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 Professional Engineers
Ontario

APGO

November 8, 2023

Gianni Del Degan
100 Regina Road, Unit 3
Woodbridge, ON, L4L 8M7

Attn: Gianni Del Degan

**Re: Additional Hydraulic Testing – 17945 Loyalist Parkway, Prince Edward
County**
Cambium Reference: 15435-002

INTRODUCTION

Cambium Inc. (Cambium) was retained by Del Degan Winery (Client) to complete additional hydraulic testing on test wells TW1 and TW3 in order to determine if higher rates are available and sustainable in support of the proposed estate winery development at 17495 Loyalists Parkway, Prince Edward County. The proposed hydraulic testing included completing variable rate pumping (step) tests and water quality sampling and analysis in order to assess peak water capacity of the wells.

BACKGROUND

Preliminary water supply assessment was completed and a hydrogeological assessment report was produced on August 24, 2023 for above noted property. According to the well yield assessment of the five existing wells (TW1 through TW5), it was concluded that the yields from these existing wells are sufficient to meet daily water demand (22,550 L) for the proposed development under normal flow conditions, which is defined as the average flow rate to provide a daily demand over a 4-hr period. However, to meet the peak demand conditions (33,780 L) water storage reservoirs were recommended. Peak demand conditions assume that all spaces of the development are used simultaneously to the maximum capacity based on fixture units and flow rates.

Test wells TW2, TW4 and TW5 were not assessed as these wells were considered low capacity wells, however, it was recommended to conduct additional hydraulic testing on test wells TW1 and TW3 (Figure 1) to quantify the



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maximum yields that these two test wells are capable of producing to meet the peak demand conditions. Accordingly, additional testing was completed on TW1 and TW3 as described below.

METHODOLOGY

Two variable rate hydraulic pumping tests (step tests) were completed at the Site on test wells TW1 and TW3. Prior to testing, pressure transducer data loggers were installed in all the wells, TW1 through TW5, to continuously measure water levels in the wells before, during, and after each test. A separate logger was used to record atmospheric pressure to compensate for barometric pressure changes. Water levels were also measured manually throughout testing to mitigate against potential equipment failure.

The objectives of the variable rate pumping test were to determine a sustainable pumping rate of each well and estimate specific capacity.

Prior to pumping cessation in each well, water quality samples were collected and submitted for laboratory analysis.

The following subsections discuss the work described above in further detail.

STEP TEST – TEST WELL TW3

Hydraulic testing was completed at test well TW3 on August 30, 2023. The test well is approximately 30 m in depth and the pump was installed at a depth of about 29 m below ground surface (mbgs). Depth to the water level was 4.6 mbgs and the total available drawdown in the well is estimated at about 24 m.

Discharge was directed in a downslope direction about 30 m away from the well. Water levels during the step test are graphically presented on Figure 2.

The first step of the variable rate pumping test began at 11:39 with a discharge rate of 30 L/min and continued for a total of 60 minutes. Approximate steady-state conditions were achieved during the step.

At 12:41, the discharge rate was increased to 47 L/min and adjusted to the target rate of 50 L/min at 12:48. A sharp decline in water levels was observed in the well which continued for the duration of the step. At 12:59 the pumping level



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dropped below the data logger at 25.9 mbgs. Manual data collected during the test was used to capture drawdown below this point. At 13:29, the drawdown in the well had approached approximately 100% of total drawdown available based on the depth of pump intake and volume of water discharge declined as the pumping level reached the pump set depth. The flow rate was adjusted to 30L/min at 13:37 and subsequently 40L/min (target rate) at 13:39 in order to prevent the pumping level from declining to the pump intake. Pumping ceased at 14:13 as the well could not sustain this rate. The water level in the well was permitted to recover for 10 minutes.

The pump was turned back on at 14:23 at a rate of 35 L/min. Water levels were not stabilizing and were deemed unsustainable even at 35 L/min. After pumping for 34 minutes at 35 L/min, the flow rate was reduced to 25 L/min at 14:58 and continued the remainder of the step test. Prior to pumping cessation at 17:00, a raw water quality sample was collected from the well. Recovery in TW3 was monitored using a data logger and reached 95% recovery in about 300 minutes, at 23:12.

As noted in the water well record, there are two fractures located at about 11 mbgs and 26 mbgs. According to the data analysis, the shallow fracture is a major contributing fracture as the pumping level decreases steeply once it is below this fracture.

It should be noted that there was a measurable drawdown only in the nearest test well TW2 during this step test, measuring a total interference drawdown of 2.54 m, indicating a hydraulic connection between test wells TW3 and TW2.

In summary, the peak pumping rate for test well TW3 is limited at 30 L/min.

STEP TEST – TEST WELL TW1

Hydraulic testing was completed at TW1 on August 31, 2023. The pump was installed in at a depth of approximately 35 mbgs. Discharge was directed in a downslope direction from the well. The step test data, as well as water level data in the other test wells is graphically presented in Figure 3.



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The first step of the variable rate pumping test began at 10:12 with a discharge rate of 80 L/min and continued for a total of 45 minutes. Approximate steady-state conditions were achieved during the step.

The second step of the variable rate pumping test began at 10:57 with a discharge rate of 98 L/min and continued for a total of 46 minutes. Approximate steady-state conditions were achieved during the step. The first two minutes of this step the rate change was varied between 90-120 L/min before the target of 98 L/min was reached.

At 11:43, the discharge rate was increased to 120 L/min for the third step. Pumping continued at 120 L/min for 52 minutes. Approximate steady-state conditions were achieved during the step.

At 12:35, the discharge rate was increased to 160 L/min for the fourth step. Pumping continued for 27 minutes until approximate steady-state conditions were achieved.

The fifth step of the variable rate pumping test started at 13:02 at a rate of 210 L/min, which continued for 30 minutes. Approximate steady-state conditions were achieved during the step.

The sixth and final step was started at 13:32 at a rate of 265 L/min, which continued for one hour at which time the pumping was stopped. The drawdown curve is approaching a steady state condition at 265 L/min, indicating the test well TW1 can be pumped at this rate for a longer period as there is still about 8 m available drawdown to the deeper fracture.

