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Transmittal


TO:


Delaney Peterson
Anchor QEA, LLC
1201 3rd Ave, Suite 2600
Seattle, WA 98101

DATE: 6/14/2021	GTX NO: 313591
RE: GascoSiltronic: US Moorings 05062021	

COPIES	DATE	DESCRIPTION
	6/14/2021	May 2021 Laboratory Test Report

REMARKS:

SIGNED: 
Sarah Delaney, Assistant Laboratory Manager

APPROVED BY: 
Jonathan Campbell, Laboratory Manager

June 14, 2021

Delaney Peterson
Anchor QEA, LLC
1201 3rd Ave, Suite 2600
Seattle, WA 98101

RE: GascoSiltronic: US Moorings 05062021, (GTX-313591)

Dear Delaney Peterson:

Enclosed are the test results you requested for the above referenced project. GeoTesting Express, Inc. (GTX) received 24 samples from you on 5/5/2021.

GTX performed the following tests on these samples:

- 24 ASTM D2216 - Moisture Content
- 24 ASTM D4318 - Atterberg Limits
- 24 ASTM D6913/D7928 - Grain Size Analysis - Sieve and Hydrometer
- 1 ASTM D7263 - Density (Unit Weight) of Soil Specimens
- 24 ASTM D854 - Specific Gravity

A copy of your test request is attached.

The results presented in this report apply only to the items tested. This report shall not be reproduced except in full, without written approval from GeoTesting Express. The remainder of these samples will be retained for a period of sixty (60) days and will then be discarded unless otherwise notified by you. Please call me if you have any questions or require additional information. Thank you for allowing GeoTesting Express the opportunity of providing you with testing services. We look forward to working with you again in the future.

Respectfully yours,



Sarah Delaney
Assistant Laboratory Manager



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Geotechnical Test Report

6/14/2021

GTX-313591

GascoSiltronic: US Moorings

05062021

Prepared for:

Anchor QEA, LLC



Client:	Anchor QEA, LLC		
Project:	GascoSiltronic: US Moorings 05062021		
Location:		Project No:	GTX-313591
Boring ID:	USMPDI-	Sample Type:	bag
Sample ID:	016SG-210413	Test Date:	05/14/21
Depth :	---	Checked By:	jsc
		Test Id:	618079
Test Comment:	---		
Visual Description:	Wet, dark gray silt		
Sample Comment:	---		

**Laboratory Determination of Density (Unit Weight)
of Soil Specimens by ASTM D7263**

Boring ID	Sample ID	Depth	Visual Description	Bulk Density pcf	Moisture Content %	Dry Density pcf
USMPDI-	016SG-210413	---	Wet, dark gray silt	87.56	122.6	39.34

* Sample Comments
(1): Method B-Volumetric, Reconstituted (compacted)

Notes: Moisture Content determined by ASTM D2216.



Client:	Anchor QEA, LLC		
Project:	GascoSiltronic: US Moorings 05062021		
Location:		Project No:	GTX-313591
Boring ID: ---	Sample Type: ---	Tested By:	ckg
Sample ID: ---	Test Date: 05/12/21	Checked By:	bfs
Depth : ---	Test Id:	618038	

Moisture Content of Soil and Rock - ASTM D2216

Boring ID	Sample ID	Depth	Description	Moisture Content, %
USMPDI-	005SC-B-00-02-210502	---	Wet, very dark gray clayey sand	47.2
USMPDI-	007SC-B-04-06-210428	---	Moist, dark grayish brown silt with sand	68.7
USMPDI-	008SC-B-02-3.8-210502	---	Wet, dark gray silt with sand	62.9
USMPDI-	010SC-B-10-11.5-210502	---	Moist, dark olive brown silt	69.0
USMPDI-	015SC-B-02-05-210501	---	Wet, dark olive brown silt	77.6
USMPDI-	016SC-B-05-07-210501	---	Wet, dark gray silt	65.1
USMPDI-	016SG- 210413	---	Wet, dark gray silt	122.6
USMPDI-	017SC-B-16-17.8-210429	---	Moist, dark brown silty sand	42.8
USMPDI-	019SC-B-00-02-210502	---	Wet, dark gray silt	92.0

Notes: Temperature of Drying : 110° Celsius



Client:	Anchor QEA, LLC		
Project:	GascoSiltronic: US Moorings 05062021		
Location:		Project No:	GTX-313591
Boring ID:	---	Sample Type:	---
Sample ID:	---	Test Date:	05/14/21
Depth :	---	Test Id:	618034
		Tested By:	ckg
		Checked By:	bfs

Moisture Content of Soil and Rock - ASTM D2216

Boring ID	Sample ID	Depth	Description	Moisture Content, %
USMPDI-	020SC-B-10-13-210429	---	Moist, very dark gray silt with sand	67.5
USMPDI-	024SC-B-00-02-210430	---	Wet, dark olive brown silt	90.0
USMPDI-	025SC-B-07-10-210428	---	Moist, dark grayish brown silt	64.3
USMPDI-	028SC-B-02-05-210504	---	Wet, dark olive gray silt	78.1
USMPDI-	029SC-B-05-07-210430	---	Wet, dark olive gray clay	85.6
USMPDI-	030SC-B-00-02-210503	---	Wet, dark olive brown silt with sand	75.5

Notes: Temperature of Drying : 110° Celsius



Client:	Anchor QEA, LLC		
Project:	GascoSiltronic: US Moorings 05062021		
Location:		Project No:	GTX-313591
Boring ID: ---	Sample Type: ---	Tested By:	ckg
Sample ID: ---	Test Date: 05/12/21	Checked By:	bfs
Depth : ---	Test Id:	618051	

Moisture Content of Soil and Rock - ASTM D2216

Boring ID	Sample ID	Depth	Description	Moisture Content, %
USMPDI-	031SC-B-00-02-210504	---	Wet, dark olive gray silt	96.4
USMPDI-	033SC-B-06-08-210427	---	Moist, grayish brown silt with sand	65.0
USMPDI-	035SC-B-02-05-210504	---	Moist, dark olive gray silt	79.7
USMPDI-	036SC-B-02-05-210501	---	Wet, dark olive gray silt	106.3
USMPDI-	037SC-B-10-12.1-210501	---	Moist, dark grayish brown silt	73.2
USMPDI-	041SC-B-04-06-210427	---	Moist, dark olive gray silt	96.0
USMPDI-	051SC-B-02-04-210430	---	Wet, dark olive gray silt	98.2
USMPDI-	052SC-B-06-08-210428	---	Moist, very dark grayish brown clay	87.4
USMPDI-	053SC-B-10-12-210428	---	Wet, very dark gray silt	79.5

Notes: Temperature of Drying : 110° Celsius



Client:	Anchor QEA, LLC		
Project:	GascoSiltronic: US Moorings 05062021		
Location:		Project No:	GTX-313591
Boring ID: ---	Sample Type: ---	Tested By:	ckg
Sample ID: ---	Test Date: 05/17/21	Checked By:	bfs
Depth : ---	Test Id:	618078	

Specific Gravity of Soils by ASTM D854

Boring ID	Sample ID	Depth	Visual Description	Specific Gravity	Comment
USMPDI-	005SC-B-00-02-210502	---	Wet, very dark gray clayey sand	2.71	
USMPDI-	007SC-B-04-06-210428	---	Moist, dark grayish brown silt with sand	2.62	
USMPDI-	008SC-B-02-3.8-210502	---	Wet, dark gray silt with sand	2.70	
USMPDI-	010SC-10-11.5-210502	---	Moist, dark olive brown silt	2.64	
USMPDI-	015SC-B-02-05-210501	---	Wet, dark olive brown silt	2.65	
USMPDI-	016SC-B-05-07-210501	---	Wet, dark gray silt	2.75	
USMPDI-	016SG- 210413	---	Wet, dark gray silt	2.64	

Notes: Specific Gravity performed by using method B (oven dried specimens) of ASTM D854
 Moisture Content determined by ASTM D2216.



Client:	Anchor QEA, LLC		
Project:	GascoSiltronic: US Moorings 05062021		
Location:		Project No:	GTX-313591
Boring ID: ---	Sample Type: ---	Tested By:	ckg
Sample ID: ---	Test Date: 05/17/21	Checked By:	bfs
Depth : ---	Test Id:	618068	

Specific Gravity of Soils by ASTM D854

Boring ID	Sample ID	Depth	Visual Description	Specific Gravity	Comment
USMPDI-	017SC-B-16-17.8-210429	---	Moist, dark brown silty sand	2.66	
USMPDI-	019SC-B-00-02-210502	---	Wet, dark gray silt	2.74	
USMPDI-	020SC-B-10-13-210429	---	Moist, very dark gray silt with sand	2.68	
USMPDI-	024SC-B-00-02-210430	---	Wet, dark olive brown silt	2.60	
USMPDI-	025SC-B-07-10-210428	---	Moist, dark grayish brown silt	2.63	
USMPDI-	028SC-B-02-05-210504	---	Wet, dark olive gray silt	2.71	
USMPDI-	029SC-B-05-07-210430	---	Wet, dark olive gray clay	2.69	

Notes: Specific Gravity performed by using method B (oven dried specimens) of ASTM D854
 Moisture Content determined by ASTM D2216.



Client:	Anchor QEA, LLC		
Project:	GascoSiltronic: US Moorings 05062021		
Location:		Project No:	GTX-313591
Boring ID: ---	Sample Type: ---	Tested By:	ckg
Sample ID: ---	Test Date: 05/19/21	Checked By:	bfs
Depth : ---	Test Id:	618066	

Specific Gravity of Soils by ASTM D854

Boring ID	Sample ID	Depth	Visual Description	Specific Gravity	Comment
USMPDI-	030SC-B-00-02-210503	---	Wet, dark olive brown silt with sand	2.64	
USMPDI-	031SC-B-00-02-210504	---	Wet, dark olive gray silt	2.72	
USMPDI-	033SC-B-06-08-210427	---	Moist, grayish brown silt with sand	2.63	
USMPDI-	035SC-B-02-05-210504	---	Moist, dark olive gray silt	2.68	
USMPDI-	036SC-B-02-05-210501	---	Wet, dark olive gray silt	2.69	
USMPDI-	037SC-B-10-12.1-210501	---	Moist, dark grayish brown silt	2.60	

Notes: Specific Gravity performed by using method B (oven dried specimens) of ASTM D854
 Moisture Content determined by ASTM D2216.



Client:	Anchor QEA, LLC	Project No:	GTX-313591
Project:	GascoSiltronic: US Moorings 05062021		
Location:			
Boring ID: ---	Sample Type: ---	Tested By:	ckg
Sample ID: ---	Test Date: 05/17/21	Checked By:	bfs
Depth : ---	Test Id: 618075		

Specific Gravity of Soils by ASTM D854

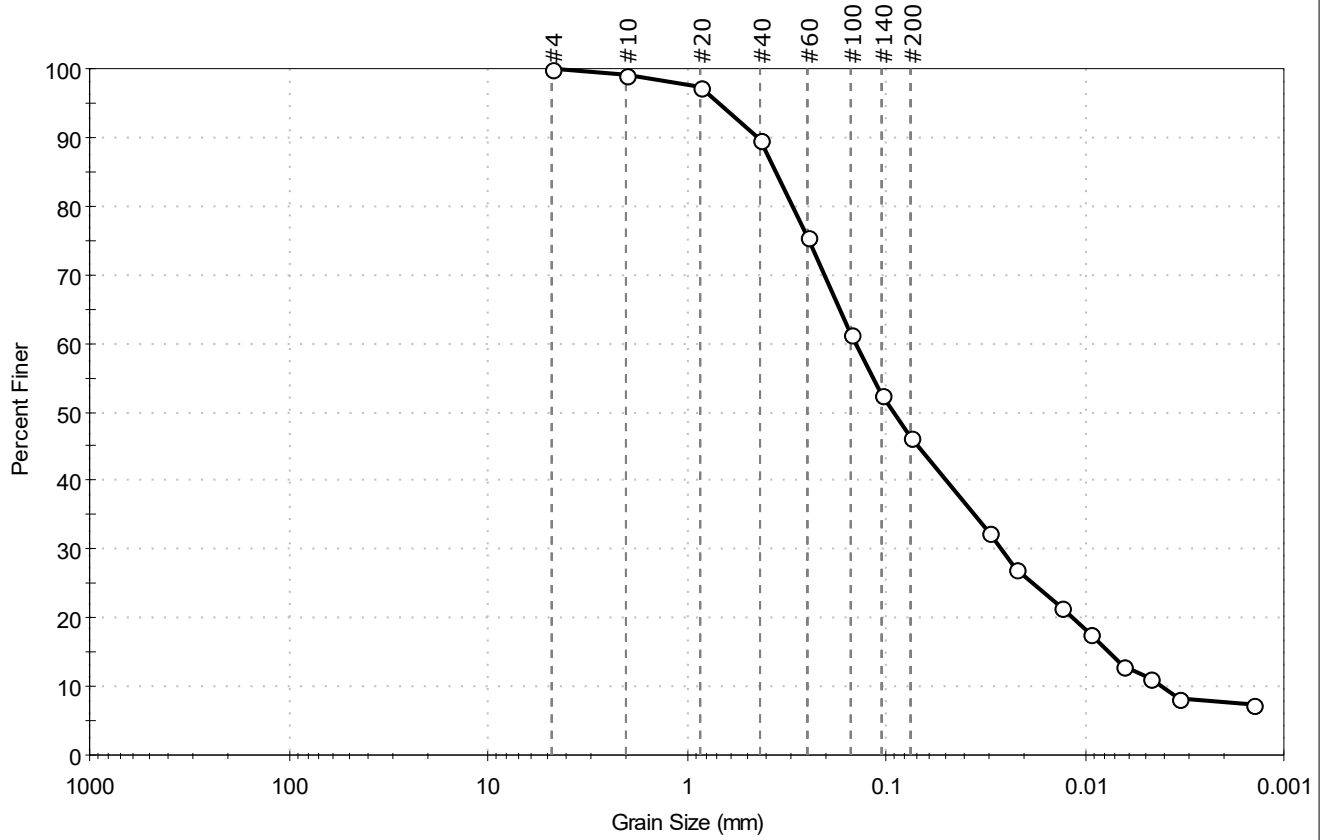
Boring ID	Sample ID	Depth	Visual Description	Specific Gravity	Comment
USMPDI-	041SC- B-04-06-210427	---	Moist, dark olive gray silt	2.65	
USMPDI-	051SC- B-02-04-210430	---	Wet, dark olive gray silt	2.66	
USMPDI-	052SC- B-06-08-210428	---	Moist, very dark grayish brown clay	2.60	
USMPDI-	053SC- B-10-12-210428	---	Wet, very dark gray silt	2.64	

Notes: Specific Gravity performed by using method B (oven dried specimens) of ASTM D854
Moisture Content determined by ASTM D2216.



