Hydrogeological Assessment Report, 46 & 48 Maple Avenue, Haliburton

February 10, 2022

Prepared for:
Hot Pond Enterprises Corp.

Cambium Reference: 12397-001

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Executive Summary

Cambium was retained by Hot Pond Enterprises Corporation to complete a hydrogeological assessment for three adjacent lots located at 46, 48, and an unnumbered lot on Maple Avenue, Haliburton, Ontario. It should be noted that all three lots will be merged into one lot with three, 6-unit apartments as per the By-Law 2021-59, dated September 15, 2021.

The hydrogeological assessment included conducting hydraulic testing of four test wells, namely Test Wells #1, #2, #3 and #4, installed at the Site.

The results of the pumping tests indicate that there are adequate groundwater resources available from the Test Wells #1, #2 and #4 on the Site to support the proposed development; however, Test Well #3 is a poor yielding well and does not support the proposed 6-unit multi-suit building. Further, the water withdrawal associated with the development will not negatively influence surrounding groundwater users.

There were a few water quality parameters which exceeded the Ontario Drinking Water Quality Standards in some of the test wells: namely hardness (all Test Wells) and slightly elevated sodium. Hardness can be readily treated with a domestic water softening system.

Test Well # 3 has very high hardness, turbidity, sulphate, and sodium. It is not recommended to use this well since treatment will be difficult and also there is insufficient quantity for the proposed development. Cambium recommends decommissioning Test Well #3.

It is noted that it is the duty of the client to notify prospective buyers that sodium is present in the groundwater in the area at concentrations greater than 20 mg/L, which would affect individuals on sodium reduced diets and that this notification should be added to the title deeds for each property where an exceedance was noted.

Respectfully submitted,

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1.0 Introduction

Cambium Inc. (Cambium) was retained by Hot Pond Enterprises Corporation (Client) to undertake a hydrogeological assessment for the water supply for the proposed developments at three adjacent lots located at 46, 48, and an unnumbered lot on Maple Avenue, Haliburton, Ontario (hereafter referred to as the Site). It should be noted that all three lots will be merged into one lot with three, 6 unit apartments as per the By-Law 2021-59, dated September 15, 2021. The hydrogeological investigation was completed for each lot and it is proposed to develop the lot with one level basement for each apartment building.

Each lot is proposed to develop a multiple unit apartment building which will require an on-site water supply well. The purpose of this assessment was to determine if there are adequate groundwater resources on-site that can sustain the water demand of the proposed development. A draft site plan of the proposed developments is in Appendix A.

The proposed development will be serviced by the Municipal wastewater infrastructure.

1.1 Site Description

The Site is rectangular in shape and is relatively flat with drainage ditches between lots 48 and 46 and along the west side of the property and will be developed into three multi-unit buildings with six units each. The Property is located at the northwest corner of Maple Avenue and Victoria Street in the Village of Haliburton as shown on Figure 1.

There is one residential house on the southern lot located at 48 Maple Avenue which has one well servicing the house. The majority of the Site exists on open grassy areas with trees and brush bordering the boundaries of each lot and along the west side.

1.2 Test Wells

There are four wells, one on each lot, with two on northern lot, which are not in service but are proposed as service wells for the Site.

Supply well A308589 (hereafter will be referred to as Test Well #1) was installed on April 20, 2021. Overburden within the drilled well was characterized by brown sand up to a depth of

23.3 mbgs before granite bedrock was encountered and the well was drilled to a depth of 27.3 mbgs.

Supply well A308588 (hereafter will be referred to as Test Well #2) was installed on April 9, 2021 at civic address 46 Maple Avenue. Overburden within the drilled well was characterized as fine sand and granite bedrock was encountered at 20.3 mbgs and the well was terminated at a depth of 22.7 mbgs.

Supply well referred to as Test Well #3 was an old existing well and no well record is available and therefore, no lithological details were available.

Supply well (A327196) referred to as Test Well #4, was installed on August 28, 2021. Overburden within the drilled well was characterized by brown clay to a depth of 10.20 mbgs before granite bedrock was encountered and the well was drilled to a depth of 14.0 mbgs.

Copies of the water well records are included in Appendix B. A summary of the well construction is in Table 1.

Table 1 Well Construction Details

Well ID	Well Depth (mbgs)	Well Dia. (m)	Screen Details	
			Top (mbgs)	Bottom (mbgs)
Test Well #1	22.7	0.150	Steel Cased to 20.3 mbgs and then open hole.	
Test Well #2	27.3	0.150	Steel Cased to 23.6 mbgs and then open hole.	
Test Well #3	40.0*	0.150	No details available	
Test Well #4	14.0	0.150	Steel Cased to 10.5 mbgs and then open hole.	

*Notes: mAMSL: metres above mean sea level. * The well depth based on as far as water level tape could go but could be deeper than this.*

2.0 Methodology

This section describes the methodology undertaken to complete the hydrogeological investigation.

2.1 Site Visit and Well Survey

On May 12, 2021, Cambium staff visited the Site to measure static water levels and depths of the on-site wells. Adjacent property owners were surveyed regarding their private supply well. Water levels and depth of any private supply wells were measured if permission was granted from the owner. The well owners were asked if they would allow Cambium to monitor their supply well during the pumping test (as described in Section 2.2). If the property owner was not present, then a letter describing the work program was left at the residence. A copy of the letter and a summary sheet from the survey has been included in Appendix C. The properties located at the following addresses were visited:

- 78 Maple Avenue
- 42 York Street
- 46 York Street
- 50 York Street
- 101 Maple Avenue
- 21 Victoria Street
- 83 Maple Avenue
- 41 Maple Avenue
- 36 Maple Avenue
- 28 Maple Avenue
- 27 Park Street
- 62 Maple Avenue

Cambium received permission and decided to monitor the following wells based on their proximity to the Site.

- 36 Maple Avenue
- Parkland's Apartment
- 41 Maple Avenue
- 62 Maple Avenue
- 48 Maple Avenue

Further discussion regarding the monitoring wells is included in Section 2.2.

2.2 Hydraulic Pumping Test

On May 26, 27, and 28, 2021 Cambium staff completed three 6-hour pumping tests on the on-site wells. Solinst™ pressure transducer level loggers (logger) were installed in each of the three test wells and four neighbouring observation wells. The locations and labels of all these wells are shown on Figure 2. Barometric pressure was monitored by another baro logger and used for water level logger compensation purposes.

2.2.1 Test Well #1

On May 26, 2021, a submersible pump was temporarily installed in Test Well #1 (TW1) at a depth of approximately 26.8 m. The pumping test commenced at 9:34 where the flow was slowly increased to ensure a steady drawdown was achieved in the well. The discharge outlet was placed by a drainage ditch to the west of the property near the end of Victoria Street. The flow rate was estimated at 100 L/min when the outlet valve was fully open for the duration of the test. According to the water well record for TW1, the recommended yield of the well was 40 gallons per minute (gpm), which is equivalent to 151 L/min.

The pump was turned off at 15:34 and water level recovery was manually recorded until 16:05. The pump was then moved to Test Well #2 (TW2) for the next day.

2.2.2 Test Well #2

Pumping began on TW2 at 9:54 on May 27, 2021. The flow was set to approximately 92 L/min for the duration of the 6-hour test. According to the water well record for Test Well #2 the recommended yield of the well was 30 gpm, which is equivalent to 113 L/min.

The discharge outlet was the same location as the first test; temporary piping was installed to ensure water drained to the drainage ditch. The pump was turned off at 15:57 and recovery was manually recorded until 16:48. The pump and data logger stayed in the well until the water level was fully recovered.

2.2.3 Test Well #3

On May 28, 2021, Cambium staff disinfected and installed the submersible pump prior to installation into Test Well #3 (TW3). The pump was installed to a depth of approximately 32 mbgs. The pumping test started at 8:51. Initial pumping rate was started at 50 L/min but had to be reduced to 6 L/min due to the significant drawdown. The pump was turned off at 14:51 and allowed to recover to 87% before removing the pump and logger.

2.2.4 Test Well #4

On September 9, 2021, Cambium staff disinfected and installed the submersible pump prior to installation into Test Well # 4 (TW4). The pump was installed to a depth of approximately 12 mbgs. The pumping test started at 9:10. Pumping rate was started at about 105 L/min and continued to the end of the test. The pump was turned off at 15:10 and allowed to recover to 84% before removing the pump and logger.

2.2.5 Monitoring Wells

The existing on-site supply wells and the private supply well that serviced five residential and commercial properties were monitored for the duration of the pumping tests. The location of the wells are shown on Figure 2.

Loggers were installed in each of the monitoring wells prior to the start of the pumping tests and water levels were measured manually with a cleaned and disinfected water level tape.

2.2.6 Groundwater Samples

Ground water samples were taken from each test well in the last half hour of the pumping tests. The samples were submitted to SGS Canada Inc. in Lakefield (SGS) for analysis of general organic and inorganic chemistry. SGS is accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA). Samples were stored at a temperature between 0 °C

and 10 °C prior and during transport to SGS. The certificates of analysis have been included in Appendix E.

3.0 Water Supply Assessment

The Ministry of the Environment, Conservation and Parks (MECP) Water Well Information System (WWIS) database was accessed to review water well records located within 500 m of the Site.

A total of 263 water well records were located within 500 m of the Site as shown on Figure 1. Some of the water well records are attached in Appendix F. Further details are summarized in Table 2 below. Many wells were re-drilled further into granite to access other fractures and have multiple MECP records.

Table 2 Summary of Surrounding Water Well Record Information

Well Type		Depth (mbgs)	Static Water Level (mbgs)	Recommended Pumping Rate (L/min)
Bedrock Count = 227	Maximum	164.6	36.6	113.6
	Minimum	7.3	0.3	3.8
	Average	52.6	6.8	21.9
Overburden Count = 14	Maximum	11.9	9.1	37.8
	Minimum	8.5	0.9	11.4
	Average	10.7	5.8	21.1

A summary of the information outlined in the well records is provided below:

- Overburden materials were reported as a layer of sand/loam overlying clay and gravel.
- The average and maximum thickness of overburden for the bedrock wells are 6.9 m and 28 m, respectively.
- The bedrock wells were installed to an average depth of 52.6 m below ground surface (mbgs) with an average static water level of 6.8 mbgs.
- The overburden wells were installed to an average depth of 10.7 mbgs with an average static water level of 5.8 mbgs.
- The average recommended flow rate for drilled overburden and bedrock wells are 21.1 L/min and 21.9 L/min, respectively.

3.1 Calculated Theoretical Water Demand

The proposed development included the construction of three (3) buildings with each building accommodating 6 two-bedroom units (i.e., 6 plex) with 2 persons per unit. Accordingly, the daily water demand was estimated as below.

The following theoretical water demand for the drinking water system (DWS) was calculated based on the number of dwellings, the estimated occupancy of the building, and design criteria from *Design Guidelines for Drinking Water Systems*[1].

- Average Day Demand = 3.8 L/min = 5,400 L/day
- Maximum Day Demand = 44.5 L/min
- Peak Hour Demand = 4,036 L/hour = 67.3 L/min

The theoretical average day water demand was calculated by multiplying the estimated occupancy of the building (12) by the conservatively estimated daily consumption per person (450 L/day). The theoretical maximum day demand was calculated by multiplying the average day demand by the maximum day factor of 11.9, and the theoretical peak hour factor was calculated by multiplying the average day demand by the peak hour factor of 17.9. The maximum day and peak hour factors were for drinking water systems serving fewer than 500 people.

3.2 Pumping Tests

3.2.1 Test Well #1

The static water level in TW1 was 1.47 mbgs on May 26, 2021, prior to the commencement of the pumping test. The pump was installed at a depth of approximately 26.8 mbgs. The available drawdown to the pump at the beginning of the test was 25.33 m (i.e., pump depth – the static water level). The maximum drawdown reported at the end of the test was 1.14 m, which equates to a water level of 2.61 mbgs. The available drawdown at the end of the

[1] Ministry of the Environment. 2008.

pumping test was 24.19 m (which is about 95% of the total available drawdown at the start of the test). A drawdown summary is in Table 3.

Table 3 Drawdown Summary of Test Well # 1 (A308589)

Well Identification	Well Depth (m)	Approx. Distance to Test Well # 1 (m)	Static Water Level (m)	Drawdown (m)
Test Well #1	27.43	N/A	1.91	1.14
Test Well #2	22.87	30.8	1.71	0.78
Test Well #3	N/A	67.2	2.66	0.39
48 Maple Avenue	26.61	16.22	0.85	0.99
62 Maple Avenue (A048296)	27*	34.82	2.08	0.13
Parkland's Apartment	13.72	94.95	2.0	0.74

**approximate depth*

The total drawdown at the end of the pumping test was 1.14 m. Near equilibrium conditions were achieved after about 60 minutes into pumping, although there were some fluctuations observed in the data, as depicted on Figure 3 due to the Parkland's Apartment well, which was being used intermittently to fill their storage tank. A total of 36,000 L was pumped from the well during the pumping test. The water level in the Test Well #1 recovered to 75% of static conditions within one hour after cessation of pumping, at 16:00 on May 26, 2021. A semi-log graphical representation of TW1 water level response is outlined on Figure 4.

Water Demand

The average daily water demand was calculated to be 5,400 L/day with a peak hour demand of 67.3 L/min. A total of 36,000 L was pumped from TW1 during the 6-hour pumping test, which is significantly more than the calculated average daily water demand. Furthermore, TW1 was pumped at a rate of 100 L/min throughout the duration of the pumping test, which is a significantly higher rate than will be required for the peak hour demand. This demonstrates that TW1 is more than adequate to supply the water demand requirements of the proposed development.

Aquifer Transmissivity

Time-drawdown and recovery-drawdown data can be used to estimate the aquifer parameters such as transmissivity (T) and storativity (S)**.** Aquifer Test Pro pumping test data analysis software was used to estimate the T and S of the aquifer. Accordingly, data was analysed using Theis analytical solution method for a confined aquifer and the estimated transmissivity was in the order of 5 x 10^{-4} m^2/sec (47 m^2/day), as shown in Figure 5 (data tables in Appendix D).

Time-recovery data of the pumping well was utilised to estimate the aquifer transmissivity and was estimated at 85 m^2/day, as shown in Figure 6.

Recovery data from the monitoring wells was very limited and therefore, could not be used to calculate aquifer storativity.

Theoretical Long-Term Yield

Aquifer test results can be used to estimate the theoretical long-term yield of the well. The theoretical long-term yield of TW1 is calculated using Farvolden and Moell methods.

The Farvolden equation is represented by:

$$Q_{20} = (0.68)\ (T)\ (H_a)\ (0.7)$$

Moell method is given by:

$$Q_{20} = (Q)(H_a)\ (o.7)\ /\ \{(S_{100}) + (5)\ (S\Delta t)\}$$

Where as:

Q_{20} = Theoretical sustainable yield for 20 years

H_a = available drawdown (m)

S_{100} = drawdown at 100 minutes

Q = constant pumping rate (m^3/day)

$S\Delta t$ = drawdown per log cycle

T = Transmissivity (m^2/day)

0.7 = Factor of safety

Accordingly, the long-term safe yield was estimated between 468 m^3/day (Moell method) and 526 m^3/day (Farvolden) (Appendix D).

The long-term yield estimations are inherently conservative, as the wells are typically not pumped continuously for long periods of time which allows for well recovery, and also a safety factor is incorporated into the calculations. Moreover, for all practical purposes the well pump cycles will be on and off on a much shorter time scale, thereby allowing the well to recharge.

Estimation of Interference Effects

A distance-drawdown graph, constructed using the drawdowns measured in three (3) observation wells while pumping TW1, defines the zone of influence and is presented in Figure 7. The drawdown from Parkland's Apartment was not used as this well was being used intermittently to supply the residents. When the TW1 was pumped at 100 L/min (22 igpm), the interference effect will be zero at a distance of approximately 44 m from the pumped well, as shown in Figure 7. Furthermore, TW1 was pumping at a rate significantly greater than will be required for the average daily water demand, which would reduce this interference effect.

3.2.2 Test Well #2

The static water level in TW2 was 1.65 mbgs on May 27, 2021, prior to the commencement of the pumping test. The pump was installed at a depth of approximately 21 mbgs. The available drawdown to the pump at the beginning of the test was 19.35 m. The maximum drawdown reported at the end of the test was very minimal at 1.48 m, which equates to a water level of 3.13 mbgs. The available drawdown at the end of the pumping test was 17.87 m (which is 85% of the available drawdown at the start of the test). A drawdown summary is in Table 4.

Table 4 Drawdown Summary of Test Well #2 (A308588)

Well Identification	Well Depth(m)	Approx. Distance to Test Well (m)	Static Level (m)	Drawdown (m)
Test Well #1	27.43	30.8	1.92	0.9
Test Well #2	22.87	N/A	1.75	1.48
Test Well #3	-	39.75	2.81	0.11
48 Maple Avenue	26.61	32.69	0.9	0.89
62 Maple Avenue (A048296)	27*	65.59	2.08	0.12
Parkland's Apartment	13.72	73.88	2.08	0.74

*approximate depth

The total drawdown at the end of the pumping test was 1.48 m. The water level in TW2 recovered to 63% of static conditions within the first 30 minutes and then to 90% in next two hours. A graphical representation of the water level response over time is shown on Figure 8.

A total of 32,950 L was pumped from the well during the pumping test. Considering that recovery occurred within first two hours, it is concluded that well can be pumped at 92 L/min over a 24-hour period. A semi-log graphical representation of TW1 water level response is outlined on Figure 9.

Water Demand

The average daily water demand was calculated to be 5,400 L/day with a peak hour demand of 67.3 L/min. Total volume pumped from TW2 during the 6-hour pumping test is significantly higher than the calculated average daily water demand. Furthermore, TW2 was pumped at a constant rate of 92 L/min throughout the duration of the pumping test, which is a significantly higher rate than will be required for the peak hour demand. This demonstrates that Test Well # 2 is more than adequate to supply the water demand requirements of the proposed development.

Aquifer Transmissivity

Time-recovery data of the pumping well was shown in Figure 10 and time-drawdown data is shown in Figure 11. Both Figures were used to estimate the aquifer transmissivity and was calculated at 24.5 m^2/day (8 x $10^{-4}m^2$/s).

Recovery data from the monitoring wells was very limited and was not used to calculate aquifer storativity.

Theoretical Long-Term Yield

The theoretical long-term safe yield was estimated between 512 m^3/day (Moell method) and 636 m^3/day (Farvolden) (Appendix D).

Estimation of Interference Effects

Drawdowns measured in three (3) observation wells while pumping TW2, were used to construct a distance-drawdown graph to define the zone of influence and was presented in Figure 12. When TW2 was pumped at 92 L/min (20.2 igpm), the interference effect will be zero at approximately 41 m from the pumped well, as shown in Figure 12. Furthermore, TW1 was pumping at a rate significantly greater than will be required for the average daily water demand, which would reduce this interference effect.

3.2.3 Test Well #3

The static water level in TW3 was 2.65 mbgs on May 28, 2021, prior to the commencement of the pumping test. The pump was installed at a depth of approximately 32 mbgs. The available drawdown to the pump at the beginning of the test was 29.38 m.

Table 5 Drawdown Summary of Test Well #3

Well Identification	Well Depth (m)	Approx. Distance to Test Well (m)	Static Level (m)	Drawdown (m)
Test Well #2	22.87	39.75	1.82	0.07
Test Well #3	N/A	-	2.13	25.07
Parkland's Apartment	13.72	38.63	2.13	0.07
31 Maple Avenue	19.30	55.6	4.54	0.07

The depth to water level at the end of the test was 27.54 mbgs, which equates to a drawdown of 24.89 m. The available drawdown at the cessation of the test was only about 1.8 m and the drawdowns were not stabilized, i.e., equilibrium conditions were not achieved. The water level in TW3 recovered to 5.08 mbgs after about 130 minutes of recovery period i.e., a recovery of 79%.

The results of the pumping test indicate that there is not sufficient yield in TW3 to satisfy the daily demand of the proposed multi-plex. Therefore, Cambium recommended to install a new well for water supply assessment.

Accordingly, a new well known as Test Well 4 was drilled as described elsewhere in the report.

3.2.4 Test Well #4

The static water level in TW4 was 2.19 mbgs on September 9, 2021, prior to the commencement of the pumping test. The pump was installed at a depth of approximately 12 mbgs. The available drawdown to the pump at the beginning of the test was 9.81 m. The maximum drawdown reported at the end of the test was at 1.50 m, which equates to a water level of 3.69 mbgs. The available drawdown at the end of the pumping test was 8.31 m (which is about 85% of the available drawdown at the start of the test). A drawdown summary is in Table 6.

Table 6 Drawdown Summary of Test Well #4 (A327196)

Well Identification	Well Depth(m)	Approx. Distance to Test Well (m)	Static Level (m)	Drawdown (m)
Test Well #4	14.00	-	2.19	1.00
Test Well #2	22.87	40.00	1.76	0.67
Test Well #1	27.43	69.00	1.24	0.42

The total drawdown at the end of the pumping test was 1.00 m. The water level in TW4 recovered to 84% of static conditions within the first 90 minutes.

A total of about 37,800 L were pumped from the well during the pumping test. Considering that 84% recovery occurred within first 90 minutes, it is concluded that well can be pumped at 105 L/min over a 24-hour period. A graphical representation of TW4 water level response is outlined on Figure 13. A semi-log plot of drawdown response of Test Well # 4 was shown on Figure 14.

Water Demand

Based on total volume of water pumped from TW4 during the 6-hour pumping test, which is significantly more than the calculated average daily water demand, the well can easily meet the daily water demand. Furthermore, the well was pumped at a rate of 105 L/min throughout the duration of the pumping test, which is a significantly higher rate than will be required for the

peak hour demand. This demonstrates that TW4 is more than capable to supply the water demand requirements of the proposed development.

Aquifer Transmissivity

Time-recovery data of the pumping well was shown in Figure 15 and was used to estimate the aquifer transmissivity. The calculated transmissivity of the aquifer was at 92 m^2/day.

Theoretical Long-Term Yield

The theoretical long-term safe yield was estimated between 514 m^3/day (Moell method) and 517 m^3/day (Farvolden) (Appendix D).

Estimation of Interference Effects

A minimum of three (3) observation wells were required to construct a distance-drawdown graph. As only two on-site wells (TW1 and TW2) were available for water level monitoring, no interference effects were estimated while pumping TW4.

Well Specific Capacities and Yields:

The Specific Capacity of a well is given by the pumping rate (yield) divided by the drawdown. It can be used to provide the design pumping rate or maximum yield for the well. Accordingly, the specific capacities were estimated for all three wells as below.

Well	Pumping Rate (L/min)	Drawdown (m)	Specific Capacity (L/m of drawdown)	Maximum Yield of the Well (L/min)
Test Well #1	100	1.14	88	2,226
Test Well #2	92	1.48	62	1,200
Test Well #3	6	25.07	0.2	6.0
Test Well #4	105	1.50	70	687

Maximum yield of the well can be estimated as specific capacity multiplied by the maximum available drawdown. Therefore, as depicted above, all Test Wells can be described as high-capacity wells, while Test Well #3 is a poor, low-yielding well.

3.3 Well Demand and Supply Assessment

Summary of pumping tests results, depicting the aquifer transmissivity, long-term pumping yields and estimated demands, are included in the table below.

Daily demand was estimated based on the proposed development plan (Appendix A) provided by the client and assuming a daily consumption rate of 450 L per person with 2 persons per bedroom. A summary of the well yields and water demand is shown in Table 7.

Table 7 Summary of Aquifer Properties and Water Demand

Test Well	Transmissivity (m2/day)	Long-Term (Q20) Farvolden	Yields (m3/day) Moell	Estimated Daily Demand (m3/day)
TW #1	47 to 85	526	468	5.4
TW #2	24.5	230	512	5.4
TW #3	Poor capacity well (6 L/min or 9 m3/day) based on well specific capacity.			
TW #4	92	517	514	5.4

Based on the above, test wells TW1, TW2 and TW4 can be considered as high-capacity wells and can meet the daily water demand of the proposed multi-suite apartments.

Approximately an average of 35.6 m^3 was pumped continuously in one day from the each of the test wells during the pumping tests. This was well over the estimates daily water use for each proposed unit (5.4 m^3) which demonstrates that the water supply wells are more than adequate to support the development.

As test well TW3 has low yielding capacity and there is not enough drawdown available in the well for the long-term usage, we recommend decommissioning this well and be replaced by TW4.

3.4 Water Quality Results

Raw water samples were taken from each test well in the last half hour of the pumping test. Lab reports are included in Appendix E and a summary of the results follows below.

The general chemistry of TW1 and TW2 are very similar indicating the water may be sourced from a similar fracture. A summary of notable parameters is in Table 8 and were compared with the Ontario Drinking Water Quality Standards Tables (O. Reg. 169/03) as well as objectives in D-5-5 (Private Well: Water Supply Assessment) (MOE, 2006).

Table 8 Summary of Water Quality Parameters

Parameter	Ontario Drinking Water Objective	Test Well #1	Test Well #2	Test Well #3	Test Well #4
Total Coliforms (cfu/100mL)	Not detectable	4	2	0	0
E. Coli (cfu/100mL)	Not detectable	0	0	0	0
Heterotrophic Plate Count (cfu/100mL)	Should not increase above baseline	3	85	19	30
Alkalinity (mg/L as $CaCO_3$)	30-500	200	198	96	141
Turbidity (NTU)	5	0.41	0.75	79.7	0.30
Sulphate (mg/L)	500	27	25	450	<6
Hardness (mg/L as $CaCO_3$)	80-100	239	221	696	161
Calcium (mg/L)	-	50.2	47.7	236	37.2
Iron (mg/L)	0.3	0.019	0.100	0.079	0.023
Magnesium (mg/L)	-	27.5	24.8	25.8	16.6
Manganese (dissolved, mg/L)	0.05*	0.207	0.221	0.606	0.138
Sodium (mg/L)	20/200	20.9	20.9	39.1	27.3

Note: Bolded values indicate exceeding the ODWS objectives. *Aesthetic Objective

There is no E. Coli present in any of the samples and total coliforms are less than 6 cfu/100 which is considered acceptable water quality according to the D-5-5 guideline.

All four wells have high hardness from high levels of calcium and magnesium which is typical of groundwater in the Haliburton area. Similar to surrounding properties, the new developments would benefit from a water softener system to reduce taste and pipe scaling. A softening system will increase the sodium levels which are already above the health-related warning label of 20 mg/L (Government of Ontario, 2021). If sodium levels remain above 20 mg/L, the local Medical Officer of Health should be notified to alert persons on sodium reduced diets. The concentration of sodium was less than the aesthetic limit indicating that the water is still potable at this concentration.

Test Well # 3 has very high hardness, turbidity, sulphate, and sodium. It is not recommended to use this well since treatment will be difficult and also there is insufficient quantity for the proposed development. Hardness values above 500 mg/L are unacceptable for domestic purposes and sulphate is considered a laxative and not considered reasonably treatable above 500 mg/L (Government of Ontario, 2021).

Considering that the proposed development for each lot will include a 6-plex multi-residential building, each well will require a regulated drinking water treatment system to comply with O.Reg. 170/03. Cambium has prepared a Drinking Water System Design Brief under separate cover for each of these three developments which includes the recommended drinking water system and minimum level of treatment.

4.0 Conclusions

Cambium was retained by Hot Pond Enterprises Corp. to complete a hydrogeological assessment for a proposed three lot development located at 46 Maple Avenue, 48 Maple Avenue and an unnumbered lot along Maple Avenue, Halliburton, Ontario. It should be noted that these three lots were merged into one by By-Law 2021-59, dated September 15, 2021.It is proposed to develop the lot with three, 6-unit apartment buildings with one level basement.

Four water wells namely Test Well #1 (TW1), TW2, TW3 and TW4were installed as per Guideline D-5-5. All of the wells were installed into the underlying bedrock formations and are sourced by water bearing fractures within the bedrock. The well yield was sufficient in three of the test wells (TW1, TW2 and TW4) for peak usage for domestic purposes; however, the yield in one well (TW3) was poor to meet the required demand and will need to be decommissioned. Considering the aquifer transmissivity and long term well yields of TW1, TW2 and TW4, the wells can easily sustain the proposed residential demand and there is no need for the inclusion of a water storage system.

During each pumping test, water levels were monitored in the other on-site test wells. Drawdown were observed in the monitoring wells during each pumping test and the radius of influence was estimated between 41 and 44 m at the pumping rates of 92 L/min and 100 L/min, respectively. However, it should be noted that test wells #1, #2 and #4 were pumped at a rate significantly greater than the calculated daily demand required by the proposed development and as such the potential of well interference to surrounding well users will be significantly lower than is calculated in this report.

There were a few water quality parameters which exceeded the Ontario Drinking Water Quality Standards in some of the test wells: namely hardness (all Wells) and slightly elevated sodium. Hardness can be readily treated with a domestic water softening system.

Test Well # 3 has very high hardness, turbidity, sulphate, and sodium and therefore, not recommended to use this well. Also, the well has low yielding capacity and is insufficient for the proposed development, hence, Cambium recommends decommissioning this well.

It is noted that it is the duty of the client to notify prospective buyers that sodium is present in the groundwater in the area at concentrations greater than 20 mg/L, which would affect

individuals on sodium reduced diets and that this notification should be added to the title deeds for each property.

5.0 References

Government of Ontario. (2021, July 20). *D-5-5 Private Wells: Water Supply Assessment*. Retrieved from Environment and Energy: https://www.ontario.ca/page/d-5-5-private-wells-water-supply-assessment

MOE. (2006). *Technical Support Document for Ontario Drinking Water Standards, Objectives and Guidelines.*

6.0 Standard Limitations

Limited Warranty

In performing work on behalf of a client, Cambium relies on its client to provide instructions on the scope of its retainer and, on that basis, Cambium determines the precise nature of the work to be performed. Cambium undertakes all work in accordance with applicable accepted industry practices and standards. Unless required under local laws, other than as expressly stated herein, no other warranties or conditions, either expressed or implied, are made regarding the services, work or reports provided.

Reliance on Materials and Information

The findings and results presented in reports prepared by Cambium are based on the materials and information provided by the client to Cambium and on the facts, conditions and circumstances encountered by Cambium during the performance of the work requested by the client. In formulating its findings and results into a report, Cambium assumes that the information and materials provided by the client or obtained by Cambium from the client or otherwise are factual, accurate and represent a true depiction of the circumstances that exist. Cambium relies on its client to inform Cambium if there are changes to any such information and materials. Cambium does not review, analyze or attempt to verify the accuracy or completeness of the information or materials provided, or circumstances encountered, other than in accordance with applicable accepted industry practice. Cambium will not be responsible for matters arising from incomplete, incorrect or misleading information or from facts or circumstances that are not fully disclosed to or that are concealed from Cambium during the provision of services, work or reports.

Facts, conditions, information and circumstances may vary with time and locations and Cambium's work is based on a review of such matters as they existed at the particular time and location indicated in its reports. No assurance is made by Cambium that the facts, conditions, information, circumstances or any underlying assumptions made by Cambium in connection with the work performed will not change after the work is completed and a report is submitted. If any such changes occur or additional information is obtained, Cambium should be advised and requested to consider if the changes or additional information affect its findings or results.

When preparing reports, Cambium considers applicable legislation, regulations, governmental guidelines and policies to the extent they are within its knowledge, but Cambium is not qualified to advise with respect to legal matters. The presentation of information regarding applicable legislation, regulations, governmental guidelines and policies is for information only and is not intended to and should not be interpreted as constituting a legal opinion concerning the work completed or conditions outlined in a report. All legal matters should be reviewed and considered by an appropriately qualified legal practitioner.

Site Assessments

A site assessment is created using data and information collected during the investigation of a site and based on conditions encountered at the time and particular locations at which fieldwork is conducted. The information, sample results and data collected represent the conditions only at the specific times at which and at those specific locations from which the information, samples and data were obtained and the information, sample results and data may vary at other locations and times. To the extent that Cambium's work or report considers any locations or times other than those from which information, sample results and data was specifically received, the work or report is based on a reasonable extrapolation from such information, sample results and data but the actual conditions encountered may vary from those extrapolations.

Only conditions at the site and locations chosen for study by the client are evaluated; no adjacent or other properties are evaluated unless specifically requested by the client. Any physical or other aspects of the site chosen for study by the client, or any other matter not specifically addressed in a report prepared by Cambium, are beyond the scope of the work performed by Cambium and such matters have not been investigated or addressed.

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The client expressly agrees that Cambium employees shall have no personal liability to the client with respect to a claim, whether in contract, tort and/or other cause of action in law. Furthermore, the client agrees that it will bring no proceedings nor take any action in any court of law against Cambium employees in their personal capacity.

Appended Figures

HYDROGEOLOGICAL ASSESSMENT

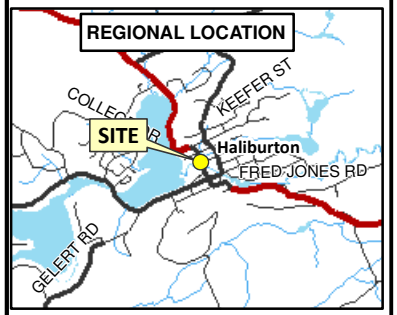
GREG BISHOP SURVEYING LIMITED

46 and 48 Maple Avenue

Haliburton, Ontario

LEGEND

- Water Well Record
- 500m Buffer
- Site (approximate)



Notes:
- Base mapping features are © Queen's Printer of Ontario, 2019 (this does not constitute an endorsement by the Ministry of Natural Resources or the Ontario Government).
- Distances on this plan are in metres and can be converted to feet by dividing by 0.3048.
- Cambium Inc. makes every effort to ensure this map is free from errors but cannot be held responsible for any damages due to error or omissions. This map should not be used for navigation or legal purposes. It is intended for general reference use only.

CAMBIUM

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Peterborough, Ontario, K9H 1E5
Tel: (705) 742.7900 Fax: (705) 742.7907
www.cambium-inc.com

AREA LOCATION PLAN

Project No.: 12397-001		Date: July 2021	Rev.:
Scale: 1:6,000		Projection: NAD 1983 UTM Zone 17N	
Created by: TLC	Checked by: KW	Figure: 1	

O:\GIS\MXDs\12300-12399\12397-001 Hot Pond Enterprises Corp - HydroGeo Assess - 46 Maple Ave, Haliburton\2021-07-08 FIG 1 - Area Location Plan.mxd

HYDROGEOLOGICAL ASSESSMENT

GREG BISHOP SURVEYING LIMITED

46 and 48 Maple Avenue

Haliburton, Ontario

LEGEND

- Monitoring/Observation Well
- Test Well
- Site (approximate)

Notes:

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- Distances on this plan are in metres and can be converted to feet by dividing by 0.3048.
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PUMPING TEST WELL LOCATIONS

Project No.: 12397-001		Date: July 2021 Rev.:	
Scale: 1:750		Projection: NAD 1983 UTM Zone 17N	
Created by: TLC	Checked by: KW	Figure:	2

O:\GIS\MXDs\12300-12399\12397-001 Hot Pond Enterprises Corp - HydroGeo Assess - 46 Maple Ave, Haliburton\2021-07-08 FIG 2 - Pumping Test Well Locations.mxd

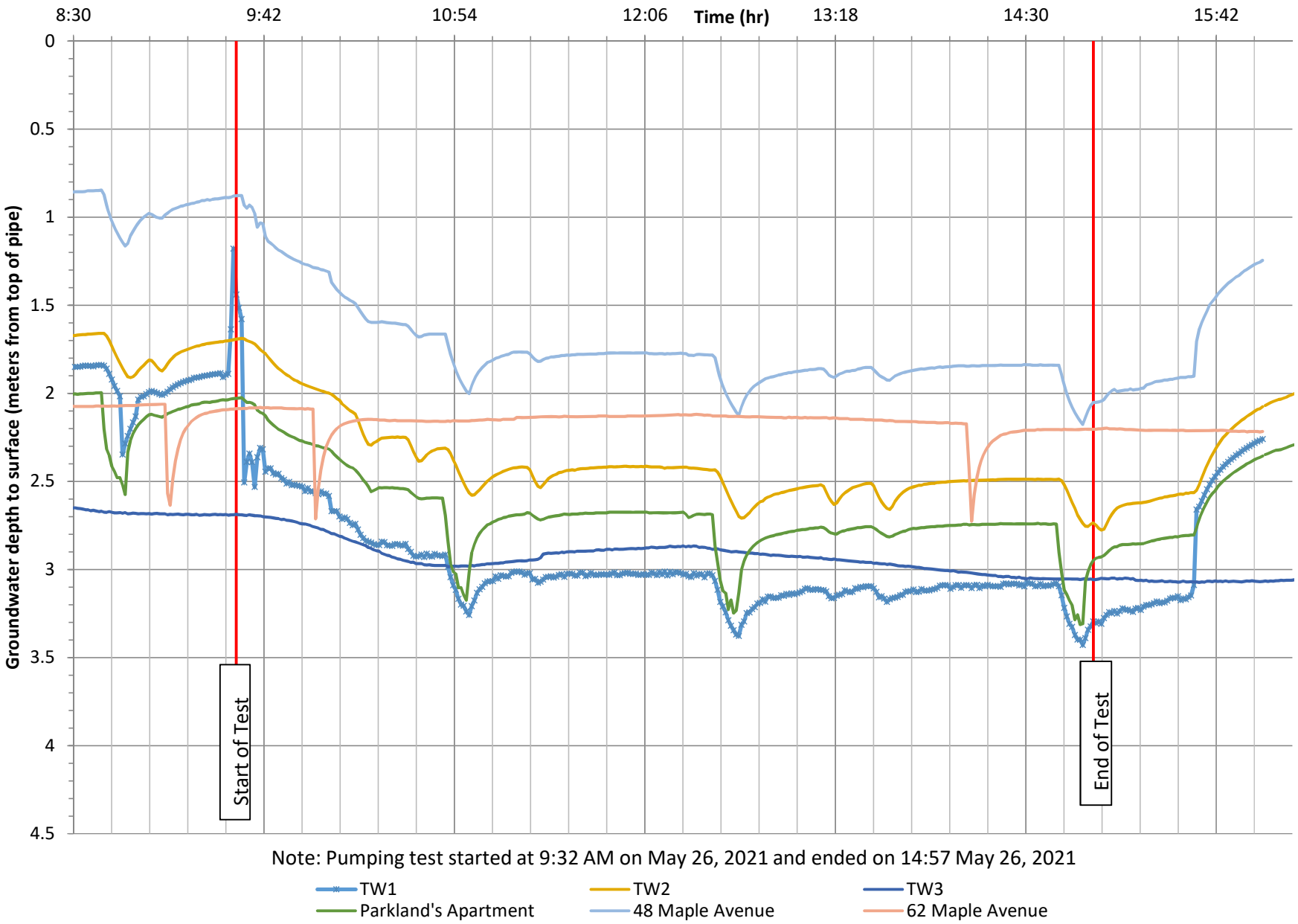


Figure 3: Pumping Test on TW1 (A308589)

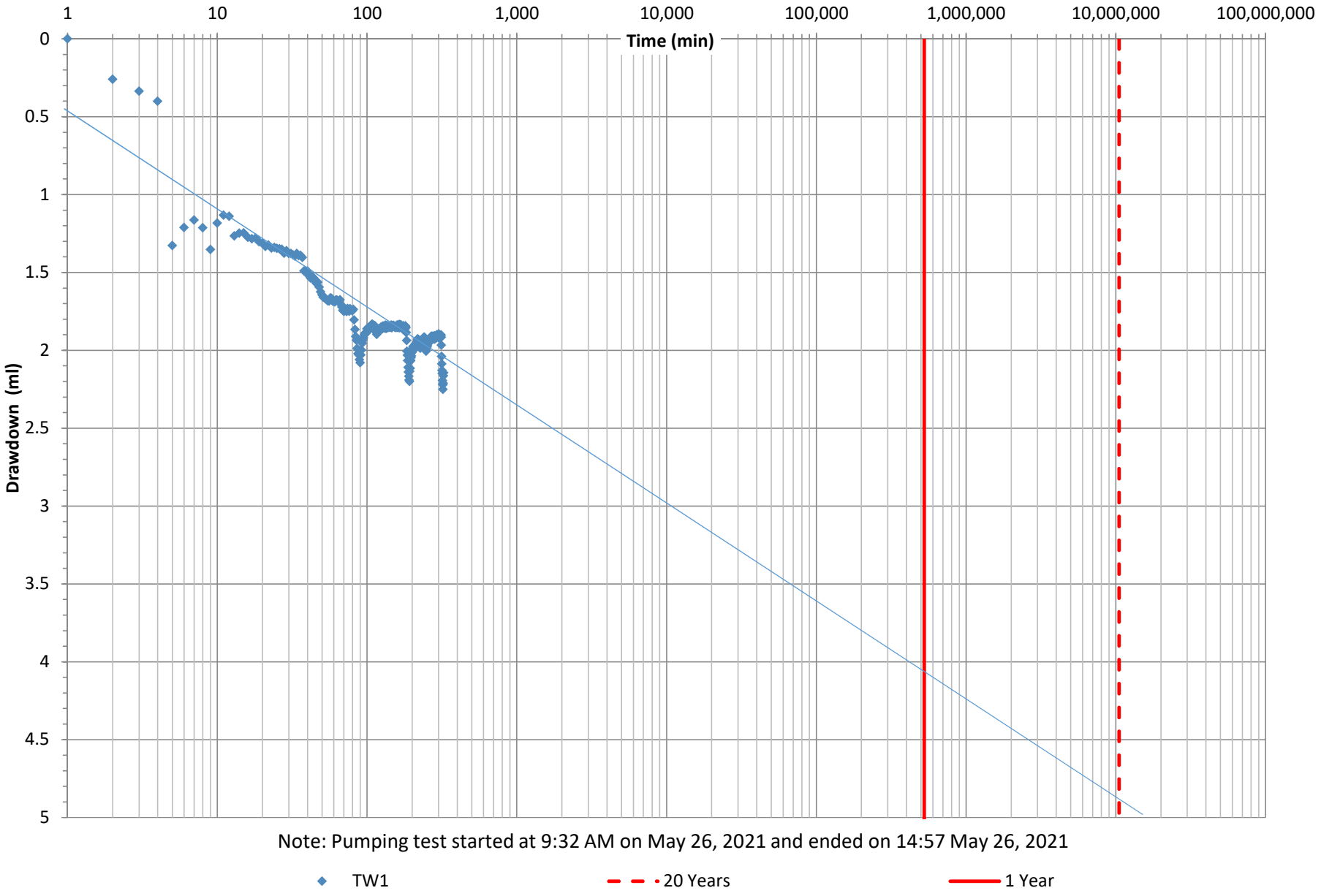
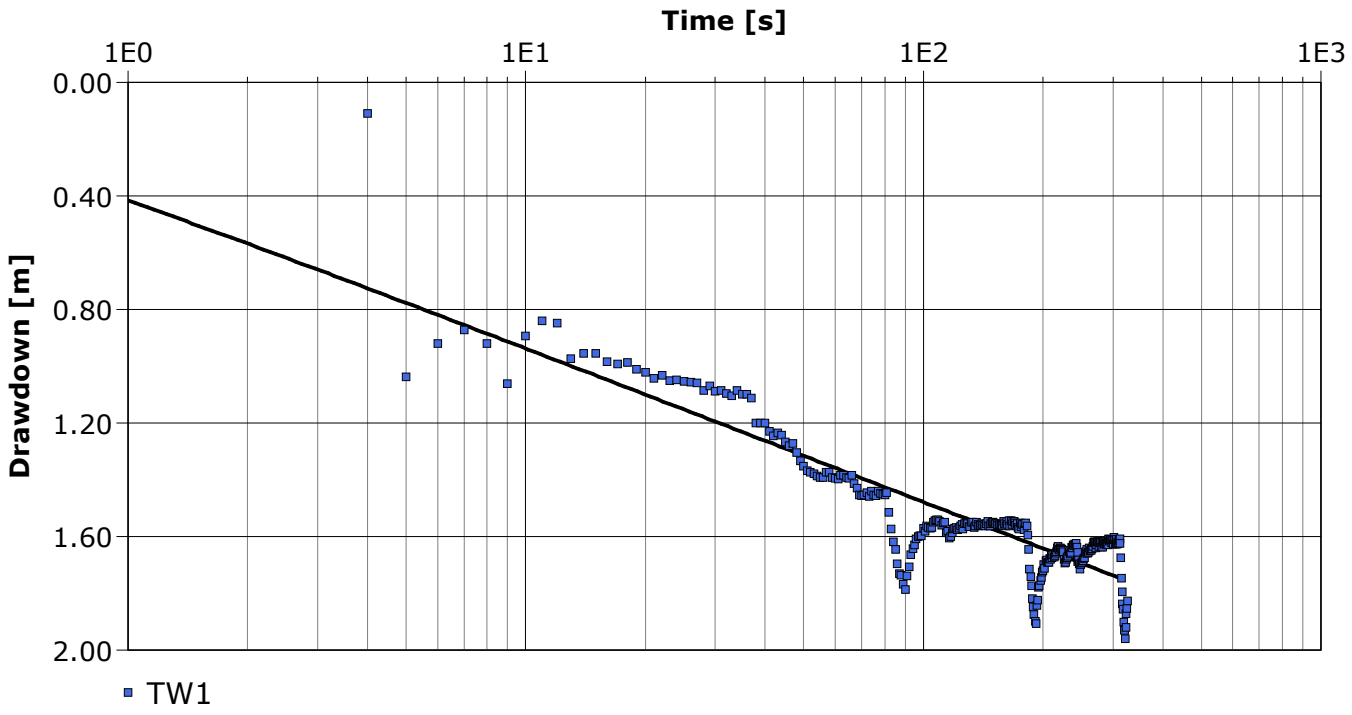