Prior to pumping cessation at 14:32, a raw water quality sample was collected from the well. Recovery in TW1 was monitored using a data logger and reached approximately 88% recovery at 16:13.

As noted in the water well record, there are two fractures located at approximately 9 mbgs and 24.5 mbgs. Based on the data analysis, both the shallow and deep fractures are equally contributing to the well yield as the water levels are reaching a steady state conditions both above and below the fractures.



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Also, it should be noted that the well depth based on water well record was about 30 m, however, the well depth measured during the testing was about 44 m, indicating a total available drawdown to the top of the aquifer is approximately 35 m in the well.

The water level recovery was about 95% within 2 hours after the cessation of pumping, indicating a very high recovery rate.

According to the results of the step tests and water levels monitored in the other on-site wells, no interference effects between the wells were observed.

Using the direct relationship between pumping rate and drawdown, the step-drawdown data was extrapolated at 300 L/min and 365 L/min, as shown in Figure 4. According to the data, a rate of up to 365 L/min is achievable for short term (i.e., 60 minutes) peak usage, as the pumping level would be above the lower water bearing fracture.

Specific Capacities of TW1 and TW3

Specific Capacity of a well at a given time is calculated by its yield per unit drawdown (Q/s). Specific capacity generally varies with the duration of pumping as pumping time increases the specific capacity decreases. Also, specific capacity decreases as discharge increases in the same well.

Table 1 Specific Capacity Calculations for TW1 and TW3

Test Well	Step	Duration (min)	Rate (Q) (L/min)	Drawdown (S) (m)	Specific Capacity (Q/S)	
					(L/min/m)	(m ³ /day/m)
TW 1	1	45	80	2.17	37	53
	2	46	98	2.70	36	52
	3	52	120	3.5	34	49
	4	27	160	4.99	32	46
	5	30	210	7.15	29	42
	6	60	265	12.45	21	31
	7	60	365	18.76	19.5	28
TW 3	1	60	30	4.86	6	9
	2	45	47	21.14	2	3
	3	45	40	18.46	2	3



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As can be seen from the data, the well specific capacity decreases with increasing pumping rate and the average specific capacities of test wells TW1 and TW3 were estimated at 43 m³/day/m of drawdown and 5 m³/day/m of drawdown, respectively.

According to the available drawdown and average specific capacities of the test wells, the maximum yields from TW1 and TW3 were calculated at about 1,505 m³/day and 125 m³/day, respectively.

Water Supply Servicing Options

As discussed in the hydrogeological assessment report, under normal flow conditions (i.e. defined as daily demand over 4-hour period) the four test wells, excluding TW3 will meet the estimated daily demand over 4-hour period (approximately 22,550 L).

However, under conditions of peak demand calculated from fixture units, the peak flow rate is estimated at about 563 L/min for a duration of 15 minutes.

Assuming four peak periods per day, the peak demand is calculated at 33,780 L (say 34,000 L), which obviously exceeds the tested well supply rates.

Also, as discussed above test well TW1 can conservatively be pumped at a rate of 365 L/min to meet the peak demand conditions, although there is still available drawdown of about 2 m to the deep fracture.

Following the results of the step testing and pumping tests completed at the Site, the following rates are estimated.





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Table 2 Water Supply Network Under Peak Demand Conditions

	Proposed Supply	Required Peak Flow Rate Based on Fixture Units	Required Peak Flow for Four Peak Periods Per Day	Estimated Hourly Pumping
Residence	TW5 (14 L/min)	110.8 L/min	6,648 L	840 L
Warehouse / Basement / 2nd Floor	TW2 (23 L/min)	203.0 L/min	12,180 L	1,380 L
Restaurant / Retail / Potential Future Capacity	TW1 (365 L/min)	249.3 L/min	14,960 L	21,900 L
	TW4 (6 L/min)			360 L
Total			33,788	24,480

**TW3 is not considered in the demand- supply assessment.*

Based on calculations above, there is a shortage of about 9,300 L to meet the theoretical peak demand conditions; therefore water storage would be required to meet the peak demand. It is understood that the Site will be serviced by a common water treatment system; therefore one water storage reservoir (WSR) with a capacity of 9,300 L would be required to meet the peak demand conditions.

Water Quality Assessment

Groundwater samples were collected from each test well before the cessation of pumping. Collected water quality samples were submitted to SGS Canada Inc. in Lakefield (SGS) for analysis of general organic and inorganic chemistry. Analysis results were compared against the Ontario Drinking Water Quality Standards (ODWQS) (Ministry of the Environment, June 2006). Parameters reported at concentrations in excess of ODWQS criteria are outlined in Table 3. A complete summary table and certificates of analysis are attached to this report.



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Table 3 ODWQS Exceedances

Parameter	TW1	TW3	ODWQS Criteria
	31-Aug-23	30-Aug-23	
Hardness (mg/L)	277 ⁽¹⁾	321	80-100 ⁽³⁾
Colour	6	5	1 ⁽³⁾
Total Coliforms (cfu/100 mL)	-	3	0 ⁽²⁾
Total Dissolved Solids (mg/L)	603	-	500 ⁽³⁾
Turbidity (NTU)	12	-	5 ⁽³⁾ / 1 ⁽²⁾
Sodium (mg/L)	20	-	20 ⁽³⁾ / 200 ⁽²⁾

⁽¹⁾ *Bold entries indicate exceedances of ODWQS criteria*

⁽²⁾ *Criteria relating to Maximum Acceptable Concentration (MAC)*

⁽³⁾ *Criteria relating to the Aesthetic Objective / Operation Guideline (AO/OG)*

As shown above, concentrations of hardness and sodium (except in TW3), were all elevated, which is typical in limestone bedrock aquifers. Hardness exceeded the operational ODWQS guideline in all wells. The parameter is easily treatable with conventional water softening units. Potassium chloride is recommended for regeneration, however, to ensure additional sodium is not added to the treated water. TDS was elevated above the guideline value in only one well (TW1). The guideline is set as an aesthetic objective, and in this case, the concentration in TW1 (603 mg/L) was greater than the criteria of 500 mg/L.

