



APPENDIX N. WATER QUALITY DATA

CLIENT NAME: DEXTER CONSTRUCTION COMPANY LTD
PO BOX 48100
BEDFORD , NS B4A3Z2
(902) 835-3381
ATTENTION TO: Rhett Thompson
PROJECT: Lantz Quarry
AGAT WORK ORDER: 21X750707
WATER ANALYSIS REVIEWED BY: Marta Manka, Data Reporter
DATE REPORTED: May 31, 2021
PAGES (INCLUDING COVER): 10
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.
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- The test results reported herewith relate only to the samples as received by the laboratory.
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- All reportable information as specified by ISO/IEC 17025:2017 is available from AGAT Laboratories upon request.



Certificate of Analysis

AGAT WORK ORDER: 21X750707

PROJECT: Lantz Quarry

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: DEXTER CONSTRUCTION COMPANY LTD

ATTENTION TO: Rhett Thompson

SAMPLING SITE:

SAMPLED BY:

Dexter - Low Level TSS

DATE RECEIVED: 2021-05-22

DATE REPORTED: 2021-05-31

Parameter	Unit	SAMPLE DESCRIPTION:		Lantz Quarry	Lantz Quarry	Lantz Quarry
		G / S	RDL	SW-1	SW-2	SW-3
		SAMPLE TYPE:		Water	Water	Water
		DATE SAMPLED:		2021-05-20	2021-05-20	2021-05-20
Total Suspended Solids - Low Level (1 L)	mg/L	1	1	1	<1	12

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

Analysis performed at AGAT Halifax (unless marked by *)

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 21X750707

PROJECT: Lantz Quarry

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CLIENT NAME: DEXTER CONSTRUCTION COMPANY LTD

ATTENTION TO: Rhett Thompson

SAMPLING SITE:

SAMPLED BY:

Standard Water Analysis + Total Metals

DATE RECEIVED: 2021-05-22

DATE REPORTED: 2021-05-31

Parameter	Unit	Lantz Quarry				
		G / S	RDL	SW-1	SW-2	SW-3
SAMPLE DESCRIPTION:				SW-1	SW-2	SW-3
SAMPLE TYPE:				Water	Water	Water
DATE SAMPLED:				2021-05-20	2021-05-20	2021-05-20
				2501373	2501374	2501375
pH				7.99	7.47	7.88
Reactive Silica as SiO2	mg/L		0.5	5.3	6.2	9.4
Chloride	mg/L		1	3	4	4
Fluoride	mg/L		0.12	<0.12	<0.12	0.17
Sulphate	mg/L		2	<2	4	65
Alkalinity	mg/L		5	33	48	104
True Color	TCU		5.00	56.2	21.9	<5.00
Turbidity	NTU		0.5	2.1	2.3	1.2
Electrical Conductivity	umho/cm		1	72	124	414
Nitrate + Nitrite as N	mg/L		0.05	0.12	0.18	0.06
Nitrate as N	mg/L		0.05	0.06	0.12	0.06
Nitrite as N	mg/L		0.05	0.06	0.06	<0.05
Ammonia as N	mg/L		0.03	0.19	<0.03	<0.03
Total Organic Carbon	mg/L		0.5	13.4	8.8	4.5
Ortho-Phosphate as P	mg/L		0.01	0.02	0.02	0.02
Total Sodium	mg/L		0.1	3.2	4.5	6.4
Total Potassium	mg/L		0.1	0.7	1.0	4.4
Total Calcium	mg/L		0.1	9.7	17.6	58.5
Total Magnesium	mg/L		0.1	1.1	1.4	3.6
Bicarb. Alkalinity (as CaCO3)	mg/L		5	33	48	104
Carb. Alkalinity (as CaCO3)	mg/L		10	<10	<10	<10
Hydroxide	mg/L		5	<5	<5	<5
Calculated TDS	mg/L		1	39	63	205
Hardness	mg/L			28.8	49.7	161
Langelier Index (@20C)	NA			-1.05	-1.17	0.05
Langelier Index (@ 4C)	NA			-1.37	-1.49	-0.27
Saturation pH (@ 20C)	NA			9.04	8.64	7.83
Saturation pH (@ 4C)	NA			9.36	8.96	8.15
Anion Sum	me/L			0.75	1.17	3.55

Certified By:

Marla Manka



Certificate of Analysis

AGAT WORK ORDER: 21X750707

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CLIENT NAME: DEXTER CONSTRUCTION COMPANY LTD

ATTENTION TO: Rhett Thompson

SAMPLING SITE:

SAMPLED BY:

Standard Water Analysis + Total Metals

DATE RECEIVED: 2021-05-22

DATE REPORTED: 2021-05-31

Parameter	Unit	Lantz Quarry				
		G / S	RDL	SW-1	SW-2	SW-3
SAMPLE DESCRIPTION:				SW-1	SW-2	SW-3
SAMPLE TYPE:				Water	Water	Water
DATE SAMPLED:				2021-05-20	2021-05-20	2021-05-20
				2501373	2501374	2501375
Cation sum	me/L			0.77	1.25	3.62
% Difference/ Ion Balance	%			1.2	3.2	0.9
Total Aluminum	ug/L	5		175	88	14
Total Antimony	ug/L	2		<2	<2	4
Total Arsenic	ug/L	2		<2	<2	2
Total Barium	ug/L	5		22	20	46
Total Beryllium	ug/L	2		<2	<2	<2
Total Bismuth	ug/L	2		<2	<2	<2
Total Boron	ug/L	5		<5	6	12
Total Cadmium	ug/L	0.09		<0.09	<0.09	<0.09
Total Chromium	ug/L	1		<1	<1	<1
Total Cobalt	ug/L	1		<1	<1	<1
Total Copper	ug/L	1		1	<1	2
Total Iron	ug/L	50		161	202	144
Total Lead	ug/L	0.5		<0.5	<0.5	<0.5
Total Manganese	ug/L	2		20	366	6
Total Molybdenum	ug/L	2		<2	<2	6
Total Nickel	ug/L	2		<2	<2	4
Total Phosphorous	mg/L	0.02		0.03	<0.02	<0.02
Total Selenium	ug/L	1		<1	<1	<1
Total Silver	ug/L	0.1		<0.1	<0.1	<0.1
Total Strontium	ug/L	5		30	54	280
Total Thallium	ug/L	0.1		<0.1	<0.1	<0.1
Total Tin	ug/L	2		<2	<2	<2
Total Titanium	ug/L	2		3	<2	<2
Total Uranium	ug/L	0.2		<0.2	<0.2	8.8
Total Vanadium	ug/L	2		<2	<2	<2
Total Zinc	ug/L	5		<5	<5	<5

Certified By:

Marla Manka



Certificate of Analysis

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SAMPLING SITE:

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Standard Water Analysis + Total Metals

DATE RECEIVED: 2021-05-22

DATE REPORTED: 2021-05-31

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

2501373 % 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.

When the cation and anion sums are at, or below 1 me/L, the acceptable criteria is less than 0.3me/L

2501374-2501375 % 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.

Analysis performed at AGAT Halifax (unless marked by *)

Certified By:

Quality Assurance

CLIENT NAME: DEXTER CONSTRUCTION COMPANY LTD
 PROJECT: Lantz Quarry
 SAMPLING SITE:

AGAT WORK ORDER: 21X750707
 ATTENTION TO: Rhett Thompson
 SAMPLED BY:

Water Analysis															
RPT Date: May 31, 2021			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

Standard Water Analysis + Total Metals

pH	2498073		7.28	7.41	1.8%	<	101%	80%	120%	NA			NA		
Reactive Silica as SiO2	2498135		12.5	12.6	1.2%	< 0.5	120%	80%	120%	99%	80%	120%	101%	80%	120%
Chloride	2496214		<1	<1	NA	< 1	86%	80%	120%	NA	80%	120%	84%	70%	130%
Fluoride	2496214		<0.12	<0.12	NA	< 0.12	105%	80%	120%	NA	80%	120%	97%	70%	130%
Sulphate	2496214		70	72	2.7%	< 2	102%	80%	120%	NA	80%	120%	NA	70%	130%
Alkalinity	2498073		43	42	1.2%	< 5	93%	80%	120%	NA			NA		
True Color	2498135		<5.00	<5.00	NA	< 5	97%	80%	120%	93%	80%	120%	NA		
Turbidity	2498073		0.9	1.1	NA	< 0.5	95%	80%	120%	NA			NA		
Electrical Conductivity	2498073		252	253	0.4%	< 1	102%	90%	110%	NA			NA		
Nitrate as N	2496214		0.05	<0.05	NA	< 0.05	90%	80%	120%	NA	80%	120%	83%	70%	130%
Nitrite as N	2496214		<0.05	<0.05	NA	< 0.05	96%	80%	120%	NA	80%	120%	88%	70%	130%
Ammonia as N	2501373		<0.03	<0.03	NA	< 0.03	101%	80%	120%	110%	80%	120%	NA	70%	130%
Total Organic Carbon	2498073		3.4	3.5	3.2%	< 0.5	95%	80%	120%	NA	80%	120%	95%	80%	120%
Ortho-Phosphate as P	2498135		0.05	0.05	3.0%	<0.01	101%	80%	120%	101%	80%	120%	106%	80%	120%
Total Sodium	2496352		111	107	3.8%	< 0.1	113%	80%	120%	120%	80%	120%	NA	70%	130%
Total Potassium	2496352		0.8	0.8	0.8%	< 0.1	100%	80%	120%	109%	80%	120%	95%	70%	130%
Total Calcium	2496352		<0.1	0.2	NA	< 0.1	97%	80%	120%	108%	80%	120%	107%	70%	130%
Total Magnesium	2496352		<0.1	<0.1	NA	< 0.1	100%	80%	120%	102%	80%	120%	100%	70%	130%
Bicarb. Alkalinity (as CaCO3)	2498073		43	42	1.2%	< 5	NA	80%	120%	NA			NA		
Carb. Alkalinity (as CaCO3)	2498073		<10	<10	NA	< 10	NA	80%	120%	NA			NA		
Hydroxide	2498073		<5	<5	NA	< 5	NA	80%	120%	NA			NA		
Total Aluminum	2496352		22	19	NA	< 5	107%	80%	120%	118%	80%	120%	115%	70%	130%
Total Antimony	2496352		<2	<2	NA	< 2	101%	80%	120%	112%	80%	120%	100%	70%	130%
Total Arsenic	2496352		7	7	NA	< 2	105%	80%	120%	106%	80%	120%	NA	70%	130%
Total Barium	2496352		<5	<5	NA	< 5	101%	80%	120%	109%	80%	120%	101%	70%	130%
Total Beryllium	2496352		<2	<2	NA	< 2	102%	80%	120%	111%	80%	120%	95%	70%	130%
Total Bismuth	2496352		<2	<2	NA	< 2	102%	80%	120%	111%	80%	120%	92%	70%	130%
Total Boron	2496352		15	16	NA	< 5	101%	80%	120%	113%	80%	120%	105%	70%	130%
Total Cadmium	2496352		<0.09	<0.09	NA	< 0.09	97%	80%	120%	103%	80%	120%	89%	70%	130%
Total Chromium	2496352		<1	<1	NA	< 1	95%	80%	120%	103%	80%	120%	100%	70%	130%
Total Cobalt	2496352		<1	<1	NA	< 1	96%	80%	120%	101%	80%	120%	102%	70%	130%
Total Copper	2496352		10	9	1.0%	< 1	98%	80%	120%	100%	80%	120%	101%	70%	130%
Total Iron	2496352		90	79	NA	< 50	97%	80%	120%	97%	80%	120%	102%	70%	130%
Total Lead	2496352		1.0	1.0	NA	< 0.5	100%	80%	120%	107%	80%	120%	95%	70%	130%
Total Manganese	2496352		<2	<2	NA	< 2	96%	80%	120%	103%	80%	120%	104%	70%	130%
Total Molybdenum	2496352		<2	<2	NA	< 2	91%	80%	120%	98%	80%	120%	101%	70%	130%
Total Nickel	2496352		<2	<2	NA	< 2	95%	80%	120%	105%	80%	120%	96%	70%	130%
Total Phosphorous	2496352		0.05	0.05	NA	< 0.02	98%	80%	120%	110%	80%	120%	114%	70%	130%
Total Selenium	2496352		<1	<1	NA	< 1	100%	80%	120%	109%	80%	120%	91%	70%	130%

