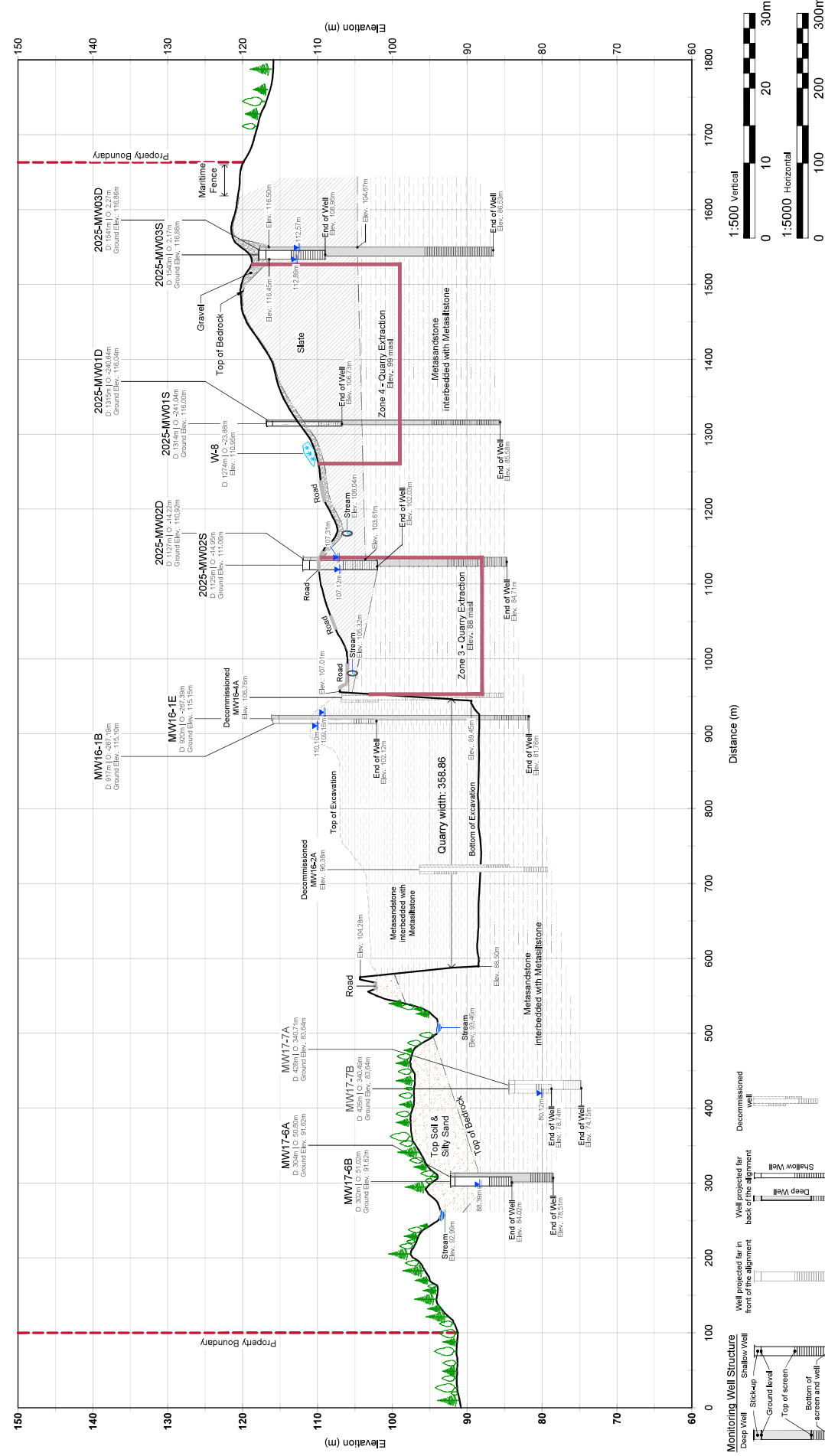


SECTION A - A'

Southwest

Northeast



Project	ENVIRONMENTAL ASSESSMENT GOFFS QUARRY EXPANSION PHASES 3 AND 4 SCOTIAN MATERIALS LIMITED, GOFFS, NS	Drawing	A - A' CROSS-SECTION		Project No. 103269.002	Rev. No. 0	Legend	Notes	
		Client			Drawing No. FIGURE C1-6 Date SEP 2026	Drawn by CHG Checked by RM	 GROUNDWATER  ELEVATION - 2025  STREAM  CULVERT - STREAM  DELINEATED WETLAND (W-8)  PROPOSED QUARRY EXTRACTION  SITE BOUNDARY	1. Coordinate system: NAD83 (GSR) v6 / UTM zone 20N. 2. Nova Scotia topographic database information is reproduced and distributed with the permission of internal services, NS.	
GEMTEC CONSULTING ENGINEERS AND SCIENTISTS									

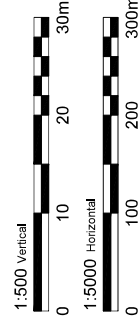


Table C2-1: Monitoring Well Construction Information - Hydrogeological Assessment for the Goffs Quarry Expansion, Phases 3 and 4, Goffs, Nova Scotia.

Borehole Location	UTM Coordinates ¹		Installation Date	Ground Surface Elevation (m amsl)	Top of Casing Elevation (m amsl)	Measured Stick-up (m)	Top of Screen (m bgs)	Bottom of Screen (m bgs)	Top of Screen (m amsl)	Bottom of Screen (m amsl)		Screened Lithology
	Easting	Northing										
New Monitoring Wells within the Goffs Quarry Expansion, Phases 3 and 4, Goffs, Nova Scotia (GEMTEC, 2025)												
2025-MW01S	455728	4966340	7/14/2025	116.00	116.77	0.77	6.20	9.27	109.80	106.73		Metasandstone interbedded with Metasilstone
2025-MW01D	455729	4966340	7/14/2025	116.04	116.87	0.83	21.30	30.46	94.74	85.58		Metasandstone interbedded with Metasilstone
2025-MW02S	455997.91*	4966047.06*	7/10/2025	111.06	111.97	0.90	4.50	9.03	106.56	102.03		Slate
2025-MW02D	455998.62*	4966047.33*	7/16/2025	110.92	111.90	0.96	18.30	26.21	92.62	84.71		Metasandstone interbedded with Metasilstone
2025-MW03S	456051	4966265	7/10/2025	116.88	117.83	0.95	3.40	7.93	113.48	108.95		Slate
2025-MW03D	456052	4966266	7/9/2025	116.86	117.69	0.84	21.20	30.33	95.66	86.53		Slate
Existing Monitoring Wells within the Goffs Quarry Expansion, Phases 3 and 4, Goffs, Nova Scotia (Golder, 2018)												
(BH16-1C) MW16-1A	455384.27**	4966138.78**	5/26/2016	115.04	115.88	0.84	1.00	4.00	114.04	111.04		Greywacke interbedded with Silstone (considered as Metasandstone interbedded with Metasilstone)
(BH16-1B) MW16-1B	455384.27**	4966138.78**	5/24/2016	115.10	115.94	0.84	10.00	12.98	105.10	102.12		Greywacke interbedded with Silstone (considered as Metasandstone interbedded with Metasilstone)
(BH16-1B) MW16-1C	455384.27**	4966138.78**	5/24/2016	115.10	115.98	0.88	4.50	7.50	110.60	107.60		Greywacke interbedded with Silstone (considered as Metasandstone interbedded with Metasilstone)
(BH16-1A) MW16-1D	455384.27**	4966138.78**	5/24/2016	115.15	116.15	1.00	21.00	24.00	94.15	91.15		Greywacke interbedded with Silstone (considered as Metasandstone interbedded with Metasilstone)
(BH16-1A) MW16-1E	455384.27**	4966138.78**	5/24/2016	115.15	116.15	1.00	28.80	33.39	86.35	81.76		Greywacke interbedded with Silstone (considered as Metasandstone interbedded with Metasilstone)
Existing Monitoring Wells within the Goffs Quarry Property, but out of the Phase 3 and 4 expansion area, Nova Scotia (Golder, 2018)												
(BH17-6A/B) MW17-6A	455053.7878**	4965530.785**	7/11/2017	91.62	92.25	0.63	10.10	13.11	81.52	78.51		Greywacke interbedded with Silstone (considered as Metasandstone interbedded with Metasilstone)
(BH17-6A/B) MW17-6B	455053.7878**	4965530.785**	7/11/2017	91.62	92.21	0.59	4.60	7.60	87.02	84.02		Greywacke interbedded with Silstone (considered as Metasandstone interbedded with Metasilstone)
(BH17-6C) MW17-6C	455053.7878**	4965530.785**	7/10/2017	92.39	93.15	0.76	2.00	3.96	90.39	88.43		Greywacke interbedded with Silstone (considered as Metasandstone interbedded with Metasilstone)
(BH17-7A/B) MW17-7A	455318.5297**	4965360.442**	7/7/2017	83.64	84.43	0.79	2.90	4.90	80.74	78.74		Greywacke interbedded with Silstone (considered as Metasandstone interbedded with Metasilstone)
(BH17-7A/B) MW17-7B	455318.5297**	4965360.442**	7/7/2017	83.64	84.43	0.79	6.50	8.89	77.14	74.75		Greywacke interbedded with Silstone (considered as Metasandstone interbedded with Metasilstone)
Decommissioned Monitoring Wells within the Goffs Quarry Expansion, Phases 3 and 4, Goffs, Nova Scotia (Golder, 2018)												
(BH16-2B) MW16-2A	455459.8171**	4965673.904**	5/30/2016	96.36	-	-	2.00	4.98	94.36	91.38		Greywacke interbedded with Silstone (considered as Metasandstone interbedded with Metasilstone)
(BH16-2A) MW16-2B	455459.8171**	4965673.904**	5/27/2016	96.38	-	-	14.00	17.10	82.38	79.28		Greywacke interbedded with Silstone (considered as Metasandstone interbedded with Metasilstone)
(BH16-2A) MW16-2C	455459.8171**	4965673.904**	5/27/2016	96.38	-	-	9.00	12.00	87.38	84.38		Greywacke interbedded with Silstone (considered as Metasandstone interbedded with Metasilstone)
(BH16-4B) MW16-4A	455553.3337**	4965945.495**	6/1/2016	106.86	-	-	2.00	4.98	104.86	101.88		Greywacke interbedded with Silstone (considered as Metasandstone interbedded with Metasilstone)
(BH16-4A) MW16-4B	455553.3337**	4965945.495**	5/31/2016	106.76	-	-	8.50	13.00	98.26	93.76		Greywacke interbedded with Silstone (considered as Metasandstone interbedded with Metasilstone)
(BH16-4A) MW16-4C	455553.3337**	4965945.495**	5/31/2016	106.76	-	-	18.10	21.23	88.66	85.53		Greywacke and Slate (considered as Metasandstone and Slate)

Notes:

- not available
- m - metre
- m amsl - metres above mean sea level
- m bgs - metres below ground surface
- UTM - Universal Transverse Mercator, Zone 20T
- 1 - GEMTEC high-precision GPS survey data acquired on September 5, 2025.
- * - Rental high-precision GPS survey data acquired on December 12, 2025. Coordinates were taken in Modified Transverse Mercator Zone 5 system, and converted to UTM Zone 20N.
- ** - Coordinates are approximate, as they were not available from the mapping presented in the Golder (2018) report. Elevations were obtained from the logs included in the same report.

Table C2-2: Groundwater Depths and Elevations - Hydrogeological Assessment for the Goffs Quarry Expansion, Phases 3 and 4, Goffs, Nova Scotia.

Well Name	Ground Surface Elevation (m amsl)	Bottom of Screen (mbgs)	Top of Screen (m amsl)	Bottom of Screen (m amsl)	Screened Lithology	August 13, 2025		August 14, 2025		August 22, 2025		October 22, 2025		October 23, 2025	
						WL Below Ground (m bgs)	Approximate WL Elev. (m amsl)	WL Below Ground (m bgs)	Approximate WL Elev. (m amsl)	WL Below Ground (m bgs)	Approximate WL Elev. (m amsl)	WL Below Ground (m bgs)	Approximate WL Elev. (m amsl)		
New Monitoring Wells within the Goffs Quarry Expansion, Phases 3 and 4, Goffs, Nova Scotia (GEMTEC, 2025)															
2025-MW01S	116.00	9.27	109.80	106.73	Metasandstone interbedded with Metasiltstone	1.38	114.62	1.51	114.49	-	-	-	-	-	-
2025-MW01D	116.04	30.46	94.74	85.58	Metasandstone interbedded with Metasiltstone	0.24	115.80	0.10	115.94	-	-	-	-	-	-
2025-MW02S	111.06	9.03	106.56	102.03	Slate	4.08	106.99	3.94	107.13	-	-	-	-	-	-
2025-MW02D	110.92	26.21	92.62	84.71	Metasandstone interbedded with Metasiltstone	-	-	-	-	-	-	3.61	107.31	3.67	107.25
2025-MW03S	116.88	7.93	113.48	108.95	Slate	4.22	112.66	4.31	112.57	-	-	-	-	-	-
2025-MW03D	116.86	30.33	95.66	86.53	Slate	3.85	113.00	3.96	112.89	-	-	-	-	-	-
Existing Monitoring Wells within the Goffs Quarry Expansion, Phases 3 and 4, Goffs, Nova Scotia (Golder, 2018)															
(BH16-1C) MW16-1A	115.04	4.00	114.04	111.04	Greywacke interbedded with Siltstone (considered as Metasandstone interbedded with Metasiltstone)	-	-	3.88	111.16	-	-	3.69	111.35	-	-
(BH16-1B) MW16-1B	115.10	7.50	105.10	102.12	Greywacke interbedded with Siltstone (considered as Metasandstone interbedded with Metasiltstone)	-	-	5.00	110.10	-	-	5.04	110.06	-	-
(BH16-1B) MW16-1C	115.10	7.50	110.60	107.60	Greywacke interbedded with Siltstone (considered as Metasandstone interbedded with Metasiltstone)	-	-	5.71	109.39	-	-	5.91	109.19	-	-
(BH16-1A) MW16-1D	115.15	24.00	94.15	91.15	Greywacke interbedded with Siltstone (considered as Metasandstone interbedded with Metasiltstone)	-	-	6.02	109.13	-	-	6.36	108.79	-	-
(BH16-1A) MW16-1E	115.15	33.39	86.35	81.76	Greywacke interbedded with Siltstone (considered as Metasandstone interbedded with Metasiltstone)	-	-	5.99	109.16	-	-	6.32	108.83	-	-
Existing Monitoring Wells within the Goffs Quarry Property, but out of the Phase 3 and 4 expansion area, Nova Scotia (Golder, 2018)															
(BH17-6A/B) MW17-6A	91.62	13.11	81.52	78.51	Greywacke interbedded with Siltstone (considered as Metasandstone interbedded with Metasiltstone)	-	-	-	-	3.24	88.37	3.46	88.15	-	-
(BH17-6A/B) MW17-6B	91.62	7.62	87.02	84.02	Greywacke interbedded with Siltstone (considered as Metasandstone interbedded with Metasiltstone)	-	-	-	-	3.22	88.39	3.45	88.16	-	-
(BH17-6C) MW17-6C	92.39	3.96	90.39	88.43	Greywacke interbedded with Siltstone (considered as Metasandstone interbedded with Metasiltstone)	-	-	-	-	3.37	88.25	3.57	88.05	-	-
(BH17-7A/B) MW17-7A	83.64	4.88	80.74	78.74	Greywacke interbedded with Siltstone (considered as Metasandstone interbedded with Metasiltstone)	-	-	-	-	3.75	79.89	3.52	80.12	-	-
(BH17-7A/B) MW17-7B	83.64	8.53	77.14	74.75	Greywacke interbedded with Siltstone (considered as Metasandstone interbedded with Metasiltstone)	-	-	-	-	3.53	80.12	3.32	80.32	-	-

Notes:

- not available
- Elev. - Elevation
- m - metre
- m amsl - metres above mean sea level
- m bgs - metres below ground surface
- WL - Water Level

Entered by: RM
Checked by: VB



Table C2-3: Summary of Hydraulic Conductivity Values - Hydrogeological Assessment for the Goffs Quarry Expansion, Phases 3 and 4, Goffs, Nova Scotia.

Well Name	Date of Test	Ground Surface Elevation (m amsl)	Top of Screen (m amsl)	Bottom of Screen (m amsl)	Screened Lithology	Aquifer Type*	Type of Test	Hydraulic Conductivity (K) Estimate		Input for Marinelli and Niccoli (2000) method	
								(m/s)		Phase 3 (88 m asl)	Phase 4 (99 m asl)
New Monitoring Wells within the Goffs Quarry Expansion, Phases 3 and 4, Goffs, Nova Scotia (GEMTEC, 2025) - Bouwer and Rice (1978) method											
2025-MW01S	8/13/2025	116.00	109.80	106.73	Metasandstone interbedded with Metasilstone	Confined, treated as unconfined for K testing	Falling	3.4.E-07		K _{h1}	K _{h1}
2025-MW01D	8/13/2025	116.04	94.74	85.58	Metasandstone interbedded with Metasilstone	Confined, treated as unconfined for K testing	Falling	3.4.E-07		K _{h1}	K _{h1}
2025-MW02S	8/14/2025	111.06	106.56	102.03	Slate	Unconfined	Falling	4.4.E-08		K _{h1} and K _{h2}	K _{h2}
2025-MW02D	10/22/2025	110.92	92.82	84.71	Metasandstone interbedded with Metasilstone	Unconfined	Falling	7.1.E-08		K _{h1}	K _{h1}
2025-MW03S	8/13/2025	116.88	113.48	108.95	Slate	Confined, treated as unconfined for K testing	Falling	3.5.E-07		K _{h1}	K _{h1}
2025-MW03D	8/13/2025	116.86	95.66	86.53	Slate	Unconfined	Falling	3.4.E-07		K _{h1} and K _{h2}	K _{h2}
Existing Monitoring Wells within the Goffs Quarry Expansion, Phases 3 and 4, Goffs, Nova Scotia (Golder, 2018) - Hvorslev Analysis											
(BH16-1C) MW16-1A	June-16	115.04	114.04	111.04	Greywacke interbedded with Silstone (considered as Metasandstone interbedded with Metasilstone)	-	Falling	3.0.E-08		K _{h1}	K _{h1}
(BH16-1B) MW16-1B	June-16	115.10	105.10	102.12	Greywacke interbedded with Silstone (considered as Metasandstone interbedded with Metasilstone)	-	Falling	7.0.E-08		K _{h1}	K _{h1}
(BH16-1B) MW16-1C	June-16	115.10	110.60	107.60	Greywacke interbedded with Silstone (considered as Metasandstone interbedded with Metasilstone)	-	Falling	7.0.E-08		K _{h1}	K _{h1}
(BH16-1A) MW16-1D	June-16	115.15	94.15	91.15	Greywacke interbedded with Silstone (considered as Metasandstone interbedded with Metasilstone)	-	Rising	1.0.E-08		K _{h1}	K _{h1}
(BH16-1A) MW16-1E	June-16	115.15	86.35	81.76	Greywacke interbedded with Silstone (considered as Metasandstone interbedded with Metasilstone)	-	Falling	3.0.E-06		K _{h1}	K _{h1}
Decommissioned Monitoring Wells within the Goffs Quarry Expansion, Phases 3 and 4, Goffs, Nova Scotia (Golder, 2018) - Hvorslev Analysis and Hazen Method (1911)											
(BH16-2B) MW16-2A	June-16	96.36	94.36	91.38	Greywacke interbedded with Silstone (considered as Metasandstone interbedded with Metasilstone)	-	Falling	4.0.E-06		K _{h1}	K _{h1}
(BH16-2A) MW16-2B	June-16	96.38	82.38	79.28	Greywacke interbedded with Silstone (considered as Metasandstone interbedded with Metasilstone)	-	Falling	6.0.E-06		K _{h1}	K _{h1}
(BH16-2A) MW16-2C	June-16	96.38	87.38	84.38	Greywacke interbedded with Silstone (considered as Metasandstone interbedded with Metasilstone)	-	Rising	-		K _{h1}	K _{h1}
(BH16-4B) MW16-4A	June-16	106.86	104.86	101.88	Greywacke interbedded with Silstone (considered as Metasandstone interbedded with Metasilstone)	-	Falling	-		K _{h2}	K _{h2}
(BH16-4A) MW16-4B	June-16	106.76	98.26	93.76	Gravelly Silty Sand	-	Rising	1.0.E-08		K _{h2}	K _{h2}
(BH16-4A) MW16-4C	June-16	106.76	88.66	85.53	Greywacke interbedded with Silstone (considered as Metasandstone interbedded with Metasilstone)	-	Falling	4.0.E-07		K _{h2}	K _{h2}
2.3E-07											
7.2E-07											
3.3E-07											

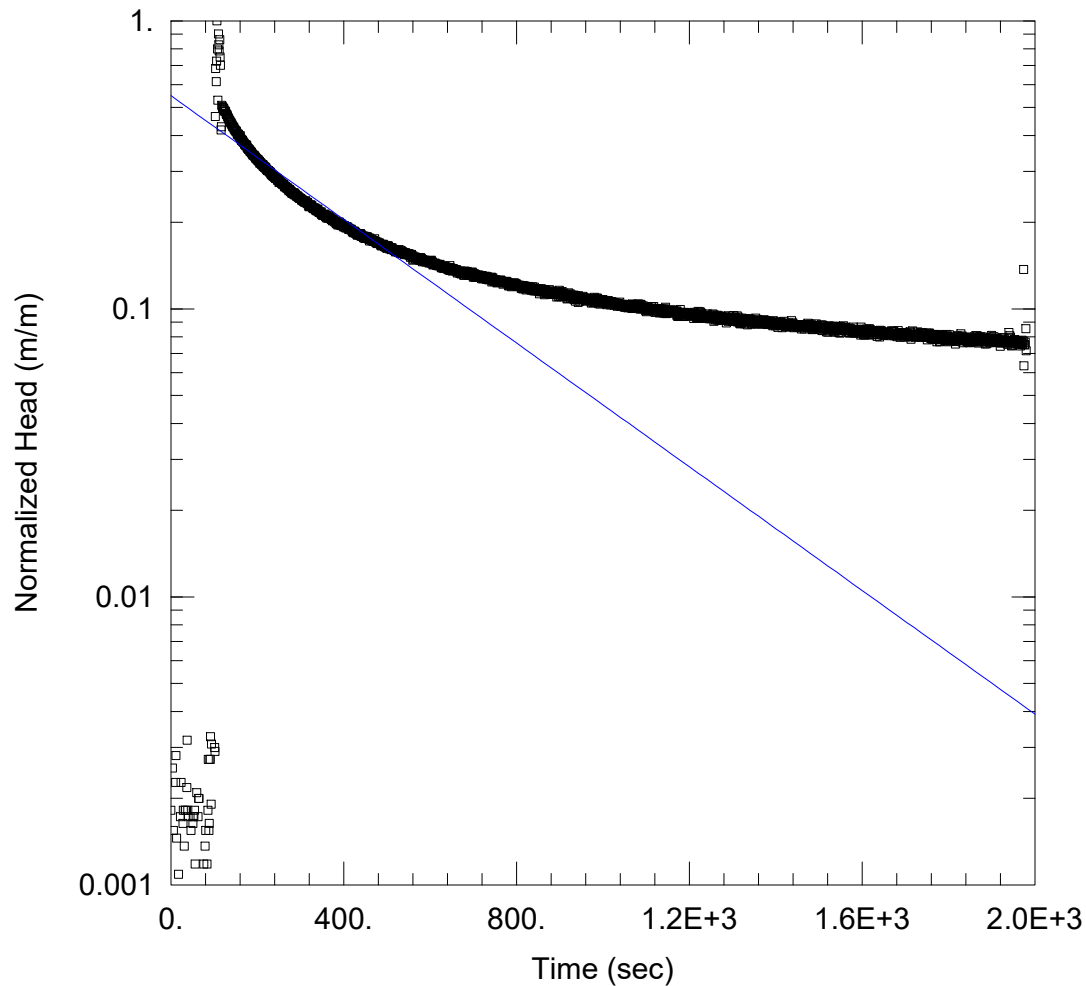
Notes:

- m asl - metres above mean sea level
- m bgs - metres below ground surface
- m/s - metres per second
- * - In confined bedrock, excavation usually breaks confinement, becoming an unconfined drainage boundary.