Figure 4: Extrapolated Drawdown on TW1 (A308589)

Cambium Inc. 135 Bayfield St #102, Barrie, ON L4M 3B3	**Pumping Test Analysis Report** FIGURE 5
	Project: Hydrogeological Investigation
	Number: 12397-001
	Client: Hot Pond Enterprises Corporation

Location: 46 Maple Avenue, Halliburton, ON	Pumping Test: TW1	Pumping Well: TW1
Test Conducted by: Josh/Michelle		Test Date: 5/26/2021
Analysis Performed by: Sudhakar Kurli	Theis	Analysis Date: 6/27/2021
Aquifer Thickness: 26.00 m	Discharge Rate: 1.6 [l/s]	



Calculation using Theis

Observation Well	Transmissivity [m²/s]	Hydraulic Conductivity [m/s]	Storage coefficient	Radial Distance to PW [m]	
TW 1	5.40×10^{-4}	2.08×10^{-5}	2.30×10^{-2}	0.1	

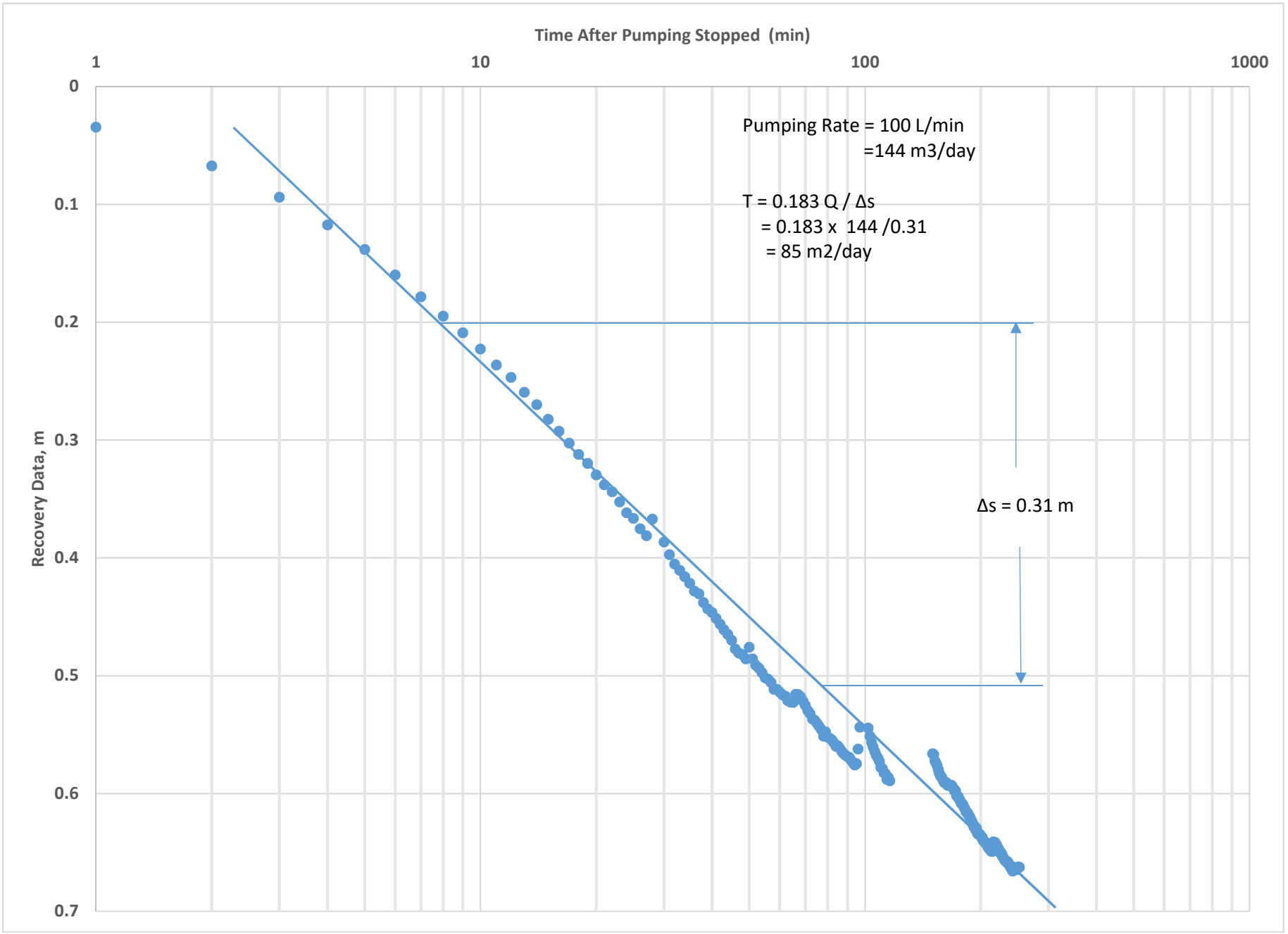


Figure 6: TW1 Time-Recovery

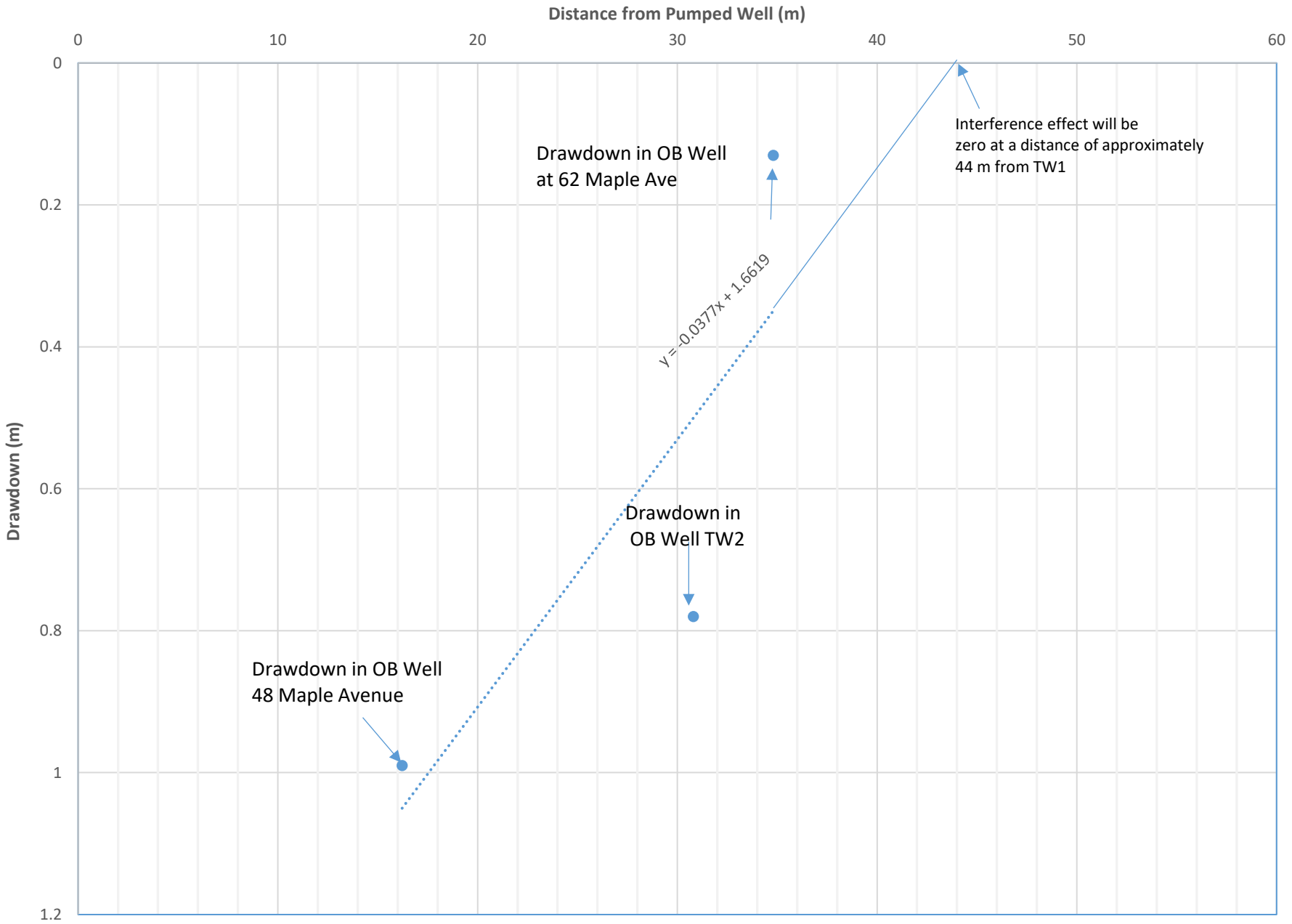


Figure 7: TW1 Interference Effects

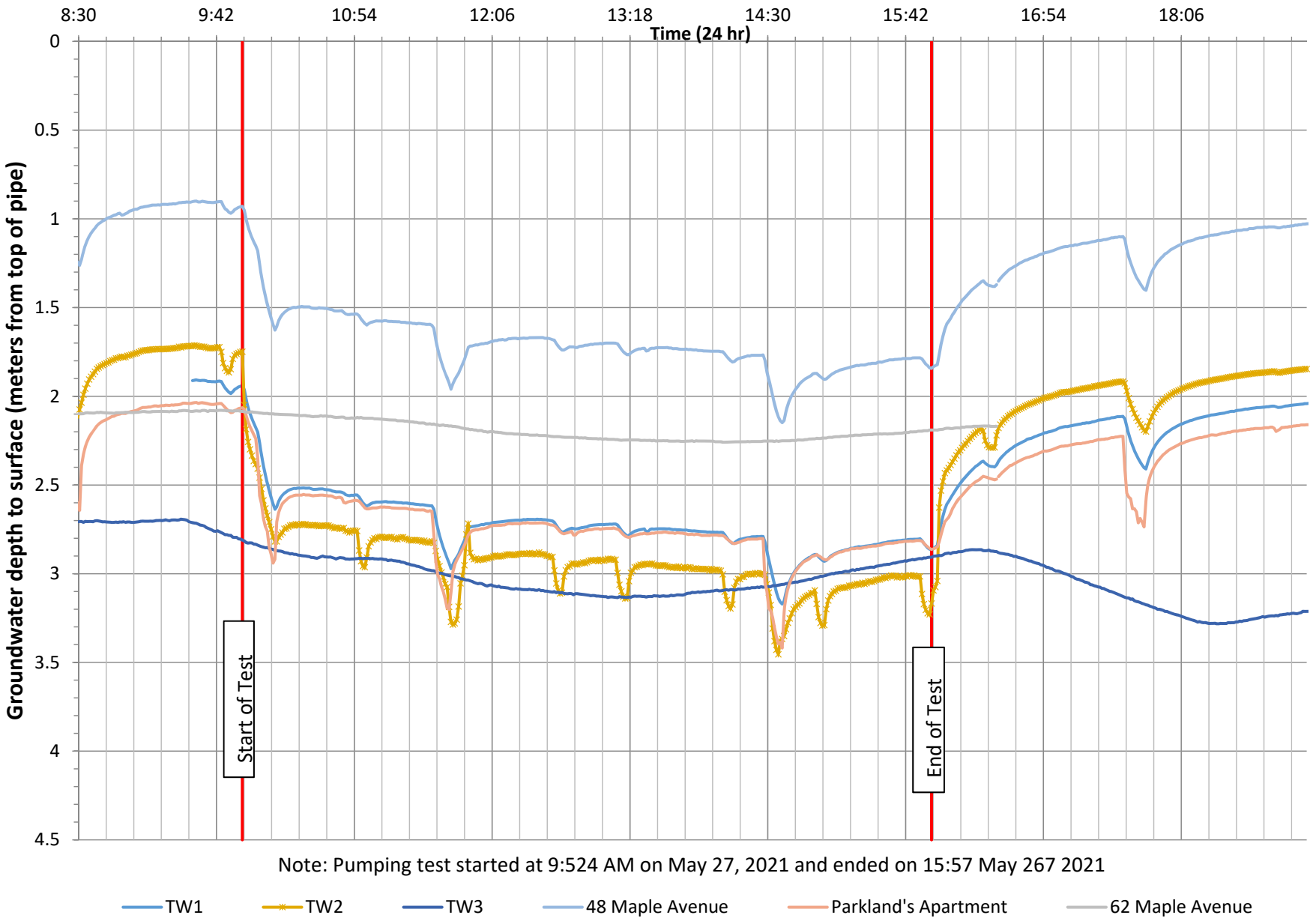


Figure 8: Pumping Test on TW2 (A308588)

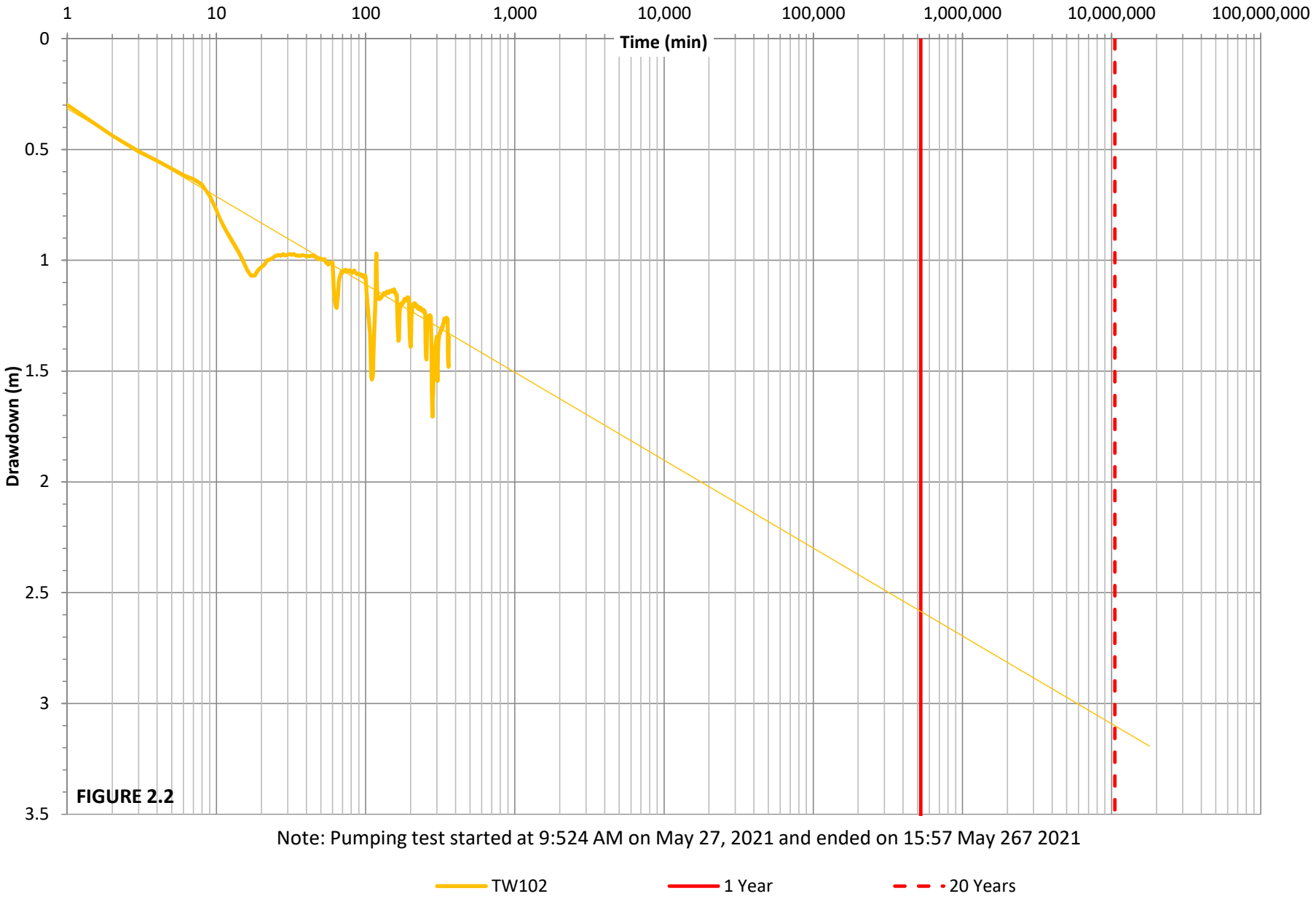


Figure 9: Extrapolated Drawdown on TW2 (A308588)

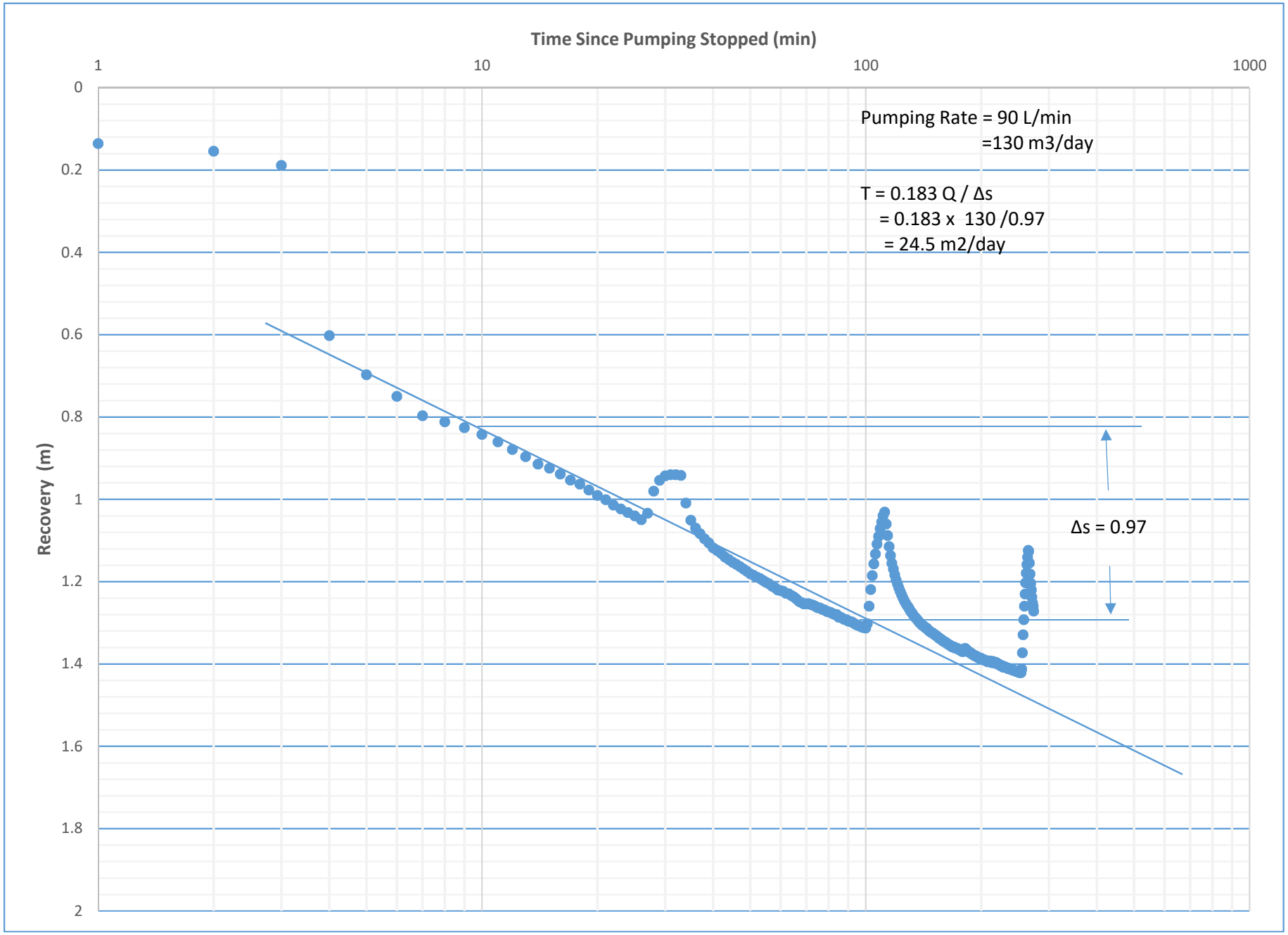
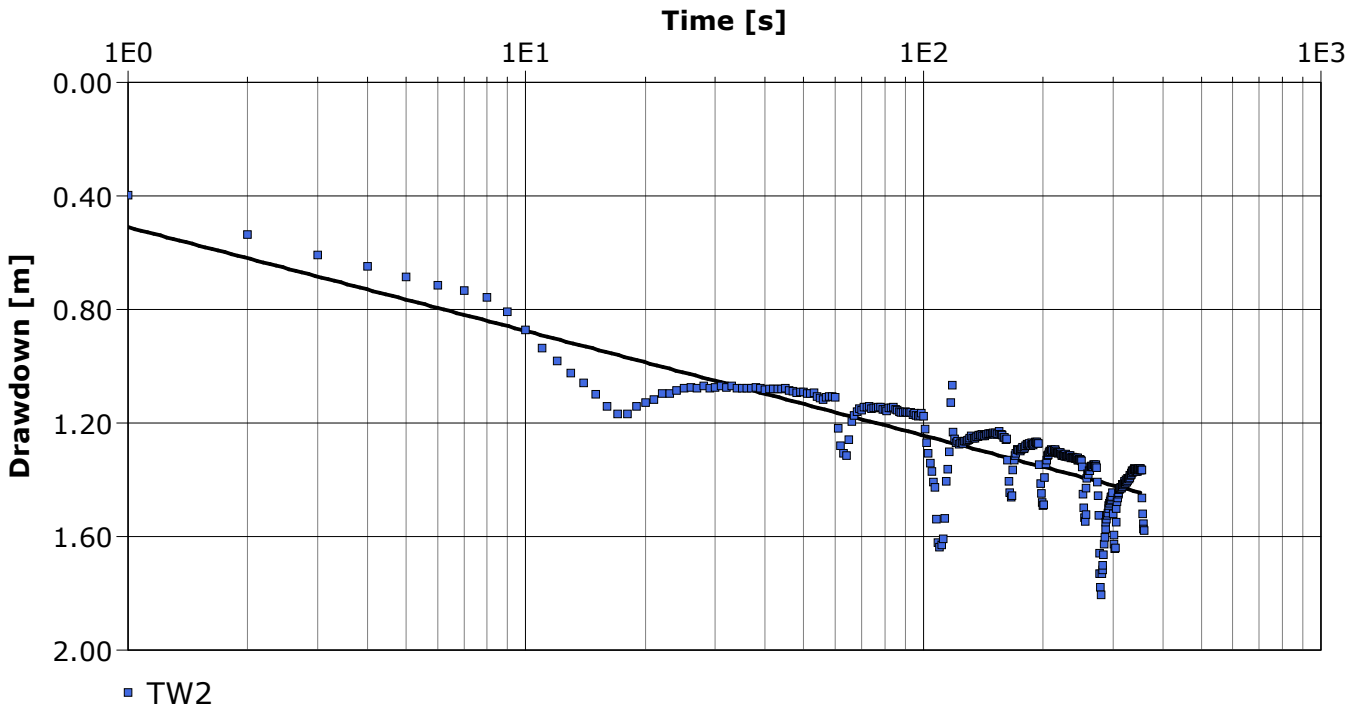


Figure 10: TW2 Time - Recovery

Cambium Inc. 135 Bayfield St #102, Barrie, ON L4M 3B3	**Pumping Test Analysis Report**	FIGURE 11
	Project: Hydrogeological Investigation	
	Number: 12397-001	
	Client: Hot Pond Enterprises Corporation	

Location: 46 Maple Avenue, Halliburton, ON	Pumping Test: TW2	Pumping Well: TW2
Test Conducted by: Josh/Michelle		Test Date: 5/27/2021
Analysis Performed by: Sudhakar Kurli	Theis	Analysis Date: 6/27/2021
Aquifer Thickness: 21.00 m	Discharge Rate: 1.53 [l/s]	



Calculation using Theis

Observation Well	Transmissivity [m²/s]	Hydraulic Conductivity [m/s]	Storage coefficient	Radial Distance to PW [m]	
TW2	8×10^{-4}	4×10^{-5}	3.20×10^{-3}	0.15	

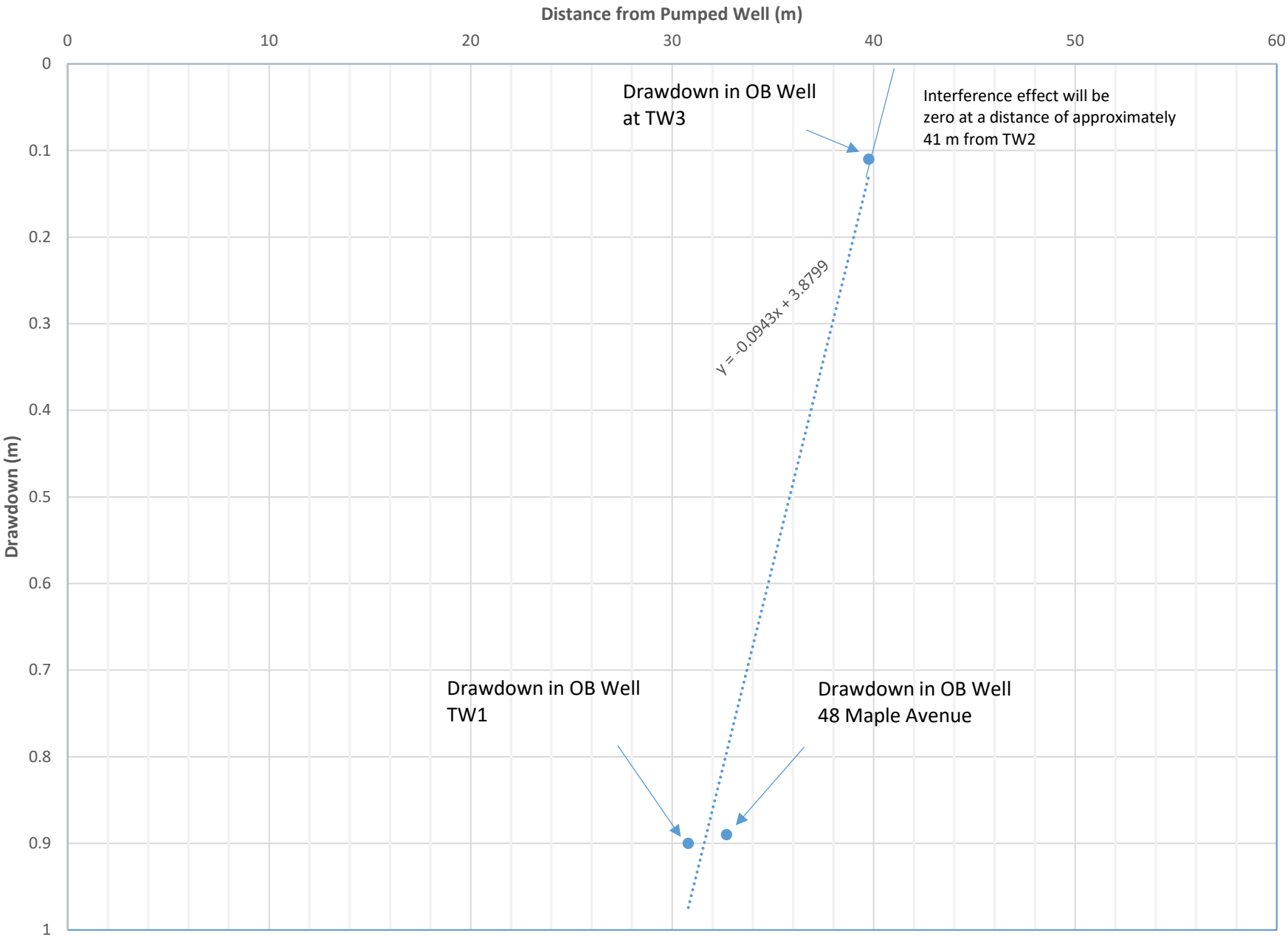
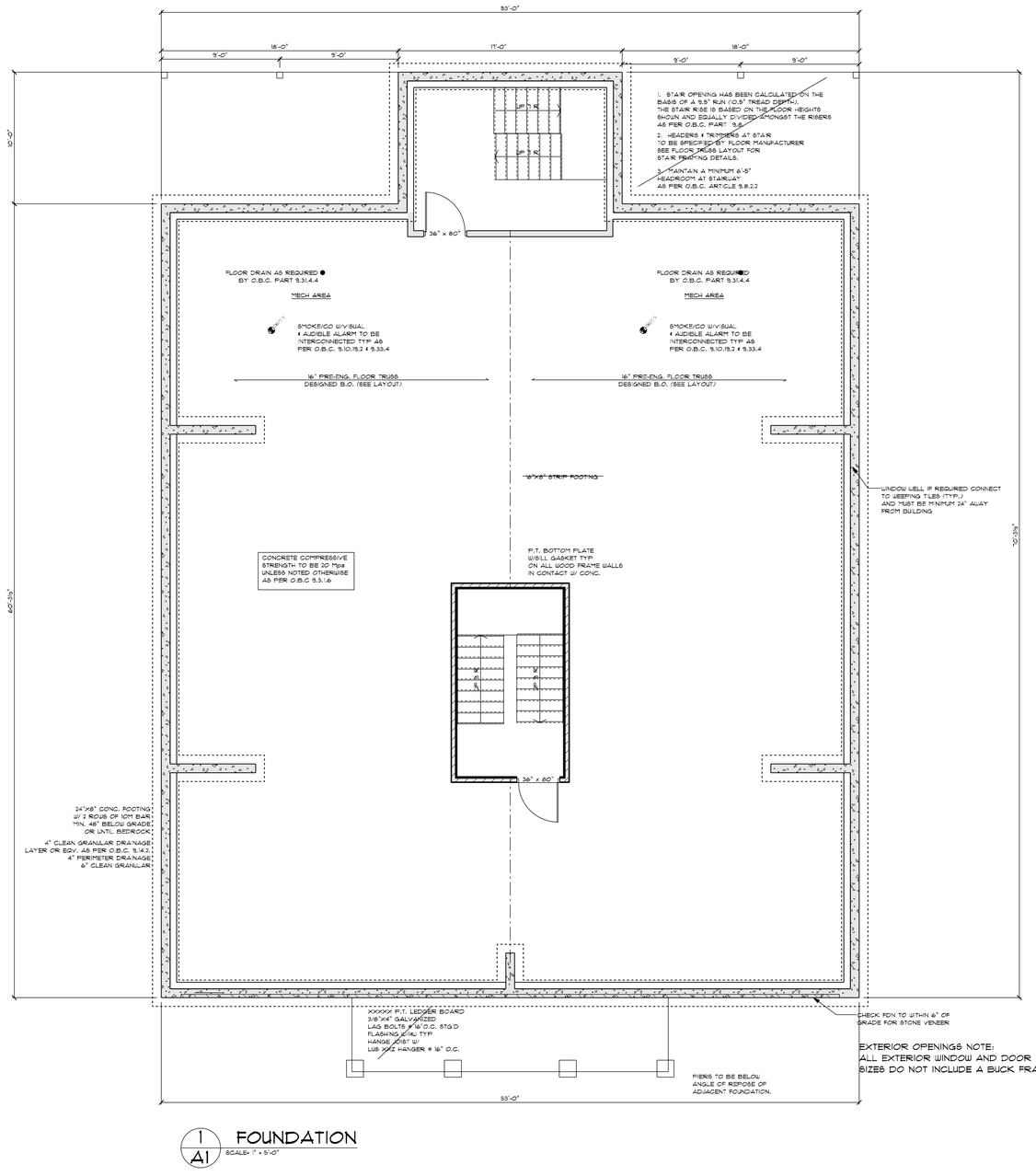


Figure 12: TW2 Interference Effects

Appendix A

Proposed Development Plan



1/A1 FOUNDATION

SCALE: 1" = 5'-0"

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(705)457-5085
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4. BACKFILL HEIGHTS FOR FOUNDATION WALLS TO CONFORM TO O.B.C. TABLE 9.15.4.2.A.
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8. SMOKE & CO DETECTORS/ALARMS TO BE INSTALLED AS PER O.B.C. 9.10.19.2 & 9.33.4
9. VENTILATE ROOF TO RATIO OF INSULATED CEILING AREA AS PER O.B.C. 9.19.1.2
10. ATTICS ARE TO BE PROVIDED WITH AN INSUL. & SEALED ACCESS HATCH THAT IS MIN. 21 5/8"x24"
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BEN DECARLO
BCIN: 36522

DATE: _____

SIG: _____

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PROVINCE OF ONTARIO

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O/A HIGHLAND DESIGN
BCIN: 110400

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PROJECT INFORMATION:

8B-12 SPECIFICATION MATRIX

COMPLIANCE PACKAGE:	
INSULATION COMPONENT	R VALUE/ER
CEILING WITH ATTIC SPACE	-
CEILING WITHOUT ATTIC SPACE	-
EXPOSED FLOOR	-
WALLS ABOVE GRADE	-
BASEMENT WALLS	-
SLAB	
> 600mm BELOW GRADE	-
HEATED OR +/< 600mm B.G.	-
EDGE +/< 600mm B.G.	-
WINDOWS/DOORS	-
SKYLIGHTS	-
SPACE HEATING EQUIP. (%)	-
HRV (%)	-
DHW HEATER (EF)	-
DWHR (%)	-
FENESTRATION CALC AS PER 8B-12	
WALL AREA*	-
FENESTRATION AREA*	-
TOTAL % OF WALL AREA*	-

DESIGN CRITERIA

8B-1 DESIGN DATA - HALIBURTON

FLOOR LOADS: FLOOR LIVE LOAD - 40 PSF
FLOOR DEAD LOAD - 12 PSF

ROOF LOADS: ROOF LIVE LOAD - 42 PSF
ROOF DEAD LOAD - 12 PSF

ATTIC SPACE LOADS: LIVE LOAD - 10 PSF
DEAD LOAD - 10 PSF

CUSTOMER NAME:
CARSON APT

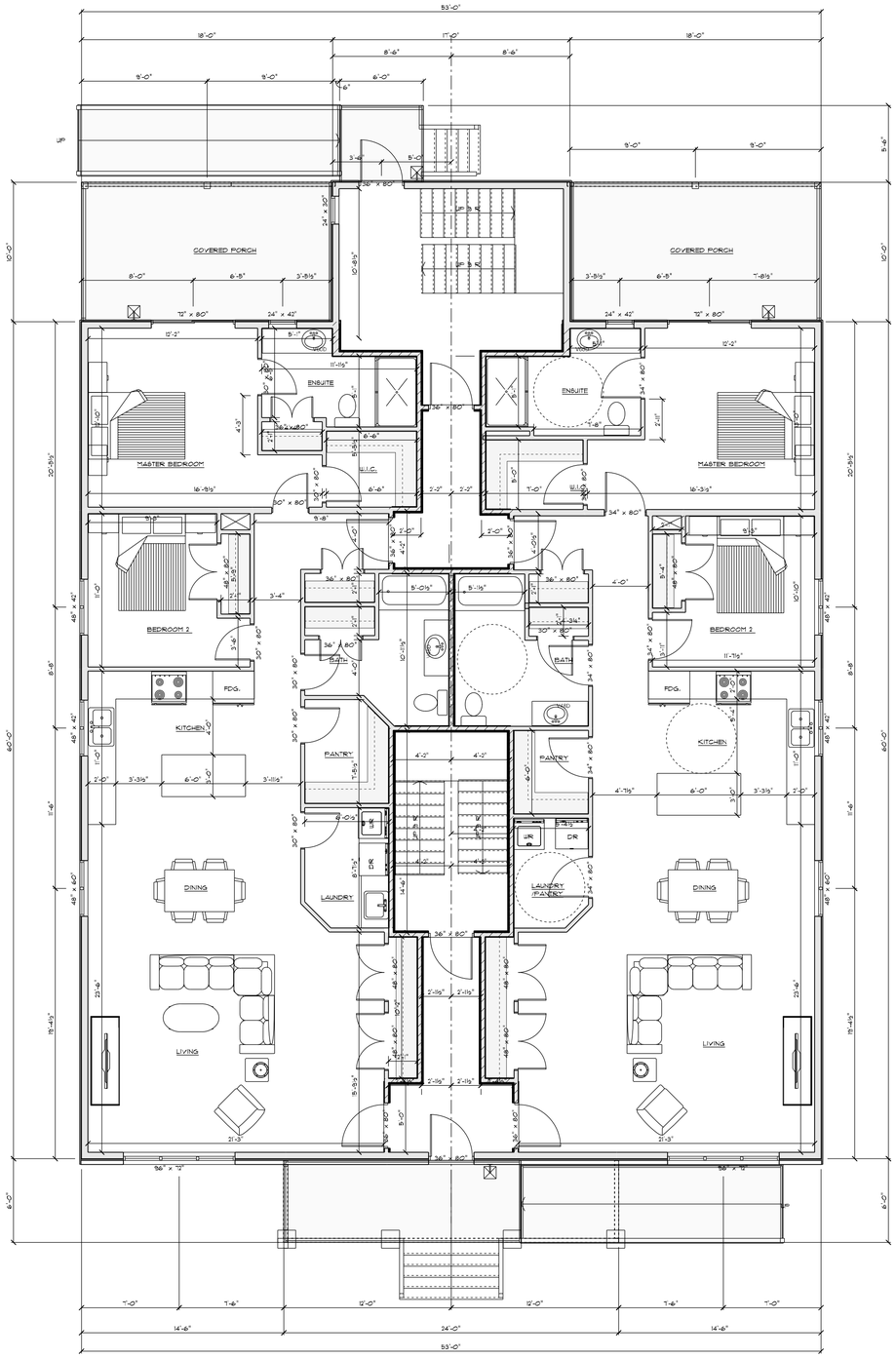
PROJECT NUMBER:
2021-01

PROJECT TYPE:

SITE LOCATION:

SCALE:	1" = 5'-0"
DWG. DATE:	2021-07-15
DRAWN BY:	H.FOULDS
CHECKED BY:	B.DECARLO

DRAWING NUMBER:
A1



1 / A2 MAIN FL PLAN UNITS 101 & 102

SCALE: 1" = 5'-0"

MAIN FL UNITS 101&102 AREAS = 1535 SQFT
UNITS 101&102 COVERED PORCH AREAS= 174SQFT

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9. VENTILATE ROOF TO RATIO OF INSULATED CEILING AREA AS PER O.B.C. 9.19.1.2
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BEN DECARLO
BCIN: 36522

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SIG: _____

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PROVINCE OF ONTARIO

2637785 ONT. LTD.
O/A HIGHLAND DESIGN
BCIN: 110400

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PROJECT INFORMATION:

8B-12 SPECIFICATION MATRIX	
COMPLIANCE PACKAGE-	
INSULATION COMPONENT	R VALUE/ER
CEILING WITH ATTIC SPACE	-
CEILING WITHOUT ATTIC SPACE	-
EXPOSED FLOOR	-
WALLS ABOVE GRADE	-
BASEMENT WALLS	-
SLAB	
> 600mm BELOW GRADE	-
HEATED OR +/- 600mm B.G.	-
EDGE +/- 600mm B.G.	-
WINDOWS/DOORS	-
SKYLIGHTS	-
SPACE HEATING EQUIP. (%)	-
HRV (%)	-
DHW HEATER (EF)	-
DWHR (%)	-
FENESTRATION CALC AS PER 8B-12	
WALL AREA*	-
FENESTRATION AREA*	-
TOTAL % OF WALL AREA*	-

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FLOOR DEAD LOAD - 12 PSF

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ROOF DEAD LOAD - 12 PSF

ATTIC SPACE LOADS: LIVE LOAD - 10 PSF
DEAD LOAD - 10 PSF

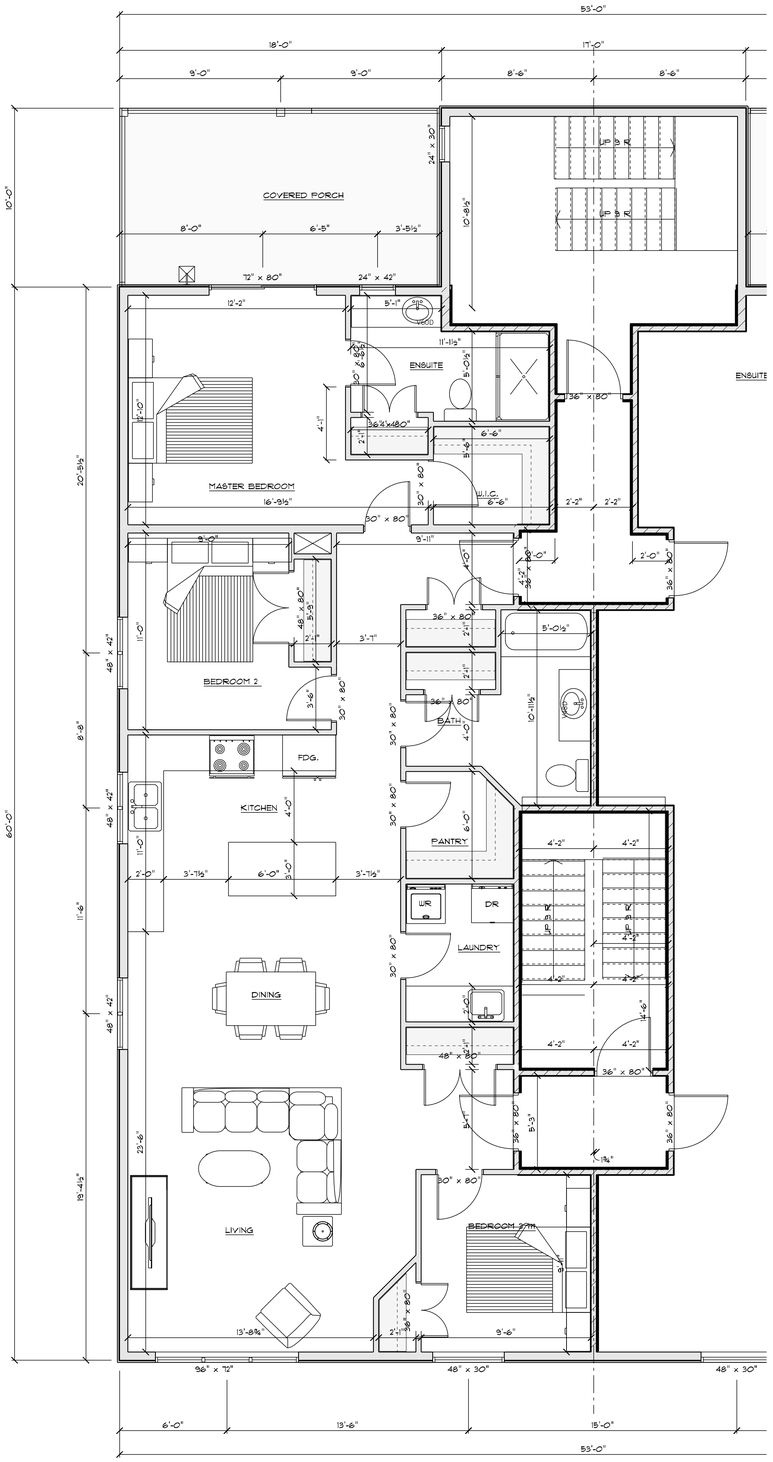
CUSTOMER NAME:
CARSON APT

PROJECT NUMBER:
2021-01

PROJECT TYPE:

SITE LOCATION:

SCALE:	1" = 5'-0"	DRAWING NUMBER:
DWG. DATE:	2021-07-15	A2
DRAWN BY:	H.FOULDS	
CHECKED BY:	B.DECARLO	



1 A3 2ND FL PLAN UNITS 201 & 202

SCALE: 1/4" = 1'-0"

UNITS 201 & 202 AREAS = 1471 SQFT

UNITS 201 & 202 COVERED PORCH AREAS = 187 SQFT

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REGISTERED DESIGNER PROVINCE OF ONTARIO	REGISTERED DESIGN FIRM PROVINCE OF ONTARIO
BEN DECARLO BCIN: 36522 DATE: _____ SIG: _____	2637785 ONT. LTD. O/A HIGHLAND DESIGN BCIN: 110400 THESE DRAWINGS ARE NOT CERTIFIED FOR PERMITS OR CONSTRUCTION UNLESS SIGNED AND DATED.

