

DATA REPORT

21-1242

September 1, 2023

Explorations and Geotechnical Services

Proposed Offshore Wind Terminal Mack Point Searsport, Maine

Prepared For: Moffatt & Nichol Attention: Jordan Greer, P.E. 180 Wells Avenue, Suite 302 Newton, MA 02459

Prepared By: S. W. Cole Engineering, Inc. 26 Coles Crossing Drive Sidney, ME 04330 T: 207.626.0600

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Geotechnical Engineering | Construction Materials Testing | Special Inspections

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Moffatt & Nichol Attention: Jordan Greer, P.E. 180 Wells Avenue, Suite 302 Newton, MA 02459

Subject: Data Report Explorations and Geotechnical Services Proposed Offshore Wind Terminal Mack Point Searsport, Maine

Dear Jordan:

In accordance with our Contract Addendum 02, dated October 18, 2022, we have performed subsurface explorations and completed laboratory testing for the subject project. This report summarizes our findings, and its contents are subject to the limitations set forth in Appendix A.

1.0 INTRODUCTION

1.1 Scope and Purpose

The purpose of our services was to obtain subsurface information for use by others. Our scope of services included marine test borings and land test borings explorations, soils laboratory testing, and preparation of this report.

1.2 Site and Proposed Construction

The site is located on Mack Point at the south of the Sprague Energy facility and west of Sears Island in Searsport, Maine. Based on discussions with you, we understand Mack Point will be evaluated as an alternative site to the development of Sears Island.

Existing site features are shown on the "Exploration Location Plan" attached in Appendix B.



2.0 EXPLORATION AND TESTING

2.1 Explorations

Five marine test borings (MB-101 through MB-104, and MB-104A) were made at the site on June 5 to June 14, 2023, by New England Boring Contractors working under subcontract to S. W. Cole Engineering, Inc. (S.W.COLE). Three land test borings (LB-101 through LB-103) were made at the site on June 13, 2023, by S. W. Cole Explorations, LLC.

The exploration locations were selected by Moffatt & Nichol and established in the field by S.W.COLE using mapping-grade GPS methods. The approximate exploration locations are shown on the "Exploration Location Plan" attached in Appendix B. Logs of the test boring and test pit explorations and a key to the notes and symbols used on these logs are attached in Appendix C.

2.2 Field Testing

The test borings were drilled using a combination of cased wash-boring techniques. The soils in the test borings were generally sampled at 2-to-5-foot intervals using a split-spoon sampler and Standard Penetration Testing (SPT) methods. Pocket Penetrometer Tests (PPT) were performed where stiffer cohesive soils were encountered in the test boring. SPT blow counts and PPT results are shown on the boring logs.

2.3 Laboratory Testing

Soil samples obtained from the explorations were returned to our laboratory for further classification and testing. Laboratory testing was completed on selected samples, as requested, and included:

- 8, Moisture Content Tests
- 8, Atterberg Limits Tests
- 7, Percent Passing 200-sieve Tests
- 9, Gradation Tests
- 3, Unconfined Rock Core Compressive Strength Tests Method C
- 3, Unconfined Rock Core Compressive Strength Tests Method D



Moisture content, Atterberg Limits, percent passing the 200-sieve, and unconfined rock core compressive strength test results are noted on the logs. The results of the gradation testing are attached in Appendix D.

3.0 SUBSURFACE CONDITIONS

3.1 Soil and Bedrock

3.1.1 Marine Borings

The marine test borings encountered a soil profile generally consisting of bay mud, consisting of silty clay with organics except at MB-101 where silty sand and gravel was encountered. The bay mud or sand and gravel extended to depths varying from about 2 to 10 feet below mudline. Below the bay mud or sand and gravel, the explorations except MB-104 and MB-104A encountered marine deposit consisting of medium dense silty sand or very soft to soft silty clay to depths varying from about 15 to 25 feet overlying dense to very dense glacial till. At boring MB-104, the bay mud was underlain by glacial till. The glacial till soils generally consisted of sandy silt to silt and sand with varying amounts of gravel, cobbles and boulders, overlying bedrock at depths varying from about 45 to 70 feet below mudline, where encountered.

Marine borings MB-104 was terminated in the very dense glacial till at depth of 35.8 feet below mudline. Marine borings MB-101, MB-102, MB-103, and MB-104 were advanced into and terminated in bedrock. Where rock cores were obtained, the bedrock consisted of gray to dark gray, Schist of the Penobscot Formation.

Not all the strata were encountered at each exploration; refer to the attached logs for more detailed subsurface information.

3.1.2 Land Borings

As requested, the landside borings were vacuum excavated to depths of 2 to 5 feet to confirm no utilities were present within the energy facility. Topsoil was observed in the side wall of each excavation. Below the topsoil, the landside borings generally encountered glacial till or marine deposits overlying glacial till.

The marine deposits were encountered to a depth of about 10 to 15 feet and consisted of stiff to hard silty clay in LB-101 and medium dense sandy silt with some gravel and clay in



LB-103. Below the marine deposit, the land borings encountered glacial till generally consisting of stiff to hard, silt and sand to sandy silt with varying amounts of gravel, and some to trace clay. The land borings were terminated in the glacial till at depths of about 42 feet.

Not all the strata were encountered at each exploration; refer to the attached logs for more detailed subsurface information.

3.2 Groundwater

The soils encountered in the landside test borings were generally damp to wet from the ground surface. Where encountered, groundwater was observed at depths generally ranging from about 1 to 4 feet below the ground surface.

4.0 CLOSURE

It has been a pleasure to be of assistance to you with this phase of your project. We look forward to working with you during the design phase of the project.

Sincerely,

S. W. Cole Engineering, Inc.

Michael A. St. Pierre, P.E. Senior Geotechnical Engineer

MAS:tjb

APPENDIX A

Limitations

This report has been prepared for the exclusive use of Moffatt & Nichol for specific application to the proposed Offshore Wind Terminal on Mack Point in Searsport, Maine. S. W. Cole Engineering, Inc. (S.W.COLE) has endeavored to conduct our services in accordance with generally accepted soil and geotechnical practices. No warranty, expressed or implied, is made.

The soil profiles described in the report are intended to convey general trends in subsurface conditions. The boundaries between strata are approximate and are based upon interpretation of exploration data and samples.

Observations have been made during exploration work to assess site groundwater levels. Fluctuations in water levels will occur due to variations in rainfall, temperature, and other factors.

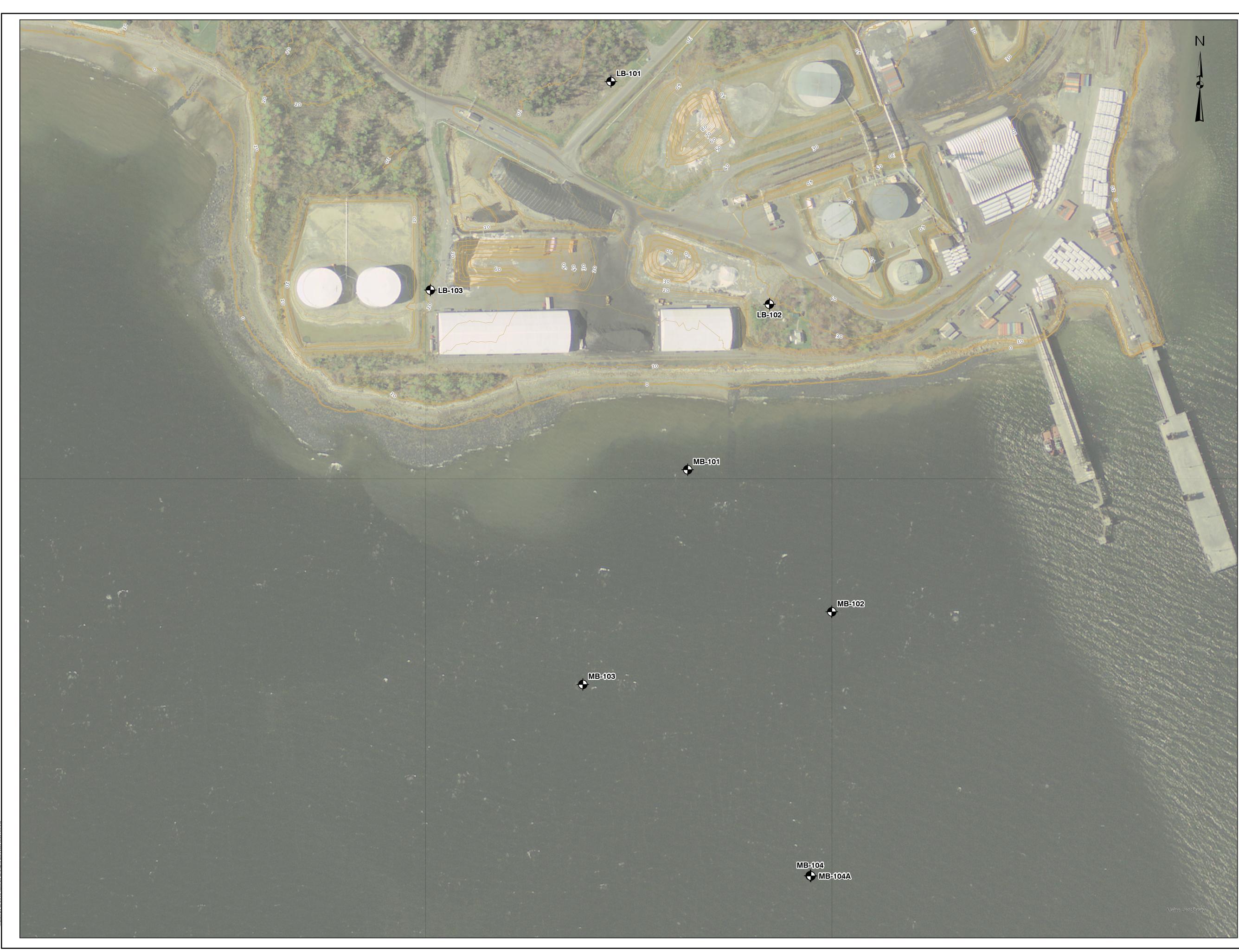
S.W.COLE's scope of services has not included the investigation, detection, or prevention of any Biological Pollutants at the project site or in any existing or proposed structure at the site. The term "Biological Pollutants" includes, but is not limited to, molds, fungi, spores, bacteria, and viruses, and the byproducts of any such biological organisms.