Quality Assurance

CLIENT NAME: DEXTER CONSTRUCTION COMPANY LTD
 PROJECT: Lantz Quarry
 SAMPLING SITE:

AGAT WORK ORDER: 21X750707
 ATTENTION TO: Rhett Thompson
 SAMPLED BY:

Water Analysis (Continued)

RPT Date: May 31, 2021			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	
Total Silver	2496352		<0.1	<0.1	NA	< 0.1	100%	80%	120%	108%	80%	120%	93%	70%	130%	
Total Strontium	2496352		<5	<5	NA	< 5	96%	80%	120%	101%	80%	120%	103%	70%	130%	
Total Thallium	2496352		<0.1	<0.1	NA	< 0.1	97%	80%	120%	103%	80%	120%	90%	70%	130%	
Total Tin	2496352		<2	<2	NA	< 2	99%	80%	120%	107%	80%	120%	101%	70%	130%	
Total Titanium	2496352		3	2	NA	< 2	95%	80%	120%	103%	80%	120%	106%	70%	130%	
Total Uranium	2496352		0.3	0.3	NA	< 0.2	100%	80%	120%	109%	80%	120%	101%	70%	130%	
Total Vanadium	2496352		<2	<2	NA	< 2	94%	80%	120%	100%	80%	120%	99%	70%	130%	
Total Zinc	2496352		<5	<5	NA	< 5	97%	80%	120%	101%	80%	120%	129%	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.

Dexter - Low Level TSS

Total Suspended Solids - Low Level (1 L)	2498131		1	1	NA	< 1	99%	80%	120%	NA	80%	120%	101%	80%	120%
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Certified By: Marla Manka

Method Summary

CLIENT NAME: DEXTER CONSTRUCTION COMPANY LTD

AGAT WORK ORDER: 21X750707

PROJECT: Lantz Quarry

ATTENTION TO: Rhett Thompson

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Water Analysis			
Total Suspended Solids - Low Level (1 L)	INOR-121-6024, 6025	SM 2540C, D	GRAVIMETRIC
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	INORG-121-6005	SM 4110 B	ION CHROMATOGRAPH
Fluoride	INORG-121-6005	SM 4110 B	ION CHROMATOGRAPH
Sulphate	INORG-121-6005	SM 4110 B	ION CHROMATOGRAPH
Alkalinity	INOR-121-6001	SM 2320 B	
True Color	INOR-121-6008	SM 2120 B	LACHAT FIA
Turbidity	INOR-121-6022	SM 2130 B	NEPHELOMETER
Electrical Conductivity	INOR-121-6001	SM 2510 B	PC TITRATE
Nitrate + Nitrite as N	INORG-121-6005	SM 4110 B	CALCULATION
Nitrate as N	INORG-121-6005	SM 4110 B	ION CHROMATOGRAPH
Nitrite as N	INORG-121-6005	SM 4110 B	ION CHROMATOGRAPH
Ammonia as N	INOR-121-6047	SM 4500-NH ₃ H	COLORIMETER
Total Organic Carbon	INOR-121-6026	SM 5310 B	TOC ANALYZER
Ortho-Phosphate as P	INOR-121-6012	SM 4500-P G	COLORIMETER
Total Sodium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Potassium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Calcium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Magnesium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Bicarb. Alkalinity (as CaCO ₃)	INORG-121-6001	SM 2320 B	PC TITRATE
Carb. Alkalinity (as CaCO ₃)	INORG-121-6001	SM 2320 B	PC TITRATE
Hydroxide	INORG-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
Total Aluminum	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Antimony	MET121-6104 & MET-121-6105	SM 3125	ICP-MS
Total Arsenic	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Barium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Beryllium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Bismuth	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Boron	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Cadmium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS

Method Summary

CLIENT NAME: DEXTER CONSTRUCTION COMPANY LTD
 PROJECT: Lantz Quarry
 SAMPLING SITE:

AGAT WORK ORDER: 21X750707
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PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Total Chromium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Cobalt	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Copper	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Iron	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Lead	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Manganese	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Molybdenum	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Nickel	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Phosphorous	MET-121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Selenium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Silver	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Strontium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Thallium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Tin	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Titanium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Uranium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Vanadium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Zinc	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS



AGAT Laboratories

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Dartmouth, NS
B3B 1M2
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Laboratory Use Only

Arrival Condition: Good Poor (see notes)
Arrival Temperature: 4.3, 4.9, 4.1
Hold Time: _____
AGAT Job Number: 21X750707

Notes:

Chain of Custody Record

P: 902.468.8718 • F: 902.468.8924

Report Information

Company: Dexter Construction Company Limited
Contact: Rhett Thompson
Address: 927 Rocky Lake Drive Bedford, NS

Phone: 902-832-6348 Fax: _____
Client Project #: LANTZ Quarry
AGAT Quotation: Contract No. 197252
Please Note: If quotation number is not provided client will be billed full price for analysis.

Report Information (Please print):

1. Name: Rhett Thompson
Email: rthompson@dexter.ca
2. Name: Gavin Isenor
Email: glsenor@dexter.ca

Report Format

- Single Sample per page
 Multiple Sample per page
 Excel Format Included
 Export:

Turnaround Time Required (TAT)

Regular TAT 5 to 7 working days
Rush TAT Same day 1 day
 2 days 3 days

Date Required: _____

Invoice To

Same Yes / No

Company: _____
Contact: _____
Address: _____

Phone: _____ Fax: _____
PO/Credit Card#: 10593041

Regulatory Requirements (Check):

- List Guidelines on Report Do not list Guidelines on Report
 PIRI
 Tier 1 Res Pot Coarse
 Tier 2 Com N/Pot Fine
 Gas Fuel Lube

 CCME CDWQ
 Industrial NSEQS-Cont Sites
 Commercial HRM 101
 Res/Park Storm Water
 Agricultural Waste Water
 FWAL
 Sediment Other _____

Drinking Water Sample: Yes No Salt Water Sample: Yes No
Reg. No.: _____

Sample Identification	Date/Time Sampled	Sample Matrix	# Containers	Comments - Site/Sample Info. Sample Containment	Field Filtered/Preserved	Standard Water Analysis	Metals: <input checked="" type="checkbox"/> Total <input type="checkbox"/> Diss <input type="checkbox"/> Available	Mercury	<input type="checkbox"/> BOD <input type="checkbox"/> CBOD	pH	<input checked="" type="checkbox"/> TSS <input type="checkbox"/> TDS <input type="checkbox"/> TDS <input type="checkbox"/> TSS <input type="checkbox"/> TDS <input type="checkbox"/> TSS <input type="checkbox"/> TDS	TKN	Total Phosphorus	Phenols	Tier 1: TPH/BTEX (PIRI) <input type="checkbox"/> low level	Tier 2: TPH/BTEX Fractionation	CCME-CWS TPH/BTEX	VOC	THM	HAA	PAH	PCB	TC + EC <input type="checkbox"/> P/A <input type="checkbox"/> MPN <input type="checkbox"/> MF	HPC <input type="checkbox"/> Pseudomonas	Fecal Coliform <input type="checkbox"/> MPN <input type="checkbox"/> MF	Other:	Other:	Hazardous (Y/N)	
LANTZ QUARRY SW-1	MAY 20/21	W	4		/	/					/																		
LANTZ QUARRY SW-2	MAY 20/21	W	4		/	/					/																		
LANTZ QUARRY SW-3	MAY 20/21	W	4		/	/					/																		

Samples Relinquished By (Print Name): <u>ROBERT McINTOSH</u>	Date/Time: <u>MAY 22/21</u>	Samples Received By (Print Name): <u>[Signature]</u>	Date/Time: _____	Pink Copy - Client	Page <u>1</u> of <u>1</u>
Samples Relinquished By (Sign): <u>[Signature]</u>	Date/Time: _____	Samples Received By (Sign): <u>[Signature]</u>	Date/Time: _____	Yellow Copy - AGAT	No:
				White Copy - AGAT	

CLIENT NAME: DEXTER CONSTRUCTION COMPANY LTD
PO BOX 48100
BEDFORD , NS B4A3Z2
(902) 835-3381
ATTENTION TO: Rhett Thompson
PROJECT: Lantz Quarry
AGAT WORK ORDER: 21X725289
WATER ANALYSIS REVIEWED BY: Marta Manka, Data Reporter
DATE REPORTED: Apr 05, 2021
PAGES (INCLUDING COVER): 10
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 following analysis, unless expressly agreed otherwise in writing. Please contact your Client Project Manager if you require additional sample storage time.
- 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 as specified by ISO/IEC 17025:2017 is available from AGAT Laboratories upon request.