Client: Anchor QEA, LLC	Project: GascoSiltronic: US Moorings 05062021	Project No: GTX-313591
Location:		
Boring ID: USMPDI-	Sample Type: bag	Tested By: ckg
Sample ID: 005SC-B-00-02-210502	Test Date: 05/18/21	Checked By: bfs
Depth: ---	Test Id: 618011	
Test Comment: ---		
Visual Description: Wet, very dark gray clayey sand		
Sample Comment: ---		

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	53.6	46.4

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	99		
#20	0.85	97		
#40	0.42	90		
#60	0.25	76		
#100	0.15	61		
#140	0.11	53		
#200	0.075	46		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0304	33		
---	0.0222	27		
---	0.0131	21		
---	0.0094	18		
---	0.0065	13		
---	0.0048	11		
---	0.0034	8		
---	0.0014	7		

<u>Coefficients</u>	
D ₈₅ = 0.3562 mm	D ₃₀ = 0.0263 mm
D ₆₀ = 0.1415 mm	D ₁₅ = 0.0076 mm
D ₅₀ = 0.0915 mm	D ₁₀ = 0.0041 mm
C _u = 34.512	C _c = 1.192

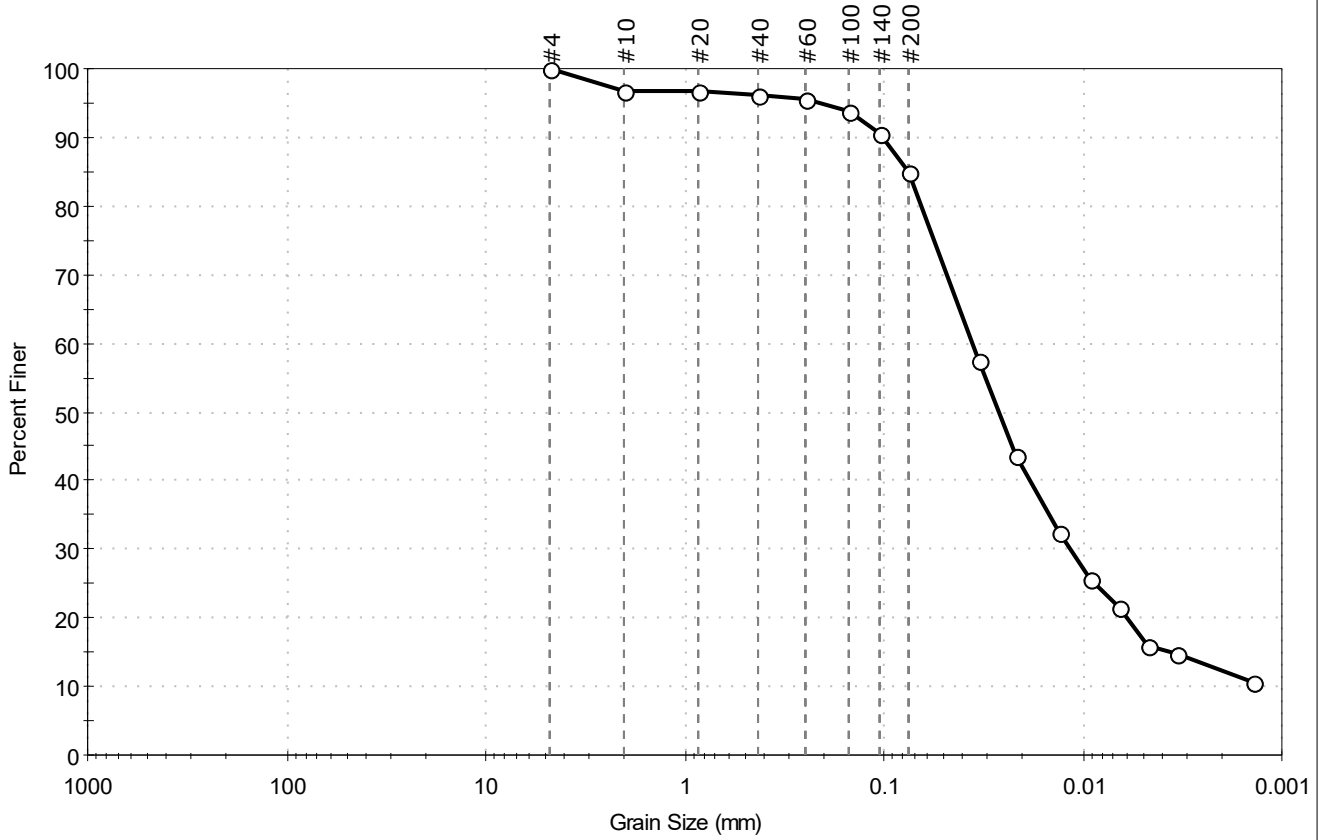
<u>Classification</u>	
<u>ASTM</u>	Clayey SAND (SC)
<u>AASHTO</u>	Clayey Soils (A-6 (3))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve



Client: Anchor QEA, LLC	Project: GascoSiltronic: US Moorings 05062021	Project No: GTX-313591
Location:	Boring ID: USMPDI-	Sample Type: bag
Tested By: ckg	Sample ID: 007SC-B-04-06-210428	Test Date: 05/18/21
Checked By: bfs	Depth: ---	Test Id: 618024
Test Comment: ---	Visual Description: Moist, dark grayish brown silt with sand	Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	15.0	85.0

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	97		
#20	0.85	97		
#40	0.42	96		
#60	0.25	95		
#100	0.15	94		
#140	0.11	91		
#200	0.075	85		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0332	57		
---	0.0219	44		
---	0.0130	33		
---	0.0092	26		
---	0.0066	22		
---	0.0047	16		
---	0.0034	15		
---	0.0014	10		

Coefficients	
D ₈₅ = 0.0749 mm	D ₃₀ = 0.0114 mm
D ₆₀ = 0.0358 mm	D ₁₅ = 0.0037 mm
D ₅₀ = 0.0265 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

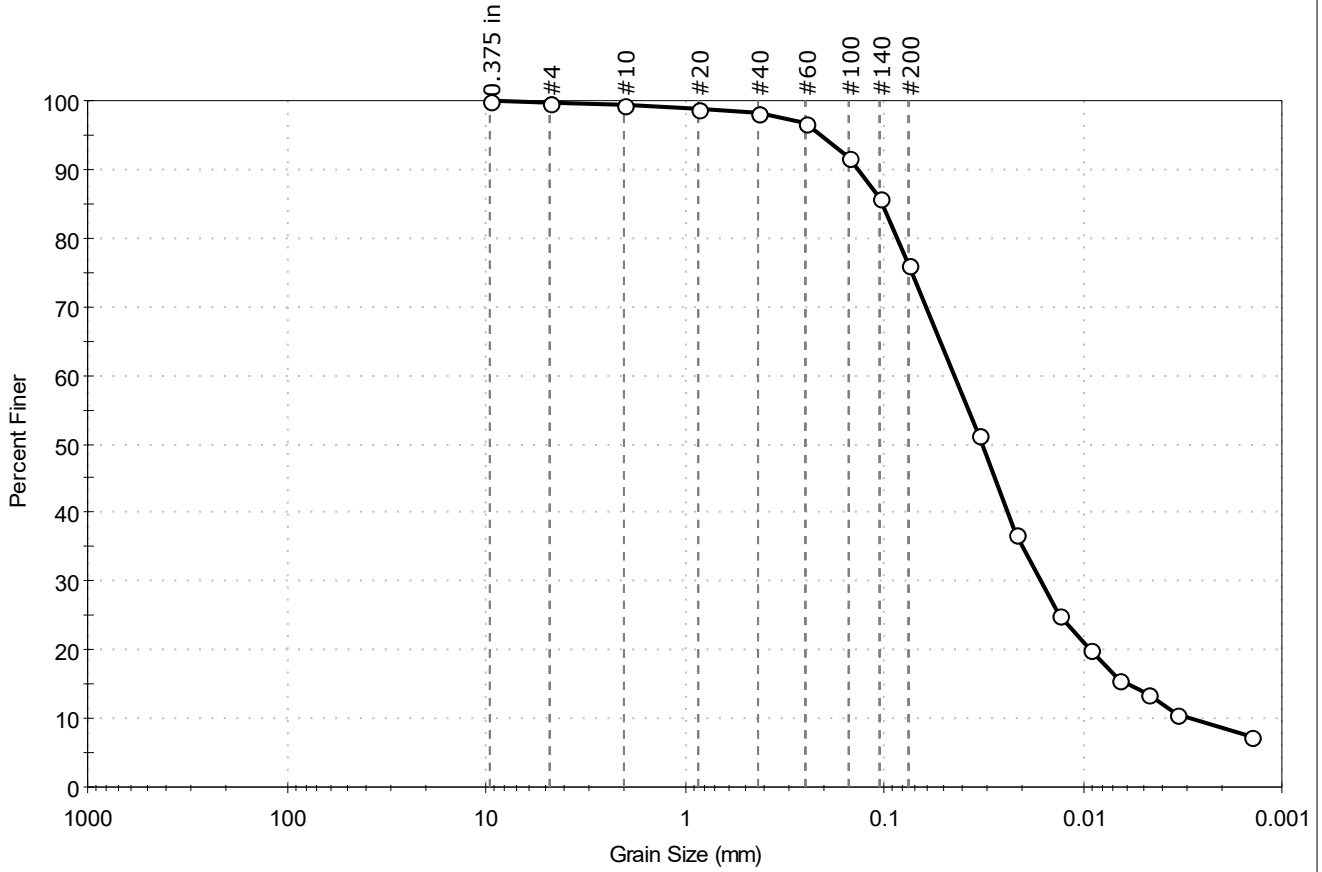
Classification	
ASTM	Elastic SILT with Sand (MH)
AASHTO	Clayey Soils (A-7-5 (21))

Sample/Test Description	
Sand/Gravel Particle Shape	: ---
Sand/Gravel Hardness	: ---
Dispersion Device	: Apparatus A - Mech Mixer
Dispersion Period	: 1 minute
Est. Specific Gravity	: 2.65
Separation of Sample	: #200 Sieve



Client: Anchor QEA, LLC	Project: GascoSiltronic: US Moorings 05062021	Project No: GTX-313591
Location:	Boring ID: USMPDI-	Sample Type: bag
Tested By: ckg	Sample ID: 008SC-B-02-3.8-210502	Test Date: 05/18/21
Checked By: bfs	Depth: ---	Test Id: 618012
Test Comment: ---	Visual Description: Wet, dark gray silt with sand	Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.4	23.4	76.2

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.375 in	9.50	100		
#4	4.75	100		
#10	2.00	99		
#20	0.85	99		
#40	0.42	98		
#60	0.25	97		
#100	0.15	92		
#140	0.11	86		
#200	0.075	76		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0330	51		
---	0.0215	37		
---	0.0131	25		
---	0.0092	20		
---	0.0065	16		
---	0.0047	14		
---	0.0034	10		
---	0.0014	7		

Coefficients	
D ₈₅ = 0.1024 mm	D ₃₀ = 0.0161 mm
D ₆₀ = 0.0439 mm	D ₁₅ = 0.0058 mm
D ₅₀ = 0.0317 mm	D ₁₀ = 0.0030 mm
C _u = 14.633	C _c = 1.968