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APPENDIX B

Figures



BORING LOCATIONS - AS DRILLED

Boring No.	Northing, MSP 1983 East	Easting, MSP 1983 East	Latitude	Longitude
LB-101	287558.7278	878644.7537	44.454846	-68.904465
LB-102	286808.4786	879178.4573	44.452795	-68.902407
LB-103	286856.2095	878036.3343	44.45291	-68.906782
MB-102	285772.0338	879388.6085	44.449954	-68.901583
MB-101	286250.7576	878903.2328	44.451261	-68.903451
MB-104	284882.8056	879315.8196	44.447514	-68.901845
MB-104A	284881.9228	879318.4187	44.447512	-68.901835
MB-103	285527.2459	878550.0603	44.449272	-68.904789

LEGEND

NOTES:

1. EXPLORATION LOCATION PLAN WAS PREPARED FROM IMAGERY ENTITLED "MAINE ORTHOIMAGERY REGIONAL 2015," PROVIDED BY THE MAINE GEOLIBRARY.

2. THE EXPLORATIONS WERE LOCATED IN THE FIELD BY S. W. COLE ENGINEERING, INC. USING A MAPPING GRADE GPS RECEIVER.

3. THIS PLAN SHOULD BE USED IN CONJUNCTION WITH THE ASSOCIATED S. W. COLE ENGINEERING, INC. GEOTECHNICAL REPORT.

4. THE PURPOSE OF THIS PLAN IS ONLY TO DEPICT THE LOCATION OF THE EXPLORATIONS IN RELATION TO THE EXISTING CONDITIONS AND PROPOSED CONSTRUCTION AND IS NOT TO BE USED FOR CONSTRUCTION.

0	75 1	50	300	450 Feet
	S.W.C	COLE RING, INC.		
E		MOFFATT & ATION LC ED OFFSHOF MACK P SEARSPOR	DCATION RE WIND TER OINT	
Job No. Date:	22-1242 06/27/20		Scale Sheet	1" = 150' 1



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APPENDIX C

Exploration Logs and Key



KEY TO NOTES & SYMBOLS Test Boring and Test Pit Explorations

Stratification lines represent the approximate boundary between soil types and the transition may be gradual.

Key to Symbols Used:

- w water content, percent (dry weight basis)
- qu unconfined compressive strength, kips/sq. ft. laboratory test
- S_v field vane shear strength, kips/sq. ft.
- L_v lab vane shear strength, kips/sq. ft.
- q_p unconfined compressive strength, kips/sq. ft. pocket penetrometer test
- O organic content, percent (dry weight basis)
- W_L liquid limit Atterberg test
- W_P plastic limit Atterberg test
- WOH advance by weight of hammer
- WOM advance by weight of man
- WOR advance by weight of rods
- HYD advance by force of hydraulic piston on drill
- RQD Rock Quality Designator an index of the quality of a rock mass.
- γ_T total soil weight
- $\gamma_{\rm B}$ buoyant soil weight

Description of Proportions:

Description of Stratified Soils

		Parting:	0 to 1/16" thickness
Trace:	0 to 5%	Seam:	1/16" to 1/2" thickness
Some:	5 to 12%	Layer:	1⁄2" to 12" thickness
"Y"	12 to 35%	Varved:	Alternating seams or layers
And	35+%	Occasional:	one or less per foot of thickness
With	Undifferentiated	Frequent:	more than one per foot of thickness

REFUSAL: <u>Test Boring Explorations</u> - Refusal depth indicates that depth at which, in the drill foreman's opinion, sufficient resistance to the advance of the casing, auger, probe rod or sampler was encountered to render further advance impossible or impracticable by the procedures and equipment being used.

REFUSAL: <u>Test Pit Explorations</u> - Refusal depth indicates that depth at which sufficient resistance to the advance of the backhoe bucket was encountered to render further advance impossible or impracticable by the procedures and equipment being used.

Although refusal may indicate the encountering of the bedrock surface, it may indicate the striking of large cobbles, boulders, very dense or cemented soil, or other buried natural or man-made objects or it may indicate the encountering of a harder zone after penetrating a considerable depth through a weathered or disintegrated zone of the bedrock.

É			ENT: <u>N</u>					ORIN	G	LOG		i	BORING N SHEET: PROJECT DATE STA	 NO	LB-101 1 of 2 21-1242 6/13/2023
S.W.O	COLE			-		oint, Sea							DATE FINI	_	
LOCA DRILL RIG T HAMM HAMM	ING CO. (PE: IER TYPI IER COR	See Ex : <u>S. V</u> :ack Mo E: <u>Au</u> RECTI	ploration I V. Cole E punted Di tomatic / ON FAC	xplo edri Auto	orations, ich D-50 omatic R:		DRILLER: AUGER ID HAMMER HAMMER	N (FT): Kevin Hanso /OD:N/A / I WEIGHT (Ibs) DROP (inch):	com N/A): <u>14</u> _30 /	0 / 140	TOTAL DEPTH (FT): 42.0 DRILLING METHOD: Cased SAMPLER: Standard Split-S CASING ID/OD: 4 in / 4 1/2 in	d Boring Spoon	GGED BY:		Cozens
	RAL NO					xcavated p		excavated ho ing.	le						
	O NOTES YMBOLS:	∑ At Ţ At	e <u>r Level</u> time of Dri Completio ter Drilling	n of		U = Thin V R = Rock (poon Samp Valled Tube Core Sample /ane Shear	Sample Rec. e bpf =	= Reco Blows	etration Length overy Length per Foot e per Foot	WOR = Weight of Rods WOH = Weight of Hammer RQD = Rock Quality Designation PID = Photoionization Detector	q _∪ = Unco Ø = Frictio	Vane Shear S nfined Compre on Angle (Estin Applicable	essive S	kips/sq.ft. trength, kips/sq.ft.
					SAMP	LE INFO	RMATIO	N	fo		Sampla				
Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic I		Sample Description & Classification		H ₂ 0 Depth	F	Remarks
	-									Vac	uum excavated to 2ft		Ā		
	-		1D	\square	2-4	24/20	4-6-7-8	q _₽ =6 to 7 ksf		2.0 Stiff	to hard, gray, saturated, silty (CLAY -			
	- 5 - 5 -		2D		4-6	24/24	3-5-4-6	q _P =3 to 5 ksf ID 14923A w =25.6 % W _L =34 W _P =15 90.2% Fines							
	- - 10 - -		3D	X	10-12	24/13	11-10- 12-11	ID 14924A		satu	ium dense to very dense, gray rated, gravelly sandy SILT, so tional cobbles (GLACIAL TILL	me clay,			
	- 15 - -		4D	X	15-17	24/13	14-19- 18-15								
	- 20 - -		5D	X	20-22	24/13	14-24- 35-56								
	- 25 - -		6D	X	25-27	24/14	7-16- 15-19	ID 14925A							
	- 30 - -		7D	X	30-32	24/16	7-16- 15-19								
	- 35 - - -		8D	X	35-37	24/21	16-24- 30-43								
bounda	ry betweer	ı soil typ	l nt approxim es, transitio	ons r	nay be	1	1		<u>v / 7 /</u>	1	(Continued Next Page)				
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	ctors than ements we		esent at the	e tirr	ie							1	Boring N	IO.:	LB-101

ſ	6		BORING LOG										BORING NO.: SHEET:		LB-101 2 of 2
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			PRC	JECT:	Ν	lack Poi	int Offsh		d Terminal			DA	TE ST	ART:	6/13/2023
	S.W.C	COLE	LOC	CATION	: _!	Mack Po	oint, Sea	arsport, N	Maine			DA	TE FI	NISH:	6/13/2023
	Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Pen. (bpf) Sample Depth Pen./ (ft) Count Field / La No. Field (ft) (ft) Rec. (in) or Test Date					N Field / Lab Test Data	Graphic Log	Sample Description & Classification		H₂0 Depth		Remarks
ŀ		_		9D	X	40-42	24/9	17-36- 45-44							
F		_			V					0///	Bottom of Exploration at 42.0 feet	I			
>	aradual	Water lev	el readir	t approxim s, transitio gs have b	een	made									
אואפ	at umes Fluctuat	and under ions of gro	conditio undwate	ons stated. er may occu	ur du	ue to									

other factors than those present at the measurements were made.