PROJECT INFORMATION:

8B-12 SPECIFICATION MATRIX -COMPLIANCE PACKAGE-	
INSULATION COMPONENT	R VALUE/ER
CEILING WITH ATTIC SPACE	-
CEILING WITHOUT ATTIC SPACE	-
EXPOSED FLOOR	-
WALLS ABOVE GRADE	-
BASEMENT WALLS	-
SLAB	
> 600mm BELOW GRADE	-
HEATED OR +/< 600mm B.G.	-
EDGE +/< 600mm B.G.	-
WINDOWS/DOORS	-
SKYLIGHTS	-
SPACE HEATING EQUIP. (%)	-
HRV (%)	-
DHW HEATER (EF)	-
DWHR (%)	-
FENESTRATION CALC AS PER 8B-12	
WALL AREA*	-
FENESTRATION AREA*	-
TOTAL % OF WALL AREA*	-

DESIGN CRITERIA

8B-1 DESIGN DATA - HALIBURTON

FLOOR LOADS: FLOOR LIVE LOAD - 40 PSF
FLOOR DEAD LOAD - 12 PSF

ROOF LOADS: ROOF LIVE LOAD - 42 PSF
ROOF DEAD LOAD - 12 PSF

ATTIC SPACE LOADS: LIVE LOAD - 10 PSF
DEAD LOAD - 10 PSF

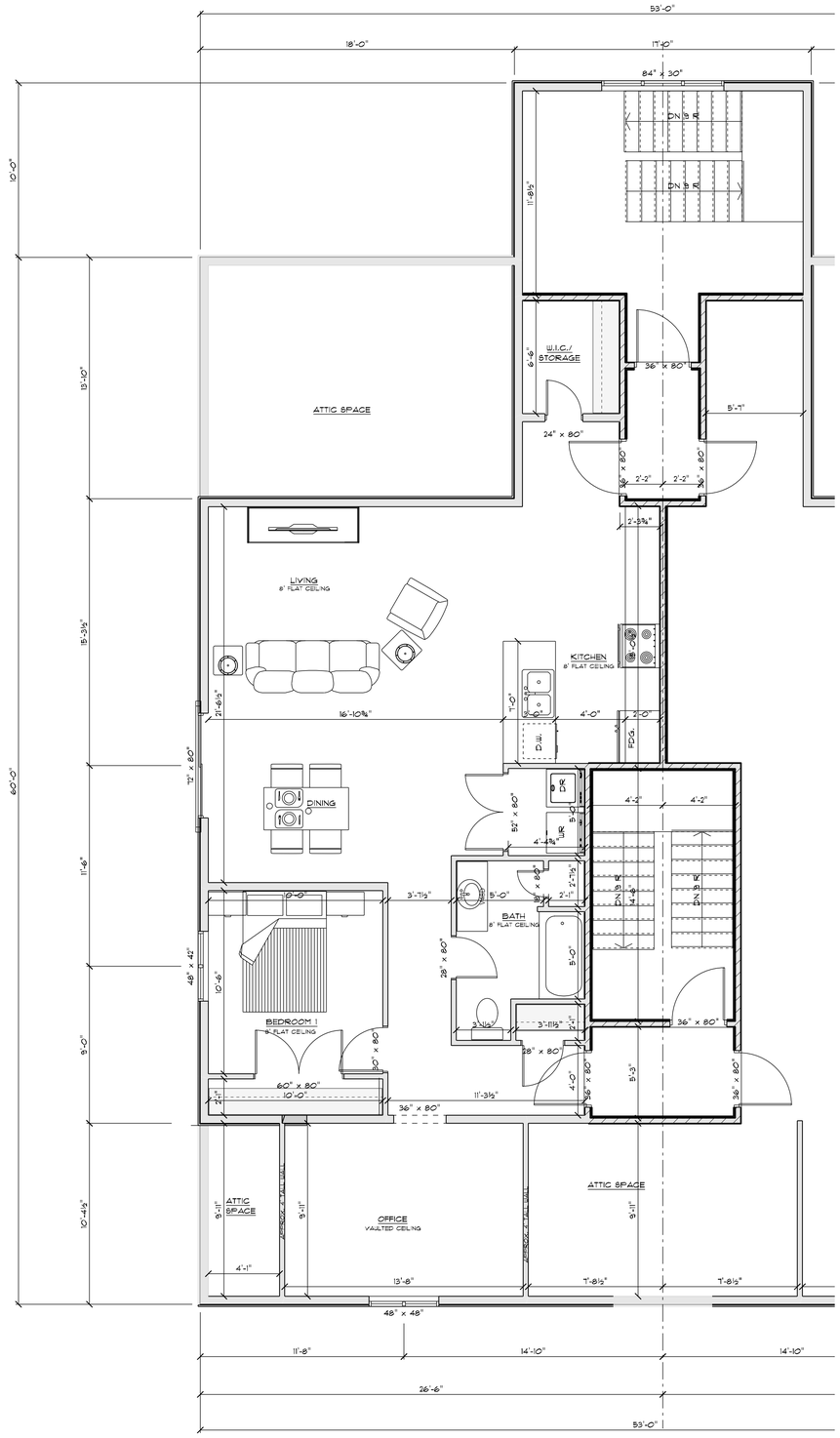
CUSTOMER NAME: CARSON APT

PROJECT NUMBER: 2021-01

PROJECT TYPE:

SITE LOCATION:

SCALE:	1/4" = 1'-0"	DRAWING NUMBER:
DWG. DATE:	2021-07-15	A3
DRAWN BY:	H.FOULDS	
CHECKED BY:	B.DECARLO	



1 / A4 — 3RD FL PLAN UNIT 301

SCALE: 1/4" = 1'-0"
UNITS 301 & 302 AREAS= 1091 SQFT

HIGHLAND DESIGN
Architectural Design & Consulting
A DIV. OF 2637785 ONT. LTD.

HALIBURTON, ONTARIO
(705)457-5085
info@highlanddesign.ca

GENERAL NOTES:

1. ALL DRAWINGS, DIMENSIONS AND OPENING SIZES TO BE VERIFIED BY OWNER AND CONTRACTOR PRIOR TO CONSTRUCTION. ANY DISCREPANCIES ARE TO BE REPORTED TO HIGHLAND DESIGN FOR CLARIFICATION.
2. STEP FOOTINGS ARE TO HAVE A MAX. RISE OF 23 5/8" AND A MIN. RUN OF 23 5/8" PER STEP AS PER O.B.C. 9.15.3.8
3. COMPRESSIVE STRENGTH OF CONCRETE TO CONFORM TO O.B.C. 9.3.1.6.
4. BACKFILL HEIGHTS FOR FOUNDATION WALLS TO CONFORM TO O.B.C. TABLE 9.15.4.2.A.
5. ALL OPENINGS ARE DIMENSIONED WITH NOMINAL SIZES. EXTERIOR OPENINGS HAVE 2-2"x10" LINTEL UNLESS NOTED OTHERWISE. ALL OPENINGS TO HAVE R.S.O. ADDED TO DIM. OPENING SIZES INCLUDE TRANSOMS.
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8. SMOKE & CO DETECTORS/ALARMS TO BE INSTALLED AS PER O.B.C. 9.10.19.2 & 9.33.4
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REGISTERED DESIGNER
PROVINCE OF ONTARIO

BEN DECARLO
BCIN: 36522

DATE: _____

SIG: _____

REGISTERED DESIGN FIRM
PROVINCE OF ONTARIO

2637785 ONT. LTD.
O/A HIGHLAND DESIGN
BCIN: 112400

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PROJECT INFORMATION:

SB-12 SPECIFICATION MATRIX	
COMPLIANCE PACKAGE-	
INSULATION COMPONENT	R VALUE/ER
CEILING WITH ATTIC SPACE	-
CEILING WITHOUT ATTIC SPACE	-
EXPOSED FLOOR	-
WALLS ABOVE GRADE	-
BASEMENT WALLS	-
SLAB	
> 600mm BELOW GRADE	-
HEATED OR >/< 600mm B.G.	-
EDGE >/< 600mm B.G.	-
WINDOWS/DOORS	-
SKYLIGHTS	-
SPACE HEATING EQUIP. (%)	-
HRV (%)	-
DHW HEATER (EF)	-
DWHR (%)	-
FENESTRATION CALC AS PER SB-12	
WALL AREA*	-
FENESTRATION AREA*	-
TOTAL % OF WALL AREA*	-

DESIGN CRITERIA

SB-1 DESIGN DATA - HALIBURTON

FLOOR LOADS: FLOOR LIVE LOAD - 40 PSF
FLOOR DEAD LOAD - 12 PSF

ROOF LOADS: ROOF LIVE LOAD - 42 PSF
ROOF DEAD LOAD - 12 PSF

ATTIC SPACE LOADS: LIVE LOAD - 10 PSF
DEAD LOAD - 10 PSF

CUSTOMER NAME:
CARSON APT

PROJECT NUMBER:
2021-01

PROJECT TYPE:

SITE LOCATION:

SCALE:	1/4" = 1'-0"	DRAWING NUMBER:
DWG. DATE:	2021-07-15	A4
DRAWN BY:	H.FOULDS	
CHECKED BY:	B.DECARLO	

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CEILING WITH ATTIC SPACE	-
CEILING WITHOUT ATTIC SPACE	-
EXPOSED FLOOR	-
WALLS ABOVE GRADE	-
BASEMENT WALLS	-
SLAB	
> 600mm BELOW GRADE	-
HEATED OR +/- 600mm B.G.	-
EDGE +/- 600mm B.G.	-
WINDOWS/DOORS	-
SKYLIGHTS	-
SPACE HEATING EQUIP. (%)	-
HRV (%)	-
DHW HEATER (EF)	-
DWHR (%)	-
FENESTRATION CALC AS PER SB-12	
WALL AREA=	-
FENESTRATION AREA=	-
TOTAL % OF WALL AREA=	-

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CUSTOMER NAME:
CARSON APT

PROJECT NUMBER:
2021-01

PROJECT TYPE:

SITE LOCATION:

SCALE:	1/4" = 1'-0"	DRAWING NUMBER:
DWG. DATE:	2021-07-15	A5
DRAWN BY:	H.FOULDS	
CHECKED BY:	B.DECARLO	

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PROJECT INFORMATION:

8B-12 SPECIFICATION MATRIX	
COMPLIANCE PACKAGE-	
INSULATION COMPONENT	R VALUE/ER
CEILING WITH ATTIC SPACE	-
CEILING WITHOUT ATTIC SPACE	-
EXPOSED FLOOR	-
WALLS ABOVE GRADE	-
BASEMENT WALLS	-
SLAB	
> 600mm BELOW GRADE	-
HEATED OR +/- 600mm B.G.	-
EDGE +/- 600mm B.G.	-
WINDOWS/DOORS	-
SKYLIGHTS	-
SPACE HEATING EQUIP. (%)	-
HRV (%)	-
DHW HEATER (EF)	-
DWHR (%)	-
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WALL AREA*	-
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TOTAL % OF WALL AREA*	-

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ATTIC SPACE LOADS: LIVE LOAD - 10 PSF
DEAD LOAD - 10 PSF

CUSTOMER NAME: CARSON APT

PROJECT NUMBER: 2021-01

PROJECT TYPE:

SITE LOCATION:

SCALE:	1/4" = 1'-0"	DRAWING NUMBER:
DWG. DATE:	2021-07-15	A6
DRAWN BY:	H.FOULDS	
CHECKED BY:	B.DECARLO	

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PROVINCE OF ONTARIO

BEN DECARLO
BCIN: 36522

DATE: _____

SIG: _____

REGISTERED DESIGN FIRM
PROVINCE OF ONTARIO

2637785 ONT. LTD.
O/A HIGHLAND DESIGN
BCIN: 110400

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PROJECT INFORMATION:

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CEILING WITHOUT ATTIC SPACE	-
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BASEMENT WALLS	-
SLAB	
> 600mm BELOW GRADE	-
HEATED OR +/< 600mm B.G.	-
EDGE +/< 600mm B.G.	-
WINDOWS/DOORS	-
SKYLIGHTS	-
SPACE HEATING EQUIP. (%)	-
HRV (%)	-
DHW HEATER (EF)	-
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WALL AREA=	-
FENESTRATION AREA=	-
TOTAL % OF WALL AREA=	-

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2021-01

PROJECT TYPE:

SITE LOCATION:

SCALE:	1/4" = 1'-0"
DWG. DATE:	2021-07-15
DRAWN BY:	H.FOULDS
CHECKED BY:	B.DECARLO

DRAWING NUMBER:
A7

HIGHLAND DESIGN
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PROVINCE OF ONTARIO

BEN DECARLO
BCIN: 36522

DATE: _____

SIG: _____

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PROVINCE OF ONTARIO

2637785 ONT. LTD.
O/A HIGHLAND DESIGN
BCIN: 110400

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PROJECT INFORMATION:

8B-12 SPECIFICATION MATRIX	
COMPLIANCE PACKAGE:	
INSULATION COMPONENT	R VALUE/ER
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BASEMENT WALLS	-
SLAB	
> 600mm BELOW GRADE	-
HEATED OR +/< 600mm B.G.	-
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WALL AREA*	-
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TOTAL % OF WALL AREA*	-

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CUSTOMER NAME:
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PROJECT NUMBER:
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PROJECT TYPE:

SITE LOCATION:

SCALE:	1/4" = 1'-0"
DWG. DATE:	2021-07-15
DRAWN BY:	H.FOULDS
CHECKED BY:	B.DECARLO

DRAWING NUMBER:
A8

Appendix B

Test 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#:A308588

Well Record

Regulation 903 Ontario Water Resources Act

Page 1 of 3

Well Owner's Information

First Name	Last Name/Organization	E-mail Address	~~Well Constructed~~ by Well Owner
RICHARD	CARSON Hot Pond Ent. Corp.	rcarson@deloitte.ca	☐

Mailing Address (Street Number/Name)	Municipality	Province	Postal Code	Telephone No. (inc. area code)
120 Glenayr Road	Toronto	ON	M5P3C2	4164140236

Well Location

Address of Well Location (Street Number/Name)	Township	Lot	Concession
46 Maple Avenue	Dysart	17	8

County/District/Municipality	City/Town/Village	Province	Postal Code
Haliburton	Haliburton	Ontario	K0M1S0

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 83	17	696081	4991361	FIRST WELL	

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	MUCK	—	SOFT	0	30
BROWN	FINE SAND	—	SOFT	30	67
GREY	GRANITIC	—	HARD	67	70
RED	~~GRAVEL~~ GRANITE	STONES, SAND	LOOSE	70	75

Annular Space

Depth Set at (m/ft) From	Depth Set at (m/ft) To	Type of Sealant Used (Material and Type)	Volume Placed (m^3/ft^3)
0	20	BENSEAL	

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
6 1/4	STEEL	.188	+2	67

Construction Record - Screen

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

Status of Well

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

Water Details

Water found at Depth	Kind of Water	Hole Diameter Depth From	Hole Diameter Depth To	Hole Diameter (cm/in)
70-75 (m/ft) ☐ Gas	☐ Fresh ☐ Untested ☐ Other, specify	67	75	6
(m/ft) ☐ Gas	☐ Fresh ☐ Untested ☐ Other, specify			
(m/ft) ☐ Gas	☐ Fresh ☐ Untested ☐ Other, specify			

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): 40

Pumping rate (l/min / GPM): 15

Duration of pumping: 1 hrs + 0 min

Final water level end of pumping (m/ft): 9.2

If flowing give rate (l/min/GPM): —

Recommended pump depth (m/ft): 50

Recommended pump rate (l/min/GPM): 15

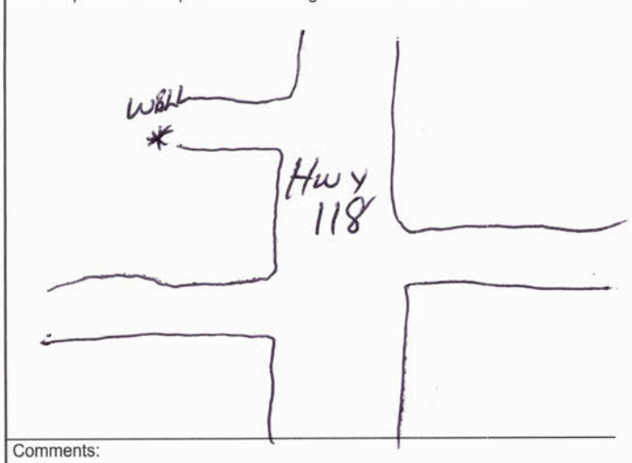
Well production (l/min/GPM): 40 Plus

Disinfected? ☑ Yes ☐ No

Draw Down Time (min)	Draw Down Water Level (m/ft)	Recovery Time (min)	Recovery Water Level (m/ft)
Static Level	4.0		9.2
1	4.9	1	8.1
2	5.8	2	7.2
3	6.9	3	6.7
4	7.4	4	6.1
5	8.1	5	5.7
10	9.2	10	4.0
15		15	
20		20	
25		25	
30		30	
40		40	
50		50	
60		60	

Map of Well Location

Please provide a map below following instructions on the back.



Comments: NO DWELLING OR SEPTIC SYSTEM

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
HALIBURTON ARTESIAN WELL DRILLERS	7672

Business Address (Street Number/Name)	Municipality
334 INDUSTRIAL PARK RD HALIBURTON	DYSART ET AL

Province	Postal Code	Business E-mail Address
ONT	K0M1S0	haliburton.artesian@gmail.com

Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)
7054572686	DAVE WALKER

Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
3542		2021041 9

Well owner's information package delivered	Date Package Delivered	Date Work Completed
☑ Yes ☐ No	2021041 9	2021041 9

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Ontario — Ministry of the Environment, Conservation and Parks

Measurements recorded in: ☐ Metric ☑ Imperial

Well Tag No. (Place Sticker and/or Print Below): Tag#:A308589

Well Record

Regulation 903 Ontario Water Resources Act

Page 1 of 3

Well Owner's Information

First Name	Last Name/Organization	E-mail Address	~~Well Constructed by Well Owner~~
	Hot Pond Enterprises Corp	rearson@deloitte.ca	

Mailing Address (Street Number/Name)	Municipality	Province	Postal Code	Telephone No. (inc. area code)
120 Glenayr Rd	Toronto	ON	M5P3C2	4164140236

Well Location

Address of Well Location (Street Number/Name)	Township	Lot	Concession
46 Maple ave [redacted]	DYSart	17	8

County/District/Municipality	City/Town/Village	Province	Postal Code
Haliburton	Haliburton	Ontario	K0M1S0

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 83	17	696084	4991332		

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
Brown	Sand	Grey Silt		0	77
Red/grey	Granite			77	90

Annular Space

Depth Set at (m/ft) From	Depth Set at (m/ft) To	Type of Sealant Used (Material and Type)	Volume Placed (m^3/ft^3)
0	77	Bentenite	

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
6 1/4	Steel	3/16	+2	78

Construction Record - Screen

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

Status of Well

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

Results of Well Yield Testing

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

If pumping discontinued, give reason: N/A

Pump intake set at (m/ft): 50

Pumping rate (l/min / GPM): 20

Duration of pumping: 1 hrs + 0 min

Final water level end of pumping (m/ft): 17

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

Recommended pump depth (m/ft): 50

Recommended pump rate (l/min/GPM): 20

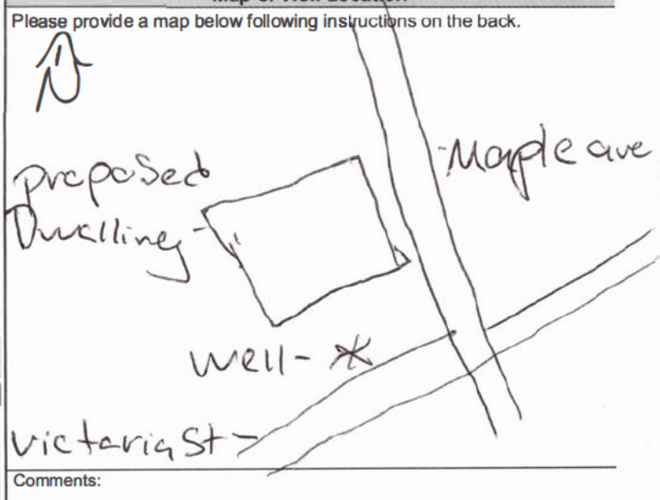
Well production (l/min/GPM): 30

Disinfected? ☐ Yes ☑ No

	Draw Down Time (min)	Draw Down Water Level (m/ft)	Recovery Time (min)	Recovery Water Level (m/ft)
Static Level		4		17
1	1	6	1	13
2	2	8	2	10
3	3	10	3	8
4	4	12	4	6
5	5	13	5	5
10	10	15	10	4
15	15	16	15	4
20	20	17	20	
25	25	17	25	
30	30		30	
40	40		40	
50	50		50	
60	60		60	

Map of Well Location

Please provide a map below following instructions on the back.



Comments:

Water Details

Water found at Depth	Kind of Water	Hole Diameter Depth From	Hole Diameter Depth To	Hole Diameter (cm/in)
90 (m/ft) ☐ Gas	☐ Fresh ☑ Untested ☐ Other, specify	0	78	10
(m/ft) ☐ Gas	☐ Fresh ☐ Untested ☐ Other, specify	78	90	6 1/8
(m/ft) ☐ Gas	☐ Fresh ☐ Untested ☐ Other, specify			

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
Haliburton Artesian Well Drillers	7672

Business Address (Street Number/Name)	Municipality
334 Industrial Park Rd	Haliburton

Province	Postal Code	Business E-mail Address
ON	K0M1S0	haliburtonartesianwell@gmail.com

Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)
7054572686	Wood Ward Jake

Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
3941		2021/04/20

Well owner's information package delivered	Date Package Delivered	Date Work Completed
☑ Yes ☐ No	2021/04/20	2021/04/20

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Appendix C

Well Survey Summary & Letter

CAMBIUM

Address (well Tag)	Commercial/ Residential	Well Depth (m)	Water Level (m)	History	Decision
83 Maple Avenue	Commerical	24.13	8.17		Yes to participation
36 Maple Avenue (A047600)	Residential	14.81	5.02 (pumping)	Newer well, historically gone dry, 5 m away from deep well on client's lot, 75 m away from OCWA well	Yes to participation
28 Maple Avenue	Residential	11.73	6.19	Old well. House 1920s, high iron. Pump present	No to participation
21 Victoria Street	St Antony's Church				Left letter, Yes to participation
41 Maple Avenue	Commercial				Wanted confirmation email from Jeremy
78 Maple Ave	Public Library				No answer, left letter
42 York Street	Residential				No answer, left letter
46 York Street	Residential				No answer, left letter
101 Maple Avenue	Commerical (Cottage Rentals)				No answer, left letter
27 Park Street	Residential				No answer, left letter
50 York Street	Commercial	73		No issues	Doesn't want to participate

CAMBIUM

Environmental

Geotechnical

Building Sciences

Construction Monitoring

Telephone
(866) 217.7900
(705) 742.7900

Facsimile
(705) 742.7907

Website
cambium-inc.com

Mailing Address
P.O. Box 325
52 Hunter Street East
Peterborough, ON
K9H 1G5

Locations
Peterborough
Kingston
Barrie
Oshawa

Laboratory
Peterborough

May 12, 2021

Dear Homeowner or Business owner,

Cambium Inc. (Cambium) is completing a groundwater study in the area of Maple Avenue and Park Street. The study is regarding a proposed residential development along Maple Avenue between Park Street and Victoria Street, which includes two new water wells.

The new development must undertake a well survey and hydraulic pumping test for their water supply well to ensure that there is enough quantity and quality of potable water for the development without negatively impacting adjacent users.

As part of the groundwater study, we are collecting water level information from near-by residents who draw their drinking water from a well. With your permission, Cambium staff will measure the water level and depth of the well that services your residence/building.

Due to the COVID-19 social distancing requirements, the onsite technician will not come into close contact with you and will not enter your home/business.

In May, Cambium will undertake three separate six-hour pumping tests on two new source wells, and one existing source well for the development. With your permission, Cambium staff will measure the water levels in your well during the pumping tests. The objective of the pumping test is to determine if there is any connectivity between the new source well and surrounding well users, and to ensure that there will be no disruption of water takings from neighbouring wells.

If you wish to participate in the monitoring program or would like more information please contact Jeremy Tracey at 1-705-868-3758 or at jeremy.tracey@cambium-inc.com.

Thank you.

Best regards,

Cambium Inc.

Jeremy Tracey, P.Eng.
Project Coordinator

JPT

P:\12300 to 12399\12397-001 Hot Pond Enterprises Corp - HydroGeo Assess - 46 Maple Ave, Haliburton\Background\2021-05-10 Residential Letter.docx

Professional Engineers Ontario

APGO

Appendix D

Pumping Test Analysis Reports

Cambium Inc. 135 Bayfield St #102, Barrie, ON L4M 3B3	**Pumping Test - Water Level Data**	Page 1 of 7
	Project: Hydrogeological Investigation	
	Number: 12397-001	
	Client: Hot Pond Enterprises Corporation	

Location: 46 Maple Avenue, Halliburton, ON	Pumping Test: TW 101	Pumping Well: TW 101
Test Conducted by: Josh/Michelle	Test Date: 5/26/2021	Discharge Rate: 1.6 [l/s]
Observation Well: TW 101	Static Water Level [m]: 1.47	Radial Distance to PW [m]: -

	Time [s]	Water Level [m]	Drawdown [m]
1	0	1.636	0.166
2	4	1.5787	0.1087
3	5	2.5061	1.0361
4	6	2.3898	0.9198
5	7	2.3423	0.8723
6	8	2.3913	0.9213
7	9	2.5311	1.0611
8	10	2.3621	0.8921
9	11	2.3098	0.8398
10	12	2.3173	0.8473
11	13	2.4445	0.9745
12	14	2.4257	0.9557
13	15	2.4253	0.9553
14	16	2.4528	0.9828
15	17	2.4617	0.9917
16	18	2.4569	0.9869
17	19	2.4818	1.0118
18	20	2.4914	1.0214
19	21	2.5121	1.0421
20	22	2.503	1.033
21	23	2.5217	1.0517
22	24	2.5173	1.0473
23	25	2.5231	1.0531
24	26	2.5264	1.0564
25	27	2.5293	1.0593
26	28	2.5554	1.0854
27	29	2.5386	1.0686
28	30	2.5574	1.0874
29	31	2.5564	1.0864
30	32	2.5662	1.0962
31	33	2.5733	1.1033
32	34	2.5565	1.0865
33	35	2.5697	1.0997
34	36	2.5691	1.0991
35	37	2.5829	1.1129
36	38	2.6697	1.1997
37	39	2.6694	1.1994
38	40	2.6691	1.1991
39	41	2.6991	1.2291
40	42	2.7144	1.2444
41	43	2.7048	1.2348
42	44	2.7132	1.2432
43	45	2.736	1.266
44	46	2.749	1.279
45	47	2.7408	1.2708
46	48	2.7732	1.3032
47	49	2.8026	1.3326
48	50	2.8222	1.3522

	Time [s]	Water Level [m]	Drawdown [m]
49	51	2.8369	1.3669
50	52	2.8421	1.3721
51	53	2.8481	1.3781
52	54	2.8557	1.3857
53	55	2.8615	1.3915
54	56	2.8612	1.3912
55	57	2.8421	1.3721
56	58	2.8445	1.3745
57	59	2.8626	1.3926
58	60	2.8637	1.3937
59	61	2.8669	1.3969
60	62	2.8551	1.3851
61	63	2.8552	1.3852
62	64	2.8628	1.3928
63	65	2.8654	1.3954
64	66	2.8541	1.3841
65	67	2.884	1.414
66	68	2.9003	1.4303
67	69	2.9222	1.4522
68	70	2.9271	1.4571
69	71	2.9246	1.4546
70	72	2.9156	1.4456
71	73	2.9294	1.4594
72	74	2.9102	1.4402
73	75	2.9237	1.4537
74	76	2.9271	1.4571
75	77	2.9107	1.4407
76	78	2.9191	1.4491
77	79	2.9206	1.4506
78	80	2.9242	1.4542
79	81	2.9152	1.4452
80	82	2.9837	1.5137
81	83	3.0442	1.5742
82	84	3.0895	1.6195
83	85	3.1146	1.6446
84	86	3.1663	1.6963
85	87	3.1995	1.7295
86	88	3.2063	1.7363
87	89	3.2386	1.7686
88	90	3.2579	1.7879
89	91	3.2084	1.7384
90	92	3.1762	1.7062
91	93	3.133	1.663
92	94	3.1129	1.6429
93	95	3.0989	1.6289
94	96	3.079	1.609
95	97	3.0694	1.5994
96	98	3.0664	1.5964
97	99	3.067	1.597
98	100	3.0399	1.5699
99	101	3.0525	1.5825
100	102	3.0334	1.5634
101	103	3.0367	1.5667

	Time [s]	Water Level [m]	Drawdown [m]
102	104	3.0404	1.5704
103	105	3.0378	1.5678
104	106	3.019	1.549
105	107	3.0142	1.5442
106	108	3.0116	1.5416
107	109	3.0118	1.5418
108	110	3.0159	1.5459
109	111	3.0305	1.5605
110	112	3.0207	1.5507
111	113	3.0204	1.5504
112	114	3.0577	1.5877
113	115	3.0525	1.5825
114	116	3.0757	1.6057
115	117	3.0689	1.5989
116	118	3.0572	1.5872
117	119	3.0435	1.5735
118	120	3.0416	1.5716
119	121	3.0384	1.5684
120	122	3.0457	1.5757
121	123	3.0407	1.5707
122	124	3.0314	1.5614
123	125	3.0276	1.5576
124	126	3.0425	1.5725
125	127	3.0248	1.5548
126	128	3.0229	1.5529
127	129	3.0246	1.5546
128	130	3.0354	1.5654
129	131	3.0346	1.5646
130	132	3.0183	1.5483
131	133	3.0182	1.5482
132	134	3.0381	1.5681
133	135	3.0331	1.5631
134	136	3.0195	1.5495
135	137	3.0281	1.5581
136	138	3.0323	1.5623
137	139	3.0298	1.5598
138	140	3.0255	1.5555
139	141	3.0302	1.5602
140	142	3.0279	1.5579
141	143	3.0314	1.5614
142	144	3.0236	1.5536
143	145	3.0164	1.5464
144	146	3.0323	1.5623
145	147	3.0325	1.5625
146	148	3.0237	1.5537
147	149	3.0202	1.5502
148	150	3.0181	1.5481
149	151	3.0245	1.5545
150	152	3.0256	1.5556
151	153	3.0237	1.5537
152	154	3.0308	1.5608
153	155	3.0307	1.5607
154	156	3.0263	1.5563

	Time [s]	Water Level [m]	Drawdown [m]
155	157	3.0298	1.5598
156	158	3.0312	1.5612
157	159	3.0163	1.5463
158	160	3.0237	1.5537
159	161	3.0323	1.5623
160	162	3.0158	1.5458
161	163	3.0286	1.5586
162	164	3.0129	1.5429
163	165	3.0339	1.5639
164	166	3.0139	1.5439
165	167	3.0268	1.5568
166	168	3.0156	1.5456
167	169	3.0161	1.5461
168	170	3.0207	1.5507
169	171	3.0297	1.5597
170	172	3.0248	1.5548
171	173	3.0379	1.5679
172	174	3.043	1.573
173	175	3.021	1.551
174	176	3.036	1.566
175	177	3.0254	1.5554
176	178	3.0279	1.5579
177	179	3.0449	1.5749
178	180	3.0239	1.5539
179	181	3.022	1.552
180	182	3.0334	1.5634
181	183	3.065	1.595
182	184	3.1153	1.6453
183	185	3.1844	1.7144
184	186	3.2103	1.7403
185	187	3.2439	1.7739
186	188	3.2881	1.8181
187	189	3.3186	1.8486
188	190	3.3445	1.8745
189	191	3.3687	1.8987
190	192	3.3778	1.9078
191	193	3.3138	1.8438
192	194	3.2947	1.8247
193	195	3.2479	1.7779
194	196	3.2436	1.7736
195	197	3.2248	1.7548
196	198	3.2139	1.7439
197	199	3.1941	1.7241
198	200	3.1897	1.7197
199	201	3.1696	1.6996
200	202	3.1827	1.7127
201	203	3.1546	1.6846
202	204	3.1531	1.6831
203	205	3.1619	1.6919
204	206	3.1616	1.6916
205	207	3.1595	1.6895
206	208	3.1465	1.6765
207	209	3.15	1.68

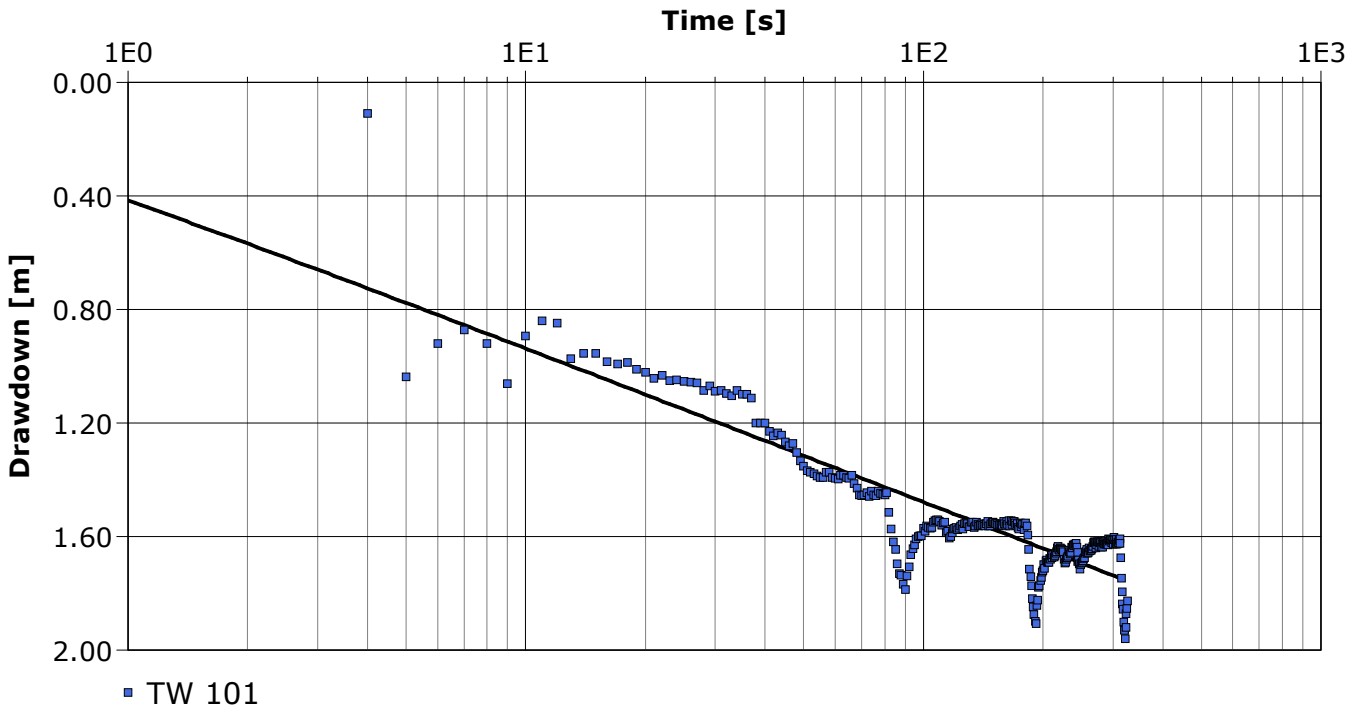
	Time [s]	Water Level [m]	Drawdown [m]
208	210	3.1375	1.6675
209	211	3.1446	1.6746
210	212	3.1348	1.6648
211	213	3.1412	1.6712
212	214	3.1355	1.6655
213	215	3.13	1.66
214	216	3.1229	1.6529
215	217	3.1104	1.6404
216	218	3.1055	1.6355
217	219	3.1152	1.6452
218	220	3.117	1.647
219	221	3.1109	1.6409
220	222	3.1121	1.6421
221	223	3.1161	1.6461
222	224	3.1169	1.6469
223	225	3.1244	1.6544
224	226	3.151	1.681
225	227	3.1643	1.6943
226	228	3.1616	1.6916
227	229	3.1492	1.6792
228	230	3.1437	1.6737
229	231	3.1398	1.6698
230	232	3.118	1.648
231	233	3.1241	1.6541
232	234	3.1304	1.6604
233	235	3.1264	1.6564
234	236	3.106	1.636
235	237	3.111	1.641
236	238	3.0983	1.6283
237	239	3.101	1.631
238	240	3.0955	1.6255
239	241	3.0957	1.6257
240	242	3.0946	1.6246
241	243	3.1076	1.6376
242	244	3.1268	1.6568
243	245	3.159	1.689
244	246	3.1516	1.6816
245	247	3.1651	1.6951
246	248	3.184	1.714
247	249	3.1693	1.6993
248	250	3.1626	1.6926
249	251	3.1601	1.6901
250	252	3.1554	1.6854
251	253	3.1463	1.6763
252	254	3.1438	1.6738
253	255	3.1274	1.6574
254	256	3.1229	1.6529
255	257	3.1235	1.6535
256	258	3.1142	1.6442
257	259	3.1291	1.6591
258	260	3.1259	1.6559
259	261	3.1109	1.6409
260	262	3.121	1.651

	Time [s]	Water Level [m]	Drawdown [m]
261	263	3.119	1.649
262	264	3.119	1.649
263	265	3.1134	1.6434
264	266	3.1115	1.6415
265	267	3.1041	1.6341
266	268	3.0918	1.6218
267	269	3.0891	1.6191
268	270	3.088	1.618
269	271	3.0905	1.6205
270	272	3.1093	1.6393
271	273	3.1003	1.6303
272	274	3.0898	1.6198
273	275	3.0881	1.6181
274	276	3.1038	1.6338
275	277	3.0912	1.6212
276	278	3.0882	1.6182
277	279	3.0908	1.6208
278	280	3.106	1.636
279	281	3.089	1.619
280	282	3.0874	1.6174
281	283	3.1063	1.6363
282	284	3.0904	1.6204
283	285	3.0965	1.6265
284	286	3.0867	1.6167
285	287	3.0921	1.6221
286	288	3.0969	1.6269
287	289	3.0969	1.6269
288	290	3.0939	1.6239
289	291	3.0987	1.6287
290	292	3.0809	1.6109
291	293	3.0786	1.6086
292	294	3.0852	1.6152
293	295	3.0814	1.6114
294	296	3.0804	1.6104
295	297	3.0816	1.6116
296	298	3.0904	1.6204
297	299	3.0846	1.6146
298	300	3.0967	1.6267
299	301	3.0736	1.6036
300	302	3.0806	1.6106
301	303	3.0818	1.6118
302	304	3.0962	1.6262
303	305	3.0931	1.6231
304	306	3.0816	1.6116
305	307	3.0956	1.6256
306	308	3.0897	1.6197
307	309	3.0941	1.6241
308	310	3.09	1.62
309	311	3.0828	1.6128
310	312	3.0786	1.6086
311	313	3.0949	1.6249
312	314	3.1459	1.6759
313	315	3.2179	1.7479

	Time [s]	Water Level [m]	Drawdown [m]
314	316	3.2659	1.7959
315	317	3.3078	1.8378
316	318	3.3267	1.8567
317	319	3.372	1.902
318	320	3.3976	1.9276
319	321	3.3995	1.9295
320	322	3.4289	1.9589
321	323	3.39	1.92
322	324	3.3417	1.8717
323	325	3.323	1.853
324	326	3.2956	1.8256

Cambium Inc. 135 Bayfield St #102, Barrie, ON L4M 3B3	**Pumping Test Analysis Report**	FIGURE 2.3
	Project: Hydrogeological Investigation	
	Number: 12397-001	
	Client: Hot Pond Enterprises Corporation	

Location: 46 Maple Avenue, Halliburton, ON	Pumping Test: TW 101	Pumping Well: TW 101
Test Conducted by: Josh/Michelle		Test Date: 5/26/2021
Analysis Performed by: Sudhakar Kurli	Theis	Analysis Date: 6/27/2021
Aquifer Thickness: 26.00 m	Discharge Rate: 1.6 [l/s]	



Calculation using Theis

Observation Well	Transmissivity [m²/s]	Hydraulic Conductivity [m/s]	Storage coefficient	Radial Distance to PW [m]	
TW 101	5.40×10^{-4}	2.08×10^{-5}	2.30×10^{-2}	0.1	