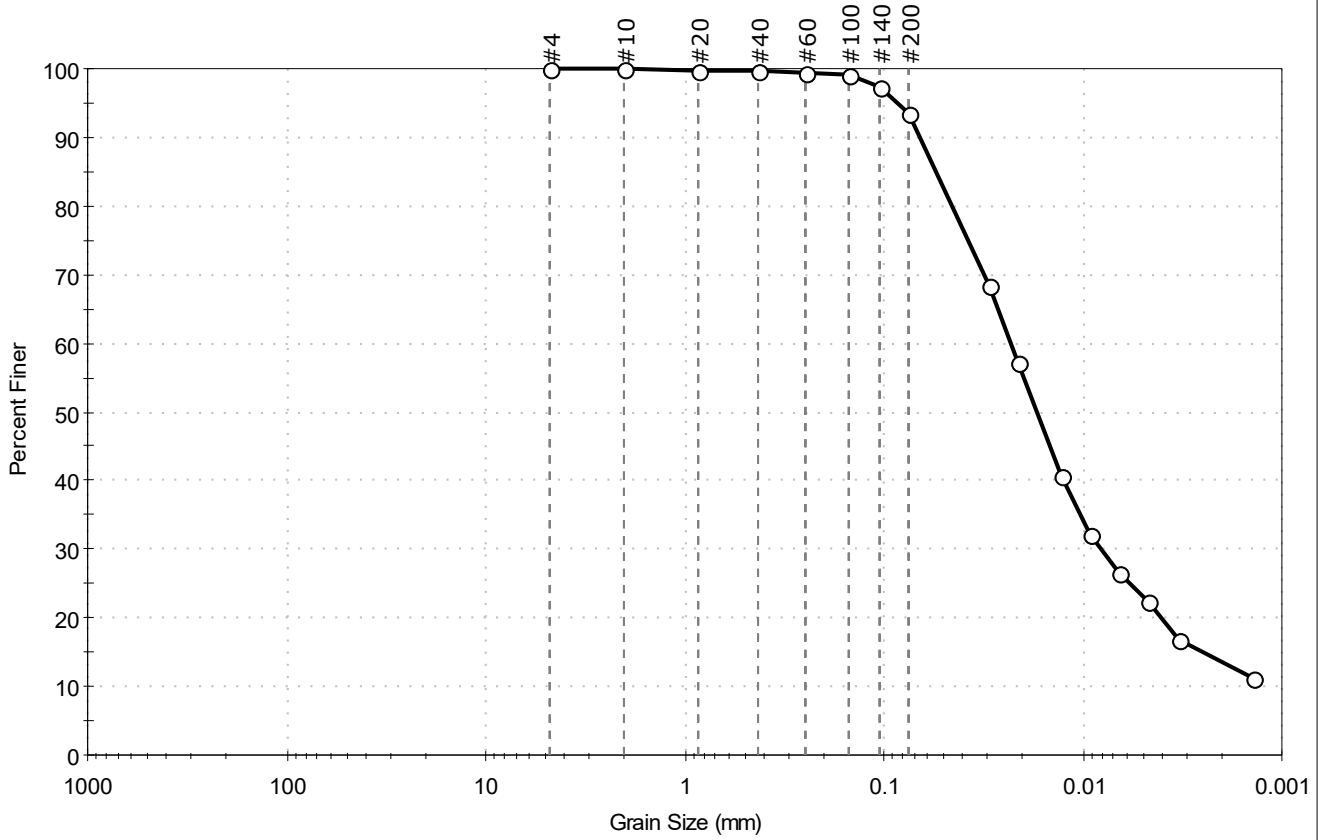
Classification	
ASTM	Elastic SILT with Sand (MH)
AASHTO	Clayey Soils (A-7-5 (14))

Sample/Test Description	
Sand/Gravel Particle Shape	: ---
Sand/Gravel Hardness	: ---
Dispersion Device	: Apparatus A - Mech Mixer
Dispersion Period	: 1 minute
Est. Specific Gravity	: 2.65
Separation of Sample	: #200 Sieve



Client:	Anchor QEA, LLC	Project No:	GTX-313591
Project:	GascoSiltronic: US Moorings 05062021		
Location:		Tested By:	ckg
Boring ID:	USMPDI-	Checked By:	bfs
Sample ID:	010SC-B-10-11.5-210502	Test Date:	05/18/21
Depth:	---	Test Id:	618013
Test Comment:	---		
Visual Description:	Moist, dark olive brown silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	6.5	93.5

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	99		
#140	0.11	97		
#200	0.075	93		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0299	69		
---	0.0210	57		
---	0.0129	41		
---	0.0091	32		
---	0.0065	27		
---	0.0047	22		
---	0.0033	17		
---	0.0014	11		

<u>Coefficients</u>	
D ₈₅ = 0.0548 mm	D ₃₀ = 0.0080 mm
D ₆₀ = 0.0228 mm	D ₁₅ = 0.0025 mm
D ₅₀ = 0.0170 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

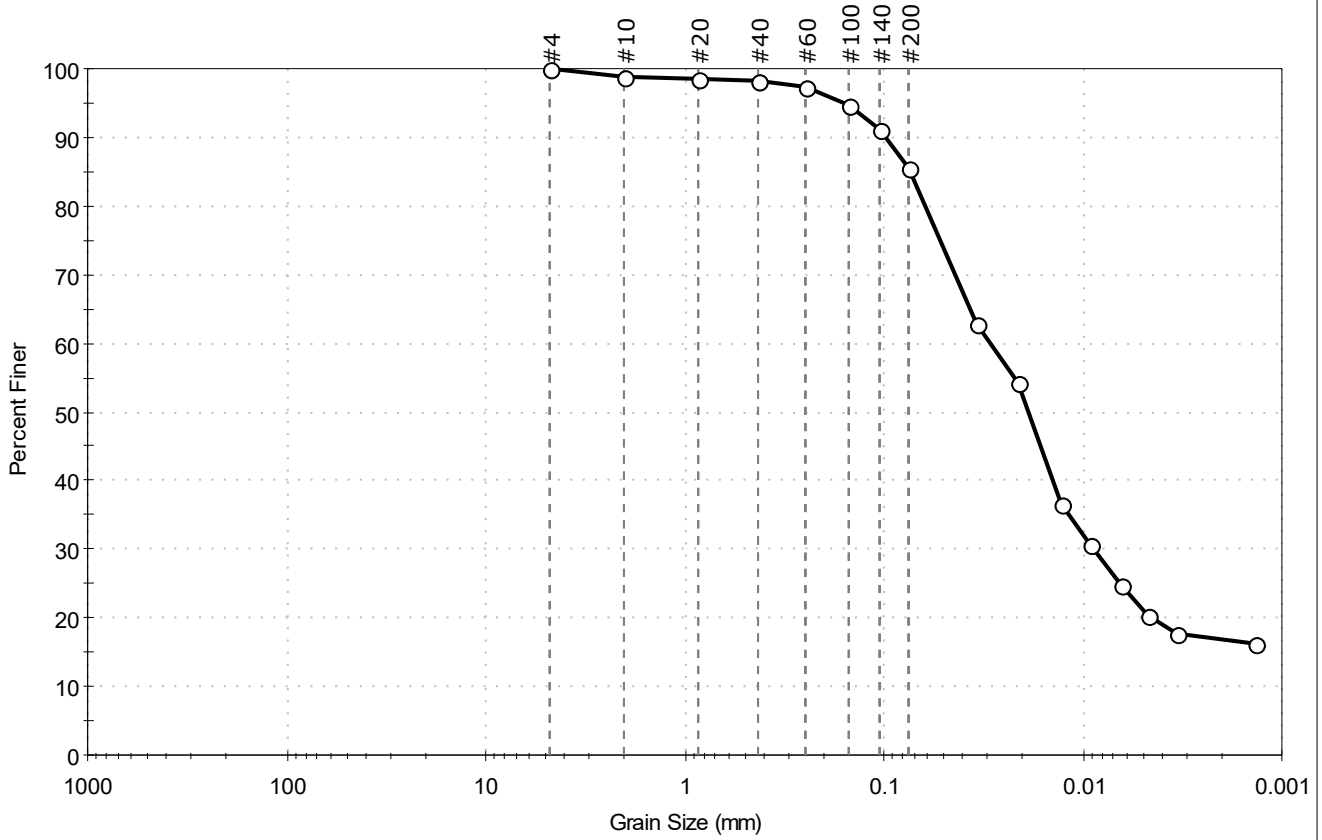
<u>Classification</u>	
<u>ASTM</u>	Elastic SILT (MH)
<u>AASHTO</u>	Clayey Soils (A-7-5 (35))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve



Client: Anchor QEA, LLC
 Project: GascoSiltronic: US Moorings 05062021
 Location: Project No: GTX-313591
 Boring ID: USMPDI- Sample Type: bag Tested By: ckg
 Sample ID: 015SC-B-02-05-210501 Test Date: 05/18/21 Checked By: bfs
 Depth: --- Test Id: 618015
 Test Comment: ---
 Visual Description: Wet, dark olive brown silt
 Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	14.3	85.7

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	99		
#20	0.85	99		
#40	0.42	98		
#60	0.25	97		
#100	0.15	95		
#140	0.11	91		
#200	0.075	86		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0344	63		
---	0.0211	54		
---	0.0129	37		
---	0.0093	31		
---	0.0064	25		
---	0.0047	20		
---	0.0034	18		
---	0.0014	16		

Coefficients	
D ₈₅ = 0.0733 mm	D ₃₀ = 0.0088 mm
D ₆₀ = 0.0293 mm	D ₁₅ = N/A
D ₅₀ = 0.0188 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

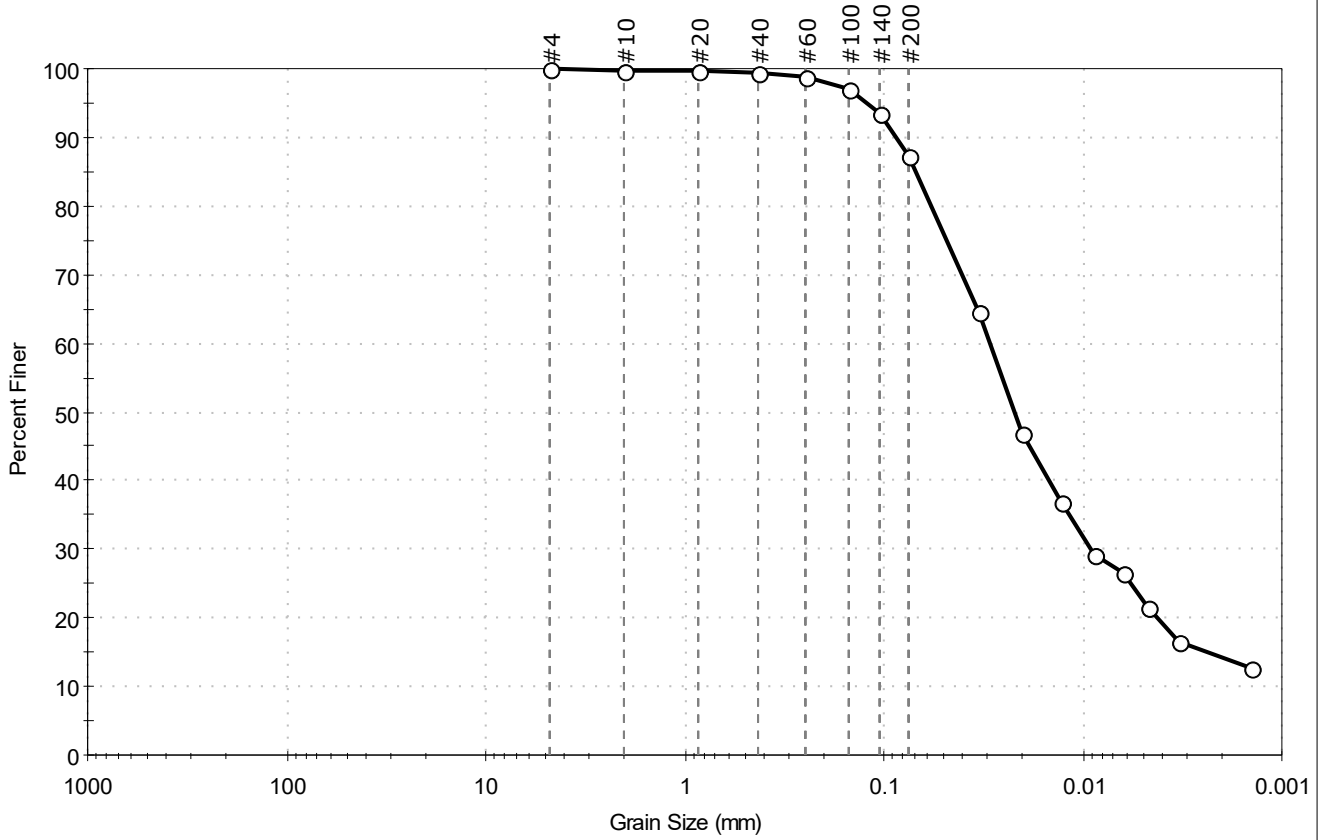
Classification	
ASTM	Elastic SILT (MH)
AASHTO	Clayey Soils (A-7-5 (23))

Sample/Test Description
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve



Client: Anchor QEA, LLC
 Project: GascoSiltronic: US Moorings 05062021
 Location: Project No: GTX-313591
 Boring ID: USMPDI- Sample Type: bag Tested By: ckg
 Sample ID: 016SC-B-05-07-210501 Test Date: 05/18/21 Checked By: bfs
 Depth: --- Test Id: 618016
 Test Comment: ---
 Visual Description: Wet, dark gray silt
 Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	12.6	87.4