		PR(LOC	DJECT:	loration Location Plan ELEVATION (FT):						LOG	BORING SHEET PROJE DATE S DATE F	CT NO.	
LOCA DRILL RIG T HAMM HAMM WATE	TION: <u>S</u> ING CO.: YPE: <u>Tr</u> IER TYPI IER COR R LEVEL	See Exp S. V rack Mo E: <u>Au</u> RECTI	Dioration I V. Cole Ex Dounted Dio tomatic / J ON FACT THS (ft):	xplo edri Aute F OF _⊻	orations, ich D-50 omatic R: 2 4 ft W	LLC [/ H	DRILLER: AUGER ID HAMMER HAMMER	Kevin Hansc MOD: N/A / N WEIGHT (Ibs): DROP (inch): excavated hole	om I/A : <u>14</u> _ 30 /	DRILLING METHOD: Cased Boring SAMPLER: Standard Split-Spoon 0 / 140 CASING ID/OD: 4 in / 4 1/2 in C	OGGED B		Cozens
	O NOTES YMBOLS:	⊻ At ▼ At	r <u>Level</u> time of Dri Completio ter Drilling			U = Thin V R = Rock (poon Samp Valled Tube Core Samp /ane Shear	e Sample Rec. = bpf =	= Reco Blows	very LengthWOH = Weight of Hammer q_U = Unper FootRQD = Rock Quality DesignationØ = Fric	ld Vane She confined Co tion Angle (I lot Applicable	mpressive Estimated)	Strength, kips/sq.ft.
Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Π		LE INFO Pen./ Rec. (in)	RMATIC Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H₂0 Dept		Remarks
	5		1D	V	5-7	24/1	4-12- 13-24			Borehole vacuum excavated to 5 ft Topsoil and granular soil observed in sidewall.			
	- - - 10 -		2D		10-12	24/19	10-12- 9-9			sandy SILT, some clay, occasional cobble (GLACIAL TILL)	95 		
	- - 15 - -		3D	X	15-17	24/12	10-11- 10-11	ID 14926A 51.9% Fines					
	- 20 		4D	X	20-22	24/17	14-20- 25-28			Dense to very dense, gray, saturated, gravelly sandy SILT, some clay, occasion cobbles (GLACIAL TILL)	al		
	- 25 - - -		5D	X	25-27	24/23	32-47- 43-46						
	- 30 - - -		6D	X	30-32	24/20	26-34- 37-43	ID 14927A 55.2% Fines					
- 12-2022 - 1- 12-12 - 1	- 35 - - -		7D	X	35-37	24/24	28-30- 34-50						
bounda gradual	ry between . Water lev	soil type	t approxim es, transitio ngs have b	ons r	nay be made					(Continued Next Page)	I		
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measur	ements we	ie maue				1					1 •		vz

	F		BORING LOG										BORING NO.: _ SHEET:		LB-102 2 of 2
ľ			CLI	ENT: N	/lof	fatt & N	ichol							T NO.	
			PRC	JECT:	N	lack Po	int Offsh		d Terminal			DA	TE ST	ART:	6/13/2023
	S.W.C	COLE	LOC	CATION	: _!	Mack Po	oint, Sea	arsport, N	Maine			DA	TE FII	NISH:	6/13/2023
	Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	(bpf) Sample (c) F (ft) (ft) (c) Rec. or Test Da (in) RQD					N Field / Lab Test Data	Graphic Log	Sample Description & Classification		H ₂ 0 Depth		Remarks
ŀ		_		8D	X	40-42	24/20	25-36- 41-52							
					<u> </u>					<u> </u>	Bottom of Exploration at 42.0 feet				
WELL 10-12-2022 21-1242 MAUN FOINT.9FJ SWOE TEMPLATE.9D1 9/9/23	Stratifica	ation lines y between Water leave	represer soil type	t approxim s, transitio gs have b	nate	nay be									
	at times	and under	conditio	ons stated. er may occu	ur du	ue to									

measurements were made.

BORING NO.: LB-102

LOCA DRILL RIG T HAMM HAMM WATE	ng in TION: ING C YPE: IER T IER C R LEV	1fo 	formation See Exploration Location Plan ELEVATION (FT): TOTAL DEPTH (FT): 42.0 LOGGED BY: John D.: S. W. Cole Explorations, LLC DRILLER: Kevin Hanscom DRILLING METHOD: Cased Boring Track Mounted Diedrich D-50 AUGER ID/OD: N/A / N/A SAMPLER: Standard Split-Spoon PE: Automatic HAMMER WEIGHT (lbs): 140 / 140 CASING ID/OD: 4 in / 4 1/2 in CORE BARREL: IRRECTION FACTOR: HAMMER DROP (inch): 30 / 30 30 EL DEPTHS (ft): Image: A ft Vater level in vacuum excavated hole DTES: Borehole vacuum excavated prior to drilling. D = Split Spoon Sample Pen. = Penetration Length WOR = Weight of Rods S, = Field Vane Shear Strength											1 of 2 21-1242 6/13/2023 6/13/2023
			⊻ At ▼ At	time of Dri	n of		U = Thin Walled Tube Sample Rec. = Recovery Length WOH = Weight of Hammer $q_U = Un$						ompressive (Estimated)	ı, kips/sq.ft. Strength, kips/sq.ft.
		T				SAMPL	E INFO	RMATIC	N .	b.				
Elev. (ft)	Dep (ft)		Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H ₂ (Dep		Remarks
	-	T									Borehole vacuum excavated to 5 ft Topsoil and granular soil observed in sidewall			
	-	5									sidewall.	₽		
	-	5		1D	X	5-7	24/15	4-7-10- 15			5.0 Medium dense, brown, saturated, sandy clayey SILT, some gravel			
	- - 1 - -	0		2D	X	10-12	24/12	10-9- 16-13	ID 14928A w =12.2 % W _L =20 W _P =13					
	- - 1 - -	5		3D	X	15-17	24/11	4-13- 13-7			15.0 Medium dense to very dense, gray, saturated, gravelly sandy SILT, trace clay occasional cobbles (GLACIAL TILL)			
	- - 2 -	20		4D	X	20-22	24/14	6-6-11- 13						
	- 2 - -	25		5D	X	25-27	24/11	12-13- 20-20	ID 14929A					
	- 3 - -	80		6D	X	30-32.6	32/9	18-19- 48-50						
	- 3	85		7D	X	35-37	24/17	15-16- 20-25	ID 14930A 51.4% Fines					
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gradual at times	. Water and ur	leve der	el readin conditio	gs have b ns stated. r may occi	een	made								
	ctors th	an tl	hose pre	esent at th								BORIN	g no.:	LB-103

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			CLI	ENT: N	/lof	fatt & N	ichol							T NO.	2 of 2 21-1242
			PRO	JECT:	Μ	lack Poi	int Offsh		d Terminal			DA	TE ST	ART:	6/13/2023
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			Casing			SAMPL		RMATIO Blow	N	Log	Sample		ЦО		
	Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	INO.	Type		Pen./ Rec. (in)	Count or RQD	Field / Lab Test Data	Graphic Log	Description & Classification		H ₂ 0 Depth		Remarks
		_		8D	M	40-42	24/22	11-16- 24-23							
											Bottom of Exploration at 42.0 feet				
67/0/6															
פרו "															
ו בוארעו ב.ש															
NAC C															
JD.I NI															
CP PC															
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7702-21															
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JV / 5	at times	ation lines r ry between . Water lev and under	conditio	ons stated.											
	Fluctuat	ions of gro	undwate	er may occu	ur du	ue to									

measurements were made.

S.W.C		PRO	ENT: <u>N</u> DJECT: CATION	N	lack Po	LOG	BORING SHEET: PROJEC DATE ST DATE FI	ART: 6/7/2023				
LOCAT DRILLI RIG TY HAMME HAMME WATEF	NG CO.: PE: _GE ER TYPE ER CORI R LEVEL	See Exp New EFCO : E: Au RECTI DEPT	Dioration I England STRATAS tomatic / ON FACT HS (ft):	Boi STA Safe COR	ring AR 5 fety R: farine Bo	[/ H	DRILLER: AUGER ID HAMMER HAMMER	DN (FT): Sam Cooley D/OD:N/A / N WEIGHT (Ibs): DROP (inch):	I/A : _14	DRILLING METHOD: Cased Boring SAMPLER: Standard Split-Spoon 0 / 300 CASING ID/OD: 4 in / 4 1/2 in CC	OGGED BY:	EL: NQ2
KEY TO	NOTES	<u>Wate</u> ⊻ At ▼ At	<u>r Level</u> time of Dri Completio er Drilling	illing		U = Thin Walled Tube Sample Rec. = Recovery Length WOH = Weight of Hammer qu = Unc R = Rock Core Sample bpf = Blows per Foot RQD = Rock Quality Designation Ø = Frict V = Field Vane Shear mpf = Minute per Foot PID = Photoionization Detector N/A = Ne						r Strength, kips/sq.ft. pressive Strength, kips/sq.ft. stimated)
Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Π		E INFO	RMATIC Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H₂0 Depth	Remarks
	-		1D	X	0-2	24/1	16-7-9- 10			Medium dense, brown, wet, silty GRAVEL and SAND		
	- 5 - -		2D	X	5-7	24/10	10-6- 13-11	ID 14931A w =13.5 % W _L =18 W _p =16 56.4% Fines		5.0 ^{- Medium} dense, brown to gray, wet, SAND and SILT, some clay, trace gravel		
	— 10 - -		3D	X	10-12	24/12	12-14- 12-12			Medium dense, brown to gray, wet, silty SAND, some gravel		
	- - 15 - -		4D	X	15-17	24/6	3-12-8- 10			15.0 Medium dense to very dense, gray, wet, silty SAND and GRAVEL (GLACIAL TILL)		
52/0/6	- - 20 - -		5D	X	20-22	24/12	29-29- 32-25			Occassional boulders and cobbles below feet	20	
	- - 25 -		6D	X	25-27	24/4	22-19- 65-43					
	- 30 -									29.5 Cobbles/boulder from 29.5 to 32.5 feet		
10-12-2022 21-1242 MAUK PC	- - - 35 - - -		7D	X	35-36.3	15/5	25-50- 50/3"	ID 14933A		32.5 Very dense, gray, wet, sandy SILT, trace gravel (GLACIAL TILL)		
boundary gradual.	y between Water leve	soil type el readir	nt approxim es, transition ngs have bons stated.	ons r	nav be					(Continued Next Page)	•	
Z Fluctuation	ons of gro	undwate hose pr	er may occu esent at the	ur du e tim	ue to ne						BORING	NO.: MB-101