Cambium Inc. 135 Bayfield St #102, Barrie, ON L4M 3B3	**Pumping Test - Water Level Data**	Page 1 of 7
	Project: Hydrogeological Investigation	
	Number: 12397-001	
	Client: Hot Pond Enterprises Corporation	

Location: 46 Maple Avenue, Halliburton, ON	Pumping Test: TW102	Pumping Well: TW102
Test Conducted by: Josh/Michelle	Test Date: 5/27/2021	Discharge Rate: 1.53 [l/s]
Observation Well: TW102	Static Water Level [m]: 1.65	Radial Distance to PW [m]: -

	Time [s]	Water Level [m]	Drawdown [m]
1	0	1.7487	0.0987
2	1	2.0479	0.3979
3	2	2.1863	0.5363
4	3	2.2577	0.6077
5	4	2.2991	0.6491
6	5	2.3348	0.6848
7	6	2.3642	0.7142
8	7	2.382	0.732
9	8	2.408	0.758
10	9	2.4586	0.8086
11	10	2.5218	0.8718
12	11	2.587	0.937
13	12	2.6323	0.9823
14	13	2.6728	1.0228
15	14	2.7098	1.0598
16	15	2.7498	1.0998
17	16	2.7903	1.1403
18	17	2.8178	1.1678
19	18	2.8177	1.1677
20	19	2.7921	1.1421
21	20	2.7792	1.1292
22	21	2.768	1.118
23	22	2.7472	1.0972
24	23	2.7451	1.0951
25	24	2.7359	1.0859
26	25	2.7286	1.0786
27	26	2.7251	1.0751
28	27	2.7285	1.0785
29	28	2.7205	1.0705
30	29	2.727	1.077
31	30	2.7243	1.0743
32	31	2.7197	1.0697
33	32	2.7238	1.0738
34	33	2.7203	1.0703
35	34	2.7262	1.0762
36	35	2.7274	1.0774
37	36	2.7278	1.0778
38	37	2.7272	1.0772
39	38	2.7254	1.0754
40	39	2.728	1.078
41	40	2.7317	1.0817
42	41	2.7304	1.0804
43	42	2.7295	1.0795
44	43	2.7287	1.0787
45	44	2.729	1.079
46	45	2.7278	1.0778
47	46	2.7341	1.0841
48	47	2.7378	1.0878

	Time [s]	Water Level [m]	Drawdown [m]
49	48	2.7444	1.0944
50	49	2.7405	1.0905
51	50	2.7409	1.0909
52	51	2.7466	1.0966
53	52	2.7464	1.0964
54	53	2.7427	1.0927
55	54	2.7575	1.1075
56	55	2.7609	1.1109
57	56	2.7679	1.1179
58	57	2.7602	1.1102
59	58	2.7573	1.1073
60	59	2.7575	1.1075
61	60	2.7599	1.1099
62	61	2.8694	1.2194
63	62	2.9299	1.2799
64	63	2.9568	1.3068
65	64	2.9638	1.3138
66	65	2.9087	1.2587
67	66	2.8455	1.1955
68	67	2.8237	1.1737
69	68	2.8104	1.1604
70	69	2.7996	1.1496
71	70	2.8046	1.1546
72	71	2.7941	1.1441
73	72	2.7931	1.1431
74	73	2.7915	1.1415
75	74	2.7986	1.1486
76	75	2.7966	1.1466
77	76	2.7965	1.1465
78	77	2.7946	1.1446
79	78	2.7931	1.1431
80	79	2.8013	1.1513
81	80	2.8022	1.1522
82	81	2.8061	1.1561
83	82	2.7978	1.1478
84	83	2.7958	1.1458
85	84	2.7945	1.1445
86	85	2.8025	1.1525
87	86	2.8038	1.1538
88	87	2.8102	1.1602
89	88	2.8122	1.1622
90	89	2.8117	1.1617
91	90	2.8095	1.1595
92	91	2.8114	1.1614
93	92	2.8135	1.1635
94	93	2.8129	1.1629
95	94	2.82	1.17
96	95	2.814	1.164
97	96	2.8229	1.1729
98	97	2.8248	1.1748
99	98	2.8233	1.1733
100	99	2.8165	1.1665
101	100	2.8268	1.1768

	Time [s]	Water Level [m]	Drawdown [m]
102	101	2.8711	1.2211
103	102	2.919	1.269
104	103	2.9572	1.3072
105	104	2.9926	1.3426
106	105	3.0202	1.3702
107	106	3.058	1.408
108	107	3.0755	1.4255
109	108	3.1876	1.5376
110	109	3.2722	1.6222
111	110	3.287	1.637
112	111	3.2801	1.6301
113	112	3.259	1.609
114	113	3.1849	1.5349
115	114	3.0546	1.4046
116	115	3.0116	1.3616
117	116	2.9526	1.3026
118	117	2.7789	1.1289
119	118	2.718	1.068
120	119	2.8825	1.2325
121	120	2.9059	1.2559
122	121	2.9183	1.2683
123	122	2.915	1.265
124	123	2.9243	1.2743
125	124	2.9204	1.2704
126	125	2.918	1.268
127	126	2.9207	1.2707
128	127	2.9134	1.2634
129	128	2.9147	1.2647
130	129	2.9109	1.2609
131	130	2.9084	1.2584
132	131	2.9027	1.2527
133	132	2.8963	1.2463
134	133	2.9024	1.2524
135	134	2.9021	1.2521
136	135	2.9025	1.2525
137	136	2.8993	1.2493
138	137	2.8976	1.2476
139	138	2.8917	1.2417
140	139	2.8931	1.2431
141	140	2.8905	1.2405
142	141	2.8956	1.2456
143	142	2.8939	1.2439
144	143	2.8951	1.2451
145	144	2.8888	1.2388
146	145	2.8888	1.2388
147	146	2.8865	1.2365
148	147	2.8868	1.2368
149	148	2.8881	1.2381
150	149	2.8878	1.2378
151	150	2.8834	1.2334
152	151	2.8903	1.2403
153	152	2.8858	1.2358
154	153	2.8904	1.2404

	Time [s]	Water Level [m]	Drawdown [m]
155	154	2.888	1.238
156	155	2.88	1.23
157	156	2.89	1.24
158	157	2.8901	1.2401
159	158	2.8921	1.2421
160	159	2.9006	1.2506
161	160	2.9003	1.2503
162	161	2.9075	1.2575
163	162	2.905	1.255
164	163	2.9813	1.3313
165	164	3.0549	1.4049
166	165	3.0949	1.4449
167	166	3.112	1.462
168	167	3.1068	1.4568
169	168	3.0158	1.3658
170	169	2.9804	1.3304
171	170	2.9639	1.3139
172	171	2.957	1.307
173	172	2.9444	1.2944
174	173	2.9428	1.2928
175	174	2.9472	1.2972
176	175	2.9486	1.2986
177	176	2.9433	1.2933
178	177	2.9401	1.2901
179	178	2.9359	1.2859
180	179	2.941	1.291
181	180	2.9353	1.2853
182	181	2.9289	1.2789
183	182	2.9238	1.2738
184	183	2.9256	1.2756
185	184	2.9258	1.2758
186	185	2.9228	1.2728
187	186	2.9301	1.2801
188	187	2.9203	1.2703
189	188	2.9256	1.2756
190	189	2.9266	1.2766
191	190	2.9221	1.2721
192	191	2.9156	1.2656
193	192	2.9201	1.2701
194	193	2.9168	1.2668
195	194	2.9217	1.2717
196	195	2.9211	1.2711
197	196	2.9954	1.3454
198	197	3.0622	1.4122
199	198	3.0992	1.4492
200	199	3.1302	1.4802
201	200	3.1394	1.4894
202	201	3.1378	1.4878
203	202	3.042	1.392
204	203	2.995	1.345
205	204	2.9819	1.3319
206	205	2.9637	1.3137
207	206	2.9611	1.3111

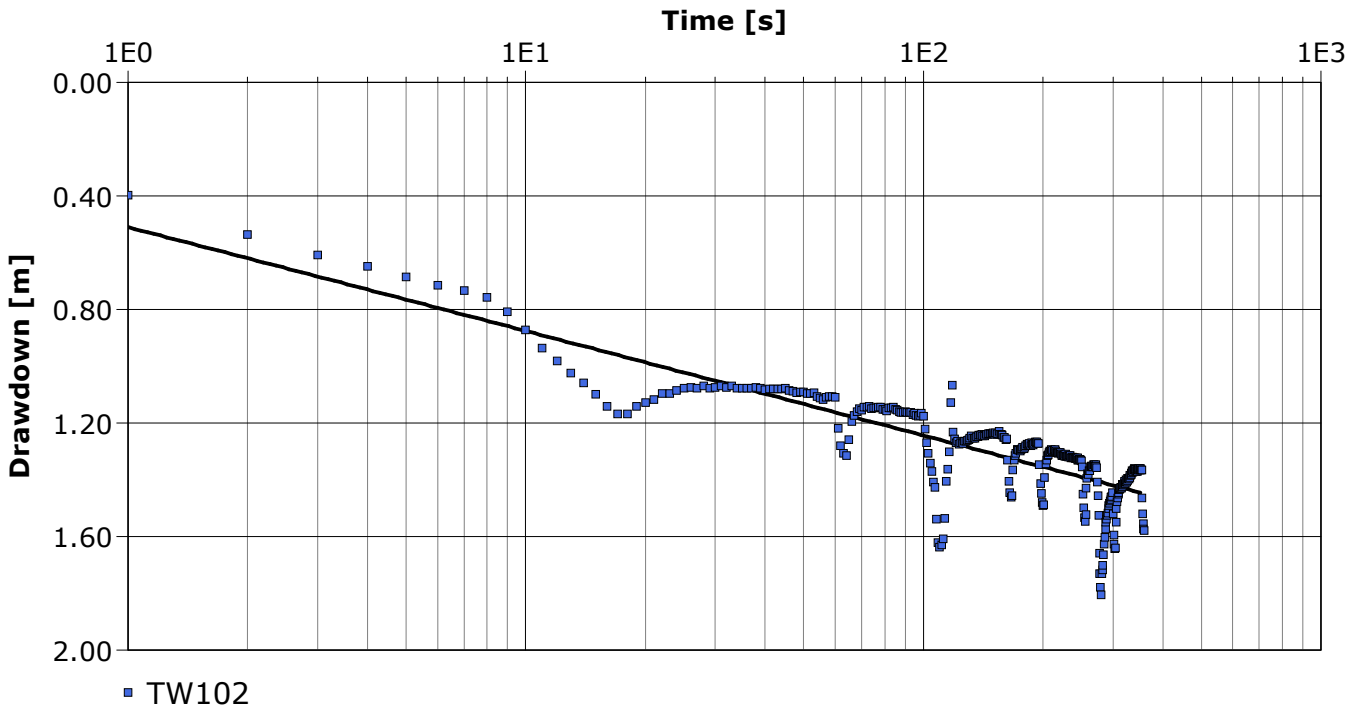
	Time [s]	Water Level [m]	Drawdown [m]
208	207	2.9543	1.3043
209	208	2.9487	1.2987
210	209	2.9519	1.3019
211	210	2.9434	1.2934
212	211	2.9477	1.2977
213	212	2.9462	1.2962
214	213	2.9454	1.2954
215	214	2.9428	1.2928
216	215	2.9487	1.2987
217	216	2.9537	1.3037
218	217	2.9539	1.3039
219	218	2.957	1.307
220	219	2.9539	1.3039
221	220	2.9532	1.3032
222	221	2.9528	1.3028
223	222	2.9589	1.3089
224	223	2.9639	1.3139
225	224	2.9638	1.3138
226	225	2.9656	1.3156
227	226	2.962	1.312
228	227	2.968	1.318
229	228	2.96	1.31
230	229	2.967	1.317
231	230	2.9684	1.3184
232	231	2.9637	1.3137
233	232	2.9702	1.3202
234	233	2.9643	1.3143
235	234	2.9636	1.3136
236	235	2.9738	1.3238
237	236	2.9724	1.3224
238	237	2.9692	1.3192
239	238	2.9724	1.3224
240	239	2.9736	1.3236
241	240	2.9735	1.3235
242	241	2.9749	1.3249
243	242	2.9736	1.3236
244	243	2.9751	1.3251
245	244	2.9819	1.3319
246	245	2.9726	1.3226
247	246	2.9816	1.3316
248	247	2.979	1.329
249	248	2.9775	1.3275
250	249	2.9808	1.3308
251	250	2.9835	1.3335
252	251	3.0039	1.3539
253	252	3.102	1.452
254	253	3.1494	1.4994
255	254	3.1828	1.5328
256	255	3.1963	1.5463
257	256	3.1735	1.5235
258	257	3.0791	1.4291
259	258	3.0451	1.3951
260	259	3.0298	1.3798

	Time [s]	Water Level [m]	Drawdown [m]
261	260	3.0304	1.3804
262	261	3.0174	1.3674
263	262	3.0187	1.3687
264	263	3.0059	1.3559
265	264	3.0015	1.3515
266	265	3.0011	1.3511
267	266	3.0027	1.3527
268	267	3.004	1.354
269	268	2.9972	1.3472
270	269	2.9966	1.3466
271	270	3.0028	1.3528
272	271	2.9979	1.3479
273	272	3.002	1.352
274	273	3.0063	1.3563
275	274	3.0581	1.4081
276	275	3.1065	1.4565
277	276	3.1761	1.5261
278	277	3.3089	1.6589
279	278	3.38	1.73
280	279	3.4288	1.7788
281	280	3.4541	1.8041
282	281	3.3804	1.7304
283	282	3.368	1.718
284	283	3.3514	1.7014
285	284	3.3133	1.6633
286	285	3.277	1.627
287	286	3.2527	1.6027
288	287	3.2223	1.5723
289	288	3.2006	1.5506
290	289	3.1879	1.5379
291	290	3.1761	1.5261
292	291	3.1673	1.5173
293	292	3.1514	1.5014
294	293	3.1408	1.4908
295	294	3.1317	1.4817
296	295	3.1247	1.4747
297	296	3.1197	1.4697
298	297	3.11	1.46
299	298	3.1094	1.4594
300	299	3.0945	1.4445
301	300	3.1703	1.5203
302	301	3.2445	1.5945
303	302	3.2772	1.6272
304	303	3.2924	1.6424
305	304	3.2892	1.6392
306	305	3.20	1.55
307	306	3.1513	1.5013
308	307	3.1266	1.4766
309	308	3.1137	1.4637
310	309	3.1008	1.4508
311	310	3.0962	1.4462
312	311	3.0856	1.4356
313	312	3.082	1.432

	Time [s]	Water Level [m]	Drawdown [m]
314	313	3.0796	1.4296
315	314	3.0769	1.4269
316	315	3.0799	1.4299
317	316	3.075	1.425
318	317	3.067	1.417
319	318	3.0693	1.4193
320	319	3.0664	1.4164
321	320	3.0615	1.4115
322	321	3.0563	1.4063
323	322	3.0621	1.4121
324	323	3.0593	1.4093
325	324	3.0513	1.4013
326	325	3.0574	1.4074
327	326	3.0528	1.4028
328	327	3.0435	1.3935
329	328	3.0445	1.3945
330	329	3.0465	1.3965
331	330	3.0415	1.3915
332	331	3.0346	1.3846
333	332	3.0332	1.3832
334	333	3.0325	1.3825
335	334	3.027	1.377
336	335	3.0191	1.3691
337	336	3.0238	1.3738
338	337	3.0205	1.3705
339	338	3.0144	1.3644
340	339	3.0106	1.3606
341	340	3.0142	1.3642
342	341	3.0115	1.3615
343	342	3.0207	1.3707
344	343	3.012	1.362
345	344	3.0185	1.3685
346	345	3.021	1.371
347	346	3.0116	1.3616
348	347	3.0157	1.3657
349	348	3.0107	1.3607
350	349	3.0088	1.3588
351	350	3.0142	1.3642
352	351	3.0097	1.3597
353	352	3.0162	1.3662
354	353	3.0158	1.3658
355	354	3.0155	1.3655
356	355	3.1146	1.4646
357	356	3.1711	1.5211
358	357	3.2044	1.5544
359	358	3.2229	1.5729
360	359	3.2295	1.5795

Cambium Inc. 135 Bayfield St #102, Barrie, ON L4M 3B3	**Pumping Test Analysis Report**	FIGURE 2.7
	Project: Hydrogeological Investigation	
	Number: 12397-001	
	Client: Hot Pond Enterprises Corporation	

Location: 46 Maple Avenue, Halliburton, ON	Pumping Test: TW102	Pumping Well: TW102
Test Conducted by: Josh/Michelle		Test Date: 5/27/2021
Analysis Performed by: Sudhakar Kurli	Theis	Analysis Date: 6/27/2021
Aquifer Thickness: 21.00 m	Discharge Rate: 1.53 [l/s]	



Calculation using Theis

Observation Well	Transmissivity [m²/s]	Hydraulic Conductivity [m/s]	Storage coefficient	Radial Distance to PW [m]	
TW102	8×10^{-4}	4×10^{-5}	3.20×10^{-3}	0.15	

Long Term Yields

	1.0 Farvolden Method					2.0 Moell Method (Modified) Alberta Environment, 2003				
							TW101	TW102		
	Q20	**(0.68*T*Ha*0.7)**				**Q20**	**((Qt*H)*0.7/(S100 +5 ΔSp))**			
						Qt	22	20.2	igpm	
						H	23.53	19.35		
	Safety factor	0.7	0.7			S100	Drawdown in 100 minutes			
	Ha (m)	23.53	19.35	Available Drawdown		ΔSp	Drawdown per log cycle of time			
						Sf	0.7	0.7		
		TW101	**TW102**			S100	1.57	1.25	m	
	T	47	25			ΔSp	0.7	0.45		
	H	23.53	19.35							
						Q20	71	78	igpm	
	Q20	526	230	m3/day			325	356	L/min	
							468283	512196	L/day	
	T	85	69				468	512	m3/day	
	H	23.53	19.35							
		952	636	m3/day						

Appendix E

Laboratory Certificate of Analysis

FINAL REPORT

CA14656-MAY21 R1

12397-001, 46 Maple Avenue

Prepared for

Cambium Inc.

FINAL REPORT

CA14656-MAY21 R1

First Page

CLIENT DETAILS		LABORATORY DETAILS	
Client	Cambium Inc.	Project Specialist	Jill Campbell, B.Sc.,GISAS
		Laboratory	SGS Canada Inc.
Address	194 Sophia Street Peterborough, ON K9H 1E5. Canada	Address	185 Concession St., Lakefield ON, K0L 2H0
Contact	Kevin Warner	Telephone	2165
Telephone	705-742-7900	Facsimile	705-652-6365
Facsimile		Email	jill.campbell@sgs.com
Email	kevin.warner@cambium-inc.com	SGS Reference	CA14656-MAY21
Project	12397-001, 46 Maple Avenue	Received	05/27/2021
Order Number		Approved	06/03/2021
Samples	Ground Water (1)	Report Number	CA14656-MAY21 R1
		Date Reported	06/03/2021

COMMENTS

MAC - Maximum Acceptable Concentration
AO/OG - Aesthetic Objective / Operational Guideline
NR - Not reportable under applicable Provincial drinking water regulations as per client.

Total phospuorous includes all Ortho-phosphates as well as Organics and hydrolyzable Phosphorous.

Temperature of Sample upon Receipt: 7 degrees C
Cooling Agent Present:YES
Custody Seal Present:YES

Chain of Custody Number:021776

SIGNATORIES

Jill Campbell, B.Sc.,GISAS

TABLE OF CONTENTS

Client: Cambium Inc.
Project: 12397-001, 46 Maple Avenue
Project Manager: Kevin Warner
Samplers: Josh Munro

PACKAGE: **- General Chemistry** (WATER)

Sample Number	7
Sample Name	Test Well #1
Sample Matrix	Ground Water
Sample Date	26/05/2021

Parameter	Units	RL		Result
General Chemistry				
UV Transmittance	%T	-		92.6
Alkalinity	mg/L as CaCO3	2		200
Colour	TCU	3		5
Conductivity	uS/cm	2		562
Total Suspended Solids	mg/L	2		< 2
Turbidity	NTU	0.10		0.41
Organic Nitrogen	mg/L	0.05		0.11
Total Kjeldahl Nitrogen (N)	as N mg/L	0.05		0.12
Ammonia+Ammonium (N)	as N mg/L	0.04		< 0.04
Dissolved Organic Carbon	mg/L	1		2
Total Organic Carbon	mg/L	1		2
Sulphide	mg/L	6		6.0
Hydrogen Sulphide	ug/L	6		< 6
Temperature @ pH	°C	-		21.7
Tannin+Lignin	mg phenol/L	0.05		0.09

Client: Cambium Inc.

Project: 12397-001, 46 Maple Avenue

Project Manager: Kevin Warner

Samplers: Josh Munro

PACKAGE: **- Metals and Inorganics** (WATER)

Sample Number	7
Sample Name	Test Well #1
Sample Matrix	Ground Water
Sample Date	26/05/2021

Parameter	Units	RL		Result
Metals and Inorganics				
Fluoride	mg/L	0.06		0.06
Nitrite (as N)	as N mg/L	0.003		0.012
Nitrate (as N)	as N mg/L	0.006		0.031
Sulphate	mg/L	0.04		27
Hardness (dissolved)	mg/L as CaCO3	0.05		239
Phosphorus (dissolved)	mg/L	0.003		< 0.003
Arsenic (dissolved)	mg/L	0.0002		< 0.0002
Boron (dissolved)	mg/L	0.002		0.148
Barium (dissolved)	mg/L	0.00002		0.0979
Beryllium (dissolved)	mg/L	0.000007		< 0.000007
Cobalt (dissolved)	mg/L	0.000004		0.000457
Calcium (dissolved)	mg/L	0.01		50.2
Cadmium (dissolved)	mg/L	0.000003		0.000021
Copper (dissolved)	mg/L	0.0002		0.0025
Chromium (dissolved)	mg/L	0.00008		< 0.00008
Iron (dissolved)	mg/L	0.007		0.019
Potassium (dissolved)	mg/L	0.009		7.82
Magnesium (dissolved)	mg/L	0.001		27.5
Manganese (dissolved)	mg/L	0.00001		0.207
Molybdenum (dissolved)	mg/L	0.00004		0.00256

Client: Cambium Inc.
Project: 12397-001, 46 Maple Avenue
Project Manager: Kevin Warner
Samplers: Josh Munro

PACKAGE: **- Metals and Inorganics** (WATER)

Sample Number	7
Sample Name	Test Well #1
Sample Matrix	Ground Water
Sample Date	26/05/2021

Parameter	Units	RL		Result
Metals and Inorganics (continued)				
Nickel (dissolved)	mg/L	0.0001		0.0016
Sodium (dissolved)	mg/L	0.01		20.9
Lead (dissolved)	mg/L	0.00009		< 0.00009
Silver (dissolved)	mg/L	0.00005		< 0.00005
Strontium (dissolved)	mg/L	0.00002		0.283
Thallium (dissolved)	mg/L	0.000005		0.000014
Tin (dissolved)	mg/L	0.00006		< 0.00006
Titanium (dissolved)	mg/L	0.00005		0.00012
Antimony (dissolved)	mg/L	0.0009		< 0.0009
Selenium (dissolved)	mg/L	0.00004		0.00034
Uranium (dissolved)	mg/L	0.000002		0.01262
Vanadium (dissolved)	mg/L	0.00001		0.00029
Zinc (dissolved)	mg/L	0.002		0.003

Client: Cambium Inc.
Project: 12397-001, 46 Maple Avenue
Project Manager: Kevin Warner
Samplers: Josh Munro

PACKAGE: **- Microbiology** (WATER)

Sample Number	7
Sample Name	Test Well #1
Sample Matrix	Ground Water
Sample Date	26/05/2021

Parameter	Units	RL		Result
Microbiology				
Total Coliform	cfu/100mL	-		4
E. Coli	cfu/100mL	-		0
Heterotrophic Plate Count (HPC)	cfu/1mL	-		3

PACKAGE: **- Other (ORP)** (WATER)

Sample Number	7
Sample Name	Test Well #1
Sample Matrix	Ground Water
Sample Date	26/05/2021

Parameter	Units	RL		Result
Other (ORP)				
pH	No unit	0.05		8.37
Chloride	mg/L	0.04		43

PACKAGE: **- Phenols** (WATER)

Sample Number	7
Sample Name	Test Well #1
Sample Matrix	Ground Water
Sample Date	26/05/2021

Parameter	Units	RL		Result
Phenols				
4AAP-Phenolics	mg/L	0.002		< 0.002

QC SUMMARY

Alkalinity

Method: SM 2320 I Internal ref.: ME-CA-[ENV]EWL-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Alkalinity	EWL0552-MAY21	mg/L as CaCO3	2	< 2	0	20	100	80	120	NA		

Ammonia by SFA

Method: SM 4500 I Internal ref.: ME-CA-[ENV]SFA-LAK-AN-007

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Ammonia+Ammonium (N)	SKA0273-MAY21	mg/L	0.04	<0.04	ND	10	109	90	110	104	75	125

QC SUMMARY

Anions by IC

Method: EPA300/MA300-Ions1.3 | Internal ref.: ME-CA-[ENV]IC-LAK-AN-001

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Nitrite (as N)	DIO0560-MAY21	mg/L	0.003	<0.003	ND	20	98	80	120	98	75	125
Nitrate (as N)	DIO0560-MAY21	mg/L	0.006	<0.006	ND	20	101	80	120	101	75	125
Chloride	DIO0566-MAY21	mg/L	0.04	<0.04	ND	20	94	80	120	100	75	125
Sulphate	DIO0566-MAY21	mg/L	0.04	<0.04	17	20	93	80	120	124	75	125

Carbon by SFA

Method: SM 5310 | Internal ref.: ME-CA-[ENV]SFA-LAK-AN-009

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Total Organic Carbon	SKA0002-JUN21	mg/L	1	<1	8	10	93	90	110	109	75	125
Dissolved Organic Carbon	SKA0297-MAY21	mg/L	1	<1	ND	10	97	90	110	96	75	125

QC SUMMARY

Colour

Method: SM 2120 I Internal ref.: ME-CA-IENVIEWL-LAK-AN-002

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Colour	EWL0038-JUN21	TCU	3	< 3	0	10	105	80	120	NA		

Conductivity

Method: SM 2510 I Internal ref.: ME-CA-IENVIEWL-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Conductivity	EWL0552-MAY21	uS/cm	2	< 2	0	20	98	90	110	NA		

Fluoride by Specific Ion Electrode

Method: SM 4500 I Internal ref.: ME-CA-IENVIEWL-LAK-AN-014

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Fluoride	EWL0542-MAY21	mg/L	0.06	<0.06	ND	10	106	90	110	103	75	125

QC SUMMARY

Metals in aqueous samples - ICP-MS

Method: SM 3030/EPA 200.8 | Internal ref.: ME-CA-IENVISPE-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Silver (dissolved)	EMS0149-MAY21	mg/L	0.00005	<0.00005	ND	20	100	90	110	94	70	130
Arsenic (dissolved)	EMS0149-MAY21	mg/L	0.0002	<0.0002	ND	20	103	90	110	100	70	130
Barium (dissolved)	EMS0149-MAY21	mg/L	0.00002	<0.00002	1	20	99	90	110	101	70	130
Beryllium (dissolved)	EMS0149-MAY21	mg/L	0.000007	<0.00007	ND	20	94	90	110	88	70	130
Boron (dissolved)	EMS0149-MAY21	mg/L	0.002	<0.002	2	20	104	90	110	97	70	130
Calcium (dissolved)	EMS0149-MAY21	mg/L	0.01	<0.01	2	20	96	90	110	99	70	130
Cadmium (dissolved)	EMS0149-MAY21	mg/L	0.000003	<0.000003	ND	20	101	90	110	97	70	130
Cobalt (dissolved)	EMS0149-MAY21	mg/L	0.000004	<0.000004	3	20	105	90	110	101	70	130
Chromium (dissolved)	EMS0149-MAY21	mg/L	0.00008	<0.00008	3	20	98	90	110	101	70	130
Copper (dissolved)	EMS0149-MAY21	mg/L	0.0002	<0.0002	12	20	102	90	110	87	70	130
Iron (dissolved)	EMS0149-MAY21	mg/L	0.007	<0.007	ND	20	94	90	110	100	70	130
Potassium (dissolved)	EMS0149-MAY21	mg/L	0.009	<0.009	1	20	96	90	110	108	70	130
Magnesium (dissolved)	EMS0149-MAY21	mg/L	0.001	<0.001	3	20	94	90	110	98	70	130
Manganese (dissolved)	EMS0149-MAY21	mg/L	0.00001	<0.00001	2	20	105	90	110	110	70	130
Molybdenum (dissolved)	EMS0149-MAY21	mg/L	0.00004	<0.00004	0	20	106	90	110	112	70	130
Sodium (dissolved)	EMS0149-MAY21	mg/L	0.01	<0.01	4	20	95	90	110	98	70	130
Nickel (dissolved)	EMS0149-MAY21	mg/L	0.0001	<0.0001	ND	20	100	90	110	109	70	130
Lead (dissolved)	EMS0149-MAY21	mg/L	0.00009	<0.00001	17	20	108	90	110	108	70	130
Phosphorus (dissolved)	EMS0149-MAY21	mg/L	0.003	<0.003	9	20	94	90	110	NV	70	130
Antimony (dissolved)	EMS0149-MAY21	mg/L	0.0009	<0.0009	ND	20	98	90	110	113	70	130

QC SUMMARY

Metals in aqueous samples - ICP-MS (continued)

Method: SM 3030/EPA 200.8 | Internal ref.: ME-CA-IENVISPE-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Selenium (dissolved)	EMS0149-MAY21	mg/L	0.00004	<0.00004	ND	20	106	90	110	124	70	130
Tin (dissolved)	EMS0149-MAY21	mg/L	0.00006	<0.00006	ND	20	102	90	110	NV	70	130
Strontium (dissolved)	EMS0149-MAY21	mg/L	0.00002	<0.00002	3	20	102	90	110	100	70	130
Titanium (dissolved)	EMS0149-MAY21	mg/L	0.00005	<0.00005	ND	20	100	90	110	NV	70	130
Thallium (dissolved)	EMS0149-MAY21	mg/L	0.000005	<0.000005	ND	20	104	90	110	108	70	130
Uranium (dissolved)	EMS0149-MAY21	mg/L	0.000002	<0.000002	3	20	103	90	110	101	70	130
Vanadium (dissolved)	EMS0149-MAY21	mg/L	0.00001	<0.00001	7	20	102	90	110	100	70	130
Zinc (dissolved)	EMS0149-MAY21	mg/L	0.002	<0.002	6	20	101	90	110	106	70	130

QC SUMMARY

Microbiology

Method: OMOE MICROMFDC-E3407A | Internal ref.: ME-CA-[ENV]MIC-LAK-AN-001

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%) Low	Recovery Limits (%) High	Spike Recovery (%)	Recovery Limits (%) Low	Recovery Limits (%) High
E. Coli	BAC9469-MAY21	cfu/100mL	-	ACCEPTED	ACCEPTED							
Heterotrophic Plate Count (HPC)	BAC9469-MAY21	cfu/1mL	-	ACCEPTED	ACCEPTED							
Total Coliform	BAC9469-MAY21	cfu/100mL	-	ACCEPTED	ACCEPTED							

pH

Method: SM 4500 | Internal ref.: ME-CA-[ENV]EWL-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%) Low	Recovery Limits (%) High	Spike Recovery (%)	Recovery Limits (%) Low	Recovery Limits (%) High
pH	EWL0552-MAY21	No unit	0.05	NA	0		100			NA		

QC SUMMARY

Phenols by SFA

Method: SM 5530B-D | Internal ref.: ME-CA-[ENV]SFA-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
4AAP-Phenolics	SKA0013-JUN21	mg/L	0.002	<0.002	ND	10	96	80	120	101	75	125

Sulphide by SFA

Method: SM 4500 | Internal ref.: ME-CA-[ENV]SFA-LAK-AN-008

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Sulphide	SKA0286-MAY21	mg/L	6	<0.006	ND	20	91	80	120	NA	75	125

Suspended Solids

Method: SM 2540D | Internal ref.: ME-CA-[ENV]EWL-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Total Suspended Solids	EWL0535-MAY21	mg/L	2	< 2	5	10	97	90	110	NA		

QC SUMMARY

Tannins & Lignins

Method: SM 5550 I Internal ref.: ME-CA-IENVIEWL-LAK-AN-015

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Tannin+Lignin	EWL0019-JUN21	mg/L	0.05	<0.05	2	15	100	85	115	110	75	125

Total Nitrogen

Method: SM 4500-N C/4500-NO3- F I Internal ref.: ME-CA-IENVISFA-LAK-AN-002

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Total Kjeldahl Nitrogen (N)	SKA0277-MAY21	mg/L	0.05	<0.05	0	10	92	90	110	98	75	125

Turbidity

Method: SM 2130 I Internal ref.: ME-CA-IENVIEWL-LAK-AN-003

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Turbidity	EWL0523-MAY21	NTU	0.10	< 0.10	1	10	100	90	110	NA		

QC SUMMARY

Method Blank: a blank matrix that is carried through the entire analytical procedure. Used to assess laboratory contamination.

Duplicate: Paired analysis of a separate portion of the same sample that is carried through the entire analytical procedure. Used to evaluate measurement precision.

LCS/Spike Blank: Laboratory control sample or spike blank refer to a blank matrix to which a known amount of analyte has been added. Used to evaluate analyte recovery and laboratory accuracy without sample matrix effects.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate laboratory accuracy with sample matrix effects.

Reference Material: a material or substance matrix matched to the samples that contains a known amount of the analyte of interest. A reference material may be used in place of a matrix spike.

RL: Reporting limit

RPD: Relative percent difference

AC: Acceptance criteria

Multielement Scan Qualifier: as the number of analytes in a scan increases, so does the chance of a limit exceedance by random chance as opposed to a real method problem. Thus, in multielement scans, for the LCS and matrix spike, up to 10% of the analytes may exceed the quoted limits by up to 10% absolute and the spike is considered acceptable.

Duplicate Qualifier: for duplicates as the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

Matrix Spike Qualifier: for matrix spikes, as the concentration of the native analyte increases, the uncertainty of the matrix spike recovery increases. Thus, the matrix spike acceptance limits apply only when the concentration of the matrix spike is greater than or equal to the concentration of the native analyte.

LEGEND

FOOTNOTES

NSS Insufficient sample for analysis.
RL Reporting Limit.
↑ Reporting limit raised.
↓ Reporting limit lowered.
NA The sample was not analysed for this analyte
ND Non Detect

Samples analysed as received. Solid samples expressed on a dry weight basis. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.

Analysis conducted on samples submitted pursuant to or as part of Reg. 153/04, are in accordance to the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act" published by the Ministry and dated March 9, 2004 as amended.

SGS provides criteria information (such as regulatory or guideline limits and summary of limit exceedances) as a service. Every attempt is made to ensure the criteria information in this report is accurate and current, however, it is not guaranteed. Comparison to the most current criteria is the responsibility of the client and SGS assumes no responsibility for the accuracy of the criteria levels indicated. This document is issued, on the Client's behalf, by the Company under its General Conditions of Service available on request and accessible at http://www.sgs.com/terms_and_conditions.htm. The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any other holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

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-- End of Analytical Report --

Request for Laboratory Services and CHAIN OF CUSTODY

SGS Environment, Health & Safety - Lakefield: 185 Concession St., Lakefield, ON K0L 2H0 Phone: 705-652-2000 Fax: 705-652-6365 Web: www.sgs.com/environment
- London: 657 Consortium Court, London, ON, N6E 2S8 Phone: 519-672-4500 Toll Free: 877-848-8060 Fax: 519-672-0361

No: 021776 Page _____ of _____

Laboratory Information Section - Lab use only

Received By: Chris Irwin
Received Date: 05/26/21 (mm/dd/yy)
Received Time: 17:59 (hr : min)
Received By (signature): [signature]
Custody Seal Present: Yes ☑ No ☐
Custody Seal Intact: Yes ☑ No ☐
Cooling Agent Present: Yes ☑ No ☐ Type: Ice
Temperature Upon Receipt (°C) 7.7.6
LAB LIMS #: GA14656-MAY21

REPORT INFORMATION	INVOICE INFORMATION
Company: Cambium	☑ (same as Report Information)
Contact: Kevin Warner	Company:
Address: 194 Sophia St, Peterborough	Contact:
Phone: 705-742-7900	Address:
Fax:	Phone:
Email: Kevin.warner@cambium-inc.com	Email:

Quotation #: 2013-0059 P.O. #:
Project #: 12397-001 Site Location/ID: 46 Maple Avenue

TURNAROUND TIME (TAT) REQUIRED

☑ Regular TAT (5-7days)

TAT's are quoted in business days (exclude statutory holidays & weekends). Samples received after 6pm or on weekends: TAT begins next business day

RUSH TAT (Additional Charges May Apply): ☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 4 Days

PLEASE CONFIRM RUSH FEASIBILITY WITH SGS REPRESENTATIVE PRIOR TO SUBMISSION

Specify Due Date: _____

*NOTE: DRINKING (POTABLE) WATER SAMPLES FOR HUMAN CONSUMPTION MUST BE SUBMITTED WITH SGS DRINKING WATER CHAIN OF CUSTODY

REGULATIONS

☐ O.Reg 153/04 ☐ O.Reg 406/19
☐ Table 1 ☐ Res/Park Soil Texture:
☐ Table 2 ☐ Ind/Com ☐ Coarse
☐ Table 3 ☐ Agri/Other ☐ Medium/Fine
☐ Table _____
Soil Volume ☐ <350m3 ☐ >350m3

Other Regulations:
☐ Reg 347/558 (3 Day min TAT)
☐ PWQO ☐ MMER
☐ CCME ☐ Other: _____
☐ MISA
☐ ODWS Not Reportable *See note

Sewer By-Law:
☐ Sanitary
☐ Storm
Municipality: _____

RECORD OF SITE CONDITION (RSC) ☐ YES ☐ NO

ANALYSIS REQUESTED

	SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	# OF BOTTLES	MATRIX	Field Filtered (Y/N)	M&I: Metals & Inorganics (incl CrVI, CN,Hg pH,(B(HWS),EC,SAR–soil) (Cl, Na–water)	M&I: Full Metals Suite (ICP metals plus B(HWS-soil only) Hg, CrVI	M&I: ICP Metals only Sb,As,Ba,Be,B,Cd,Cr,Co,Cu,Pb,Mo,Ni,	SVOC: PAHs only	SVOC: SVOCs all incl PAHs, ABNs, CPs	PCB: PCBs ☐ Total ☐ Aroclor	PHC: F1-F4 + BTEX	PHC: F1-F4 only no BTEX	VOC: VOCs all incl BTEX	VOC: BTEX only	Pest: Pesticides Organochlorine or specify other	Other: Same as Quote 2013-0059 minus methane	Other	Other	Other	Other: Appendix 2: 406/19 Leachate Screening Levels Table :	Other: Sewer Use: Specify pkg:	Other: Water Characterization Pkg General ☐ Extended ☐	TCLP: Specify TCLP tests ☐M&I ☐VOC ☐PCB ☐B(a)P ☐ABN ☐Ignit.	COMMENTS:
1	Test Well #1	May 26/21	15:20	12	GW													X							
2																									
3																									
4																									
5																									
6																									
7																									
8																									
9																									
10																									
11																									
12																									

Observations/Comments/Special Instructions
Refer to Analytical Quotation 2013-0059 for parameters. Do NOT do methane

Sampled By (NAME): Josh Manno Signature: [signature] Date: 05/26/21 (mm/dd/yy)
Relinquished by (NAME): Michelle Rea Signature: MRea Date: 05/26/21 (mm/dd/yy)

Pink Copy - Client
Yellow & White Copy - SGS

Revision #: 1.4
Date of Issue: 22 May. 2020

Note: Submission of samples to SGS is acknowledgement that you have been provided direction on sample collection/handling and transportation of samples. {2} Submission of samples to SGS is considered authorization for completion of work. Signatures may appear on this form or be retained on file in the contract, or in an alternative format (e.g. shipping documents). {3} Results may be sent by email to an unlimited number of addresses for no additional cost. Fax is available upon request. This document is issued by the Company under its General Conditions of Service accessible at http://www.sgs.com/terms_and_conditions.htm. (Printed copies are available upon request.) Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

FINAL REPORT

CA14658-MAY21 R1

12397-001, 46 Maple Avenue, Haliburton Well #2

Prepared for

Cambium Inc.

FINAL REPORT

CA14658-MAY21 R1

First Page

CLIENT DETAILS

Client	Cambium Inc.
Address	194 Sophia Street, Peterborough Canada, K9H 1E5 Phone: 705-742-7900. Fax:
Contact	Kevin Warner
Telephone	705-742-7900
Facsimile	
Email	kevin.warner@cambium-inc.com
Project	12397-001, 46 Maple Avenue, Haliburton Well #2
Order Number	
Samples	Ground Water (1)

LABORATORY DETAILS

Project Specialist	Jill Campbell, B.Sc.,GISAS
Laboratory	SGS Canada Inc.
Address	185 Concession St., Lakefield ON, K0L 2H0
Telephone	2165
Facsimile	705-652-6365
Email	jill.campbell@sgs.com
SGS Reference	CA14658-MAY21
Received	05/27/2021
Approved	06/03/2021
Report Number	CA14658-MAY21 R1
Date Reported	06/03/2021

COMMENTS

MAC - Maximum Acceptable Concentration
AO/OG - Aesthetic Objective / Operational Guideline
NR - Not reportable under applicable Provincial drinking water regulations as per client.

Total phospuorous includes all Ortho-phosphates as well as Organics and hydrolyzable Phosphorous.

Temperature of Sample upon Receipt: 3 degrees C
Cooling Agent Present:Yes
Custody Seal Present:Yes

Chain of Custody Number:011506

SIGNATORIES

Jill Campbell, B.Sc.,GISAS

TABLE OF CONTENTS

Client: Cambium Inc.