Certificate of Analysis

AGAT WORK ORDER: 21X725289

PROJECT: Lantz Quarry

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: DEXTER CONSTRUCTION COMPANY LTD

ATTENTION TO: Rhett Thompson

SAMPLING SITE:

SAMPLED BY:

Dexter - Low Level TSS

DATE RECEIVED: 2021-03-24

DATE REPORTED: 2021-04-05

Parameter	Unit	SAMPLE DESCRIPTION:		Lantz Quarry	Lantz Quarry	Lantz Quarry
		G / S	RDL	SW-1	SW-2	SW-3
		SAMPLE TYPE:		Water	Water	Water
		DATE SAMPLED:		2021-03-23	2021-03-23	2021-03-23
				2255181	2255275	2255276
Total Suspended Solids - Low Level (1 L)	mg/L		1	1	1	2

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

Analysis performed at AGAT Halifax (unless marked by *)

Certified By:

Marla Manka

Certificate of Analysis

AGAT WORK ORDER: 21X725289

PROJECT: Lantz Quarry

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CLIENT NAME: DEXTER CONSTRUCTION COMPANY LTD

ATTENTION TO: Rhett Thompson

SAMPLING SITE:

SAMPLED BY:

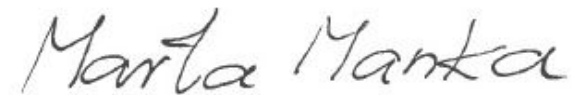
Standard Water Analysis + Total Metals

DATE RECEIVED: 2021-03-24

DATE REPORTED: 2021-04-05

Parameter	Unit	SAMPLE DESCRIPTION:		Lantz Quarry	Lantz Quarry	Lantz Quarry	
		G / S	RDL	SW-1	SW-2	SW-3	RDL
		SAMPLE TYPE:		2021-03-23	2021-03-23	2021-03-23	
		DATE SAMPLED:		2255181	2255275	2255276	
pH				6.83	6.93		7.70
Reactive Silica as SiO2	mg/L		0.5	4.2	4.4	0.5	9.6
Chloride	mg/L		1	4	4	1	12
Fluoride	mg/L		0.12	<0.12	<0.12	0.12	0.20
Sulphate	mg/L		2	6	6	2	73
Alkalinity	mg/L		5	14	21	5	103
True Color	TCU		5.00	49.9	44.5	5.00	<5.00
Turbidity	NTU		0.5	3.0	3.3	0.5	0.6
Electrical Conductivity	umho/cm		1	59	67	1	454
Nitrate + Nitrite as N	mg/L		0.05	0.05	0.08	0.05	7.97
Nitrate as N	mg/L		0.05	0.05	0.08	0.25	7.92
Nitrite as N	mg/L		0.05	<0.05	<0.05	0.05	0.05
Ammonia as N	mg/L		0.03	0.12	0.12	0.03	0.08
Total Organic Carbon	mg/L		0.5	6.8	1.6	0.5	7.3
Ortho-Phosphate as P	mg/L		0.01	0.01	0.01	0.01	0.01
Total Sodium	mg/L		0.1	2.6	2.9	0.1	8.8
Total Potassium	mg/L		0.1	0.9	1.1	0.1	5.6
Total Calcium	mg/L		0.1	5.5	6.4	0.1	72.0
Total Magnesium	mg/L		0.1	0.9	1.0	0.1	4.5
Bicarb. Alkalinity (as CaCO3)	mg/L		5	14	21	5	103
Carb. Alkalinity (as CaCO3)	mg/L		10	<10	<10	10	<10
Hydroxide	mg/L		5	<5	<5	5	<5
Calculated TDS	mg/L		1	29	35	1	273
Hardness	mg/L			17.4	20.1		198
Langelier Index (@20C)	NA			-2.82	-2.48		-0.06
Langelier Index (@ 4C)	NA			-3.14	-2.80		-0.38
Saturation pH (@ 20C)	NA			9.65	9.41		7.76
Saturation pH (@ 4C)	NA			9.97	9.73		8.08
Anion Sum	me/L			0.52	0.66		4.49

Certified By:





Certificate of Analysis

AGAT WORK ORDER: 21X725289

PROJECT: Lantz Quarry

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

CLIENT NAME: DEXTER CONSTRUCTION COMPANY LTD

ATTENTION TO: Rhett Thompson

SAMPLING SITE:

SAMPLED BY:

Standard Water Analysis + Total Metals

DATE RECEIVED: 2021-03-24

DATE REPORTED: 2021-04-05

Parameter	Unit	SAMPLE DESCRIPTION:		Lantz Quarry	Lantz Quarry	Lantz Quarry	
		G / S	RDL	SW-1	SW-2	SW-3	RDL
		SAMPLE TYPE:		Water	Water	Water	
		DATE SAMPLED:		2021-03-23	2021-03-23	2021-03-23	
				2255181	2255275	2255276	
Cation sum	me/L			0.52	0.60		4.51
% Difference/ Ion Balance	%			0.1	5.4		0.2
Total Aluminum	ug/L	5		213	210	5	17
Total Antimony	ug/L	2		<2	<2	2	5
Total Arsenic	ug/L	2		<2	<2	2	<2
Total Barium	ug/L	5		15	14	5	65
Total Beryllium	ug/L	2		<2	<2	2	<2
Total Bismuth	ug/L	2		<2	<2	2	<2
Total Boron	ug/L	5		<5	<5	5	14
Total Cadmium	ug/L	0.017		<0.017	<0.017	0.017	0.033
Total Chromium	ug/L	1		<1	<1	1	<1
Total Cobalt	ug/L	1		<1	<1	1	<1
Total Copper	ug/L	1		2	1	1	2
Total Iron	ug/L	50		135	162	50	76
Total Lead	ug/L	0.5		<0.5	<0.5	0.5	<0.5
Total Manganese	ug/L	2		11	38	2	34
Total Molybdenum	ug/L	2		<2	<2	2	8
Total Nickel	ug/L	2		<2	<2	2	3
Total Phosphorous	mg/L	0.02		0.03	0.03	0.02	0.03
Total Selenium	ug/L	1		<1	<1	1	<1
Total Silver	ug/L	0.1		<0.1	<0.1	0.1	<0.1
Total Strontium	ug/L	5		19	23	5	291
Total Thallium	ug/L	0.1		<0.1	<0.1	0.1	<0.1
Total Tin	ug/L	2		<2	<2	2	<2
Total Titanium	ug/L	2		4	6	2	<2
Total Uranium	ug/L	0.2		<0.2	<0.2	0.2	9.4
Total Vanadium	ug/L	2		<2	<2	2	<2
Total Zinc	ug/L	5		<5	<5	5	<5

Certified By:

Marla Manka



Certificate of Analysis

AGAT WORK ORDER: 21X725289

PROJECT: Lantz Quarry

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: DEXTER CONSTRUCTION COMPANY LTD

ATTENTION TO: Rhett Thompson

SAMPLING SITE:

SAMPLED BY:

Standard Water Analysis + Total Metals

DATE RECEIVED: 2021-03-24

DATE REPORTED: 2021-04-05

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

2255181-2255275 % 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.

The cation and anion sums are at, or below, 1 me/L, therefore the acceptable criteria is a difference of less than 0.3me/L.

2255276 % 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.

Analysis performed at AGAT Halifax (unless marked by *)

Certified By:

Quality Assurance

CLIENT NAME: DEXTER CONSTRUCTION COMPANY LTD
 PROJECT: Lantz Quarry
 SAMPLING SITE:

AGAT WORK ORDER: 21X725289
 ATTENTION TO: Rhett Thompson
 SAMPLED BY:

Water Analysis															
RPT Date: Apr 05, 2021			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

Standard Water Analysis + Total Metals

pH	2257303		6.81	6.82	0.1%	<	100%	80%	120%	NA			NA		
Reactive Silica as SiO2	2255181		<0.5	<0.5	NA	< 0.5	117%	80%	120%	105%	80%	120%	NA	80%	120%
Chloride	2258688		50	51	2.0%	< 1	96%	80%	120%	NA	80%	120%	NA	70%	130%
Fluoride	2258688		0.88	0.90	1.6%	< 0.12	108%	80%	120%	NA	80%	120%	90%	70%	130%
Sulphate	2258688		8	8	NA	< 2	105%	80%	120%	NA	80%	120%	105%	70%	130%
Alkalinity	2257303		29	29	1.9%	< 5	96%	80%	120%	NA			NA		
True Color	2252765		<5.00	<5.00	NA	< 5	92%	80%	120%	96%	80%	120%	NA		
Turbidity	2250215		16.7	16.3	2.4%	< 0.5	96%	80%	120%	NA			NA		
Electrical Conductivity	2257303		563	564	0.2%	1	99%	90%	110%	NA			NA		
Nitrate as N	2258688		<0.05	<0.05	NA	< 0.05	97%	80%	120%	NA	80%	120%	97%	70%	130%
Nitrite as N	2258688		<0.05	<0.05	NA	< 0.05	104%	80%	120%	NA	80%	120%	93%	70%	130%
Total Organic Carbon	2264096		2.1	2.0	NA	0.6	90%	80%	120%	NA	80%	120%	NA	80%	120%
Ortho-Phosphate as P	2255181		<0.01	<0.01	NA	0.01	80%	80%	120%	80%	80%	120%	NA	80%	120%
Total Sodium	2252089		5.1	5.2	2.2%	< 0.1	103%	80%	120%	106%	80%	120%	NA	70%	130%
Total Potassium	2252089		<0.1	<0.1	NA	< 0.1	104%	80%	120%	110%	80%	120%	109%	70%	130%
Total Calcium	2252089		<0.1	<0.1	NA	< 0.1	99%	80%	120%	107%	80%	120%	116%	70%	130%
Total Magnesium	2252089		<0.1	<0.1	NA	< 0.1	101%	80%	120%	108%	80%	120%	107%	70%	130%
Bicarb. Alkalinity (as CaCO3)	2257303		29	29	1.9%	< 5	NA	80%	120%	NA			NA		
Carb. Alkalinity (as CaCO3)	2257303		<10	<10	NA	< 10	NA	80%	120%	NA			NA		
Hydroxide	2257303		<5	<5	NA	< 5	NA	80%	120%	NA			NA		
Total Aluminum	2252089		5	6	NA	< 5	97%	80%	120%	109%	80%	120%	108%	70%	130%
Total Antimony	2252089		<2	<2	NA	< 2	99%	80%	120%	106%	80%	120%	97%	70%	130%
Total Arsenic	2252089		204	216	5.7%	< 2	98%	80%	120%	96%	80%	120%	NA	70%	130%
Total Barium	2252089		6	6	NA	< 5	103%	80%	120%	108%	80%	120%	115%	70%	130%
Total Beryllium	2252089		<2	<2	NA	< 2	102%	80%	120%	107%	80%	120%	95%	70%	130%
Total Bismuth	2252089		<2	<2	NA	< 2	100%	80%	120%	106%	80%	120%	100%	70%	130%
Total Boron	2252089		27	28	4.0%	< 5	101%	80%	120%	105%	80%	120%	105%	70%	130%
Total Cadmium	2252089		<0.017	<0.017	NA	< 0.017	99%	80%	120%	104%	80%	120%	97%	70%	130%
Total Chromium	2252089		<1	<1	NA	< 1	96%	80%	120%	103%	80%	120%	97%	70%	130%
Total Cobalt	2252089		<1	<1	NA	< 1	98%	80%	120%	103%	80%	120%	102%	70%	130%
Total Copper	2252089		6	2	NA	< 1	100%	80%	120%	106%	80%	120%	88%	70%	130%
Total Iron	2252089		545	571	4.8%	< 50	102%	80%	120%	107%	80%	120%	NA	70%	130%
Total Lead	2252089		0.8	0.7	NA	< 0.5	98%	80%	120%	103%	80%	120%	98%	70%	130%
Total Manganese	2252089		4	4	NA	< 2	101%	80%	120%	105%	80%	120%	109%	70%	130%
Total Molybdenum	2252089		<2	<2	NA	< 2	95%	80%	120%	99%	80%	120%	101%	70%	130%
Total Nickel	2252089		<2	<2	NA	< 2	98%	80%	120%	109%	80%	120%	103%	70%	130%
Total Phosphorous	2252089		0.03	0.03	NA	< 0.02	106%	80%	120%	110%	80%	120%	94%	70%	130%
Total Selenium	2252089		<1	<1	NA	< 1	96%	80%	120%	98%	80%	120%	86%	70%	130%
Total Silver	2252089		<0.1	<0.1	NA	< 0.1	100%	80%	120%	101%	80%	120%	100%	70%	130%