SWO		PRO	DJECT:	N		nt Offsh		ORINO d Terminal Maine	g lo	G	SHE PRO DAT		6/7/2023
J					SAMPL	E INFOI	RMATIO	N	ŋ				
Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No. 8D			Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification		H₂0 Depth	Remarks
	-		00	X	40-41.4	17/5	48-49- 50/5"						
	- - 45 -		9D	X	45-46.4	17/12	28-39- 50/5"			Very dense, gray, wet, sandy SILT, some gravel (GLACIAL TILL)			
	- - 50 -		10D	X	50-50.4	5/5	50/5"			Very dense, gray, wet, gravelly SAND and SILT (GLACIAL TILL)	t		
	- - 55 -		11D	X	55-55.8	10/5	47- 50/4"			Very dense. gray. wet. silty SAND and GRAVEL (GLACIAL TILL)			
	- - 60 -		12D	X	60-60.4	5/5	50/5"			Very dense, gray, wet, silty GRAVEL and SAND (GLACIAL TILL)			
	- - 65 -		13D	M	65-65.3	4/0	50/4"						
	- - - - -		1R		70-75	60/38	0		68.0	BEDROCK Advanced by roller cone to 70 ft. Dark gray, SCHIST, with some calcite veins, hard; moderately weathered; joints vary from low angle (0-35°) to moderately steep (35-55°), occasionally steep (55-85° very close (<2°), and tight to open, (PENOBSCOT FORMATION)	°),		
	- - 75 -		2R	H	75-77.5	30/10	0			(PENOBSCOT FORMATION)			
	- - - 80		3R	H	77.5- 80.5	36/5	0						
	-									Advanced by roller-cone from 80.5 to 85 f	it.		
	- - 85 -		4R		85-90	60/33	13			becomes fresh to slightly weathered; joint: very close (<2") to moderately close (1'-3'			
	- 90									Bottom of Exploration at 90.0 feet			
Stratifica	ation lines r ry between	represer	nt approxin	nate	nav be								
gradual. at times	Water lev and under	el readir condition	ngs have b ons stated.	been	made								
other fa	ions of gro ctors than t ements we	those pr	esent at th	ur di ne tin	ມe ເບ າe						BOR	ING NO.:	MB-10

							B	ORIN	G	OG		BORING	NO.: _	
				1~5	fott 0 N	liohal		•		-			T N/O	1 of 2
	7						ore Mir	1 Tormiz-1				PROJEC		
				-				d Terminal						
.W.C	OLE			: _!	viack P	oint, Se	arsport, N					DATE FI	NISH:	6/6/2023
OCAT RILLI IG TY	NG CO.: PE: _GI	See Exp : <u>New</u> EFCO :	ion oloration l / England STRATAS tomatic /	Boi STA	ring \R 5		DRILLER: AUGER ID/	N (FT): _Sam Cooley /OD:N/A / N WEIGHT (Ibs)	N/A	DRILLING M SAMPLER:	TH (FT): 70.0 L IETHOD: Cased Boring Standard Split-Spoon OD: 4 in / 4 1/2 in C			
AMME	ER COR	RECTI		FOR	R:			DROP (inch):			<u> </u>	Jone Brand	<u> </u>	<u>x</u>
ENER	RAL NOT	TES:	Borehole	e loç	gged froi	m mudline).							
) NOTES (MBOLS:	⊻ At ▼ At	r <u>Level</u> time of Dri Completio ter Drilling			U = Thin \ R = Rock	Spoon Sampl Walled Tube Core Sample Vane Shear	Sample Rec. e bpf =	= Reco Blows	r Foot RQD = Rock	tht of Hammer $q_U = Ur$ Quality Designation $\emptyset = Fri$	eld Vane Shear nconfined Com ction Angle (Es Not Applicable	oressive	Strength, kips/s
					SAMPI		RMATIO	N	Log					
ilev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type		Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic L	C	Sample escription & assification	H ₂ 0 Depth		Remarks
	_		1D	M	0-2	24/20	WOR/24		₩,	Very soft, gray, w odor (BAY MUD)	et. silty CLAY, organic			
-	- - - 5 - -		2D	X	5-7	24/24	WOR/24	q _P =.09 ksf ID 14936A w =103 % W _L =65 W _P =27						
•	10 - - -		3D	X	10-12	24/20	WOR/24	q _P =.09 ksf ID 14937A w =84.2 % W _L =64 W _P =32		0.0 Very soft, gray, w organic odor (BA	ret. silty CLAY, trace sar Y MUD)			
	- 15 - - -		4D	X	15-17	24/14	4-5-5-6	q _P =1.5 ksf		5.0 Very soft to stiff, sand	gray, wet, silty CLAY, tra	 ace		
-	20 - - -		5D	X	20-22	24/24	WOH/24	q_{P} =.4 ksf ID 14938A w =30.4 % W _L =37 W _P =18 98.4% Fines						
	- 25 - -		6D	X	25-27	24/18	1-2-10- 5				ray, wet, silty gravelly y (GLACIAL TILL)			
-	- 30 - -		7D	X	30-32	24/14	7-9-11- 17	ID 14939A			o dense, gray, wet, SILT e gravel (GLACIAL TILL))		
-	- - 35 - -		8D	X	35-37	24/10	12-15- 24-14							
			l nt approxim						K/X+	(Conti	nued Next Page)		1	
undary	y between	i soil type	es, transitions have b	ons r						Contin	aca next aye			
times a	and under	r conditio	ons stated. er may occi											
			esent at th			1						BORING	NO ·	MB-102

							B		GLOG	BORING N	10.:	MB-102
	$ \ge$									SHEET:	_	2 of 2
					ffatt & N					PROJECT		21-1242
								d Terminal		DATE STA	-	6/5/2023 6/6/2023
S.W.C	COLE			v: _			arsport, N			DATE FIN	юп: _	0/0/2023
					SAMPL		RMATIO	N	Sample			
Elev. (ft)	Depth	Pen.			Depth	Pen./	Blow Count	Field / Lab	bo Sample Description & Classification	H ₂ 0 Depth		Remarks
(11)	(ft)	(bpf)	Sample No.	Ĩ	(ft)	Rec. (in)	or	Test Data	Classification			
							RQD					
	L		9D	M	40-42	24/12	9-18- 32-33					
	F			μ	-							
	-											
	- -											
	- 45		10D	∇	45-47	24/8	34-48-		Dense to very dense, gray, wet, silty SAN	5		
	[Δ			25-50		(GLACIAL TILL)			
	Ļ											
	-											
	- 50		11D		50-52	24/4	28-25-					
	-			X			23-31					
	-			F								
	Ľ											
	- 55		100			0/0	50/0"					
	- 00		12D		55-55.3	3/0	50/3"					
	-											
	-								58.0 BEDROCK			
	-								Advanced by roller cone to 60 ft.			
	- 60		1R	Π	60-65	60/30	23	ID 14940A	Dark gray, SCHIST, with some calcite veins, hard; fresh to slightly weathered;			
	E							Qu=2,870psi	joints vary from low angle (0-35°) to	.		
	[moderately steep (35-55°), very close (<2 to moderately close (1'-3'), and tight to	')		
	Ļ								open, (PENOBSCOT FORMATION)			
	- 65		2R	Н	65-70	60/57	31					
	-				00 10	00/01						
	-							ID GTX Qu=2,920psi				
	Ē							da 2,020po.				
	L 70											
	10								Bottom of Exploration at 70.0 feet			
			nt approxi									
gradual.	Water le	vel readi	es, transiti ngs have t ons stated	been	made							
Fluctuat	ions of gr	oundwate	er may oco resent at th	cur d								
measure	ements w	ere made	eacht at tr 9.	ne uf						BORING N	NO.:	MB-102

E						B	ORIN	GI	LOG	BORING SHEET:	NO.: MB-103 1 of 2		
	=		LIENT: Moffatt & Nichol PROJECT NO. 21-1242										
S.W.C	COLE	LOCATIO	N: _	Mack F	oint, Sea	arsport, N	laine			DATE FI	NISH: 6/14/2023		
LOCA ^T DRILL RIG TY HAMM HAMM	TION: <u></u> ING CO.: (PE: <u>G</u> IER TYPI IER COR	See Exploration New Englar EFCO STRAT E: Automatic RECTION FA	nd Bo AST/ / Sa CTO	oring AR 5 fety R:	I I	DRILLER: AUGER ID HAMMER	N (FT): Sam Cooley /OD:N/A / N WEIGHT (Ibs): DROP (inch):	DGGED BY:	EL: NQ2				
		ES: Boreh	ole lo	ogged fro									
	O NOTES YMBOLS:		ion o		U = Thin V R = Rock	Spoon Samp Valled Tube Core Sample /ane Shear	Sample Rec. = e bpf =	= Reco Blows	very LengthWOH = Weight of Hammer $q_u = Unc$ per FootRQD = Rock Quality Designation \emptyset = Fric		r Strength, kips/sq.ft. pressive Strength, kips/sq.ft. stimated)		
				SAMP	LE INFO	RMATIO	N	Log					
Elev. (ft)	Depth (ft)	Casing Pen. (bpf) Samp No.	le and	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic L	Sample Description & Classification	H ₂ 0 Depth	Remarks		
	-	1D	X	0-2	24/24	WOR/24			Very soft, gray, wet, silty CLAY (BAY MUE))			
	- 5 - -	2D	X	5-7	24/24	WOR/24	ID 14942A w =77.1 % W _L =38 W _P =19		5.0 Very soft, gray, wet, silty CLAY, trace sand (BAY MUD)	Ł			
	- - 10 - -	3D	X	10-12	24/24	3-5-6-6	ID 14943A w =26 % W _L =37 W _P =18 80.4% Fines		10.0 Stiff, gray, wet, silty CLAY, trace sand, trac gravel	ce			
	- - 15 - -	4D	X	15-17	24/18	8-6-7- 14			15.0 Medium dense, gray, wet, gravelly sandy SILT (GLACIAL TILL)				
	- - 20 -	5D	X	20-22	24/2	9-12- 11-24			Occasional boulders and cobbles below 2 feet	0			
	- - 25 - -	6D	X	25-27	24/0	17-17- 18-20			Very dense, gray, wet, gravelly SILT and SAND (GLACIAL TILL)				
	- - 30 -	7D	X	30-32	24/12	30-25- 26-27							
	- 35 	8D	X	35-37	24/10	44-38- 16-24	ID 14944A		Very dense, gray, wet, sandy SILT, some gravel (GLACIAL TILL)				
Stratifica	ation lines	represent approx soil types, trans	timate	e mav he	1	•		~ / # 8	(Continued Next Page)		•		
gradual. at times	Water lev and unde	el readings have conditions state	beer d.	n måde									
Fluctuat other fa	ions of gro ctors than	undwater may or those present at	ccur d	lue to me						BORING	NO.: MB-103		
measure	ements we	re made.			1					DOILING			