Sodium is a health-related parameter. Measured concentrations of sodium were elevated above the limit which serves as a warning to individuals on sodium restricted diets (20 mg/L) in all wells except TW3. The sodium concentrations were all less than the aesthetic limit however (200 mg/L), which indicates that the water is potable. Residential users of water at the Site should be notified that sodium may be present in groundwater at concentrations which would affect individuals on sodium reduced diets.

Total coliforms were elevated above guideline criteria in TW3 during the initial sampling on Dec. 3, 2022 and re-sampling on Aug. 30, 2023 the total coliforms elevated at 3 cfu/100 mL. Given the absence of sodium concentration in TW3 compared to the other test wells, it is possible that TW3 groundwater is locally under surface water influence. The source for elevated total coliforms in the aquifer is interpreted to not be from septic systems due to the undeveloped



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nature of the property and absence of E.coli in the well/s. Furthermore, total coliforms can be effectively treated with a water disinfection system (i.e., UV treatment or chlorination).

CONCLUSION

According to the step tests conducted on test wells TW1 and TW3, the following conditions are provided.

- Test well TW1 can conservatively be pumped at a rate of 365 L/min to meet and enhance the peak demand of the proposed development.
- Total coliforms are elevated in test well TW3; as such, this well should only be included as a water source if adequate treatment is provided for the raw water, with disinfection provided prior to this water being stored in the reservoir.
- According to the pumping test results, there will be mutual interference effects between test wells TW2 and TW3; however, the pumping test results indicate that there is more available drawdown in both wells to accommodate for this interference. Therefore both TW2 and TW3 can be utilized as potable water supply to meet the water demand of the proposed development.
- Water supply network and peak demand calculations indicate there is a shortage of about 9,300 L to meet the peak demand conditions. Therefore, one Water Storage Reservoir with a minimal capacity of about 9,300 L is recommended to meet the peak demand conditions.

CLOSING

We trust that the information in this submission meets your current requirements. Please note that this report is governed by the attached qualifications and limitations. If you have questions or comments regarding the contents of this document, please do not hesitate to contact the undersigned.





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November 8, 2023

Best regards,

Cambium Inc.

Warren Young, B.Eng., E.I.T.
Junior Hydrogeologist/EIT

Sudhakar Kurli, M.Sc., P.Geo.
Project Manager/Hydrogeologist

WY/SK

P:\15400 to 15499\15435-002 Bufflehead Inc - GEO & HydroG - 17945 Loyalist Pkwy, PEC\Deliverables\REPORT - Hydro G\Final\Step Tests Rept\Nov 2023\2023-11-08 LTR HydroG - 17945 Loyalist Pkwy, PEC-V1.docx

*Encl. Cambium Qualifications and Limitations
Figure 1 Test Well Location Plan
Figure 2 Measured Water Levels for TW3 Step Test
Figure 3 Measured Water Levels for TW1 Step Test
Figure 4 Extrapolated Drawdown TW1
TW3- Water Quality Data Certificate of Analysis
TW1- Water Quality Data Certificate of Analysis*

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November 8, 2023

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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.

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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.

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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.

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O:\GIS\XDS\15400-15499\15435-002 Bullfehead Inc - GEO & Hydro.G - 17945 Loyalist Pkwy, PECO 2023-08-02 HydroG.FIG.2 - Borehole-Test Pit Location Plan.mxd



HYDROGEOLOGICAL ASSESSMENT

DEL DEGAN WINERY
17945 Loyalist Parkway,
Rosehall, Prince Edward County

LEGEND

- Benchmark
- Borehole
- Monitoring Well
- Test Pit
- Surface Water Sample
- Test Well
- Site (approximate)
- Watercourse, Permanent

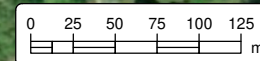
-<bol>Notes-</bol>
 - Site overlay is obtained from Giannone Petricone Associates project no. 21109 Site Plan & Statistics dated 2021-11-10
 - Site boundary is approximate, and was obtained from the Prince Edward County online GIS server.
 - Base mapping features are © Queen's Printer of Ontario, 2019 (this does not constitute an endorsement by the Ministry of Natural Resources and Forestry 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.



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SITE PLAN WITH WELL AND TEST PIT LOCATIONS

Project No.:	15435-002	Date:	August 2023
Scale:	1:4,500	Projection:	NAD 1983 UTM Zone 18N
Created by:	DBB	Checked by:	SK
			Figure: 1