Quality Assurance

CLIENT NAME: DEXTER CONSTRUCTION COMPANY LTD
 PROJECT: Lantz Quarry
 SAMPLING SITE:

AGAT WORK ORDER: 21X725289
 ATTENTION TO: Rhett Thompson
 SAMPLED BY:

Water Analysis (Continued)

RPT Date: Apr 05, 2021			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	
Total Strontium	2252089		<5	<5	NA	< 5	100%	80%	120%	104%	80%	120%	108%	70%	130%	
Total Thallium	2252089		<0.1	<0.1	NA	< 0.1	95%	80%	120%	100%	80%	120%	97%	70%	130%	
Total Tin	2252089		<2	<2	NA	< 2	99%	80%	120%	103%	80%	120%	100%	70%	130%	
Total Titanium	2252089		<2	<2	NA	< 2	100%	80%	120%	107%	80%	120%	111%	70%	130%	
Total Uranium	2252089		<0.2	<0.2	NA	< 0.2	98%	80%	120%	104%	80%	120%	100%	70%	130%	
Total Vanadium	2252089		<2	<2	NA	< 2	95%	80%	120%	100%	80%	120%	97%	70%	130%	
Total Zinc	2252089		28	27	5.2%	< 5	99%	80%	120%	104%	80%	120%	90%	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.

Dexter - Low Level TSS

Total Suspended Solids - Low Level 2254354 (1 L)			48	47	2.1%	< 1	97%	80%	120%	NA	80%	120%	98%	80%	120%
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Standard Water Analysis + Total Metals

Chloride	2258688		50	51	1.7%	< 1	97%	80%	120%	NA	80%	120%	NA	70%	130%
Fluoride	2258688		0.88	0.90	1.6%	< 0.12	109%	80%	120%	NA	80%	120%	NA	70%	130%
Sulphate	2258688		8	8	NA	< 2	106%	80%	120%	NA	80%	120%	105%	70%	130%
Nitrate as N	2258688		<0.05	<0.05	NA	< 0.05	98%	80%	120%	NA	80%	120%	97%	70%	130%
Nitrite as N	2258688		<0.05	<0.05	NA	< 0.05	105%	80%	120%	NA	80%	120%	93%	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 By: 

Method Summary

CLIENT NAME: DEXTER CONSTRUCTION COMPANY LTD
 PROJECT: Lantz Quarry
 SAMPLING SITE:

AGAT WORK ORDER: 21X725289
 ATTENTION TO: Rhett Thompson
 SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Water Analysis			
Total Suspended Solids - Low Level (1 L)	INOR-121-6024, 6025	SM 2540C, D	GRAVIMETRIC
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	INORG-121-6005	SM 4110 B	ION CHROMATOGRAPH
Fluoride	INORG-121-6005	SM 4110 B	ION CHROMATOGRAPH
Sulphate	INORG-121-6005	SM 4110 B	ION CHROMATOGRAPH
Alkalinity	INOR-121-6001	SM 2320 B	
True Color	INOR-121-6008	SM 2120 B	LACHAT FIA
Turbidity	INOR-121-6022	SM 2130 B	NEPHELOMETER
Electrical Conductivity	INOR-121-6001	SM 2510 B	PC TITRATE
Nitrate + Nitrite as N	INORG-121-6005	SM 4110 B	CALCULATION
Nitrate as N	INORG-121-6005	SM 4110 B	ION CHROMATOGRAPH
Nitrite as N	INORG-121-6005	SM 4110 B	ION CHROMATOGRAPH
Ammonia as N	INOR-121-6047	SM 4500-NH ₃ H	COLORIMETER
Total Organic Carbon	INOR-121-6026	SM 5310 B	TOC ANALYZER
Ortho-Phosphate as P	INOR-121-6012	SM 4500-P G	COLORIMETER
Total Sodium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Potassium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Calcium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Magnesium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Bicarb. Alkalinity (as CaCO ₃)	INORG-121-6001	SM 2320 B	PC TITRATE
Carb. Alkalinity (as CaCO ₃)	INORG-121-6001	SM 2320 B	PC TITRATE
Hydroxide	INORG-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
Total Aluminum	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Antimony	MET121-6104 & MET-121-6105	SM 3125	ICP-MS
Total Arsenic	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Barium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Beryllium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Bismuth	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Boron	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Cadmium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS

Method Summary

CLIENT NAME: DEXTER CONSTRUCTION COMPANY LTD
 PROJECT: Lantz Quarry
 SAMPLING SITE:

AGAT WORK ORDER: 21X725289
 ATTENTION TO: Rhett Thompson
 SAMPLED BY:

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



Laboratory Use Only

Arrival Condition: Good Poor (see notes)
Arrival Temperature: 3.3 4.6 2.8
Hold Time: _____
AGAT Job Number: 21X 725 2894 121 OPN

Notes: _____

Turnaround Time Required (TAT)

Regular TAT 5 to 7 working days

Rush TAT Same day 1 day
 2 days 3 days

Date Required: _____

Drinking Water Sample: Yes No **Salt Water Sample:** Yes No
Reg. No.: _____

Chain of Custody Record

P: 902.468.8718 • F: 902.468.8924

Report Information

Company: Dexter Construction Company Limited
Contact: Rhett Thompson
Address: 927 Rocky Lake Drive Bedford, NS
Phone: 902-832-6348 Fax: _____
Client Project #: LANTZ Quarry
AGAT Quotation: 10510792
Please Note: If quotation number is not provided client will be billed full price for analysis.

Report Information (Please print):

1. Name: Rhett Thompson
Email: rthompson@dexter.ca
2. Name: Gavin Isenor
Email: gisenor@dexter.ca

Report Format

Single Sample per page
 Multiple Sample per page
 Excel Format Included
 Export:

Regulatory Requirements (Check):

List Guidelines on Report Do not list Guidelines on Report
 PIRI
 Tier 1 Res Pot Coarse
 Tier 2 Com N/Pot Fine
 Gas Fuel Lube
 CCME CDWQ
 Industrial NSEQS-Cont Sites
 Commercial HRM 101
 Res/Park Storm Water
 Agricultural Waste Water
 FWAL
 Sediment Other _____

Invoice To Same Yes / No

Company: _____
Contact: _____
Address: _____
Phone: _____ Fax: _____
PO/Credit Card#: 10435512 10588996

Sample Identification	Date/Time Sampled	Sample Matrix	# Containers	Comments - Site/Sample Info. Sample Containment	Field Filtered/Preserved	Standard Water Analysis	Metals: Total	Diss	Available	Mercury	BOD	CBOD	pH	TSS	TDS	TKN	Total Phosphorus	Phenols	Tier 1: TPH/BTEX (P/P)	low level	Tier 2: TPH/BTEX Fractionation	CCME-CWS TPH/BTEX	VOC	THM	HAA	PAH	PCB	TC + EC	P/A	MPN	MF	HPC	Pseudomonas	Fecal Coliform	MPN	MF	Other:	Other:	Hazardous (Y/N)					
<u>LANTZ QUARRY SW-1</u>	<u>MAR 23/21</u>	<u>W</u>	<u>4</u>																																									
<u>LANTZ QUARRY SW-2</u>	<u>MAR 23/21</u>	<u>W</u>	<u>4</u>																																									
<u>LANTZ QUARRY SW-3</u>	<u>MAR 23/21</u>	<u>W</u>	<u>4</u>																																									

Samples Relinquished By (Print Name): <u>ROBERT MCINTOSH</u>	Date/Time: <u>MAR 24/21</u>	Samples Received By (Print Name):	Date/Time:	Pink Copy - Client	Page <u>1</u> of <u>1</u>
Samples Relinquished By (Sign): <u>Robert McIntosh</u>	Date/Time:	Samples Received By (Sign): <u>[Signature]</u>	Date/Time:	Yellow Copy - AGAT	No:
				White Copy - AGAT	

12:05 PM

CLIENT NAME: DEXTER CONSTRUCTION COMPANY LTD
PO BOX 48100
BEDFORD , NS B4A3Z2
(902) 835-3381
ATTENTION TO: Rhett Thompson
PROJECT: Lantz Quarry
AGAT WORK ORDER: 21X835755
WATER ANALYSIS REVIEWED BY: Jason Coughtrey, Inorganics Supervisor
DATE REPORTED: Dec 09, 2021
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 as specified by ISO/IEC 17025:2017 is available from AGAT Laboratories upon request.*



Certificate of Analysis

AGAT WORK ORDER: 21X835755

PROJECT: Lantz Quarry

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: DEXTER CONSTRUCTION COMPANY LTD

ATTENTION TO: Rhett Thompson

SAMPLING SITE:

SAMPLED BY:

Dexter - Low Level TSS

DATE RECEIVED: 2021-11-26

DATE REPORTED: 2021-12-09

Parameter	Unit	SAMPLE DESCRIPTION:		Lantz Quarry	Lantz Quarry	Lantz Quarry
		G / S	RDL	SW-1	SW-2	SW-3
				SW-1	SW-2	SW-3
				Water	Water	Water
				2021-11-24	2021-11-24	2021-11-24
				3257196	3257218	3257219
Total Suspended Solids - Low Level (1 L)	mg/L		1	<1	<1	<1

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

Analysis performed at AGAT Halifax (unless marked by *)

Certified By:

Certificate of Analysis

AGAT WORK ORDER: 21X835755

PROJECT: Lantz Quarry

 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: DEXTER CONSTRUCTION COMPANY LTD

ATTENTION TO: Rhett Thompson

SAMPLING SITE:

SAMPLED BY:

Standard Water Analysis + Total Metals

DATE RECEIVED: 2021-11-26

DATE REPORTED: 2021-12-09

Parameter	Unit	Lantz Quarry				
		SAMPLE DESCRIPTION:		SW-1	SW-2	SW-3
		SAMPLE TYPE:		Water	Water	Water
		DATE SAMPLED:		2021-11-24	2021-11-24	2021-11-24
	G / S	RDL	3257196	3257218	3257219	
pH			6.48	6.67	7.95	
Reactive Silica as SiO2	mg/L	0.5	4.3	4.1	3.6	
Chloride	mg/L	1	5	5	3	
Fluoride	mg/L	0.12	<0.12	<0.12	0.15	
Sulphate	mg/L	2	5	5	107	
Alkalinity	mg/L	5	<5	9	108	
True Color	TCU	5.00	32.1	142	6.2	
Turbidity	NTU	0.5	3.1	2.4	1.0	
Electrical Conductivity	umho/cm	1	52	57	485	
Nitrate + Nitrite as N	mg/L	0.05	<0.05	<0.05	4.62	
Nitrate as N	mg/L	0.05	<0.05	<0.05	4.53	
Nitrite as N	mg/L	0.05	<0.05	<0.05	0.09	
Ammonia as N	mg/L	0.03	0.39	<0.03	0.21	
Ortho-Phosphate as P	mg/L	0.01	0.10	0.04	0.03	
Total Sodium	mg/L	0.1	2.9	3.2	5.9	
Total Potassium	mg/L	0.1	0.7	0.9	5.1	
Total Calcium	mg/L	0.1	5.0	6.8	71.4	
Total Magnesium	mg/L	0.1	0.8	0.9	4.2	
Bicarb. Alkalinity (as CaCO3)	mg/L	5	<5	9	108	
Carb. Alkalinity (as CaCO3)	mg/L	10	<10	<10	<10	
Hydroxide	mg/L	5	<5	<5	<5	
Calculated TDS	mg/L	1	21	28	282	
Hardness	mg/L		15.8	20.7	196	
Langelier Index (@20C)	NA		-3.65	-3.08	0.20	
Langelier Index (@ 4C)	NA		-3.97	-3.40	-0.12	
Saturation pH (@ 20C)	NA		10.1	9.75	7.75	
Saturation pH (@ 4C)	NA		10.4	10.1	8.07	
Anion Sum	me/L		0.25	0.43	4.80	
Cation sum	me/L		0.54	0.63	4.32	

Certified By:





Certificate of Analysis

AGAT WORK ORDER: 21X835755

PROJECT: Lantz Quarry

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: DEXTER CONSTRUCTION COMPANY LTD

ATTENTION TO: Rhett Thompson

SAMPLING SITE:

SAMPLED BY:

Standard Water Analysis + Total Metals

DATE RECEIVED: 2021-11-26

DATE REPORTED: 2021-12-09

Parameter	Unit	SAMPLE DESCRIPTION:		Lantz Quarry	Lantz Quarry	Lantz Quarry
		G / S	RDL	SW-1	SW-2	SW-3
		SAMPLE TYPE:		Water	Water	Water
		DATE SAMPLED:		2021-11-24	2021-11-24	2021-11-24
				3257196	3257218	3257219
% Difference/ Ion Balance	%			37.2	19.5	5.3
Total Aluminum	ug/L	5		331	364	11
Total Antimony	ug/L	2		<2	<2	12
Total Arsenic	ug/L	2		<2	<2	4
Total Barium	ug/L	5		14	13	54
Total Beryllium	ug/L	2		<2	<2	<2
Total Bismuth	ug/L	2		<2	<2	<2
Total Boron	ug/L	5		7	7	14
Total Cadmium	ug/L	0.09		<0.09	<0.09	<0.09
Total Chromium	ug/L	1		<1	<1	<1
Total Cobalt	ug/L	1		<1	<1	<1
Total Copper	ug/L	1		<1	2	1
Total Iron	ug/L	50		297	343	53
Total Lead	ug/L	0.5		<0.5	0.9	<0.5
Total Manganese	ug/L	2		7	55	37
Total Molybdenum	ug/L	2		<2	<2	7
Total Nickel	ug/L	2		2	<2	2
Total Phosphorous	mg/L	0.02		<0.02	<0.02	<0.02
Total Selenium	ug/L	1		<1	<1	1
Total Silver	ug/L	0.1		<0.1	<0.1	<0.1
Total Strontium	ug/L	5		18	21	388
Total Thallium	ug/L	0.1		<0.1	<0.1	<0.1
Total Tin	ug/L	2		<2	<2	<2
Total Titanium	ug/L	2		3	4	<2
Total Uranium	ug/L	0.2		<0.2	<0.2	13.4
Total Vanadium	ug/L	2		<2	<2	<2
Total Zinc	ug/L	5		<5	<5	<5

Certified By:



AGAT Laboratories

Certificate of Analysis

AGAT WORK ORDER: 21X835755

PROJECT: Lantz Quarry

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: DEXTER CONSTRUCTION COMPANY LTD

ATTENTION TO: Rhett Thompson

SAMPLING SITE:

SAMPLED BY:

Standard Water Analysis + Total Metals

DATE RECEIVED: 2021-11-26

DATE REPORTED: 2021-12-09

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

3257196-3257218 % 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. When the cation and anion sums are at, or below 1 me/L, the acceptable criteria is less than 0.3me/L

3257219 % 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.

Analysis performed at AGAT Halifax (unless marked by *)

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 21X835755

PROJECT: Lantz Quarry

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: DEXTER CONSTRUCTION COMPANY LTD

ATTENTION TO: Rhett Thompson

SAMPLING SITE:

SAMPLED BY:

Water Analysis - TOC

DATE RECEIVED: 2021-11-26

DATE REPORTED: 2021-12-09

Parameter	Unit	Lantz Quarry		
		G / S	RDL	
SAMPLE DESCRIPTION:		SW-1	SW-2	SW-3
SAMPLE TYPE:		Water	Water	Water
DATE SAMPLED:		2021-11-24	2021-11-24	2021-11-24
Total Organic Carbon	mg/L	1	19	20
				3

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

Analysis performed at AGAT Calgary (unless marked by *)

Certified By:

Quality Assurance

CLIENT NAME: DEXTER CONSTRUCTION COMPANY LTD
 PROJECT: Lantz Quarry
 SAMPLING SITE:

AGAT WORK ORDER: 21X835755
 ATTENTION TO: Rhett Thompson
 SAMPLED BY:

Water Analysis															
RPT Date: Dec 09, 2021			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

Standard Water Analysis + Total Metals

pH	3258530		8.00	7.93	0.9%	<	102%	80%	120%	NA			NA		
Reactive Silica as SiO2	3258566		11.9	11.5	3.4%	< 0.5	96%	80%	120%	91%	80%	120%	95%	80%	120%
Chloride	3254801		53	54	1.4%	< 1	89%	80%	120%	NA	80%	120%	NA	70%	130%
Fluoride	3254801		<0.12	<0.12	NA	< 0.12	101%	80%	120%	NA	80%	120%	95%	70%	130%
Sulphate	3254801		105	106	0.9%	< 2	106%	80%	120%	NA	80%	120%	NA	70%	130%
Alkalinity	3258530		204	204	0.0%	< 5	87%	80%	120%	NA			NA		
True Color	3258566		<5.00	<5.00	NA	< 5	99%	80%	120%	96%	80%	120%	NA		
Turbidity	3251143		12.2	11.9	2.5%	< 0.5	95%	80%	120%	NA			NA		
Electrical Conductivity	3258530		450	449	0.2%	< 1	102%	90%	110%	NA			NA		
Nitrate as N	3254801		<0.05	<0.05	NA	< 0.05	90%	80%	120%	NA	80%	120%	82%	70%	130%
Nitrite as N	3254801		<0.05	<0.05	NA	< 0.05	92%	80%	120%	NA	80%	120%	109%	70%	130%
Ammonia as N	3258530		0.04	<0.03	NA	< 0.03	115%	80%	120%	87%	80%	120%	106%	70%	130%
Ortho-Phosphate as P	3258566		0.05	0.06	16.9%	< 0.01	95%	80%	120%	106%	80%	120%	110%	80%	120%
Total Sodium	3268325		39.6	39.1	1.5%	< 0.1	105%	80%	120%	112%	80%	120%	NA	70%	130%
Total Potassium	3268325		2.3	2.3	0.6%	< 0.1	95%	80%	120%	101%	80%	120%	NA	70%	130%
Total Calcium	3268325		13.3	13.5	2.1%	< 0.1	101%	80%	120%	101%	80%	120%	NA	70%	130%
Total Magnesium	3268325		5.9	6.0	1.9%	< 0.1	97%	80%	120%	102%	80%	120%	NA	70%	130%
Bicarb. Alkalinity (as CaCO3)	3258530		204	204	0.0%	< 5	NA	80%	120%	NA			NA		
Carb. Alkalinity (as CaCO3)	3258530		<10	<10	NA	< 10	NA	80%	120%	NA			NA		
Hydroxide	3258530		<5	<5	NA	< 5	NA	80%	120%	NA			NA		
Total Aluminum	3268325		92	93	1.3%	< 5	96%	80%	120%	100%	80%	120%	102%	70%	130%
Total Antimony	3268325		2	2	NA	< 2	80%	80%	120%	120%	80%	120%	NA	70%	130%
Total Arsenic	3268325		14	14	5.2%	< 2	98%	80%	120%	101%	80%	120%	NA	70%	130%
Total Barium	3268325		13	14	NA	< 5	82%	80%	120%	89%	80%	120%	98%	70%	130%
Total Beryllium	3268325		<2	<2	NA	< 2	95%	80%	120%	102%	80%	120%	102%	70%	130%
Total Bismuth	3268325		<2	<2	NA	< 2	80%	80%	120%	99%	80%	120%	95%	70%	130%
Total Boron	3268325		118	120	2.1%	< 5	94%	80%	120%	102%	80%	120%	NA	70%	130%
Total Cadmium	3268325		0.26	0.28	NA	< 0.09	98%	80%	120%	104%	80%	120%	91%	70%	130%
Total Chromium	3268325		1	1	NA	< 1	93%	80%	120%	96%	80%	120%	101%	70%	130%
Total Cobalt	3268325		30	30	0.7%	< 1	94%	80%	120%	98%	80%	120%	NA	70%	130%
Total Copper	3268325		33	33	1.6%	< 1	99%	80%	120%	103%	80%	120%	NA	70%	130%
Total Iron	3268325		666	694	4.1%	< 50	92%	80%	120%	93%	80%	120%	NA	70%	130%
Total Lead	3268325		4.7	5.3	12.1%	< 0.5	100%	80%	120%	110%	80%	120%	91%	70%	130%
Total Manganese	3268325		1390	1440	3.3%	< 2	94%	80%	120%	97%	80%	120%	NA	70%	130%
Total Molybdenum	3268325		2	2	NA	< 2	86%	80%	120%	93%	80%	120%	106%	70%	130%
Total Nickel	3268325		18	18	2.5%	< 2	97%	80%	120%	103%	80%	120%	NA	70%	130%
Total Phosphorous	3268325		0.03	0.03	NA	< 0.02	92%	80%	120%	92%	80%	120%	108%	70%	130%
Total Selenium	3268325		2	2	NA	< 1	89%	80%	120%	100%	80%	120%	98%	70%	130%
Total Silver	3268325		<0.1	<0.1	NA	< 0.1	95%	80%	120%	102%	80%	120%	96%	70%	130%

Quality Assurance

CLIENT NAME: DEXTER CONSTRUCTION COMPANY LTD
 PROJECT: Lantz Quarry
 SAMPLING SITE:

AGAT WORK ORDER: 21X835755
 ATTENTION TO: Rhett Thompson
 SAMPLED BY:

Water Analysis (Continued)

RPT Date: Dec 09, 2021			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	
Total Strontium	3268325		107	108	1.0%	< 5	99%	80%	120%	100%	80%	120%	NA	70%	130%	
Total Thallium	3268325		0.3	0.3	NA	< 0.1	98%	80%	120%	105%	80%	120%	90%	70%	130%	
Total Tin	3268325		1640	1640	0.1%	< 2	100%	80%	120%	100%	80%	120%	NA	70%	130%	
Total Titanium	3268325		<2	<2	NA	< 2	91%	80%	120%	102%	80%	120%	104%	70%	130%	
Total Uranium	3268325		5.1	5.7	11.5%	< 0.2	95%	80%	120%	105%	80%	120%	NA	70%	130%	
Total Vanadium	3268325		<2	<2	NA	< 2	91%	80%	120%	95%	80%	120%	99%	70%	130%	
Total Zinc	3268325		355	363	2.2%	< 5	100%	80%	120%	103%	80%	120%	NA	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.