Bouwer, H. and R.C. Rice, 1976. A slug test method for determining hydraulic conductivity of unconfined aquifers with completely or partially penetrating wells, Water Resources Research, vol. 12, no. 3, pp. 423-428.

Entered by: RM
Checked by: VB





2025-MW01S- FALLING HEAD

Data Set: N:\...\2025-MW01S-FALLING.aqt

Date: 01/20/26

Time: 15:51:03

PROJECT INFORMATION

Company: GEMTEC

Client: Scotian Materials Limited

Project: 103269.002

Location: Goffs Quarry

Test Well: 2025-MW01S

Test Date: August 13, 2025

AQUIFER DATA

Saturated Thickness: 3.78 m

Anisotropy Ratio (K_z/K_r): 0.1

WELL DATA (2025-MW01S)

Initial Displacement: -1.102 m

Static Water Column Height: 7.89 m

Total Well Penetration Depth: 3.78 m

Screen Length: 3.07 m

Casing Radius: 0.0254 m

Well Radius: 0.0762 m

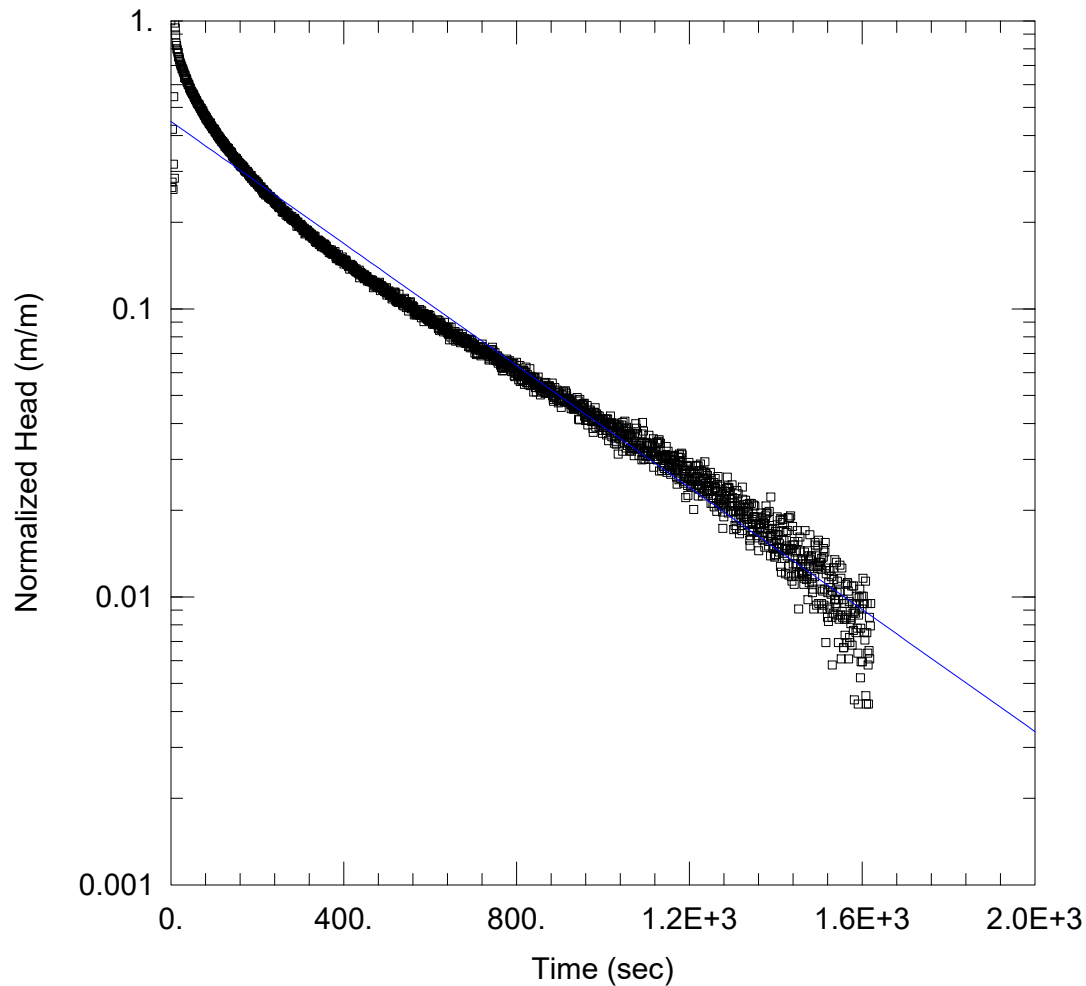
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 3.421E-7$ m/sec

$y_0 = -0.6062$ m



2025-MW01S RISING HEAD TEST

Data Set: N:\...\2025-MW01S-RISING.aqt

Date: 01/20/26

Time: 15:52:37

PROJECT INFORMATION

Company: GEMTEC

Client: Scotian Materials Limited

Project: 103269.002

Location: Goffs Quarry

Test Well: 2025-MW01S

Test Date: August 13, 2025

AQUIFER DATA

Saturated Thickness: 3.78 m

Anisotropy Ratio (K_z/K_r): 0.1

WELL DATA (2025-MW01S)

Initial Displacement: 0.7062 m

Static Water Column Height: 7.89 m

Total Well Penetration Depth: 3.78 m

Screen Length: 3.07 m

Casing Radius: 0.0254 m

Well Radius: 0.0762 m

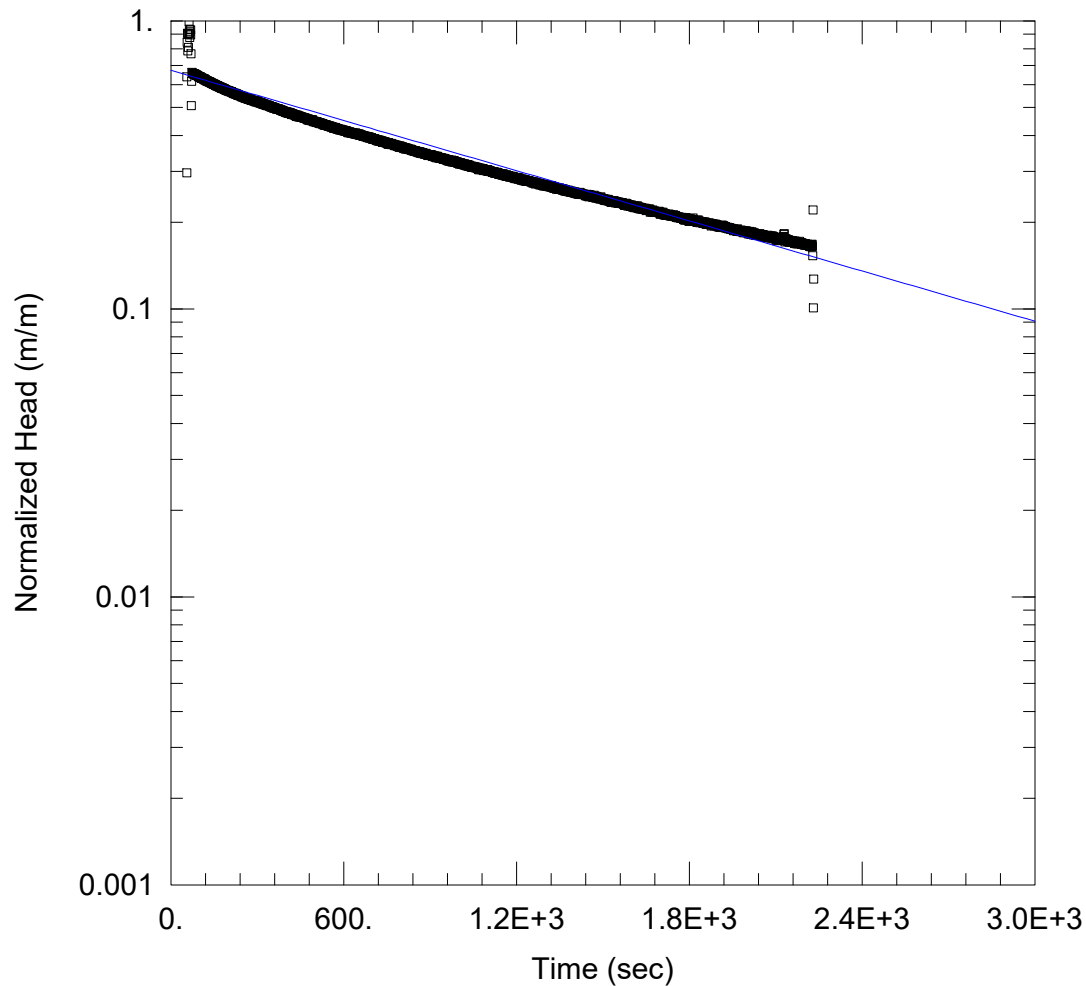
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 3.375E-7$ m/sec

$y_0 = 0.316$ m



2025-MW01D FALLING HEAD TEST

Data Set: N:\...\2025-MW01D-FALLING.aqt

Date: 01/20/26

Time: 15:57:14

PROJECT INFORMATION

Company: GEMTEC

Client: Scotian Materials Limited

Project: 103269.002

Location: Goffs Quarry

Test Well: 2025-MW01D

Test Date: August 13, 2025

AQUIFER DATA

Saturated Thickness: 24.97 m

Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (2025-MW01D)

Initial Displacement: -1.314 m

Static Water Column Height: 30.22 m

Total Well Penetration Depth: 24.97 m

Screen Length: 9.16 m

Casing Radius: 0.0254 m

Well Radius: 0.0762 m

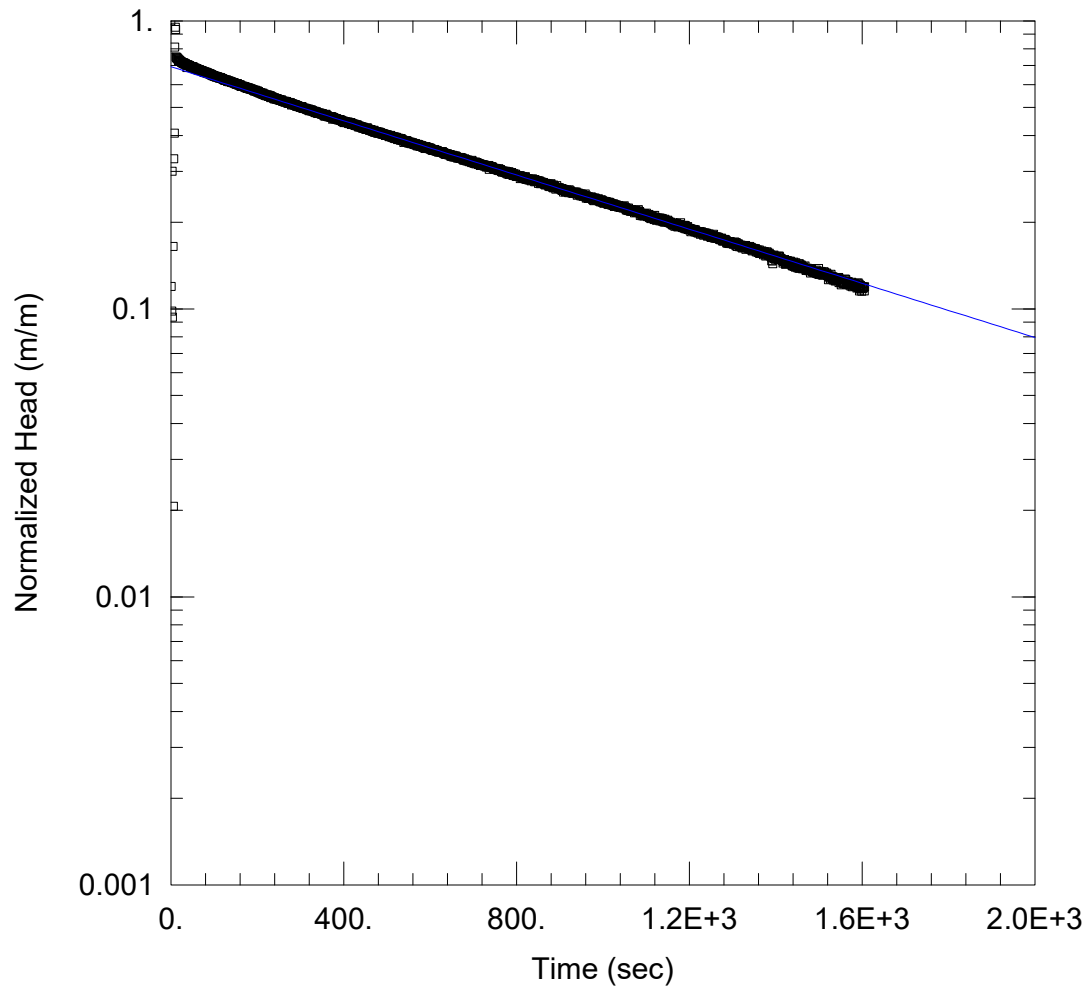
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 4.357E-8 m/sec

y0 = -0.885 m



2025-MW01D RISING HEAD TEST

Data Set: N:\...\2025-MW01D-RISING.aqt

Date: 01/20/26

Time: 16:00:23

PROJECT INFORMATION

Company: GEMTEC

Client: Scotian Materials Limited

Project: 103269.002

Location: Goffs Quarry

Test Well: 2025-MW01D

Test Date: August 13, 2025

AQUIFER DATA

Saturated Thickness: 24.97 m

Anisotropy Ratio (K_z/K_r): 0.1

WELL DATA (2025-MW01D)

Initial Displacement: 0.8819 m

Static Water Column Height: 30.22 m

Total Well Penetration Depth: 24.97 m

Screen Length: 9.16 m

Casing Radius: 0.0254 m

Well Radius: 0.0762 m

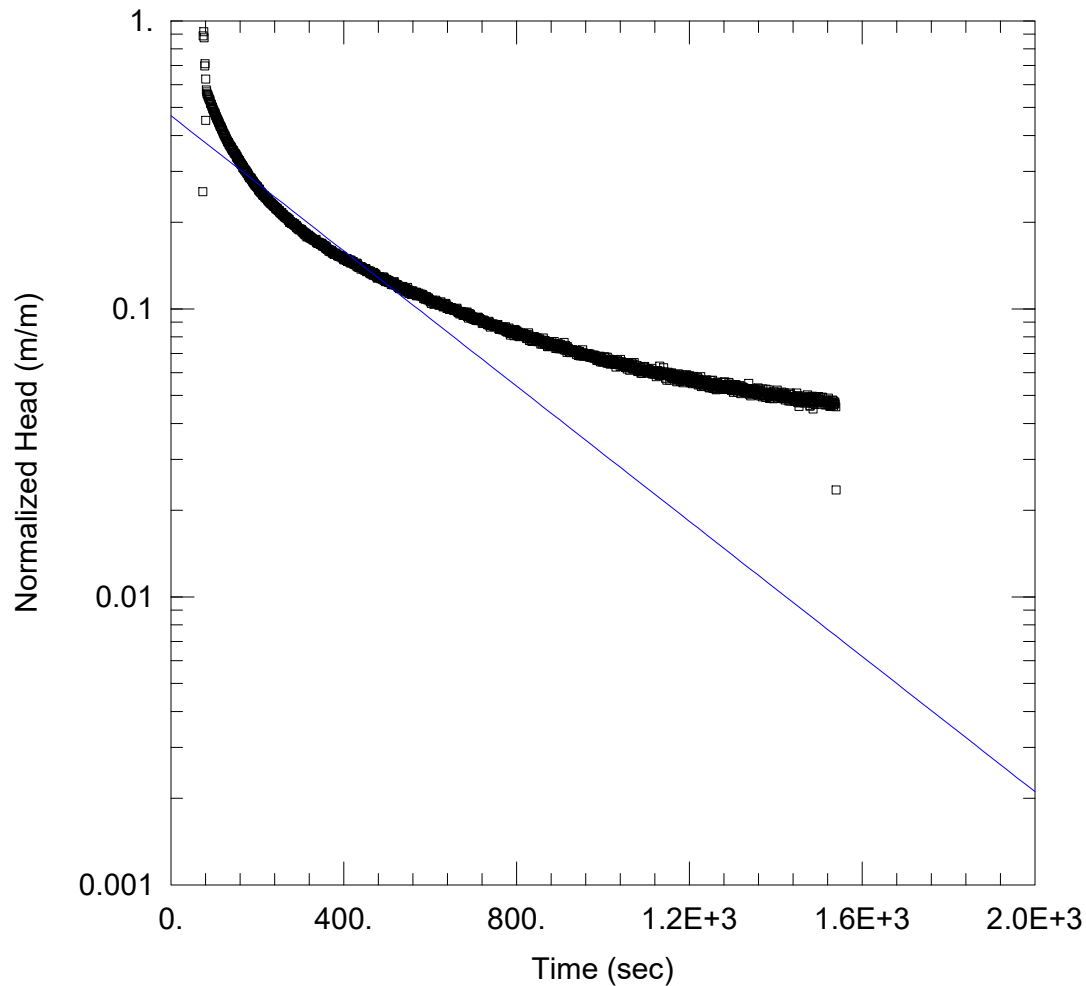
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 7.055E-8$ m/sec

$y_0 = 0.6114$ m



2025-MW02S FALLING HEAD TEST

Data Set: N:\...\2025-MW02S-FALLING.aqt

Date: 01/20/26

Time: 16:11:58

PROJECT INFORMATION

Company: GEMTEC

Client: Scotian Materials Limited

Project: 103269.002

Location: Goffs Quarry

Test Well: 2025-MW02S

Test Date: August 14, 2025

AQUIFER DATA

Saturated Thickness: 4.95 m

Anisotropy Ratio (K_z/K_r): 0.01

WELL DATA (2025-MW02S)

Initial Displacement: -1.352 m

Static Water Column Height: 4.95 m

Total Well Penetration Depth: 4.95 m

Screen Length: 4.53 m

Casing Radius: 0.0254 m

Well Radius: 0.0762 m

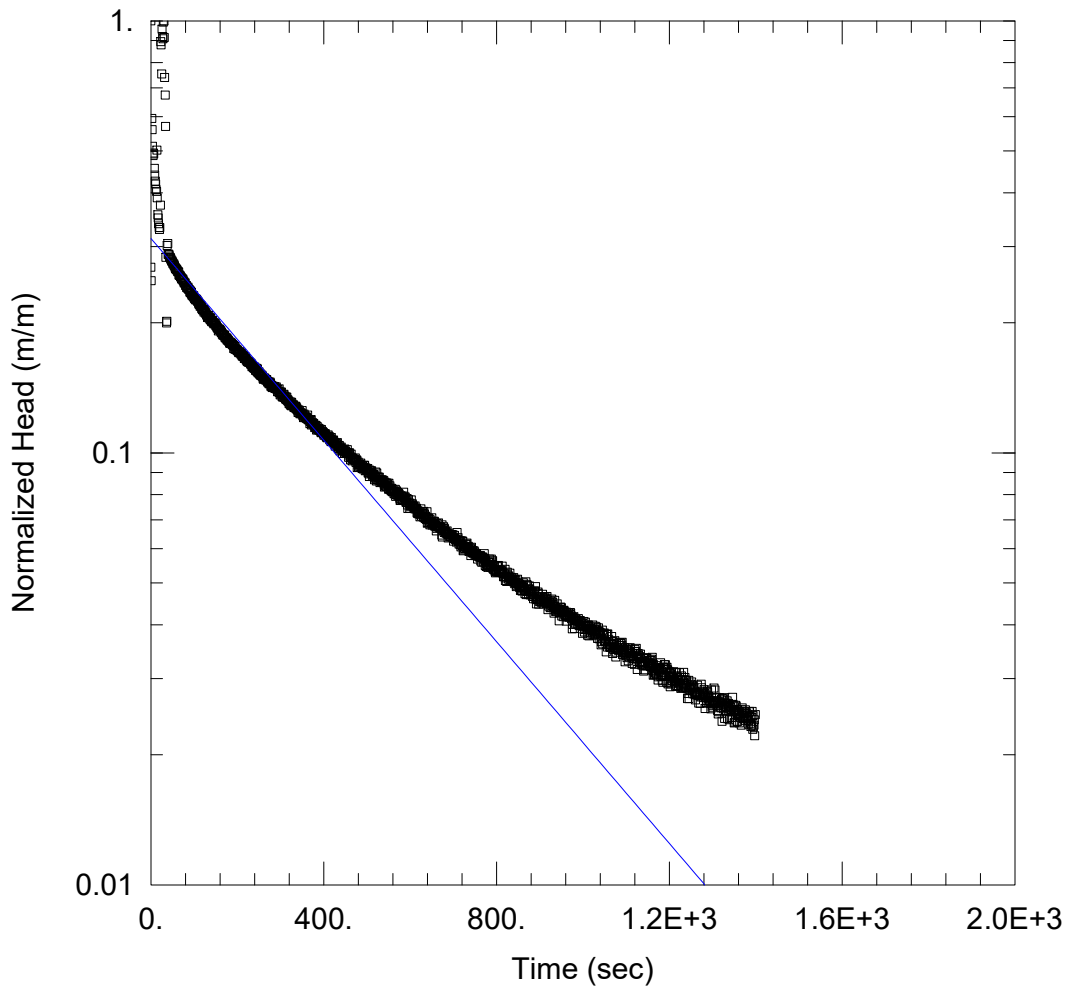
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 3.466E-7$ m/sec