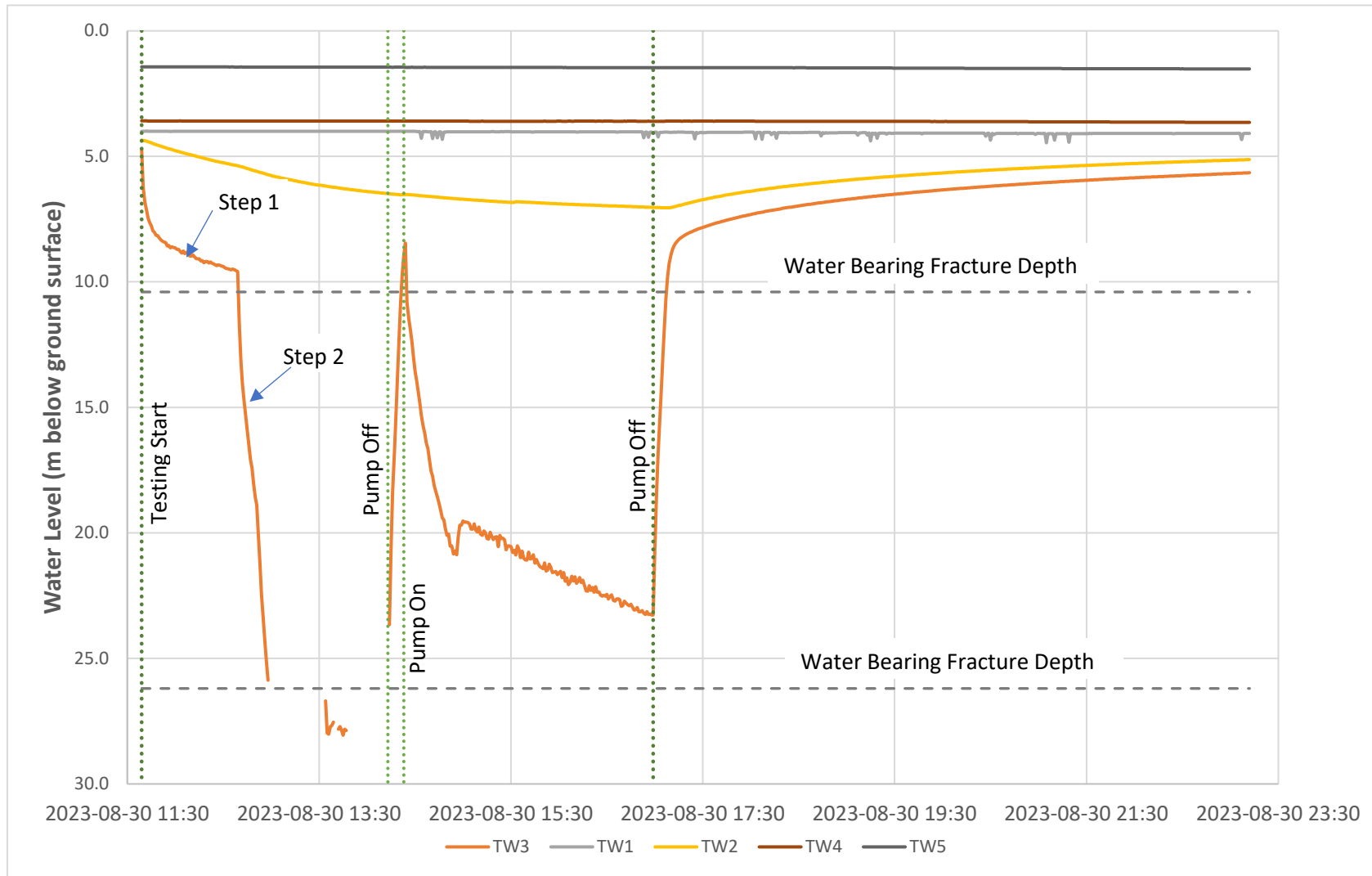


Figure 2: Measured Water Levels for TW3 Step Test

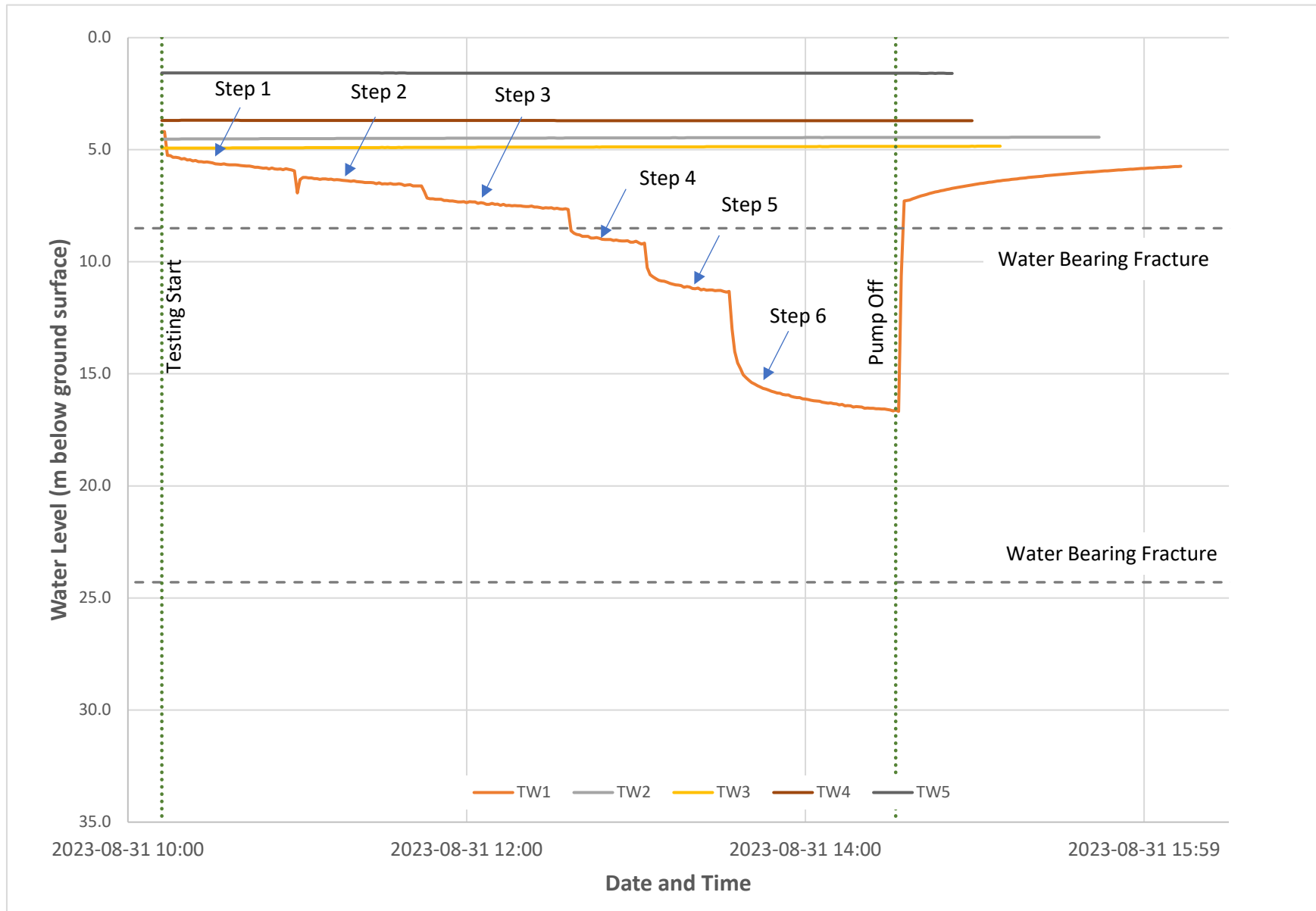


Figure 2: Measured Water Levels for TW1 Step Test

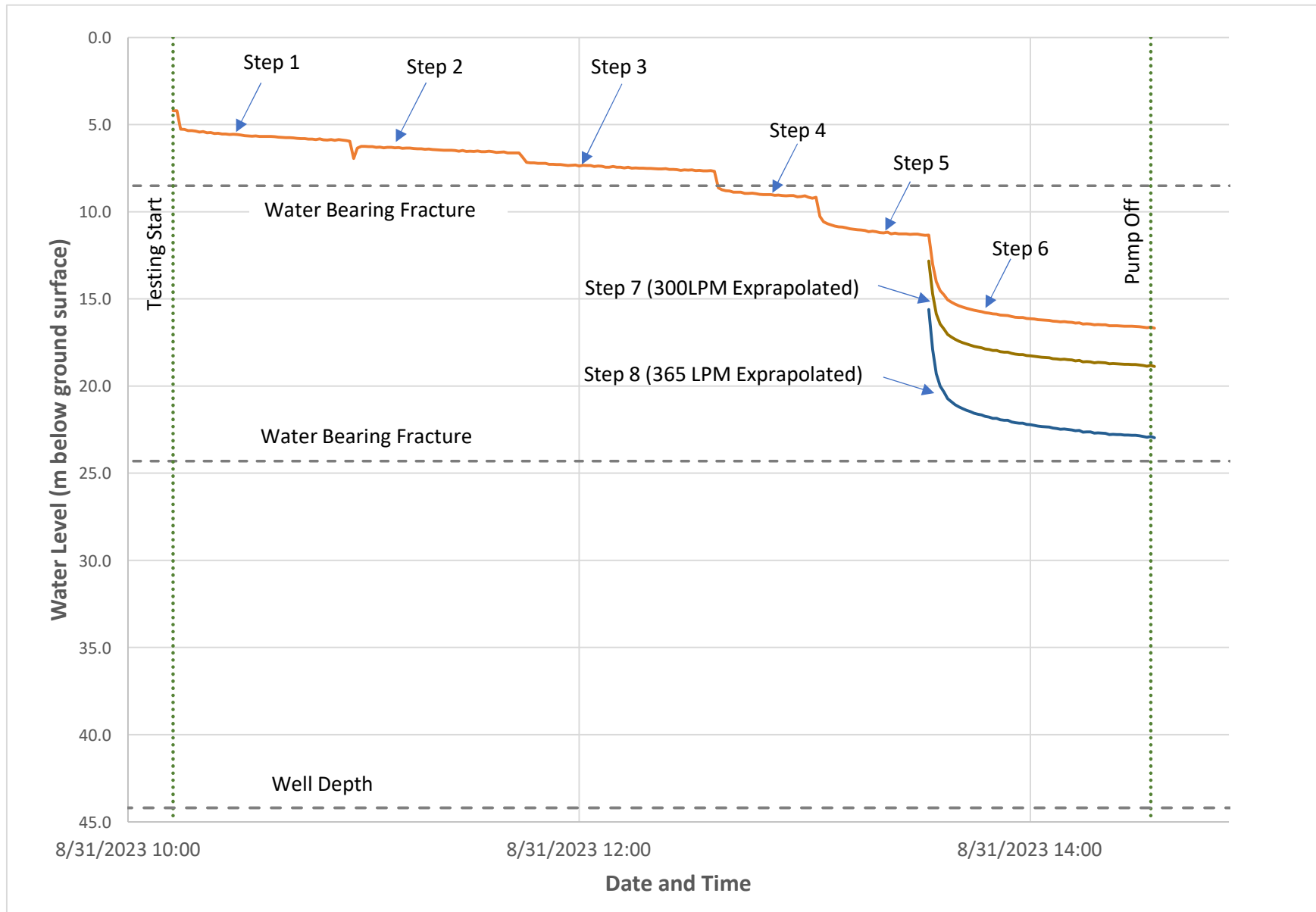


Figure 4: Extrapolated Drawdowns for TW1



FINAL REPORT

CA19600-AUG23 R1

15435-002

Prepared for

Cambium Inc.

First Page

CLIENT DETAILS

LABORATORY DETAILS

Client	Cambium Inc.	Project Specialist	Maarit Wolfe, Hon.B.Sc
Address	194 Sophia Street Peterborough, ON K9H 1E5. Canada	Laboratory	SGS Canada Inc.
Contact	Sudhakar Kurli	Address	185 Concession St., Lakefield ON, K0L 2H0
Telephone	705-742-7900	Telephone	705-652-2000
Facsimile		Facsimile	705-652-6365
Email	sudhakar.kurli@cambium-inc.com; ESdat_CA+Cambium@ESc	Email	Maarit.Wolfe@sgs.com
Project	15435-002	SGS Reference	CA19600-AUG23
Order Number		Received	08/30/2023
Samples	Ground Water (1)	Approved	09/07/2023
		Report Number	CA19600-AUG23 R1
		Date Reported	09/07/2023

COMMENTS

Temperature of Sample upon Receipt: 12 degrees C
 Cooling Agent Present: Yes
 Custody Seal Present: Yes

 Chain of Custody Number: n/a

SIGNATORIES

Maarit Wolfe, Hon.B.Sc



