's Copy ☐ Ministry's Copy ☐ Well Owner's Copy ☐

Cette formule est disponible en français

Ontario Ministry of the Environment

Well T A 065524 (Print Below)
A065524.

Well Record

Regulation 903 Ontario Water Resources Act

Page _____ of _____

[redacted]

Address of Well Location (Street Number/Name, RR)	Township	Lot	Concession
	HILLIER	PT 7	3

County/District/Municipality	City/Town/Village	Province	Postal Code
PRINCE EDWARD.	PICTON.	Ontario	K0K2T0

UTM Coordinates NAD 83	Zone	Easting	Northing	GPS Unit Make	Model	Mode of Operation
	18	308261	4874206	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
BROWN	TOPSOIL.			0	.3
BROWN	CLAY.	STONE.		.3	3.9

Annular Space/Abandonment Sealing Record

Depth Set at (Metres) From	To	Type of Sealant Used (Material and Type)	Volume Placed (Cubic Metres)
0	3.9	NON TOXIC CAULKING	

Method of Construction

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

Water Use

☐ Public ☒ Commercial ☐ Not used
☐ Domestic ☐ Municipal ☐ Dewatering
☐ Livestock ☐ Test Hole ☐ Monitoring
☐ 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* _____

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: TEST OVER!

Pumping test method: GAS PUMP.

Pump intake set at *(Metres)*: 3.9.

Pumping rate *(Litres/min)*: 90

Duration of pumping: 1 hrs + 0 min

Final water level end of pumping *(Metres)*: 3.9.

Recommended pump type: ☒ Shallow ☐ Deep

Recommended pump depth: 3.8 Metres

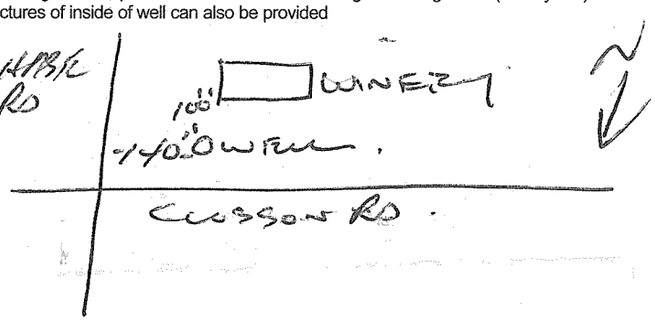
Recommended pump rate *(Litres/min)*: 45

If flowing give rate *(Litres/min)*: 90

Draw Down Time (Min)	Water Level (Metres)	Recovery Time (Min)	Water Level (Metres)
Static Level		Static Level	
1	THIS IS A	1	
2	DUG WELL	2	
3	WITH A	3	
4	RESERVOIR OF	4	
5	1500 GALLONS	5	
10	AND A	10	
15	RATE	15	
20	OF	20	
25	20 GPM	25	
30		30	
40		40	
50		50	
60		60	

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")
- vidigital pictures of inside of well can also be provided



Water Details

Water found at Depth	Kind of Water
2.5 Metres ☐ Gas	☒ Fresh ☐ Salty ☐ Sulphur ☐ Minerals
Metres ☐ Gas	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals
Metres ☐ Gas	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals

Date Well Completed *(yyyy/mm/dd)*	Was the well owner's information package delivered?	Date the Well Record and Package Delivered to Well Owner *(yyyy/mm/dd)*
07 09 28	☐ Yes ☒ No	07 10 15

Casing Used

☐ Galvanized
☐ Steel
☐ Fibreglass
☐ Plastic
☐ Concrete

Screen Used

☐ Galvanized
☐ Steel
☐ Fibreglass
☐ Plastic
☒ Concrete

No Casing and Screen Used

☐ Open Hole

Disinfected? ☒ Yes ☐ No

Casing and Well Details

Diameter of the Hole *(Centimetres)*: 15 FT.