Project: 12397-001, 46 Maple Avenue, Haliburton Well #2

Project Manager: Kevin Warner

Samplers: Michelle Rea

PACKAGE: **- General Chemistry** (WATER)

Sample Number	7
Sample Name	Test Well #2 (A308588)
Sample Matrix	Ground Water
Sample Date	27/05/2021

Parameter	Units	RL		Result
General Chemistry				
UV Transmittance	%T	-		91.2
Alkalinity	mg/L as CaCO3	2		198
Colour	TCU	3		6
Conductivity	uS/cm	2		543
Total Suspended Solids	mg/L	2		2
Turbidity	NTU	0.10		0.75
Organic Nitrogen	mg/L	0.05		0.08
Total Kjeldahl Nitrogen (N)	as N mg/L	0.05		0.12
Ammonia+Ammonium (N)	as N mg/L	0.04		0.04
Dissolved Organic Carbon	mg/L	1		2
Total Organic Carbon	mg/L	1		2
Sulphide	µg/L	6		< 6
Hydrogen Sulphide	ug/L	6		< 6
Temperature @ pH	°C	-		22.1
Tannin+Lignin	mg phenol/L	0.05		0.06

Client: Cambium Inc.
Project: 12397-001, 46 Maple Avenue, Haliburton Well #2
Project Manager: Kevin Warner
Samplers: Michelle Rea

PACKAGE: **- Metals and Inorganics** (WATER)

Sample Number	7
Sample Name	Test Well #2 (A308588)
Sample Matrix	Ground Water
Sample Date	27/05/2021

Metals and Inorganics

Parameter	Units	RL		Result
Fluoride	mg/L	0.06		0.07
Nitrite (as N)	as N mg/L	0.003		0.010
Nitrate (as N)	as N mg/L	0.006		0.086
Sulphate	mg/L	0.04		25
Hardness (dissolved)	mg/L as CaCO3	0.05		221
Phosphorus (dissolved)	mg/L	0.003		< 0.003
Arsenic (dissolved)	mg/L	0.0002		< 0.0002
Boron (dissolved)	mg/L	0.002		0.163
Barium (dissolved)	mg/L	0.00002		0.0928
Beryllium (dissolved)	mg/L	0.000007		< 0.000007
Cobalt (dissolved)	mg/L	0.000004		0.00103
Calcium (dissolved)	mg/L	0.01		47.7
Cadmium (dissolved)	mg/L	0.000003		0.000011
Copper (dissolved)	mg/L	0.0002		0.0039
Chromium (dissolved)	mg/L	0.00008		< 0.00008
Iron (dissolved)	mg/L	0.007		0.100
Potassium (dissolved)	mg/L	0.009		7.55
Magnesium (dissolved)	mg/L	0.001		24.8
Manganese (dissolved)	mg/L	0.00001		0.221

Client: Cambium Inc.
Project: 12397-001, 46 Maple Avenue, Haliburton Well #2
Project Manager: Kevin Warner
Samplers: Michelle Rea

PACKAGE: **- Metals and Inorganics** (WATER)

Sample Number	7
Sample Name	Test Well #2 (A308588)
Sample Matrix	Ground Water
Sample Date	27/05/2021

Parameter	Units	RL		Result
Metals and Inorganics (continued)				
Molybdenum (dissolved)	mg/L	0.00004		0.00241
Nickel (dissolved)	mg/L	0.0001		0.0020
Sodium (dissolved)	mg/L	0.01		20.9
Lead (dissolved)	mg/L	0.00009		< 0.00009
Silver (dissolved)	mg/L	0.00005		< 0.00005
Strontium (dissolved)	mg/L	0.00002		0.279
Thallium (dissolved)	mg/L	0.000005		< 0.000005
Tin (dissolved)	mg/L	0.00006		< 0.00006
Titanium (dissolved)	mg/L	0.00005		0.00008
Antimony (dissolved)	mg/L	0.0009		< 0.0009
Selenium (dissolved)	mg/L	0.00004		0.00019
Uranium (dissolved)	mg/L	0.000002		0.0120
Vanadium (dissolved)	mg/L	0.00001		0.00016
Zinc (dissolved)	mg/L	0.002		< 0.002

Client: Cambium Inc.
Project: 12397-001, 46 Maple Avenue, Haliburton Well #2
Project Manager: Kevin Warner
Samplers: Michelle Rea

PACKAGE: **- Microbiology** (WATER)

Sample Number	7
Sample Name	Test Well #2 (A308588)
Sample Matrix	Ground Water
Sample Date	27/05/2021

Parameter	Units	RL		Result
Microbiology				
Total Coliform	cfu/100mL	-		2
E. Coli	cfu/100mL	-		0
Heterotrophic Plate Count (HPC)	cfu/1mL	-		85

PACKAGE: **- Other (ORP)** (WATER)

Sample Number	7
Sample Name	Test Well #2 (A308588)
Sample Matrix	Ground Water
Sample Date	27/05/2021

Parameter	Units	RL		Result
Other (ORP)				
pH	No unit	0.05		7.94
Chloride	mg/L	0.04		45

PACKAGE: **- Phenols** (WATER)

Sample Number	7
Sample Name	Test Well #2 (A308588)
Sample Matrix	Ground Water
Sample Date	27/05/2021

Parameter	Units	RL		Result
Phenols				
4AAP-Phenolics	mg/L	0.002		< 0.002

QC SUMMARY

Alkalinity

Method: SM 2320 I Internal ref.: ME-CA-[ENV]EWL-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Alkalinity	EWL0552-MAY21	mg/L as CaCO3	2	< 2	0	20	100	80	120	NA		

Ammonia by SFA

Method: SM 4500 I Internal ref.: ME-CA-[ENV]SFA-LAK-AN-007

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Ammonia+Ammonium (N)	SKA0295-MAY21	mg/L	0.04	<0.04	0	10	99	90	110	90	75	125

QC SUMMARY

Anions by IC

Method: EPA300/MA300-Ions1.3 | Internal ref.: ME-CA-[ENV]IC-LAK-AN-001

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Nitrite (as N)	DIO0560-MAY21	mg/L	0.003	<0.003	ND	20	98	80	120	98	75	125
Nitrate (as N)	DIO0560-MAY21	mg/L	0.006	<0.006	ND	20	101	80	120	101	75	125
Chloride	DIO0566-MAY21	mg/L	0.04	<0.04	ND	20	94	80	120	100	75	125
Sulphate	DIO0566-MAY21	mg/L	0.04	<0.04	17	20	93	80	120	124	75	125

Carbon by SFA

Method: SM 5310 | Internal ref.: ME-CA-[ENV]SFA-LAK-AN-009

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Dissolved Organic Carbon	SKA0297-MAY21	mg/L	1	<1	ND	10	97	90	110	96	75	125
Total Organic Carbon	SKA0297-MAY21	mg/L	1	<1	ND	10	97	90	110	96	75	125

QC SUMMARY

Colour

Method: SM 2120 I Internal ref.: ME-CA-IENVIEWL-LAK-AN-002

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Colour	EWL0038-JUN21	TCU	3	< 3	0	10	105	80	120	NA		

Conductivity

Method: SM 2510 I Internal ref.: ME-CA-IENVIEWL-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Conductivity	EWL0552-MAY21	uS/cm	2	< 2	0	20	98	90	110	NA		

Fluoride by Specific Ion Electrode

Method: SM 4500 I Internal ref.: ME-CA-IENVIEWL-LAK-AN-014

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Fluoride	EWL0542-MAY21	mg/L	0.06	<0.06	ND	10	106	90	110	103	75	125

QC SUMMARY

Metals in aqueous samples - ICP-MS

Method: SM 3030/EPA 200.8 | Internal ref.: ME-CA-IENVISPE-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Silver (dissolved)	EMS0149-MAY21	mg/L	0.00005	<0.00005	ND	20	100	90	110	94	70	130
Arsenic (dissolved)	EMS0149-MAY21	mg/L	0.0002	<0.0002	ND	20	103	90	110	100	70	130
Barium (dissolved)	EMS0149-MAY21	mg/L	0.00002	<0.00002	1	20	99	90	110	101	70	130
Beryllium (dissolved)	EMS0149-MAY21	mg/L	0.000007	<0.00007	ND	20	94	90	110	88	70	130
Boron (dissolved)	EMS0149-MAY21	mg/L	0.002	<0.002	2	20	104	90	110	97	70	130
Calcium (dissolved)	EMS0149-MAY21	mg/L	0.01	<0.01	2	20	96	90	110	99	70	130
Cadmium (dissolved)	EMS0149-MAY21	mg/L	0.000003	<0.000003	ND	20	101	90	110	97	70	130
Cobalt (dissolved)	EMS0149-MAY21	mg/L	0.000004	<0.000004	3	20	105	90	110	101	70	130
Chromium (dissolved)	EMS0149-MAY21	mg/L	0.00008	<0.00008	3	20	98	90	110	101	70	130
Copper (dissolved)	EMS0149-MAY21	mg/L	0.0002	<0.0002	12	20	102	90	110	87	70	130
Iron (dissolved)	EMS0149-MAY21	mg/L	0.007	<0.007	ND	20	94	90	110	100	70	130
Potassium (dissolved)	EMS0149-MAY21	mg/L	0.009	<0.009	1	20	96	90	110	108	70	130
Magnesium (dissolved)	EMS0149-MAY21	mg/L	0.001	<0.001	3	20	94	90	110	98	70	130
Manganese (dissolved)	EMS0149-MAY21	mg/L	0.00001	<0.00001	2	20	105	90	110	110	70	130
Molybdenum (dissolved)	EMS0149-MAY21	mg/L	0.00004	<0.00004	0	20	106	90	110	112	70	130
Sodium (dissolved)	EMS0149-MAY21	mg/L	0.01	<0.01	4	20	95	90	110	98	70	130
Nickel (dissolved)	EMS0149-MAY21	mg/L	0.0001	<0.0001	ND	20	100	90	110	109	70	130
Lead (dissolved)	EMS0149-MAY21	mg/L	0.00009	<0.00001	17	20	108	90	110	108	70	130
Phosphorus (dissolved)	EMS0149-MAY21	mg/L	0.003	<0.003	9	20	94	90	110	NV	70	130
Antimony (dissolved)	EMS0149-MAY21	mg/L	0.0009	<0.0009	ND	20	98	90	110	113	70	130

QC SUMMARY

Metals in aqueous samples - ICP-MS (continued)

Method: SM 3030/EPA 200.8 | Internal ref.: ME-CA-IENVISPE-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Selenium (dissolved)	EMS0149-MAY21	mg/L	0.00004	<0.00004	ND	20	106	90	110	124	70	130
Tin (dissolved)	EMS0149-MAY21	mg/L	0.00006	<0.00006	ND	20	102	90	110	NV	70	130
Strontium (dissolved)	EMS0149-MAY21	mg/L	0.00002	<0.00002	3	20	102	90	110	100	70	130
Titanium (dissolved)	EMS0149-MAY21	mg/L	0.00005	<0.00005	ND	20	100	90	110	NV	70	130
Thallium (dissolved)	EMS0149-MAY21	mg/L	0.000005	<0.000005	ND	20	104	90	110	108	70	130
Uranium (dissolved)	EMS0149-MAY21	mg/L	0.000002	<0.000002	3	20	103	90	110	101	70	130
Vanadium (dissolved)	EMS0149-MAY21	mg/L	0.00001	<0.00001	7	20	102	90	110	100	70	130
Zinc (dissolved)	EMS0149-MAY21	mg/L	0.002	<0.002	6	20	101	90	110	106	70	130

QC SUMMARY

Microbiology

Method: OMOE MICROMFDC-E3407A | Internal ref.: ME-CA-[ENV]MIC-LAK-AN-001

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%) Low	Recovery Limits (%) High	Spike Recovery (%)	Recovery Limits (%) Low	Recovery Limits (%) High
E. Coli	BAC9482-MAY21	cfu/100mL	-	ACCEPTED	ACCEPTED							
Heterotrophic Plate Count (HPC)	BAC9482-MAY21	cfu/1mL	-	ACCEPTED	ACCEPTED							
Total Coliform	BAC9482-MAY21	cfu/100mL	-	ACCEPTED	ACCEPTED							

pH

Method: SM 4500 | Internal ref.: ME-CA-[ENV]EWL-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%) Low	Recovery Limits (%) High	Spike Recovery (%)	Recovery Limits (%) Low	Recovery Limits (%) High
pH	EWL0552-MAY21	No unit	0.05	NA	0		100			NA		

QC SUMMARY

Phenols by SFA

Method: SM 5530B-D | Internal ref.: ME-CA-[ENV]SFA-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
4AAP-Phenolics	SKA0018-JUN21	mg/L	0.002	<0.002	ND	10	103	80	120	107	75	125

Sulphide by SFA

Method: SM 4500 | Internal ref.: ME-CA-[ENV]SFA-LAK-AN-008

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Sulphide	SKA0286-MAY21	ug/L	6	<0.006	ND	20	91	80	120	NA	75	125

Suspended Solids

Method: SM 2540D | Internal ref.: ME-CA-[ENV]EWL-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Total Suspended Solids	EWL0567-MAY21	mg/L	2	< 2	0	10	97	90	110	NA		

QC SUMMARY

Tannins & Lignins

Method: SM 5550 I Internal ref.: ME-CA-IENVIEWL-LAK-AN-015

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Tannin+Lignin	EWL0019-JUN21	mg/L	0.05	<0.05	2	15	100	85	115	110	75	125

Total Nitrogen

Method: SM 4500-N C/4500-NO3- F I Internal ref.: ME-CA-IENVISFA-LAK-AN-002

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Total Kjeldahl Nitrogen (N)	SKA0289-MAY21	mg/L	0.05	<0.05	5	10	103	90	110	88	75	125

Turbidity

Method: SM 2130 I Internal ref.: ME-CA-IENVIEWL-LAK-AN-003

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Turbidity	EWL0526-MAY21	NTU	0.10	< 0.10	1	10	100	90	110	NA		

QC SUMMARY

Method Blank: a blank matrix that is carried through the entire analytical procedure. Used to assess laboratory contamination.

Duplicate: Paired analysis of a separate portion of the same sample that is carried through the entire analytical procedure. Used to evaluate measurement precision.

LCS/Spike Blank: Laboratory control sample or spike blank refer to a blank matrix to which a known amount of analyte has been added. Used to evaluate analyte recovery and laboratory accuracy without sample matrix effects.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate laboratory accuracy with sample matrix effects.

Reference Material: a material or substance matrix matched to the samples that contains a known amount of the analyte of interest. A reference material may be used in place of a matrix spike.

RL: Reporting limit

RPD: Relative percent difference

AC: Acceptance criteria

Multielement Scan Qualifier: as the number of analytes in a scan increases, so does the chance of a limit exceedance by random chance as opposed to a real method problem. Thus, in multielement scans, for the LCS and matrix spike, up to 10% of the analytes may exceed the quoted limits by up to 10% absolute and the spike is considered acceptable.

Duplicate Qualifier: for duplicates as the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

Matrix Spike Qualifier: for matrix spikes, as the concentration of the native analyte increases, the uncertainty of the matrix spike recovery increases. Thus, the matrix spike acceptance limits apply only when the concentration of the matrix spike is greater than or equal to the concentration of the native analyte.

LEGEND

FOOTNOTES

NSS Insufficient sample for analysis.
RL Reporting Limit.
↑ Reporting limit raised.
↓ Reporting limit lowered.
NA The sample was not analysed for this analyte
ND Non Detect

Samples analysed as received. Solid samples expressed on a dry weight basis. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.

Analysis conducted on samples submitted pursuant to or as part of Reg. 153/04, are in accordance to the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act" published by the Ministry and dated March 9, 2004 as amended.

SGS provides criteria information (such as regulatory or guideline limits and summary of limit exceedances) as a service. Every attempt is made to ensure the criteria information in this report is accurate and current, however, it is not guaranteed. Comparison to the most current criteria is the responsibility of the client and SGS assumes no responsibility for the accuracy of the criteria levels indicated. This document is issued, on the Client's behalf, by the Company under its General Conditions of Service available on request and accessible at http://www.sgs.com/terms_and_conditions.htm. The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any other holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

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-- End of Analytical Report --

Request for Laboratory Services and CHAIN OF CUSTODY

SGS Environment, Health & Safety - Lakefield: 185 Concession St., Lakefield, ON K0L 2H0 Phone: 705-652-2000 Fax: 705-652-6365 Web: www.sgs.com/environment
- London: 657 Consortium Court, London, ON, N6E 2S8 Phone: 519-672-4500 Toll Free: 877-848-8060 Fax: 519-672-0361

No: 011506 Page ____ of ____

Laboratory Information Section - Lab use only

Received By: CAYLYN GRAHAM
Received By (signature): [signature]
Received Date: 05/27/21 (mm/dd/yy)
Received Time: 15:20 (hr : min)
Custody Seal Present: Yes ☐ No ☑
Custody Seal Intact: Yes ☐ No ☑
Cooling Agent Present: Yes ☑ No ☐ Type: ice
Temperature Upon Receipt (°C) 3.3 3
LAB LIMS #: QA14658-MAY21

REPORT INFORMATION

Company: Cambium
Contact: Kevin Warner
Address: 194 Sophia St, Peterborough
Phone: 705-741-4109
Fax:
Email: Kevin.warner@cambium-inc.com

INVOICE INFORMATION

☑ (same as Report Information)
Company:
Contact:
Address:
Phone:
Email:

Quotation #:
P.O. #:
Project #: 12397-001
Site Location/ID: 46 Maple Ave, Haliburton Well #2

TURNAROUND TIME (TAT) REQUIRED

☑ Regular TAT (5-7days)
TAT's are quoted in business days (exclude statutory holidays & weekends).
Samples received after 6pm or on weekends: TAT begins next business day

RUSH TAT (Additional Charges May Apply): ☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 4 Days
PLEASE CONFIRM RUSH FEASIBILITY WITH SGS REPRESENTATIVE PRIOR TO SUBMISSION

Specify Due Date:

NOTE: DRINKING (POTABLE) WATER SAMPLES FOR HUMAN CONSUMPTION MUST BE SUBMITTED WITH SGS DRINKING WATER CHAIN OF CUSTODY

REGULATIONS

Regulation 153/04:
☐ Table 1 ☐ Res/Park Soil Texture:
☐ Table 2 ☐ Ind/Com ☐ Coarse
☐ Table 3 ☐ Agri/Other ☐ Medium
☐ Table ____ ☐ Fine

Other Regulations:
☐ Reg 347/558 (3 Day min TAT)
☐ PWQO ☐ MMER
☐ CCME ☐ Other:
☐ MISA

Sewer By-Law:
☐ Sanitary
☐ Storm
Municipality:

RECORD OF SITE CONDITION (RSC) ☐ YES ☐ NO

ANALYSIS REQUESTED

	SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	# OF BOTTLES	MATRIX	M&I: Field Filtered (Y/N)	M&I: Metals & Inorganics incl CrVI, CN,Hg pH,(B(HWS),EC,SAR-soil) (Cl, Na-water)	M&I: Full Metals Suite ICP metals plus B(HWS-soil only) Hg, CrVI	M&I: ICP Metals only Sb,As,Ba,Be,B,Cd,Cr,Co,Cu,Pb,Mo,Ni, Se,Ag,Ti,U,V,Zn	SVOC: PAHs only	SVOC: SVOCs all incl PAHs, ABNs, CPs	PCB: PCBs Total ☐ Aroclor ☐	PHC: F1-F4 + BTEX	PHC: F1-F4 only no BTEX	VOC: VOCs all incl BTEX	VOC: BTEX only	Pest: Pesticides Organochlorine or specify other	Other: Same parameters as 2013-0089, minus methane	Other	Other	Other	Other	Other: Sewer Use: Specify pkg:	Other: Water Characterization Pkg ☐ General ☐ Extended	TCLP: Specify TCLP tests ☐M&I ☐VOC ☐PCB ☐B(a)P ☐ABN ☐Ignit.	COMMENTS:
1	Test Well #2 (A308588)	May 27/21	15:40	12	GW	N												X							
2																									
3																									
4																									
5																									
6																									
7																									
8																									
9																									
10																									
11																									
12																									

Observations/Comments/Special Instructions: Please test for same parameters as Analytical Quote 2013-0089 minus methane.

Sampled By (NAME): Michelle Rea
Signature: MRea
Date: 05/27/21 (mm/dd/yy)

Relinquished by (NAME): Michelle Rea
Signature: MRea
Date: 05/27/21 (mm/dd/yy)

Pink Copy - Client
Yellow & White Copy - SGS

Revision #: 1.2
Date of Issue: 09 Sept, 2019

Note: Submission of samples to SGS is acknowledgement that you have been provided direction on sample collection/handling and transportation of samples. {2} Submission of samples to SGS is considered authorization for completion of work. Signatures may appear on this form or be retained on file in the contract, or in an alternative format (e.g. shipping documents). {3} Results may be sent by email to an unlimited number of addresses for no additional cost. Fax is available upon request. This document is issued by the Company under its General Conditions of Service accessible at http://www.sgs.com/terms_and_conditions.htm. (Printed copies are available upon request.) Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

FINAL REPORT

CA14662-MAY21 R1

12397-001, 26 Mape Ave, Haliburton, Well # 3

Prepared for

Cambium Inc.

FINAL REPORT

CA14662-MAY21 R1

First Page

CLIENT DETAILS		LABORATORY DETAILS	
Client	Cambium Inc.	Project Specialist	Brad Moore Hon. B.Sc
		Laboratory	SGS Canada Inc.
Address	194 Sophia Street, Peterborough Canada, K9H 1E5 Phone: 705-742-7900. Fax:	Address	185 Concession St., Lakefield ON, K0L 2H0
Contact	Kevin Warner	Telephone	705-652-2143
Telephone	705-742-7900	Facsimile	705-652-6365
Facsimile		Email	brad.moore@sgs.com
Email	kevin.warner@cambium-inc.com	SGS Reference	CA14662-MAY21
Project	12397-001, 26 Mape Ave, Haliburton, Well # 3	Received	05/28/2021
Order Number		Approved	06/07/2021
Samples	Ground Water (1)	Report Number	CA14662-MAY21 R1
		Date Reported	06/07/2021

COMMENTS

MAC - Maximum Acceptable Concentration
AO/OG - Aesthetic Objective / Operational Guideline
NR - Not reportable under applicable Provincial drinking water regulations as per client.

Total phospuorous includes all Ortho-phosphates as well as Organics and hydrolyzable Phosphorous.

Temperature of Sample upon Receipt: degrees C
Cooling Agent Present: yes
Custody Seal Present: no

Chain of Custody Number: 011505

Turb recv'd past holding time

TSS dup%RPD appears high, within acceptance criteria

SIGNATORIES

Brad Moore Hon. B.Sc

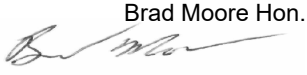

TABLE OF CONTENTS

Client: Cambium Inc.
Project: 12397-001, 26 Mape Ave, Haliburton, Well # 3
Project Manager: Kevin Warner
Samplers: Josh Munro

PACKAGE: **- General Chemistry** (WATER)

Sample Number	7
Sample Name	Test Well #3
Sample Matrix	Ground Water
Sample Date	28/05/2021

Parameter	Units	RL		Result
General Chemistry				
UV Transmittance	%T	-		89.5
Alkalinity	mg/L as CaCO3	2		96
Colour	TCU	3		4
Conductivity	uS/cm	2		1200
Total Suspended Solids	mg/L	2		32
Turbidity	NTU	0.10		79.7
Organic Nitrogen	mg/L	0.05		< 0.05
Total Kjeldahl Nitrogen (N)	as N mg/L	0.05		< 0.05
Ammonia+Ammonium (N)	as N mg/L	0.04		0.07
Dissolved Organic Carbon	mg/L	1		2
Total Organic Carbon	mg/L	1		1
Sulphide	µg/L	6		< 6
Hydrogen Sulphide	ug/L	6		< 6
Temperature @ pH	°C	-		19.0
Ion Ratio	none	-9999		1.01
Total Dissolved Solids (calculated)	mg/L	-9999		976
Conductivity (calculated)	uS/cm	-9999		1593
Langeliers Index 4° C	@ 4° C	-9999		0.18
Saturation pH 4°C	pHs @ 4°C	-9999		7.65
Tannin+Lignin	mg phenol/L	0.05		0.55

FINAL REPORT

CA14662-MAY21 R1

Client: Cambium Inc.
Project: 12397-001, 26 Mape Ave, Haliburton, Well # 3
Project Manager: Kevin Warner
Samplers: Josh Munro

PACKAGE: **- Metals and Inorganics** (WATER)

Sample Number	7
Sample Name	Test Well #3
Sample Matrix	Ground Water
Sample Date	28/05/2021

Parameter	Units	RL		Result
Metals and Inorganics				
Fluoride	mg/L	0.06		0.77
Nitrite (as N)	as N mg/L	0.003		0.003#<MDL
Nitrate (as N)	as N mg/L	0.006		0.006#<MDL
Sulphate	mg/L	0.04		450
Hardness (dissolved)	mg/L as CaCO3	0.05		696
Phosphorus (dissolved)	mg/L	0.003		< 0.003
Arsenic (dissolved)	mg/L	0.0002		< 0.0002
Boron (dissolved)	mg/L	0.002		0.692
Barium (dissolved)	mg/L	0.00002		0.208
Beryllium (dissolved)	mg/L	0.000007		< 0.000007
Cobalt (dissolved)	mg/L	0.000004		0.000088
Calcium (dissolved)	mg/L	0.01		236
Cadmium (dissolved)	mg/L	0.000003		0.000006
Copper (dissolved)	mg/L	0.0002		0.0006
Chromium (dissolved)	mg/L	0.00008		< 0.00008
Iron (dissolved)	mg/L	0.007		0.079
Potassium (dissolved)	mg/L	0.009		6.86
Magnesium (dissolved)	mg/L	0.001		25.8
Manganese (dissolved)	mg/L	0.00001		0.606
Molybdenum (dissolved)	mg/L	0.00004		0.00400

Client: Cambium Inc.
Project: 12397-001, 26 Mape Ave, Haliburton, Well # 3
Project Manager: Kevin Warner
Samplers: Josh Munro

PACKAGE: **- Metals and Inorganics** (WATER)

Sample Number	7
Sample Name	Test Well #3
Sample Matrix	Ground Water
Sample Date	28/05/2021

Parameter	Units	RL		Result
Metals and Inorganics (continued)				
Nickel (dissolved)	mg/L	0.0001		0.0005
Sodium (dissolved)	mg/L	0.01		39.1
Lead (dissolved)	mg/L	0.00009		< 0.00009
Silver (dissolved)	mg/L	0.00005		< 0.00005
Strontium (dissolved)	mg/L	0.00002		8.05
Thallium (dissolved)	mg/L	0.000005		0.000005
Tin (dissolved)	mg/L	0.00006		< 0.00006
Titanium (dissolved)	mg/L	0.00005		< 0.00005
Antimony (dissolved)	mg/L	0.0009		< 0.0009
Selenium (dissolved)	mg/L	0.00004		0.00005
Uranium (dissolved)	mg/L	0.000002		0.00385
Vanadium (dissolved)	mg/L	0.00001		0.00002
Zinc (dissolved)	mg/L	0.002		0.003
Cation sum	meq/L	-9999		16.01
Anion Sum	meq/L	-9999		15.84
Anion-Cation Balance	% difference	-9999		0.53

Client: Cambium Inc.
Project: 12397-001, 26 Mape Ave, Haliburton, Well # 3
Project Manager: Kevin Warner
Samplers: Josh Munro

PACKAGE: **- Microbiology** (WATER)

Sample Number	7
Sample Name	Test Well #3
Sample Matrix	Ground Water
Sample Date	28/05/2021

Parameter	Units	RL		Result
Microbiology				
Total Coliform	cfu/100mL	-		0
E. Coli	cfu/100mL	-		0
Heterotrophic Plate Count (HPC)	cfu/1mL	-		19

PACKAGE: **- Other (ORP)** (WATER)

Sample Number	7
Sample Name	Test Well #3
Sample Matrix	Ground Water
Sample Date	28/05/2021

Parameter	Units	RL		Result
Other (ORP)				
pH	No unit	0.05		7.83
Chloride	mg/L	0.04		160

PACKAGE: **- Phenols** (WATER)

Sample Number	7
Sample Name	Test Well #3
Sample Matrix	Ground Water
Sample Date	28/05/2021

Parameter	Units	RL		Result
Phenols				
4AAP-Phenolics	mg/L	0.002		< 0.002

QC SUMMARY

Alkalinity

Method: SM 2320 I Internal ref.: ME-CA-[ENV]EWL-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Alkalinity	EWL0576-MAY21	mg/L as CaCO3	2	< 2	0	20	104	80	120	NA		

Ammonia by SFA

Method: SM 4500 I Internal ref.: ME-CA-[ENV]SFA-LAK-AN-007

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Ammonia+Ammonium (N)	SKA0009-JUN21	mg/L	0.04	<0.04	ND	10	96	90	110	88	75	125

QC SUMMARY

Anions by IC

Method: EPA300/MA300-Ions1.3 | Internal ref.: ME-CA-[ENV]IC-LAK-AN-001

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Nitrite (as N)	DIO0028-JUN21	mg/L	0.003	<0.003	ND	20	100	80	120	101	75	125
Nitrate (as N)	DIO0028-JUN21	mg/L	0.006	<0.006	ND	20	101	80	120	102	75	125
Chloride	DIO0030-JUN21	mg/L	0.04	<0.04	8	20	92	80	120	101	75	125
Sulphate	DIO0030-JUN21	mg/L	0.04	<0.04	0	20	94	80	120	94	75	125

Carbon by SFA

Method: SM 5310 | Internal ref.: ME-CA-[ENV]SFA-LAK-AN-009

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Dissolved Organic Carbon	SKA0002-JUN21	mg/L	1	<1	8	10	93	90	110	109	75	125
Total Organic Carbon	SKA0002-JUN21	mg/L	1	<1	8	10	93	90	110	109	75	125

QC SUMMARY

Colour

Method: SM 2120 | Internal ref.: ME-CA-[ENV]EWL-LAK-AN-002

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Colour	EWL0038-JUN21	TCU	3	< 3	0	10	105	80	120	NA		

Conductivity

Method: SM 2510 | Internal ref.: ME-CA-[ENV]EWL-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Conductivity	EWL0576-MAY21	uS/cm	2	< 2	0	20	94	90	110	NA		

Fluoride by Specific Ion Electrode

Method: SM 4500 | Internal ref.: ME-CA-[ENV]EWL-LAK-AN-014

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Fluoride	EWL0570-MAY21	mg/L	0.06	<0.06	9	10	102	90	110	107	75	125

QC SUMMARY

Metals in aqueous samples - ICP-MS

Method: SM 3030/EPA 200.8 | Internal ref.: ME-CA-IENVISPE-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Silver (dissolved)	EMS0007-JUN21	mg/L	0.00005	<0.00005	ND	20	103	90	110	95	70	130
Arsenic (dissolved)	EMS0007-JUN21	mg/L	0.0002	<0.0002	ND	20	100	90	110	97	70	130
Barium (dissolved)	EMS0007-JUN21	mg/L	0.00002	<0.00002	ND	20	105	90	110	108	70	130
Beryllium (dissolved)	EMS0007-JUN21	mg/L	0.000007	<0.00007	ND	20	94	90	110	96	70	130
Boron (dissolved)	EMS0007-JUN21	mg/L	0.002	<0.002	ND	20	109	90	110	102	70	130
Calcium (dissolved)	EMS0007-JUN21	mg/L	0.01	<0.009	ND	20	99	90	110	97	70	130
Cadmium (dissolved)	EMS0007-JUN21	mg/L	0.000003	<0.000003	ND	20	100	90	110	108	70	130
Cobalt (dissolved)	EMS0007-JUN21	mg/L	0.000004	<0.000004	ND	20	101	90	110	99	70	130
Chromium (dissolved)	EMS0007-JUN21	mg/L	0.00008	<0.00008	ND	20	104	90	110	96	70	130
Copper (dissolved)	EMS0007-JUN21	mg/L	0.0002	<0.0002	ND	20	99	90	110	100	70	130
Iron (dissolved)	EMS0007-JUN21	mg/L	0.007	<0.007	ND	20	96	90	110	100	70	130
Potassium (dissolved)	EMS0007-JUN21	mg/L	0.009	<0.009	ND	20	98	90	110	96	70	130
Magnesium (dissolved)	EMS0007-JUN21	mg/L	0.001	<0.001	ND	20	103	90	110	95	70	130
Manganese (dissolved)	EMS0007-JUN21	mg/L	0.00001	<0.00001	ND	20	102	90	110	96	70	130
Molybdenum (dissolved)	EMS0007-JUN21	mg/L	0.00004	<0.00004	ND	20	103	90	110	109	70	130
Sodium (dissolved)	EMS0007-JUN21	mg/L	0.01	<0.01	ND	20	102	90	110	100	70	130
Nickel (dissolved)	EMS0007-JUN21	mg/L	0.0001	<0.0001	ND	20	101	90	110	100	70	130
Lead (dissolved)	EMS0007-JUN21	mg/L	0.00009	<0.00001	ND	20	105	90	110	115	70	130
Phosphorus (dissolved)	EMS0007-JUN21	mg/L	0.003	<0.003	ND	20	98	90	110	NV	70	130
Antimony (dissolved)	EMS0007-JUN21	mg/L	0.0009	<0.0009	ND	20	100	90	110	112	70	130

QC SUMMARY

Metals in aqueous samples - ICP-MS (continued)

Method: SM 3030/EPA 200.8 | Internal ref.: ME-CA-IENVISPE-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Selenium (dissolved)	EMS0007-JUN21	mg/L	0.00004	<0.00004	ND	20	101	90	110	98	70	130
Tin (dissolved)	EMS0007-JUN21	mg/L	0.00006	<0.00006	ND	20	107	90	110	NV	70	130
Strontium (dissolved)	EMS0007-JUN21	mg/L	0.00002	<0.00002	ND	20	101	90	110	99	70	130
Titanium (dissolved)	EMS0007-JUN21	mg/L	0.00005	<0.00005	ND	20	109	90	110	NV	70	130
Thallium (dissolved)	EMS0007-JUN21	mg/L	0.000005	<0.000005	ND	20	99	90	110	100	70	130
Uranium (dissolved)	EMS0007-JUN21	mg/L	0.000002	<0.000002	ND	20	93	90	110	94	70	130
Vanadium (dissolved)	EMS0007-JUN21	mg/L	0.00001	<0.00001	ND	20	102	90	110	102	70	130
Zinc (dissolved)	EMS0007-JUN21	mg/L	0.002	<0.002	ND	20	101	90	110	102	70	130

QC SUMMARY

Microbiology

Method: OMOE MICROMFDC-E3407A | Internal ref.: ME-CA-[ENV]MIC-LAK-AN-001

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%) Low	Recovery Limits (%) High	Spike Recovery (%)	Recovery Limits (%) Low	Recovery Limits (%) High
E. Coli	BAC9500-MAY21	cfu/100mL	-	ACCEPTED	ACCEPTED							
Heterotrophic Plate Count (HPC)	BAC9500-MAY21	cfu/1mL	-	ACCEPTED	ACCEPTED							
Total Coliform	BAC9500-MAY21	cfu/100mL	-	ACCEPTED	ACCEPTED							

pH

Method: SM 4500 | Internal ref.: ME-CA-[ENV]EWL-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%) Low	Recovery Limits (%) High	Spike Recovery (%)	Recovery Limits (%) Low	Recovery Limits (%) High
pH	EWL0576-MAY21	No unit	0.05	NA	0		100			NA		

QC SUMMARY

Phenols by SFA

Method: SM 5530B-D | Internal ref.: ME-CA-IENVISFA-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
4AAP-Phenolics	SKA0018-JUN21	mg/L	0.002	<0.002	ND	10	103	80	120	107	75	125

Sulphide by SFA

Method: SM 4500 | Internal ref.: ME-CA-IENVISFA-LAK-AN-008

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Sulphide	SKA0051-JUN21	ug/L	6	<0.006	ND	20	114	80	120	NA	75	125

Suspended Solids

Method: SM 2540D | Internal ref.: ME-CA-IENVIEWL-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Total Suspended Solids	EWL0045-JUN21	mg/L	2	< 2	16	10	92	90	110	NA		

QC SUMMARY

Tannins & Lignins

Method: SM 5550 I Internal ref.: ME-CA-IENVIEWL-LAK-AN-015

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Tannin+Lignin	EWL0019-JUN21	mg/L	0.05	<0.05	2	15	100	85	115	110	75	125

Total Nitrogen

Method: SM 4500-N C/4500-NO3- F I Internal ref.: ME-CA-IENVISFA-LAK-AN-002

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Total Kjeldahl Nitrogen (N)	SKA0003-JUN21	mg/L	0.05	<0.05	ND	10	91	90	110	77	75	125

Turbidity

Method: SM 2130 I Internal ref.: ME-CA-IENVIEWL-LAK-AN-003

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Turbidity	EWL0546-MAY21	NTU	0.10	< 0.10	2	10	100	90	110	NA		

QC SUMMARY

Method Blank: a blank matrix that is carried through the entire analytical procedure. Used to assess laboratory contamination.

Duplicate: Paired analysis of a separate portion of the same sample that is carried through the entire analytical procedure. Used to evaluate measurement precision.

LCS/Spike Blank: Laboratory control sample or spike blank refer to a blank matrix to which a known amount of analyte has been added. Used to evaluate analyte recovery and laboratory accuracy without sample matrix effects.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate laboratory accuracy with sample matrix effects.

Reference Material: a material or substance matrix matched to the samples that contains a known amount of the analyte of interest. A reference material may be used in place of a matrix spike.

RL: Reporting limit

RPD: Relative percent difference

AC: Acceptance criteria

Multielement Scan Qualifier: as the number of analytes in a scan increases, so does the chance of a limit exceedance by random chance as opposed to a real method problem. Thus, in multielement scans, for the LCS and matrix spike, up to 10% of the analytes may exceed the quoted limits by up to 10% absolute and the spike is considered acceptable.

Duplicate Qualifier: for duplicates as the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

Matrix Spike Qualifier: for matrix spikes, as the concentration of the native analyte increases, the uncertainty of the matrix spike recovery increases. Thus, the matrix spike acceptance limits apply only when the concentration of the matrix spike is greater than or equal to the concentration of the native analyte.

LEGEND

FOOTNOTES

NSS Insufficient sample for analysis.
RL Reporting Limit.
↑ Reporting limit raised.
↓ Reporting limit lowered.
NA The sample was not analysed for this analyte
ND Non Detect

Samples analysed as received. Solid samples expressed on a dry weight basis. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.

Analysis conducted on samples submitted pursuant to or as part of Reg. 153/04, are in accordance to the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act" published by the Ministry and dated March 9, 2004 as amended.

SGS provides criteria information (such as regulatory or guideline limits and summary of limit exceedances) as a service. Every attempt is made to ensure the criteria information in this report is accurate and current, however, it is not guaranteed. Comparison to the most current criteria is the responsibility of the client and SGS assumes no responsibility for the accuracy of the criteria levels indicated. This document is issued, on the Client's behalf, by the Company under its General Conditions of Service available on request and accessible at http://www.sgs.com/terms_and_conditions.htm. The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any other holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

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-- End of Analytical Report --

Request for Laboratory Services and CHAIN OF CUSTODY

SGS Environment, Health & Safety - Lakefield: 185 Concession St., Lakefield, ON K0L 2H0 Phone: 705-652-2000 Fax: 705-652-6365 Web: www.sgs.com/environment
- London: 657 Consortium Court, London, ON, N6E 2S8 Phone: 519-672-4500 Toll Free: 877-848-8060 Fax: 519-672-0361

No: 011505 Page _____ of _____

Laboratory Information Section - Lab use only

Received By: CAYLIN GRAHAM
Received By (signature): [signature]
Received Date: 05/28/21 (mm/dd/yy)
Received Time: 18:20 (hr : min)
Custody Seal Present: Yes ☐ No ☑
Custody Seal Intact: Yes ☐ No ☑
Cooling Agent Present: Yes ☑ No ☐ Type: Ice
Temperature Upon Receipt (°C): 11.12.12
LAB LIMS #: CA/46662-MAY21

REPORT INFORMATION

Company: Cambium-Inc
Contact: Kevin Werner
Address: 194 Sophia Street, Peterborough, ON
Phone: 705-742-7900
Fax:
Email: kevin.werner@cambium-inc.com

INVOICE INFORMATION

☒ (same as Report Information)
Company:
Contact:
Address:
Phone:
Email:

Quotation #:
P.O. #:
Project #: 12397-001
Site Location/ID: 46 Maple Ave, Haliburton, well #3

TURNAROUND TIME (TAT) REQUIRED

☒ Regular TAT (5-7days)
TAT's are quoted in business days (exclude statutory holidays & weekends). Samples received after 6pm or on weekends: TAT begins next business day

RUSH TAT (Additional Charges May Apply): ☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 4 Days
PLEASE CONFIRM RUSH FEASIBILITY WITH SGS REPRESENTATIVE PRIOR TO SUBMISSION

Specify Due Date:
NOTE: DRINKING (POTABLE) WATER SAMPLES FOR HUMAN CONSUMPTION MUST BE SUBMITTED WITH SGS DRINKING WATER CHAIN OF CUSTODY

REGULATIONS

Regulation 153/04: ☐ Table 1 ☐ Table 2 ☐ Table 3 ☐ Table ____ ☐ Res/Park ☐ Ind/Com ☐ Agri/Other Soil Texture: ☐ Coarse ☐ Medium ☐ Fine

Other Regulations: ☐ Reg 347/558 (3 Day min TAT) ☐ PWQO ☐ MMER ☐ CCME ☐ Other: ☐ MISA

Sewer By-Law: ☐ Sanitary ☐ Storm Municipality:

RECORD OF SITE CONDITION (RSC) ☐ YES ☐ NO

ANALYSIS REQUESTED

	SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	# OF BOTTLES	MATRIX	Field Filtered (Y/N)	Metals & Inorganics incl CrVI, CN, Hg pH,(B(HWS),EC,SAR–soil) (Cl, Na–water)	Full Metals Suite ICP metals plus B(HWS-soil only) Hg, CrVI	ICP Metals only Sb,As,Ba,Be,B,Cd,Cr,Co,Cu,Pb,Mo,Ni, Se,Ag,Tl,U,V,Zn	PAHs only	SVOCs all incl PAHs, ABNs, CPs	PCBs Total ☐ Aroclor ☐	F1-F4 + BTEX	F1-F4 only no BTEX	VOCs all incl BTEX	BTEX only	Pesticides Organochlorine or specify other	Other (please specify): Some parameters as 2013-0059 minus methane					Sewer Use: Specify pkg:	Water Characterization Pkg General ☐ Extended ☐	TCLP Specify TCLP tests ☐M&I ☐VOC ☐PCB ☐B(a)P ☐ABN ☐Ignit.	COMMENTS:
1	Test Well #3	05/28/21	14:30	12	GW													X							
2																									
3																									
4																									
5																									
6																									
7																									
8																									
9																									
10																									
11																									
12																									

Observations/Comments/Special Instructions: Please test for same parameters as Analytical Quote 2013-0059 Minus methane.

Sampled By (NAME): Joshua Munro Signature: [signature] Date: 05/28/21 (mm/dd/yy)
Relinquished by (NAME): Joshua Munro Signature: [signature] Date: 05/28/21 (mm/dd/yy)

Pink Copy - Client
Yellow & White Copy - SGS

Revision #: 1.2
Date of Issue: 09 Sept, 2019

Note: Submission of samples to SGS is acknowledgement that you have been provided direction on sample collection/handling and transportation of samples. {2} Submission of samples to SGS is considered authorization for completion of work. Signatures may appear on this form or be retained on file in the contract, or in an alternative format (e.g. shipping documents). {3} Results may be sent by email to an unlimited number of addresses for no additional cost. Fax is available upon request. This document is issued by the Company under its General Conditions of Service accessible at http://www.sgs.com/terms_and_conditions.htm. (Printed copies are available upon request.) Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Appendix F

Surrounding MECP Well Records

File 1717 | 69 5 1 6 6 9 | 31E2C
6065 UTM 1 9 9 0 8 3 4 N
Elev. 6 4 1 0 7 0

The Ontario Water Resources Commission Act

WATER WELL RECORD

GROUND WATER BRANCH
27 No. 122
OCT 9 1963
ONTARIO WATER RESOURCES COMMISSION

Basin 2 4 County or District Haliburton Township, Village, Town or City Dysart

Con. #7 Lot 16 Date completed 21 (day) June (month) 63 (year)

Owner ANGLICAN CHURCH (print in block letters) Address Haliburton

Casing and Screen Record		Pumping Test	
Inside diameter of casing	2"	Static level	10 ft
Total length of casing	12	Test-pumping rate	6 G.P.M.
Type of screen		Pumping level	20 ft
Length of screen		Duration of test pumping	1 HR.
Depth to top of screen		Water clear or cloudy at end of test	Clear
Diameter of finished hole	2"	Recommended pumping rate	6 G.P.M.
		with pump setting of	22 feet below ground surface

Well Log / **Water Record**

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
dirt	0	11-4"	48 ft	fresh
Granite	11-4	51		

For what purpose(s) is the water to be used?
~~Church~~ CHURCH & MANSE

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

Drilling or Boring Firm Haliburton Drilling

Address Haliburton

Licence Number 779

Name of Driller or Borer Wesley W. Parish

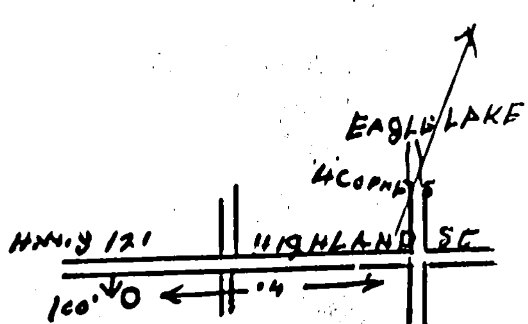
Address Haliburton

Date

Wesley W. Parish
(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 10M-62-1152

OWRC COPY

UTM 17 695935
14 4991150 CODED 2700539

Elev. 5 1090

Basin 24 L I I

The Ontario Water Resources Commission Act

WATER WELL RECORD

1969

County or District Haliburton

Township, Village, Town or City Wyse

Con. 8 Lot 16 Date completed 12 (day) 9 (month) 66 (year)

Owner O. W. R. C. (print in block letters)

Address 801 Bay St Toronto 5

TW 3-66

Casing and Screen Record

Inside diameter of casing 6 inch

Total length of casing 69 ft

Type of screen —

Length of screen —

Depth to top of screen —

Diameter of finished hole Casing removed; hole backfilled.