S.W.O		PRO		Μ	lack Poi	nt Offsh		d Terminal	GI	LOG	SH PR DA	RING NO.: EET: OJECT NO. TE START: TE FINISH:	6/13/2023
Elev.	Depth	Casing Pen.				E INFO	RMATIO Blow	N Field / Lab	nic Log	Sample Description &		H ₂ 0 Depth	Remarks
(ft)	(ft)	(bpf)	Sample No.		()	Rec. (in)	Count or RQD	Test Data	Graphic	Classification		Берит	Homano
	- - - - - - - - - - - 50		1R		40-40.4	5/5 62/62	82	ID 14945A Qu=3,250psi		 Very dense, gray, wet, gravelly SILT and SAND (GLACIAL TILL) 45.0 BEDROCK. Dark gray, SCHIST, hard; fresh to slightly weathered; joints generally low angle (0-35°) to vertical (85-90°), very close (<2 to moderately close (1'-3') and tight to ope (PENOBSCOT FORMATION) 	")		
	-		2R 3R		50.2- 51.5 51.5- 54.5	16/16 36/34	0 19	ID GTX Qu=4,560psi		Bottom of Exploration at 54.5 feet			

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: MB-103

F								B	ORIN	G	LOG		BORING I SHEET:	NO.: _	MB-104 1 of 1
		7		ENT:						PROJECT	-	21-1242			
					-				d Terminal				DATE ST		6/9/2023
S.W.C	CC	DLE		CATION	: _	Mack Po	oint, Sea	arsport, N	laine				DATE FIN	IISH:	6/9/2023
	TIO	N: _	See Ex	tion ploration l v England					ON (FT): Sam Cooley		TOTAL DEPTH (FT): 35 DRILLING METHOD: Ci		DGGED BY:	Matte	o Socci
				STRATA					/OD: N/A / N		SAMPLER: Standard Sp	0			
				itomatic /					WEIGHT (lbs)				ORE BARRE	L: NO	22
HAMM	IER	COR	RECTI	ION FACT	FOF	२:	ł	HAMMER	DROP (inch):	30 /	16				
				'HS (ft):											
KEY TO AND S	O N	OTES	<u>Wate</u> ⊻ At ▼ At		illing	l Drilling	D = Split S U = Thin V R = Rock (Spoon Samp Valled Tube Core Sampl	Sample Rec. e bpf =	= Reco Blows	ration Length WOR = Weight of Rods very Length WOH = Weight of Hammer ver Foot RQD = Rock Quality Designat	q _u = Uno on Ø = Fric	tion Angle (Est	ressive	ı, kips/sq.ft. Strength, kips/sq.ft.
			¥ Af	fter Drilling				/ane Shear	•		per Foot PID = Photoionization Detecto	r N/A = N	ot Applicable		
Elev.		epth	Casing				_	Blow		- Č	Sample		H₂0		
(ft)		(ft)	Pen. (bpf)	Sample No.	Type		Pen./ Rec. (in)	Count or RQD	Field / Lab Test Data	Graphic Log	Description & Classification		Depth		Remarks
	-			1D	X	0-2	24/24	WOR/24			Very soft, gray, wet, sandy SIL some roots, organic odor (BAY		ıy,		
	F										2.0 Very dense, gray, wet, silty gra (GLACIAL TILL)	velly SAND)		
	-	~													
	F	5		2D	\mathbb{N}	5-7	24/6	16-16- 62-33							
	F				μ					Ű					
	F														
		10		20		10-10.9	11/11	17							
	F			3D	Å	10-10.9		17- 50/5"			Very dense, gray to brown, we SAND, some gravel (GLACIAL	, SILT and TILL)			
	F									Ű	Occasional cobbles and bould feet		0		
	E														
	-	15		4D	\vdash	15-17	24/12	22-46-	ID 14947A	- W	Very dense, gray to brown, we	aravelly			
	F				X			36-49			SILT and SAND (GLACIAL TIL				
	Ē				Ê										
	F														
	-	20		5D		20-21.3	16/10	32-50-							
	Ē				Ρ			50/4"							
	F									Ű,					
	╞														
	F	25		6D	∇	25-26.9	23/10	17-45- 50-		Ű,	Very dense, gray, wet, silty SA	ND and			
	Ļ				μ			50/5"			GRÁVEL (GĽAČIAL TILL)				
	╞														
	Ľ	30													
	Ļ	50		7D	×	30-30.3	4/0	50/4"							
	╞														
	Ľ														
	L	35		8D		35-35.8	10/6	50-			Very dense, gray, wet, silty gra				
	1		I		М	30 00.0	10,0	50/4"		N/19	(GLACIAL TILL)		′L		
											Bottom of Exploration at 3	35.8 feet			
bounda	ry b	etweer	n soil typ	nt approxim es, transition ngs have b	ons i	may be									
at times Fluctuat	and tions	d unde s of gro	r conditio	ons stated. er may occi	ur d	ue to									
other fa measur	ctor	s than	those pr	resent at th	e tin	ne							BORING	NO.:	MB-104

F			BORING LOG										SHEET:	NO.: MB-104A 1 of 2			
				ENT: _Moffatt & Nichol JECT: _Mack Point Offshore Wind Terminal ATION: _Mack Point, Searsport, Maine									PROJEC				
CW														ART: 6/12/2023 IISH: 6/13/2023			
	COLE												2/12/1				
LOCA		See Ex	I ON ploration I / England					ON (FT): Sam Cooley			TOTAL DEPTH (FT): 83.5 DRILLING METHOD: Cased		GGED BY:	Matteo Socci			
	-		STRATAS			/	AUGER ID	/OD: N/A / N	I/A		SAMPLER: Standard Split-						
			tomatic /					WEIGHT (lbs):			CASING ID/OD: 4 in / 4 1/2 in	co	ORE BARREL: NQ2				
			ON FAC1 'HS (ft):		-			DROP (inch):	307	10							
						n mudline											
KEY T AND S	O NOTES YMBOLS:	∑ At Ţ At								WOH = Weight of Hammer	q _U = Unc Ø = Frict		Strength, kips/sq.ft. oressive Strength, kips/sq.ft. timated)				
					SAMPI	E INFO	RMATIO	N									
Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample Denth Pen./ Count Field / Lab								Sample Description & Classification		H₂0 Depth	Remarks			
											boring MB-104 for description	of					
										sub	surface strata from 0 to 35 ft.						
	-																
	-																
	- 5																
	-																
	-																
	- 10																
	_ 10																
	-																
	-																
	- 15																
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2	t l																
	Ľ I																
247 IV	- 35		1D	\vdash	35-36.4	17/12	40-50-		KXXX	35.0 Ven	/ dense, gray, wet, silty gravelly						
1-12 220	-			Å			50/5"			Vei	ACIAL TILL)						
7-11-01																	
bounda	ry between	soil typ	nt approxim es, transitic ngs have b	ons i	may be						(Continued Next Page)						
at times	and under	conditio	ons stated.														
c other fa	ctors than t ements we	groundwater may occur due to an those present at the time swere made.								NO.: MB-104A							
-																	

								E	BORING	GI	_OG		NO.:	MB-104A
' =					4 - 1		ا م ما		• •	_	-	SHEET:	T N/0	2 of 2
	-	7				ffatt & Ni			PROJEC					
	-					Ack Poi			DATE S					
S.W.O	CC	DLE		ATION		Mack Po	oint, Sea	arsport, I	viaine	_		DATE FI	NISH:	6/13/2023
						SAMPL	E INFO	RMATIC	DN .	p				
Elev.		epth	Casing				_ /	Blow		Graphic Log	Sample	H ₂ 0		
(ft)		(ft)	Pen. (bpf)	Sample	Type	Depth	Pen./ Rec.	Count	Field / Lab	ihd	Description & Classification	Depth		Remarks
				No.	ΓĤ	(ft)	(in)	or RQD	Test Data	5 U	Classification			
	-			2D		40-41.8	22/18	26-38-		e H	Very dense, gray, wet, gravelly, SAND and	d		
	┢				X			49-			SILT (GLACIAL TILL)	u		
	F				H			50/4"						
	F													
	F													
		45		3D		45-45.8	10/6	49-		1				
	F					1		50/4"						
	F													
	F													
	Γ	50												
		50		4D	∇	50-51.9	23/12	26-44-						
					Δ			50-		1				
1														
1	L	55					4414	00						
		00		5D	Х	55-55.9	11/4	22- 50/5"		1				
	L													
	L													
	Ļ													
		60		6D		60-60.4	5/1	50/5"		6Ø				
	F					00-00.4	5/1	50/5		(H)				
	-									1				
	+													
	F									Ø				
	-	65		7D	×	65-65.3	4/3	50/4"		111	65.0 Very dense, gray, wet, silty gravelly, SANI	<u> </u>		
	F										(WEATHERED BEDROCK)			
	F									E				
	F													
	F									\mathbb{N}'				
	F	70		1R	Π	70-73.5	42/12	0		\bigotimes	70.0 — <u>—</u> — — — — — — — — — — — — — — — — —			
	F									\bigotimes	Dark gray, SCHIST, with some calcite			
	F									\mathbb{K}	veins, hard; fresh to slightly weathered; joints vary from low angle (0-35°) to			
S	F			2R	Η	73.5-	60/59	20		\otimes	moderately steep (35-55°), occasionally			
10 10	Γ	75		-:``		78.5	23,00			\mathbb{K}	steep (55-85°), very close (<2") to moderately close (1'-3'), and tight to open			
5	Γ	75								$\langle \rangle \rangle$	(PENOBSCOT FORMATION)	'		
	[ID GTX Qu=2,620psi	\mathbb{K}	· · · · · · · · · · · · · · · · · · ·			
5	Ĺ									$\langle \rangle \rangle$				
	Ļ			3R	Η	78.5-	60/60	73		\mathbb{N}				
ц Ч	F	80				83.5								
Mo.	F									\otimes				
<u> </u>	╞								ID 14949A Qu=4,050psi					
	F									\mathbb{N}			L	
2											Bottom of Exploration at 83.5 feet			
Stratific boundar at times other families other fam														
Z ZI														
124														
<u>-</u> 7														
770														
17-7														
5														
Stratific bounda				nt approxir es, transiti				_		_		_	_	
gradual	I. Wa	ater lev	el readi	ngs have b	been									
Fluctua	tions	of gro	oundwate	er may occ	ur d									
measur				esent at th e.								BORING	NO.:	MB-104A
measur												BORING	NU.:	