Dexter - Low Level TSS

Total Suspended Solids - Low Level (1 L)	3259473	3259473	8	7.3	8.7%	< 1	84%	80%	120%		80%	120%	102%	80%	120%
--	---------	---------	---	-----	------	-----	-----	-----	------	--	-----	------	------	-----	------

Standard Water Analysis + Total Metals

pH	3254798		7.88	7.90	0.3%	<	102%	80%	120%	NA			NA		
Alkalinity	3254798		830	831	0.2%	< 5	87%	80%	120%	NA			NA		
Electrical Conductivity	3254798		2140	2170	1.4%	< 1	100%	90%	110%	NA			NA		
Bicarb. Alkalinity (as CaCO3)	3254798		830	831	0.2%	< 5	NA	80%	120%	NA			NA		
Carb. Alkalinity (as CaCO3)	3254798		<10	<10	NA	< 10	NA	80%	120%	NA			NA		
Hydroxide	3254798		<5	<5	NA	< 5	NA	80%	120%	NA			NA		

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

Water Analysis - TOC

Total Organic Carbon	3250864		3	3	NA	< 1	115%	80%	120%	107%	80%	120%	106%	80%	120%
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Comments: Matrix spike NA: Spike level < native concentration. Matrix spike acceptance limits do not apply and are not calculated.
 Duplicate NA: results are less than 5X the RDL and RDP will not be calculated.

Certified By: _____



Method Summary

CLIENT NAME: DEXTER CONSTRUCTION COMPANY LTD

AGAT WORK ORDER: 21X835755

PROJECT: Lantz Quarry

ATTENTION TO: Rhett Thompson

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Water Analysis			
Total Suspended Solids - Low Level (1 L)	INOR-121-6024, 6025	SM 2540C, D	GRAVIMETRIC
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	INORG-121-6005	SM 4110 B	ION CHROMATOGRAPH
Fluoride	INORG-121-6005	SM 4110 B	ION CHROMATOGRAPH
Sulphate	INORG-121-6005	SM 4110 B	ION CHROMATOGRAPH
Alkalinity	INOR-121-6001	SM 2320 B	
True Color	INOR-121-6008	SM 2120 B	LACHAT FIA
Turbidity	INOR-121-6022	SM 2130 B	NEPHELOMETER
Electrical Conductivity	INOR-121-6001	SM 2510 B	PC TITRATE
Nitrate + Nitrite as N	INORG-121-6005	SM 4110 B	CALCULATION
Nitrate as N	INORG-121-6005	SM 4110 B	ION CHROMATOGRAPH
Nitrite as N	INORG-121-6005	SM 4110 B	ION CHROMATOGRAPH
Ammonia as N	INOR-121-6047	SM 4500-NH ₃ H	COLORIMETER
Ortho-Phosphate as P	INOR-121-6012	SM 4500-P G	COLORIMETER
Total Sodium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Potassium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Calcium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Magnesium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Bicarb. Alkalinity (as CaCO ₃)	INORG-121-6001	SM 2320 B	PC TITRATE
Carb. Alkalinity (as CaCO ₃)	INORG-121-6001	SM 2320 B	PC TITRATE
Hydroxide	INORG-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
Total Aluminum	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Antimony	MET121-6104 & MET-121-6105	SM 3125	ICP-MS
Total Arsenic	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Barium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Beryllium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Bismuth	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Boron	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Cadmium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS

Method Summary

CLIENT NAME: DEXTER CONSTRUCTION COMPANY LTD
 PROJECT: Lantz Quarry
 SAMPLING SITE:

AGAT WORK ORDER: 21X835755
 ATTENTION TO: Rhett Thompson
 SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Total Chromium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Cobalt	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Copper	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Iron	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Lead	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Manganese	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Molybdenum	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Nickel	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Phosphorous	MET-121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Selenium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Silver	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Strontium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Thallium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Tin	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Titanium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Uranium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Vanadium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Zinc	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Organic Carbon	INST 0170	SM 5310 B	COMBUSTION



AGAT Laboratories

Unit 122 • 11 Morris Drive
Dartmouth, NS
B3B 1M2

webearth.agatlabs.com • www.agatlabs.com

Laboratory Use Only

Arrival Condition: Good Poor (see notes)

Arrival Temperature: 4.5, 1.2, 2.4

Hold Time: _____

AGAT Job Number: 21X835755 21 NOV 26 10:12 AM

Notes: _____

Chain of Custody Record

P: 902.468.8718 • F: 902.468.8924

Report Information

Company: Dexter Construction Company Limited

Contact: Rhett Thompson

Address: 927 Rocky Lake Drive Bedford, NS

Phone: 902-832-6348 Fax: _____

Client Project #: LANTZ Quarry

AGAT Quotation: Contract No. 197252

Please Note: If quotation number is not provided client will be billed full price for analysis.

Report Information (Please print):

1. Name: Rhett Thompson
Email: rthompson@dexter.ca

2. Name: Michelle Hill
Email: mihill@municipalgroup.ca

Report Format

- Single Sample per page
- Multiple Sample per page
- Excel Format Included
- Export:

Regulatory Requirements (Check):

List Guidelines on Report Do not list Guidelines on Report

PIRI

Tier 1 Res Pot Coarse

Tier 2 Com N/Pot Fine

Gas Fuel Lube

CCME CDWQ

Industrial NSEQS-Cont Sites

Commercial HRM 101

Res/Park Storm Water

Agricultural Waste Water

FWAL

Sediment Other _____

Turnaround Time Required (TAT)

Regular TAT 5 to 7 working days

Rush TAT Same day 1 day

2 days 3 days

Date Required: _____

Invoice To Same Yes / No

Company: _____

Contact: _____

Address: _____

Phone: _____ Fax: _____

PO/Credit Card#: 10633938 (2021-Q4)

Drinking Water Sample: Yes No **Salt Water Sample:** Yes No

Reg. No.: _____

Sample Identification	Date/Time Sampled	Sample Matrix	# Containers	Comments - Site/Sample Info. Sample Containment	Field Filtered/Preserved	Standard Water Analysis	Metals: <input checked="" type="checkbox"/> Total <input type="checkbox"/> Diss <input type="checkbox"/> Available	Mercury	<input type="checkbox"/> BOD <input type="checkbox"/> CBOD	pH	<input checked="" type="checkbox"/> TSS <input type="checkbox"/> TDS <input type="checkbox"/> Diss <input type="checkbox"/> Available	TKN	Total Phosphorus	Phenols	Tier 1: TPH/BTEX (PIR) <input type="checkbox"/> low level	Tier 2: TPH/BTEX Fractionation	CCME-CWS TPH/BTEX	VOC	THM	HAA	PAH	PCB	TC+EC <input type="checkbox"/> P/A <input type="checkbox"/> MPN <input type="checkbox"/> MF	HPC <input type="checkbox"/> Pseudomonas	Fecal Coliform <input type="checkbox"/> MPN <input type="checkbox"/> MF	Other:	Other:	Hazardous (Y/N)
LANTZ QUARRY SW-1	NOV 24/21	W	4		✓	✓					✓																	
LANTZ QUARRY SW-2	NOV 24/21	W	4		✓	✓					✓																	
LANTZ QUARRY SW-3	NOV 24/21	W	4		✓	✓					✓																	

Samples Relinquished By (Print Name): <u>ROBERT MCINTOSH</u>	Date/Time: <u>NOV 26/21</u>	Samples Received By (Print Name): <u>Kallen</u>	Date/Time: _____	Pink Copy - Client	Page <u>1</u> of <u>1</u>
Samples Relinquished By (Sign): <u>Robert McIntosh</u>	Date/Time: _____	Samples Received By (Sign): <u>Kallen</u>	Date/Time: _____	Yellow Copy - AGAT	N°: _____
				White Copy - AGAT	



APPENDIX O. PUBLIC ENGAGEMENT SESSION INFORMATION

INFORMATION SESSION

Where:

Dexter Construction's Lantz Quarry, 42 Dutch Settlement Road, Lantz, Nova Scotia

When:

Tuesday, October 26, 2021
3:00 pm to 6:00 pm

Lantz Quarry, owned and operated by Dexter Construction Company Limited (Dexter), is located on PID 00524298 in Lantz, Nova Scotia. The map below shows the location of the Lantz Quarry, currently operating under Nova Scotia Environment and Climate Change (NSECC) Industrial Approval (IA) # 2007-060446-03. Dexter intends to expand the existing quarry area which will require a Provincial Environmental Assessment (EA) registration (Class I undertaking). Other than the proposed increase in operating area, site activities are not planned to increase in scope or frequency from current use.

On Tuesday, October 26, 2021, an information session (informal with poster boards) will be held at the Lantz Quarry. The Project Team will be on hand to discuss the proposed quarry expansion and provide details relating to the EA currently underway. We would like to invite you to come see the quarry and learn about our proposed development.

For more information, please contact Rhett Thompson at rthompson@dexter.ca or call 902-718-9778.



WELCOME

Lantz Quarry

Expansion Project

PUBLIC INFORMATION

SESSION



Please sign in and provide your contact information if you would like to receive further information and updates about the Project.

If you have any comments or questions, please ask one of our representatives or fill out a comment card.

Thank you for coming!