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FINAL REPORT

CA19600-AUG23 R1

Client: Cambium Inc.

Project: 15435-002

Project Manager: Sudhakar Kurli

Samplers: Warren Young

MATRIX: WATER

Sample Number 9

Sample Name TW3

Sample Matrix Ground Water

Sample Date 30/08/2023

L1 = ODWS_AO_OG / WATER / - - Table 4 - Drinking Water - Reg O.169_03

L2 = ODWS_MAC / WATER / - - Table 1,2 and 3 - Drinking Water - Reg O.169_03

Parameter	Units	RL	L1	L2	Result
-----------	-------	----	----	----	--------

General Chemistry

Alkalinity	mg/L as CaCO3	2	500		287
Colour	TCU	3	5		6
Conductivity	uS/cm	2			646
Total Dissolved Solids	mg/L	30	500		389
Turbidity	NTU	0.10	5	1	1.0
Dissolved Organic Carbon	mg/L	1	5		1
Ammonia+Ammonium (N)	as N mg/L	0.1			0.2

Metals and Inorganics

Sulphate	mg/L	2	500		63
Nitrite (as N)	as N mg/L	0.03		1	< 0.03
Nitrate (as N)	as N mg/L	0.06		10	1.01
Hardness	mg/L as CaCO3	0.05	100		321
Calcium (total)	mg/L	0.01			106
Iron (total)	mg/L	0.007	0.3		0.017
Magnesium (total)	mg/L	0.001			14.0
Manganese (total)	mg/L	0.00001	0.05		0.01054
Sodium (total)	mg/L	0.01	200	20	15.1



FINAL REPORT

CA19600-AUG23 R1

Client: Cambium Inc.