Abandoned

Pumping Test

Static level nil

Test-pumping rate -- G.P.M.

Pumping level —

Duration of test pumping —

Water clear or cloudy at end of test —

Recommended pumping rate — G.P.M.

with pump setting of — 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)
gravel fill	0	3	nil	
Sawdust black mud	3	12		
black muck & bog	12	34		
grey sand & black muck	34	45		
grey sand with muddy silt	45	56		
blue clay or mud with some sand	56	64		
grey sharp fine sand mixed with mud	64	68		
grey black granite	68	73		

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

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

Drilling or Boring Firm G. Hart & Sons

Address Fenlon Falls

Licence Number

Name of Driller or Borer Ken Hart

Address Fenlon Falls

Date

Geologist, O.W.R.C.
(Signature of Licensed Drilling or Boring Contractor)

Form 7

OWRC COPY

Location of Well

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

See attached diagram

See Record 543

TX 417

Ontario is now in Step 2 of the **Roadmap to Reopen (/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: 2700830
Well Audit Number:
Well Tag Number:
This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location

Township	DYSART TOWNSHIP
Lot	017
Concession	CON 08
County/District/Municipality	HALIBURTON
City/Town/Village	
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 17 Easting: 696235.10 Northing: 4991194.00
Municipal Plan and Sublot Number	
Other	

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
	LOAM			0 ft	1 ft
BRWN	FSND			1 ft	4 ft
BRWN	MSND	STNS		4 ft	10 ft
BRWN	MSND	SHLE		10 ft	12 ft
GREY	GRNT			12 ft	50 ft
BLCK	GRNT			50 ft	65 ft
GREY	GRNT			65 ft	105 ft

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed

Method of Construction & Well Use

Method of Construction	Well Use
Rotary (Air)	
	Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
6 inch	STEEL		21 ft
6 inch	OPEN HOLE		105 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 2104

Results of Well Yield Testing

After test of well yield, water was	CLEAR
If pumping discontinued, give reason	
Pump intake set at	
Pumping Rate	0 GPM
Duration of Pumping	1 h:10 m
Final water level	105 ft
If flowing give rate	
Recommended pump depth	100 ft
Recommended pump rate	0 GPM
Well Production	PUMP
Disinfected?	

Draw Down & Recovery

Draw Down Time(min)	Draw Down Water level	Recovery Time(min)	Recovery Water level
SWL	62 ft		
1		1	
2		2	
3		3	

4	4	
5	5	
10	10	
15	15	96 ft
20	20	
25	25	
30	30	88 ft
40	40	
45	45	81 ft
50	50	
60	60	73 ft

Water Details

Water Found at Depth	Kind
100 ft	Fresh

Hole Diameter

Depth From	Depth To	Diameter

Audit Number:

Date Well Completed: January 22, 1971

Date Well Record Received by MOE: March 27, 1972

Updated: June 04, 2021
Published: April 16, 2021

Related

How to use a Ministry of the Environment map (/page/how-use-ministry-environment-map#wells)

Technical documentation: Metadata record (https://data.ontario.ca/dataset/well-records/resource/3031344e-e3f2-48d5-888c-c1deadfd2f77)

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ROLL NO.

The Ontario Water Resources Act

WATER WELL RECORD

(11) 2701562 MUNICIP. 27002 CON BIEDE Block V08

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC.	LOT
Haliburton	Dysart	Maple St. VIII	60 017

OWNER: Bishop-Wilson Ltd. ADDRESS: Haliburton

DATE COMPLETED: DAY 30 MO Nov YR 77

[redacted]

196150 4991300 | 5 | 1080 | 6 | 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	Sand	Stones		0'	8'
	Rock	and	Broken Rock	8	13'
Black		Granite		13'	166'

(31) 0008 628 12 | 0013 12871 | 0166 821

32

(41) WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
0161	1 ☒ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL

(51) CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	TO
06	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	.188	0	0016
06	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE		16	0166
	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: 1 ☐ PUMP 2 ☒ BAILER | PUMPING RATE 0017 GPM | DURATION OF PUMPING 00 HOURS 30 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
01 FEET	020 FEET	010 FEET	020 FEET	FEET	FEET

WATER LEVELS DURING: 1 ☒ PUMPING 2 ☐ RECOVERY

IF FLOWING, GIVE RATE 0001 GPM | PUMP INTAKE SET AT 30 FEET | WATER AT END OF TEST 1 ☒ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE ☒ SHALLOW ☐ DEEP | RECOMMENDED PUMP SETTING 025 FEET | RECOMMENDED PUMPING RATE 0007 GPM

FINAL STATUS OF WELL 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 01

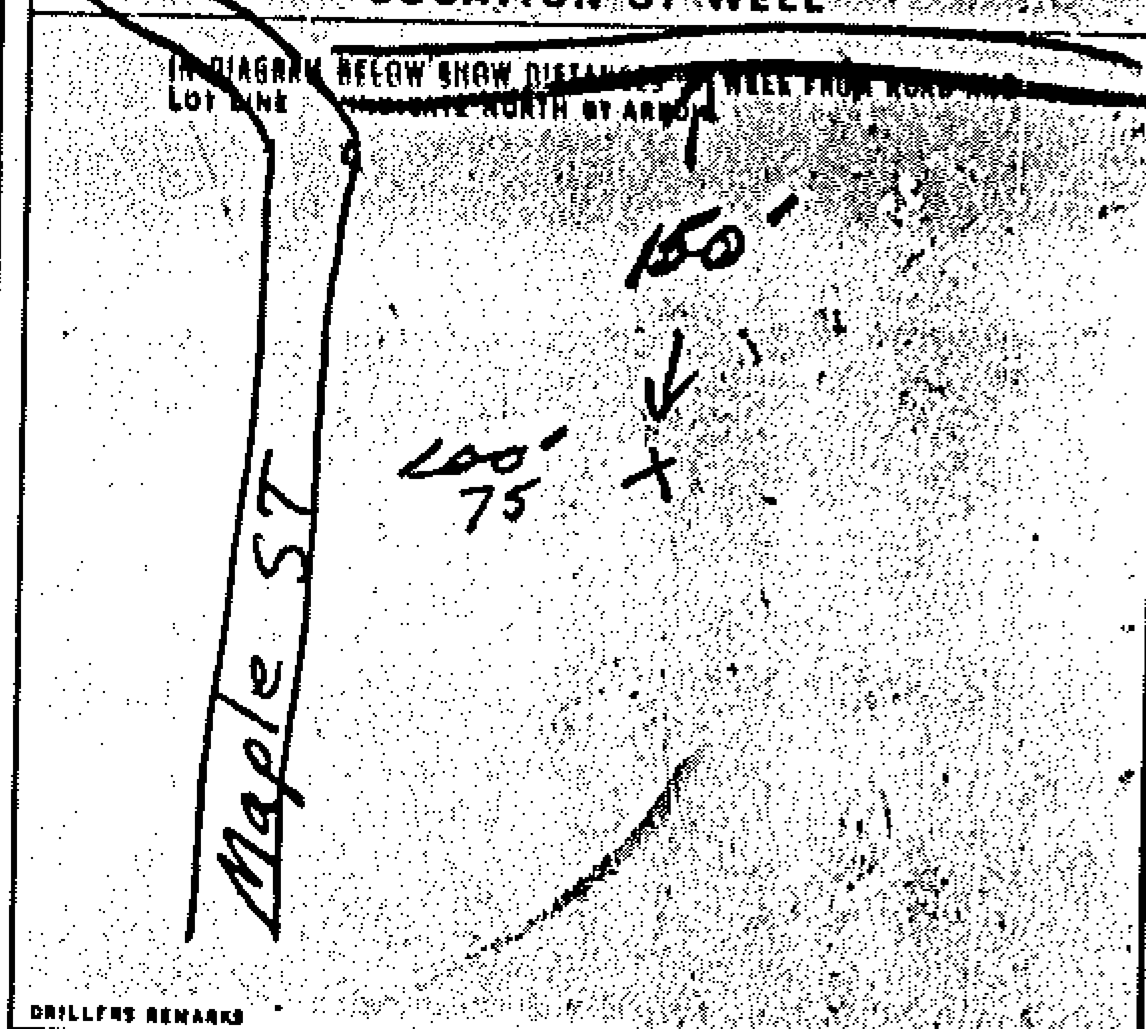
1 ☒ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL ☐ OTHER 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING 9 ☐ NOT USED

METHOD OF DRILLING 5

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

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: Baldwin Well Drilling | LICENCE NUMBER: 1312

ADDRESS: Arkill Field

NAME OF DRILLER OR BORER: Glenn Bailey | LICENCE NUMBER:

SIGNATURE OF CONTRACTOR: Carl Baldwin | SUBMISSION DATE DAY 5 MO Dec 77

OFFICE USE ONLY

DATA SOURCE 1 | CONTRACTOR 1312 | DATE RECEIVED 010679

DATE OF INSPECTION 02/8/77 | INSPECTOR

REMARKS: Not vented properly. Owner advised

MINISTRY OF THE ENVIRONMENT COPY

FORM NO. 0506-4-77

Ontario is now in Step 2 of the **Roadmap to Reopen (/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: 2701729
Well Audit Number:
Well Tag Number:
This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location

Township	DYSART TOWNSHIP
Lot	016
Concession	CON 07
County/District/Municipality	HALIBURTON
City/Town/Village	
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 17 Easting: 696095.10 Northing: 4990904.00
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	LOAM	SAND	DKCL	0 ft	8 ft
BRWN	SAND	BLDR	LTCL	8 ft	23 ft
RED	GRNT			23 ft	125 ft

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed

Method of Construction & Well Use

Method of Construction	Well Use
Air Percussion	
	Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
6 inch	STEEL		29 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 1748

Results of Well Yield Testing

After test of well yield, water was	CLOUDY
If pumping discontinued, give reason	
Pump intake set at	
Pumping Rate	6 GPM
Duration of Pumping	1 h:0 m
Final water level	125 ft
If flowing give rate	
Recommended pump depth	120 ft
Recommended pump rate	5 GPM
Well Production	PUMP
Disinfected?	

Draw Down & Recovery

Draw Down Time(min)	Draw Down Water level	Recovery Time(min)	Recovery Water level
SWL	35 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	43 ft

20	20	
25	25	
30	30	35 ft
40	40	
45	45	35 ft
50	50	
60	60	35 ft

Water Details

Water Found at Depth	Kind
118 ft	Fresh

Hole Diameter

Depth From	Depth To	Diameter

Audit Number:

Date Well Completed: June 08, 1980

Date Well Record Received by MOE: August 26, 1980

Updated: June 04, 2021
Published: April 16, 2021

Related

How to use a Ministry of the Environment map (/page/how-use-ministry-environment-map#wells)

Technical documentation: Metadata record (https://data.ontario.ca/dataset/well-records/resource/3031344e-e3f2-48d5-888c-c1deadfd2f77)

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MICRO FILM NO. 61

Ministry of the Environment
Ontario

The Ontario Water Resources Act
WATER WELL RECORD

2701772

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

County or District: Haliburton
Township, Borough, City, Town, Village: Dysart et Al
Owner (surname first): Municipality of Dysart et Al, Haliburton Ont
Date completed: day 18 May 79

Rail's Art Gallery

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

General Colour	Most Common Material	Other Materials	General Description	Depth - Feet From	To
Grey	Clay & sand			0	40
Grey	broken granite clay layers			40	45
White	Dolomite Granite			45	145

WATER RECORD

Water found at - feet	Kind of water
140	Fresh

CASING & OPEN HOLE RECORD

Inside diam inches	Material	Wall thickness inches	Depth - Feet From	To
6¼	Steel	188	0	45½
6¼	Open hole		45	145

SCREEN

PLUGGING & SEALING RECORD

PUMPING TEST

Pumping test method: Pump / Bailer
Pumping rate: 125 GPM
Duration of pumping: 20 hours
Static level: 20 feet
Water level end of pumping: 50 feet
Water levels during pumping: 40 feet, 50 feet, 50 feet, 50 feet
Pump intake set at: 60 feet
Water at end of test: Clear
Recommended pump setting: 50 feet
Recommended pumping rate: 8 GPM

FINAL STATUS OF WELL: ☒ Water supply

WATER USE: ☒ Other: Gallery

METHOD OF DRILLING: ☒ Cable tool, ☒ Air percussion

LOCATION OF WELL

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

CONTRACTOR

Name of well contractor: Baldwin Well Drilling — 1312
Address: RR 1 Kirkfield
Name of well technician: Gordon Bailey — 1363
Signature of contractor: Carl Baldwin — day 15 May 79

OFFICE USE ONLY: 010581

MINISTRY OF THE ENVIRONMENT COPY

Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

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

11 — 2701983 — MUNICIP — CON.

COUNTY OR DISTRICT: Hal, burton
TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: Dysart
CON. BLOCK, TRACT, SURVEY, ETC: 8
LOT: 17
OWNER (SURNAME FIRST): HALIBURTON PENTECOSTAL CHURCH
ADDRESS: HALIBURTON, ONT
DATE COMPLETED: DAY 12 MO 10 YR 82

21 — UTM — 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	Top Soil.			0	2
Grey.	Sand & Clay Mixture.			2	36

Note: Yellow sand ~~clay~~ entering with water.

31

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
55	1 ☑ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6 1/4	1 ☑ STEEL; 2 ☐ GALVANIZED; 3 ☐ CONCRETE; 4 ☐ OPEN HOLE	.188	0	44
	1 ☐ STEEL; 2 ☐ GALVANIZED; 3 ☐ CONCRETE; 4 ☐ OPEN HOLE			
	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	DEPTH SET AT - FEET TO	MATERIAL AND TYPE (CEMENT GROUT LEAD PACKER, ETC.)

71 PUMPING TEST

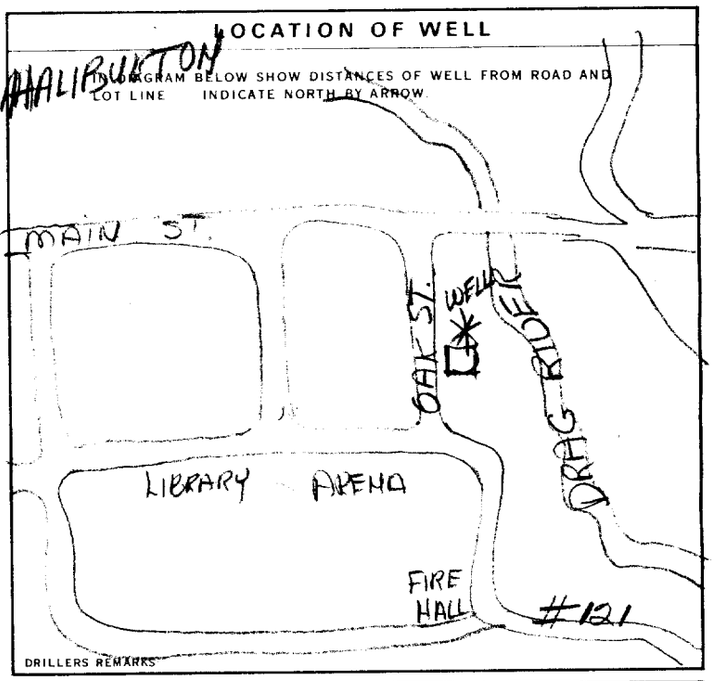
PUMPING TEST METHOD: 1 ☑ PUMP 2 ☐ BAILER
PUMPING RATE: 5 GPM
DURATION OF PUMPING: 1 HOURS 0 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 1 ☐ PUMPING 2 ☑ RECOVERY			
		15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
26 FEET	65 FEET	32 FEET	26 FEET	— FEET	— FEET

IF FLOWING, GIVE RATE: — GPM
PUMP INTAKE SET AT: 65' FEET
WATER AT END OF TEST: 1 ☐ CLEAR 2 ☑ CLOUDY
RECOMMENDED PUMP TYPE: ☐ SHALLOW ☑ DEEP
RECOMMENDED PUMP SETTING: 40 FEET
RECOMMENDED PUMPING RATE: 5 GPM

LOCATION OF WELL

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



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

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: Dennis Dobler Drilling LTD — LICENCE NUMBER: 1748
ADDRESS: RR # 2 Haliburton Ont
NAME OF DRILLER OR BORER: Dennis Dobler — LICENCE NUMBER: 1748
SIGNATURE OF CONTRACTOR: Dennis Dobler — SUBMISSION DATE: DAY — MO — YR —

OFFICE USE ONLY

DATA SOURCE — CONTRACTOR — DATE RECEIVED: 140284
DATE OF INSPECTION — INSPECTOR
REMARKS

CSS.ES

FORM NO. 0506—4—77 FORM 7

MINISTRY OF THE ENVIRONMENT COPY

Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

2701989

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

11

MUNICIP | CON.

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC	LOT	DATE COMPLETED
[redacted]	[redacted] HALIBURTON	8	PT 17	DAY 15 MO 10 YR 83

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
DK	SOIL			0	6
RED. GREY	GRANITE			6	140

31

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
128	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6 1/4	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	.188	0	22
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			
	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	DEPTH SET AT - FEET TO	MATERIAL AND TYPE (CEMENT GROUT LEAD PACKER, ETC.)

71 PUMPING TEST

PUMPING TEST METHOD: 1 ☐ PUMP 2 ☐ BAILER

PUMPING RATE: 5 GPM

DURATION OF PUMPING: 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
35 FEET	140 FEET	80 FEET	48 FEET	39 FEET	36 FEET

IF FLOWING, GIVE RATE: GPM

PUMP INTAKE SET AT: 140 FEET

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

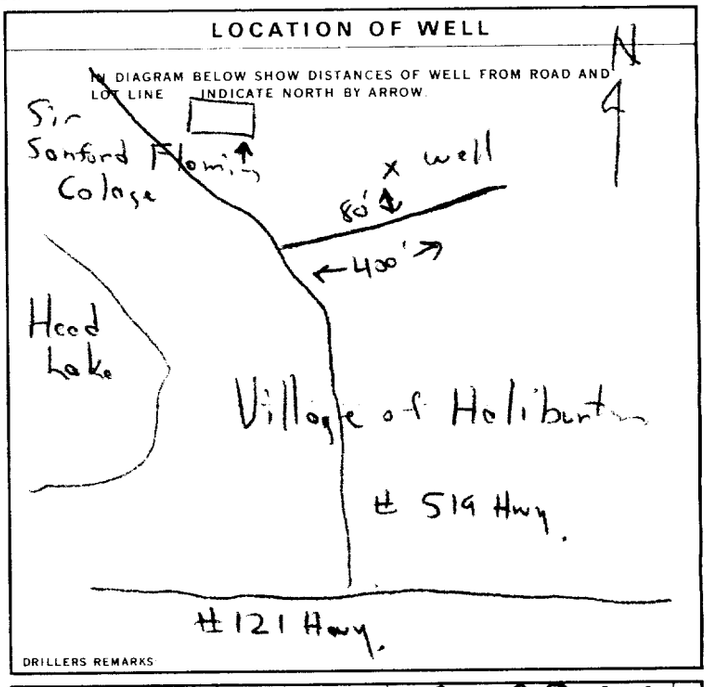
RECOMMENDED PUMP TYPE: ☐ SHALLOW ☐ DEEP

RECOMMENDED PUMP SETTING: FEET

RECOMMENDED PUMPING RATE: GPM

LOCATION OF WELL

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



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

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: DENNIS DEBLER DRILLING — LICENCE NUMBER: 1748

ADDRESS: RR #2 HALIBURTON

NAME OF DRILLER OR BORER: DENNIS DEBLER — LICENCE NUMBER: 1748

SIGNATURE OF CONTRACTOR: Dennis Debler — SUBMISSION DATE: DAY ____ MO. ____ YR. ____

OFFICE USE ONLY

DATA SOURCE | CONTRACTOR | DATE RECEIVED 140284

DATE OF INSPECTION | INSPECTOR

REMARKS

CSS.ES

FORM NO. 0506—4—77 FORM 7

MINISTRY OF THE ENVIRONMENT COPY

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Ontario

The Ontario Water Resources Act

WATER WELL RECORD

2701992

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

11

MUNICIP | CON.

COUNTY OR DISTRICT: [redacted]

TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: Dysart

CON | BLOCK, TRACT, SURVEY, ETC: 8

LOT: Pt 17

DATE COMPLETED: DAY 6 MO 11 YR 83

Park St - Haliburton Village

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	TO
Brown	Top Soil			0	2
Grey	Sand Clay & Stones			2	20
Red & Grey	Granite			20	365

31

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
140	1 ☑ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
355	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
6 1/4	1 ☑ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	.188	0	25
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			
	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	1.5 GPM	1 HOURS 0 MINS

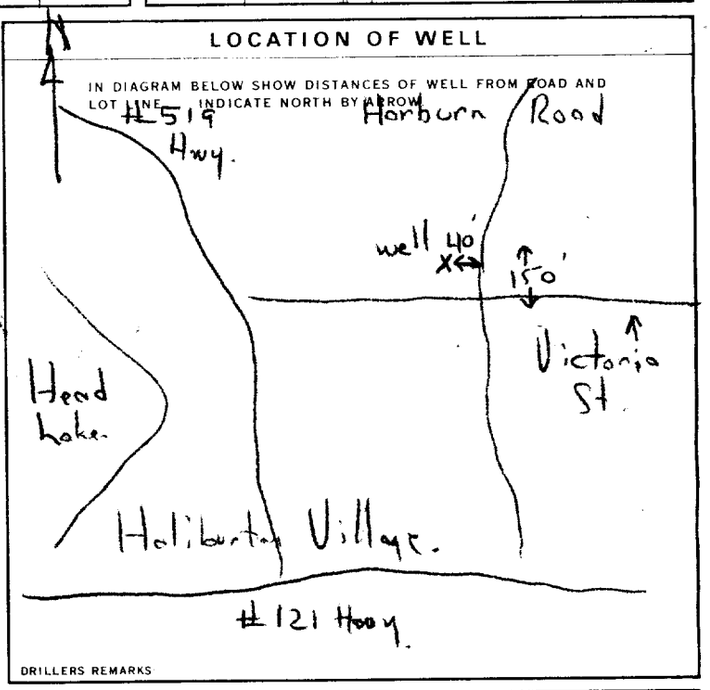
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING (1 ☐ PUMPING 2 ☑ RECOVERY)	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
9 FEET	365 FEET		345 FEET	325 FEET	305 FEET	285 FEET

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: 120 FEET | RECOMMENDED PUMPING RATE: 3.0 GPM

LOCATION OF WELL

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



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	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: Dennis Deblon | LICENCE NUMBER: 1748

ADDRESS: RR #2 Haliburton Ont

NAME OF DRILLER OR BORER: Dennis Deblon | LICENCE NUMBER: 1748

SIGNATURE OF CONTRACTOR: Dennis Deblon | SUBMISSION DATE: DAY ____ MO. ____ YR. ____

OFFICE USE ONLY

DATA SOURCE | CONTRACTOR | DATE RECEIVED: 140284

DATE OF INSPECTION | INSPECTOR

REMARKS

CSS.ES

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Ontario

The Ontario Water Resources Act

WATER WELL RECORD

2701995

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11

MUNICIP | CON.

COUNTY OR DISTRICT: [redacted]
TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: DYSART RR#2 HALIBURTON
CON. | BLOCK, TRACT, SURVEY, ETC. | LOT: 17
DATE COMPLETED: [redacted] 12 83
NG | 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	TO
BRWN	SAND	GRAVEL	CLAY MIXTURE	0	28
RD	GRANITE			28	43

31
32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
38	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
6¼	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	188	0	22
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			
	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

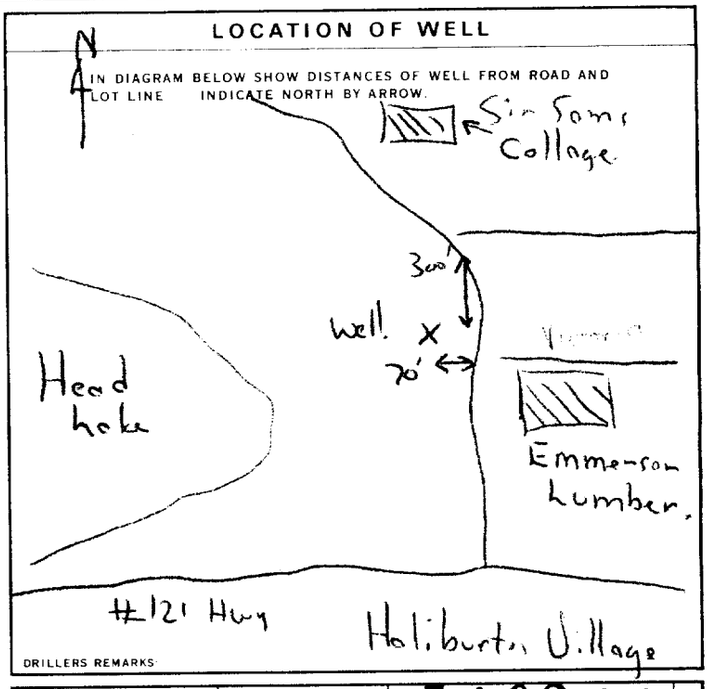
PUMPING TEST METHOD: 1 ☒ PUMP 2 ☐ BAILER
PUMPING RATE: 3 GPM
DURATION OF PUMPING: 1 HOURS 0 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 1 ☐ PUMPING 2 ☐ RECOVERY			
		15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
10 FEET	[redacted] FEET	16 FEET	14 FEET	12 FEET	10 FEET

IF FLOWING, GIVE RATE: GPM
PUMP INTAKE SET AT: 42 FEET
WATER AT END OF TEST: 1 ☐ CLEAR 2 ☒ CLOUDY
RECOMMENDED PUMP TYPE: ☒ SHALLOW ☐ DEEP
RECOMMENDED PUMP SETTING: 30 FEET
RECOMMENDED PUMPING RATE: 3 GPM

LOCATION OF WELL

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



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

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: DENNIS DEBLER DRILLING LTD | LICENCE NUMBER: 1748
ADDRESS: RR#2 HALIBURTON
NAME OF DRILLER OR BORER: DENNIS DEBLER | LICENCE NUMBER: 1748
SIGNATURE OF CONTRACTOR: Dennis Debler | SUBMISSION DATE: DAY ____ MO ____ YR ____

OFFICE USE ONLY

DATA SOURCE | CONTRACTOR | DATE RECEIVED: 140284
DATE OF INSPECTION | INSPECTOR
REMARKS

CSS.ES

FORM NO. 0506—4—77 FORM 7

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Ontario

The Ontario Water Resources Act

WATER WELL RECORD

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

11 — 2702068 — MUNICIP — CON.

COUNTY OR DISTRICT: HALIBURTON
TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: DYSART
CON: VIII
BLOCK, TRACT, SURVEY ETC: 17
LOT: 8 17
[redacted]ERSIDE RD. HALIBURTON
DATE COMPLETED: DAY 2 MO 11 YR 82
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
BROWN	LOAM.			0	6.
BLACK	GRANITE			6	106

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
100	1 ☒ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6 1/4	1 ☒ STEEL; 2 ☐ GALVANIZED; 3 ☐ CONCRETE; 4 ☐ OPEN HOLE	.188	0	19
	1 ☐ STEEL; 2 ☐ GALVANIZED; 3 ☐ CONCRETE; 4 ☐ OPEN HOLE			
	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	DEPTH SET AT - FEET TO	MATERIAL AND TYPE (CEMENT GROUT LEAD PACKER, ETC.)

71 PUMPING TEST

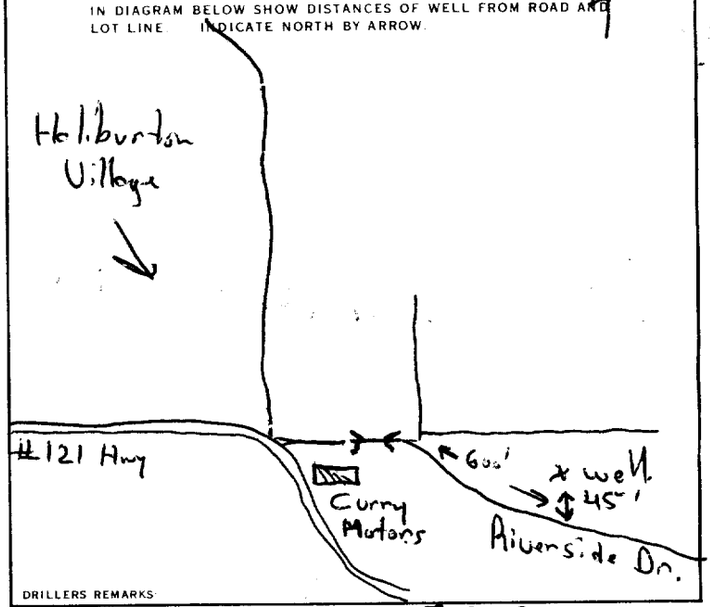
PUMPING TEST METHOD: 1 ☒ PUMP 2 ☐ BAILER
PUMPING RATE: 2 GPM
DURATION OF PUMPING: 1 HOURS — MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 1 ☐ PUMPING 2 ☒ RECOVERY	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
30 FEET	106 FEET		78 FEET	58 FEET	32 FEET	30 FEET

IF FLOWING, GIVE RATE: — GPM
PUMP INTAKE SET AT: 106 FEET
WATER AT END OF TEST: 1 ☐ CLEAR 2 ☒ CLOUDY
RECOMMENDED PUMP TYPE: ☐ SHALLOW ☒ DEEP
RECOMMENDED PUMP SETTING: 100 FEET
RECOMMENDED PUMPING RATE: 3 GPM

LOCATION OF WELL

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



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

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: DENNIS DEBLER DRILLING LTD — LICENCE NUMBER: 1548
ADDRESS: RR# 2 HALIBURTON
NAME OF DRILLER OR BORER: DENNIS DEBLER. — LICENCE NUMBER: 154X
SIGNATURE OF CONTRACTOR: [signature]
SUBMISSION DATE: DAY 2 MO 11 YR 82

OFFICE USE ONLY

DATA SOURCE — CONTRACTOR — DATE RECEIVED: 12 03 84
DATE OF INSPECTION — INSPECTOR
REMARKS: CSS.ES

MINISTRY OF THE ENVIRONMENT COPY

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Ministry of the Environment
Ontario

The Ontario Water Resources Act
WATER WELL RECORD

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

11 | 2702145 | MUNICIP. | CON.

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY ETC.	LOT 25-27
[redacted]		8	19

[redacted] Haliburton Ont

DATE COMPLETED 48-53: DAY ____ MO 02 YR 84

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
Grey	Sand	Gravel Boulders		0	35
Red Gr	Granite			35	330

31
32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
160	☒ FRESH ☐ SULPHUR ☐ SALTY ☐ MINERAL
210	☒ FRESH ☐ SULPHUR ☐ SALTY ☐ MINERAL
	☐ FRESH ☐ SULPHUR ☐ SALTY ☐ MINERAL
	☐ FRESH ☐ SULPHUR ☐ SALTY ☐ MINERAL
	☐ FRESH ☐ SULPHUR ☐ SALTY ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6¼	☒ STEEL ☐ GALVANIZED ☐ CONCRETE ☐ OPEN HOLE	.188	0	30
	☐ STEEL ☐ GALVANIZED ☐ CONCRETE ☐ OPEN HOLE			
	☐ STEEL ☐ GALVANIZED ☐ CONCRETE ☐ 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: 1 ☒ PUMP 2 ☐ BAILER
PUMPING RATE: 1 GPM
DURATION OF PUMPING: 1 HOURS 0 MINS

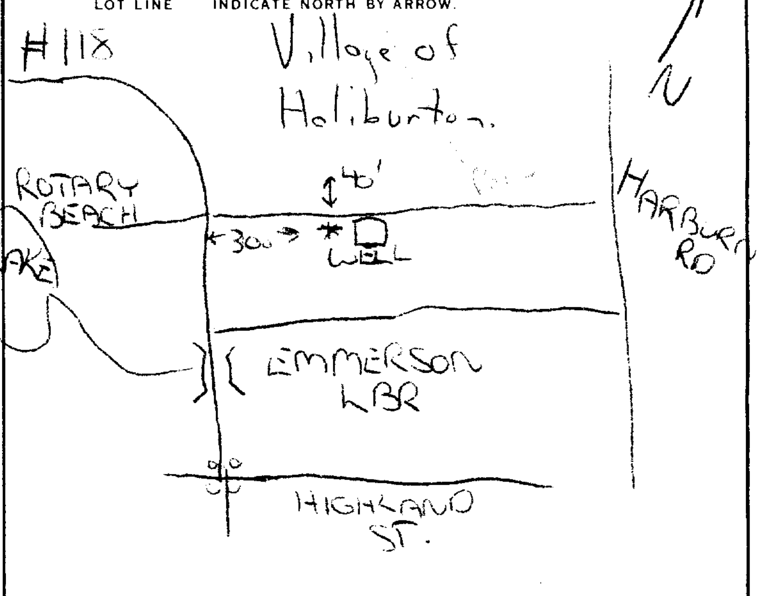
STATIC LEVEL	WATER LEVEL END OF PUMPING	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
8 FEET	320 FEET	205 FEET	192 FEET	175 FEET	160 FEET

WATER LEVELS DURING: 1 ☐ PUMPING 2 ☒ RECOVERY

IF FLOWING, GIVE RATE ____ GPM
PUMP INTAKE SET AT 320 FEET
WATER AT END OF TEST: 1 ☐ CLEAR 2 ☒ CLOUDY
RECOMMENDED PUMP TYPE: ☐ SHALLOW ☒ DEEP
RECOMMENDED PUMP SETTING 180 FEET
RECOMMENDED PUMPING RATE 3 GPM

LOCATION OF WELL

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



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

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: Dennis Debler Drilling Ltd. | LICENCE NUMBER: 1748
ADDRESS: RR#3 Haliburton Ont
NAME OF DRILLER OR BORER: Dennis Debler | LICENCE NUMBER: 1748
SIGNATURE OF CONTRACTOR: Dennis Debler
SUBMISSION DATE: DAY ____ MO ____ YR ____

OFFICE USE ONLY

DATA SOURCE | CONTRACTOR | DATE RECEIVED 130385
DATE OF INSPECTION | INSPECTOR
REMARKS
CSS.ES

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FORM NO. 0506—4—77 FORM 7

Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

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

11 — 2702146 — MUNICIP — CON.

COUNTY OR DISTRICT: [redacted]
TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: Dysart
CON. BLOCK, TRACT, SURVEY, ETC: 8
LOT: 17
DATE COMPLETED: DAY 28 MO 04 YR 84
Haliburton Ont

ING — 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
	Sandy Clay & Boulders			0	16
	Red & Grey Granite			16	400

31

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
160	1 ☒ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
320	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
6¼	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	.188	0	22
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			
	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: 1 ☐ PUMP 2 ☐ BAILER
PUMPING RATE: 20 GPM
DURATION OF PUMPING: 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
30 FEET	400 FEET	395 FEET	390 FEET	385 FEET	380 FEET

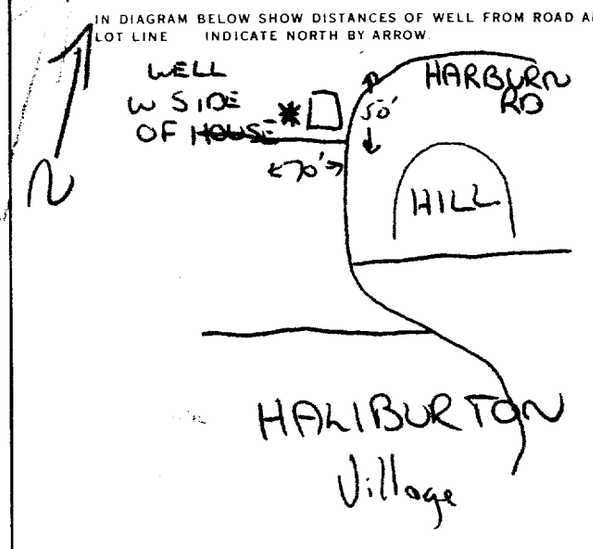
IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
GPM	400 FEET	1 ☐ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
☐ SHALLOW ☐ DEEP	380 FEET	3 GPM

LOCATION OF WELL

1865

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



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

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: DENNIS DEBLER DRILLING — LICENCE NUMBER: 1748
ADDRESS: RR #2 HALIBURTON. ONT
NAME OF DRILLER OR BORER: DENNIS DEBLER — LICENCE NUMBER: 1748
SIGNATURE OF CONTRACTOR: D. Debler — SUBMISSION DATE: DAY ____ MO ____ YR. ____

MINISTRY OF THE ENVIRONMENT COPY

OFFICE USE ONLY

DATA SOURCE — CONTRACTOR — DATE RECEIVED: 130385
DATE OF INSPECTION — INSPECTOR
REMARKS

CSS.ES

FORM NO. 0506—4—77 FORM 7

Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

2702226

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

11

MUNICIP | CON.

COUNTY OR DISTRICT: HALIBURTON | TOWNSHIP: OYSART | BOROUGH, CITY, TOWN, VILLAGE | CON. 8 | BLOCK, TRACT, SURVEY, ETC | LOT 17

[redacted] HALIBURTON | DATE COMPLETED DAY 21 MO 6 YR 85

ING | 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	LOAM.	CLAY		0	11
BROKEN	ROCK.			11	15
RED +	BLACK	GRANITE		15	200

31

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
80	1 ☒ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
190'	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
6 1/4	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☒ CONCRETE 4 ☐ OPEN HOLE	.188	0	20
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			
	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	DEPTH SET AT - FEET TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)

71 PUMPING TEST

PUMPING TEST METHOD: 1 ☒ PUMP 2 ☐ BAILER

PUMPING RATE: 33 GPH | DURATION OF PUMPING: 1 HOURS 0 MINS

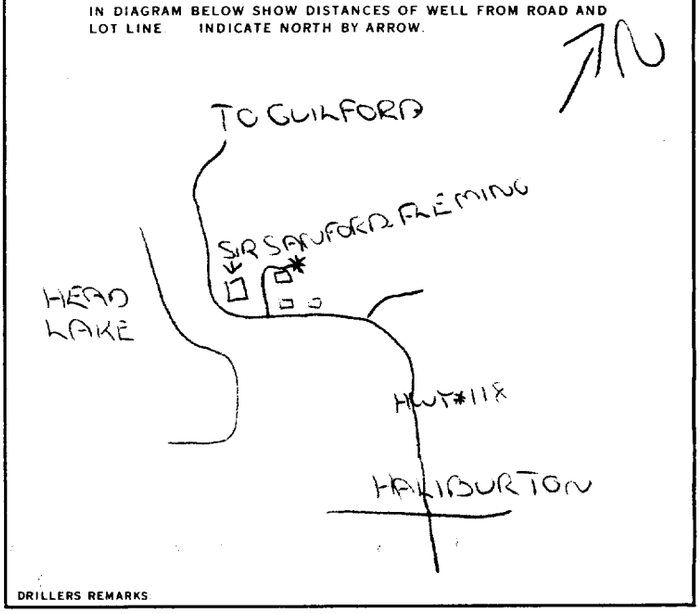
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 1 ☐ PUMPING 2 ☒ RECOVERY	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
30 FEET	200 FEET		192 FEET	183 FEET	175 FEET	167 FEET

IF FLOWING, GIVE RATE: GPM | PUMP INTAKE SET AT: 200 FEET | WATER AT END OF TEST: 1 ☐ CLEAR 2 ☒ CLOUDY

RECOMMENDED PUMP TYPE: ☐ SHALLOW ☒ DEEP | RECOMMENDED PUMP SETTING: 195 FEET | RECOMMENDED PUMPING RATE: 3 GPM

LOCATION OF WELL

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



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

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: DENNIS DEBLER DRILLING | LICENCE NUMBER: 1748

ADDRESS: RR # 2 HALIBURTON

NAME OF DRILLER OR BORER: DENNIS DEBLER | LICENCE NUMBER: 1748

SIGNATURE OF CONTRACTOR: Dennis Debler | SUBMISSION DATE DAY 21 MO 6 YR 85

OFFICE USE ONLY

DATA SOURCE | CONTRACTOR | DATE RECEIVED 01 10 85

DATE OF INSPECTION | INSPECTOR

REMARKS

CSS.ES

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FORM NO. 0506—4—77 FORM 7

Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

2702263

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

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC	LOT
HALIBURTON	DYSART	08	17

[redacted] HARBURN RD. HALIBURTON

DATE COMPLETED: DAY 5 MO 9 YR 85

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
DEEPEN WELL		85' to 300'			
	BLACK GRANITE				

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
290	1 ☑ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6 1/4	1 ☑ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	.188	0	20
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			
	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	DEPTH SET AT - FEET 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	PUMPING RATE	DURATION OF PUMPING
1 ☑ PUMP 2 ☐ BAILER	1.0 GPM	1 HOURS 0 MINS

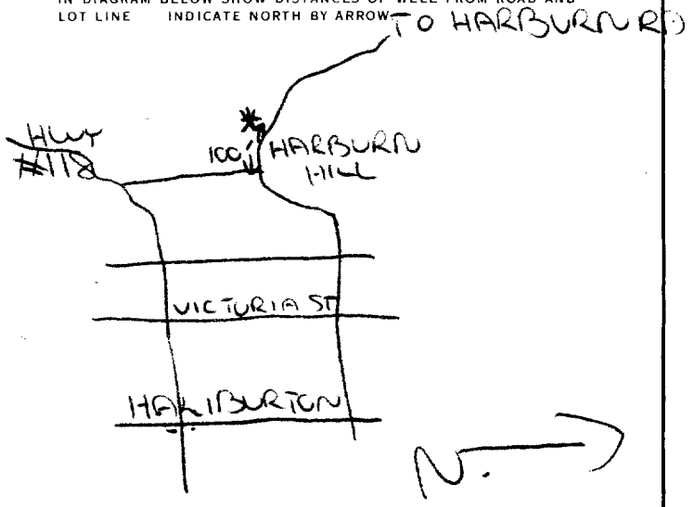
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
30 FEET	300 FEET	1 ☐ PUMPING 2 ☑ RECOVERY	282 FEET	265 FEET	248 FEET	230 FEET

IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
GPM	300 FEET	1 ☐ CLEAR 2 ☑ CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
☐ SHALLOW ☑ DEEP	295 FEET	3 GPM

LOCATION OF WELL

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



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

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	LICENCE NUMBER
DENNIS DEBLER DRILLING	1748

ADDRESS: RR#2 HALIBURTON

NAME OF DRILLER OR BORER	LICENCE NUMBER
DENNIS DEBLER	1748

SIGNATURE OF CONTRACTOR: Denn Debler

SUBMISSION DATE: DAY 5 MO. 9 YR. 85

OFFICE USE ONLY

DATA SOURCE | CONTRACTOR | DATE RECEIVED 01 11 85

DATE OF INSPECTION | INSPECTOR

REMARKS

CSS.ES

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FORM NO. 0506—4—77 FORM 7

Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

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

11 — 2702264 — MUNICIP — CON.