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	99		
#60	0.25	99		
#100	0.15	97		
#140	0.11	93		
#200	0.075	87		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0330	65		
---	0.0201	47		
---	0.0128	37		
---	0.0087	29		
---	0.0064	27		
---	0.0047	22		
---	0.0033	16		
---	0.0014	13		

Coefficients	
D ₈₅ = 0.0688 mm	D ₃₀ = 0.0091 mm
D ₆₀ = 0.0290 mm	D ₁₅ = 0.0024 mm
D ₅₀ = 0.0219 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

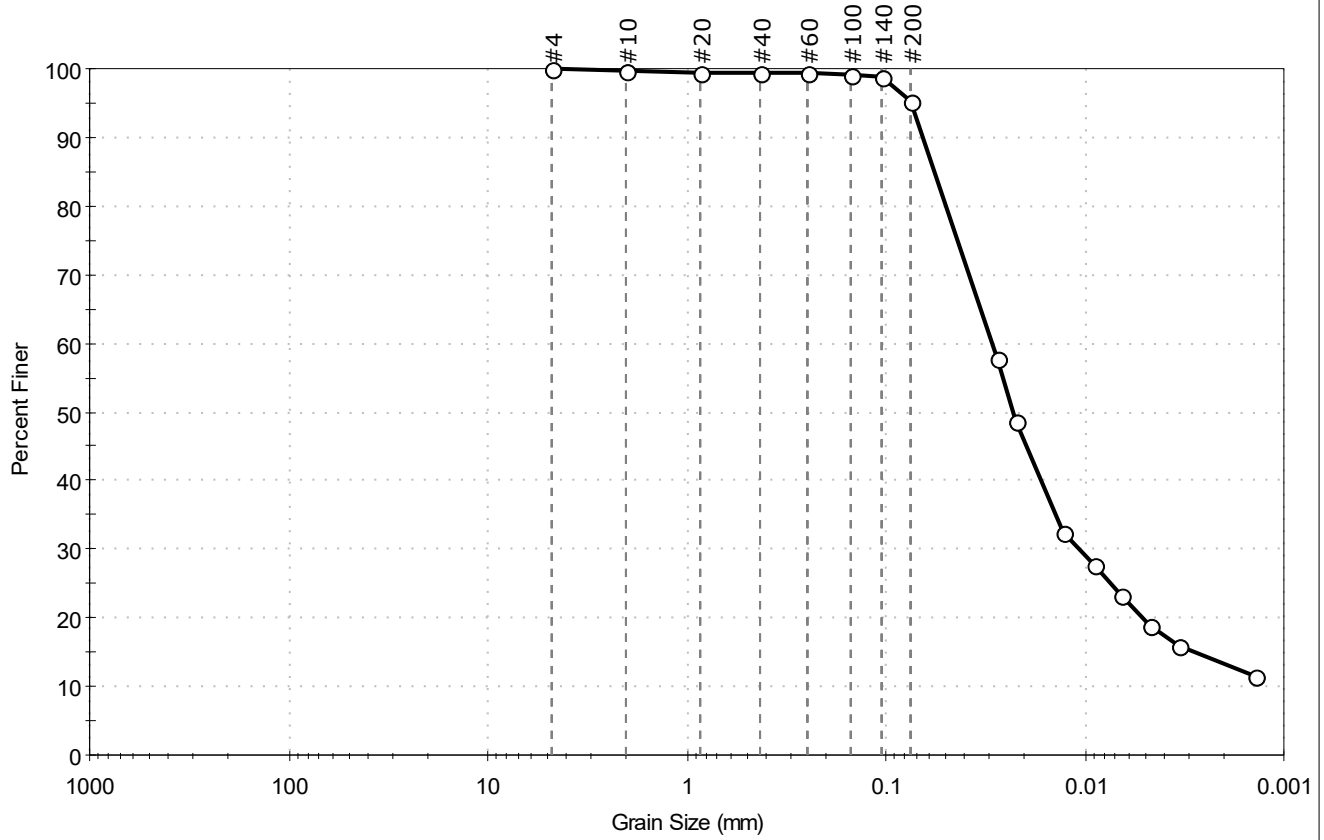
Classification	
ASTM	Elastic SILT (MH)
AASHTO	Clayey Soils (A-7-5 (15))

Sample/Test Description
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve



Client: Anchor QEA, LLC	Project: GascoSiltronic: US Moorings 05062021	Project No: GTX-313591
Location:	Boring ID: USMPDI-	Sample Type: bag
Tested By: ckg	Sample ID: 016SG-210413	Test Date: 05/18/21
Checked By: bfs	Depth: ---	Test Id: 618030
Test Comment: ---	Visual Description: Wet, dark gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	4.6	95.4

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	99		
#60	0.25	99		
#100	0.15	99		
#140	0.11	99		
#200	0.075	95		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0273	58		
---	0.0221	49		
---	0.0129	32		
---	0.0089	28		
---	0.0067	23		
---	0.0047	19		
---	0.0034	16		
---	0.0014	11		

Coefficients	
D ₈₅ = 0.0567 mm	D ₃₀ = 0.0107 mm
D ₆₀ = 0.0290 mm	D ₁₅ = 0.0029 mm
D ₅₀ = 0.0227 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

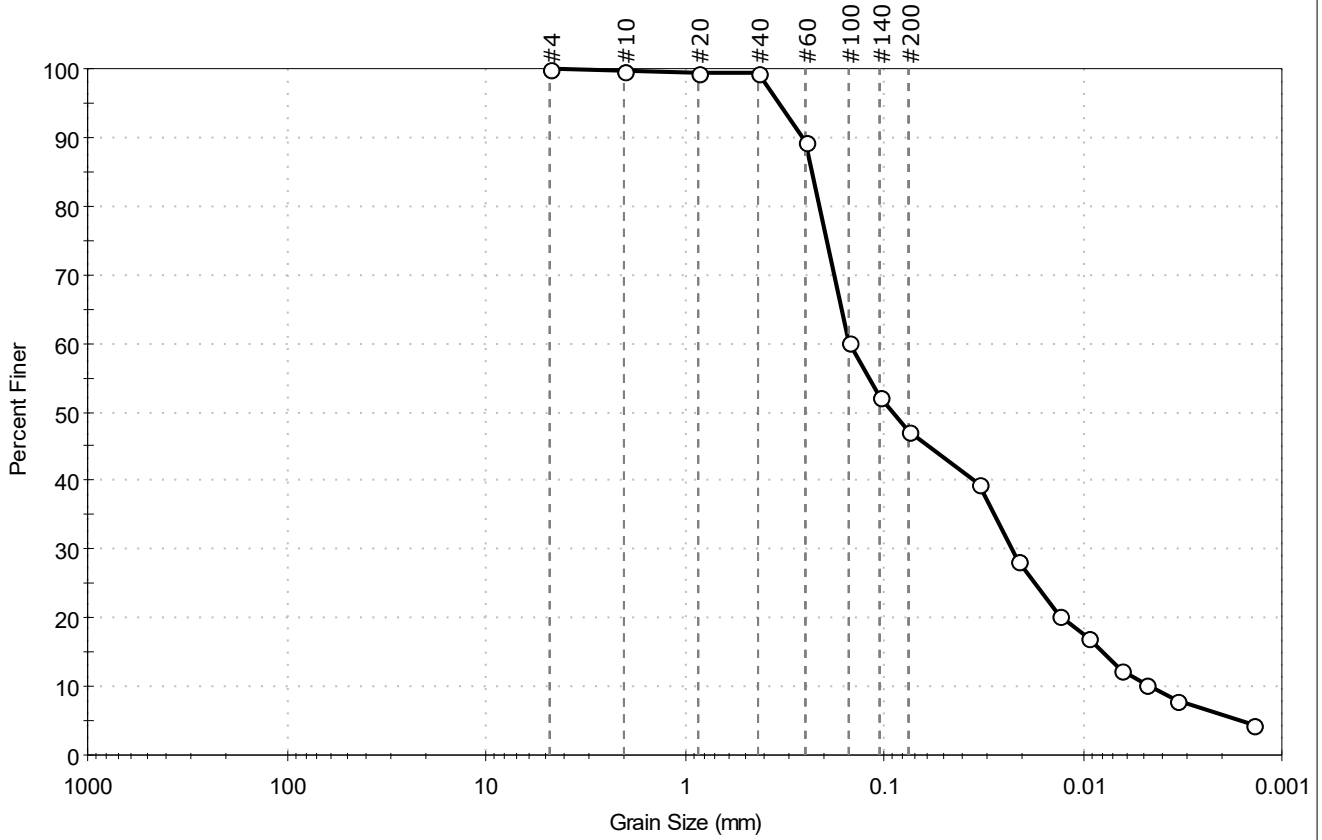
Classification	
ASTM	Elastic SILT (MH)
AASHTO	Clayey Soils (A-7-5 (42))

Sample/Test Description
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve



Client: Anchor QEA, LLC
 Project: GascoSiltronic: US Moorings 05062021
 Location: _____ Project No: GTX-313591
 Boring ID: USMPDI- Sample Type: bag Tested By: ckg
 Sample ID: 017SC-B-16-17.8-210429 Test Date: 05/18/21 Checked By: bfs
 Depth: --- Test Id: 618022
 Test Comment: ---
 Visual Description: Moist, dark brown silty sand
 Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	52.8	47.2

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	99		
#40	0.42	99		
#60	0.25	89		
#100	0.15	60		
#140	0.11	52		
#200	0.075	47		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0330	40		
---	0.0210	28		
---	0.0132	20		
---	0.0094	17		
---	0.0065	12		
---	0.0048	10		
---	0.0034	8		
---	0.0014	5		

Coefficients

D ₈₅ = 0.2319 mm	D ₃₀ = 0.0225 mm
D ₆₀ = 0.1493 mm	D ₁₅ = 0.0080 mm
D ₅₀ = 0.0913 mm	D ₁₀ = 0.0047 mm
C _u = 31.766	C _c = 0.721

Classification

ASTM	Silty SAND (SM)
AASHTO	Silty Soils (A-4 (0))

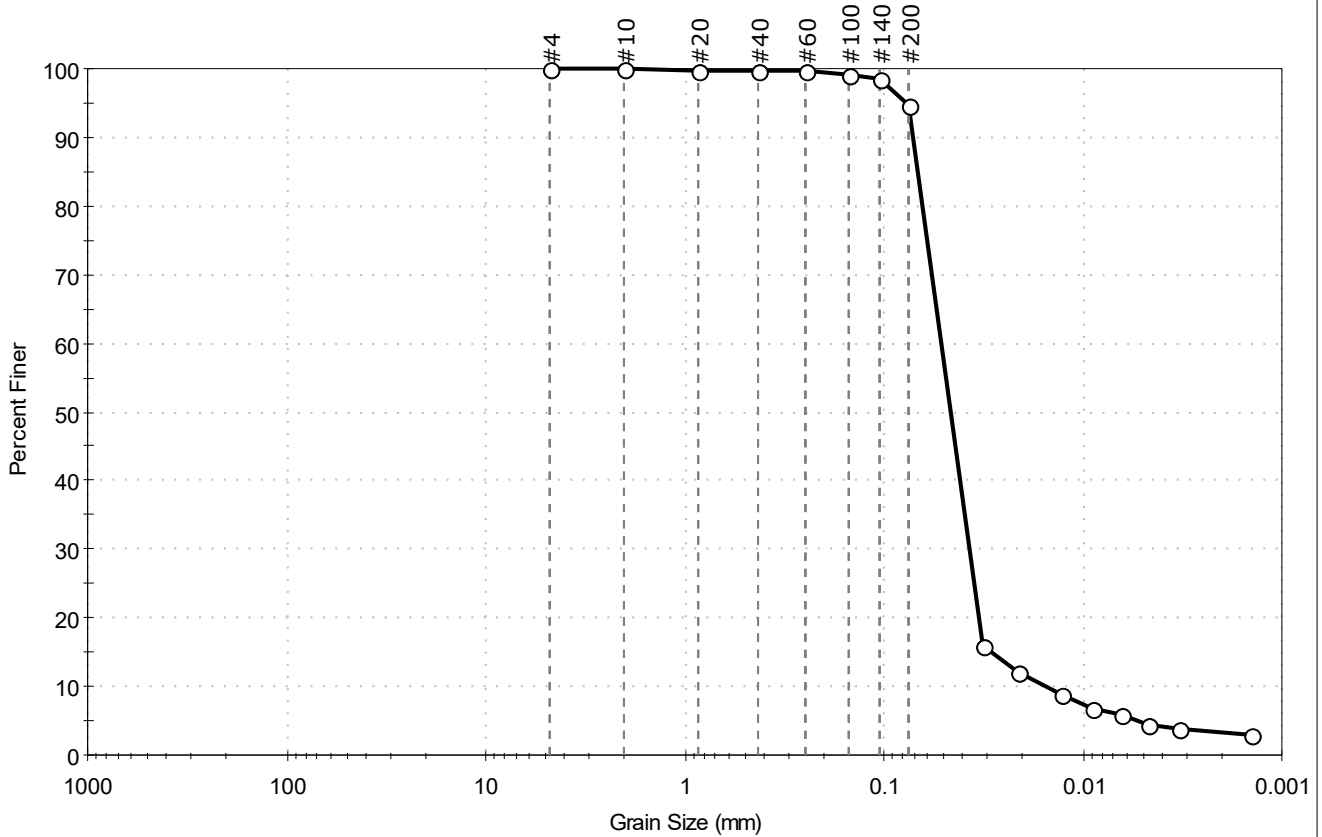
Sample/Test Description

Sand/Gravel Particle Shape : ---
 Sand/Gravel Hardness : ---
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Est. Specific Gravity : 2.65
 Separation of Sample: #200 Sieve