Depth of the Hole *(Metres)*: 3.9

Wall Thickness *(Metres)*: 10 cm.

Inside Diameter of the Casing *(Metres)*: 90 cm.

Depth of the Casing *(Metres)*: 3.9

Well Contractor and Well Technician Information

Business Name of Well Contractor: QUOGIL WATER SOLUTION

Well Contractor's Licence No.: 6524.

Business Address (Street No./Name, number, RR): PO BOX 3033.

Municipality: P.E.

Province: ONT

Postal Code: K8N4Z7

Business E-mail Address:

Bus.Telephone No. *(inc. area code)*: 613 922 9474

Name of Well Technician (Last Name, First Name): Kim Quigley

Well Technician's Licence No.: T1850.

Signature of Technician:

Date Submitted *(yyyy/mm/dd)*:

Ministry Use Only

Audit No.: Z 62798

Well Contractor No.:

Date Received *(yyyy/mm/dd)*: OCT 24 2007

Date of Inspection *(yyyy/mm/dd)*:

Remarks:

0506E (11/2006)

Ministry's Copy

Ontario Ministry of the Environment

Well Tag No. (Place sticker and print number below)
A 065512
A065512

Well Record

Regulation 903 Ontario Water Resources Act

page ___ of ___

Instructions for Completing Form

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- 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

MUN					CON										LOT				

Well Owner's Information and Location of Well Information

[redacted]

PRINCE EDWARD	HILLIER	0	3

RR#/Street Number/Name: CLOSSON RD.
City/Town/Village:
Site/Compartment/Block/Tract etc.:

GPS Reading: NAD 83 | Zone 18 | Easting 397597 | Northing 4874328
Unit Make/Model: GARMIN
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	Depth To
BROWN	TOPSOIL	STONE.		0	.3
GREY	LIMESTONE			.3	6.5

Hole Diameter

Depth From	Depth To (Metres)	Diameter (Centimetres)
0	6.5	6.5cm

Water Record

Water found at 3 Metres / Kind of Water
☒ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:
☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:
☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

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

Chlorinated ☒ Yes ☐ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Metres To
Casing				
90	☐ Steel ☐ Fibreglass ☐ Plastic ☒ Concrete ☐ Galvanized	10	0	6.5
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen				
Outside diam	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
No Casing or Screen				
	☐ Open hole			

Test of Well Yield

Pumping test method: [redacted]

Draw Down Time min	Water Level Metres	Recovery [redacted]
Static Level		
1		1
2		2
3		3
4		4
5		5
10		10
15		15
20		20
25		25
30		30
40		40
50		50
60		60

Pump intake set at (metres) 6.5
Pumping rate (litres/min) 45
Duration of pumping ___ hrs + 15 min
Final water level end of pumping 6.4 metres
Recommended pump type. ☒ Shallow ☐ Deep
Recommended pump depth. 6.5 metres
Recommended pump rate. 14 (litres/min)
If flowing give rate (litres/min)
If pumping discontinued, give reason.

THIS DUG WELL WITH A 12" BED. WITH 9 gal/min FROM A 3 gal/min OF

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	3	NON TOXIC CAULKING	

Method of Construction

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

Water Use

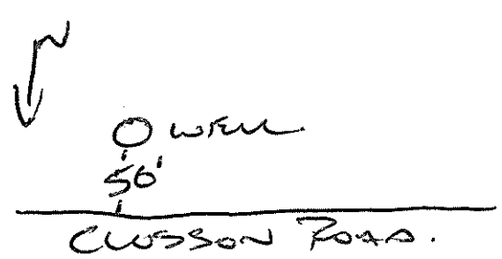
☒ Domestic ☐ Industrial ☐ Public Supply ☐ Other
☐ Stock ☐ Commercial ☐ Not used
☐ Irrigation ☐ Municipal ☐ Cooling & air conditioning

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 57826
Date Well Completed: YYYY 2007 MM 11 DD 06
Was the well owner's information package delivered? ☒ Yes ☐ No
Date Delivered: YYYY 2007 MM 11 DD 22