COUNTY OR DISTRICT: HALIBURTON
TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: DYSART
CON. BLOCK, TRACT, SURVEY, ETC.: 8
LOT: 17
[redacted]
HALIBURTON
DATE COMPLETED: DAY 14 MO 8 YR 85
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	CLAY	STONES.		0	30
BLACK + RED	GRANITE			30	385

31
32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
378	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
6 1/4	1 ☑ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	.188	0	33
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			
	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	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	3 GPM	1 HOURS 0 MINS

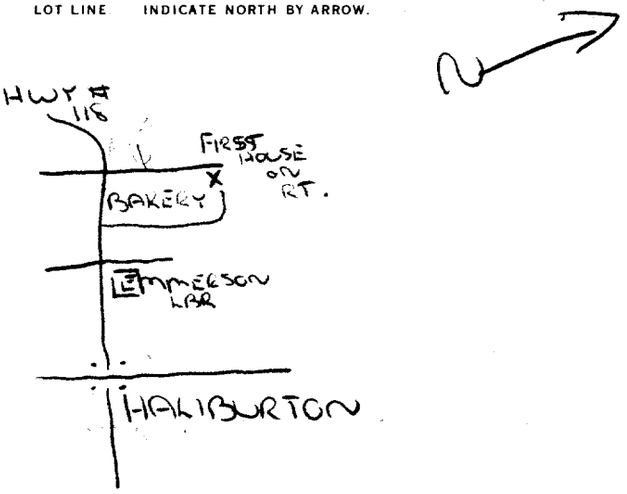
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
25 FEET	385 FEET	1 ☐ PUMPING 2 ☑ RECOVERY	340 FEET	295 FEET	252 FEET	210 FEET

IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
GPM	385 FEET	1 ☐ CLEAR 2 ☑ CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
☐ SHALLOW ☑ DEEP	250 FEET	3 GPM

LOCATION OF WELL

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



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

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: DENNIS DEBLER DRILLING — LICENCE NUMBER: 1748
ADDRESS: RR#2 HALIBURTON
NAME OF DRILLER OR BORER: DENNIS DEBLER. — LICENCE NUMBER: 1748
SIGNATURE OF CONTRACTOR: Dennis Debler. — SUBMISSION DATE: DAY 14 MO. 8 YR. 85

OFFICE USE ONLY

DATA SOURCE — CONTRACTOR — DATE RECEIVED: 01 11 85
DATE OF INSPECTION — INSPECTOR
REMARKS

CSS.ES

MINISTRY OF THE ENVIRONMENT COPY

FORM NO. 0506—4—77 FORM 7

Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

2702401

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

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON.	BLOCK, TRACT, SURVEY, ETC.	LOT
HALIBURTON	DYSART	VIII		17

DATE COMPLETED: DAY 25 MO 4 YR 86

[redacted] HALIBURTON

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
YELLOW	SAND	GRAVEL.		0	15
GREY	CLAY	STONES BOULDERS	HARDPAN.	15	48
RED + BLACK.	BROKEN ROCK.	GRAVEL. SAND		48	52
BLACK	+ GREY	GRANITE		52	160

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
150	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
6 1/4	1 ☑ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	.188	0	53.
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			
	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	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	20 GPM	1 HOURS 0 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
30 FEET	160 FEET	1 ☐ PUMPING 2 ☑ RECOVERY	130 FEET	125 FEET	100 FEET	78 FEET

IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
GPM	160 FEET	1 ☐ CLEAR 2 ☑ CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
☐ SHALLOW ☑ DEEP	150 FEET	3 GPM

LOCATION OF WELL

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

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

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	LICENCE NUMBER
DENNIS DEBLER DRILLING	1748
ADDRESS: RR#2 HALIBURTON.	
NAME OF DRILLER OR BORER: DENNIS DEBLER	LICENCE NUMBER: 1748
SIGNATURE OF CONTRACTOR: Dennis DeBler	SUBMISSION DATE: DAY 25 MO 4 YR 86

OFFICE USE ONLY

DATA SOURCE	CONTRACTOR	DATE RECEIVED
		210187
DATE OF INSPECTION	INSPECTOR	
REMARKS		

CSS.ES

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Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

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

11 — 2702457 — MUNICIP — CON

COUNTY OR DISTRICT: HALIBURTON
TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: DUSART
CON., BLOCK, TRACT, SURVEY, ETC: 8
LOT: 17
[redacted]
HALIBURTON, ONT
DATE COMPLETED: DAY 15 MO 10 YR 86
HING — PC — ELEVATION — PC — 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
	CLAY			0	8
BK	GRANITE			8	200
	DOLOMITE			200	240

31
32

4 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
150	1 ☒ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
235	1 ☒ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL

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	.188	0	31
	1 ☐ STEEL; 2 ☐ GALVANIZED; 3 ☐ CONCRETE; 4 ☐ OPEN HOLE			
	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

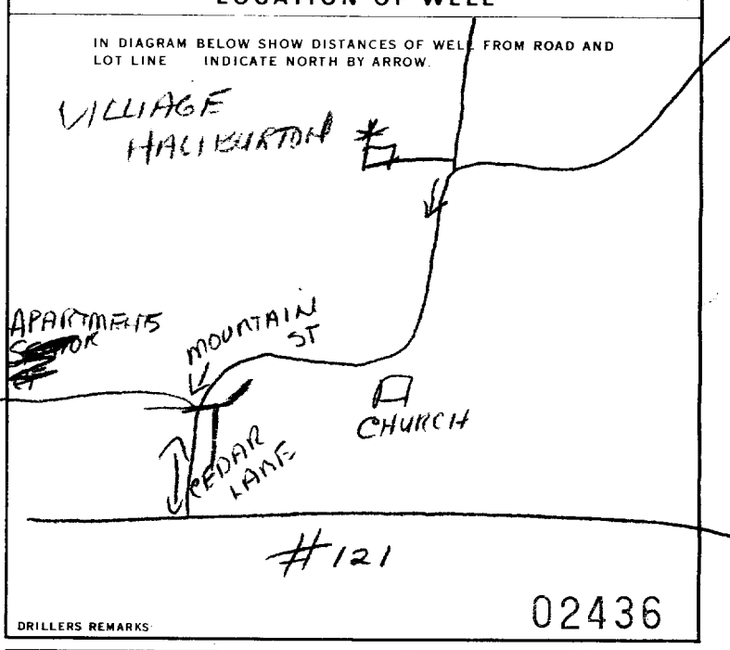
PUMPING TEST METHOD: 1 ☑ PUMP 2 ☐ BAILER
PUMPING RATE: 2 GPM
DURATION OF PUMPING: 1 HOURS 0 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 1 ☐ PUMPING 2 ☐ RECOVERY	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
30 FEET	240 FEET		FEET	FEET	FEET	FEET

IF FLOWING, GIVE RATE: GPM
PUMP INTAKE SET AT: 210 FEET
WATER AT END OF TEST: 1 ☐ CLEAR 2 ☑ CLOUDY
RECOMMENDED PUMP TYPE: ☐ SHALLOW ☑ DEEP
RECOMMENDED PUMP SETTING: FEET
RECOMMENDED PUMPING RATE: GPM

LOCATION OF WELL

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



DRILLERS REMARKS: 02436

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

1 ☐ DOMESTIC; 2 ☐ STOCK; 3 ☐ IRRIGATION; 4 ☐ INDUSTRIAL; 5 ☐ COMMERCIAL; 6 ☐ MUNICIPAL; 7 ☐ PUBLIC SUPPLY; 8 ☐ COOLING OR AIR CONDITIONING; ☐ OTHER; 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: DENNIS DEBLER DRILLING — LICENCE NUMBER: 1748
ADDRESS: RR#2 HALIBURTON, ONT
NAME OF DRILLER OR BORER: DENNIS DEBLER — LICENCE NUMBER: 1748
SIGNATURE OF CONTRACTOR: Debler
SUBMISSION DATE: DAY ____ MO. ____ YR. ____

OFFICE USE ONLY

DATA SOURCE — CONTRACTOR — DATE RECEIVED: 260387
DATE OF INSPECTION — INSPECTOR
REMARKS

CSS.ES

MINISTRY OF THE ENVIRONMENT COPY

FORM NO. 0506—4—77 FORM 7

Ministry of the Environment
Ontario

The Ontario Water Resources Act
WATER WELL RECORD

2702490

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

11

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC.	LOT
[redacted]	[redacted]AKT	8 BK BHNL	18

[redacted] HALIBURTON

DATE COMPLETED: DAY 20 MO 03 YR 87

RC | ELEVATION | RC | BASIN CODE

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	TO
Red	Granite			83	150
	Well deepened from 83' to 150'				

31

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
97	☒ FRESH ☐ SULPHUR ☐ SALTY ☐ MINERAL
142	☒ FRESH ☐ SULPHUR ☐ SALTY ☐ MINERAL
	☐ FRESH ☐ SULPHUR ☐ SALTY ☐ MINERAL
	☐ FRESH ☐ SULPHUR ☐ SALTY ☐ MINERAL
	☐ FRESH ☐ SULPHUR ☐ SALTY ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	TO
~~6~~	☒ STEEL ☐ GALVANIZED ☐ CONCRETE ☐ OPEN HOLE		~~168~~	~~0~~
	☐ STEEL ☐ GALVANIZED ☐ CONCRETE ☐ OPEN HOLE			
	☐ STEEL ☐ GALVANIZED ☒ CONCRETE ☐ 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: ☒ PUMP ☐ BAILER
PUMPING RATE: 8 GPM
DURATION OF PUMPING: 1 HOURS 0 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
30 FEET	150 FEET	14 FEET	52 FEET	46 FEET	41 FEET

WATER LEVELS DURING: ☐ PUMPING ☒ RECOVERY

IF FLOWING, GIVE RATE: GPM
PUMP INTAKE SET AT: 150 FEET
WATER AT END OF TEST: ☐ CLEAR ☒ CLOUDY
RECOMMENDED PUMP TYPE: ☐ SHALLOW ☒ DEEP
RECOMMENDED PUMP SETTING: 140 FEET
RECOMMENDED PUMPING RATE: 6 GPM

FINAL STATUS OF WELL

☒ WATER SUPPLY ☐ OBSERVATION WELL ☐ TEST HOLE ☐ RECHARGE WELL ☐ ABANDONED, INSUFFICIENT SUPPLY ☐ ABANDONED, POOR QUALITY ☐ UNFINISHED

WATER USE

☒ DOMESTIC ☐ STOCK ☐ IRRIGATION ☐ INDUSTRIAL ☐ OTHER ☐ COMMERCIAL ☐ MUNICIPAL ☐ PUBLIC SUPPLY ☐ COOLING OR AIR CONDITIONING ☐ NOT USED

METHOD OF DRILLING

☐ CABLE TOOL ☐ ROTARY (CONVENTIONAL) ☐ ROTARY (REVERSE) ☐ ROTARY (AIR) ☒ AIR PERCUSSION ☐ BORING ☐ DIAMOND ☐ JETTING ☐ DRIVING

LOCATION OF WELL

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

07788

DRILLERS REMARKS:

CONTRACTOR

NAME OF WELL CONTRACTOR: DENNIS DEBLER DRILLING LTD — LICENCE NUMBER 1748
ADDRESS: RR#2 HALIBURTON ONT
NAME OF DRILLER OR BORER: DENNIS DEBLER — LICENCE NUMBER 1748
SIGNATURE OF CONTRACTOR: [signature]
SUBMISSION DATE: DAY ___ MO. ___ YR. ___

OFFICE USE ONLY

DATE RECEIVED: 080487

CSS.ES

FORM NO 0506 (4/77) FORM 7

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Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

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11 2702491

MUNICIP CON

COUNTY OR DISTRICT [redacted] | TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE [redacted] HALIBURTON | CON 8 | BLOCK, TRACT, SURVEY, ETC. PKS PLAN 1 | LOT 18 | DATE COMPLETED DAY — MO 12 YR 86

ELEVATION RC BASIN CODE

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	TO
	SAND - clay			0	6
Red	Granite			6	83

31

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
78	1 ☒ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	TO
Old	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	188	0	22
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			
	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.)

PUMPING TEST

71

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 ☒ PUMP 2 ☐ BAILER	10 GPM	1 HOURS 0 MINS

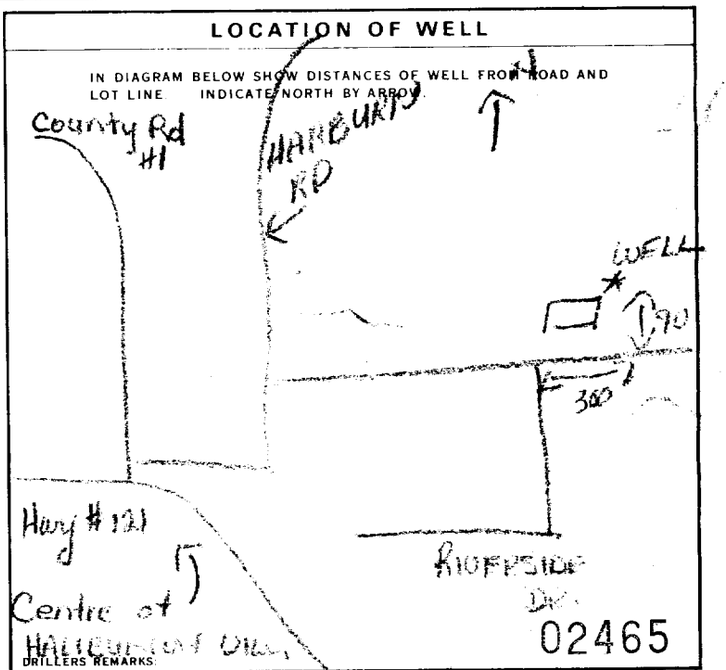
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 1 ☐ PUMPING 2 ☒ RECOVERY	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
10 FEET	83 FEET		20 FEET	14 FEET	13 FEET	12 FEET

IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
GPM	83 FEET	1 ☐ CLEAR 2 ☒ CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
☐ SHALLOW ☐ DEEP	FEET	GPM

LOCATION OF WELL

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



DRILLERS REMARKS

02465

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

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: DEHMS DEBLER DRILLING LTD | LICENCE NUMBER: 1748

ADDRESS: RR#2 HALIBURTON, ONT

NAME OF DRILLER OR BORER: DEHMS DEBLER | LICENCE NUMBER: 1748

SIGNATURE OF CONTRACTOR | SUBMISSION DATE DAY — MO — YR —

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DATA SOURCE | CONTRACTOR | DATE RECEIVED 080487

DATE OF INSPECTION | INSPECTOR

REMARKS

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Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

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11 — 2702533 — MUNICIP — CON

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC.	LOT
[redacted]	DISTRICT HALIBURTON	8	17

DATE COMPLETED: DAY 18 MO OCT YR 74

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
	SAND & FILL			0	7
BK	GRANITE			7	540

4 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
475	☒ FRESH ☐ SULPHUR ☐ SALTY ☐ MINERAL
	☐ FRESH ☐ SULPHUR ☐ SALTY ☐ MINERAL
	☐ FRESH ☐ SULPHUR ☐ SALTY ☐ MINERAL
	☐ FRESH ☐ SULPHUR ☐ SALTY ☐ MINERAL
	☐ FRESH ☐ SULPHUR ☐ SALTY ☐ MINERAL

5 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6	☐ STEEL ☐ GALVANIZED ☐ CONCRETE ☐ OPEN HOLE	188	0	552
	☐ STEEL ☐ GALVANIZED ☐ CONCRETE ☐ OPEN HOLE			
	☐ STEEL ☐ GALVANIZED ☐ CONCRETE ☐ OPEN HOLE			

SCREEN

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

6 PLUGGING & SEALING RECORD

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

7 PUMPING TEST

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
☒ PUMP ☐ BAILER	360 @ 500 G.P.H. GPM	1 HRS 0 MINS

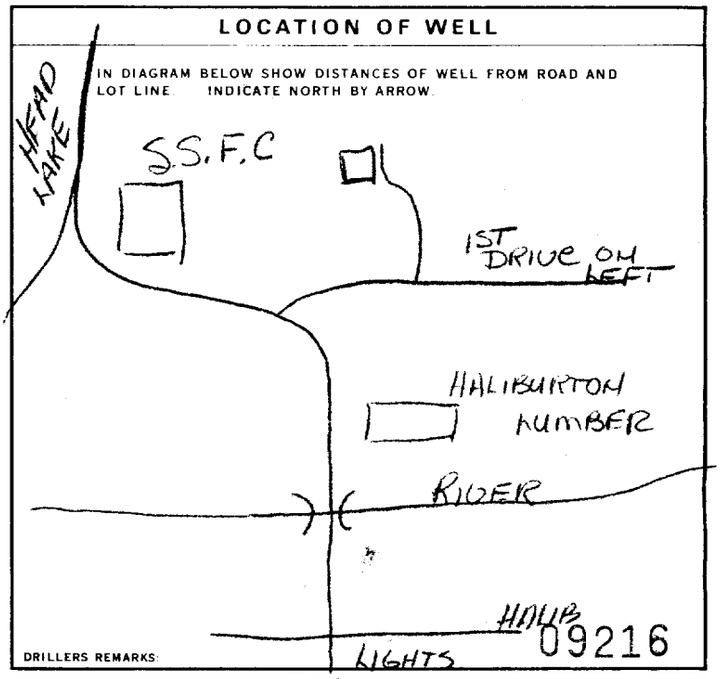
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING ☐ PUMPING ☒ RECOVERY	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
120 FEET	540 FEET		532 FEET	524 FEET	516 FEET	508 FEET

IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
GPM	540 FEET	☐ CLEAR ☒ CLOUDY

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

LOCATION OF WELL

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



DRILLERS REMARKS:

FINAL STATUS OF WELL

☒ WATER SUPPLY ☐ ABANDONED, INSUFFICIENT SUPPLY
☐ OBSERVATION WELL ☐ ABANDONED, POOR QUALITY
☐ TEST HOLE ☐ UNFINISHED
☐ RECHARGE WELL

WATER USE

☒ DOMESTIC ☐ COMMERCIAL
☐ STOCK ☐ MUNICIPAL
☐ IRRIGATION ☐ PUBLIC SUPPLY
☐ INDUSTRIAL ☐ COOLING OR AIR CONDITIONING
☐ OTHER ☐ NOT USED

METHOD OF DRILLING

☐ CABLE TOOL ☐ BORING
☐ ROTARY (CONVENTIONAL) ☐ DIAMOND
☐ ROTARY (REVERSE) ☐ JETTING
☐ ROTARY (AIR) ☐ DRIVING
☒ AIR PERCUSSION

CONTRACTOR

NAME OF WELL CONTRACTOR: DENNIS DEBLER DRILLING LTD — LICENCE NUMBER: 1748
ADDRESS: RR#2 HALIBURTON, ONT
NAME OF DRILLER OR BORER: DENNIS DEBLER — LICENCE NUMBER: 1748
SIGNATURE OF CONTRACTOR: Dennis Debler — SUBMISSION DATE: DAY ____ MO ____ YR ____

OFFICE USE ONLY

WELL NUMBER — CONTRACTOR — DATE RECEIVED: 020687
DATE OF INSPECTION — REMARKS
REMARKS: CSS.ES

FORM NO. 0506—4—77 FORM 7

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Ontario

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WATER WELL RECORD

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11 2702557 MUNICIP CON.

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC.	LOT
[redacted]	[redacted]	8	R.18

[redacted] x 444 HALIBURTON ONT

DATE COMPLETED: DAY 5 MO JUNE YR 87

NORTHING | RC | ELEVATION | RC | BASIN CODE

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	TO
GREY RED BLACK	GRANITE			0	180

31

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
180	1 ☑ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERALS 6 ☐ GAS

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	TO
6 1/4	1 ☑ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC	188	0	22
6	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☑ PLASTIC		22	180
	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.)

71 PUMPING TEST

- PUMPING TEST METHOD: 1 ☐ PUMP 2 ☑ BAILER — AIR
- PUMPING RATE: 25 GPM
- DURATION OF PUMPING: 1 HOURS ___ MINS
- STATIC LEVEL: 25 FEET
- WATER LEVEL END OF PUMPING: 150 FEET
- WATER LEVELS DURING: 1 ☐ PUMPING 2 ☐ RECOVERY — 15 MINUTES ___ FEET, 30 MINUTES ___ FEET, 45 MINUTES ___ FEET, 60 MINUTES ___ FEET
- IF FLOWING, GIVE RATE: ___ GPM
- PUMP INTAKE SET AT: 150 FEET
- WATER AT END OF TEST: 1 ☑ CLEAR 2 ☐ CLOUDY
- RECOMMENDED PUMP TYPE: ☐ SHALLOW ☑ DEEP
- RECOMMENDED PUMP SETTING: 150 FEET
- RECOMMENDED PUMPING RATE: 10 GPM

FINAL STATUS OF WELL

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

WATER USE

1 ☑ DOMESTIC
2 ☐ STOCK
3 ☐ IRRIGATION
4 ☐ INDUSTRIAL
☐ OTHER HOUSE
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

LOCATION OF WELL

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

10926

DRILLERS REMARKS

CONTRACTOR

- NAME OF WELL CONTRACTOR: CARL BALDWIN WELL DRILLING
- WELL CONTRACTOR'S LICENCE NUMBER: 1312
- ADDRESS: R#1 KIRKFIELD ONT
- NAME OF WELL TECHNICIAN: CARL BALDWIN, BRAD BALDWIN - KEVIN PUTERBAUGH
- WELL TECHNICIAN'S LICENCE NUMBER: 0300
- SIGNATURE OF TECHNICIAN/CONTRACTOR: Carl Baldwin
- SUBMISSION DATE: DAY 21 MO JULY YR 87

OFFICE USE ONLY

DATA SOURCE | CONTRACTOR | DATE RECEIVED: JUL 27 1987
DATE OF INSPECTION | INSPECTOR
REMARKS: CSS.ES

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Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

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11 2702582 MUNICIP CON

COUNTY OR DISTRICT: HALIBURTON
TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: DUGART
CON., BLOCK, TRACT, SURVEY, ETC.: 8
LOT: 18
DATE COMPLETED: DAY 21 MO 08 YR 87
[redacted] HALIBURTON
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
	LOAM			0	4
BLK	GRANITE			4	300

31
32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
275	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
	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
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC			
	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	25 G.P.M. GPM	1 HOURS 0 MINS

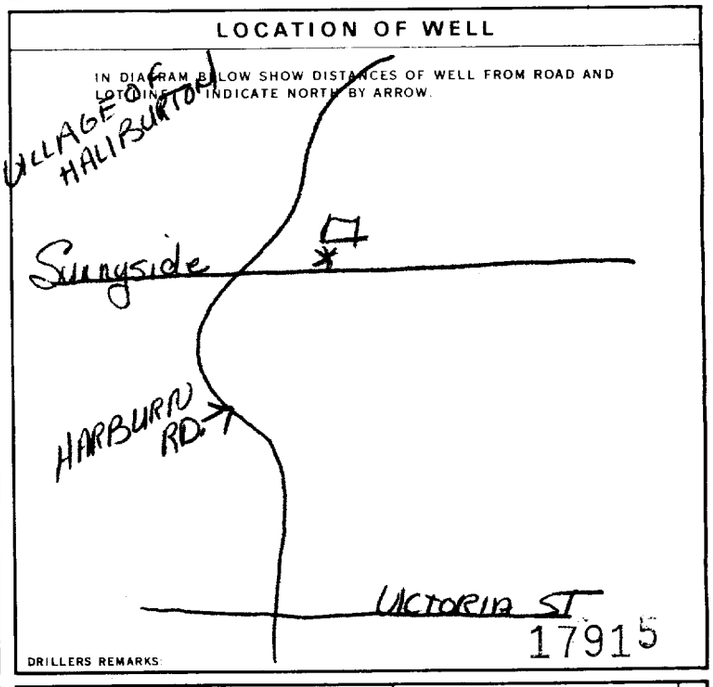
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING (1 ☐ PUMPING 2 ☒ RECOVERY)	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
20 FEET	300 FEET		294 FEET	288 FEET	282 FEET	276 FEET

IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
GPM	300 FEET	1 ☐ CLEAR 2 ☒ CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
☐ SHALLOW ☒ DEEP	275 FEET	6 GPM

LOCATION OF WELL

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



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 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

1748

CONTRACTOR

NAME OF WELL CONTRACTOR: DEHLIS DEBLEE DRILLING LTD
WELL CONTRACTOR'S LICENCE NUMBER: 1748
ADDRESS: RR#8 HALIBURTON
NAME OF WELL TECHNICIAN: PAT WILSON
WELL TECHNICIAN'S LICENCE NUMBER:
SIGNATURE OF TECHNICIAN/CONTRACTOR:
SUBMISSION DATE: DAY ____ MO. ____ YR. ____

OFFICE USE ONLY

DATA SOURCE | CONTRACTOR | DATE RECEIVED: AUG 28 1987
DATE OF INSPECTION | INSPECTOR
REMARKS

CSS.ES

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Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

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

11 2702615

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON	BLOCK, TRACT, SURVEY, ETC	LOT
HALIBURTON	DYSART	8		17

[redacted] BOX 297 HALIBURTON — DATE COMPLETED DAY 23 MO 07 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
	YELLOW -	GREY - SAND		0	34
	COARSE	GRAVEL		34	37

31
32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
37	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
	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	37
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC			
	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	5 GPM	1 HOURS 0 MINS

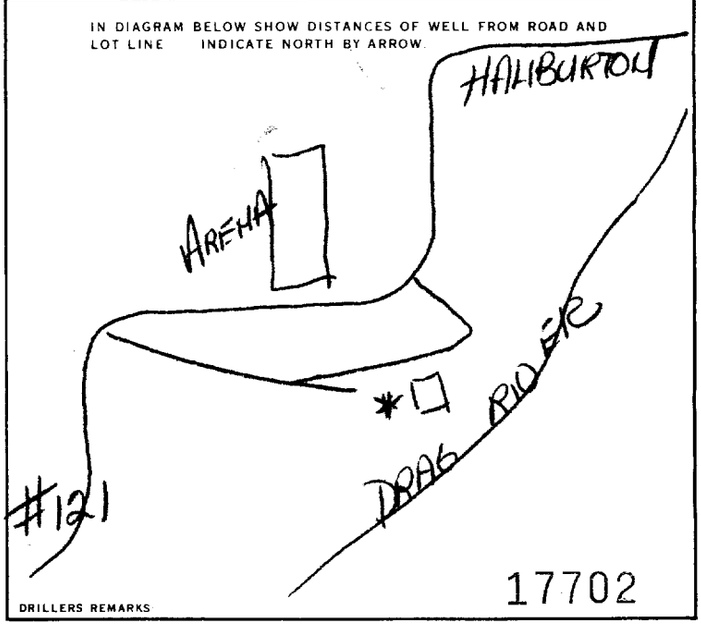
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
17 FEET	37 FEET	1 ☐ PUMPING 2 ☒ RECOVERY	20 FEET	19 FEET	18 FEET	17 FEET

IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
GPM	37 FEET	1 ☐ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
☐ SHALLOW ☐ DEEP	30 FEET	6 GPM

LOCATION OF WELL

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



17702

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 9 ☐ DEWATERING
WATER USE	1 ☒ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING ☐ OTHER 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: DENNIS DEBLEE DRILLING — WELL CONTRACTOR'S LICENCE NUMBER: 1748
ADDRESS: RR #2 HALIBURTON
NAME OF WELL TECHNICIAN: PAT WILSON — WELL TECHNICIAN'S LICENCE NUMBER
SIGNATURE OF TECHNICIAN / CONTRACTOR — SUBMISSION DATE: DAY ____ MO. ____ YR. ____

OFFICE USE ONLY

DATA SOURCE — CONTRACTOR — DATE RECEIVED: SEP 18 1987
DATE OF INSPECTION — INSPECTOR
REMARKS

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Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

2702616

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11

MUNICIP

CON.

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC	LOT	DATE COMPLETED
[redacted]	DYCART	8 PLAN 1 BLK Y	17	DAY ___ MO ___ YR ___

MINING | RC | ELEVATION | RC | BASIN CODE | I | II | IV

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
	SAND - GRAVEL			0	15
	GRANITE			15	200

31

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
180	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
	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
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC			
	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	5 GPM	1 HOURS 0 MINS

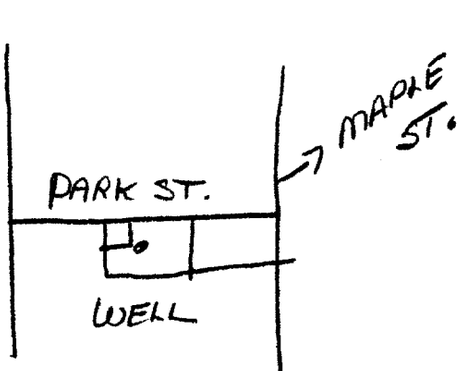
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING (1 ☐ PUMPING 2 ☒ RECOVERY)	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
18 FEET	200 FEET		125 FEET	65 FEET	23 FEET	20 FEET

IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
GPM	200 FEET	1 ☐ CLEAR 2 ☒ CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
☐ SHALLOW ☒ DEEP	150-180 FEET	6 GPM

LOCATION OF WELL

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



DRILLERS REMARKS: HALIBURTON VILLAGE 17922

FINAL STATUS OF WELL

1 ☒ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 8 ☐ 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 ☐ PERCUSSION 6 ☐ BORING 7 ☐ DIAMOND 8 ☐ JETTING 9 ☐ DRIVING ☐ DIGGING ☐ OTHER

1748

CONTRACTOR

NAME OF WELL CONTRACTOR: DEHMIS DEBLER DRILLING — WELL CONTRACTOR'S LICENCE NUMBER: 1748

ADDRESS: RR#2 HALIBURTON

NAME OF WELL TECHNICIAN: RICK RUTTIG — WELL TECHNICIAN'S LICENCE NUMBER: 7-0112

SIGNATURE OF TECHNICIAN/CONTRACTOR: Marvin Debler — SUBMISSION DATE: DAY ___ MO ___ YR ___

OFFICE USE ONLY

DATA SOURCE | CONTRACTOR | DATE RECEIVED: SEP 18 1987

DATE OF INSPECTION | INSPECTOR

REMARKS

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The Ontario Water Resources Act

WATER WELL RECORD

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11 2702642

MUNICIP CON.

COUNTY OR DISTRICT: HALIBURTON
TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: DYSART
CON. 8 BLOCK, TRACT, SURVEY, ETC. LOT 17
[redacted] Box 646 HAL. ONT
DATE COMPLETED: DAY 25 MO 09 YR 81
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
	SAND & GRAVEL			0	18
	GRANITE			18	380

31
32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
370	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
	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	34
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC			
	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

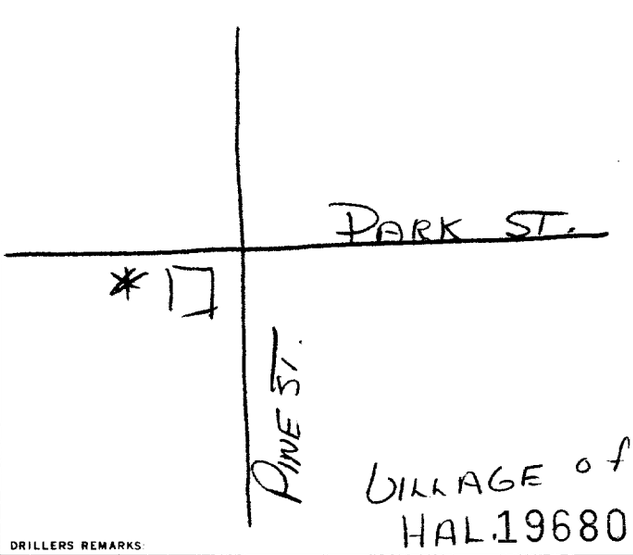
PUMPING TEST METHOD: 1 ☒ PUMP 2 ☐ BAILER
PUMPING RATE: 3 GPM
DURATION OF PUMPING: 1 HOURS 0 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
FEET	380 FEET	1 ☐ PUMPING 2 ☒ RECOVERY	335 FEET	295 FEET	260 FEET	238 FEET

IF FLOWING, GIVE RATE: GPM
PUMP INTAKE SET AT: 380 FEET
WATER AT END OF TEST: 1 ☐ CLEAR 2 ☒ CLOUDY
RECOMMENDED PUMP TYPE: ☐ SHALLOW ☒ DEEP
RECOMMENDED PUMP SETTING: 300-350 FEET
RECOMMENDED PUMPING RATE: 6 GPM

LOCATION OF WELL

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



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 9 ☐ DEWATERING

WATER USE

1 ☒ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING ☐ OTHER 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

1748

CONTRACTOR

NAME OF WELL CONTRACTOR: DEHAIS DRILLING
WELL CONTRACTOR'S LICENCE NUMBER: 1748
ADDRESS: RR#2 HALIBURTON
NAME OF WELL TECHNICIAN: RICK RUTTIG
WELL TECHNICIAN'S LICENCE NUMBER: 7012
SIGNATURE OF TECHNICIAN/CONTRACTOR: Dennis Dehais
SUBMISSION DATE: DAY ____ MO. ____ YR. ____

OFFICE USE ONLY

DATA SOURCE | CONTRACTOR | DATE RECEIVED: OCT 01 1987
DATE OF INSPECTION | INSPECTOR
REMARKS

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Ministry of the Environment
Ontario

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WATER WELL RECORD

1. PRINT ONLY IN SPACES PROVIDED
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11 — 2702897 — MUNICIP 27006 — CON.

COUNTY OR DISTRICT: Haliburton — TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: DUSART — CON., BLOCK, TRACT, SURVEY, ETC.: 8 — LOT: 16

DATE COMPLETED: DAY 3 MO 08 YR 88

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
	SAND	CLAY, GRAVEL		0	12
BLACK & GREY	GRANITE			12	460

31

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
120	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
	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
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC			
	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: 1 ☐ PUMP 2 ☐ BAILER — PUMPING RATE: 20 GPM — DURATION OF PUMPING: 1 HOURS — MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 1 ☐ PUMPING 2 ☐ RECOVERY	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
40 FEET	460 FEET		455 FEET	450 FEET	445 FEET	440 FEET

IF FLOWING, GIVE RATE — GPM

PUMP INTAKE SET AT: 460 FEET

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

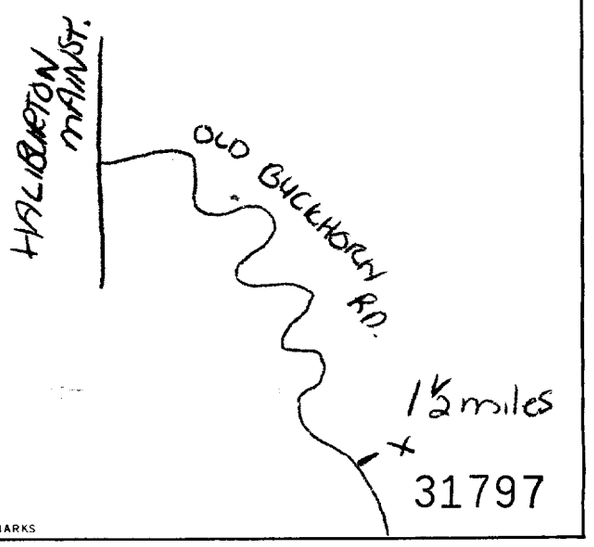
RECOMMENDED PUMP TYPE: ☐ SHALLOW ☐ DEEP

RECOMMENDED PUMP SETTING — FEET

RECOMMENDED PUMPING RATE — GPM

LOCATION OF WELL

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



DRILLERS REMARKS

FINAL STATUS OF WELL

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

WATER USE

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

METHOD OF CONSTRUCTION

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

CONTRACTOR

NAME OF WELL CONTRACTOR: DENNIS DEBLER DRILLING — WELL CONTRACTOR'S LICENCE NUMBER: 1748

ADDRESS: RR#2 HALIBURTON

NAME OF WELL TECHNICIAN: RICH HOWE — WELL TECHNICIAN'S LICENCE NUMBER

SIGNATURE OF TECHNICIAN/CONTRACTOR — SUBMISSION DATE: DAY ____ MO ____ YR ____

OFFICE USE ONLY

DATA SOURCE — CONTRACTOR: 1748 — DATE RECEIVED: OCT 18 1988

DATE OF INSPECTION — INSPECTOR

REMARKS

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The Ontario Water Resources Act

WATER WELL RECORD

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11 — 2702902 — MUNICIP 2,7,0,0,6 — CON.

COUNTY OR DISTRICT: [redacted] — TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: DART HALIBURTON ONT — CON., BLOCK, TRACT, SURVEY, ETC: 8 — LOT: 17/18 — DATE COMPLETED: DAY 29 MO 07 YR 88 — ELEVATION — 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
	GRANITE			170	360
	Well deepened				

31
32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
360	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
	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
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC			
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC			
	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: 1 ☐ PUMP 2 ☐ BAILER — PUMPING RATE: 1 1/2 GPM — DURATION OF PUMPING: HOURS MINS

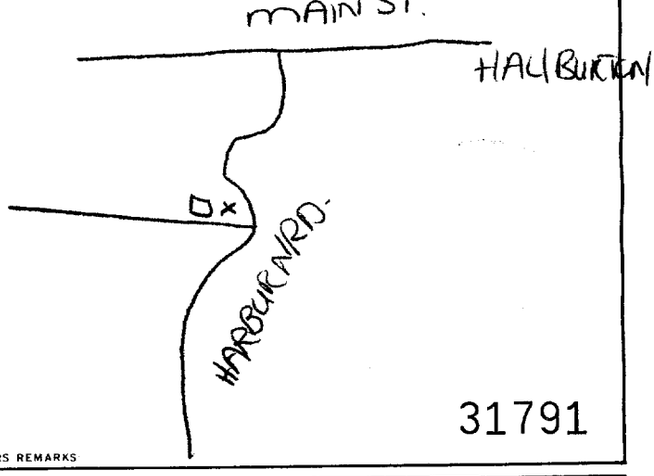
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 1 ☐ PUMPING 2 ☐ RECOVERY — 15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
60 FEET	360 FEET	340 FEET	320 FEET	300 FEET	280 FEET

IF FLOWING, GIVE RATE: GPM — PUMP INTAKE SET AT: 360 FEET — WATER AT END OF TEST: 1 ☐ CLEAR 2 ☒ CLOUDY

RECOMMENDED PUMP TYPE: ☐ SHALLOW ☐ DEEP — RECOMMENDED PUMP SETTING: FEET — RECOMMENDED PUMPING RATE: GPM

LOCATION OF WELL

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



31791

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 — 9 ☐ DEWATERING

WATER USE

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

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: DENNIS DOBLER DRILLING — WELL CONTRACTOR'S LICENCE NUMBER: 1748

ADDRESS: RR #2 HALIBURTON

NAME OF WELL TECHNICIAN: RICH HOWE — WELL TECHNICIAN'S LICENCE NUMBER

SIGNATURE OF TECHNICIAN/CONTRACTOR — SUBMISSION DATE: DAY ____ MO. ____ YR. ____

OFFICE USE ONLY

DATA SOURCE — CONTRACTOR: 1748 — DATE RECEIVED: OCT 18 1988

DATE OF INSPECTION — INSPECTOR

REMARKS

CSS.ES

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Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

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

11 | 2704266 | MUNICIP 27006 | CON. CON | 08

COUNTY OR DISTRICT: Haliburton | TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: DYSART | CON. BLOCK, TRACT, SURVEY, ETC.: PLAN 1 BLK A LOT 2 | LOT: PT 27 16

[redacted] x 1040 Haliburton kom 1S0

DATE COMPLETED: DAY 11 MO 12 YR 91

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
Blk	Topsoil		Soft	0'	1'
Red-White	Granite		Medium	1'	110'
Blk-Green	Granite	Mica	Medium	110'	125'
White	Granite	Quartz	Medium	125'	190'
Red-Blk	Granite		Medium	190'	250'
White	Granite		Medium	250'	300'
Red-Blk	Granite		Medium	300'	365'
Green-Red	Granite	Quartz - Mica	Medium	365'	378'

31

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
120'	1 ☒ FRESH 2 ☐ SALTY — 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
365'	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
6 1/4	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC	.188	0'	22'
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC			
	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.)
0	20	Bensea l

71 PUMPING TEST

PUMPING TEST METHOD: 1 ☐ PUMP 2 ☐ BAILER — AIR

PUMPING RATE: 50 GPM | DURATION OF PUMPING: 1 HOURS 0 MINS

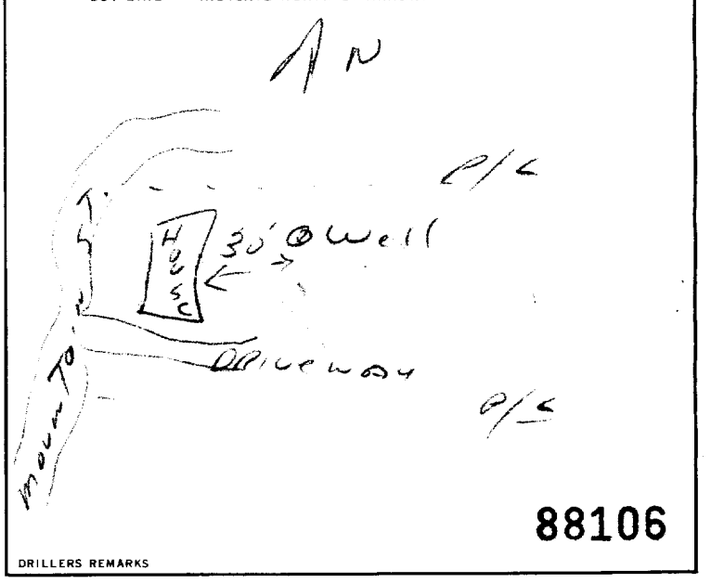
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 1 ☐ PUMPING 2 ☒ RECOVERY	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
30' FEET	375 FEET		150 FEET	100 FEET	75 FEET	30 FEET

IF FLOWING, GIVE RATE: GPM | PUMP INTAKE SET AT: 350 FEET | WATER AT END OF TEST: 1 ☒ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE: ☐ SHALLOW ☒ DEEP | RECOMMENDED PUMP SETTING: 350 FEET | RECOMMENDED PUMPING RATE: 20 GPM

LOCATION OF WELL

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



88106

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 ☐ 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: Titus Well Drilling | WELL CONTRACTOR'S LICENCE NUMBER: 5020

ADDRESS: Gooderham

NAME OF WELL TECHNICIAN: Carmon Titus | WELL TECHNICIAN'S LICENCE NUMBER: 7012

SIGNATURE OF TECHNICIAN/CONTRACTOR | SUBMISSION DATE: DAY 30 MO 12 YR 91

OFFICE USE ONLY

DATA SOURCE | CONTRACTOR 5020 | DATE RECEIVED DEC 30 1991

DATE OF INSPECTION | INSPECTOR

REMARKS

CSS.ES

MINISTRY OF THE ENVIRONMENT COPY

FORM NO. 0506 (11/86) FORM 9

Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

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

11 — 2704555 — MUNICIP 27006 — CON. CON 08

COUNTY OR DISTRICT [redacted] — TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE salt. — CON. BLOCK, TRACT, SURVEY, ETC 8 — LOT 17

[redacted] Box 780 Haliburton Ont. K0M 1S0 — DATE COMPLETED DAY 3 MO May YR 93

RANGE — 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
			Note - Hydro Frac existing well of approx 200ft in depth. Casing length approx 26 ft in length		
			- Packer Setting 60 ft.		
			- 3200 gal water pumped out fractures		
			- max. pressure 1700lbs		
			- min. pressure 600lbs.		