Client: Anchor QEA, LLC	Project: GascoSiltronic: US Moorings 05062021	Project No: GTX-313591
Location:	Boring ID: USMPDI-	Sample Type: bag
Tested By: ckg	Sample ID: 019SC-B-00-02-210502	Test Date: 05/18/21
Checked By: bfs	Depth: ---	Test Id: 618014
Test Comment: ---	Visual Description: Wet, dark gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	5.4	94.6

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	99		
#140	0.11	98		
#200	0.075	95		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0315	16		
---	0.0214	12		
---	0.0129	9		
---	0.0090	7		
---	0.0065	6		
---	0.0047	5		
---	0.0033	4		
---	0.0014	3		

<u>Coefficients</u>	
D ₈₅ = 0.0674 mm	D ₃₀ = 0.0368 mm
D ₆₀ = 0.0512 mm	D ₁₅ = 0.0287 mm
D ₅₀ = 0.0458 mm	D ₁₀ = 0.0156 mm
C _u = 3.282	C _c = 1.696

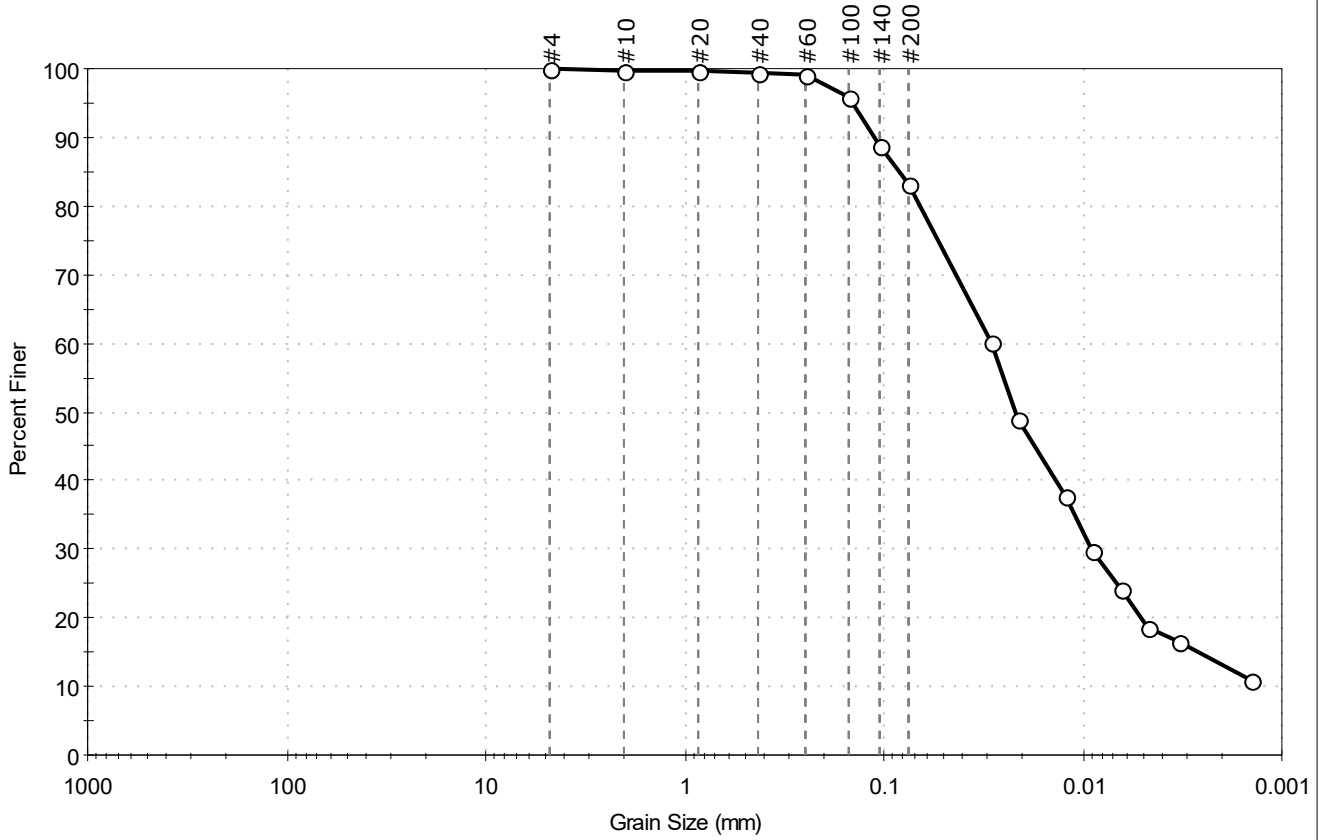
<u>Classification</u>	
<u>ASTM</u>	Elastic SILT (MH)
<u>AASHTO</u>	Clayey Soils (A-7-5 (28))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Est. Specific Gravity : 2.65	
Separation of Sample: #200 Sieve	



Client: Anchor QEA, LLC
 Project: GascoSiltronic: US Moorings 05062021
 Location: Project No: GTX-313591
 Boring ID: USMPDI- Sample Type: bag Tested By: ckg
 Sample ID: 020SC-B-10-13-210429 Test Date: 05/14/21 Checked By: bfs
 Depth: --- Test Id: 618023
 Test Comment: ---
 Visual Description: Moist, very dark gray silt with sand
 Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	16.8	83.2

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	99		
#60	0.25	99		
#100	0.15	96		
#140	0.11	89		
#200	0.075	83		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0290	60		
---	0.0214	49		
---	0.0123	38		
---	0.0089	30		
---	0.0065	24		
---	0.0047	19		
---	0.0033	16		
---	0.0014	11		

Coefficients	
D ₈₅ = 0.0840 mm	D ₃₀ = 0.0089 mm
D ₆₀ = 0.0288 mm	D ₁₅ = 0.0027 mm
D ₅₀ = 0.0221 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

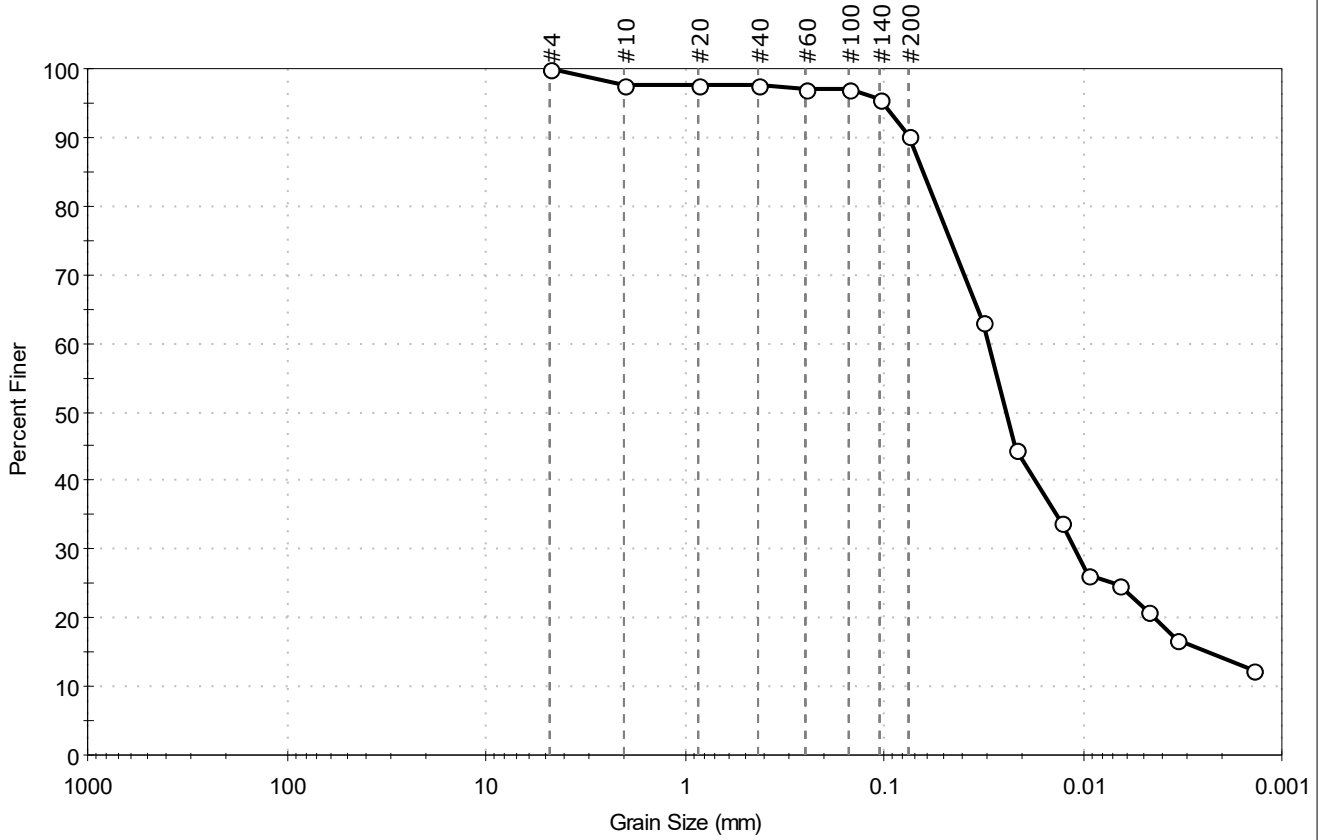
Classification	
ASTM	Elastic SILT with Sand (MH)
AASHTO	Clayey Soils (A-7-5 (35))

Sample/Test Description	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Est. Specific Gravity : 2.65	
Separation of Sample: #200 Sieve	



Client: Anchor QEA, LLC
 Project: GascoSiltronic: US Moorings 05062021
 Location: _____ Project No: GTX-313591
 Boring ID: USMPDI- Sample Type: bag Tested By: ckg
 Sample ID: 024SC-B-00-02-210430 Test Date: 05/18/21 Checked By: bfs
 Depth: --- Test Id: 618019
 Test Comment: ---
 Visual Description: Wet, dark olive brown silt
 Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	9.7	90.3

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	98		
#20	0.85	98		
#40	0.42	98		
#60	0.25	97		
#100	0.15	97		
#140	0.11	96		
#200	0.075	90		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0315	63		
---	0.0216	45		
---	0.0130	34		
---	0.0094	26		
---	0.0067	25		
---	0.0047	21		
---	0.0033	17		
---	0.0014	12		

Coefficients	
D ₈₅ = 0.0634 mm	D ₃₀ = 0.0110 mm
D ₆₀ = 0.0295 mm	D ₁₅ = 0.0023 mm
D ₅₀ = 0.0241 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

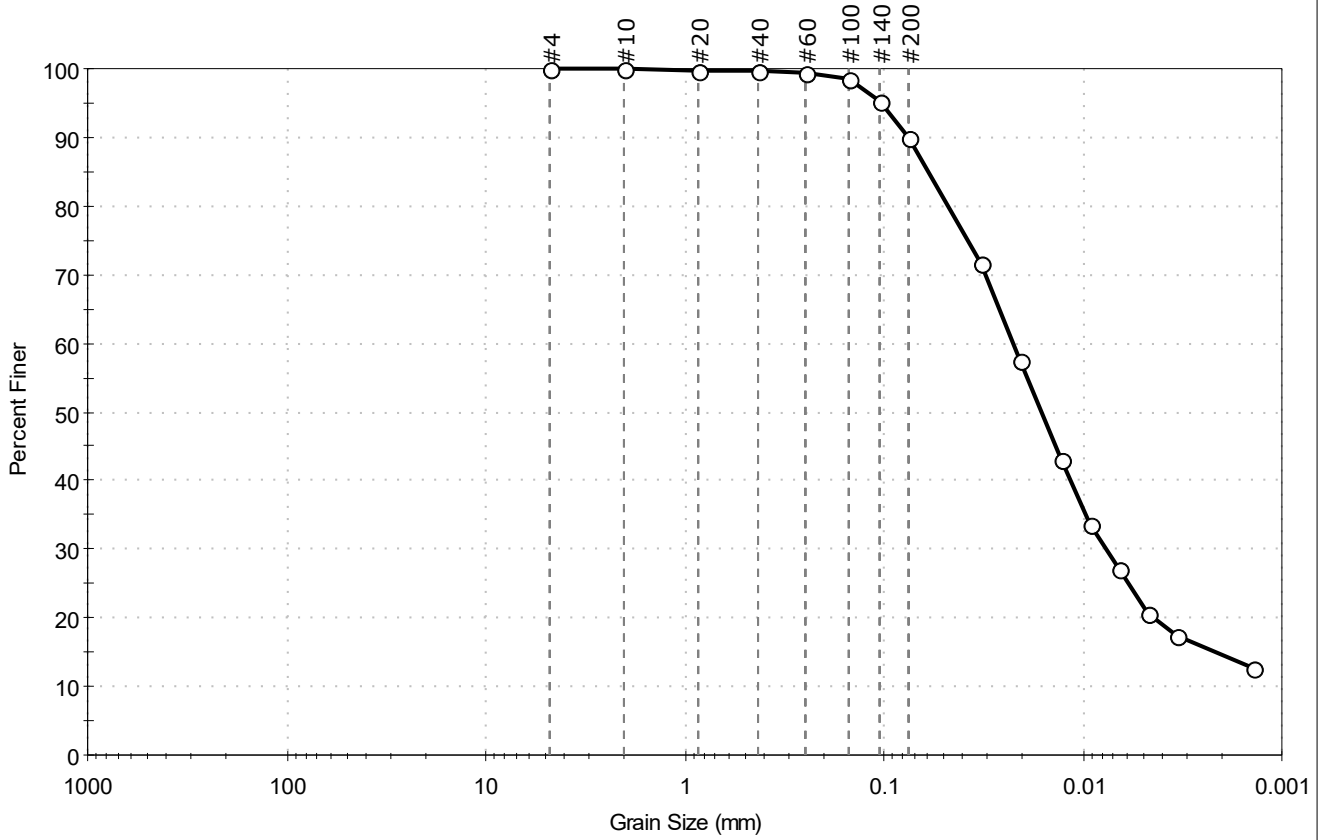
Classification	
ASTM	Elastic SILT (MH)
AASHTO	Clayey Soils (A-7-5 (22))