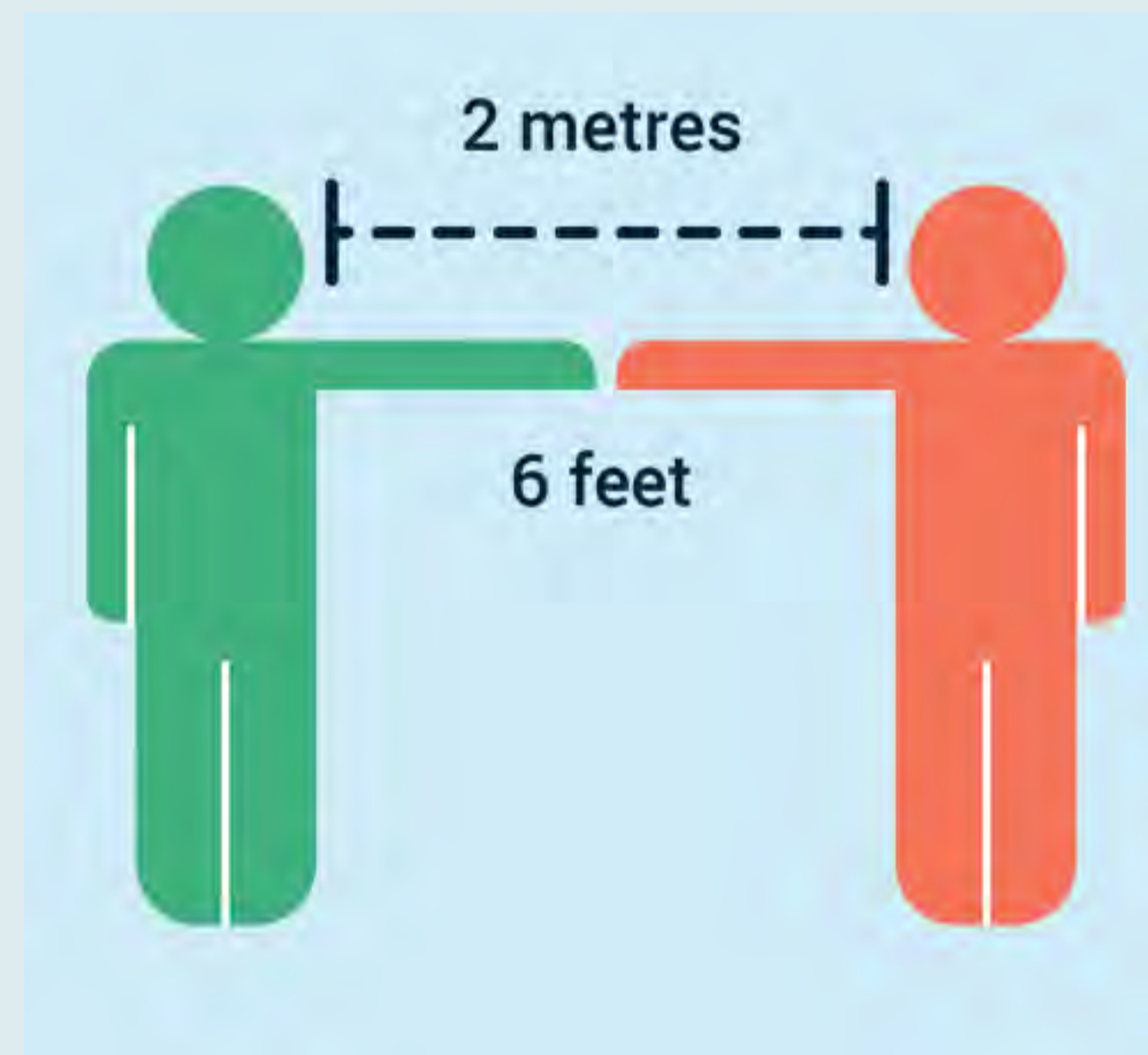
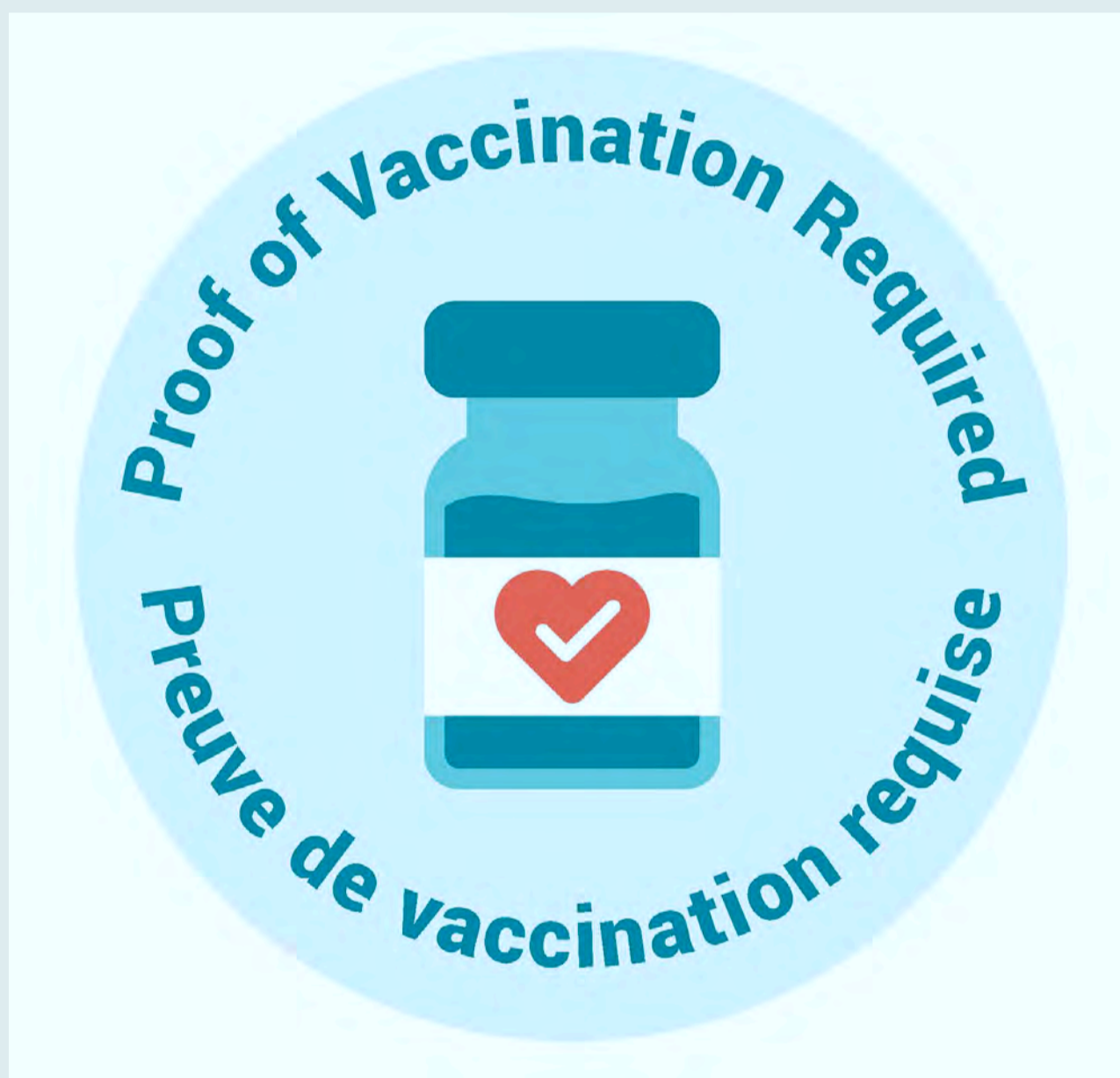
Dexter Construction Company Limited

COVID-19

Checklist

1. Do you feel sick?
2. In the past 48 hours, have you had, or are you currently experiencing a cough or two or more of the following symptoms; fever, sore throat, runny nose?
3. Have you visited a COVID-19 exposure site?
4. Have you been outside of Nova Scotia in the past 14 days?
5. Has Public Health told you that you are a close contact of a COVID-19 Case?

If you answered yes to any of these questions, please return home and follow Public Health instructions.



Public Information Session Guidelines

- Proof of vaccination is required
- Please maintain a physical distance of 2 m (6 ft)
- Masks are not required



Dexter Construction Company Limited

PROJECT DESCRIPTION

The Lantz Quarry is an existing quarry located between the communities of Elmsdale and Dutch Settlement, approximately 35 km north of Halifax, Nova Scotia. Dexter Construction Co. Ltd. is proposing to expand the existing quarry to increase available aggregate reserves. Other than the proposed increase in size, it is expected that continued use of the quarry will be identical, or very similar to current use of the site. This activity requires Provincial Environmental Assessment (EA) registration (Class I undertaking).

Project Schedule

Project Development Studies	Status
Environmental Studies	Winter 2020 Spring, Summer, and Fall 2021
Public Engagement	October 26, 2021 (Information Session) On-going throughout the Project to inform Project design.
Environmental Assessment Registration	Spring 2022
Quarry Extension Life	Approximately 40 years
Expected EA Decision	Summer 2022
Industrial Approval Amendment	Fall 2022



Dexter Construction Company Limited

PROJECT LOCATION AND DETAILS

The current active operating area of the Lantz Quarry is approximately 4 hectares. The proposed quarry expansion area (Development Area) is 8.7 hectares. The EA Study Area includes 25.8 hectares of privately-owned land. The quarry is currently operating under a Nova Scotia Environment and Climate Change (NSECC) Industrial Approval (2007-060446-03).

Overall, the Study Area exhibits a high degree of disturbance including the current quarry footprint, cleared areas, and an access road. Natural forested land is present in the northern extent of the Study Area and along the western Study Area boundary.



Dexter Construction Company Limited

VALUED ENVIRONMENTAL COMPONENTS

The Lantz Quarry Expansion Project is subject to provincial regulatory review by Nova Scotia Environment and Climate Change (NSECC) under the Nova Scotia Environmental Assessment (EA) Regulations (Section 49 of the NS *Environment Act*.)

Environmental surveys have been conducted following guidance from various agencies including NSECC, the Nova Scotia Department of Lands and Forestry (NSL&F), the Canadian Wildlife Service (CWS), and Fisheries and Oceans Canada (DFO).

Valued Environmental Components (VEC) are existing environmental features that have value to all stakeholders. Predicted environmental effects of the Project on these VEC's, are evaluated as part of the EA process.