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MB-102 – Runs 1 and 2 MB-101 – Runs 1, 2, 3 and 4



MB-103 – Runs 1, 2, and 3



MB-104A, Runs 1, 2, and 3



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APPENDIX D

Laboratory Test Results



ASTM C-117 & C-136

 Project Name
 SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL -EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES

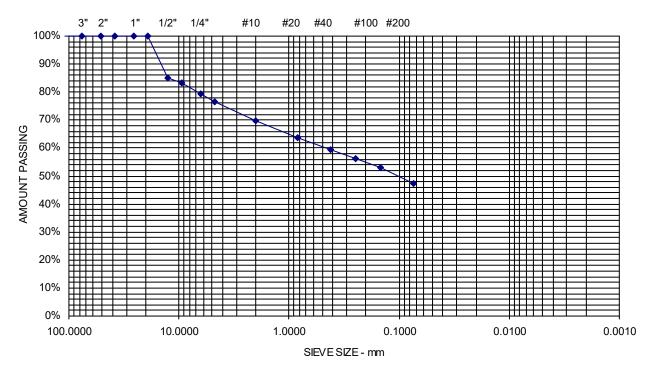
 Client
 MOFFATT & NICHOL

 Exploration
 LB-101

Material Source 3D, 10FT

Project Number21-1242Lab ID14924ADate Received7/18/2023Date Completed7/20/2023Tested ByEMMA ROBERTS

<u>STANDARD</u> DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%	1
150 mm	6"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	85	
9.5 mm	3/8"	83	
6.3 mm	1/4"	79	
4.75 mm	No. 4	77	23.5% Gravel
2.00 mm	No. 10	70	
850 um	No. 20	64	
425 um	No. 40	60	29.1% Sand
250 um	No. 60	56	
150 um	No. 100	53	
75 um	No. 200	47.4	47.4% Fines





ASTM C-117 & C-136

 Project Name
 SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL -
EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES

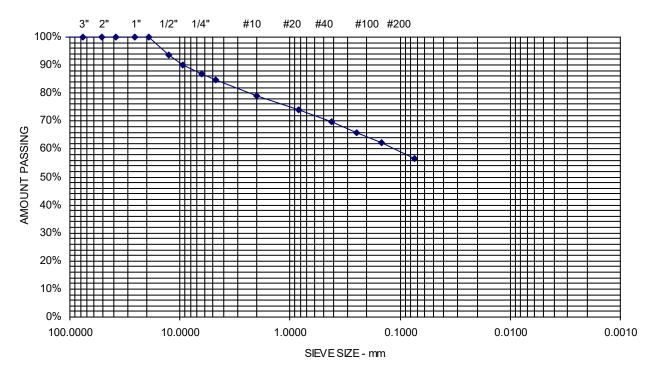
 Client
 MOFFATT & NICHOL

 Exploration
 LB-101

Material Source 6D, 25FT

Project Number21-1242Lab ID14925ADate Received7/18/2023Date Completed7/20/2023Tested ByEMMA ROBERTS

<u>STANDARD</u> DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
<u> </u>			
150 mm	6"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	94	
9.5 mm	3/8"	90	
6.3 mm	1/4"	87	
4.75 mm	No. 4	85	15.2% Gravel
2.00 mm	No. 10	79	
850 um	No. 20	74	
425 um	No. 40	70	28.1% Sand
250 um	No. 60	66	
150 um	No. 100	62	
75 um	No. 200	56.6	56.6% Fines



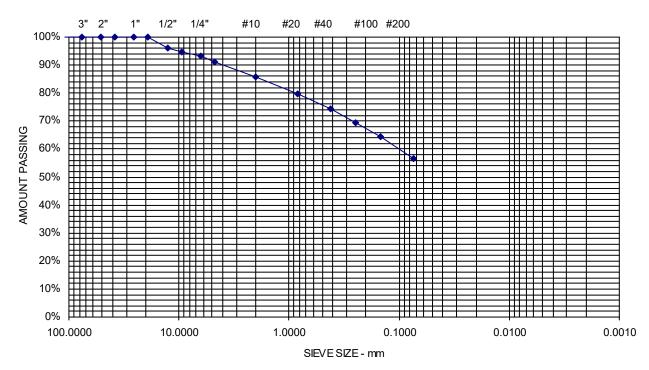


ASTM C-117 & C-136

Project NameSEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL -
EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICESClientMOFFATT & NICHOLExplorationLB-103Material Source2D, 10FT

Project Number21-1242Lab ID14928ADate Received7/18/2023Date Completed7/21/2023Tested ByEMMA ROBERTS

<u>STANDARD</u> DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	6"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	96	
9.5 mm	3/8"	95	
6.3 mm	1/4"	93	
4.75 mm	No. 4	91	8.9% Gravel
2.00 mm	No. 10	86	
850 um	No. 20	80	
425 um	No. 40	74	34.7% Sand
250 um	No. 60	69	
150 um	No. 100	64	
75 um	No. 200	56.5	56.5% Fines



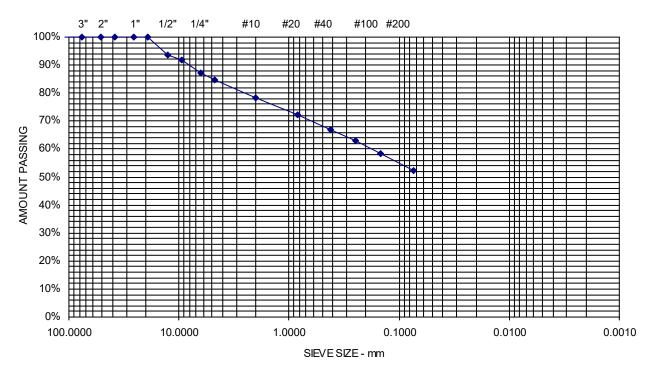


ASTM C-117 & C-136

Project NameSEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL -
EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICESClientMOFFATT & NICHOLExplorationLB-103Material Source5D, 25FT

Project Number	21-1242
Lab ID	14929A
Date Received	7/18/2023
Date Completed	7/20/2023
Tested By	EMMA ROBERTS

<u>STANDARD</u> DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	1
150 mm	6"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	94	
9.5 mm	3/8"	92	
6.3 mm	1/4"	87	
4.75 mm	No. 4	85	15.2% Gravel
2.00 mm	No. 10	78	
850 um	No. 20	72	
425 um	No. 40	67	32.5% Sand
250 um	No. 60	63	
150 um	No. 100	59	
75 um	No. 200	52.3	52.3% Fines



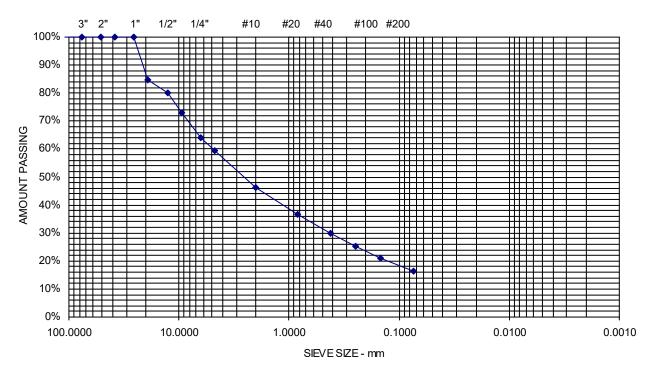


ASTM C-117 & C-136

Project NameSEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL -
EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICESClientMOFFATT & NICHOLExplorationMB-101Material Source5D, 20FT

Project Number21-1242Lab ID14932ADate Received7/18/2023Date Completed7/20/2023Tested ByEMMA ROBERTS

<u>STANDARD</u> DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	1
150 mm	6"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	85	
12.5 mm	1/2"	80	
9.5 mm	3/8"	73	
6.3 mm	1/4"	64	
4.75 mm	No. 4	59	40.7% Gravel
2.00 mm	No. 10	46	
850 um	No. 20	37	
425 um	No. 40	30	42.9% Sand
250 um	No. 60	25	
150 um	No. 100	21	
75 um	No. 200	16.4	16.4% Fines



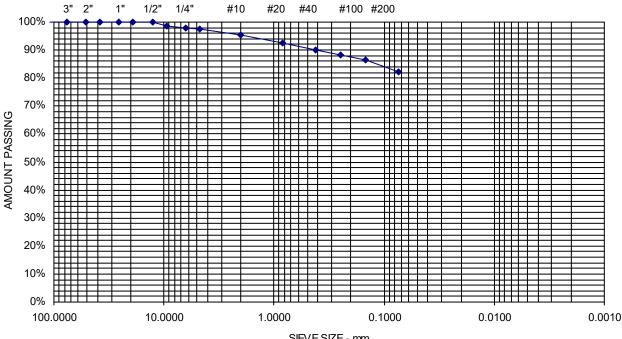


ASTM C-117 & C-136

Project Name SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL -EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES Client **MOFFATT & NICHOL** Exploration **MB-101** Material Source 7D, 35FT

Project Number 21-1242 Lab ID 14933A Date Received 7/18/2023 Date Completed 7/20/2023 Tested By EMMA ROBERTS

<u>STANDARD</u> DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	6"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
9.5 mm	3/8"	99	
6.3 mm	1/4"	98	
4.75 mm	No. 4	97	2.6% Gravel
2.00 mm	No. 10	95	
850 um	No. 20	92	
425 um	No. 40	90	15.3% Sand
250 um	No. 60	88	
150 um	No. 100	86	
75 um	No. 200	82.1	82.1% Fines