Sample/Test Description
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve



Client: Anchor QEA, LLC
 Project: GascoSiltronic: US Moorings 05062021
 Location: _____ Project No: GTX-313591
 Boring ID: USMPDI- Sample Type: bag Tested By: ckg
 Sample ID: 025SC-B-07-10-210428 Test Date: 05/18/21 Checked By: bfs
 Depth: --- Test Id: 618025
 Test Comment: ---
 Visual Description: Moist, dark grayish brown silt
 Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	10.1	89.9

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	99		
#100	0.15	98		
#140	0.11	95		
#200	0.075	90		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0327	72		
---	0.0209	57		
---	0.0129	43		
---	0.0092	33		
---	0.0066	27		
---	0.0047	21		
---	0.0034	18		
---	0.0014	13		

Coefficients	
D ₈₅ = 0.0599 mm	D ₃₀ = 0.0077 mm
D ₆₀ = 0.0227 mm	D ₁₅ = 0.0021 mm
D ₅₀ = 0.0163 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

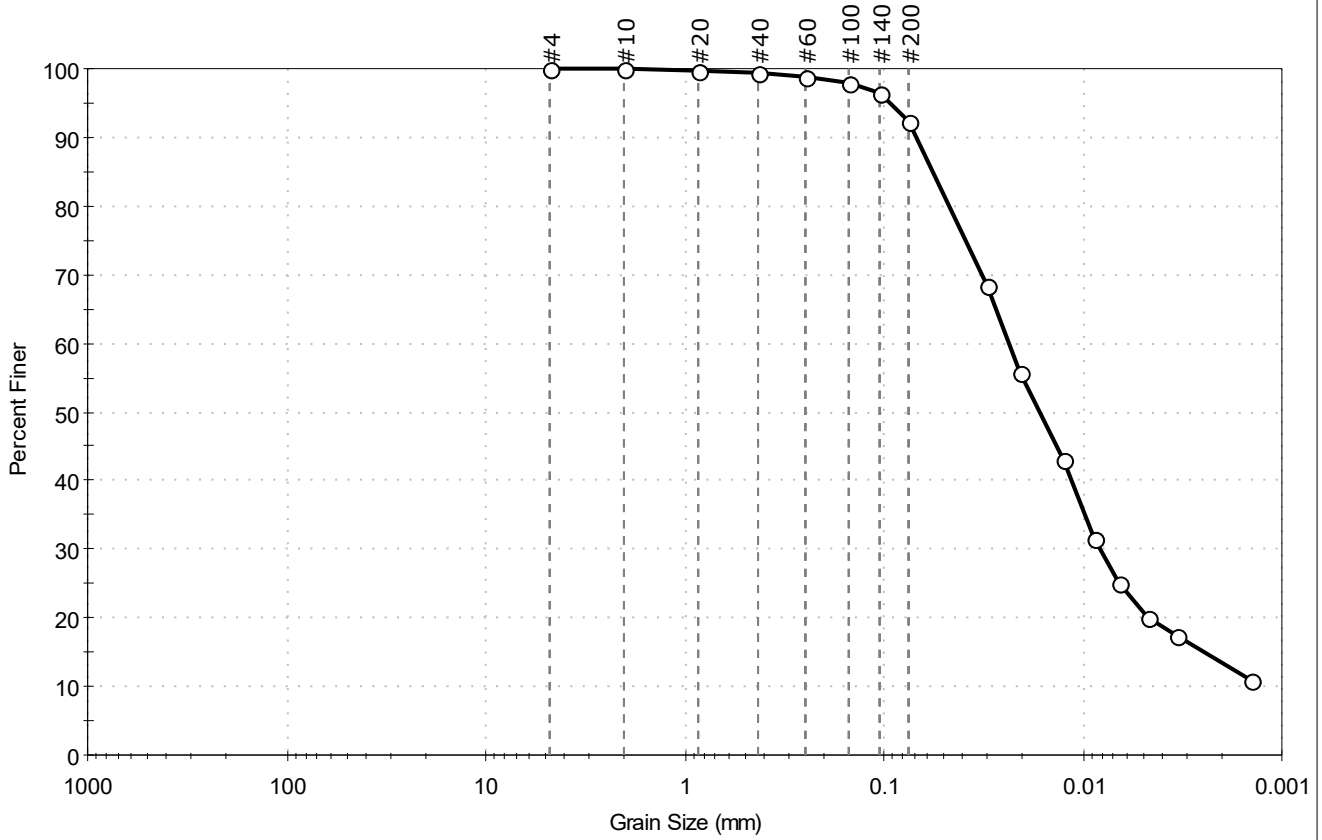
Classification	
ASTM	Elastic SILT (MH)
AASHTO	Clayey Soils (A-7-5 (39))

Sample/Test Description
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve



Client: Anchor QEA, LLC	Project: GascoSiltronic: US Moorings 05062021	Project No: GTX-313591
Location:	Boring ID: USMPDI-	Sample Type: bag
Tested By: ckg	Sample ID: 028SC-B-02-05-210504	Test Date: 05/14/21
Checked By: bfs	Depth: ---	Test Id: 618007
Test Comment: ---	Visual Description: Wet, dark olive gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	7.7	92.3

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	99		
#100	0.15	98		
#140	0.11	97		
#200	0.075	92		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0301	68		
---	0.0208	56		
---	0.0125	43		
---	0.0088	31		
---	0.0066	25		
---	0.0047	20		
---	0.0034	17		
---	0.0014	11		

Coefficients	
D ₈₅ = 0.0567 mm	D ₃₀ = 0.0082 mm
D ₆₀ = 0.0235 mm	D ₁₅ = 0.0024 mm
D ₅₀ = 0.0166 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

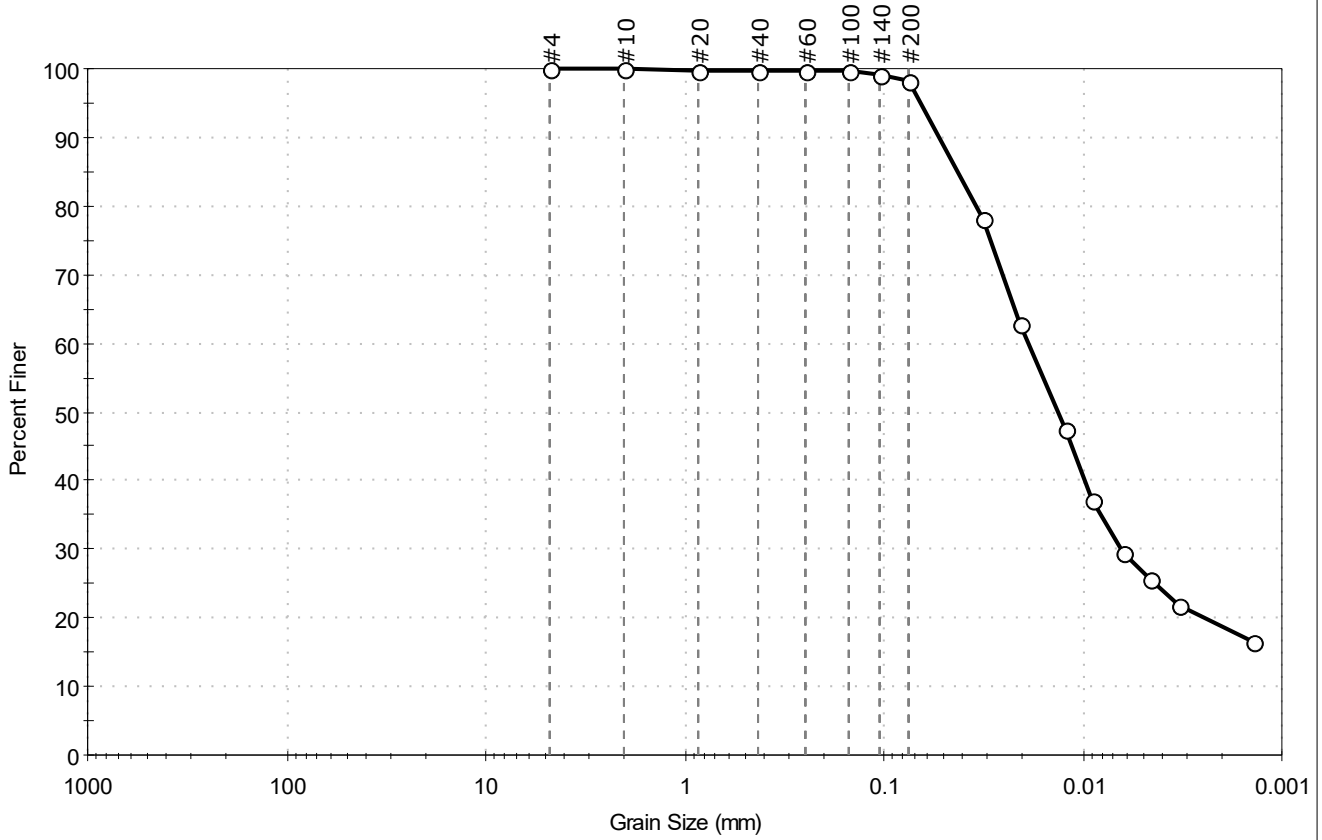
Classification	
ASTM	Elastic SILT (MH)
AASHTO	Clayey Soils (A-7-5 (23))

Sample/Test Description
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve



Client: Anchor QEA, LLC
 Project: GascoSiltronic: US Moorings 05062021
 Location: Project No: GTX-313591
 Boring ID: USMPDI- Sample Type: bag Tested By: ckg
 Sample ID: 029SC-B-05-07-210430 Test Date: 05/18/21 Checked By: bfs
 Depth: --- Test Id: 618020
 Test Comment: ---
 Visual Description: Wet, dark olive gray clay
 Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	1.9	98.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	99		
#200	0.075	98		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0316	78		
---	0.0206	63		
---	0.0123	47		
---	0.0090	37		
---	0.0063	29		
---	0.0046	26		
---	0.0033	22		
---	0.0014	17		

Coefficients	
D ₈₅ = 0.0426 mm	D ₃₀ = 0.0065 mm
D ₆₀ = 0.0188 mm	D ₁₅ = N/A
D ₅₀ = 0.0135 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