Project: 15435-002

Project Manager: Sudhakar Kurli

Samplers: Warren Young

MATRIX: WATER

Sample Number 9

Sample Name TW3

Sample Matrix Ground Water

Sample Date 30/08/2023

L1 = ODWS_AO_OG / WATER / - - Table 4 - Drinking Water - Reg O.169_03

L2 = ODWS_MAC / WATER / - - Table 1,2 and 3 - Drinking Water - Reg O.169_03

Parameter	Units	RL	L1	L2	Result
Microbiology					
E. Coli	cfu/100mL	0		0	0
Total Coliform	cfu/100mL	0		0	3
Total Coliform Background	cfu/100mL	0			37
Fecal Coliform	cfu/100mL	0			5
Other (ORP)					
pH	No unit	0.05	8.5		7.84
Chloride	mg/L	1	250		8

EXCEEDANCE SUMMARY

Parameter	Method	Units	Result	ODWS_AO_OG /	ODWS_MAC /
				WATER / - - Table 4	WATER / - - Table
				- Drinking Water -	1,2 and 3 -
				Reg O.169_03	Drinking Water -
					Reg O.169_03
				L1	L2

TW3

Total Coliform	OMOE MICROMFDC-E3407A	cfu/100mL	3		0
Colour	SM 2120	TCU	6	5	
Hardness	SM 3030/EPA 200.8	mg/L as CaCO3	321	100	



FINAL REPORT

CA19600-AUG23 R1

QC SUMMARY

Alkalinity

Method: SM 2320 | Internal ref.: ME-CA-1ENVIEWL-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	EWL0651-AUG23	mg/L as CaCO3	2	< 2	0	20	102	80	120	NA		

Ammonia by SFA

Method: SM 4500 | Internal ref.: ME-CA-1ENVISFA-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)	SKA0004-SEP23	as N mg/L	0.1	<0.1	ND	10	100	90	110	96	75	125

QC SUMMARY

Anions by discrete analyzer

Method: US EPA 325.2 | Internal ref.: ME-CA-IENVIEWL-LAK-AN-026

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
Chloride	DIO5005-SEP23	mg/L	1	<1	ND	20	98	80	120	102	75	125
Sulphate	DIO5005-SEP23	mg/L	2	<2	4	20	105	80	120	103	75	125

Anions by IC

Method: EPA300/MA300-Ions1.3 | Internal ref.: ME-CA-IENVIIC-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)	DIO0039-SEP23	mg/L	0.03	<0.03	ND	20	98	90	110	96	75	125
Nitrate (as N)	DIO0039-SEP23	mg/L	0.06	<0.06	1	20	100	90	110	105	75	125

QC SUMMARY

Carbon by SFA

Method: SM 5310 | Internal ref.: ME-CA-IENVISFA-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	SKA0025-SEP23	mg/L	1	<1	4	20	99	90	110	96	75	125

Colour

Method: SM 2120 | 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	EWL0047-SEP23	TCU	3	< 3	6	10	105	80	120	NA		

Conductivity

Method: SM 2510 | 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	EWL0651-AUG23	uS/cm	2	< 2	0	20	99	90	110	NA		

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
Calcium (total)	EMS0043-SEP23	mg/L	0.01	<0.01	4	20	100	90	110	99	70	130
Iron (total)	EMS0043-SEP23	mg/L	0.007	<0.007	5	20	101	90	110	125	70	130
Magnesium (total)	EMS0043-SEP23	mg/L	0.001	<0.001	3	20	105	90	110	95	70	130
Manganese (total)	EMS0043-SEP23	mg/L	0.00001	<0.00001	3	20	100	90	110	99	70	130
Sodium (total)	EMS0043-SEP23	mg/L	0.01	<0.01	5	20	100	90	110	97	70	130

Microbiology

Method: OMOE MICROMFDC-E3407A | Internal ref.: ME-CA-IENVIMIC-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
Total Coliform Background	BAC9528-AUG23	cfu/100mL	-	ACCEPTED	ACCEPTED							
E. Coli	BAC9528-AUG23	cfu/100mL	-	ACCEPTED	ACCEPTED							
Fecal Coliform	BAC9528-AUG23	cfu/100mL	-	ACCEPTED	ACCEPTED							
Total Coliform	BAC9528-AUG23	cfu/100mL	-	ACCEPTED	ACCEPTED							



FINAL REPORT

CA19600-AUG23 R1

QC SUMMARY

pH

Method: SM 4500 | 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
pH	EWL0651-AUG23	No unit	0.05	NA	0		100			NA		

Solids Analysis

Method: SM 2540C | Internal ref.: ME-CA-IENVIEWL-LAK-AN-005

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 Dissolved Solids	EWL0641-AUG23	mg/L	30	<30	1	20	100	80	120	NA		

Turbidity

Method: SM 2130 | 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	EWL0667-AUG23	NTU	0.10	< 0.10	3	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

Results relate only to the sample tested.

Data reported represent the sample as submitted to SGS. 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 and Excess Soil Quality" published by the Ministry and dated March 9, 2004 as amended.

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This report supersedes all previous versions.