31 — 32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
unknown	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
	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
6 1/4	1 ☑ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC	188	0	26
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC			
	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.)

71 PUMPING TEST

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 ☑ PUMP 2 ☐ BAILER	4.0 GPM	4 HOURS 0 MINS

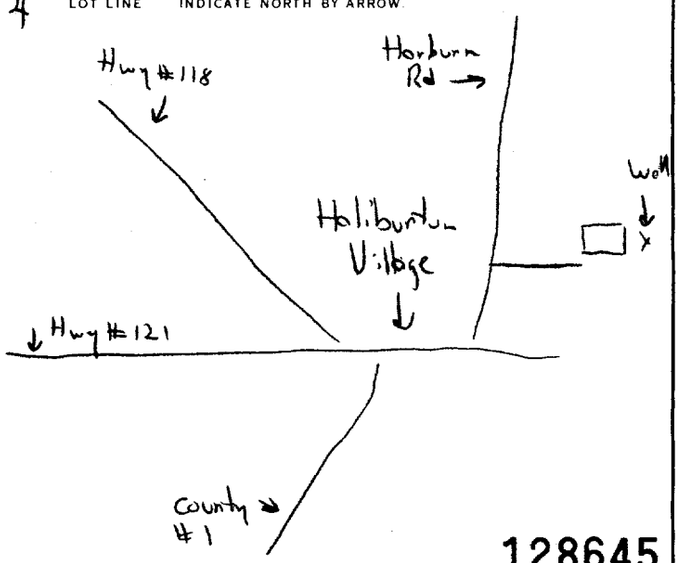
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
0 FEET	200 FEET	1 ☐ PUMPING 2 ☑ RECOVERY	152 FEET	125 FEET	98 FEET	80 FEET

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	190 FEET	4.0 GPM

LOCATION OF WELL

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



DRILLERS REMARKS

128645

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 ☐ 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: Dennis Debler Drilling LTD. — WELL CONTRACTOR'S LICENCE NUMBER: 1748

ADDRESS: RR#2 Haliburton Ont K0M 1S0

NAME OF WELL TECHNICIAN: Dennis Debler — WELL TECHNICIAN'S LICENCE NUMBER: T-0033

SIGNATURE OF TECHNICIAN/CONTRACTOR: Dennis Debler — SUBMISSION DATE: DAY 25 MO. May YR. 93

OFFICE USE ONLY

DATA SOURCE — CONTRACTOR 1748 — DATE RECEIVED JUN 02 1993

DATE OF INSPECTION — INSPECTOR

REMARKS: COULD NOT LOCATE ORIGINAL WATER WELL RECORD, JUNE 3/93, 48.

CSS.ES

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FORM NO. 0506 (11/86) FORM 9

Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

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

11 2704739 MUNICIP 27006 CON. CON 08

COUNTY OR DISTRICT [redacted] | TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE DUNDAS | CON. BLOCK, TRACT, SURVEY, ETC. 8 | LOT 17

[redacted] MACOMBER AVE SPRINGFIELD MASS

DATE COMPLETED DAY 28 MO 02 YR 94

RC ELEVATION RC BASIN CODE

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	TO
BR	TOPSOIL			0	1
BR	SAND			1	17
GR	CLAY			17	41
GR	GRANITE			41	80

31

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
76	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
	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	TO
6 1/4	1 ☑ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC	.188	0	50
6	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☑ OPEN HOLE 5 ☐ PLASTIC		50	80
	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.)
0	20	BENTONITE

71 PUMPING TEST

PUMPING TEST METHOD 1 ☑ PUMP 2 ☐ BAILER: AIR AT 80

PUMPING RATE: 15 GPM

DURATION OF PUMPING: 2 HOURS ___ MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING 1 ☐ PUMPING 2 ☑ RECOVERY	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
23 FEET	80 FEET		23 FEET	23 FEET	23 FEET	23 FEET

IF FLOWING, GIVE RATE: GPM

PUMP INTAKE SET AT: 48 FEET

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

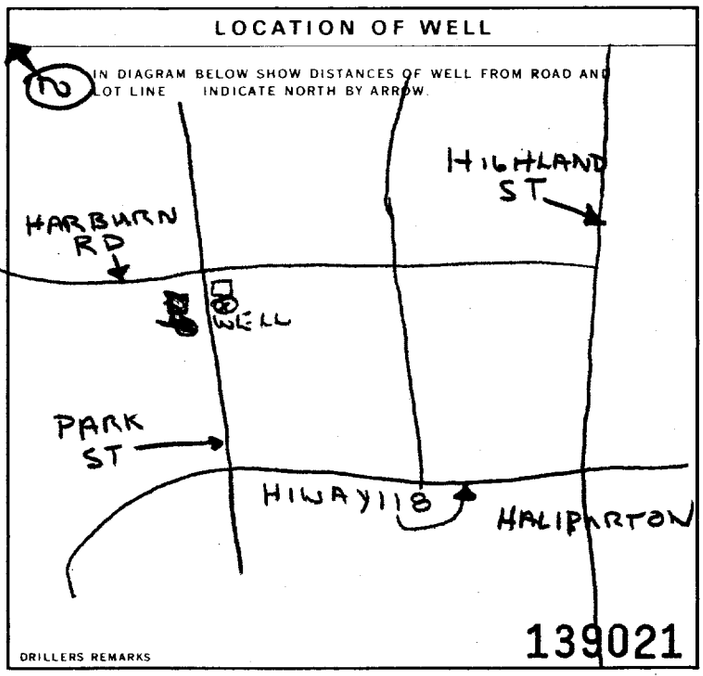
RECOMMENDED PUMP TYPE: ☐ SHALLOW ☑ DEEP

RECOMMENDED PUMP SETTING: 48 FEET

RECOMMENDED PUMPING RATE: 5 GPM

LOCATION OF WELL

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



DRILLERS REMARKS: 139021

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 ☐ 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: HALIBURTON PETERSEN WELL DRILLERS | WELL CONTRACTOR'S LICENCE NUMBER: 6016

ADDRESS: Box 423 HALIBURTON KOMISO

NAME OF WELL TECHNICIAN: BOB RUTTER | WELL TECHNICIAN'S LICENCE NUMBER: 7012

SIGNATURE OF TECHNICIAN/CONTRACTOR | SUBMISSION DATE: DAY 28 MO 02 YR 94

OFFICE USE ONLY

DATA SOURCE | CONTRACTOR 6016 | DATE RECEIVED MAR 16 1994

DATE OF INSPECTION | INSPECTOR

REMARKS

CSS.ES

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FORM NO. 0506 (11/86) FORM 9

Ministry of Environment and Energy
Ontario

The Ontario Water Resources Act
WATER WELL RECORD

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

11 | 2705171 | Municipality 27006 | Con. CON 08

County or District	Township/Borough/City/Town/Village	Con block tract survey, etc.	Lot
[redacted]	DYSART	(Con) 8	17
	Address: RR#2 HALIBURTON, ONT K0M 1S0	Date completed	24 (day) 05 (month) 96 (year)

21 | 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	To
BROWN	SAND, GRAVEL + BOULDER MIXTURE			0	23
RED/GREY	GRANITE			23	160
NOTE: SAND PARTICLES @ 28 - 30 FT LEVEL					

31

32

WATER RECORD (41)

Water found at – feet	Kind of water
28	☑ Fresh ☐ Salty ☐ Sulphur ☐ Minerals ☐ Gas
150	☑ Fresh ☐ Salty ☐ Sulphur ☐ Minerals ☐ Gas
	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals ☐ Gas
	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals ☐ Gas
	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals ☐ Gas

CASING & OPEN HOLE RECORD (51)

Inside diam inches	Material	Wall thickness inches	Depth – feet From	To
6 5/8	☑ Steel ☐ Galvanized ☐ Concrete ☐ Open hole ☐ Plastic	.188	0	25
	☐ Steel ☐ Galvanized ☐ Concrete ☐ Open hole ☐ Plastic			
	☐ Steel ☐ Galvanized ☐ Concrete ☐ Open hole ☐ Plastic			

SCREEN

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

PLUGGING & SEALING RECORD (61)

☑ Annular space ☐ Abandonment

Depth set at – feet From	To	Material and type (Cement grout, bentonite, etc.)
0	25	BENTONITE

PUMPING TEST (71)

Pumping test method	Pumping rate	Duration of pumping
AIR ☐ Pump ☐ Bailer	8 GPM	2 Hours ... Mins

Static level	Water level end of pumping	Water levels during ☐ Pumping ☑ Recovery: 15 minutes	30 minutes	45 minutes	60 minutes
16 feet	150 feet	88 feet	60 feet	51 feet	48 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 pump rate
☐ Shallow ☑ Deep	60 feet	5 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

New well –

WATER USE

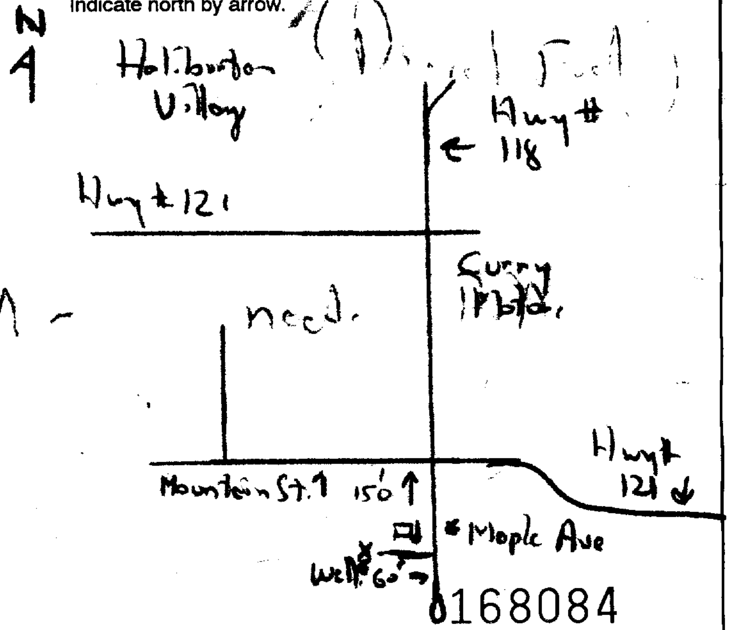
☑ Domestic ☐ Stock ☐ Irrigation ☐ Industrial ☐ Commercial ☐ Municipal ☐ Public supply ☐ Cooling & air conditioning ☐ Not used ☐ Other ....

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.



0168084

Name of Well Contractor	Well Contractor's Licence No.
DENNIS DEBLER DRILLING LTD	1748
Address: RR2 HALIBURTON, ONT. K0M 1S0	
Name of Well Technician: DENNIS DEBLER	Well Technician's Licence No.: T-0033
Signature of Technician/Contractor: [signature]	Submission date: day mo yr

MINISTRY USE ONLY

Data source	Contractor	Date received
	1748	OCT 31 1996
Date of inspection	Inspector	
Remarks		CSS.ES

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Ministry of Environment and Energy
Ontario

The Ontario Water Resources Act
WATER WELL RECORD

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

11 (1 2)

2705285

Municipality 27006 (10 14) Con. CON (15) 09 (22 23 24)

County or District [redacted]

Township/Borough/City/Town/Village: DYSART

Con block tract survey, etc.: 8

Lot: PT 17 (25-17)

Address: BOX 165 HALIBURTON KOM 1S0

Date completed: 20 day 8 month 97 year (48-53)

Northing RC Elevation RC Basin Code i ii iv

21 (1 2) (10 12 17 18 24 25 26 30 31 47)

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)

General colour	Most common material	Other materials	General description	Depth – feet From	Depth – feet To
Br	TOPSOIL			0	3.5
Gr	GRANITE			3.5	300

31 (10 14 15 21)
32 (10 32 43 54 65 75 80)

41 WATER RECORD

Water found at – feet	Kind of water			
293 (10-13)	1 ☑ Fresh	3 ☐ Sulphur	14	
	2 ☐ Salty	4 ☐ Minerals		
		6 ☐ Gas		
(15-18)	1 ☐ Fresh	3 ☐ Sulphur	19	
	2 ☐ Salty	4 ☐ Minerals		
		6 ☐ Gas		
(20-23)	1 ☐ Fresh	3 ☐ Sulphur	24	
	2 ☐ Salty	4 ☐ Minerals		
		6 ☐ Gas		
(25-28)	1 ☐ Fresh	3 ☐ Sulphur	29	
	2 ☐ Salty	4 ☐ Minerals		
		6 ☐ Gas		
(30-33)	1 ☐ Fresh	3 ☐ Sulphur	34	60
	2 ☐ Salty	4 ☐ Minerals		
		6 ☐ Gas		

51 CASING & OPEN HOLE RECORD

Inside diam inches	Material	Wall thickness inches	Depth – feet From	Depth – feet To
6 5/8 (10-11)	1 ☑ Steel (12)	.188	0	20 (13-16)
	2 ☐ Galvanized			
	3 ☐ Concrete			
	4 ☐ Open hole			
	5 ☐ Plastic			
6 (17-18)	1 ☐ Steel (19)			20 (20-23)
	2 ☐ Galvanized			
	3 ☐ Concrete			
	4 ☑ Open hole		20	300
	5 ☐ Plastic			
(24-25)	1 ☐ Steel (26)			(27-30)
	2 ☐ Galvanized			
	3 ☐ Concrete			
	4 ☐ Open hole			
	5 ☐ Plastic			

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

71 PUMPING TEST

Method: 1 ☐ Pump 2 ☐ Bailer (10)

Pumping rate: 10 GPM (11-14)

Duration of pumping: 2 Hours (15-16) ..... Mins (17-18)

Water levels during: 1 ☐ Pumping 2 ☑ Recovery (25)

Static level	Water level end of pumping	15 minutes	30 minutes	45 minutes	60 minutes
30 feet (19-21)	300 feet (22-24)	57 feet (26-28)	41 feet (29-31)	37 feet (32-34)	36 feet (35-37)

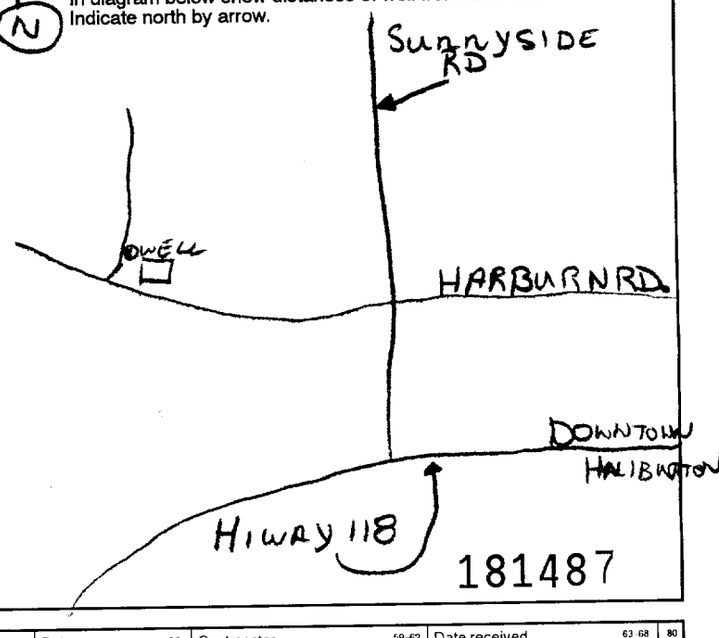
If flowing give rate (38-41)	Pump intake set at	Water at end of test (42)
GPM	200-300 feet	☐ Clear ☐ Cloudy

Recommended pump type	Recommended pump setting (43-45)	Recommended pump rate (46-49)
☐ Shallow ☑ Deep	200-300 feet	5-10 GPM

(50-53)

LOCATION OF WELL

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



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 used
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: HALIBURTON ARTESIAN WELL DRILLERS
Well Contractor's Licence No.: 6016

Address: BOX 423 HALIBURTON KOM 1S0

Name of Well Technician: RICK RUTTLE
Well Technician's Licence No.: T0112

Signature of Technician/Contractor

Submission date: day mo yr

MINISTRY USE ONLY

Data source (58)
Contractor: 6016 (59-62)
Date received: SEP 19 1997 (63-68) (80)
Date of inspection
Inspector
Remarks

0506 (07/94) Front Form 9

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Ministry of Environment and Energy
Ontario

The Ontario Water Resources Act
WATER WELL RECORD

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

11 (1 2) — 2705364 — Municipality 27006 (10 14) — Con. CON 08 (15 22 23 24)

County or District: HALIBURTON
Township/Borough/City/Town/Village: DYSART
Con block tract survey, etc.: 8
Lot: PT 17 (25-27)
Owner's surname: BANK OF MONTREAL (28-47) First name:
Address: Box 509 HALIBURTON KOMISO
Date completed: 15 day 10 month 97 year (48-53)

21 (1 2) — U T M Zone (10) — Easting (12 17) — Northing (18 24) — RC (25 26) — Elevation — RC (30) — Basin Code (31) — i ii iii iv (47)

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)

General colour	Most common material	Other materials	General description	Depth – feet From	Depth – feet To
BR	SAND			0	17
GR	SILT			17	64
WHITE	DOLOMITE			64	260

31 (10 14 15 21) — 32 (32 43 54 65 75 80)

41 WATER RECORD

Water found at – feet	Kind of water
253 (10-13)	1 ☒ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 5 ☐ Gas (14)
(15-18)	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 5 ☐ Gas (19)
(20-23)	1 ☐ Fresh 2 ☑ Salty 3 ☐ Sulphur 4 ☐ Minerals 5 ☐ Gas (24)
(25-28)	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 5 ☐ Gas (29)
(30-33)	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 5 ☐ Gas (34) (60)

51 CASING & OPEN HOLE RECORD

Inside diam inches	Material	Wall thickness inches	Depth – feet From	Depth – feet To
6 1/8 (10-11)	1 ☑ Steel (12) 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic	.188	0	70 (13-16)
6 (17-18)	1 ☐ Steel (19) 2 ☐ Galvanized 3 ☐ Concrete 4 ☑ Open hole 5 ☐ Plastic		70	260 (20-23)
(24-25)	1 ☐ Steel (26) 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic			(27-30)

SCREEN

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

61 PLUGGING & SEALING RECORD

☐ Annular space ☐ Abandonment

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

71 PUMPING TEST

Pumping test method: 1 ☐ Pump 2 ☐ Bailer — Pumping rate: 3 GPM (11-14) — Duration of pumping: 2 Hours (15-16) ..... Mins (17-18)

Static level (19-21)	Water level end of pumping (22-24)	Water levels during (25): 1 ☐ Pumping 2 ☑ Recovery			
		15 minutes (26-28)	30 minutes (29-31)	45 minutes (32-34)	60 minutes (35-37)
23 feet	240 feet	215 feet	170 feet	135 feet	90 feet

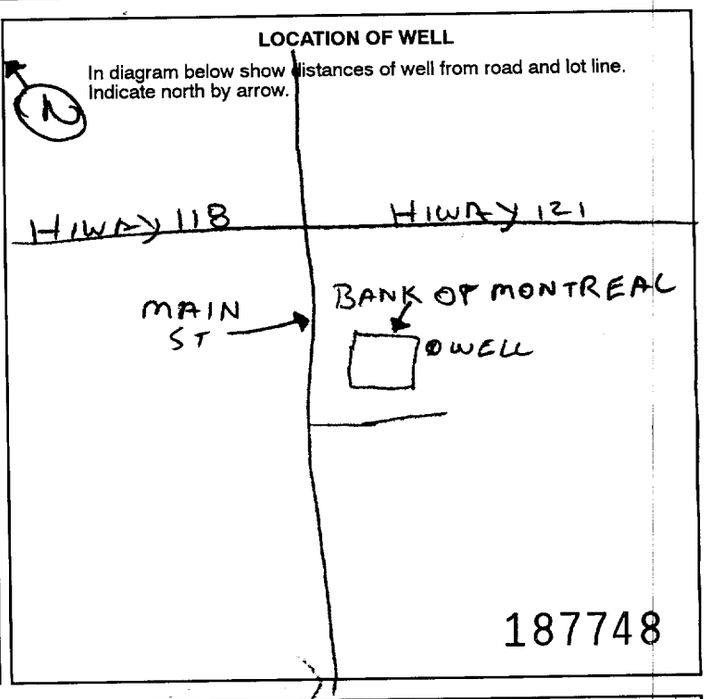
If flowing give rate (38-41)	Pump intake set at	Water at end of test (42)
GPM	220 feet	☑ Clear ☐ Cloudy

Recommended pump type	Recommended pump setting (43-45)	Recommended pump rate (46-49)
☐ Shallow ☑ Deep	220 feet	5 GPM

(50-53)

LOCATION OF WELL

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



187748

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 used 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: HALIBURTON ARTESIAN WELL DRILLERS — Well Contractor's Licence No.: 6016
Address: Box 423 HALIBURTON KOMISO
Name of Well Technician: RICK RUTTER — Well Technician's Licence No.: T0112
Signature of Technician/Contractor — Submission date: 15 day 12 mo 97 yr

MINISTRY USE ONLY

Data source (58) — Contractor 6016 (59-62) — Date received JAN 15 1998 (63-68) (80)
Date of inspection — Inspector
Remarks

0506 (07/94) Front Form 9

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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 | **2705781** | Municipality 27006 | Con. CON 08

County or District	Township/Borough/City/Town/Village	Con block tract survey, etc.	Lot
[redacted]	Dysart	8	Pt 18

[redacted] Address: P.O Box 825 Haliburton Ont

Date completed: 14 day 02 month 2000 year

21 | Northing: K0M 1S0 | 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
Note Deepened Existing Well of Approx 107 ft					
Red/Grey	Granite			107	184

31
32

WATER RECORD (41)

Water found at - feet	Kind of water
143	☑ 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

CASING & OPEN HOLE RECORD (51)

Inside diam inches	Material	Wall thickness inches	Depth - feet From	Depth - feet To
6 1/4	☑ Steel ☐ Galvanized ☐ Concrete ☐ Open hole ☐ Plastic	188	0	20
6	☐ Steel ☐ Galvanized ☐ Concrete ☑ Open hole ☐ Plastic		20	184
	☐ 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 (61)

☐ Annular space ☐ Abandonment

Depth set at - feet From	To	Material and type (Cement grout, bentonite, etc.)

PUMPING TEST (71)

Pumping test method	Pumping rate	Duration of pumping
☐ Pump ☐ Bailer — Air	6.0 GPM	1 Hours 0 Mins

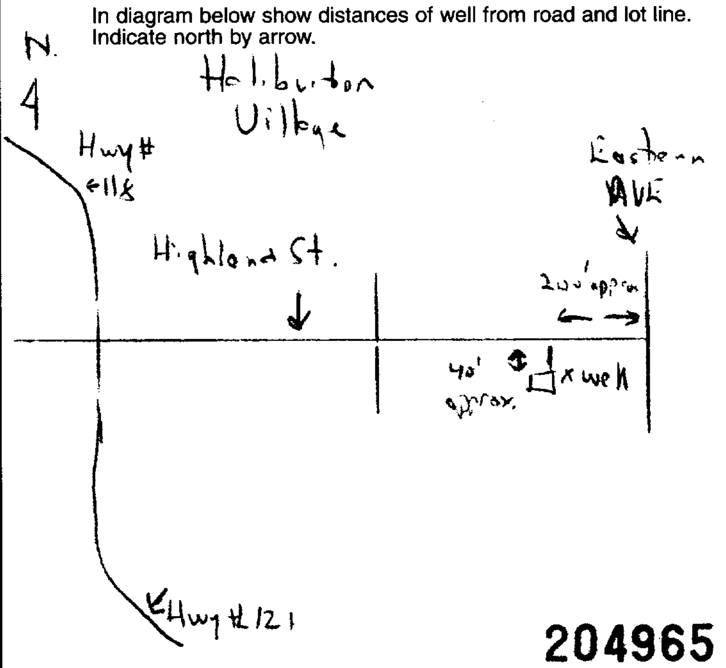
Static level	Water level end of pumping	Water levels during ☐ Pumping ☑ Recovery: 15 minutes	30 minutes	45 minutes	60 minutes
26 feet	184 feet	104 feet	60 feet	43 feet	38 feet

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

Recommended pump type	Recommended pump setting	Recommended pump rate
☐ Shallow ☑ Deep	170 feet	60 GPM

LOCATION OF WELL

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



204965

FINAL STATUS OF WELL (54)

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

WATER USE (55-56)

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

METHOD OF CONSTRUCTION (57)

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

Name of Well Contractor	Well Contractor's Licence No.
Dennis Debler Drilling Ltd	1748
Address: RR2 Haliburton Ont. K0M 1S0	
Name of Well Technician: Dennis Debler	Well Technician's Licence No.: T 0033
Signature of Technician/Contractor: [signature]	Submission date: 22 day 02 mo 00 yr

MINISTRY USE ONLY

Data source	Contractor 1748	Date received FEB 28 2000
Date of inspection	Inspector	
Remarks	CSS.ES0	

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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 — **2706191** — Municipality: 27006 — Con.: CON 08

County or District	Township/Borough/City/Town/Village	Con block tract survey, etc.	Lot
Haliburton	Dysart	8	17

[redacted]

Address | Date completed: 11 (day) 02 (month) 2002 (year)

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
Brown	Sand			0	4
Grey	Clay & Silt	mixture		0	41
Red & Grey	Sand & Gravel			41	47
Red & Grey	Granite			47	200

31

32

WATER RECORD (41)

Water found at - feet	Kind of water
82	☑ Fresh
195	☑ Fresh

CASING & OPEN HOLE RECORD (51)

Inside diam inches	Material	Wall thickness inches	Depth - feet From	To
6 1/4	☑ Steel	188	0	49
6	☑ Open hole		49	200

SCREEN

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

PLUGGING & SEALING RECORD (61)

☑ Annular space ☐ Abandonment

Depth set at - feet From	To	Material and type (Cement grout, bentonite, etc.)
0	20	Bentonite

PUMPING TEST (71)

Pumping test method	Pumping rate	Duration of pumping
☐ Pump ☐ Bailer (A)	50 GPM	1 Hours _ Mins

Static level	Water level end of pumping	Water levels during: ☑ Recovery 15 minutes	30 minutes	45 minutes	60 minutes
32 feet	200 feet	138 feet	85 feet	69 feet	50 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: 195 feet | Recommended pump rate: 5.0 GPM

FINAL STATUS OF WELL

☑ Water supply

WATER USE

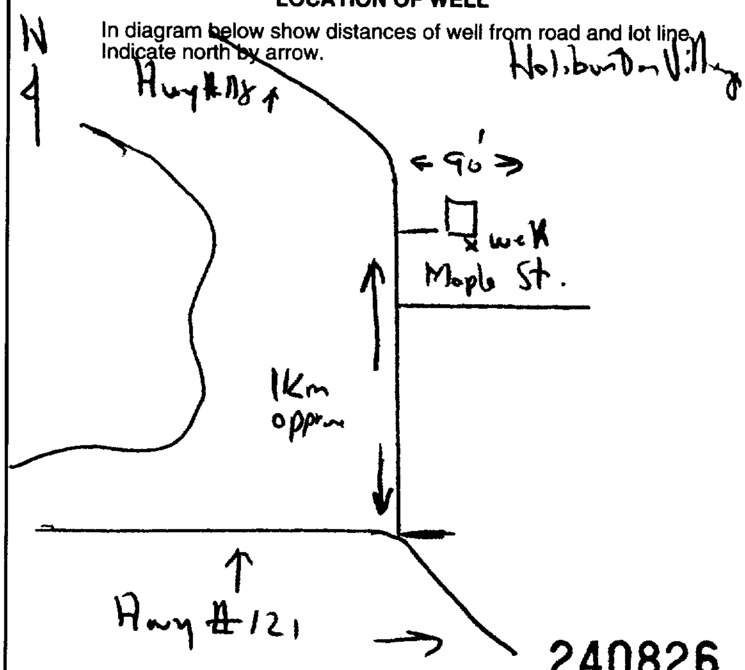
☑ Domestic ☑ Commercial

METHOD OF CONSTRUCTION

☑ Air percussion

LOCATION OF WELL

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



240826

Name of Well Contractor: Dennis Dobbin Drilling Ltd. | Well Contractor's Licence No.: 1741

Address: RR#2 Haliburton Ont K0M1S0

Name of Well Technician: Dennis Dobbin | Well Technician's Licence No.: T0033

Signature of Technician/Contractor: [signature] | Submission date: 19 day 02 mo 02 yr

MINISTRY USE ONLY

Data source | Contractor: 1748 | Date received: FEB 25 2002

Date of inspection | Inspector

Remarks: CSS.ES2

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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 (1 2)

2706343

Municipality 27006 (10 14) Con. LON (15 22 23 24) 08

County or District	Township/Borough/City/Town/Village	Con block tract survey, etc.	Lot (25-27)
HALIBURTON	DYSART	8	6

Address: BOX 174 HALIBURTON KOMI 1S0

Date completed (48-53): 26 day 10 month 02 year

21 (1 2) UTM (10 12 17 18 24) Northing RC (25 26) Elevation RC (30) Basin Code (31 47) 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
BR	TOPSOIL			0	1.5
GR,BR	CLAY			1.5	43
GR	GRANITE			43	360

31 (10 14 15 21 32 43 54 65 75 80)

32

41 WATER RECORD

Water found at - feet (10-13)	Kind of water (14)	(19)	(24)	(29)	(34)
351	1 ☑ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas				
(15-18)	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas				
(20-23)	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas				
(25-28)	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas				
(30-33)	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas				(60)

51 CASING & OPEN HOLE RECORD

Inside diam inches	Material	Wall thickness inches	Depth - feet From	Depth - feet To
6 5/8 (10-11)	1 ☑ Steel (12) 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic	.188	0	50 (13-16)
6 (17-18)	1 ☐ Steel (19) 2 ☐ Galvanized 3 ☐ Concrete 4 ☑ Open hole 5 ☐ Plastic		50	360 (20-23)
(24-25)	1 ☐ Steel (26) 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic			(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 (10-13)	To (14-17)	Material and type (Cement grout, bentonite, etc.)
0	50	BENTONITE
(18-21)	(22-25)	
(26-29)	(30-33)	(80)

PUMPING TEST

71 Pumping test method: 1 ☐ Pump 2 ☐ Bailer (10) — Pumping rate (11-14) 4 GPM — Duration of pumping (15-16) 2 Hours (17-18) Mins

25 Water levels during: 1 ☐ Pumping 2 ☑ Recovery

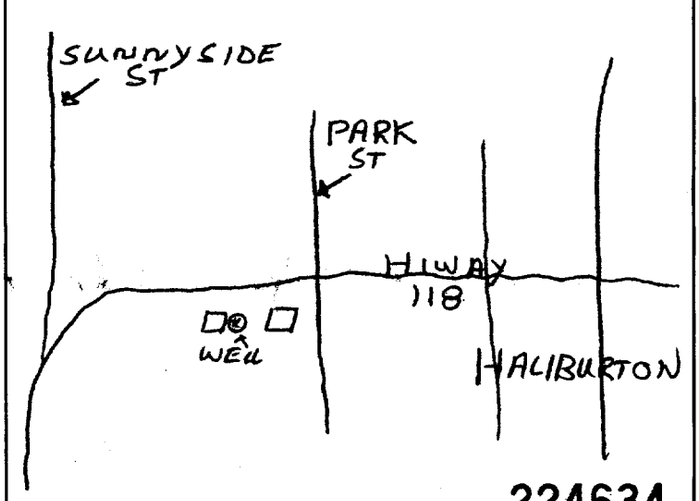
Static level (19-21)	Water level end of pumping (22-24)	15 minutes (26-28)	30 minutes (29-31)	45 minutes (32-34)	60 minutes (35-37)
23 feet	360 feet	300 feet	240 feet	180 feet	170 feet

If flowing give rate (38-41)	Pump intake set at	Water at end of test (42)
GPM	300 feet	☑ Clear ☐ Cloudy
Recommended pump type	**Recommended pump setting (43-45)**	**Recommended pump rate (46-49)**
☐ Shallow ☑ Deep	300 feet	5 GPM

(50-53)

LOCATION OF WELL

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



224634

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.
HALIBURTON ARTESIAN WELL DRILLER	6016
Address	
BOX 423 HALIBURTON KOMI 1S0	
Name of Well Technician	**Well Technician's Licence No.**
RICK BUTTI 6	T0112
Signature of Technician/Contractor	**Submission date**
Rick Butti	15 11 02 (day mo yr)

MINISTRY USE ONLY

Data source (58)	Contractor (59-62)	Date received (63-68) (80)
	6016	NOV 18 2002
Date of inspection	Inspector	
Remarks		

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0506 (07/00) Front Form 9

Ontario Ministry of the Environment

Well Tag Number (Pl A 047600

A047600

Well Record

Regulation 903 Ontario Water Resources Act

page 1 of 3

Instructions for Completing Form

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

Ministry Use Only

MUN | CON | LOT

Well Owner's Information and Location of Well Information

[redacted]

HALIBURTON | DYSART | RT 17 | 8

RR#/Street Number/Name: 36 MAPLE AVE | City/Town/Village: HALIBURTON | Site/Compartment/Block/Tract etc.

GPS Reading: NAD 83 | Zone 17 | Easting 696158 | Northing 4991394 | 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 (Metres)

Hole Diameter

Depth From	Depth To (Metres)	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	Depth To (Metres)
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	
If pumping discontinued, give reason.	20		20	
	25		25	
	30		30	
	40		40	
	50		50	
	60		60	

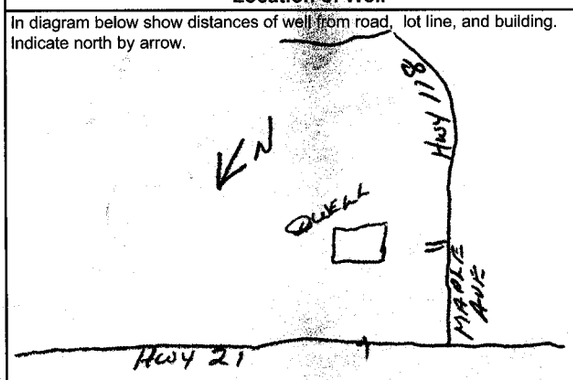
Plugging and Sealing Record

☐ Annular space ☐ Abandonment

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

Location of Well

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



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) CLEANED
☐ Observation well ☐ Abandoned, insufficient supply ☐ Dewatering
☐ Test Hole ☐ Abandoned, poor quality ☐ Replacement well WELL

Audit No. Z 54787

Date Well Completed YYYY 2006 MM 11 DD 08

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

Date Delivered YYYY 2006 MM 11 DD 08

Well Contractor/Technician Information

Name of Well Contractor: HALIBURTON ARTESIAN WELL DRILLERS | Well Contractor's Licence No.: 6016

Business Address (street name, number, city etc.): BOX 423 HALIBURTON ON K0M 1S0

Name of Well Technician (last name, first name): RICKETTS, TIM | Well Technician's Licence No.: 7011

Signature of Technician/Contractor | Date Submitted YYYY 2006 MM 11 DD 30

Ministry Use Only

Data Source | Contractor 6016

Date Received DEC 18 2006 YYYY MM DD | 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

Measurements recorded in: ☑ Metric ☐ Imperial

Well Tag No. *(Place Sticker and/or Print Below)* A109821

Well Record

Regulation 903 Ontario Water Resources Act

5-12778 Page ____ of ____

Well Owner's Information

First Name	Last Name / Organization	E-mail Address	☐ Well Constructed by Well Owner
~~Anne~~	LCBO		

Mailing Address (Street Number/Name)	Municipality	Province	Postal Code	Telephone No. *(inc. area code)*
55 Lakeshore Blvd., East	Toronto	ON	M5E 1A4	

Well Location

Address of Well Location (Street Number/Name)	Township	Lot	Concession
230 HIGHLAND ST.			

County/District/Municipality	City/Town/Village	Province	Postal Code
	HALIBURTON	Ontario	

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 83	17	696279	4991126		

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
BRN	FILL	GRAVEL	LOOSE.	0	0.61
BRN	SAND	SILT.	SOFT.	0.61	4.57
GRY	SAND	SILT.	SOFT.	4.57	7.62

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m^3/ft^3)
0	0.3	CONCRETE/FLUSHMOUNT.	
0.3	4.27	BENTONITE.	
4.27	7.62	SAND	

Method of Construction

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

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
5.20	PLASTIC	.390	0	4.57

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	Depth (m/ft) To
6.03	PLASTIC	10	4.57	7.62

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*

Water Details

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

Hole Diameter

Depth (m/ft) From	To	Diameter (cm/in)
0	7.62	15.24

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)*

Pumping rate *(l/min / GPM)*

Duration of pumping _____ hrs + _____ min

Final water level end of pumping *(m/ft)*

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

Recommended pump depth *(m/ft)*

Recommended pump rate *(l/min / GPM)*

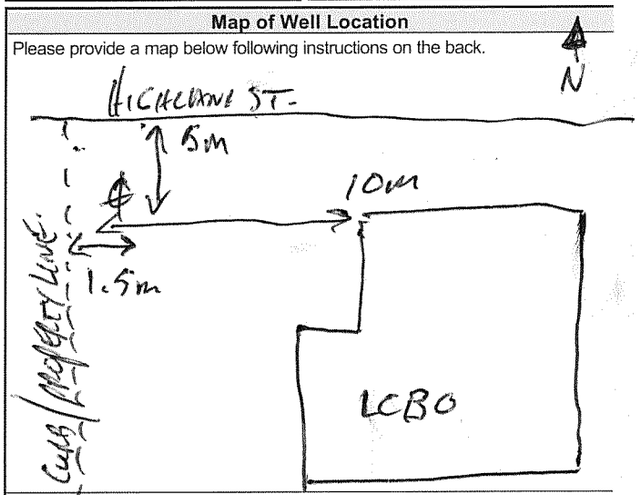
Well production *(l/min / GPM)*

Disinfected? ☐ Yes ☐ No

	Draw Down Time (min)	Draw Down Water Level (m/ft)	Recovery Time (min)	Recovery Water Level (m/ft)
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	

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.
Strata Soil Sampling Inc.	7241

Business Address (Street Number/Name)	Municipality
147-2 West Beaver Creek Road	Richmond Hill

Province	Postal Code	Business E-mail Address
Ontario	L4B 1G6	wrecords@stratasoil.com

Bus. Telephone No. *(inc. area code)*	Name of Well Technician (Last Name, First Name)
905-764-9304	Muir, Mike

Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
3448		2012/08/10

Well owner's information package delivered	Date Package Delivered	Date Work Completed
☐ Yes ☒ No		2012/07/13

Ministry Use Only

Audit No. Z151136

Received SEP 04 2012

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Ontario is now in Step 2 of the **Roadmap to Reopen (/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: 2700166
Well Audit Number:
Well Tag Number:
This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location

Township	DYSART TOWNSHIP
Lot	016
Concession	CON 08
County/District/Municipality	HALIBURTON
City/Town/Village	
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 17 Easting: 695807.10 Northing: 4991619.00
Municipal Plan and Sublot Number	
Other	

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
	MSND	GRVL		0 ft	10 ft
RED	GRNT			10 ft	60 ft
BLCK	GRNT			60 ft	90 ft

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed

Method of Construction & Well Use

Method of Construction	Well Use
Cable Tool	
	Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
2 inch	STEEL		10 ft
2 inch	OPEN HOLE		90 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 2509

Results of Well Yield Testing

After test of well yield, water was	CLEAR
If pumping discontinued, give reason	
Pump intake set at	
Pumping Rate	3 GPM
Duration of Pumping	2 h:0 m
Final water level	15 ft
If flowing give rate	
Recommended pump depth	15 ft
Recommended pump rate	3 GPM
Well Production	PUMP
Disinfected?	

Draw Down & Recovery

Draw Down Time(min)	Draw Down Water level	Recovery Time(min)	Recovery Water level
SWL	3 ft		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	

20	20
25	25
30	30
40	40
45	45
50	50
60	60

Water Details

Water Found at Depth	Kind
80 ft	Fresh

Hole Diameter

Depth From	Depth To	Diameter

Audit Number:

Date Well Completed: October 21, 1960

Date Well Record Received by MOE: January 10, 1961

Updated: June 04, 2021
Published: April 16, 2021

Related

How to use a Ministry of the Environment map (/page/how-use-ministry-environment-map#wells)

Technical documentation: Metadata record (https://data.ontario.ca/dataset/well-records/resource/3031344e-e3f2-48d5-888c-c1deadfd2f77)

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Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

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

2702493

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC	LOT
~~Nipissing~~ HALIBURTON	DYSART ET AL	BLOCK 7	11

OWNER (SURNAME FIRST)	ADDRESS	DATE COMPLETED
SENIOR CITIZEN'S APT. BLDG	HALIBURTON ONT.	DAY 28 MO MAY YR 86

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
GREY	CLAY	SANDY STONES		0	34
RED	GRANITE			34	35
RED/BLACK	GRANITE			35	45

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
42	1 ☒ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. - INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6 1/4	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	188	0	36
6	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE		36	45
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

SCREEN

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.)
10-13	14-17	
18-21	22-25	
26-29	30-33	

71 PUMPING TEST

PUMPING TEST METHOD: 1 ☐ PUMP 2 ☒ BAILER — AIR

PUMPING RATE: 40 GPM

DURATION OF PUMPING: 1 HOURS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 1 ☐ PUMPING 2 ☐ RECOVERY			
		15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
3' 11" FEET	20 FEET	7 7 FEET	8'-1 FEET	8'-5 FEET	8'-7½ FEET

IF FLOWING, GIVE RATE: GPM

PUMP INTAKE SET AT: 40 FEET

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

RECOMMENDED PUMP TYPE: ☐ SHALLOW ☒ DEEP

RECOMMENDED PUMP SETTING: 40 FEET

RECOMMENDED PUMPING RATE: 40 GPM

LOCATION OF WELL

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

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

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

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: CARL BALDWIN WELL DRILLING — LICENCE NUMBER: 1312

ADDRESS: R.R.#1 KIRKFIELD ONT

NAME OF DRILLER OR BORER: BRAD BALDWIN — LICENCE NUMBER:

SIGNATURE OF CONTRACTOR: Carl Baldwin — SUBMISSION DATE: DAY 15 MO. July YR. 86

OFFICE USE ONLY

DATA SOURCE | CONTRACTOR | DATE RECEIVED: 060487

DATE OF INSPECTION | INSPECTOR

REMARKS

CSS.ES

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