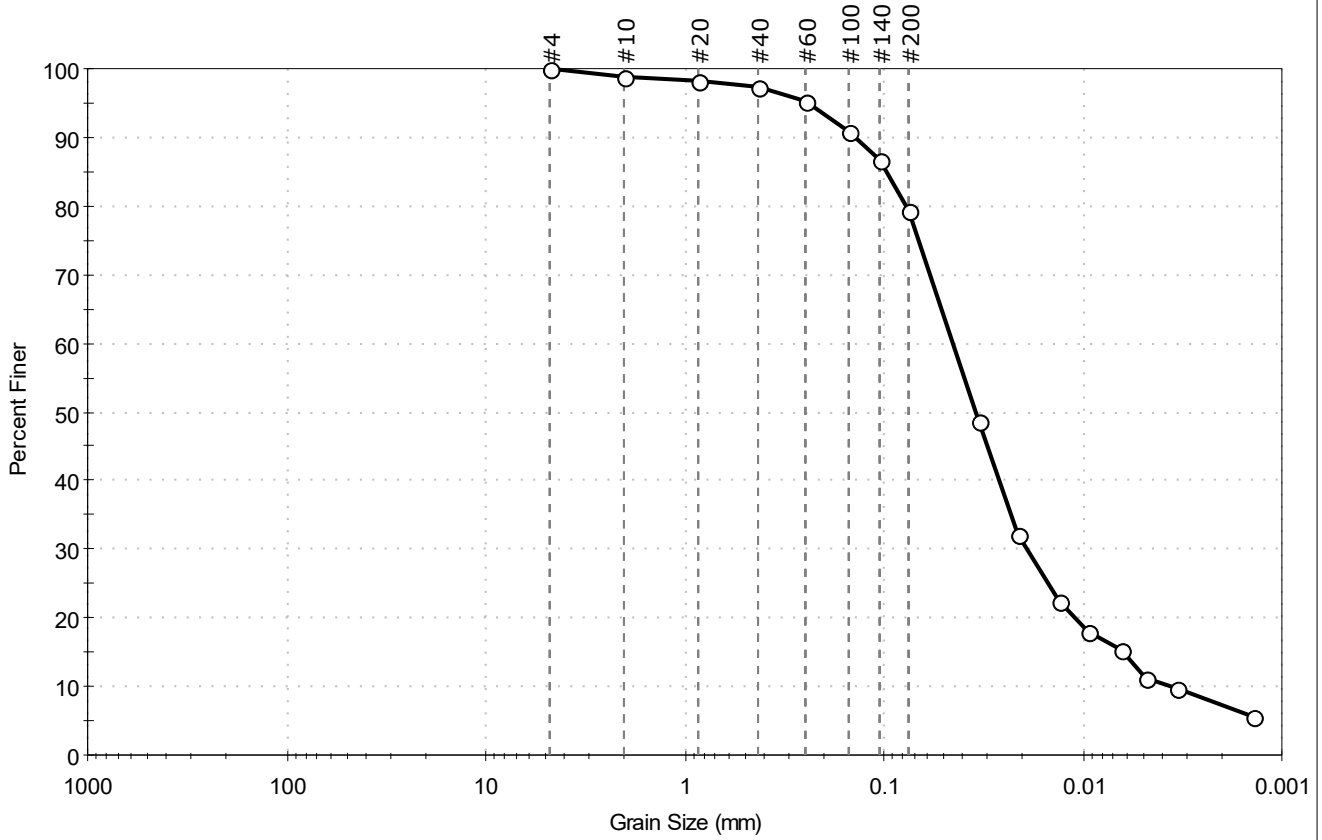
Classification	
ASTM	Fat CLAY (CH)
AASHTO	Clayey Soils (A-7-5 (57))

Sample/Test Description	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Est. Specific Gravity : 2.65	
Separation of Sample: #200 Sieve	



Client: Anchor QEA, LLC	Project: GascoSiltronic: US Moorings 05062021	Project No: GTX-313591
Location:	Boring ID: USMPDI-	Sample Type: bag
Tested By: ckg	Sample ID: 030SC-B-00-02-210503	Test Date: 05/18/21
Checked By: bfs	Depth: ---	Test Id: 618010
Test Comment: ---	Visual Description: Wet, dark olive brown silt with sand	Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	20.7	79.3

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	99		
#20	0.85	98		
#40	0.42	97		
#60	0.25	95		
#100	0.15	91		
#140	0.11	87		
#200	0.075	79		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0336	49		
---	0.0213	32		
---	0.0132	22		
---	0.0095	18		
---	0.0065	15		
---	0.0048	11		
---	0.0034	10		
---	0.0014	6		

Coefficients	
D ₈₅ = 0.0983 mm	D ₃₀ = 0.0193 mm
D ₆₀ = 0.0451 mm	D ₁₅ = 0.0063 mm
D ₅₀ = 0.0347 mm	D ₁₀ = 0.0036 mm
C _u = 12.528	C _c = 2.294

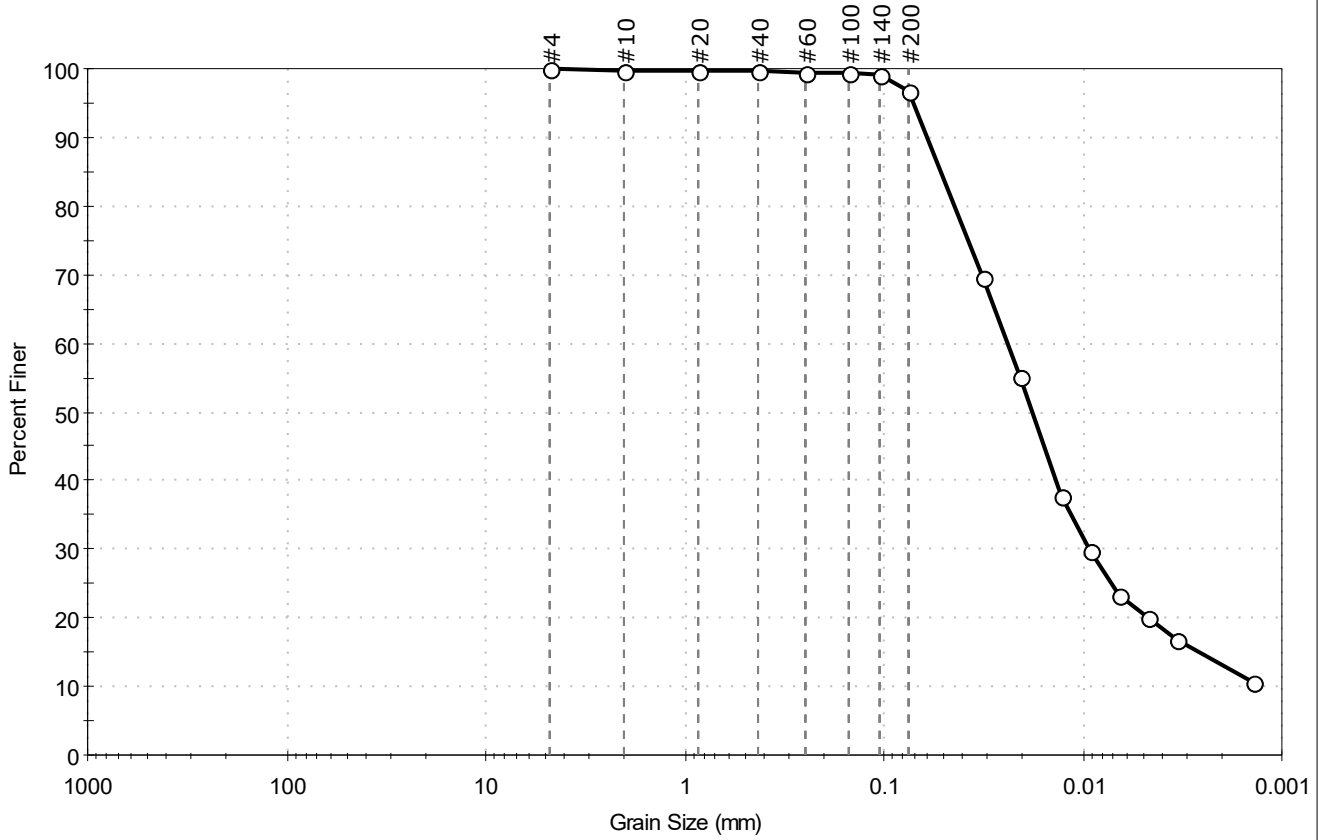
Classification	
ASTM	Elastic SILT with Sand (MH)
AASHTO	Clayey Soils (A-7-5 (16))

Sample/Test Description	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Est. Specific Gravity : 2.65	
Separation of Sample: #200 Sieve	



Client: Anchor QEA, LLC	Project: GascoSiltronic: US Moorings 05062021	Project No: GTX-313591
Location:	Boring ID: USMPDI-	Sample Type: bag
Tested By: ckg	Sample ID: 031SC-B-00-02-210504	Test Date: 05/13/21
Checked By: bfs	Depth: ---	Test Id: 618008
Test Comment: ---	Visual Description: Wet, dark olive gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	3.2	96.8

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	99		
#140	0.11	99		
#200	0.075	97		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0317	70		
---	0.0206	55		
---	0.0128	38		
---	0.0092	30		
---	0.0066	23		
---	0.0047	20		
---	0.0034	17		
---	0.0014	11		

Coefficients	
D ₈₅ = 0.0515 mm	D ₃₀ = 0.0093 mm
D ₆₀ = 0.0238 mm	D ₁₅ = 0.0026 mm
D ₅₀ = 0.0179 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

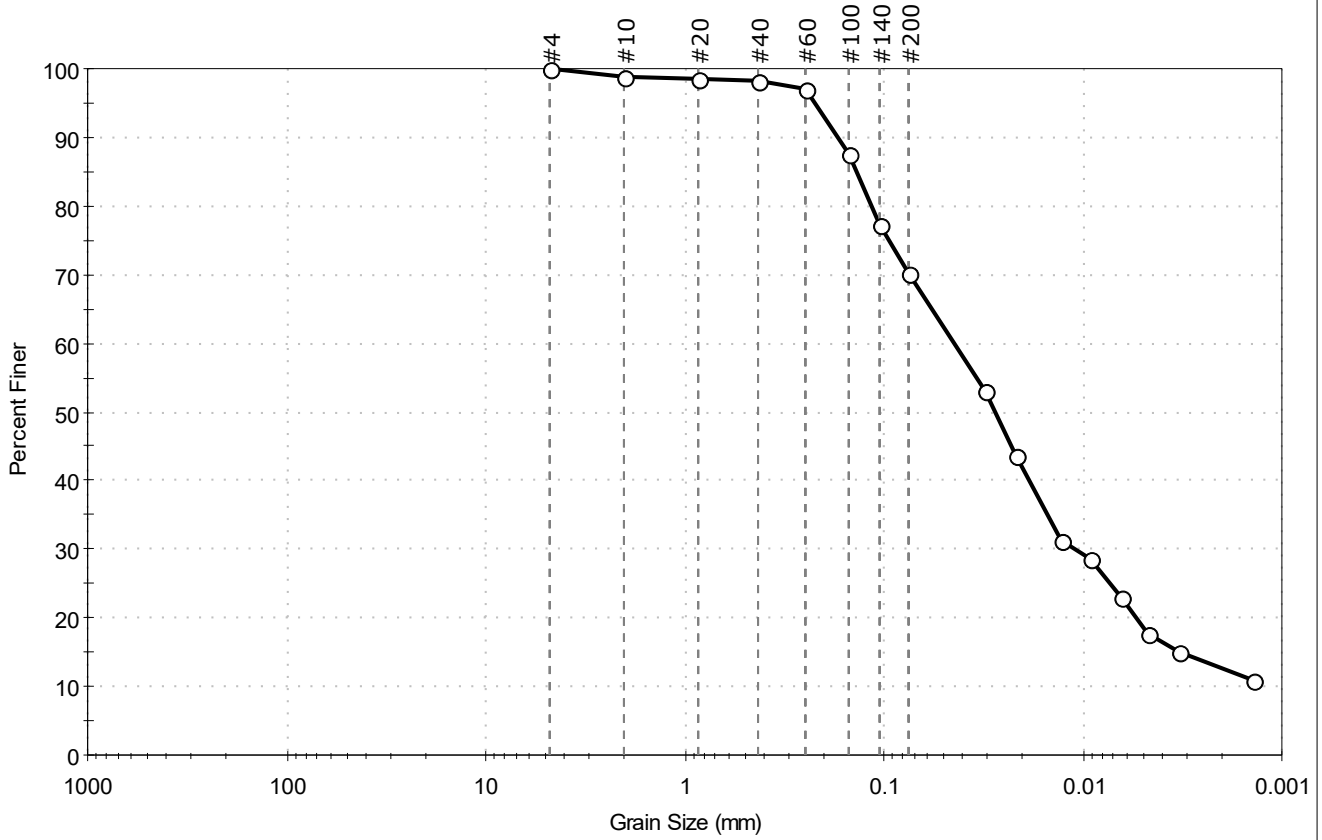
Classification	
ASTM	Elastic SILT (MH)
AASHTO	Clayey Soils (A-7-5 (22))

Sample/Test Description
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve



Client: Anchor QEA, LLC	Project: GascoSiltronic: US Moorings 05062021	Project No: GTX-313591
Location:	Boring ID: USMPDI-	Sample Type: bag
Tested By: ckg	Sample ID: 033SC-B-06-08-210427	Test Date: 05/18/21
Checked By: bfs	Depth: ---	Test Id: 618028
Test Comment: ---	Visual Description: Moist, grayish brown silt with sand	Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	29.8	70.2

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	99		
#20	0.85	99		
#40	0.42	98		
#60	0.25	97		
#100	0.15	87		
#140	0.11	77		
#200	0.075	70		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0312	53		
---	0.0218	44		
---	0.0129	31		
---	0.0092	29		
---	0.0065	23		
---	0.0048	18		
---	0.0033	15		
---	0.0014	11		

Coefficients	
D ₈₅ = 0.1379 mm	D ₃₀ = 0.0109 mm
D ₆₀ = 0.0445 mm	D ₁₅ = 0.0033 mm
D ₅₀ = 0.0278 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