$y_0 = -0.6338$ m



2025-MW02S RISING HEAD TEST

Data Set: N:\...\2025-MW02S-RISING.aqt

Date: 01/20/26

Time: 16:16:07

PROJECT INFORMATION

Company: GEMTEC

Client: Scotian Materials Limited

Project: 103269.002

Location: Goffs Quarry

Test Well: 2025-MW02S

Test Date: August 14, 2025

AQUIFER DATA

Saturated Thickness: 4.95 m

Anisotropy Ratio (K_z/K_r): 0.01

WELL DATA (2025-MW02S)

Initial Displacement: 1.594 m

Static Water Column Height: 4.95 m

Total Well Penetration Depth: 4.95 m

Screen Length: 4.53 m

Casing Radius: 0.0254 m

Well Radius: 0.0762 m

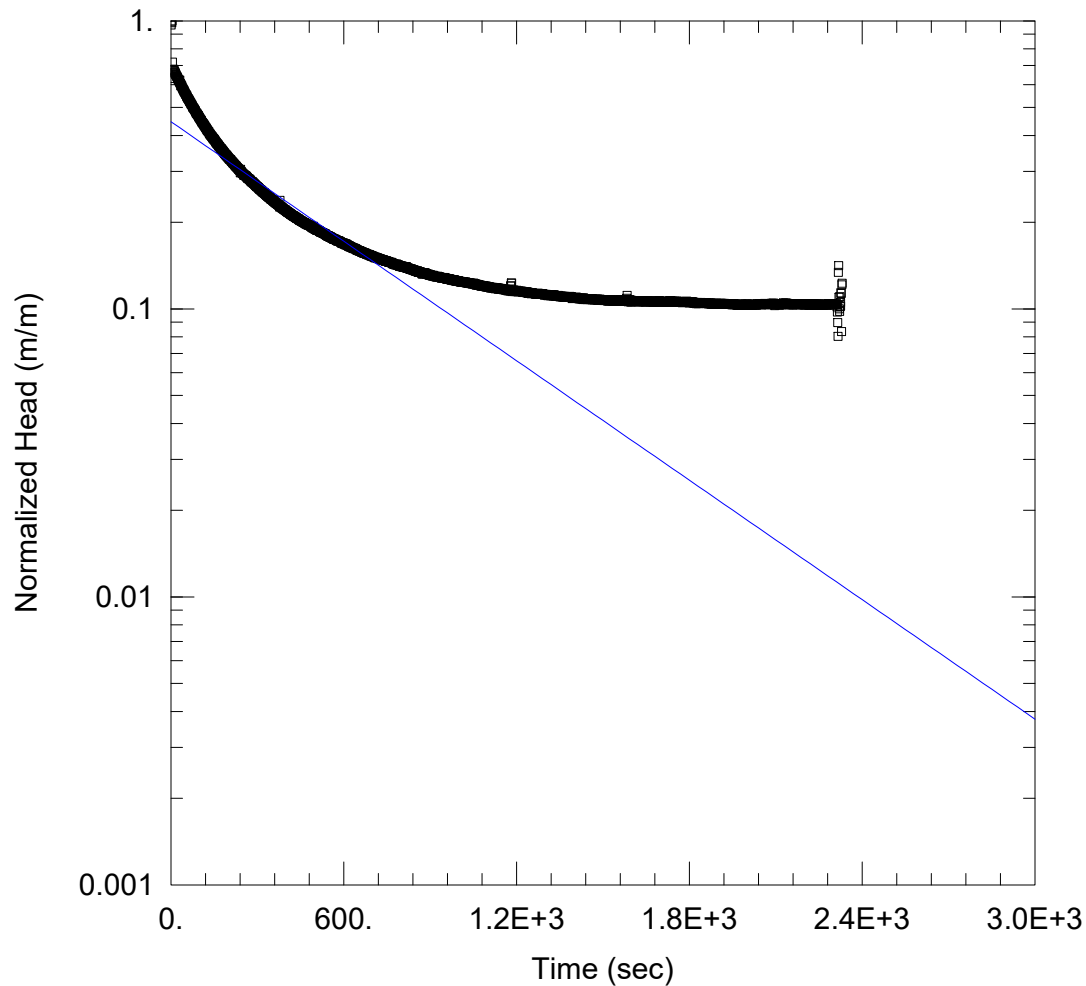
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 3.446E-7$ m/sec

$y_0 = 0.4995$ m



2025-MW02D FALLING HEAD TEST

Data Set: N:\...\2025-MW02D-FALLING.aqt

Date: 01/20/26

Time: 16:29:16

PROJECT INFORMATION

Company: GEMTEC

Client: Scotian Materials Limited

Project: 103269.002

Location: Goffs Quarry

Test Well: 2025-MW02D

Test Date: October 22, 2025

AQUIFER DATA

Saturated Thickness: 18.89 m

Anisotropy Ratio (K_z/K_r): 0.1

WELL DATA (2025-MW02D)

Initial Displacement: -1.309 m

Static Water Column Height: 22.6 m

Total Well Penetration Depth: 18.89 m

Screen Length: 7.91 m

Casing Radius: 0.0254 m

Well Radius: 0.0762 m

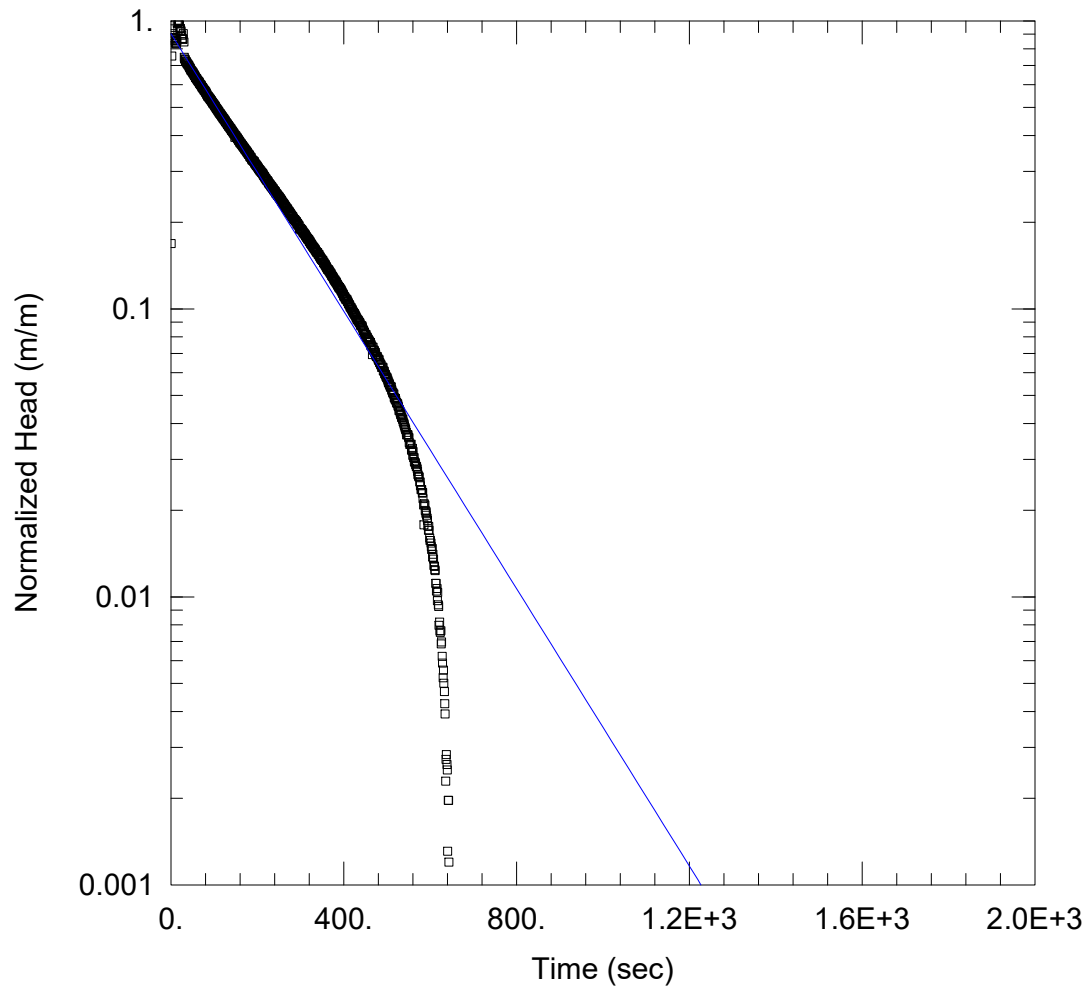
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 1.146E-7$ m/sec

$y_0 = -0.584$ m



2025-MW02D RISING HEAD TEST

Data Set: N:\...\2025-MW02D-RISING.aqt

Date: 01/20/26

Time: 16:33:14

PROJECT INFORMATION

Company: GEMTEC

Client: Scotian Materials Limited

Project: 103269.002

Location: Goffs Quarry

Test Well: 2025-MW02D

Test Date: October 22, 2025

AQUIFER DATA

Saturated Thickness: 18.89 m

Anisotropy Ratio (K_z/K_r): 0.1

WELL DATA (2025-MW02D)

Initial Displacement: 0.9172 m

Static Water Column Height: 22.6 m

Total Well Penetration Depth: 18.89 m

Screen Length: 7.91 m

Casing Radius: 0.0254 m

Well Radius: 0.0762 m

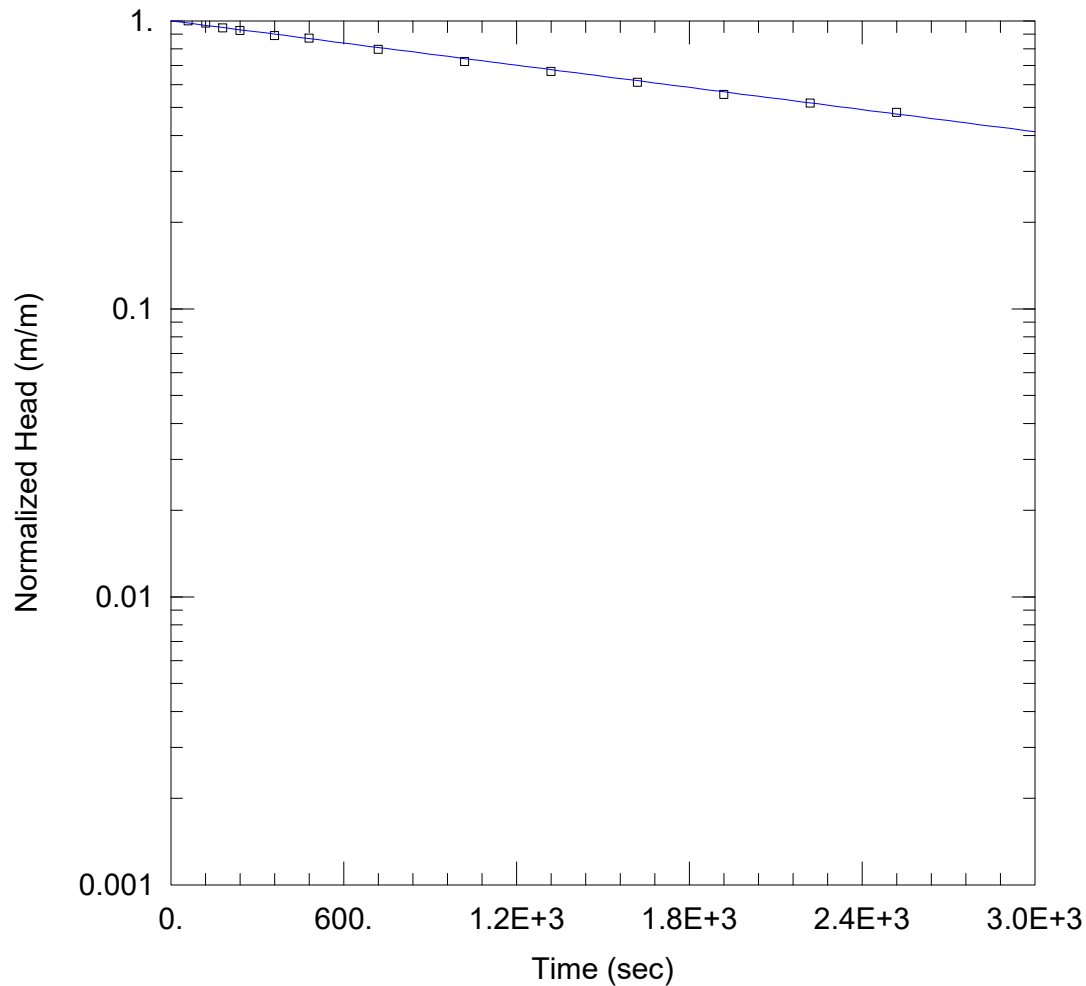
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 3.992E-7$ m/sec

$y_0 = 0.8269$ m



2025-MW03S FALLING HEAD TEST

Data Set: N:\...\2025-MW03S-FALLING.aqt

Date: 01/20/26

Time: 16:38:36

PROJECT INFORMATION

Company: GEMTEC

Client: Scotian Materials Limited

Project: 103269.002

Location: Goffs Quarry

Test Well: 2025-MW03S

Test Date: August 13, 2025

AQUIFER DATA

Saturated Thickness: 3.71 m

Anisotropy Ratio (K_z/K_r): 0.01

WELL DATA (2025-MW03S)

Initial Displacement: -0.54 m

Static Water Column Height: 3.71 m

Total Well Penetration Depth: 8.47 m

Screen Length: 8.47 m

Casing Radius: 0.0254 m

Well Radius: 0.0762 m

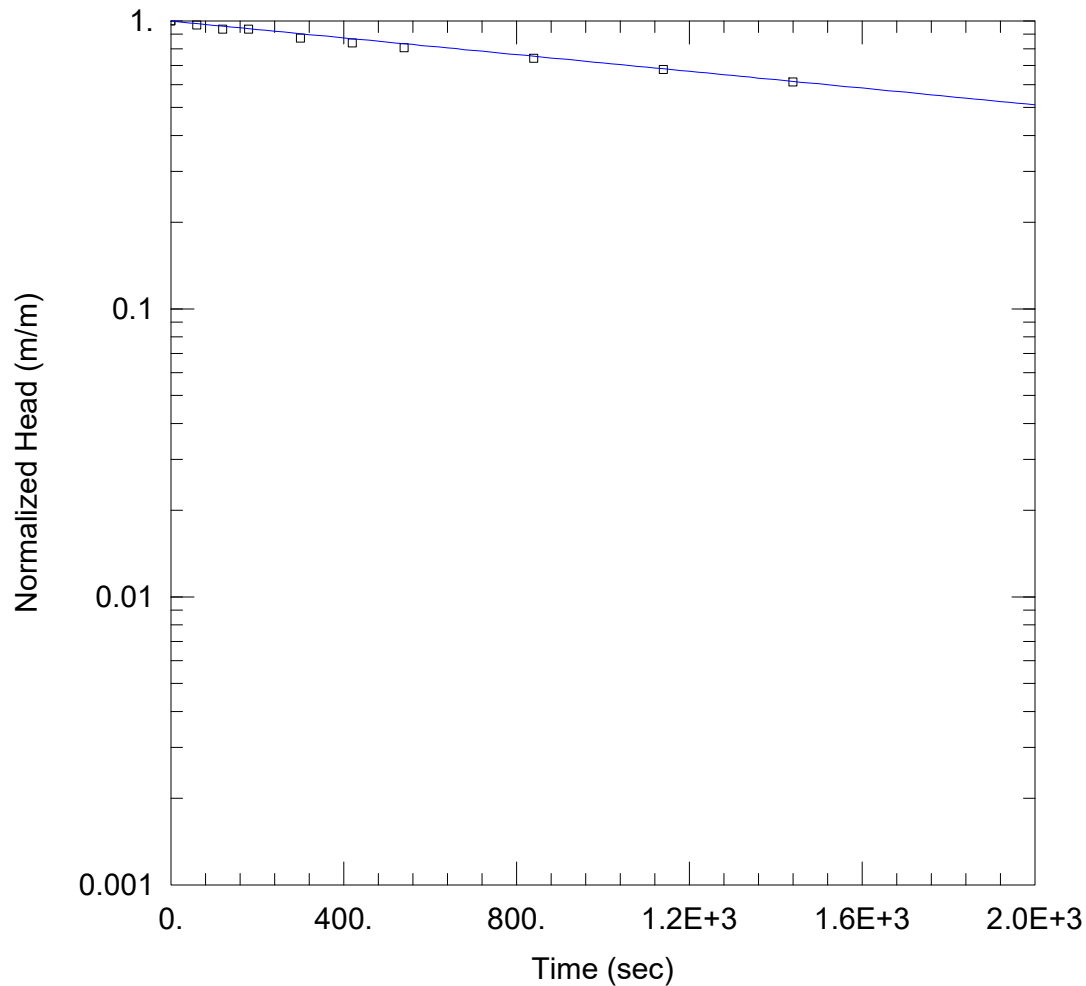
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 3.043E-8$ m/sec

$y_0 = -0.5402$ m



2025-MW03S RISING HEAD TEST

Data Set: N:\...\2025-MW03S-RISING.aqt

Date: 01/15/26

Time: 10:40:50

PROJECT INFORMATION

Company: GEMTEC

Client: Scotian Materials Limited

Project: 103269.002

Location: Goffs Quarry

Test Well: 2025-MW03S

Test Date: August 13, 2025

AQUIFER DATA

Saturated Thickness: 3.71 m

Anisotropy Ratio (Kz/Kr): 0.01

WELL DATA (2025-MW03S)

Initial Displacement: 0.31 m

Static Water Column Height: 3.71 m

Total Well Penetration Depth: 8.47 m

Screen Length: 8.47 m

Casing Radius: 0.0254 m

Well Radius: 0.0762 m

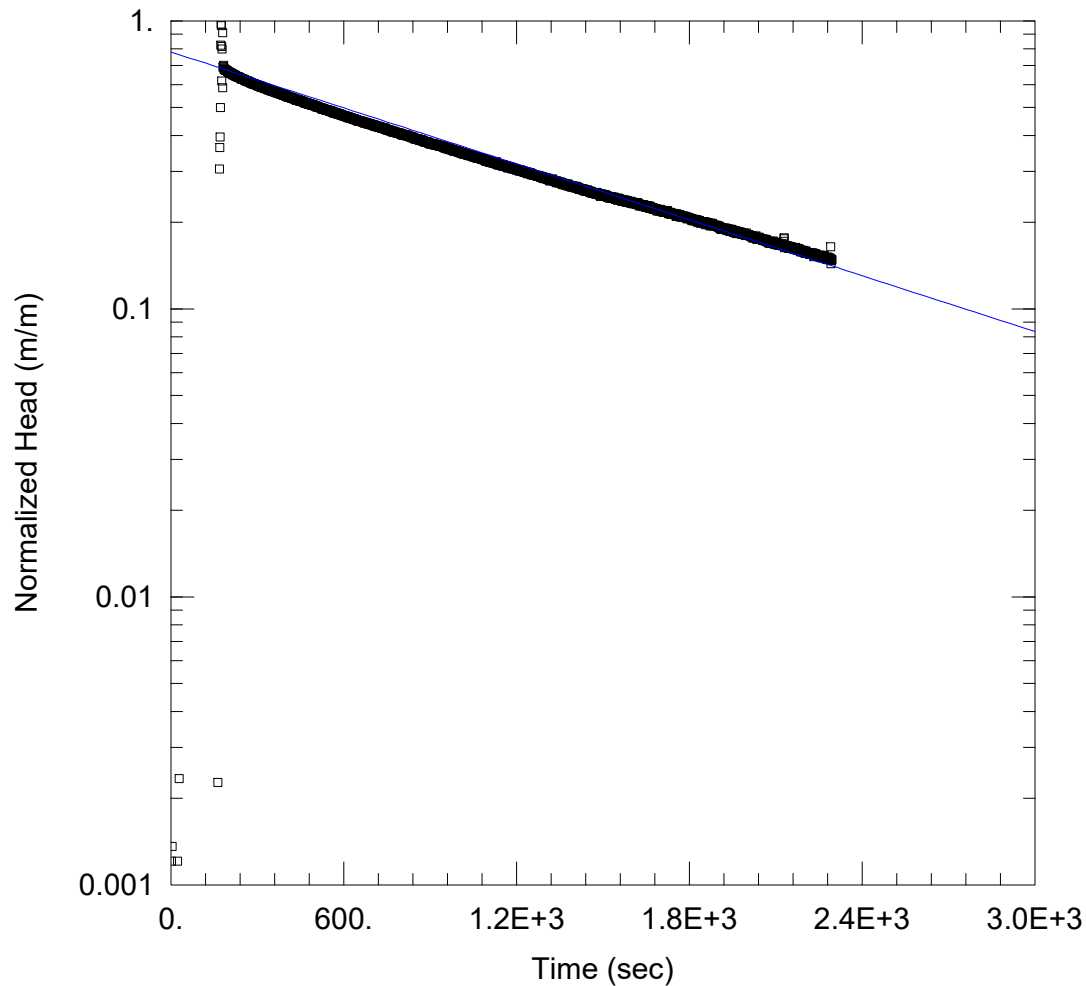
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 3.446E-8 m/sec

y0 = 0.3095 m



2025-MW03D FALLING HEAD TEST

Data Set: N:\...\2025-MW03D-FALLING.aqt

Date: 01/20/26

Time: 16:43:32

PROJECT INFORMATION

Company: GEMTEC

Client: Scotian Materials Limited

Project: 103269.002

Location: Goffs Quarry

Test Well: 2025-MW03D

Test Date: August 13, 2025

AQUIFER DATA

Saturated Thickness: 12.04 m

Anisotropy Ratio (Kz/Kr): 0.01

WELL DATA (2025-MW03D)