-- End of Analytical Report --



Request for Laboratory Services and CHAIN OF CUSTODY (General)

SGS Environmental Services - Lakefield: 185 Concession St., Lakefield, ON K0L 2H0 Phone: 705-652-2000 Toll Free: 877-747-7658 Fax: 705-652-6365 Web: www.ca.sgs.com (4)

SGS Environmental Services - London: 657 Consortium Court, London, ON, N6E 2S8 Phone: 519-672-4500 Toll Free: 877-848-8060 Fax: 519-672-0361 Web: www.ca.sgs.com (4)

Laboratory Information Section

Received Date (mm/dd/yyyy): 08/30/2023 LAB LIMS #: CA19600-08/23
 Received Time (After Hours Only): 20:01 Temperature Upon Receipt (°C): 12 x 3

Billing & Reporting Information

Invoice/Receipt to (3):
 Company: Cambium inc. Quote #: _____
 Attention: Warren Young Attached Parameter List: YES NO
 Address: 194 Sophia Street Peterborough, ON, K9H2E3 Turnaround Time
 Is *Rush Turnaround Time Required? YES NO
 Specify: standard
 Project Name/Number: 15435-002 P.O. #: _____ * Rush TA Requests Require Lab Approval

Client Information/Report To:

Client Lab #: _____
 Company Name: Cambium inc. ~~Warren Young~~ Phone Number: 705-957-0137
 Contact Name: Sudhakar Kurli Fax Number: _____
 Address: 194 Sophia Street Peterborough, ON K9H2E3 E-mail: Sudhakar.Kurli@cambium-ina.com
 Copy to: _____

Sample Information

Sample Identifier	Date Sampled (mm/dd/yy)	Time Sampled	# of Bottles	Analysis Requested (please enter the analysis required below and check off which analysis applies to each sample)														
				procedure	DSS	ODWAS	tables 1-3											
<u>TW3</u>	<u>08/30/23</u>	<u>17:20</u>	<u>9</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>													

**Please compare against ODWAS (non-reportable) tables 1 to 3*

Sampled By (1): (Name) Warren Young (Signature) WY Date: 08/30/23 (mm/dd/yy)
 Relinquished by (2): (Name) Kaitlyn Yaremitski (Signature) [Signature] Date: 08/30/23 (mm/dd/yy)

Note: (1) 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. (4) Completion of work may require the subcontracting of samples between the London and Lakefield laboratories.
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FINAL REPORT

CA40338-AUG23 R1

15435-002, P.E.C. Winery

Prepared for

Cambium Inc.

First Page

CLIENT DETAILS		LABORATORY DETAILS	
Client	Cambium Inc.	Project Specialist	Brad Moore Hon. B.Sc
Address	194 Sophia Street Peterborough, ON K9H 1E5. Canada	Laboratory	SGS Canada Inc.
Contact	Sudhakar Kurli	Address	185 Concession St., Lakefield ON, K0L 2H0
Telephone	705-742-7900	Telephone	705-652-2143
Facsimile		Facsimile	705-652-6365
Email	sudhakar.kurli@cambium-inc.com; ESdat_CA+Cambium@ESc	Email	brad.moore@sgs.com
Project	15435-002, P.E.C. Winery	SGS Reference	CA40338-AUG23
Order Number		Received	08/31/2023
Samples	Ground Water (1)	Approved	09/08/2023
		Report Number	CA40338-AUG23 R1
		Date Reported	09/08/2023

COMMENTS

Temperature of Sample upon Receipt: 9 degrees C
Cooling Agent Present: Yes
Custody Seal Present: Yes

Chain of Custody Number: 024661

SIGNATORIES

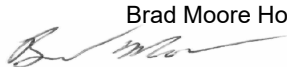
Brad Moore Hon. B.Sc


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FINAL REPORT

CA40338-AUG23 R1

Client: Cambium Inc.

Project: 15435-002, P.E.C. Winery

Project Manager: Sudhakar Kurli

Samplers: Warren Young

MATRIX: WATER

Sample Number 9

Sample Name TW1

Sample Matrix Ground Water

Sample Date 31/08/2023

L1 = ODWS_AO_OG / WATER / - - Table 4 - Drinking Water - Reg O.169_03

L2 = ODWS_MAC / WATER / - - Table 1,2 and 3 - Drinking Water - Reg O.169_03

Parameter	Units	RL	L1	L2	Result
-----------	-------	----	----	----	--------

General Chemistry

Alkalinity	mg/L as CaCO3	2	500		229
Colour	TCU	3	5		6
Conductivity	uS/cm	2			1020
Total Dissolved Solids	mg/L	30	500		603
Turbidity	NTU	0.10	5	1	12
Dissolved Organic Carbon	mg/L	1	5		2
Ammonia+Ammonium (N)	as N mg/L	0.1			0.3

Metals and Inorganics

Sulphate	mg/L	2	500		66
Nitrite (as N)	as N mg/L	0.03		1	< 0.03
Nitrate (as N)	as N mg/L	0.06		10	0.77
Hardness	mg/L as CaCO3	0.05	100		277
Calcium (total)	mg/L	0.01			88.7
Iron (total)	mg/L	0.007	0.3		0.237
Magnesium (total)	mg/L	0.001			13.5
Manganese (total)	mg/L	0.00001	0.05		0.00874
Sodium (total)	mg/L	0.01	200	20	95.0



FINAL REPORT

CA40338-AUG23 R1

Client: Cambium Inc.

Project: 15435-002, P.E.C. Winery

Project Manager: Sudhakar Kurli

Samplers: Warren Young

MATRIX: WATER

Sample Number 9

Sample Name TW1

Sample Matrix Ground Water

Sample Date 31/08/2023

L1 = ODWS_AO_OG / WATER / - - Table 4 - Drinking Water - Reg O.169_03

L2 = ODWS_MAC / WATER / - - Table 1,2 and 3 - Drinking Water - Reg O.169_03

Parameter	Units	RL	L1	L2	Result
Microbiology					
E. Coli	cfu/100mL	0		0	0
Total Coliform	cfu/100mL	0		0	0
Total Coliform Background	cfu/100mL	0			2
Fecal Coliform	cfu/100mL	0			0
Other (ORP)					
pH	No unit	0.05	8.5		8.11
Chloride	mg/L	1	250		190

EXCEEDANCE SUMMARY

Parameter	Method	Units	Result	ODWS_AO_OG /	ODWS_MAC /
				WATER / - - Table 4	WATER / - - Table
				- Drinking Water -	1,2 and 3 -
				Reg O.169_03	Drinking Water -
					Reg O.169_03
				L1	L2

TW1

Colour	SM 2120	TCU	6	5	
Turbidity	SM 2130	NTU	12	5	1
Total Dissolved Solids	SM 2540C	mg/L	603	500	
Hardness	SM 3030/EPA 200.8	mg/L as CaCO3	277	100	
Sodium	SM 3030/EPA 200.8	mg/L	95.0		20