Well Contractor/Technician Information

Name of Well Contractor: FRANKS DRILLING + BLASTING
Well Contractor's Licence No. 6881
Business Address (street name, number, city etc.): BOX 100 NEWBURGH K0K 2S0
Name of Well Technician (last name, first name): FARR CARLO
Well Technician's Licence No. T-2603
Signature of Technician/Contractor: X
Date Submitted: YYYY 2007 MM 11 DD 22

Ministry Use Only

Data Source	Contractor
Date Received YYYY MM DD: DEC 24 2007	Date of Inspection YYYY MM DD
Remarks	Well Record Number

0506E (08/2006)

Ministry's Copy

Cette formule est disponible en français

Ontario is now in Step 1 of its **Roadmap to Reopen (https://ontario.ca/page/reopening-ontario)**. Follow the **restrictions and public health measures (https://covid-19.ontario.ca/public-health-measures)**.

Ontario

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).

Go Back to Map ()

Well ID

Well ID Number: 7357169
Well Audit Number: *Z286113*
Well Tag Number: *A286046*
This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	773 CLOSSON ROAD

Township	HILLIER TOWNSHIP
Lot	008
Concession	CON 03
County/District/Municipality	PRINCE EDWARD
City/Town/Village	HILLIER
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 18 Easting: 307805.00 Northing: 4873512.00
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	STNS	LOAM	0 ft	2 ft
GREY	LMSN		FCRD	2 ft	71 ft

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
0 ft	20 ft	HOLEPLUG	

Method of Construction & Well Use

Method of Construction	Well Use
Air Percussion	
	Irrigation

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
6.125 inch	STEEL	2 ft	20 ft
6 inch	OPEN HOLE	20 ft	71 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 6571

Results of Well Yield Testing

After test of well yield, water was	CLEAR

If pumping discontinued, give reason	
Pump intake set at	70 ft
Pumping Rate	5 GPM
Duration of Pumping	0 h:30 m
Final water level	70 ft
If flowing give rate	
Recommended pump depth	68 ft
Recommended pump rate	3 GPM
Well Production	
Disinfected?	Y

Draw Down & Recovery

Draw Down Time(min)	Draw Down Water level	Recovery Time(min)	Recovery Water level
SWL	18 ft		
1	20 ft	1	67 ft
2	22 ft	2	64 ft
3	24 ft	3	61 ft
4	26 ft	4	58 ft
5	28 ft	5	55 ft
10	38 ft	10	45 ft
15	48 ft	15	35 ft
20	58 ft	20	25 ft