Initial Displacement: -1.324 m

Static Water Column Height: 26.48 m

Total Well Penetration Depth: 12.04 m

Screen Length: 9.13 m

Casing Radius: 0.0254 m

Well Radius: 0.0762 m

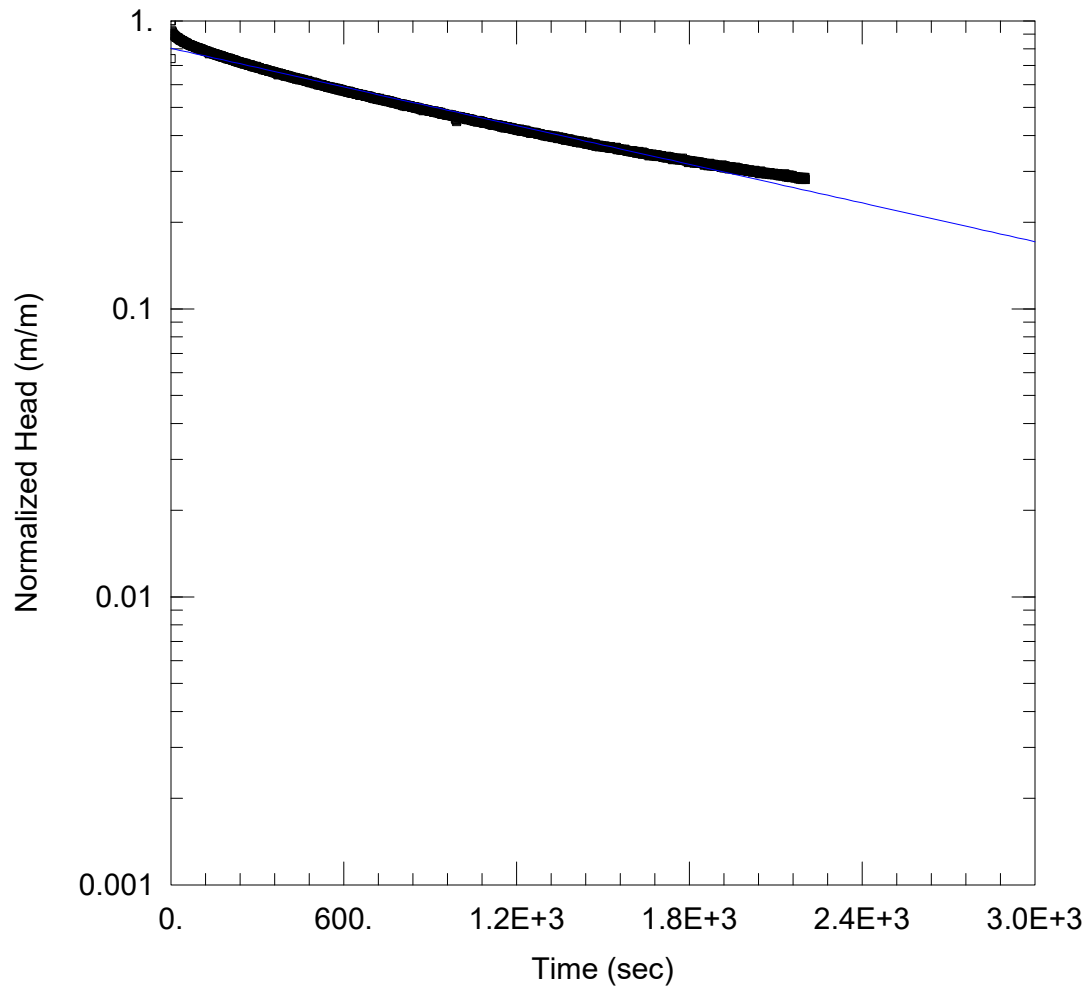
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 5.594E-8 m/sec

y0 = -1.033 m



2025-MW03D RISING HEAD TEST

Data Set: N:\...\2025-MW03D-RISING.aqt

Date: 01/20/26

Time: 16:46:29

PROJECT INFORMATION

Company: GEMTEC

Client: Scotian Materials Limited

Project: 103269.002

Location: Goffs Quarry

Test Well: 2025-MW03D

Test Date: August 13, 2025

AQUIFER DATA

Saturated Thickness: 12.04 m

Anisotropy Ratio (Kz/Kr): 0.01

WELL DATA (2025-MW03D)

Initial Displacement: 0.9395 m

Static Water Column Height: 26.48 m

Total Well Penetration Depth: 12.04 m

Screen Length: 9.13 m

Casing Radius: 0.0254 m

Well Radius: 0.0762 m

SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 3.868E-8 m/sec

y0 = 0.7549 m

Appendix C4 - Online Well Database Summary within 1 and 2 km Radii of the Site Boundary

Well Number	Address	Community	Completion Date (dd/mm/yyyy)	Water Use	Well Depth (m)	Bedrock Depth (m)	Casing Depth (m)	Static Water Levels (m)	Water Bearing Zones (m)	Stratigraphic Layers (fnt)
Water Well Logs within a 1 km Radius of the Goffs Quarry Property Boundary										
200120	898 PERRIN DRIVE	FALL RIVER	8/24/2020	Domestic	135.5	2.4	8.5	3.0	NA	CLAY (0-2.4m) SHALE (2.4-125.6m)
121165	900 PERRIN DRIVE, FALL RIVER, HRM	FLETCHERS LAKE	2/15/2012	Domestic	152.3	2.7	7.3	3.0	118.0	GRAVEL & TILL (0-2.7m) SHALE (2.7-118m)
70258	4 OAKBANK LANE	FALL RIVER	5/3/2007	Domestic	103.5	0.3	6.1	NA	73.2, 91.4, 99.1	FILL (0-0.3m) QUARTZITE (0.3-1-3.6m)
61306	860 PERRIN DRIVE	FALL RIVER	12/8/2006	Domestic	99.0	1.8	6.1	6.1	27.4	CLAY (0-1.8m) QUARTZITE (1.8-99.1m)
61234	HUMMINGBIRD	HAMMONDS PLAINS	7/15/2006	Domestic	112.7	6.1	10.4	6.1	109.7	SAND & BOULDERS (0-6.1 m) GRANITE (6.1-112.7 m)
110647	920 PERRIN DRIVE, FALL RIVER	FLETCHERS LAKE	12/14/2011	Domestic	103.5	2.7	6.1	103.6	29.0	CLAY (0-2.7m) BEDROCK (2.7-103.6m)
81000	899 PERRIN DRIVE, FALL RIVER, HRM	FLETCHERS LAKE	4/28/2008	Domestic	97.4	3.4	12.2	7.6	NA	SAND (0-3.4m) QUARTZITE (3.4-97.5m)
80028	867 PERRIN DRIVE, HRM	FALL RIVER	1/24/2008	Domestic	92.9	5.2	9.1	3.7	90.8	GRAVEL & BOULDERS (0-5.2 m) GRANITE (5.2-92.9 m)
110847	931 PERRIN DRIVE, FALL RIVER, HRM	OLD HOLLAND ROAD	5/19/2011	Domestic	62.4	2.4	8.5	3.7	59.7	FILL (0-2.4m) SHALE (2.4-62.5m)
961323	901 OLD GUYSBOROUGH ROAD	FALL RIVER	12/31/1996	Domestic	74.6	3.0	6.1	3.0	48.8, 72.5	CLAY (0-3m) QUARTZITE (3-74.7m)
752209	NA	NA	1/1/1975	Domestic	45.7	24.4	26.2	8.8	42.7	CLAY (0-24.4 m) QUARTZITE (24.4-45.7 m)
831335	HOLLAND ROAD	WELLINGTON STATION	4/25/1983	Domestic	73.1	30.5	32.9	NA	67.1, 73.2	BOULDERS & CLAY (0-30.5m) SLATE (30.5-73.15m)
71113	HIGHWAY #102 (BICENTENNIAL DRIVE) EXIT 5A, GOFFS	OLD HOLLAND ROAD	9/27/2007	NA	62.4	2.4	12.2	0.6	33.5, 36, 51.8	GRAVEL & SHALE (0-2.4m) SHALE (2.4-62.5m)
81078	203 AEROTECH DRIVE, HRM	GOFFS	8/20/2008	Industrial	121.8	1.5	6.1	3.0	12.2, 45.7, 76.2, 91.4	SAND & ROCK (0-1.5m) QUARTZITE (1.5-121.9m)
81079	203 AEROTECH DRIVE	GOFFS	8/22/2008	Industrial	91.4	2.1	6.1	3.0	NA	SAND (0-2.1 m) QUARTZITE (2.1-91.4 m)
150186	203 AEROTECH DRIVE, GOFFS, HRM	GOFFS	10/28/2015	NA	121.8	NA	NA	3.0	NA	NA (Decommissioned)
Water Well Logs within a 2 km Radius of the Goffs Quarry Property Boundary										
150184	104 CLIVEDON COURT, FALL RIVER	FLETCHERS LAKE	10/29/2015	Domestic	129.4	21.3	24.1	128.0	73.2, 123.4	CLAY (0-21.3 m) SLATE (21.3-129.4 m)
42817	36 OAKBANK LANE	FALL RIVER	12/14/2004	Domestic	103.5	0.9	6.1	NA	15.8, 19.8, 54.9, 74.7	TILL (0-0.3 m) QUARTZITE (0.3-103.5 m)
80987	382 PREAKNESS CRESCENT, FALL RIVER, HRM	FLETCHERS LAKE	4/29/2008	Heat Transfer	137.0	19.2	24.4	NA	NA	CLAY (0-19.2 m) QUARTZITE (19.2-137 m)

Appendix C4 - Online Well Database Summary within 1 and 2 km Radii of the Site Boundary

Well Number	Address	Community	Completion Date (dd/mm/yyyy)	Water Use	Well Depth (m)	Bedrock Depth (m)	Casing Depth (m)	Static Water Levels (m)	Water Bearing Zones (m)	Stratigraphic Layers (fmt)
911081	KENDALMARK	FLETCHERS LAKE	12/5/1991	Domestic	91.4	27.4	30.5	NA	79.2, 88.4	CLAY (0-27.4 m) SLATE (27.4-91.4 m)
50565	83 Preakness Crescent	FALL RIVER	3/10/2005	Domestic	97.4	12.8	15.2	97.5	85.3, 94.5	CLAY (0-12.8 m) QUARTZITE (12.8-97.4 m)
170617	251 CLIVEDON COURT	FALL RIVER	7/1/2017	Domestic	99.0	1.8	6.1	6.1	9.1, 18.3, 94.5	CLAY (0-1.8 m) QUARTZITE (1.8-99 m)
90515	206 PREAKNESS CRESCENT, FALL RIVER, HRM	FLETCHERS LAKE	12/11/2009	Domestic	56.3	2.7	6.1	3.7	43.3, 54.3	FILL (0-2.7 m) SLATE (2.7-56.3 m)
902957	PHILP STREET	FLETCHERS LAKE	9/22/1990	Domestic	86.2	22.8	24.4	NA	54.9, 86.3	CLAY (0-22.8 m) SLATE (22.8-86.2 m)
41646	452 PREAKNESS CRESCENT	FALL RIVER	9/15/2004	Domestic	56.3	8.2	10.7	7.6	55.2	CLAY (0-8.2 m) SHALE (8.2-56.3 m)
120923	142 CLIVEDON COURT, FALL RIVER	FLETCHERS LAKE	6/30/2012	Domestic	129.4	6.1	48.7	7.6	375.0	CLAY (0-6.1 m) SLATE (6.1-129.4 m)
200502	CLIVEDON COURT	FALL RIVER	2/24/2020	Domestic	152.3	4.6	36.5	NA	22.8	CLAY (0-4.6m) SLATE (4.6-152.3 m)
70894	131 SANCTUARY COURT	FALL RIVER	6/30/2007	Domestic	56.3	9.1	13.4	4.6	22.8	CLAY (0-9.1 m) QUARTZITE (9.1-56.3 m)
70316	153 SANCTUARY COURT	FALL RIVER	12/11/2007	Domestic	91.4	4.3	7.0	3.0	48.8, 85.3	CLAY & BOULDERS (0-4.3 m) QUARTZITE (4.3-91.4 m)
32734	765 PERRIN DRIVE	FALL RIVER	9/1/2003	Domestic	140.1	1.8	6.1	6.1	NA	CLAY (0-1.8m) QUARTZITE (1.8-140.2m)
40123	30 OAKBANK LANE	FALL RIVER	5/21/2004	Domestic	115.7	1.8	6.1	4.6	114.3	SAND & GRAVEL (0-1.8m) SHALE & QUARTZITE (1.8-115.8m)
20872	265 HOLLAND ROAD	FLETCHERS LAKE	6/15/2002	Domestic	73.1	1.2	6.1	NA	48.8	FILL (0-1.2m) SLATE (1.2-73.2m)
841719	NA	WELLINGTON STATION	5/28/1984	NA	29.5	NA	6.4	1.2	NA	NA
51010	398 Preakness Crescent	FALL RIVER	10/1/2005	Domestic	92.9	10.4	12.2	3.7	48.8, 88.4	CLAY (0-10.4m) SHALE (10.4-93m)
50076	92 Preakness Court	FALL RIVER	2/16/2005	Domestic	97.4	18.3	21.3	15.2	NA	GRAVEL (0-18.3) QUARTZITE (18.3-97.5m)
841742	NA	WELLINGTON STATION	8/20/1984	Domestic	48.7	13.7	16.8	10.7	39.6, 48.8	CLAY & BOULDERS (0-13.7 m) SLATE (13.7-48.7 m)
180441	229 HOLLAND ROAD	FALL RIVER	11/8/2018	Domestic	153.8	3.0	9.1	3.0	152.4	GRAVEL & TOPSOIL (0-3m) SLATE (3-154m)
903043	NA	FLETCHERS LAKE	5/7/1990	NA	80.7	2.1	12.2	NA	16.3, 60	MUD & ROCK (0-2.1 m) SLATE (2.1-80.7 m)
42779	261 PREAKNESS CRESCENT	FALL RIVER	11/16/2004	Domestic	86.8	11.3	14.3	9.1	86.9	CLAY (0-11.3m) QUARTZITE (11.3-86.9m)
140291	75 KAREN AVENUE, FALL RIVER, HRM	FLETCHERS LAKE	9/27/2014	Domestic	164.4	NA	NA	NA	NA	PREDRILLED (0-127.1m) SLATE (127.1-164.6m)

Appendix C4 - Online Well Database Summary within 1 and 2 km Radii of the Site Boundary

Well Number	Address	Community	Completion Date (dd/mm/yyyy)	Water Use	Well Depth (m)	Bedrock Depth (m)	Casing Depth (m)	Static Water Levels (m)	Water Bearing Zones (m)	Stratigraphic Layers (fmt)
40490	124 PREAKNESS CRESCENT	FALL RIVER	8/17/2004	Domestic	73.1	12.2	17.1	4.6	29, 41.2, 55.8	CLAY & GRAVEL (0-12.2m) QUARTZITE (12.2-73.2m)
51951	58 Delray Court	FALL RIVER	8/23/2005	Domestic	103.5	15.2	18.3	24.4	64, 88.4, 94.5	SAND & GRAVEL & BOULDERS (0-15.2m) QUARTZITE (15.2-103.6m)
960697	90 HOLLAND	FLETCHERS LAKE	8/27/1996	Domestic	74.6	13.7	15.2	NA	NA	CLAY (0-13.7m) SLATE (13.7-74.7m)
160862	221 CLIVEDON COURT	FALL RIVER	2/1/2016	Domestic	118.8	1.8	6.1	9.1	73.2, 103.6	CLAY (0-1.8m) SLATE (1.8-118.9m)
932430	MICHAEL LANE	FALL RIVER	6/11/1993	Domestic	104.4	21.9	24.4	21.3	36.6, 104.5	CLAY (0-21.9m) SLATE (21.9-104.5m)
180472	229 HOLLAND ROAD	FALL RIVER	8/30/2018	Domestic	99.0	6.4	10.4	9.1	59.4, 77.7	CLAY (0-6.4m) SLATE (6.4-99.1m)
50648	137 Sanctuary Court, Miller Lake	FALL RIVER	12/17/2005	Domestic	91.4	8.2	12.2	15.2	48.8, 88.4	CLAY & HARDPAN (0-8.2m) SHALE (8.2-91.4m)
70307	794 PERRIN DRIVE	FALL RIVER	9/29/2007	Domestic	140.1	4.0	6.1	30.5	115.8	CLAY (0-4m) QUARTZITE (4-140.2m)
200483	2 TREVOR AVENUE	FALL RIVER	5/19/2020	Domestic	109.6	NA	NA	NA	NA	SLATE (40.8-109.7m)
841791	NA	WELLINGTON STATION	10/10/1984	Domestic	49.6	22.8	24.4	9.1	45.7, 49.6	CLAY & BOULDERS (0-22.8 m) SLATE (22.8-49.6m)
41419	74 PREAKNESS CRESCENT, MILLER LAKE WEST	FLETCHERS LAKE	8/15/2004	Domestic	109.6	13.7	15.2	15.2	80.7	CLAY (0-13.7m) QUARTZITE (13.7-109.7m)
50029	283 Preakness Crescent, Miller Lake West	FALL RIVER	3/3/2005	Domestic	127.9	15.2	18.3	18.3	103.6, 115.8	CLAY, GRAVEL (0-15.2m) SHALE (15.2-128m)
150311	66 CLIVEDON COURT, FALL RIVER, HRM	FLETCHERS LAKE	11/9/2015	Domestic	129.4	18.3	20.7	15.2	57.9, 117.3	CLAY (0-18.3m) SLATE (18.3-129.5m)
960692	NA	FLETCHERS LAKE	7/3/1996	Domestic	74.6	3.0	7.0	4.6	6.1, 70.1	CLAY (0-3m) SLATE (3-74.7m)
140440	HOLLAND ROAD, WELLINGTON, HRM	OLD HOLLAND ROAD	8/6/2014	Domestic	123.3	13.7	18.3	6.1	NA	TILL (0-7.6m) HARDPAN (7.6-13.7m) SHALE (13.7-123.4m)
120852	122 CLIVEDON COURT, FALL RIVER	FLETCHERS LAKE	5/31/2012	Domestic	137.0	18.3	24.4	NA	42.7	CLAY (0-18.3m) SLATE (18.3-137.2m)
1161	19 TREVOR AVENUE, FALL RIVER	FLETCHERS LAKE	9/19/2000	Domestic	103.5	18.6	21.3	NA	79.2, 100.6	CLAY & BOULDERS (0-18.6m) SLATE (18.6-103.6m)
200330	THEO LANE	FALL RIVER	6/4/2020	Domestic	115.7	1.5	12.2	NA	NA	OVERBURDEN & TILL (0-1.5m) SHALE (1.5-115.8m)
32669	21 DELRAY COURT	FALL RIVER	12/23/2003	Domestic	105.1	8.8	12.2	103.6	25.9, 100.6	CLAY & BOULDERS (0-8.8m) SHALE (8.8m-105.2m)
841900	NA	FALL RIVER	10/5/1984	Domestic	82.2	7.6	9.4	NA	79.3	BOULDERS & CLAY (0-7.6 m) GRANITE (7.6-82.2 m)
180473	229 HOLLAND ROAD	FALL RIVER	8/30/2018	Domestic	129.4	7.3	10.7	6.1	83.8	CLAY (0-7.3m) SLATE (7.3-129.5m)

Appendix C4 - Online Well Database Summary within 1 and 2 km Radii of the Site Boundary