QC SUMMARY

Alkalinity

Method: SM 2320 | Internal ref.: ME-CA-1ENVIEWL-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	EWL0029-SEP23	mg/L as CaCO3	2	< 2	0	20	102	80	120	NA		

Ammonia by SFA

Method: SM 4500 | Internal ref.: ME-CA-1ENVISFA-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)	SKA0028-SEP23	as N mg/L	0.1	<0.1	ND	10	100	90	110	86	75	125

QC SUMMARY

Anions by discrete analyzer

Method: US EPA 325.2 | Internal ref.: ME-CA-IENVIEWL-LAK-AN-026

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
Chloride	DIO5005-SEP23	mg/L	1	<1	ND	20	98	80	120	102	75	125
Sulphate	DIO5005-SEP23	mg/L	2	<2	4	20	105	80	120	103	75	125

Anions by IC

Method: EPA300/MA300-Ions1.3 | Internal ref.: ME-CA-IENVIIC-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)	DIO0038-SEP23	mg/L	0.03	<0.03	ND	20	98	90	110	102	75	125
Nitrate (as N)	DIO0038-SEP23	mg/L	0.06	<0.06	ND	20	99	90	110	102	75	125

QC SUMMARY

Carbon by SFA

Method: SM 5310 | Internal ref.: ME-CA-IENVISFA-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	SKA0025-SEP23	mg/L	1	<1	4	20	99	90	110	96	75	125

Colour

Method: SM 2120 | 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	EWL0047-SEP23	TCU	3	< 3	6	10	105	80	120	NA		

Conductivity

Method: SM 2510 | 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	EWL0029-SEP23	uS/cm	2	< 2	0	20	99	90	110	NA		

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
Calcium (total)	EMS0066-SEP23	mg/L	0.01	<0.01	1	20	99	90	110	99	70	130
Iron (total)	EMS0066-SEP23	mg/L	0.007	<0.007	5	20	100	90	110	100	70	130
Magnesium (total)	EMS0066-SEP23	mg/L	0.001	0.001	1	20	100	90	110	95	70	130
Manganese (total)	EMS0066-SEP23	mg/L	0.00001	<0.00001	0	20	102	90	110	102	70	130
Sodium (total)	EMS0066-SEP23	mg/L	0.01	<0.01	1	20	96	90	110	94	70	130

Microbiology

Method: OMOE MICROMFDC-E3407A | Internal ref.: ME-CA-IENVIMIC-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
Total Coliform Background	BAC9005-SEP23	cfu/100mL	-	ACCEPTED	ACCEPTED	D						
E. Coli	BAC9005-SEP23	cfu/100mL	-	ACCEPTED	ACCEPTED	D						
Fecal Coliform	BAC9005-SEP23	cfu/100mL	-	ACCEPTED	ACCEPTED	D						
Total Coliform	BAC9005-SEP23	cfu/100mL	-	ACCEPTED	ACCEPTED	D						



FINAL REPORT

CA40338-AUG23 R1

QC SUMMARY

pH

Method: SM 4500 | 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
pH	EWL0029-SEP23	No unit	0.05	NA	1		100			NA		

Solids Analysis

Method: SM 2540C | Internal ref.: ME-CA-IENVIEWL-LAK-AN-005

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 Dissolved Solids	EWL0032-SEP23	mg/L	30	<30	2	20	110	80	120	NA		

Turbidity

Method: SM 2130 | 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	EWL0014-SEP23	NTU	0.10	< 0.10	0	10	99	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

Results relate only to the sample tested.

Data reported represent the sample as submitted to SGS. 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 and Excess Soil Quality" 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.

SGS Canada Inc. statement of conformity decision rule does not consider uncertainty when analytical results are compared to a specified standard or regulation.

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. Reproduction of this analytical report in full or in part is prohibited.

This report supersedes all previous versions.

-- End of Analytical Report --

Request for Laboratory Services and CHAIN OF CUSTODY
Laboratory Information Section - Lab use only

Received By: _____
 Received Date: **20** / **30** / (mm/dd/yy)
 Received Time: **08:30** (hr : min)

Received By (signature): _____
 Custody Seal Present: Yes No
 Custody Seal Intact: Yes No

Cooling Agent Present: Yes No
 Temperature Upon Receipt (°C): **19.3** Type: **9x3**

LAB LIMS #: **CA40388000**

REPORT INFORMATION

INVOICE INFORMATION

(same as Report Information)

Company: _____

Contact: _____

Address: _____

Phone: _____

Fax: _____

Email: **SobhaKumar.Kvini@camhium.in**

REGULATIONS

O.Reg 153/04 O.Reg 406/19

Table 1 Res/Park Soil Texture: _____

Table 2 Ind/Com Coarse _____

Table 3 Agr/Other Medium/Fine _____

Table Appx. _____

Soil Volume <350m3 >350m3

Other Regulations: _____

Sewer By-Law: Sanitary Storm

O.DWS Not Reportable - See note

RECORD OF SITE CONDITION (RSC) YES NO

ANALYSIS REQUESTED

M & I Field Filtered (Y/N)

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

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

Procedure D55

OD WQS tabs 1-3

Sewer Use: Specify pkg: _____

Water Characterization Pkg General Extended

SPLP Metals tests TCLLP Metals tests

ANALYSIS REQUESTED

TURNAROUND TIME (TAT) REQUIRED

Regular TAT (5-7days) **STANDARD**

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

COMMENTS:

PLEASE ADVISE

OD WQS tab 1-3

NON-RES

1x03

NEW 105

1	2	3	4	5	6	7	8	9	10	11	12
TW1	08/31/23	14:00	4								

Observations/Comments: Special Instructions

Bacteria has a hold time

Signature: _____

Sampled By (NAME): **Warren Young** **Signature:** _____

Refrinquished by (NAME): **Kaitlyn Yonemitsu** **Signature:** _____

Date: **08/31/23** (mm/dd/yy)

Date: **08/31/23** (mm/dd/yy)

Yellow & White Copy - SGS

Notes: Submission of samples to SGS is acknowledged 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 unlisted 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.