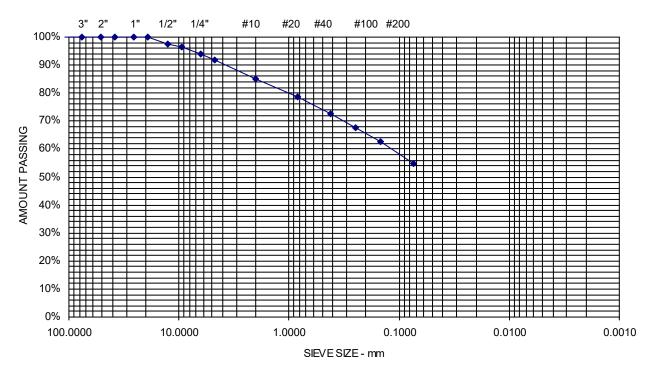


ASTM C-117 & C-136

Project NameSEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL -
EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICESClientMOFFATT & NICHOLExplorationMB-102Material Source7D, 30FT

Project Number	21-1242
Lab ID	14939A
Date Received	7/18/2023
Date Completed	7/20/2023
Tested By	EMMA ROBERTS

<u>STANDARD</u> DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	l
150 mm	6"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	98	
9.5 mm	3/8"	96	
6.3 mm	1/4"	94	
4.75 mm	No. 4	92	8.1% Gravel
2.00 mm	No. 10	85	
850 um	No. 20	78	
425 um	No. 40	73	37.1% Sand
250 um	No. 60	68	
150 um	No. 100	63	
75 um	No. 200	54.9	54.9% Fines





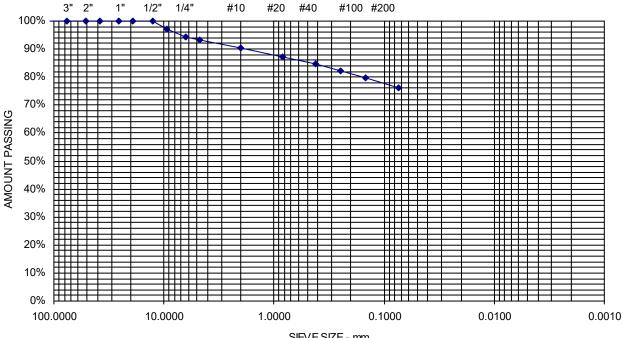
ASTM C-117 & C-136

Project Name SEARSPORT ME - SEARS ISLAND OFFSHORE WIND TERMINAL -EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES Client **MOFFATT & NICHOL** Exploration **MB-103**

Material Source 8D, 35FT

Project Number 21-1242 Lab ID 14944A Date Received 7/18/2023 Date Completed 7/20/2023 Tested By EMMA ROBERTS

<u>STANDARD</u> DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150 mm	6"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
9.5 mm	3/8"	97	
6.3 mm	1/4"	94	
4.75 mm	No. 4	93	6.8% Gravel
2.00 mm	No. 10	90	
850 um	No. 20	87	
425 um	No. 40	85	16.9% Sand
250 um	No. 60	82	
150 um	No. 100	80	
75 um	No. 200	76.3	76.3% Fines

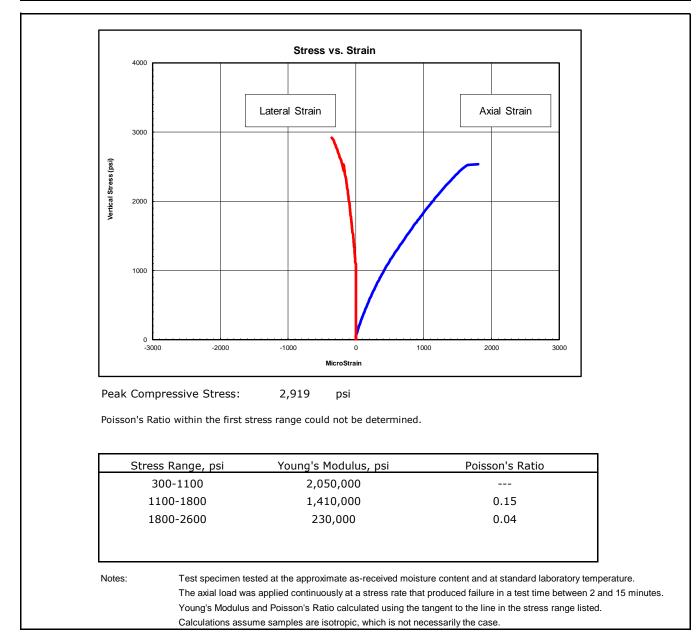


Comments:



Client:	S.W. Cole Engineering, Inc.
Project Name:	Mack Point Development
Project Location:	Searsport, ME
GTX #:	317561
Test Date:	8/7/2023
Tested By:	te
Checked By:	jsc
Boring ID:	MB-102
Sample ID:	R3
Depth, ft:	66.8
Sample Type:	rock core
Sample Description:	See photographs
	Intact material and discontinuity failure

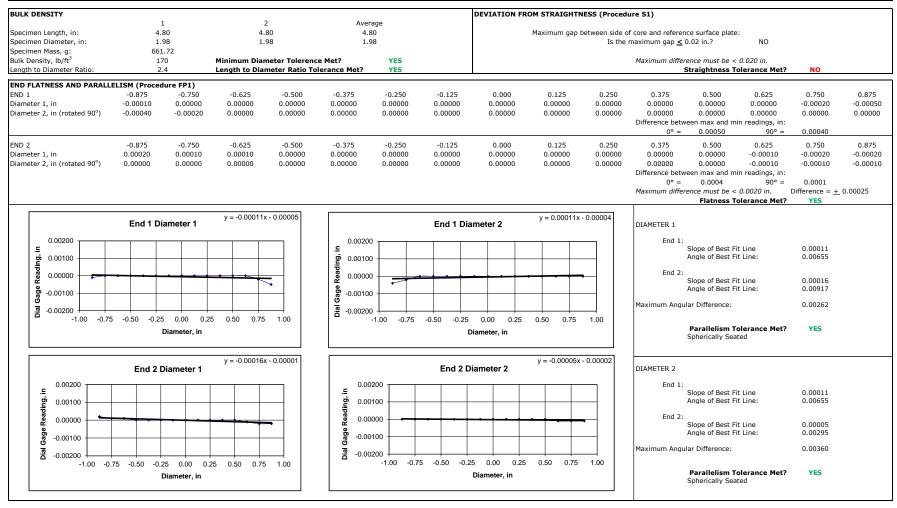
Compressive Strength and Elastic Moduli of Rock by ASTM D7012 - Method D





Client: S.W. Cole Engineering, Inc. Test Date: 8/7/2023 Project Name: Mack Point Development Tested By: te Project Location: Searsport, ME Checked By: smd 317561 GTX #: Boring ID: MB-102 Sample ID: R3 Depth: 66.8 ft Visual Description: See photographs

UNIT WEIGHT DETERMINATION AND DIMENSIONAL AND SHAPE TOLERANCES OF ROCK CORE SPECIMENS BY ASTM D4543



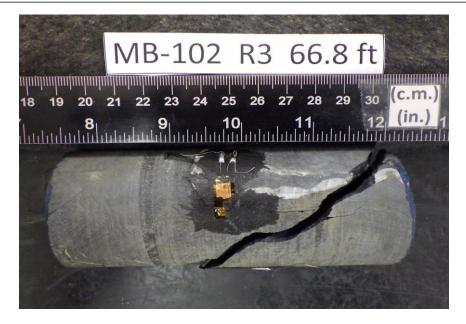
PERPENDICULARITY (Proced	ure P1) (Calculated from End Flatness	and Parallelism m	easurements a	bove)		
END 1	Difference, Maximum and Minimum (in.)	Diameter (in.)	Slope	Angle°	Perpendicularity Tolerance Met?	Maximum angle of departure must be $\leq 0.25^{\circ}$
Diameter 1, in	0.00050	1.980	0.00025	0.014	YES	
Diameter 2, in (rotated 90°)	0.00040	1.980	0.00020	0.012	YES	Perpendicularity Tolerance Met? YES
END 2						
Diameter 1, in	0.00040	1.980	0.00020	0.012	YES	
Diameter 2, in (rotated 90°)	0.00010	1.980	0.00005	0.003	YES	



Client	C.W. Colo Engineering Inc.
Client:	S.W. Cole Engineering, Inc.
Project Name:	Mack Point Development
Project Location:	Searsport, ME
GTX #:	317561
Test Date:	8/7/2023
Tested By:	te
Checked By:	smd
Boring ID:	MB-102
Sample ID:	R3
Depth, ft:	66.8



After cutting and grinding

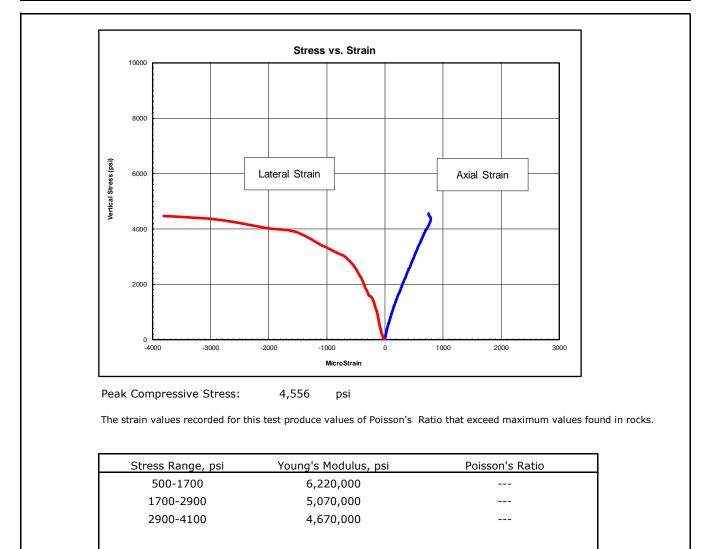


After break



Client:	S.W. Cole Engineering, Inc.
Project Name:	Mack Point Development
Project Location:	Searsport, ME
GTX #:	317561
Test Date:	8/7/2023
Tested By:	te
Checked By:	jsc
Boring ID:	MB-103
Sample ID:	R3
Depth, ft:	51.9
Sample Type:	rock core
Sample Description:	See photographs Intact material and discontinuity failure