Well Number	Address	Community	Completion Date (dd/mm/yyyy)	Water Use	Well Depth (m)	Bedrock Depth (m)	Casing Depth (m)	Static Water Levels (m)	Water Bearing Zones (m)	Stratigraphic Layers (fnt)
80026	68 DELRAY COURT, HRM	FALL RIVER	1/31/2008	Domestic	80.7	12.2	14.6	4.3	48.8, 78.3	CLAY & BOULDERS (0-12.2m) SHALE (12.2-80.1m)
910495	NA	WINDSOR JUNCTION	9/20/1991	Domestic	103.5	6.1	9.1	NA	61, 79.3	CLAY (0-6.1 m) SLATE (6.1-103.5 m)
860368	HOLLAND ROAD	FLETCHERS LAKE	7/12/1986	Domestic	67.0	21.3	24.4	NA	54.9, 67.1	CLAY & BOULDERS (0-21.3m) SLATE (21.3-67.1m)
41658	453 PREAKNESS CRESCENT	FALL RIVER	7/8/2004	Domestic	56.3	9.7	12.2	6.1	42.7, 54.9	CLAY (0-9.8m) SHALE (9.8-56.4m)
170589	295 CLIVEDON COURT	FALL RIVER	3/1/2017	Domestic	112.7	1.2	8.8	6.1	30.5	CLAY (0-1.2m) SLATE (1.2-82.3m)
121695	184 PREAKNESS CRESCENT, FALL RIVER, HRM	FLETCHERS LAKE	7/18/2012	Domestic	91.4	4.6	8.5	6.1	9.2, 91.5	TILL (0-4.6m) WHINROCK (4.6-91.5m)
150185	203 AEROTECH DRIVE, GOFFS, HRM	GOFFS	10/28/2015	NA	121.8	NA	NA	3.0	NA	NA (Decommissioned)
80988	382 PREAKNESS CRESCENT, FALL RIVER, HRM	FLETCHERS LAKE	4/30/2008	Domestic	121.8	20.1	24.4	15.2	NA	SAND & ROCKS (0-20.1m) QUARTZITE (20.1-121.9m)
782562	28 KAREN AVENUE	FLETCHERS LAKE	8/21/1978	NA	91.4	2.4	6.7	NA	NA	CLAY (0-2.4m) SLATE (2.4-91.4m)
50374	136 Preakness Crescent	FALL RIVER	5/19/2005	Domestic	103.5	7.0	12.2	9.1	16.8, 56.4, 68.6	TILL & GRAVEL & BOULDERS (0-6.7m) QUARTZITE (6.7-103.6m)
100201	67 MORNINGTON COURT, FALL RIVER, HRM	FLETCHERS LAKE	6/30/2010	Domestic	99.0	6.1	8.5	3.7	85.3	SOIL/EARTH (0-6.1m) SHALE (6.1-99.1m)
811836	NA	WELLINGTON STATION	12/2/1982	Domestic	32.0	0.6	6.1	NA	NA	CLAY (0-0.6 m) SLATE (0.6-32 m)
931944	BROOK STREET	FALL RIVER	11/24/1993	Domestic	76.1	22.2	26.2	NA	38.1, 72.2	SAND & GRAVEL (0-22.3m) SLATE (22.3-71.6m) QUARTZITE (71.6-73.2m) SLATE (73.2-76.2m)
50915	125 Preakness Crescent	FALL RIVER	12/14/2005	Domestic	92.9	10.4	NA	3.7	85.3	CLAY (0-10.4m) SHALE (10.4-93m)
40442	36 OAKBANK LANE	FALL RIVER	7/19/2004	Domestic	79.2	0.9	6.1	9.1	15.8, 19.8, 54.9, 74.7	CLAY (0-0.9m) QUARTZITE (0.9-79.2m)
140240	739 PERRIN DRIVE, FALL RIVER	FLETCHERS LAKE	8/5/2014	Domestic	91.4	0.5	6.1	91.4	24.7, 44.5, 54.3	CLAY (0-0.6m) SLATE & SHALE (0.6-6.1m) SLATE (6.1-54.3m) SLATE & SHALE (54.3-91.4m)
60332	9 SUTHERLAND DRIVE	FALL RIVER	4/24/2006	Domestic	111.1	3.0	6.1	12.2	94.5	FILL & GRAMITE (0-1m) GRANITE (1-111.3m)
200284	CLIVEDON COURT	FALL RIVER	8/14/2020	Domestic	121.8	8.2	12.2	NA	NA	OVERBURDEN & TILL (0-6.4m) SLATE (6.4-121.9m)
200503	111 CLIVEDON COURT	FALL RIVER	2/24/2020	Domestic	170.5	18.3	24.4	NA	NA	CLAY (0-18.3m) SLATE (18.3-170.7m)
941567	KAREN AVENUE	FLETCHERS LAKE	7/20/1994	Domestic	92.3	9.7	12.2	NA	NA	CLAY (0-9.8m) SLATE (9.8-92.4m)
61309	501 PREAKNESS CRESCENT	FALL RIVER	12/15/2006	Domestic	121.8	2.4	6.1	6.1	27.4, 115.8	CLAY (0-2.4m) QUARTZITE (2.4-121.9m)

Appendix C4 - Online Well Database Summary within 1 and 2 km Radii of the Site Boundary

Well Number	Address	Community	Completion Date (dd/mm/yyyy)	Water Use	Well Depth (m)	Bedrock Depth (m)	Casing Depth (m)	Static Water Levels (m)	Water Bearing Zones (m)	Stratigraphic Layers (fmt)
40468	30 DELRAY COURT	FALL RIVER	9/30/2004	Domestic	97.4	17.7	20.9	14.6	29, 38.1, 89.9	CLAY & SAND & GRAVEL & BOULDERS (0-20.7m) QUARTZITE (20.7-97.5m)
71144	75 (115?) SANCTUARY COURT, HRM	FALL RIVER	7/25/2007	Domestic	86.8	9.7	12.2	4.6	73.2, 85.6	CLAY & BOULDERS (0-9.8m) SHALE (9.80-86.9m)
170650	315 CLIVEDON COURT	FALL RIVER	11/1/2017	Domestic	80.7	3.7	6.1	6.1	48.8, 67.1	CLAY (0-3.4m) SLATE (3.4-80.8m)
721027	NA	NA	9/1/1972	Domestic	36.5	NA	28.9	9.1	9.1	CLAY (0-15.2 m) Clay & BOULDERS (15.2-22.9) GRAVEL & SAND & CLAY (22.9-36.5 m)
802625	NA	FLETCHERS LAKE	11/13/1980	Domestic	30.5	0.6	5.8	2.1	29, 30.48	CLAY (0-0.6m) SLATE (0.6-30.48m)
870837	HOLLAND ROAD	FLETCHERS LAKE	11/15/1987	Domestic	42.6	16.1	18.3	NA	36.6, 42.7	CLAY, SAND (0-16.1m) SLATE (16.1-42.7m)
980857	MICHAEL LANE	FLETCHERS LAKE	11/17/1998	Domestic	123.9	18.3	21.9	22.8	117.3	CLAY (0-18.3m) SLATE (18.3-124.1m)
130919	125 SANCTUARY COURT, FALL RIVER, HRM	FLETCHERS LAKE	9/9/2013	Domestic	121.8	5.2	12.2	NA	NA	CLAY & ROCKS (0-5.1m) BEDROCK (5.1-121.9m)
120847	272 CLIVEDON COURT, FALL RIVER	FLETCHERS LAKE	6/30/2012	Domestic	121.8	1.5	12.2	4.6	109.7	CLAY (0-1.5m) SLATE (1.5-121.9m)
841749	NA	WELLINGTON STATION	12/10/1984	Domestic	43.5	10.4	12.2	3.0	40.8, 43.6	CLAY (0-10.4 m) QUARTZITE (10.4-43.5 m)
775	75 KAREN AVENUE	FALL RIVER	7/13/2000	Domestic	127.9	18.9	19.5	NA	NA	CLAY & BOULDERS (0-18.9m) SLATE (18.9-128m)
80430	215 PREAKNESS CRESCENT, FALL RIVER	FLETCHERS LAKE	6/10/2008	Domestic	79.2	6.7	8.8	15.2	74.7	CLAY (0-6.7m) QUARTZITE (6.7-79.2m)
61333	305 HOLLAND ROAD	FLETCHERS LAKE	10/3/2006	Domestic	91.7	NA	25.6	NA	NA	NA
101631	300 PREAKNESS CRESCENT, FALL RIVER	FLETCHERS LAKE	12/16/2010	Domestic	73.1	7.3	12.2	9.1	18.3, 38.1, 73.2	CLAY & SILT (0-7.3m) WHINROCK (7.3-73.2m)
120887	214 CLIVEDON COURT, FALL RIVER	FLETCHERS LAKE	8/31/2012	Domestic	121.8	1.5	12.2	6.1	NA	MUD (0-1.5m) SLATE (1.5-121.9m)
40443	36 OAKBANK LANE	FALL RIVER	11/18/2004	Domestic	79.2	0.9	6.1	3.0	NA	NA
101238	414 PREAKNESS CRESCENT, FALL RIVER	FLETCHERS LAKE	1/31/2010	Domestic	117.2	7.6	12.2	6.1	106.7	CLAY (0-7.6m) QUARTZITE (7.6-117.3m)
90602	354 PREAKNESS CRESCENT, FALL RIVER, HRM	FLETCHERS LAKE	8/12/2009	Domestic	123.3	18.3	20.7	5.5	100.6	CLAY (0-18.3m) SHALE (18.3-123.4m)
140241	716 PERRIN DRIVE, FALL RIVER	FLETCHERS LAKE	8/1/2014	Domestic	91.4	8.5	12.2	91.4	27.1, 34.7, 50.9	CLAY & BOULDERS (0-8.5m) SHALE (8.5-91.4m)
60333	799 PERRIN DRIVE	FALL RIVER	4/26/2006	Domestic	105.1	1.8	6.1	3.0	97.5	SHALE (0-105.2m)
90562	252 PREAKNESS CRESCENT, FALL RIVER, HRM	FLETCHERS LAKE	6/9/2009	Domestic	92.9	2.4	6.1	3.7	57.9, 87.5	FILL (0-2.4m) SHALE (2.4-93m)

Appendix C4 - Online Well Database Summary within 1 and 2 km Radii of the Site Boundary

Well Number	Address	Community	Completion Date (dd/mm/yyyy)	Water Use	Well Depth (m)	Bedrock Depth (m)	Casing Depth (m)	Static Water Levels (m)	Water Bearing Zones (m)	Stratigraphic Layers (fmt)
971996	HENRY STREET	FLETCHERS LAKE	12/16/1997	Domestic	60.9	18.3	21.3	6.1	48.8	CLAY (0-18.3m) SLATE (8.3-61m)
121136	238 PREAKNESS CRESCENT, FALL RIVER, HRM	FLETCHERS LAKE	6/11/2012	Domestic	62.4	2.4	9.1	3.0	39.6, 53.3	CLAY & GRAVEL (0-2.4m) SHALE (2.4-62.5m)
130644	246 CLIVEDON COURT, FALL RIVER	FLETCHERS LAKE	5/31/2013	Domestic	137.0	3.0	12.2	4.6	45.7	CLAY (0-3m) SLATE (3-137.2m)
180471	229 HOLLAND ROAD	FALL RIVER	8/29/2018	Domestic	99.0	6.7	12.2	NA	42.7	CLAY (0-6.7m) SLATE (6.7-99.1m)
40506	NA	FALL RIVER	7/15/2004	Domestic	97.4	15.2	18.3	NA	90, 93	CLAY & GRAVEL & BOULDERS (0-15.2 m) QUARTZITE (15.2-97.4 m)
61467	58 DELRAY COURT	FALL RIVER	9/28/2006	Domestic	121.8	15.2	18.3	NA	64, 94.5	QUARTZITE (103.6-121.9m)
812245	HOLLAND ROAD	WELLINGTON STATION	3/30/1981	Domestic	91.4	33.5	36.2	NA	48.7, 88.4	CLAY & GRAVEL (0-33.5m) SLATE (33.5-91.4m)
2929	75 KAREN AVENUE	FALL RIVER	5/2/2000	Domestic	91.4	19.8	19.8	NA	NA	CLAY & SAND (0-19.8m) SLATE (19.8-91.4m)
930438	NA	FLETCHERS LAKE	8/2/1993	Domestic	67.0	36.6	NA	9.1	NA	UNKNOWN (0-36.6 m) SLATE (36.6-67 m)
40664	101 PREAKNESS CRESCENT	FALL RIVER	6/22/2004	Domestic	121.8	10.7	12.2	121.9	48.8	CLAY & BOULDERS (0-10.7m) QUARTZITE (10.7-121.9m)
40670		FALL RIVER	4/19/2004	Domestic	70.0	7.6	9.1	NA	42.7, 68.6	CLAY & HARDPAN (0-7.6m) SHALE (7.6-70.1m)
60720	33 PREAKNESS CRESCENT	FALL RIVER	9/8/2006	Domestic	74.6	2.4	9.1	3.7	45.7, 69.2	FILL (0-2.4m) SHALE (2.4-74.7m)
40417	438 PREAKNESS CRESCENT	FALL RIVER	10/19/2004	Domestic	67.0	10.1	12.2	9.1	19.8, 43.6, 56.1, 64	CLAY (0-10.1m) SHALE & QUARTZITE (10.1-67.1m)
90622	340 PREAKNESS CRESCENT, FALL RIVER, HRM	FLETCHERS LAKE	10/7/2009	Domestic	117.2	16.1	18.9	13.7	115.5	CLAY & STONE (0-16.2m) SHALE (16.2-117.3m)
911082	NA	FLETCHERS LAKE	11/6/1991	Domestic	73.1	5.5	12.2	NA	36.6, 67	CLAY & HARDPAN (0-5.5 m) SLATE (5.5-73.1 m)
802622	NA	WELLINGTON STATION	10/22/1980	Domestic	NA	NA	NA	NA	NA	NA
51984	136 Preakness Crescent	FALL RIVER	5/19/2005	Domestic	103.5	7.0	12.2	9.1	16.8, 56.4, 68.6	TILL & GRAVEL & BOULDERS (0-7m) QUARTZITE (7-103.6m)
200460	THEO LANE	FALL RIVER	4/7/2020	Domestic	97.4	1.5	12.2	NA	45.7, 74.1	CLAY & TILL (0-1.5m) SHALE (1.5-97.5m)
802270	NA	FLETCHERS LAKE	9/30/1980	Domestic	42.6	5.8	7.0	NA	21.3, 42.7	GRAVEL & CLAY (0-5.8 m) SLATE (5.8-42.6 m)
980003	HENERY STREET	FLETCHERS LAKE	1/14/1998	Domestic	80.7	21.3	24.4	12.2	76.2	CLAY (0-21.3m) SLATE (21.3-80.8m)
831494	NA	WELLINGTON STATION	8/17/1983	Domestic	48.7	7.6	9.7	5.2	30.5, 48.8	CLAY & BOULDERS (0-7.6 m) SLATE (7.6-48.7 m)

Appendix C4 - Online Well Database Summary within 1 and 2 km Radii of the Site Boundary

Well Number	Address	Community	Completion Date (dd/mm/yyyy)	Water Use	Well Depth (m)	Bedrock Depth (m)	Casing Depth (m)	Static Water Levels (m)	Water Bearing Zones (m)	Stratigraphic Layers (fnt)
50907	425 Preakness Crescent	FALL RIVER	2/2/2005	Domestic	99.0	9.1	12.2	4.6	89.9	CLAY (0-9.1m) SHALE (9.1-99.1m)
950675	NA	FALL RIVER	7/29/1995	Domestic	73.1	1.8	6.1	NA	38.1, 42.6	CLAY (0-1.8 m) SLATE (1.8-73.1 m)
141129	286 CLIVEDON COURT, FALL RIVER	FLETCHERS LAKE	8/31/2014	Domestic	86.8	1.5	12.2	6.1	76.2	CLAY (0-21.3m) SLATE (21.3-80.7m)
110835	222 PREAKNESS CRESCENT, FALL RIVER, HRM	FLETCHERS LAKE	6/21/2011	Domestic	74.6	7.3	9.4	3.7	12.2, 36.6, 67.1	FILL (0-4.2m) SHALE (4.2m-74.7m)
921433	NA	WELLINGTON STATION	2/20/1992	Domestic	92.3	16.8	18.3	NA	NA	CLAY (0-16.8 m) SLATE (16.8-74.6 m)
911958	KENDALMARK STREET	FLETCHERS LAKE	6/7/1991	Domestic	42.6	16.1	18.3	NA	30.5, 42.7	CLAY & BOULDERS (0-16.2m) SLATE (16.2-42.7m)
170615	CLIVEDON COURT	FALL RIVER	7/1/2017	Domestic	99.0	1.8	6.1	6.1	85.3	CLAY (0-1.8m) SLATE (1.8-99.1m)
180474	229 HOLLAND ROAD	FALL RIVER	8/31/2018	Domestic	129.4	6.4	12.2	6.1	82.3, 85.3	TOPSOIL & GRAVEL (0-6.4m) SLATE (6.4-129.5m)
831523	KAREN AVENUE	WELLINGTON STATION	8/4/1983	Domestic	68.5	9.7	10.7	13.7	24.4, 68.6	CLAY & BOULDERS (0-9.7m) SLATE (9.7-68.6m)
62018	339 PREAKNESS CRESCENT	FALL RIVER	8/21/2006	Domestic	121.8	22.8	24.4	18.3	79.2, 117.3	CLAY & BOULDERS (0-22.9m) SHALE (22.9-121.9m)
200331	CLIVEDON COURT	FALL RIVER	6/3/2020	Domestic	152.3	9.7	18.3	NA	NA	OVERBURDEN (0-9.8m) SLATE (9.8-152.4m)
920156	NA	FLETCHERS LAKE	7/2/1992	Domestic	73.1	0.9	6.1	NA	30.5, 73.2	UNKNOWN (0-0.9 m) SLATE (0.9-73.1 m)
41645	320 PREAKNESS CRESCENT	FALL RIVER	7/8/2004	Domestic	105.1	8.2	10.7	4.6	94.5	CLAY (0-8.2m) SHALE (8.2-105.2m)
90565	301 PREAKNESS CRESCENT, FALL RIVER, HRM	FLETCHERS LAKE	6/18/2009	Domestic	129.4	20.4	20.4	21.3	NA	CLAY (0-17.3m) SHALE (17.3-129.5m)
40441	20 DELRAY COURT	FALL RIVER	11/22/2004	Domestic	91.4	17.1	21.9	12.2	25.9, 28.3, 40.5, 80.8	TILL & GRAVEL & SAND (0-17.1m) QUARTZITE (17.1-91.4m)
50367	46 Oak Bank Lane	FALL RIVER	10/5/2005	Domestic	121.8	0.9	6.1	121.9	NA	SAND & GRAVEL (0-0.9m) GREYWACKE (0.9-121.9m)
120891	300 CLIVEDON COURT, FALL RIVER	FLETCHERS LAKE	7/31/2012	Domestic	80.7	3.0	12.2	NA	28, 57.9	CLAY (0-3m) SLATE (3-80.8m)
90886	368 PREAKNESS CRESCENT, FALL RIVER, HRM	FLETCHERS LAKE	8/25/2009	Domestic	105.1	21.3	23.1	7.6	99.7	CLAY (0-21.3m) SHALE (21.3-105.2m)
930773	MICHAEL LANE	FLETCHERS LAKE	6/6/1993	NA	NA	NA	NA	NA	NA	NA
121486	46 MORNINGTON COURT, FALL RIVER, HRM	FLETCHERS LAKE	10/26/2012	Domestic	91.4	8.2	12.2	NA	NA	DIRT & TILL (0-8.2m) QUARTZITE (8.2-91.4m)
200463	CLIVEDON COURT	FALL RIVER	4/6/2020	Domestic	152.3	9.1	30.5	9.1	NA	CLAY & TILL (0-9.1m) SLATE (9.1-152.4m)

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Well Number	Address	Community	Completion Date (dd/mm/yyyy)	Water Use	Well Depth (m)	Bedrock Depth (m)	Casing Depth (m)	Static Water Levels (m)	Water Bearing Zones (m)	Stratigraphic Layers (fnt)
61525	317 PREAKNESS CRESCENT	FALL RIVER	6/14/2006	Domestic	115.7	21.6	24.4	NA	27.1, 102.4, 111.6	CLAY & SAND (0-21.6m) QUARTZITE (21.6-115.8m)
40588	297 HOLLAND ROAD	FLETCHERS LAKE	8/24/2004	Domestic	123.3	19.5	21.9	NA	94.5, 100.6	CLAY & GRAVEL (0-19.5m) SLATE (19.5-123.4m)
971997	HENRY STREET	FLETCHERS LAKE	12/14/1997	Domestic	99.0	15.2	18.6	7.6	94.5	CLAY (0-15.2m) SLATE (15.2-99.1m)
980104	317 HOLLAND ROAD, FALL RIVER	WELLINGTON STATION	5/5/1998	Domestic	123.3	25.9	27.4	NA	111.3	CLAY (0-25.9m) SLATE (25.9-123.4m)
940733	TREVOR AVENUE	FLETCHERS LAKE	7/26/1994	Domestic	79.2	4.3	6.1	NA	48.8	CLAY (0-4.3m) SLATE (4.3-79.2m)
80829	842 PERRIN DRIVE, FALL RIVER, HRM	FLETCHERS LAKE	5/14/2008	Domestic	105.1	1.5	6.1	3.7	100.3	FILL (0-1.5m) SHALE (1.5-105.2m)
61451	38 PREAKNESS CRESCENT	FALL RIVER	7/5/2006	Domestic	85.3	3.0	12.2	15.2	23.8, 50.3, 64, 80.2	SAND & GRAVEL & BOULDERS & CLAY (0-3m) QUARTZITE (3-85.3m)
40498	PREAKNESS CRESCENT	FALL RIVER	8/5/2004	Domestic	97.4	6.7	12.2	NA	26.2, 75.9	TOPSOIL (0-1.5m) TILL & ROCKS & SAND (1.5-6.7m) ROCK (6.7-9.1m)
841827	NA	WELLINGTON STATION	7/6/1984	Domestic	45.1	19.2	22.2	3.7	64, 39	CLAY & ROCK (0-19.2 m) SLATE (19.2-45.1 m)
41648	42 DELRAY COURT	FALL RIVER	7/2/2004	Domestic	99.0	14.3	17.1	3.7	53.3, 96	CLAY (0-14.3m) QUARTZITE (14.3-99.1m)
821524	NA	WELLINGTON STATION	3/20/1981	Domestic	22.8	0.9	7.6	NA	18.3, 22.9	CLAY (0-0.9 m) SLATE (0.9-22.8 m)
870145	305 HOLLAND ROAD	FLETCHERS LAKE	3/21/1987	Domestic	91.4	23.8	25.9	NA	61, 91.4	CLAY & SAND (0-23.8m) SLATE (23.8-91.4m)
60017	41 MORNINGTON COURT	FALL RIVER	2/24/2006	Domestic	92.9	7.6	9.4	4.9	68.6	CLAY (0-7.6m) SHALE (7.6-93m)
160097	90 CLIVEDON COURT, HRM	FALL RIVER	4/25/2016	Domestic	140.1	20.4	24.4	NA	NA	TILL (0-20.4m) SLATE (20.4-140.2m)
90866	8 MORNINGTON COURT, FALL RIVER, HRM	FLETCHERS LAKE	12/9/2009	Domestic	62.4	10.1	12.2	3.0	53.3, 58.5	FILL (0-3.7m) CLAY (3.7-10m) SHALE (10-62.5m)
130779	280 PREAKNESS CRESCENT, FALL RIVER	FLETCHERS LAKE	11/4/2013	Domestic	122.1	5.5	12.2	9.1	68.6	CLAY & STONE (0-5.5m) QUARTZITE (5.5-122.2m)
150919	288 CLIVEDON COURT, FALL RIVER	FLETCHERS LAKE	8/31/2015	Domestic	106.6	2.4	12.2	4.6	48.8, 61	MUD (0-2.4m) SLATE (2.4-106.7m)
882053	NA	FLETCHERS LAKE	9/24/1988	Domestic	76.1	7.6	12.2	NA	72.2	CLAY (0-7.6 m) SLATE (7.6-76.1 m)
980132	21 BEHRENT COURT	FLETCHERS LAKE	5/22/1998	Domestic	97.4	67.1	NA	NA	79.2	UNKNOWN (0-67.1m) SLATE (67.1-97.6m)
140270	11 OAKBANK LANE, FALL RIVER, HRM	FLETCHERS LAKE	7/8/2014	Domestic	152.3	1.8	12.2	NA	NA	CLAY (0-1.8m) QUARTZITE (1.8-152.4m)
70996	232 PREAKNESS CRESCENT	FLETCHERS LAKE	10/2/2007	Domestic	97.4	3.4	6.1	97.5	22.9, 88.4	SAND & GRAVEL (0-3.4m) SHALE (3.4-97.5m)