25	68 ft	25	21 ft
30	70 ft	30	19 ft
40		40	18.5 ft
45		45	
50		50	18 ft
60		60	

Water Details

Water Found at Depth	Kind
26 ft	Untested
52 ft	Untested

Hole Diameter

Depth From	Depth To	Diameter
0 ft	20 ft	10 inch
20 ft	71 ft	6 inch

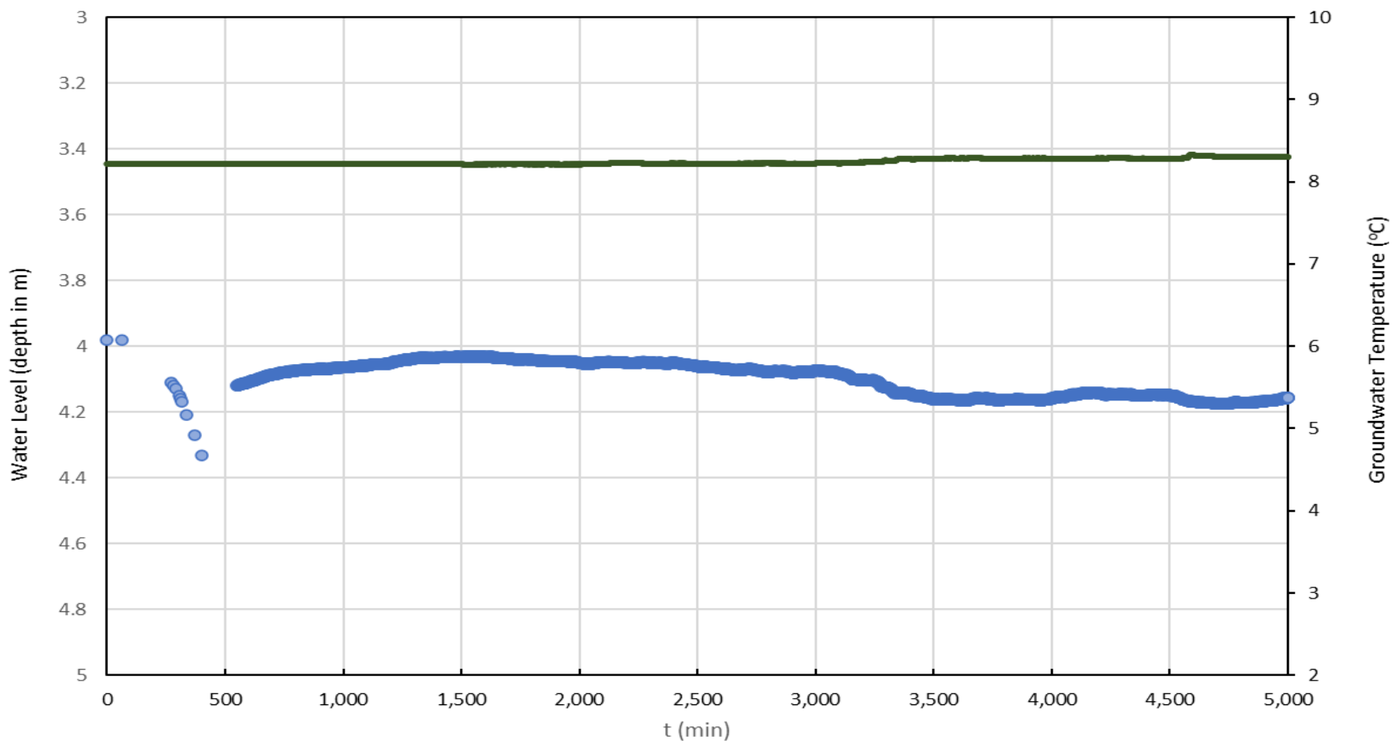
Audit Number: Z286113

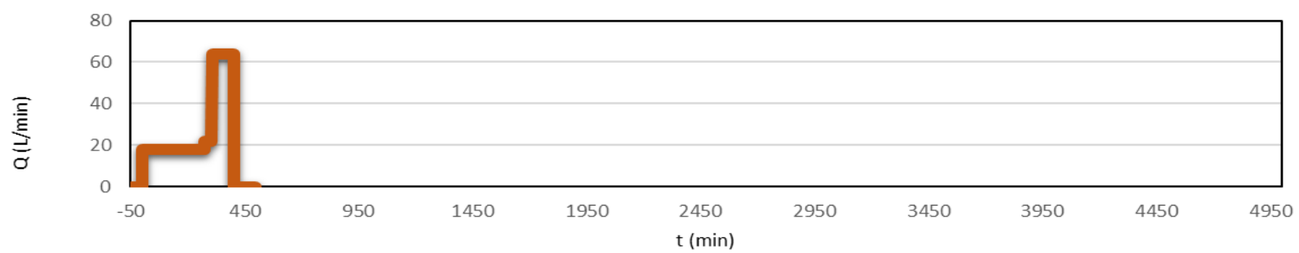
Date Well Completed: April 09, 2020

Date Well Record Received by MOE: April 23, 2020

Appendix B

Hydrographs for Testing of Well A289467





GREER GALLOWAY
CONSULTING ENGINEERS
PETERBOROUGH
BELLEVILLE
KINGSTON
1620 WALLBRIDGE LOYALIST ROAD
BELLEVILLE, ONTARIO, K8N 4Z5
PHONE: 613-966-3068
FAX: 613-966-3087