Compressive Strength and Elastic Moduli of Rock by ASTM D7012 - Method D



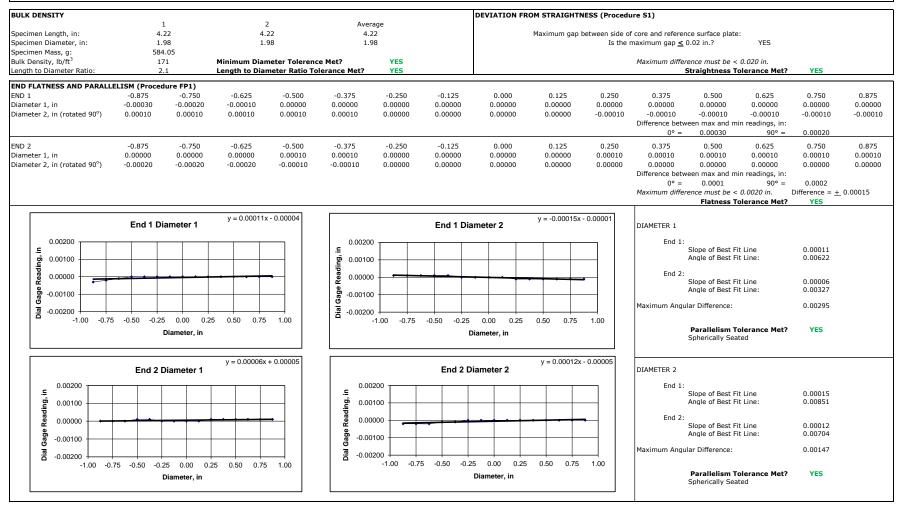
Notes:

Test specimen tested at the approximate as-received moisture content and at standard laboratory temperature. The axial load was applied continuously at a stress rate that produced failure in a test time between 2 and 15 minutes. Young's Modulus and Poisson's Ratio calculated using the tangent to the line in the stress range listed. Calculations assume samples are isotropic, which is not necessarily the case.



Client: S.W. Cole Engineering, Inc. Test Date: 8/3/2023 Project Name: Mack Point Development Tested By: te Project Location: Searsport, ME Checked By: smd 317561 GTX #: Boring ID: MB-103 Sample ID: R3 Depth: 51.9 ft Visual Description: See photographs

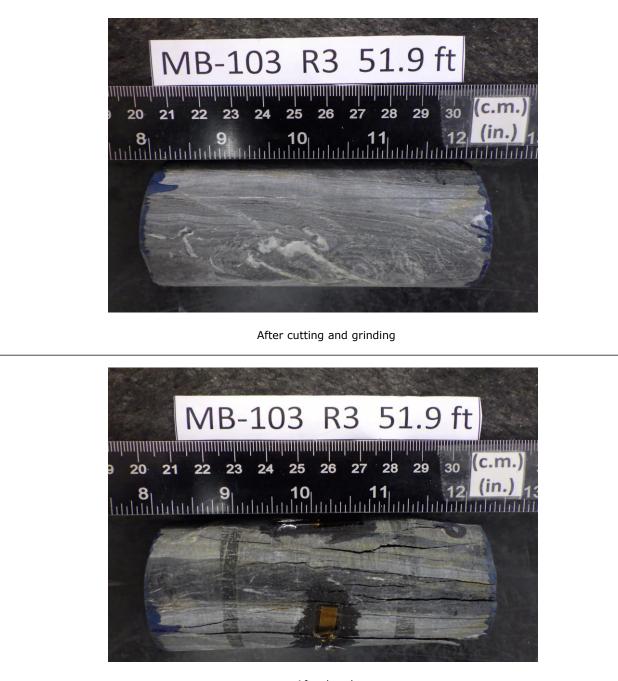
UNIT WEIGHT DETERMINATION AND DIMENSIONAL AND SHAPE TOLERANCES OF ROCK CORE SPECIMENS BY ASTM D4543



PERPENDICULARITY (Procedur	e P1) (Calculated from End Flatness	and Parallelism m	easurements a	bove)		
END 1	Difference, Maximum and Minimum (in.)	Diameter (in.)	Slope	Angle°	Perpendicularity Tolerance Met?	Maximum angle of departure must be $\leq 0.25^{\circ}$
Diameter 1, in	0.00030	1.980	0.00015	0.009	YES	
Diameter 2, in (rotated 90°)	0.00020	1.980	0.00010	0.006	YES	Perpendicularity Tolerance Met? YES
END 2						
Diameter 1, in	0.00010	1.980	0.00005	0.003	YES	
Diameter 2, in (rotated 90°)	0.00020	1.980	0.00010	0.006	YES	



Client:	S.W. Cole Engineering, Inc.
Project Name:	Mack Point Development
Project Location:	Searsport, ME
GTX #:	317561
Test Date:	8/7/2023
Tested By:	te
Checked By:	smd
Boring ID:	MB-103
Sample ID:	R3
Depth, ft:	51.9

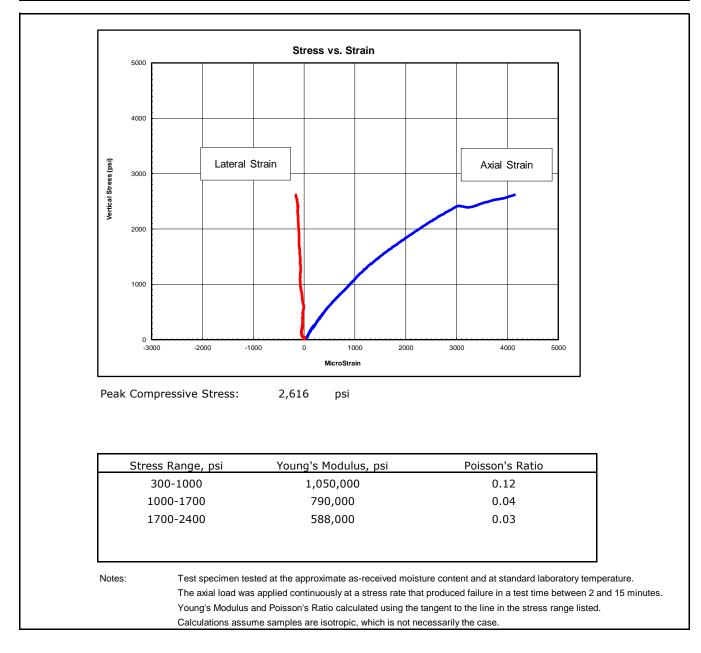


After break



Client:	S.W. Cole Engineering, Inc.			
Project Name:	Mack Point Development			
Project Location:	Searsport, ME			
GTX #:	317561			
Test Date:	8/7/2023			
Tested By:	te			
Checked By:	jsc			
Boring ID:	MB-104A			
Sample ID:	R2			
Depth, ft:	75.8			
Sample Type:	rock core			
Sample Description:	See photographs			
	Intact material and discontinuity failure			

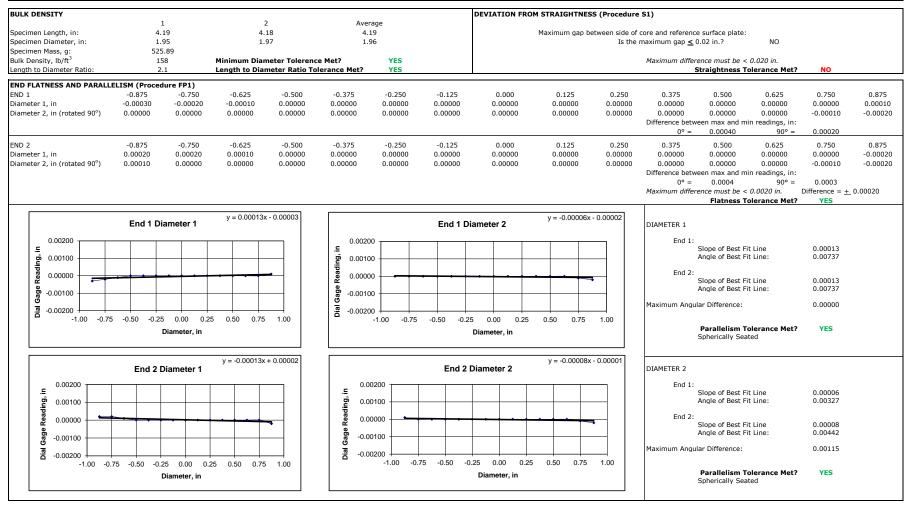
Compressive Strength and Elastic Moduli of Rock by ASTM D7012 - Method D





Client: S.W. Cole Engineering, Inc. Test Date: 8/2/2023 Project Name: Mack Point Development Tested By: te Project Location: Searsport, ME Checked By: smd 317561 GTX #: Boring ID: MB-104A Sample ID: R2 Depth: 75.8 ft Visual Description: See photographs

UNIT WEIGHT DETERMINATION AND DIMENSIONAL AND SHAPE TOLERANCES OF ROCK CORE SPECIMENS BY ASTM D4543



PERPENDICULARITY (Procedure P1) (Calculated from End Flatness and Parallelism measurements above)									
END 1	Difference, Maximum and Minimum (in.)	Diameter (in.)	Slope	Angle°	Perpendicularity Tolerance Met?	Maximum angle of departure must be $\leq 0.25^{\circ}$			
Diameter 1, in	0.00040	1.960	0.00020	0.012	YES				
Diameter 2, in (rotated 90°)	0.00020	1.960	0.00010	0.006	YES	Perpendicularity Tolerance Met? YES			
END 2									
Diameter 1, in	0.00040	1.960	0.00020	0.012	YES				
Diameter 2, in (rotated 90°)	0.00030	1.960	0.00015	0.009	YES				



Client:	S.W. Cole Engineering, Inc.			
Project Name:	Mack Point Development			
Project Location:	Searsport, ME			
GTX #:	317561			
Test Date:	8/7/2023			
Tested By:	te			
Checked By:	smd			
Boring ID:	MB-104A			
Sample ID:	R2			
Depth, ft:	75.8			



After break