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80437	237 PREAKNESS CRESCENT, FALL RIVER	FLETCHERS LAKE	5/19/2008	Domestic	109.6	13.7	18.3	18.3	85.3, 103.6	CLAY (0-13.7m) QUARTZITE (13.7-109.7m)
40059	PREAKNESS CRESCENT	FALL RIVER	1/21/2004	Domestic	91.4	12.2	15.2	NA	22.9, 46.7, 70.1, 73.2	SAND & TILL & GRAVEL (0-12.2m) QUARTZITE (12.2-91.4m)
40036	66 MORNINGTON COURT	FALL RIVER	5/12/2004	Domestic	85.3	5.8	12.2	3.0	50.3, 70.1	TILL (0-5.8m) SLATE (5.8-85.4m)
62013	145 SANCTUARY COURT	FALL RIVER	8/2/2006	Domestic	91.4	5.5	9.1	12.2	48.8	CLAY & BOULDERS (0-5.5m) SHALE (5.5-91.4m)
130653	320 CLIVEDON COURT, FALL RIVER	FLETCHERS LAKE	1/31/2013	Domestic	74.6	3.0	12.2	4.6	24.4, 48.8	CLAY (0-3m) SLATE (3-74.7m)
51942	47 Miller Lake West	FALL RIVER	9/18/2005	Domestic	48.7	4.6	9.1	6.1	25.3, 33.5, 38.1, 42.1	SAND & GRAVEL & BOULDERS (0-4.5m) QUARTZITE (4.5-48.8m)
140439	HOLLAND ROAD, WELLINGTON, HRM	OLD HOLLAND ROAD	8/5/2014	Domestic	123.3	12.2	15.8	4.6	29.9, 35.1	TILL & GRAVEL (0-3m) HARDPAN (3-9.1m) SHALE (9.1-123.4m)
921778	NA	FLETCHERS LAKE	11/10/1992	Domestic	39.6	4.0	6.1	NA	31.7, 37.5	CLAY & BOULDERS (0-4 m) SLATE & QUARTZITE (4-39.6 m)
972000	TRIPLE A STORE	FLETCHERS LAKE	9/9/1997	Domestic	109.6	48.8	NA	3.0	106.7	UNKNOWN (0-48.8m) SLATE (48.8-109.7m)
851421	NA	FLETCHERS LAKE	7/17/1985	Domestic	60.9	9.1	12.2	NA	NA	CLAY & BOULDERS (0-9.1 m) SLATE (9.1-60.9 m)
752788	NA	NA	7/1/1975	Domestic	91.4	17.7	19.2	NA	44.2	CLAY (0-17.7 m) SLATE (17.7-91.4 m)
120851	142 CLIVEDON COURT, FALL RIVER	FLETCHERS LAKE	5/30/2012	Domestic	137.0	6.1	12.2	NA	NA	CLAY (0-6.1m) SLATE (6.1-137.2m)
792435	NA	FALL RIVER	4/6/1979	Domestic	36.5	3.0	6.7	NA	30.5, 36.6	CLAY (0-3 m) SLATE (3-36.5 m)
860903	HOLLAND ROAD	FLETCHERS LAKE	9/29/1986	Domestic	103.5	22.5	24.4	NA	48.8, 103.6	CLAY (0-22.6m) SLATE (22.6-103.6m)
80789	165 PREAKNESS CRESCENT, FALL RIVER	FLETCHERS LAKE	12/2/2008	Domestic	91.4	8.5	9.4	91.4	NA	SILT (0-8.5m) SLATE (8.5-91.4m)
140459	266 PREAKNESS CRESCENT, FALL RIVER, HRM	FLETCHERS LAKE	6/17/2014	Domestic	117.2	2.1	7.6	3.0	NA	CLAY (0-2.1m) SLATE (2.1-117.3m)
81001	15 PREAKNESS CRESCENT, FALL RIVER, HRM	FLETCHERS LAKE	4/26/2008	Domestic	103.5	0.6	12.2	9.1	28.3, 44.5, 75.3	SAND & GRAVEL (0-0.6m) QUARTZITE (0.6-103.6m)
110461	500 PREAKNESS CRESCENT, FALL RIVER	FLETCHERS LAKE	6/2/2011	Domestic	91.4	0.5	6.1	1.5	16.8, 79.2, 89.9	CLAY (0-0.6m) QUARTZITE (0.6-91.4m)
30614	DELRAY COURT	FALL RIVER	9/11/2003	Domestic	76.1	7.6	9.7	7.6	57.9, 67.1	CLAY & BOULDERS (0-7.6m) QUARTZITE (7.6-76.2m)

Table C5-1. General Chemistry in Groundwater

Parameters	Baseline ¹	CDWQG		Sample ID	2025-MW01S	2025-MW01D	2025-MW02S	2025-MW-DUP1	2025-MW03S	2025-MW03D	MW16-1A	
		MAC ²	AO ²								17-Jun-25	18-Dec-25
					14-Aug-25	14-Aug-25	14-Aug-25	14-Aug-25	14-Aug-25	14-Aug-25		
pH	5.84 - 8.11	-	7.0 - 10.5	Unitless	7.31	6.76	6.58	6.83	6.41	6.65	5.71	6.05
Dissolved Chloride	-	-	≤ 250	mg/L	38	24	6	24	5	6	3.0	3.0
Fluoride	-	1.5	-	mg/L	0.18	0.18	<0.12	0.18	<0.12	<0.12	<0.12	<0.12
Dissolved Sulphate	-	-	≤ 500	mg/L	11	7	13	7	9	9	3	3
Alkalinity	-	-	-	mg/L	105	108	91	106	79	102	<5	10.00
Turbidity	35 - 6810	-	≤ 0.3	NTU	18.4	51.1	259.0	42.7	115.0	31.4	20.9	1.9
Electrical Conductivity	-	-	-	µS/cm	318	279	200	283	160	211	31.00	29.00
Nitrate + Nitrite as N	-	-	-	mg/L	0.14	<0.05	0.21	0.06	0.05	0.27	0.21	0.11
Nitrate as N	<0.05 - 1.71	10	-	mg/L	0.08	<0.05	0.21	0.06	0.05	0.27	0.21	0.11
Nitrite as N	-	1	-	mg/L	0.06	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Total Organic Carbon	-	-	-	mg/L	1	0.87	0.77	0.9	2.3	4.1	3.20	3.90
Ortho-Phosphate as P	-	-	-	mg/L	<0.01	<0.01	<0.01	0.01	<0.01	0.02	<0.01	<0.01
Bicarb. Alkalinity (as CaCO3)	-	-	-	mg/L	105	108	91	106	79	102	<5	10.00
Carb. Alkalinity (as CaCO3)	-	-	-	mg/L	<10	<10	<10	<10	<10	<10	<10	<10
Hydroxide	-	-	-	mg/L	<5	<5	<5	<5	<5	<5	<5	<5
Calculated TDS	-	-	≤ 500	mg/L	162	140	108	141	88	113	13	18
Hardness	-	-	-	mg/L	111	93.4	75.9	101	54.9	77.1	5.50	5.50
Langlier Index (@20C)	-	-	-	N/A	-0.78	-1.39	-1.65	-1.29	-2	-1.5	-4.87	-4.23
Langlier Index (@ 4C)	-	-	-	N/A	-1.1	-1.71	-1.97	-1.61	-2.32	-1.82	-5.19	-4.55
Saturation pH (@ 20C)	-	-	-	N/A	8.09	8.15	8.23	8.12	8.41	8.15	10.60	10.30
Saturation pH (@ 4C)	-	-	-	N/A	8.41	8.47	8.55	8.44	8.73	8.47	10.90	10.60
Anion Sum	-	-	-	me/L	3.41	2.98	2.27	2.95	1.91	2.42	0.16	0.35
Cation sum	-	-	-	me/L	2.63	2.31	1.74	2.45	1.32	1.8	0.28	0.28
% Difference/ Ion Balance	-	-	-	%	12.9	12.8	13.3	9.3	18.4	14.5	26.20	12.60
Reactive Silica as SiO2	-	-	-	mg/L	10.30	11.60	8.20	12.30	9.30	11.30	6.0	6.8
True Colour	-	-	≤ 15	TCU	<5	<5	<5	<5	<5	<5	<5	10.0
Ammonia as N	-	-	0.05 (OG)	mg/L	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03

Notes:

1. Baseline groundwater results were collected in June 2016 and July 2017 by Golder Associates Ltd.
 2. Summary of Canadian Drinking Water Quality Guidelines (CDWQG), Health Canada, December 2025.
- MAC= Maximum Acceptable Concentration (MAC) - established for substances that are known or suspected to cause adverse effects on health.
- AO= Aesthetic Objectives (AO) - apply to characteristics of drinking water that can affect its acceptance by consumers or interfere with practices for supplying good quality water.

"-" = No Guideline

OG = Operational Guideline

Screening:

Bold

Indicates values are greater than CDWQG, MAC

Double Underline

Indicates values are greater than CDWQG, AO

Shaded

Indicates values are greater than Baseline Samples, determined to be results collected between June 2016 and July 2017.

Table C5-1. General Chemistry in Groundwater

Parameters	Baseline ¹	CDWQG		Sample ID		MW16-1B		MW16-1C		MW16-1D		MW16-1E	
		MAC ²	AO ²										
				Sample Date	16-Jun-25	18-Dec-25		17-Jun-25	18-Dec-25	17-Jun-25	18-Dec-25	17-Jun-25	18-Dec-25
pH	5.84 - 8.11	-	7.0 - 10.5	Unitless	6.20	6.21		6.93	7.15	7.15	7.45	7.25	7.23
Dissolved Chloride	-	-	≤ 250	mg/L	3.0	3.0		4.0	3.0	4.0	7.0	6.0	6.0
Fluoride	-	1.5	-	mg/L	<0.12	<0.12		<0.12	<0.12	<0.12	<0.12	<0.12	<0.12
Dissolved Sulphate	-	-	≤ 500	mg/L	4	3		11	10	166	93	145	144
Alkalinity	-	-	-	mg/L	35.00	14.00		132.00	125.00	196.00	203.00	188.00	187.00
Turbidity	35 - 6810	-	≤ 0.3	NTU	17.8	27.9		23.2	9.2	2.2	2.2	323.0	267.0
Electrical Conductivity	-	-	-	µS/cm	84.00	43.00		284.00	280.00	696.00	614.00	657.00	651.00
Nitrate + Nitrite as N	-	-	-	mg/L	0.20	0.07		0.18	0.08	3.50	2.46	4.24	4.23
Nitrate as N	<0.05 - 1.71	10	-	mg/L	0.20	0.07		0.18	0.08	3.50	2.38	4.19	4.23
Nitrite as N	-	1	-	mg/L	<0.05	<0.05		<0.05	<0.05	<0.05	0.08	0.05	<0.05
Total Organic Carbon	-	-	-	mg/L	3.00	5.10		2.50	3.20	1.80	1.60	2.20	2.10
Ortho-Phosphate as P	-	-	-	mg/L	0.01	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Bicarb. Alkalinity (as CaCO3)	-	-	-	mg/L	35.00	14.00		132.00	125.00	196.00	203.00	188.00	187.00
Carb. Alkalinity (as CaCO3)	-	-	-	mg/L	<10	<10		<10	<10	<10	<10	<10	<10
Hydroxide	-	-	-	mg/L	<5	<5		<5	<5	<5	<5	<5	<5
Calculated TDS	-	-	≤ 500	mg/L	46	23		157	143	457	349	430	425
Hardness	-	-	-	mg/L	33.20	11.70		125.00	110.00	361.00	266.00	341.00	333.00
Langlier Index (@20C)	-	-	-	N/A	-2.72	-3.54		-0.89	-0.74	-0.07	0.12	-0.02	-0.05
Langlier Index (@ 4C)	-	-	-	N/A	-3.04	-3.86		-1.21	-1.06	-0.39	-0.20	-0.34	-0.37
Saturation pH (@ 20C)	-	-	-	N/A	8.92	9.75		7.82	7.89	7.22	7.33	7.27	7.28
Saturation pH (@ 4C)	-	-	-	N/A	9.24	10.10		8.14	8.21	7.54	7.65	7.59	7.60
Anion Sum	-	-	-	me/L	0.88	0.43		2.99	2.80	7.74	6.37	7.25	7.21
Cation sum	-	-	-	me/L	0.83	0.38		3.05	2.69	7.72	5.79	7.42	7.26
% Difference/ Ion Balance	-	-	-	%	3.10	5.80		0.90	2.10	0.10	4.70	1.20	0.40
Reactive Silica as SiO2	-	-	-	mg/L	6.5	7.3		10.1	12.8	8.4	9.4	8.1	7.9
True Colour	<5.0 - 16	-	≤ 15	TCU	<5	19.0		<5	9.0	<5	6.0	<5	<5
Ammonia as N	-	-	0.05 (OG)	mg/L	<0.03	<0.03		<0.03	<0.03	<0.03	<0.03	<0.03	<0.03

Notes:

- Baseline groundwater results were collected in June 2016 and July 2017 by Golder Associates Ltd.
- Summary of Canadian Drinking Water Quality Guidelines (CDWQG), Health Canada, Dec 2011

MAC= Maximum Acceptable Concentration (MAC) - established for substances that are known

or suspected to cause adverse effects on health.

AO= Aesthetic Objectives (AO) - apply to characteristics of drinking water that can affect its acceptance by consumers or interfere with practices for supplying good quality water.

"-" = No Guideline

OG = Operational Guideline

Screening:

Bold Indicates values are greater than CDWQG, MAC

Double Underline Indicates values are greater than CDWQG, AO

Shaded Indicates values are greater than Baseline Samples, determined to be results collected between June 2016 and July 2017.

Table C5-1. General Chemistry in Groundwater

Parameters	Baseline ¹	CDWQG		Sample ID	MW17-6A		MW17-6B		MW17-6C	
		MAC ²	AO ²		16-Jun-25	18-Dec-25	16-Jun-25	18-Dec-25	16-Jun-25	18-Dec-25
				Sample Date				GW-DUP-01 (Field Dup of MW17-6B)		
pH	5.84 - 8.11	-	7.0 - 10.5	Unitless	7.03	7.23	6.66	6.98	6.03	6.24
Dissolved Chloride	-	-	≤ 250	mg/L	4.0	4.0	4.0	4.0	4.0	4.0
Fluoride	-	1.5	-	mg/L	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12
Dissolved Sulphate	-	-	≤ 500	mg/L	6	5	5	4	4	4
Alkalinity	-	-	-	mg/L	114.00	101.00	78.00	77.00	13.00	12.00
Turbidity	35 - 6810	-	≤ 0.3	NTU	1.0	1.0	7.8	19.0	1.9	4.0
Electrical Conductivity	-	-	-	µS/cm	233.00	220.00	160.00	171.00	49.00	52.00
Nitrate + Nitrite as N	-	-	-	mg/L	0.20	<0.05	0.17	<0.05	0.14	<0.05
Nitrate as N	<0.05 - 1.71	10	-	mg/L	0.20	<0.05	0.17	<0.05	0.14	<0.05
Nitrite as N	-	1	-	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Total Organic Carbon	-	-	-	mg/L	0.70	<0.5	0.53	<0.5	0.68	<0.5
Ortho-Phosphate as P	-	-	-	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Bicarb. Alkalinity (as CaCO3)	-	-	-	mg/L	114.00	101.00	78.00	77.00	13.00	12.00
Carb. Alkalinity (as CaCO3)	-	-	-	mg/L	<10	<10	<10	<10	<10	<10
Hydroxide	-	-	-	mg/L	<5	<5	<5	<5	<5	<5
Calculated TDS	-	-	≤ 500	mg/L	129	111	85	86	25	24
Hardness	-	-	-	mg/L	115.00	93.70	61.00	71.90	16.50	13.50
Langlier Index (@20C)	-	-	-	N/A	-0.88	-0.81	-1.67	-1.29	-3.64	-3.54
Langlier Index (@ 4C)	-	-	-	N/A	-1.20	-1.13	-1.99	-1.61	-3.96	-3.86
Saturation pH (@ 20C)	-	-	-	N/A	7.91	8.04	8.33	8.27	9.67	9.78
Saturation pH (@ 4C)	-	-	-	N/A	8.23	8.36	8.65	8.59	9.99	10.10
Anion Sum	-	-	-	me/L	2.53	2.24	1.79	1.74	0.47	0.44
Cation sum	-	-	-	me/L	2.52	2.06	1.41	1.61	0.45	0.41
% Difference/ Ion Balance	-	-	-	%	0.20	4.10	11.90	3.80	1.40	3.40
Reactive Silica as SiO2	-	-	-	mg/L	6.9	11.6	6.0	9.4	3.4	5.9
True Colour	<5.0 - 16	-	≤ 15	TCU	<5	6.0	<5	5.0	<5	<5
Ammonia as N	-	-	0.05 (OG)	mg/L	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03

Notes:

1. Baseline groundwater results were collected in June 2016 and July 2017 by Golder Associates Inc.
2. Summary of Canadian Drinking Water Quality Guidelines (CDWQG), Health Canada, Decem
MAC= Maximum Acceptable Concentration (MAC) - established for substances that are known
or suspected to cause adverse effects on health.
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acceptance by consumers or interfere with practices for supplying good quality water.

"-" = No Guideline

OG = Operational Guideline

Screening:

Bold

Indicates values are greater than CDWQG, MAC

Double Underline

Indicates values are greater than CDWQG, AO

Shaded

Indicates values are greater than Baseline Samples,
determined to be results collected between June 2016
and July 2017.

Table C5-1. General Chemistry in Groundwater

Parameters	Baseline ¹	CDWQG		Sample ID	MW17-7A		MW17-7B		QA/QC
		MAC ²	AO ²						
					17-Jun-25	18-Dec-25	17-Jun-25	18-Dec-25	
pH	5.84 - 8.11	-	7.0 - 10.5	Unitless	<u>6.93</u>	<u>6.50</u>	<u>6.70</u>	<u>6.99</u>	MW16-1E & MW17-6B FD
Dissolved Chloride	-	-	≤ 250	mg/L	5.0	4.0	4.0	4.0	0.28
Fluoride	-	1.5	-	mg/L	<0.12	<0.12	0.13	<0.12	0.00
Dissolved Sulphate	-	-	≤ 500	mg/L	6	4	13	10	-
Alkalinity	-	-	-	mg/L	17.00	21.00	81.00	74.00	0.69
Turbidity	35 - 6810	-	≤ 0.3	NTU	<u>5.7</u>	<u>2.5</u>	<u>5.7</u>	<u>10.6</u>	0.53
Electrical Conductivity	-	-	-	µS/cm	63.00	64.00	178.00	182.00	18.98
Nitrate + Nitrite as N	-	-	-	mg/L	0.17	0.14	0.16	0.10	0.92
Nitrate as N	<0.05 - 1.71	10	-	mg/L	0.17	0.08	0.16	0.10	0.24
Nitrite as N	-	1	-	mg/L	<0.05	0.06	<0.05	<0.05	0.95
Total Organic Carbon	-	-	-	mg/L	0.67	<0.5	0.77	1.60	-
Ortho-Phosphate as P	-	-	-	mg/L	0.01	0.01	<0.01	<0.01	-
Bicarb. Alkalinity (as CaCO3)	-	-	-	mg/L	17.00	21.00	81.00	74.00	-
Carb. Alkalinity (as CaCO3)	-	-	-	mg/L	<10	<10	<10	<10	0.53
Hydroxide	-	-	-	mg/L	<5	<5	<5	<5	-
Calculated TDS	-	-	≤ 500	mg/L	30	32	103	89	-
Hardness	-	-	-	mg/L	13.90	18.90	86.10	67.20	-
Langlier Index (@20C)	-	-	-	N/A	-3.63	-2.94	-1.55	-1.40	2.37
Langlier Index (@ 4C)	-	-	-	N/A	-3.95	-3.26	-1.87	-1.72	1.68
Saturation pH (@ 20C)	-	-	-	N/A	9.66	9.44	8.25	8.39	-
Saturation pH (@ 4C)	-	-	-	N/A	9.98	9.76	8.57	8.71	-
Anion Sum	-	-	-	me/L	0.62	0.63	2.01	1.81	-
Cation sum	-	-	-	me/L	0.41	0.54	1.95	1.56	0.55
% Difference/ Ion Balance	-	-	-	%	20.20	7.30	1.70	7.40	2.18
Reactive Silica as SiO2	-	-	-	mg/L	7.7	14.5	12.3	21.9	-
True Colour	<5.0 - 16	-	≤ 15	TCU	<5	<5	<5	5.0	2.50
Ammonia as N	-	-	0.05 (OG)	mg/L	<0.03	<0.03	<0.03	<0.03	-

Notes:

1. Baseline groundwater results were collected in June 2016 and July 2017 by Golder Associates Inc.
2. Summary of Canadian Drinking Water Quality Guidelines (CDWQG), Health Canada, Dec 2001

MAC= Maximum Acceptable Concentration (MAC) - established for substances that are known or suspected to cause adverse effects on health.