NOTES:

1) Quantity testing carried out on June 1, 2021
2) On-site pressure and temperature data collected using a Solinst Model 3001 datalogging transducer
3) Water level data is not corrected for fluctuations in barometric pressure

PROJECT 2138425:

SERVICING STUDY
BARE BONES DISTILLERY, 705 CLOSSON ROAD
PRINCE EDWARD COUNTY, ONTARIO

DRAWING B-1:

HYDROGRAPH FOR TEST WELL A289467

Appendix C

Lab Certificate of Analysis

CADUCEON ENVIRONMENTAL LABORATORIES
Client committed. Quality assured.

CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G099983

REPORT No. B21-18702

Report To:

The Greer Galloway Group
1620 Wallbridge-Loyalist Road, RR #5,
Belleville Ontario K8N 4Z5 Canada
Attention: Charles Mitz

Caduceon Environmental Laboratories
285 Dalton Ave
Kingston Ontario K7K 6Z1
Tel: 613-544-2001
Fax: 613-544-2770

DATE RECEIVED: 17-Jun-21
DATE REPORTED: 24-Jun-21
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: 2138425
P.O. NUMBER:
WATERWORKS NO.

			Client I.D.:		S1		**ODWS**	
			Sample I.D.:		B21-18702-1		**Objective**	**Type of Objective**
			Date Collected:		16-Jun-21			
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Alkalinity(CaCO3) to pH4.5	mg/L	5	SM 2320B	18-Jun-21/O	285		30-500	OG
pH @25°C	pH Units		SM 4500H	18-Jun-21/O	7.88		6.5-8.5	OG
Conductivity @25°C	µmho/cm	1	SM 2510B	18-Jun-21/O	658			
Fluoride	mg/L	0.1	SM4110C	22-Jun-21/O	< 0.1		1.5	MAC
Chloride	mg/L	0.5	SM4110C	22-Jun-21/O	18.7		250	AO
Nitrite (N)	mg/L	0.1	SM4110C	22-Jun-21/O	< 0.1		1	MAC
Nitrate (N)	mg/L	0.1	SM4110C	22-Jun-21/O	0.6		10	MAC
Sulphate	mg/L	1	SM4110C	22-Jun-21/O	29		500	AO
Total Suspended Solids	mg/L	3	SM2540D	22-Jun-21/K	< 3			
Dissolved Organic Carbon	mg/L	0.2	EPA 415.2	18-Jun-21/O	2.8		5	AO
TDS (Calc. from Cond.)	mg/L	1	Calc.	21-Jun-21	342		500	AO
Hardness (as CaCO3)	mg/L	1	SM 3120	21-Jun-21/O	**356**		500,80-100	ODWO,OG
Calcium	mg/L	0.02	SM 3120	21-Jun-21/O	112			
Iron	mg/L	0.005	SM 3120	21-Jun-21/O	< 0.005		0.3	AO
Magnesium	mg/L	0.02	SM 3120	21-Jun-21/O	18.4			
Manganese	mg/L	0.001	SM 3120	21-Jun-21/O	0.013		0.05	AO
Potassium	mg/L	0.1	SM 3120	21-Jun-21/O	4.8			
Sodium	mg/L	0.2	SM 3120	21-Jun-21/O	11.3		200,20	AO,WL

ODWS - Ontario Drinking Water Standards
AO - Aesthetic Objectives
IMAC - Interim Maximum Acceptable Concentration
MAC - Maximum Acceptable Concentration
ODWO - D-5-5 Objective
OG - Operational Guidelines
WL - Warning Level - Sodium Restricted Diets
R.L. = Reporting Limit
Test methods may be modified from specified reference method unless indicated by an *
Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Michelle Dubien
Lab Manager