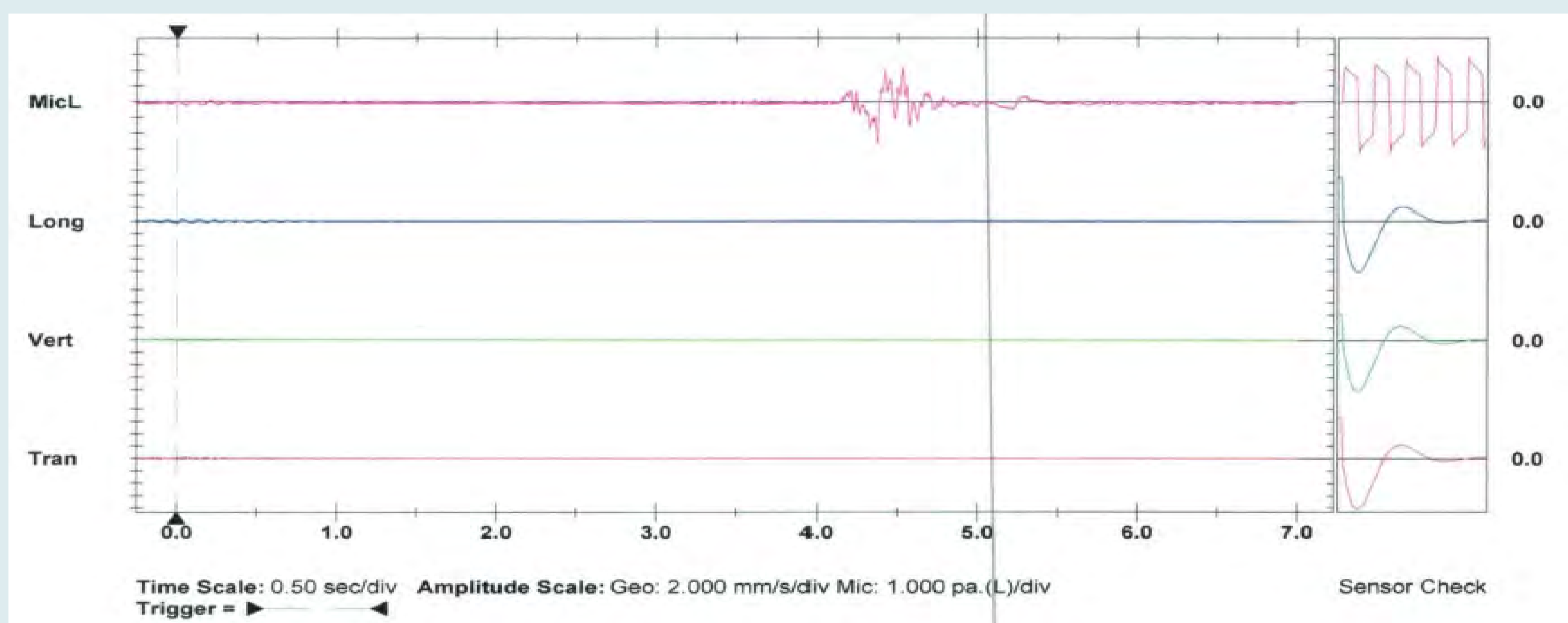


Dexter Construction Company Limited

VALUED ENVIRONMENTAL COMPONENTS

Noise

- The Lantz Quarry is located in a rural setting. Aerial imagery indicates that there are no residential structures within 800 m of the Development Area, therefore, no blasting will occur within 800 m of a foundation or base of an existing offsite structure.
- Blasting will be completed in accordance with the General Blasting Safety Regulations of Nova Scotia and the Nova Scotia Pit and Quarry Guidelines.
- There are no anticipated changes to the current frequency of blasting or the operating hours of the quarry.
- All blasting events will be monitored for noise and vibration.



Air Quality

- Current quarry production and blasting frequency is anticipated to remain consistent, therefore, air quality conditions are not expected to change.
- Dust emissions will be controlled and monitored in accordance with NSECC.



Dexter Construction Company Limited

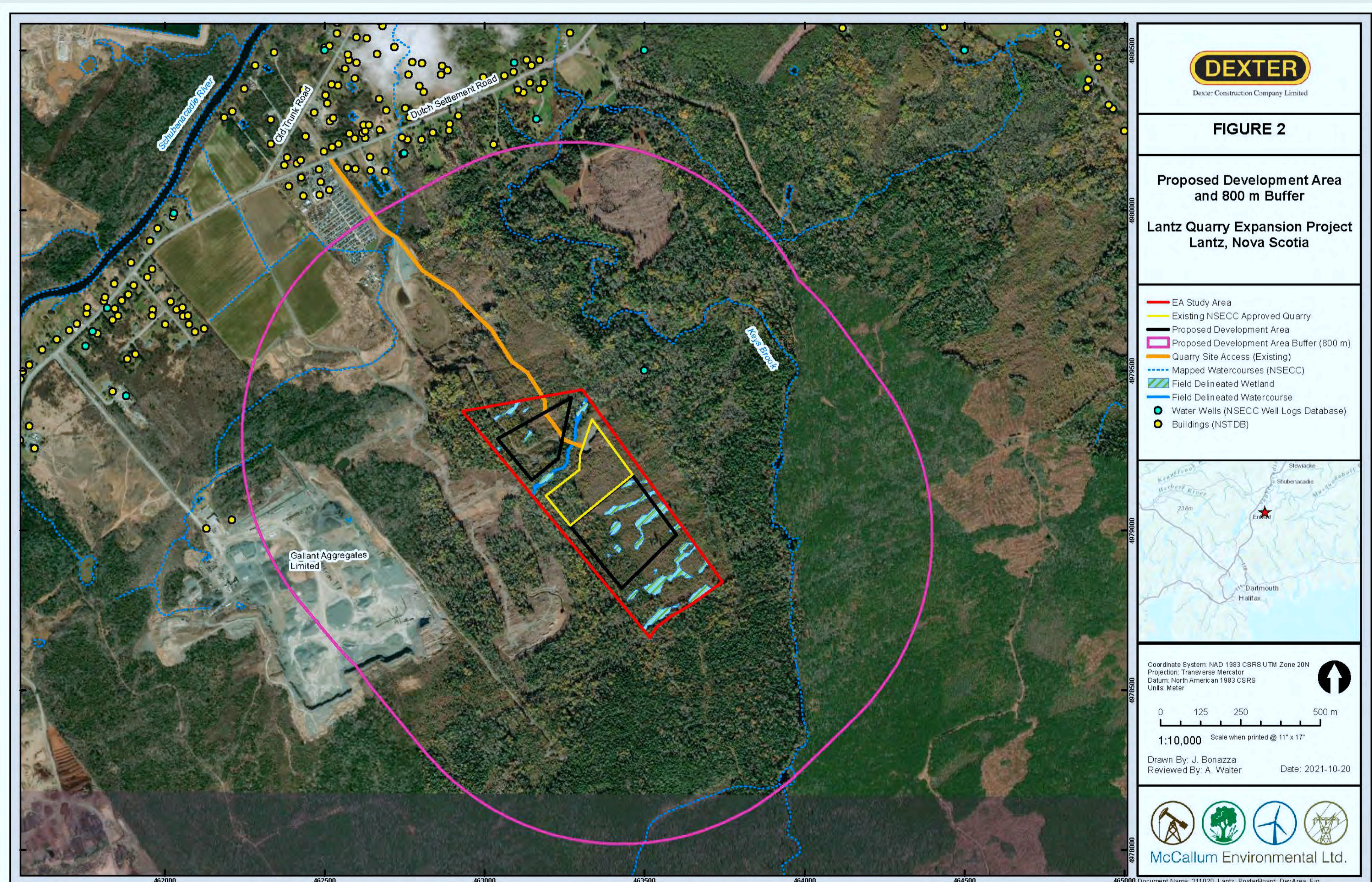
VALUED ENVIRONMENTAL COMPONENTS

Surficial Geology, Bedrock Geology, and Topography

- The potential for acid rock drainage (ARD) at the Lantz Quarry is considered low.
- Topography (land elevations) will be altered by quarry expansion.

Groundwater

- Dexter Construction Company Ltd. will be required to monitor groundwater as part of quarry expansion.
- The closest assumed well is located ~880 m northeast of the Development Area.
- According to the NSECC Well Logs Database, there are three potable wells located within 1 km of the Development Area.
- Future quarrying is planned to stay above the groundwater level.



Dexter Construction Company Limited

VALUED ENVIRONMENTAL COMPONENTS

Surface Water, Fish, and Fish Habitat

- Field evaluations identified one watercourse within the Study Area.
- This feature flows northeast and drains into Keys Brook (located off-site).
- This watercourse is intermittent, meaning it flows and/or retains water during wet times of the year.
- This watercourse provides fish habitat and is considered to be a fisheries resource.
- A water balance model is currently being completed to determine potential changes to water quantity as a result of quarry expansion.
- Environmental water management controls (e.g., settling ponds and sediment and erosion control) will be designed, as necessary, to meet NSECC Industrial Approval requirements and to ensure that quarry expansion is not negatively impacting water quality.
- A surface water monitoring program will be implemented during quarry expansion to ensure that the above conditions are being met.



Dexter Construction Company Limited

VALUED ENVIRONMENTAL COMPONENTS

Wetlands

- Field evaluations identified 17 wetlands within the Study Area.
- These wetlands include treed swamps, shrub swamps, and bogs.
- Seven wetlands exist within the Development Area. These wetlands are anticipated to be directly impacted as a result of quarry expansion. Wetland Alteration Approvals will be acquired from NSECC prior to alteration.



Habitat, Flora, and Lichens

- The Study Area is comprised of disturbed (e.g., clear cut) and intact habitat. Intact habitat comprises mainly mixed-wood forest with some softwood dominant areas. Rocky outcrops or barrens were also observed within the Study Area.
- In total, 168 vascular plant species were recorded during botany surveys.
- No vascular plant Species at Risk (SAR) were identified within the Study Area.
- In total, 15 lichen species were observed within the Study Area, none of which are classified as a SAR.



Dexter Construction Company Limited

VALUED ENVIRONMENTAL COMPONENTS

Avifauna

- In total, 49 species were identified during targeted bird surveys.
- Three avian SAR were identified: Canada warbler, common nighthawk, and eastern wood-pewee.
- Suitable habitat is present within the Development Area for all three avian SAR.



Wildlife

- Based on field observations, the Study Area is being utilized by several wildlife species including white-tailed deer, North American porcupine, snowshoe hare, red fox, and American red squirrel.
- No suitable nesting or overwintering habitat was observed for SAR turtles; wood turtle or snapping turtle.
- No hibernacula were identified for bats.



Dexter Construction Company Limited

VALUED ENVIRONMENTAL COMPONENTS

Cultural and Heritage Resources

- An Archaeological Resource Impact Assessment (ARIA) was completed within the Study Area.
- The ARIA concluded that the Study Area has low potential for encountering Mi'kmaq or Euro-Canadian archeological resources.
- The Project Team is continuing to engage with First Nation communities to understand traditional use in the area.

Socio-economic Conditions

- Quarry expansion is anticipated to benefit the economy by providing aggregate material for local projects and contributing to Nova Scotia's natural resource sector.
- Recreation and tourism as well as human health are not anticipated to be affected by the Project.
- Transportation routes for haul truck traffic will continue to use Dutch Settlement Road to the east or west, depending on project locations, however, haul truck traffic is not expected to exceed current volumes.
- Quarry expansion is not expected to be visible from Dutch Settlement Road.



Dexter Construction Company Limited

DEVELOPMENT PLAN

- Quarrying activities are not planned to increase in scope or frequency from current use.
- Expansion of the quarry will move southwest from the current quarry face.
- Typical site activities include:
 - Clearing of vegetation and grubbing of overburden;
 - Drilling and blasting of exposed bedrock;
 - Crushing and stockpiling of various aggregate products; and,
 - Loading and hauling of finished aggregate products.
- The quarry will be serviced by portable crushers and mobile equipment that will be mobilized to site, as needed.



THANK YOU

We encourage you to speak to any of our representatives here today for more information on any of the topics covered on our posters.

If you have any further questions or comments, please fill out a comment sheet. You can also send us questions or comments at the email, address, or phone number listed on the comment sheet.



Dexter Construction Company Limited

Dexter Construction Company Limited
927 Rocky Lake Dr, Bedford, Nova Scotia
B4A 3Z2

Lantz Quarry Expansion Project
Public Information Session

Dexter Construction's Lantz Quarry – October 26, 2021



Dexter Construction Company Limited

<p>Name:</p> <p>[REDACTED]</p>	<p>Please provide your comments:</p>
<p>Address:</p> <p>[REDACTED]</p>	<p>No Complaints</p>
<p>Phone:</p> <p>[REDACTED]</p>	
<p>If you would like to receive further information and updates about the Project, please leave an e-mail address:</p>	

Additional Questions?

Please contact Rhett Thompson, Dexter Construction Company Limited
Email: rthompson@dexter.ca