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OG = Operational Guideline

Screening:

Bold Indicates values are greater than CDWQG, MAC

Double Underline Indicates values are greater than CDWQG, AO

Shaded Indicates values are greater than Baseline Samples, determined to be results collected between June 2016 and July 2017.

Table C5-2. Dissolved Metals in Groundwater

Parameters	Baseline ¹	CDWQG		Sample ID	2025-MW01S										2025-MW02S		2025-MW-DUP1		2025-MW03S		2025-MW03D		MW16-1A	
		MAC ²	AO ²		14-Aug-25	14-Aug-25	14-Aug-25	14-Aug-25	14-Aug-25	14-Aug-25	14-Aug-25	14-Aug-25	14-Aug-25	Field Dup of 2025-MW02S)	14-Aug-25	14-Aug-25	14-Aug-25	14-Aug-25	17-Jun-25	18-Dec-25				
Aluminum	<5.0 - 190	2900	100 (OG)	µg/L	12	18	15	19	18	17	83	18	190	231										
Antimony	-	6	-	µg/L	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2										
Arsenic	<1.0 - 15	10	-	µg/L	3	15	25	16	16	45	5	45	<1	<2										
Barium	-	2000	-	µg/L	14	11	6	11	11	6	<5	6	6.2	6										
Beryllium	-	-	-	µg/L	<2	<2	<2	<2	<2	<2	<2	<2	<0.5	<2										
Bismuth	-	-	-	µg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2										
Boron	-	5000	-	µg/L	<50	<50	<50	<50	<50	<50	<50	<10	<50	<50										
Cadmium	-	7	-	µg/L	0.077	0.09	<0.017	<0.017	<0.017	<0.017	0.018	<0.017	<0.10	0.092										
Calcium	-	-	-	µg/L	31.3	26.20	25.3	28.6	28.6	27.4	19	27.4	1700	1700										
Chromium	-	50	-	µg/L	5	283	5	5	5	5	5	5	<2	<1										
Cobalt	-	-	-	µg/L	<1	3	<1	<1	<1	<1	<1	<1	<0.50	<1										
Copper	-	2000	1000	µg/L	16	10	<2	<2	<2	<2	<2	<2	1.9	11										
Iron	-	-	100	µg/L	<50	1140	<50	<50	<50	<50	<50	<50	22	<50										
Lead	<0.50	5	-	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.50	0.8										
Magnesium	-	-	-	µg/L	8000	6800	3100	7300	7300	1800	2100	310	310	300										
Manganese	13 - 1100	120	20	µg/L	297	98	8	85	85	25	25	25	21.7	37										
Mercury	-	1	-	µg/L	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	NA	NA										
Molybdenum	-	-	-	µg/L	2	4	4	<2	<2	2	<2	<2	<2	<2										
Nickel	-	-	-	µg/L	2	134	<2	<2	<2	3	<2	<2	<1	<2										
Phosphorus	-	-	-	µg/L	2.59	2.72	2.07	3.05	3.05	2.03	2.67	67	67	1.34										
Potassium	-	-	-	µg/L	1.4	1.4	1.1	1.4	1.4	0.7	1.1	532	532	800										
Selenium	-	50	-	µg/L	<1	<1	<1	<1	<1	1	1	<1	<1	<1										
Silver	-	-	-	µg/L	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.10	<0.10	<0.1										
Sodium	-	-	200000	µg/L	8300	8200	4400	8700	8700	4400	5300	3030	3030	2700										
Strontium	-	7000	-	µg/L	206	186	48	199	199	32	85	10.1	10.1	10										
Thallium	-	-	-	µg/L	<0.1	0.10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.30	<0.30	<0.1										
Tin	-	-	-	µg/L	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2										
Titanium	-	-	-	µg/L	<2	2.00	<2	<2	<2	<2	<2	<3.0	<3.0	<2										
Uranium	-	20	-	µg/L	0.8	1	2.9	1.1	1.1	0.4	2.3	<0.50	<0.50	<0.1										
Vanadium	-	-	-	µg/L	<2	3	<2	<2	<2	<2	<2	<2.0	<2.0	<2										
Zinc	-	-	5000	µg/L	<5	<5	<5	<5	<5	6	<5	13.5	13.5	<5										

Notes:

- Baseline groundwater results were collected in June 2016 and July 2017 by Golder Associates Ltd.
- Summary of Canadian Drinking Water Quality Guidelines (CDWQG), Health Canada, December 2025.

"NA" = Not Available

"-" = No Guideline

MAC= Maximum Acceptable Concentration (MAC) - established for substances that are known or suspected to cause adverse effects on health.

AO= Aesthetic Objectives (AO) - apply to characteristics of drinking water that can affect its acceptance by consumers or interfere with practices for supplying good quality water.

OG = Operational Guideline

Screening:

Bold Indicates values are greater than CDWQG, MAC

Double Underline Indicates values are greater than CDWQG, AO

Shaded Indicates values showing a significant change relative to baseline conditions; however, in accordance with the IA definition, values that remain within the same order of magnitude as the baseline are not considered significant exceedances

Table C5-2. Dissolved Metals in Groundwater

Parameters	Baseline ¹	CDWQG		Sample ID	MW16-1B		MW16-1C		MW16-1D		MW16-1E		
		MAC ²	AO ²		Sample Date	16-Jun-25	18-Dec-25	17-Jun-25	18-Dec-25	17-Jun-25	18-Dec-25	17-Jun-25	Dup-A (Field Dup of MW16-1E)
Aluminum	<5.0 - 190	2900	100 (OG)		41.4	144	8	5	19	8	29.7	24.6	
Antimony	-	6	-		<1	<2	<1	<2	<1	<2	<1	<1	
Arsenic	<1.0 - 15	10	-		1.2	<2	14.7	5	1.2	<2	<1	<1	
Barium	-	2000	-		16.2	11	38.8	33	17.6	14	19.4	19.3	
Beryllium	-	-	-		<0.50	<2	<0.50	<2	<0.50	<2	<0.50	<0.50	
Bismuth	-	-	-		<2	<2	<2	<2	<2	<2	<2	<2	
Boron	-	5000	-		<10	<50	<10	<50	22.2	<50	18.4	16.9	
Cadmium	-	7	-		<0.10	0.029	<0.10	0.022	<0.10	0.028	<0.10	<0.10	
Calcium	-	-	-		12300.0	4200	46500	4100	138000	101000	127000	124000	
Chromium	-	50	-		<2	<1	<2	<1	<2.0	<1	<2	<2.0	
Cobalt	-	-	-		<0.50	<1	0.61	<1	0.61	<1	0.94	0.94	
Copper	-	2000	1000		2.3	<2	<1	<2	1.7	<2	1.1	<1.0	
Iron	-	-	100		<20	<50	65	<50	88	<50	54	53	
Lead	<0.50	5	-		0.7	0.8	<0.50	<0.5	<0.50	<0.5	<0.50	<0.50	
Magnesium	-	-	-		562	300	2160	1800	3930	3400	5680	5650	
Manganese	13 - 1100	120	20		35.5	5	827	359	119	169	131	131	
Mercury	-	1	-		NA	NA	NA	NA	NA	NA	NA	NA	
Molybdenum	-	-	-		<2	<2	<2	<2	<2	<2	<2	<2.0	
Nickel	-	-	-		<1	<2	<1	<2	2.2	<2	<1	<1.0	
Phosphorus	-	-	-		<50	1.46	<50	1.96	<50	1.83	<50	<50	
Potassium	-	-	-		583.0	800	1630	1900	1900	2300	1860	1830	
Selenium	-	50	-		<1	<1	<1	<1	<1	<1	<1	1.6	
Silver	-	-	-		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.10	<0.10	
Sodium	-	-	200000		3330.0	2600	10800	9800	10200	9200	12500	12400	
Strontium	-	7000	-		74.6	33	288	242	291	232	377	372	
Thallium	-	-	-		<0.30	<0.1	<0.30	<0.1	<0.30	<0.1	<0.30	<0.30	
Tin	-	-	-		<2.0	<2	<2.0	<2	<2.0	<2	<2.0	<2.0	
Titanium	-	-	-		<3.0	<2	<3.0	<2	<3.0	<2	<3.0	4.4	
Uranium	-	20	-		<0.50	0.1	3.27	4	1.56	1.3	3.05	3.09	
Vanadium	-	-	-		<2.0	<2	<2.0	<2	<2.0	<2	<2.0	<2.0	
Zinc	-	-	5000		<5.0	<5	<5.0	<5	<5.0	9	<5.0	<5.0	

Notes:

- Baseline groundwater results were collected in June 2016 and July 2017 by Golder Associates Ltd.
- Summary of Canadian Drinking Water Quality Guidelines (CDWQG), Health Canada, December 2025.

"NA" = Not Available

"-" = No Guideline

MAC= Maximum Acceptable Concentration (MAC) - established for substances that are known or suspected to cause adverse effects on health.

AO= Aesthetic Objectives (AO) - apply to characteristics of drinking water that can affect its acceptance by consumers or interfere with practices for supplying good quality water.

OG = Operational Guideline

Screening:

Bold

Indicates values are greater than CDWQG, MAC

Double Underline

Indicates values are greater than CDWQG, AO

Indicates values showing a significant change relative to baseline conditions; however, in accordance with the IA definition, values that remain within the same order of magnitude as the baseline are not considered significant exceedances

Shaded

Table C5-2. Dissolved Metals in Groundwater

Parameters	Baseline ¹	CDWQG		Sample ID		MW17-6A		MW17-6B		MW17-6C	
		MAC ²	AO ²	Sample Date	18-Dec-25	16-Jun-25	18-Dec-25	16-Jun-25	18-Dec-25	16-Jun-25	18-Dec-25
Aluminum	<5.0 - 190	2900	100 (OG)	µg/L	<5	9.3	<5	10.5	<5	10.8	<5
Antimony	-	6	-	µg/L	<2	<1	<2	<1	<2	<1	<2
Arsenic	<1.0 - 15	10	-	µg/L	<2	2.7	2	1.1	<2	<1	<2
Barium	-	2000	-	µg/L	10	9.1	6	6.4	9	6.3	6
Beryllium	-	-	-	µg/L	<2	<0.50	<2	<0.50	<2	<0.50	<2
Bismuth	-	-	-	µg/L	<2	<2	<2	<2	<2	<2	<2
Boron	-	5000	-	µg/L	<50	<10.0	<50	<10.0	<50	<10	<50
Cadmium	-	7	-	µg/L	<0.017	<0.10	<0.017	<0.10	<0.017	<0.10	<0.017
Calcium	-	-	-	µg/L	91700	43200	35200	22800	26800	5600	4600
Chromium	-	50	-	µg/L	<1	2.2	<1	<2.0	<1	<2	<1
Cobalt	-	-	-	µg/L	<1	<0.50	<1	<0.50	<1	<0.50	<1
Copper	-	2000	1000	µg/L	<2	<1.0	<2	1.1	2	<1	<2
Iron	-	-	100	µg/L	<50	<20	<50	<20	<50	<20	<50
Lead	<0.50	5	-	µg/L	<0.5	<0.50	<0.5	<0.50	<0.5	<0.50	<0.5
Magnesium	-	-	-	µg/L	3300	1650	1400	1040	1200	629	500
Manganese	13 - 1100	120	20	µg/L	29	2.4	<2	3.7	5	<2.0	<2
Mercury	-	1	-	µg/L	NA	NA	NA	NA	NA	NA	NA
Molybdenum	-	-	-	µg/L	<2	<2.0	<2	<2.0	<2	<2.0	<2
Nickel	-	-	-	µg/L	<2	<1.0	<2	<1.0	<2	<1.0	<2
Phosphorus	-	-	-	µg/L	1.74	63	1.53	63	1320	<50	810
Potassium	-	-	-	µg/L	1700	632	900	682	700	<500	700
Selenium	-	50	-	µg/L	<1	<1.0	<1	<1.0	<1	<1.0	<1
Silver	-	-	-	µg/L	<0.1	<0.10	<0.1	<0.10	<0.1	<0.10	<0.1
Sodium	-	-	200000	µg/L	11800	4660	3700	3790	3500	2840	2700
Strontium	-	7000	-	µg/L	259	109	96	57.6	75	14.6	15
Thallium	-	-	-	µg/L	<0.1	<0.30	<0.1	<0.30	<0.1	<0.30	<0.1
Tin	-	-	-	µg/L	<2	<2.0	<2	<2.0	<2	<2.0	<2
Titanium	-	-	-	µg/L	<2	<3.0	<2	<3.0	<2	<3.0	<2
Uranium	-	20	-	µg/L	1.6	<0.50	1	<0.50	0.6	<0.50	<0.1
Vanadium	-	-	-	µg/L	<2	<2.0	<2	<2.0	<2	<2.0	<2
Zinc	-	-	5000	µg/L	<5	<5.0	<5	17.7	<5	<5.0	<5

Notes:

- Baseline groundwater results were collected in June 2016 and July 2017 by Golder Associates Ltd.
- Summary of Canadian Drinking Water Quality Guidelines (CDWQG), Health Canada, December 2025.

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"-" = No Guideline

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OG = Operational Guideline

Screening:

Bold

Indicates values are greater than CDWQG, MAC

Double Underline

Indicates values are greater than CDWQG, AO

Indicates values showing a significant change relative to baseline conditions; however, in accordance with the IA definition, values that remain within the same order of magnitude as the baseline are not considered significant exceedances

Shaded

Table C5-2. Dissolved Metals in Groundwater

Parameters	Baseline ¹	CDWQG		Sample ID	MW17-7A		MW17-7B		QA/QC
		MAC ²	AO ²		17-Jun-25	18-Dec-25	17-Jun-25	18-Dec-25	
Aluminum	<5.0 - 190	2900	100 (OG)	µg/L	10.6	<5	13.9	7	Relative Percent Difference Between Parent Sample and Field Duplicate (%) MW16-1E & MW17-6B & FD
Antimony	-	6	-	µg/L	<1.0	<2	<1.0	<2	-
Arsenic	<1.0 - 15	10	-	µg/L	<1.0	<2	6.7	4	-
Barium	-	2000	-	µg/L	4.9	<5	5.5	5	-
Beryllium	-	-	-	µg/L	<0.50	<2	<0.50	<2	-
Bismuth	-	-	-	µg/L	<2	<2	<2	<2	-
Boron	-	5000	-	µg/L	<10	<50	<10	<50	-
Cadmium	-	7	-	µg/L	<0.10	<0.017	<0.10	<0.017	-
Calcium	-	-	-	µg/L	4400	5900	26900	20800	2.39
Chromium	-	50	-	µg/L	<2	<1	<2	<1	-
Cobalt	-	-	-	µg/L	<0.50	<1	<0.50	<1	-
Copper	-	2000	1000	µg/L	<1	<2	1.8	<2	-
Iron	-	-	100	µg/L	<20	<50	<20	<50	-
Lead	<0.50	5	-	µg/L	<0.50	<0.5	<0.50	<0.5	-
Magnesium	-	-	-	µg/L	729	1000	4590	3700	0.53
Manganese	13 - 1100	120	20	µg/L	<2.0	<2	80.9	47	0.00
Mercury	-	1	-	µg/L	NA	NA	NA	NA	NA
Molybdenum	-	-	-	µg/L	<2.0	<2	<2.0	<2	-
Nickel	-	-	-	µg/L	<1.0	<2	<1.0	<2	-
Phosphorus	-	-	-	µg/L	<50	1790	<50	2570	8.00
Potassium	-	-	-	µg/L	<500	600	826	1300	-
Selenium	-	50	-	µg/L	<1.0	<1	<1.0	<1	-
Silver	-	-	-	µg/L	<0.10	<0.1	<0.10	<0.1	-
Sodium	-	-	200000	µg/L	3040	3400	4640	4100	0.80
Strontium	-	7000	-	µg/L	18.5	24	191	151	1.34
Thallium	-	-	-	µg/L	<0.30	<0.1	<0.30	<0.1	-
Tin	-	-	-	µg/L	<2.0	<2	<2.0	<2	-
Titanium	-	-	-	µg/L	<3.0	<2	<3.0	<2	-
Uranium	-	20	-	µg/L	<0.50	0.1	1.66	0.8	0.00
Vanadium	-	-	-	µg/L	<2.0	<2	<2.0	<2	-
Zinc	-	-	5000	µg/L	<5.0	<5	<5.0	<5	-

Notes:

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- Summary of Canadian Drinking Water Quality Guidelines (CDWQG), Health Canada, December 2025.

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Shaded

CLIENT NAME: SCOTIAN MATERIALS LTD
171 RESOURCE RD
GOFFS, NS B2T 0L2
902-481-9800

ATTENTION TO: Candace Stephens

PROJECT: 103269.002

AGAT WORK ORDER: 25X333438

WATER ANALYSIS REVIEWED BY: Kaliegh Cullen, Report Writer

DATE REPORTED: Aug 22, 2025

PAGES (INCLUDING COVER): 11

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (902) 468-8718

*Notes

Disclaimer:

- All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may incorporate modifications from the specified reference methods to improve performance.
- All samples will be disposed of within 30 days after receipt unless a Long Term Storage Agreement is signed and returned. Some specialty analysis may be exempt, please contact your Client Project Manager for details.
- AGAT's liability in connection with any delay, performance or non-performance of these services is only to the Client and does not extend to any other third party. Unless expressly agreed otherwise in writing, AGAT's liability is limited to the actual cost of the specific analysis or analyses included in the services.
- This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
- The test results reported herewith relate only to the samples as received by the laboratory.
- Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, warranties of merchantability, fitness for a particular purpose, or non-infringement. AGAT assumes no responsibility for any errors or omissions in the guidelines contained in this document.
- All reportable information is available on request from AGAT Laboratories, in accordance with ISO/IEC 17025:2017, ISO/IEC 17025:2005 (Quebec), DR-12-PALA and/or NELAP Standards.
- This document is signed by an authorized signatory who meets the requirements of the MELCCFP, CALA, CCN and NELAP.
- For environmental samples in the Province of Quebec: The analysis is performed on and results apply to samples as received. A temperature above 6°C upon receipt, as indicated in the Sample Reception Notification (SRN), could indicate the integrity of the samples has been compromised if the delay between sampling and submission to the laboratory could not be minimized.



AGAT Laboratories

Certificate of Analysis

AGAT WORK ORDER: 25X333438

PROJECT: 103269.002

11 Morris Drive, Unit 122
Dartmouth, Nova Scotia
CANADA B3B 1M2
TEL (902)468-8718
FAX (902)468-8924
<http://www.agatlabs.com>

CLIENT NAME: SCOTIAN MATERIALS LTD
SAMPLING SITE:

ATTENTION TO: Candace Stephens
SAMPLED BY:

Mercury Analysis in Water (Dissolved)									
DATE RECEIVED: 2025-08-15								DATE REPORTED: 2025-08-22	
		SAMPLE DESCRIPTION:		2025-MW01S	2025-MW01D	2025-MW02S	2025-MW03S	2025-MW03D	2025-MW-DUP1
		SAMPLE TYPE:		Water	Water	Water	Water	Water	Water
		DATE SAMPLED:		2025-08-14 09:24	2025-08-14 10:05	2025-08-14 14:39	2025-08-14 11:37	2025-08-14 12:43	2025-08-14
		G / S		RDL	6969065	6969066	6969067	6969068	6969069
Parameter		Unit							
Dissolved Mercury		ug/L	0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard
Analysis performed at AGAT Halifax (unless marked by *)

Certified By:

Kaleigh Cullen



AGAT Laboratories

Certificate of Analysis

AGAT WORK ORDER: 25X333438

PROJECT: 103269.002

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Dartmouth, Nova Scotia
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<http://www.agatlabs.com>

CLIENT NAME: SCOTIAN MATERIALS LTD

SAMPLING SITE:

ATTENTION TO: Candace Stephens

SAMPLED BY:

Standard Water Analysis + Dissolved Metals

DATE RECEIVED: 2025-08-15				DATE REPORTED: 2025-08-22							
SAMPLE DESCRIPTION: 2025-MW01S											
SAMPLE TYPE:		2025-MW01S		2025-MW01D		2025-MW02S		2025-MW03S		2025-MW03D	
DATE SAMPLED:		2025-08-14		2025-08-14		2025-08-14		2025-08-14		2025-08-14	
		09:24		10:05		14:39		11:37		12:43	
Parameter	Unit	G / S	RDL	Water	Water	Water	Water	Water	Water	Water	Water
pH				6969058	6969065	6969066	6969067	6969068	6969069		
				7.31	6.76	6.58	6.41	6.65	6.83		
Reactive Silica as SiO2	mg/L	0.5		10.3	11.6	8.2	9.3	11.3	12.3		
Chloride	mg/L	1		38	24	6	5	6	24		
Fluoride	mg/L	0.12		0.18	0.18	<0.12	<0.12	<0.12	0.18		
Sulphate	mg/L	2		11	7	13	9	9	7		
Alkalinity	mg/L	5		105	108	91	79	102	106		
True Color	TCU	5		<5	<5	<5	<5	<5	<5		
Turbidity	NTU	0.50		18.4	51.1	259	115	31.4	42.7		
Electrical Conductivity	umho/cm	1		318	279	200	160	211	283		
Nitrate + Nitrite as N	mg/L	0.05		0.14	<0.05	0.21	0.05	0.27	0.06		
Nitrate as N	mg/L	0.05		0.08	<0.05	0.21	0.05	0.27	0.06		
Nitrite as N	mg/L	0.05		0.06	<0.05	<0.05	<0.05	<0.05	<0.05		
Ammonia as N	mg/L	0.03		<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		
Total Organic Carbon	mg/L	0.50		1.0	0.87	0.77	2.3	4.1	0.90		
Ortho-Phosphate as P	mg/L	0.01		<0.01	<0.01	<0.01	<0.01	0.02	0.01		
Dissolved Sodium	mg/L	0.1		8.3	8.2	4.4	4.4	5.3	8.7		
Dissolved Potassium	mg/L	0.1		1.4	1.4	1.1	0.7	1.1	1.4		
Dissolved Calcium	mg/L	0.1		31.3	26.2	25.3	19.0	27.4	28.6		
Dissolved Magnesium	mg/L	0.1		8.0	6.8	3.1	1.8	2.1	7.3		
Bicarb. Alkalinity (as CaCO3)	mg/L	5		105	108	91	79	102	106		
Carb. Alkalinity (as CaCO3)	mg/L	10		<10	<10	<10	<10	<10	<10		
Hydroxide	mg/L	5		<5	<5	<5	<5	<5	<5		
Calculated TDS	mg/L	1		162	140	108	88	113	141		
Hardness	mg/L			111	93.4	75.9	54.9	77.1	101		
Langelier Index (@20C)	NA			-0.78	-1.39	-1.65	-2.00	-1.50	-1.29		
Langelier Index (@ 4C)	NA			-1.10	-1.71	-1.97	-2.32	-1.82	-1.61		
Saturation pH (@ 20C)	NA			8.09	8.15	8.23	8.41	8.15	8.12		
Saturation pH (@ 4C)	NA			8.41	8.47	8.55	8.73	8.47	8.44		
Anion Sum	me/L			3.41	2.98	2.27	1.91	2.42	2.95		

Certified By:

Kaleigh Cullen



AGAT Laboratories

Certificate of Analysis

AGAT WORK ORDER: 25X333438

PROJECT: 103269.002

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CLIENT NAME: SCOTIAN MATERIALS LTD

SAMPLING SITE:

ATTENTION TO: Candace Stephens

SAMPLED BY:

Standard Water Analysis + Dissolved Metals

DATE RECEIVED: 2025-08-15

DATE REPORTED: 2025-08-22

SAMPLE DESCRIPTION: 2025-MW01S												2025-MW01D		2025-MW02S		2025-MW03S		2025-MW03D		2025-MW-DUP1		
SAMPLE TYPE: Water												Water		Water		Water		Water		Water		
DATE SAMPLED: 2025-08-14 09:24												2025-08-14 10:05		2025-08-14 14:39		2025-08-14 11:37		2025-08-14 12:43		2025-08-14		
Parameter												Unit	G / S	RDL	6969058	6969065	6969066	6969067	6969068	6969069		
Cation sum												me/L			2.63	2.31	1.74	1.32	1.80	2.45		
% Difference/ Ion Balance												%			12.9	12.8	13.3	18.4	14.5	9.3		
Dissolved Aluminum												ug/L		5	12	18	15	83	18	19		
Dissolved Antimony												ug/L		2	<2	<2	<2	<2	17	<2		
Dissolved Arsenic												ug/L		2	3	15	25	5	45	16		
Dissolved Barium												ug/L		5	14	11	6	<5	6	11		
Dissolved Beryllium												ug/L		2	<2	<2	<2	<2	<2	<2		
Dissolved Bismuth												ug/L		2	<2	<2	<2	<2	<2	<2		
Dissolved Boron												ug/L		50	<50	<50	<50	<50	<50	<50		
Dissolved Cadmium												ug/L		0.017	0.077	0.094	<0.017	0.018	<0.017	<0.017		
Dissolved Chromium												ug/L		1	5	283	5	5	5	5		
Dissolved Cobalt												ug/L		1	<1	3	<1	<1	<1	<1		
Dissolved Copper												ug/L		2	16	10	<2	<2	<2	<2		
Dissolved Iron												ug/L		50	<50	1140	<50	<50	<50	<50		
Dissolved Lead												ug/L		0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		
Dissolved Manganese												ug/L		2	297	98	8	25	25	85		
Dissolved Molybdenum												ug/L		2	2	4	4	<2	2	<2		
Dissolved Nickel												ug/L		2	2	134	<2	3	<2	<2		
Dissolved Phosphorus												mg/L		0.02	2.59	2.72	2.07	2.03	2.67	3.05		
Dissolved Selenium												ug/L		1	<1	<1	<1	1	1	<1		
Dissolved Silver												ug/L		0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1		
Dissolved Strontium												ug/L		5	206	186	48	32	85	199		
Dissolved Thallium												ug/L		0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1		
Dissolved Tin												ug/L		2	<2	<2	<2	<2	<2	<2		
Dissolved Titanium												ug/L		2	<2	2	<2	<2	<2	<2		
Dissolved Uranium												ug/L		0.1	0.8	1.0	2.9	0.4	2.3	1.1		
Dissolved Vanadium												ug/L		2	<2	3	<2	<2	<2	<2		
Dissolved Zinc												ug/L		5	<5	<5	<5	6	<5	<5		

Certified By:

Kaleigh Cullen



AGAT Laboratories

Certificate of Analysis

AGAT WORK ORDER: 25X333438

PROJECT: 103269.002

11 Morris Drive, Unit 122
Dartmouth, Nova Scotia
CANADA B3B 1M2
TEL (902)468-8718
FAX (902)468-8924
<http://www.agatlabs.com>

CLIENT NAME: SCOTIAN MATERIALS LTD
SAMPLING SITE:

ATTENTION TO: Candace Stephens
SAMPLED BY:

Standard Water Analysis + Dissolved Metals

DATE RECEIVED: 2025-08-15

DATE REPORTED: 2025-08-22

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

6969058-6969069 Metals analysis completed on a filtered sample.

% Difference / Ion Balance, Hardness, Langelier Index, Nitrate + Nitrite, Hydroxide and Saturation pH are calculated parameters. The calculated parameters are non-accredited. The component

parameters of the calculations are accredited.

pH has been analyzed past the recommended holding time of 15 minutes from sampling. Field measurement recommended for most accurate result

Ion Balance is biased high, contributing parameters have been confirmed.

Analysis performed at AGAT Halifax (unless marked by *)

Certified By:

Kaleigh Cullen

Quality Assurance

CLIENT NAME: SCOTIAN MATERIALS LTD

PROJECT: 103269.002

SAMPLING SITE:

AGAT WORK ORDER: 25X333438

ATTENTION TO: Candace Stephens

SAMPLED BY:

Water Analysis															
RPT Date: Aug 22, 2025			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper

Mercury Analysis in Water (Dissolved)

Dissolved Mercury	6955002	<0.026	<0.026	NA	< 0.026	83%	80%	120%	91%	80%	120%	88%	70%	130%
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Comments: If RPD value is NA, the results of the duplicates are less than 5x the RDL and the RPD will not be calculated.

Standard Water Analysis + Dissolved Metals

pH	6969067	6969067	6.41	6.44	0.5%	<	101%	80%	120%	NA	80%	120%	NA	80%	120%
Reactive Silica as SiO2	6982202		12.8	11.5	10.2%	< 0.5	115%	80%	120%	112%	80%	120%	109%	80%	120%
Chloride	6969136		20	19	5.9%	< 1	91%	80%	120%	NA	80%	120%	NA	70%	130%
Fluoride	6969136		<0.12	<0.12	NA	< 0.12	102%	80%	120%	NA	80%	120%	100%	70%	130%
Sulphate	6969136		6	6	NA	< 2	104%	80%	120%	NA	80%	120%	96%	70%	130%
Alkalinity	6969067	6969067	79	77	3.0%	< 5	103%	80%	120%	NA			NA		
True Color	6982202		<5	<5	NA	< 5	94%	80%	120%	93%	80%	120%	NA		
Turbidity	6969066	6969066	259	263	1.5%	< 0.5	100%	80%	120%	NA			NA		
Electrical Conductivity	6969067	6969067	160	160	0.1%	< 1	100%	90%	110%	NA			NA		
Nitrate as N	6969136		0.07	<0.05	NA	< 0.05	107%	80%	120%	NA	80%	120%	104%	70%	130%
Nitrite as N	6969136		<0.05	<0.05	NA	< 0.05	105%	80%	120%	NA	80%	120%	84%	70%	130%
Ammonia as N	6966443		<0.03	<0.03	NA	< 0.03	96%	80%	120%	98%	80%	120%	102%	70%	130%
Total Organic Carbon	6969066	6969066	0.77	0.69	NA	< 0.5	111%	80%	120%	NA	80%	120%	110%	80%	120%
Ortho-Phosphate as P	6982202		<0.01	<0.01	NA	< 0.01	99%	80%	120%	99%	80%	120%	100%	80%	120%
Dissolved Sodium	6969058	6969058	8.3	8.2	1.2%	<0.1	85%	70%	130%	93%	80%	120%	87%	70%	130%
Dissolved Potassium	6969058	6969058	1.4	1.4	0.6%	<0.1	83%	70%	130%	91%	80%	120%	86%	70%	130%
Dissolved Calcium	6969058	6969058	31.3	31.7	1.4%	< 0.1	83%	70%	130%	90%	80%	120%	NA	70%	130%
Dissolved Magnesium	6969058	6969058	8.0	7.9	1.3%	< 0.1	84%	70%	130%	92%	80%	120%	89%	70%	130%
Bicarb. Alkalinity (as CaCO3)	6969067	6969067	79	77	3.0%	< 5	NA	80%	120%	NA	80%	120%	NA	80%	120%
Carb. Alkalinity (as CaCO3)	6969067	6969067	<10	<10	NA	< 10	NA	80%	120%	NA	80%	120%	NA	80%	120%
Hydroxide	6969067	6969067	<5	<5	NA	< 5	NA	80%	120%	NA	80%	120%	NA	80%	120%
Dissolved Aluminum	6969058	6969058	12	14	NA	< 5	81%	70%	130%	94%	80%	120%	81%	70%	130%
Dissolved Antimony	6969058	6969058	<2	<2	NA	< 2	88%	70%	130%	87%	80%	120%	83%	70%	130%
Dissolved Arsenic	6969058	6969058	3	4	NA	< 2	86%	70%	130%	93%	80%	120%	85%	70%	130%
Dissolved Barium	6969058	6969058	14	13	NA	< 5	87%	70%	130%	87%	80%	120%	82%	70%	130%
Dissolved Beryllium	6969058	6969058	<2	<2	NA	< 2	74%	70%	130%	85%	80%	120%	80%	70%	130%
Dissolved Bismuth	6969058	6969058	<2	<2	NA	< 2	90%	70%	130%	88%	80%	120%	85%	70%	130%
Dissolved Boron	6969058	6969058	<50	<50	NA	< 50	69%	70%	130%	80%	80%	120%	72%	70%	130%
Dissolved Cadmium	6969058	6969058	0.077	0.026	NA	< 0.017	90%	70%	130%	88%	80%	120%	84%	70%	130%
Dissolved Chromium	6969058	6969058	5	4	NA	< 1	87%	70%	130%	94%	80%	120%	83%	70%	130%
Dissolved Cobalt	6969058	6969058	<1	<1	NA	< 1	85%	70%	130%	93%	80%	120%	84%	70%	130%
Dissolved Copper	6969058	6969058	16	16	3.2%	< 2	87%	70%	130%	95%	80%	120%	87%	70%	130%
Dissolved Iron	6969058	6969058	<50	<50	NA	< 50	85%	70%	130%	92%	80%	120%	85%	70%	130%
Dissolved Lead	6969058	6969058	<0.5	<0.5	NA	< 0.5	91%	70%	130%	88%	80%	120%	85%	70%	130%
Dissolved Manganese	6969058	6969058	297	300	0.8%	< 2	84%	70%	130%	92%	80%	120%	NA	70%	130%

Quality Assurance

CLIENT NAME: SCOTIAN MATERIALS LTD

PROJECT: 103269.002

SAMPLING SITE:

AGAT WORK ORDER: 25X333438

ATTENTION TO: Candace Stephens

SAMPLED BY:

Water Analysis (Continued)

RPT Date: Aug 22, 2025			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Dissolved Molybdenum	6969058	6969058	2	2	NA	< 2	88%	70%	130%	85%	80%	120%	83%	70%	130%
Dissolved Nickel	6969058	6969058	2	2	NA	< 2	88%	70%	130%	94%	80%	120%	85%	70%	130%
Dissolved Phosphorus	6969058	6969058	2.59	2.65	2.1%	<0.02	81%	80%	120%	94%	80%	120%	NA	70%	130%
Dissolved Selenium	6969058	6969058	<1	<1	NA	< 1	85%	70%	130%	91%	80%	120%	85%	70%	130%
Dissolved Silver	6969058	6969058	<0.1	<0.1	NA	< 0.1	93%	70%	130%	NA	80%	120%	91%	70%	130%
Dissolved Strontium	6969058	6969058	206	206	0.2%	< 5	84%	70%	130%	90%	80%	120%	93%	70%	130%
Dissolved Thallium	6969058	6969058	<0.1	<0.1	NA	< 0.1	90%	70%	130%	89%	80%	120%	85%	70%	130%
Dissolved Tin	6969058	6969058	<2	<2	NA	< 2	88%	70%	130%	87%	80%	120%	83%	70%	130%
Dissolved Titanium	6969058	6969058	<2	<2	NA	< 2	83%	70%	130%	91%	80%	120%	82%	70%	130%
Dissolved Uranium	6969058	6969058	0.8	0.7	8.2%	< 0.1	88%	70%	130%	86%	80%	120%	84%	70%	130%
Dissolved Vanadium	6969058	6969058	<2	<2	NA	< 2	84%	70%	130%	92%	80%	120%	83%	70%	130%
Dissolved Zinc	6969058	6969058	<5	<5	NA	< 5	81%	70%	130%	118%	80%	120%	107%	70%	130%

Comments: If RPD value is NA, the results of the duplicates are less than 5x the RDL and the RPD will not be calculated.

Certified Reference Material: More than 90% of the elements met acceptance limits and overall data quality is acceptable for use. For a multi-element scan up to 10% of analytes may exceed the quoted limits by up to 10% absolute.

Certified By:

Kathleen Cullen

QC Exceedance

CLIENT NAME: SCOTIAN MATERIALS LTD

AGAT WORK ORDER: 25X333438

PROJECT: 103269.002

ATTENTION TO: Candace Stephens

RPT Date: Aug 22, 2025										
REFERENCE MATERIAL				METHOD BLANK SPIKE			MATRIX SPIKE			
PARAMETER	Sample Id	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
			Lower	Upper		Lower	Upper		Lower	Upper

Standard Water Analysis + Dissolved Metals

Dissolved Boron 6969058 69% 70% 130% 80% 80% 120% 72% 70% 130%

Comments: If RPD value is NA, the results of the duplicates are less than 5x the RDL and the RPD will not be calculated.

Certified Reference Material: More than 90% of the elements met acceptance limits and overall data quality is acceptable for use. For a multi-element scan up to 10% of analytes may exceed the quoted limits by up to 10% absolute.

Method Summary

CLIENT NAME: SCOTIAN MATERIALS LTD

PROJECT: 103269.002

SAMPLING SITE:

AGAT WORK ORDER: 25X333438

ATTENTION TO: Candace Stephens

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Water Analysis			
Dissolved Mercury	MET-121-6100 & MET-121-6107	SM 3112 B	CV/AA
pH	INOR-121-6001	SM 4500 H+B	PC TITRATE
Reactive Silica as SiO ₂	INOR-121-6027	SM 4500-SiO ₂ F	COLORIMETER
Chloride	INOR-121-6005	SM 4110 B	ION CHROMATOGRAPH
Fluoride	INOR-121-6005	SM 4110 B	ION CHROMATOGRAPH
Sulphate	INOR-121-6005	SM 4110 B	ION CHROMATOGRAPH
Alkalinity	INOR-121-6001	SM 2320 B	
True Color	INOR-121-6008	SM 2120 B	COLORIMETER
Turbidity	INOR-121-6001	SM 2130 B	PC TITRATE
Electrical Conductivity	INOR-121-6001	SM 2510 B	PC TITRATE
Nitrate + Nitrite as N	INOR-121-6005	SM 4110 B	CALCULATION
Nitrate as N	INOR-121-6005	SM 4110 B	ION CHROMATOGRAPH
Nitrite as N	INOR-121-6005	SM 4110 B	ION CHROMATOGRAPH
Ammonia as N	INOR-121-6047	SM 4500-NH ₃ H	COLORIMETER
Total Organic Carbon	INOR-121-6052	SM 5310 B	TOC ANALYZER
Ortho-Phosphate as P	INOR-121-6012	SM 4500-P G	COLORIMETER
Dissolved Sodium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Dissolved Potassium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Dissolved Calcium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Dissolved Magnesium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Bicarb. Alkalinity (as CaCO ₃)	INOR-121-6001	SM 2320 B	PC TITRATE
Carb. Alkalinity (as CaCO ₃)	INOR-121-6001	SM 2320 B	PC TITRATE
Hydroxide	INOR-121-6001	SM 2320 B	PC-TITRATE
Calculated TDS	CALCULATION	SM 1030E	CALCULATION
Hardness	CALCULATION	SM 2340B	CALCULATION
Langelier Index (@20C)	CALCULATION	CALCULATION	CALCULATION
Langelier Index (@ 4C)	CALCULATION	CALCULATION	CALCULATION
Saturation pH (@ 20C)	CALCULATION	CALCULATION	CALCULATION
Saturation pH (@ 4C)	CALCULATION	CALCULATION	CALCULATION
Anion Sum	CALCULATION	SM 1030E	CALCULATION
Cation sum	CALCULATION	SM 1030E	CALCULATION
% Difference/ Ion Balance	CALCULATION	SM 1030E	CALCULATION
Dissolved Aluminum	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Dissolved Antimony	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Dissolved Arsenic	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Dissolved Barium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Dissolved Beryllium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Dissolved Bismuth	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Dissolved Boron	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS

Method Summary

CLIENT NAME: SCOTIAN MATERIALS LTD

PROJECT: 103269.002

SAMPLING SITE:

AGAT WORK ORDER: 25X333438

ATTENTION TO: Candace Stephens

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Dissolved Cadmium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Dissolved Chromium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Dissolved Cobalt	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Dissolved Copper	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Dissolved Iron	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Dissolved Lead	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Dissolved Manganese	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Dissolved Molybdenum	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Dissolved Nickel	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Dissolved Phosphorus	MET-121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Dissolved Selenium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Dissolved Silver	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Dissolved Strontium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Dissolved Thallium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Dissolved Tin	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Dissolved Titanium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Dissolved Uranium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Dissolved Vanadium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Dissolved Zinc	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS

CLIENT NAME: SCOTIAN MATERIALS LTD
171 RESOURCE RD
GOFFS, NS B2T 0L2
902-481-9800

ATTENTION TO: Jordan Murphy

PROJECT: 103269.001

AGAT WORK ORDER: 25X335669

WATER ANALYSIS REVIEWED BY: Kaliegh Cullen, Report Writer

DATE REPORTED: Aug 27, 2025

PAGES (INCLUDING COVER): 5

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (902) 468-8718

*Notes

Disclaimer:

- All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may incorporate modifications from the specified reference methods to improve performance.
- All samples will be disposed of within 30 days after receipt unless a Long Term Storage Agreement is signed and returned. Some specialty analysis may be exempt, please contact your Client Project Manager for details.
- AGAT's liability in connection with any delay, performance or non-performance of these services is only to the Client and does not extend to any other third party. Unless expressly agreed otherwise in writing, AGAT's liability is limited to the actual cost of the specific analysis or analyses included in the services.
- This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
- The test results reported herewith relate only to the samples as received by the laboratory.
- Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, warranties of merchantability, fitness for a particular purpose, or non-infringement. AGAT assumes no responsibility for any errors or omissions in the guidelines contained in this document.
- All reportable information is available on request from AGAT Laboratories, in accordance with ISO/IEC 17025:2017, ISO/IEC 17025:2005 (Quebec), DR-12-PALA and/or NELAP Standards.
- This document is signed by an authorized signatory who meets the requirements of the MELCCFP, CALA, CCN and NELAP.
- For environmental samples in the Province of Quebec: The analysis is performed on and results apply to samples as received. A temperature above 6°C upon receipt, as indicated in the Sample Reception Notification (SRN), could indicate the integrity of the samples has been compromised if the delay between sampling and submission to the laboratory could not be minimized.



AGAT Laboratories

Certificate of Analysis

AGAT WORK ORDER: 25X335669

PROJECT: 103269.001

11 Morris Drive, Unit 122
Dartmouth, Nova Scotia
CANADA B3B 1M2
TEL (902)468-8718
FAX (902)468-8924
<http://www.agatlabs.com>

CLIENT NAME: SCOTIAN MATERIALS LTD
SAMPLING SITE:

ATTENTION TO: Jordan Murphy
SAMPLED BY:

TSS, pH		DATE RECEIVED: 2025-08-21	DATE REPORTED: 2025-08-27
SAMPLE DESCRIPTION: DISCHARGE			
SAMPLE TYPE: Water			
DATE SAMPLED: 2025-08-21 09:55			
Parameter	Unit	G / S	RDL
Total Suspended Solids	mg/L	5	8
pH	pH unit		6.75

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

6986028 pH has been analyzed past the recommended holding time of 15 minutes from sampling. Field measurement recommended for most accurate result
Analysis performed at AGAT Halifax (unless marked by *)

Certified By:

Kaleigh Cullen

Quality Assurance

CLIENT NAME: SCOTIAN MATERIALS LTD

PROJECT: 103269.001

SAMPLING SITE:

AGAT WORK ORDER: 25X335669

ATTENTION TO: Jordan Murphy

SAMPLED BY:

Water Analysis

RPT Date: Aug 27, 2025			DUPLICATE			Method Blank	REFERENCE MATERIAL		METHOD BLANK SPIKE		MATRIX SPIKE	
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper

TSS, pH

Total Suspended Solids	6989319	<5	<5	NA	< 5	99%	80%	120%	NA				116%	80%	120%
pH	6991037	6.34	6.35	0.2%	<	101%	80%	120%	NA	80%	120%	NA	80%	120%	

Comments: If RPD value is NA, the results of the duplicates are less than 5x the RDL and the RPD will not be calculated.

Certified By:



Method Summary

CLIENT NAME: SCOTIAN MATERIALS LTD

AGAT WORK ORDER: 25X335669

PROJECT: 103269.001

ATTENTION TO: Jordan Murphy

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Water Analysis			
Total Suspended Solids	INOR-121-6024, 6025	SM 2540C, D	GRAVIMETRIC
pH	INOR-121-6001	SM 4500 H+B	PC TITRATE