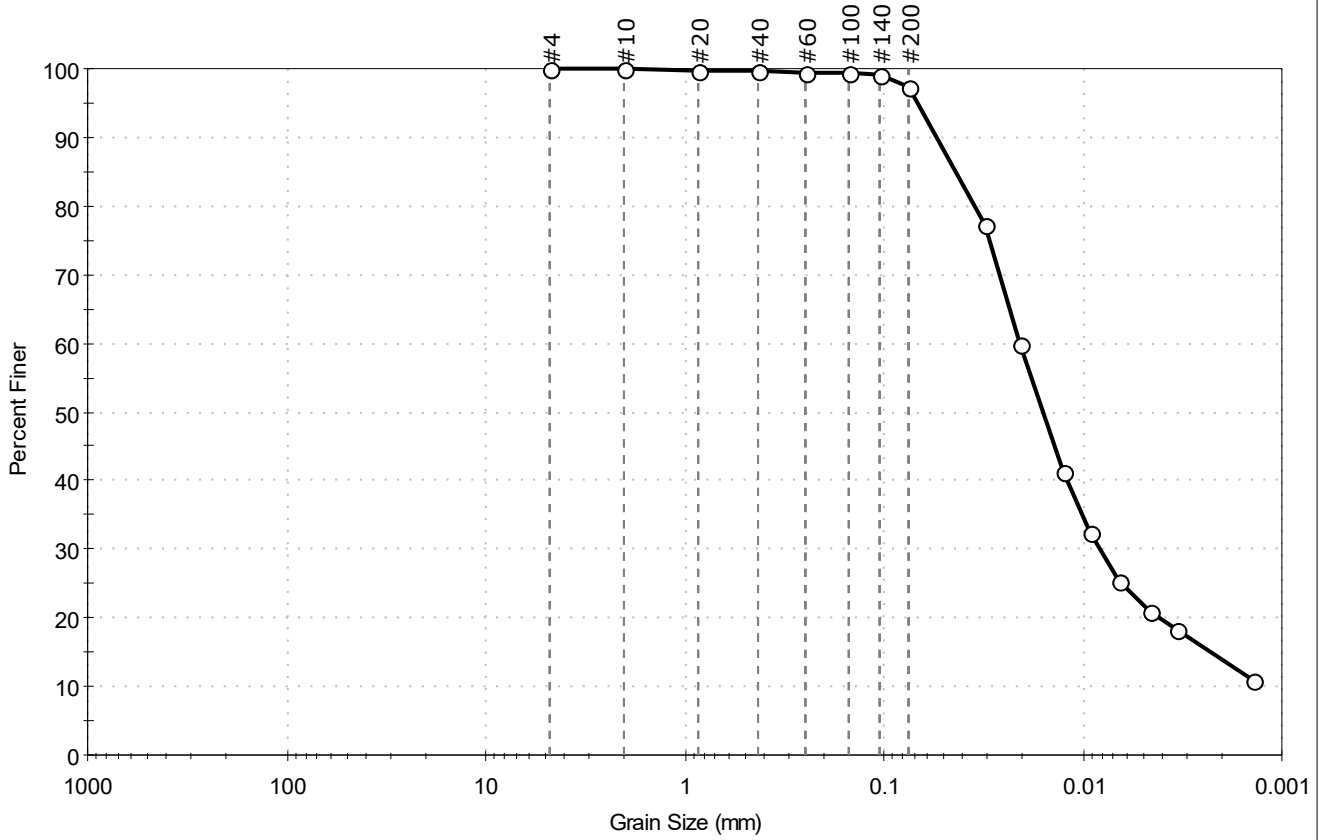
Classification	
ASTM	Elastic SILT with Sand (MH)
AASHTO	Clayey Soils (A-7-5 (20))

Sample/Test Description	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Est. Specific Gravity : 2.65	
Separation of Sample: #200 Sieve	



Client: Anchor QEA, LLC	Project: GascoSiltronic: US Moorings 05062021	Project No: GTX-313591
Location:	Boring ID: USMPDI-	Sample Type: bag
Tested By: ckg	Sample ID: 035SC-B-02-05-210504	Test Date: 05/18/21
Checked By: n/a	Depth: ---	Test Id: 618009
Test Comment: ---	Visual Description: Moist, dark olive gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	2.8	97.2

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	99		
#140	0.11	99		
#200	0.075	97		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0311	77		
---	0.0206	60		
---	0.0125	41		
---	0.0092	33		
---	0.0066	25		
---	0.0046	21		
---	0.0033	18		
---	0.0014	11		

Coefficients	
D ₈₅ = 0.0437 mm	D ₃₀ = 0.0082 mm
D ₆₀ = 0.0206 mm	D ₁₅ = 0.0023 mm
D ₅₀ = 0.0158 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

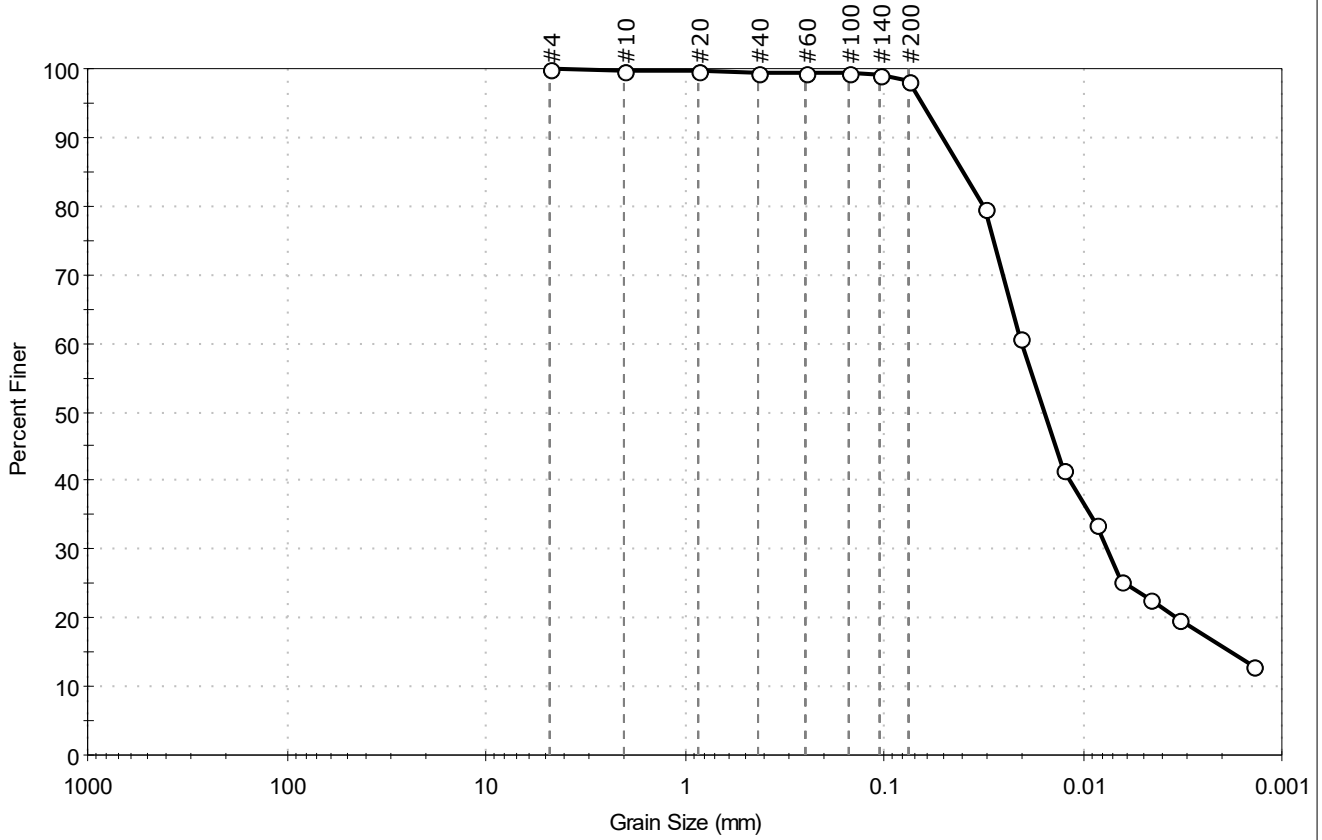
Classification	
ASTM	Elastic SILT (MH)
AASHTO	Clayey Soils (A-7-5 (51))

Sample/Test Description
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve



Client: Anchor QEA, LLC	Project: GascoSiltronic: US Moorings 05062021	Project No: GTX-313591
Location:	Boring ID: USMPDI-	Sample Type: bag
Tested By: ckg	Sample ID: 036SC-B-02-05-210501	Test Date: 05/18/21
Checked By: bfs	Depth: ---	Test Id: 618017
Test Comment: ---	Visual Description: Wet, dark olive gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	1.8	98.2

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	99		
#100	0.15	99		
#140	0.11	99		
#200	0.075	98		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0313	80		
---	0.0205	61		
---	0.0124	42		
---	0.0085	33		
---	0.0065	25		
---	0.0046	23		
---	0.0033	20		
---	0.0014	13		

<u>Coefficients</u>	
D ₈₅ = 0.0401 mm	D ₃₀ = 0.0076 mm
D ₆₀ = 0.0201 mm	D ₁₅ = 0.0018 mm
D ₅₀ = 0.0155 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

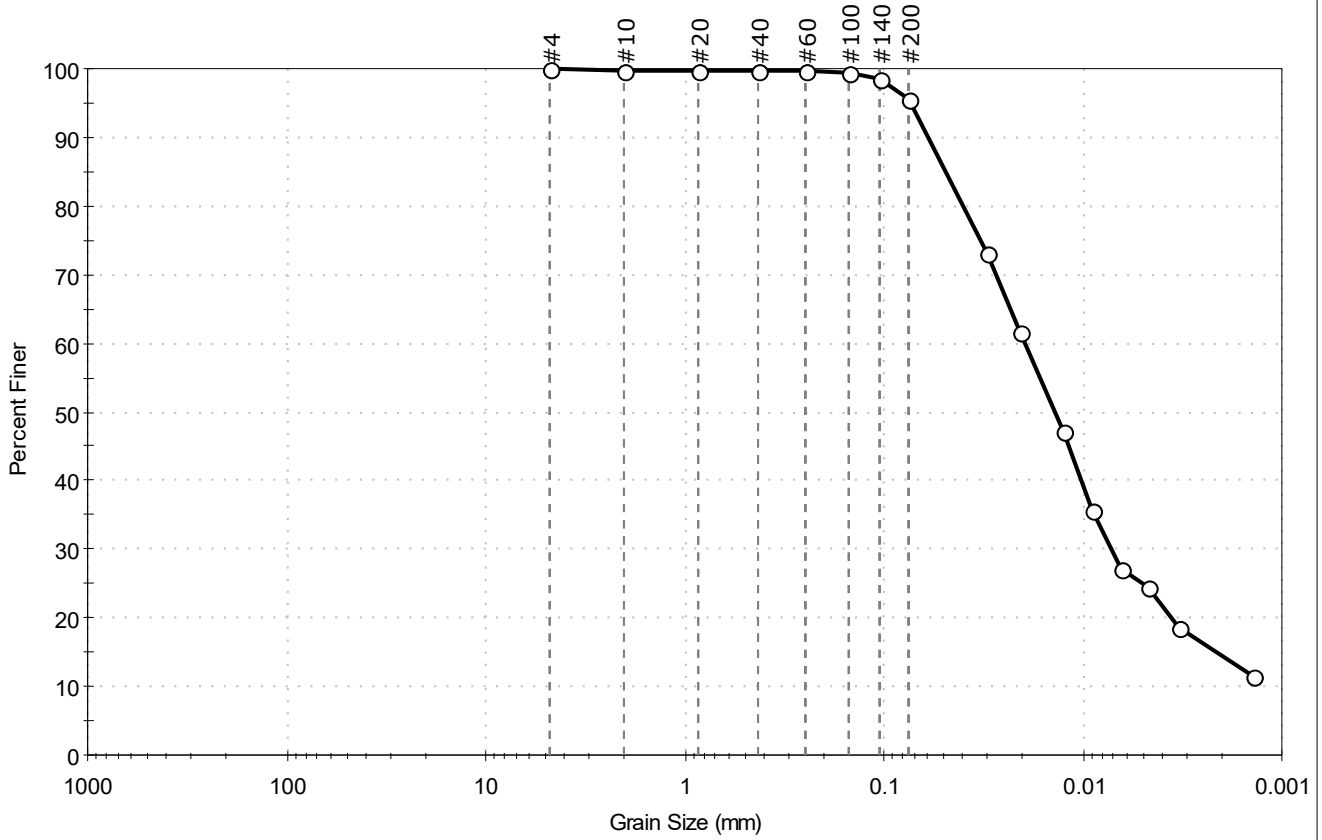
<u>Classification</u>	
<u>ASTM</u>	Elastic SILT (MH)
<u>AASHTO</u>	Clayey Soils (A-7-5 (41))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Est. Specific Gravity : 2.65	
Separation of Sample: #200 Sieve	



Client:	Anchor QEA, LLC		
Project:	GascoSiltronic: US Moorings 05062021		
Location:		Project No:	GTX-313591
Boring ID:	USMPDI-	Sample Type:	bag
Sample ID:	037SC-B-10-12.1-210501	Test Date:	05/18/21
Depth:	---	Test Id:	618018
Test Comment:	---		
Visual Description:	Moist, dark grayish brown silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	4.3	95.7

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	99		
#140	0.11	98		
#200	0.075	96		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0301	73		
---	0.0205	62		
---	0.0126	47		
---	0.0090	36		
---	0.0064	27		
---	0.0047	24		
---	0.0033	19		
---	0.0014	11		

Coefficients	
D ₈₅ = 0.0487 mm	D ₃₀ = 0.0072 mm
D ₆₀ = 0.0194 mm	D ₁₅ = 0.0021 mm
D ₅₀ = 0.0138 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

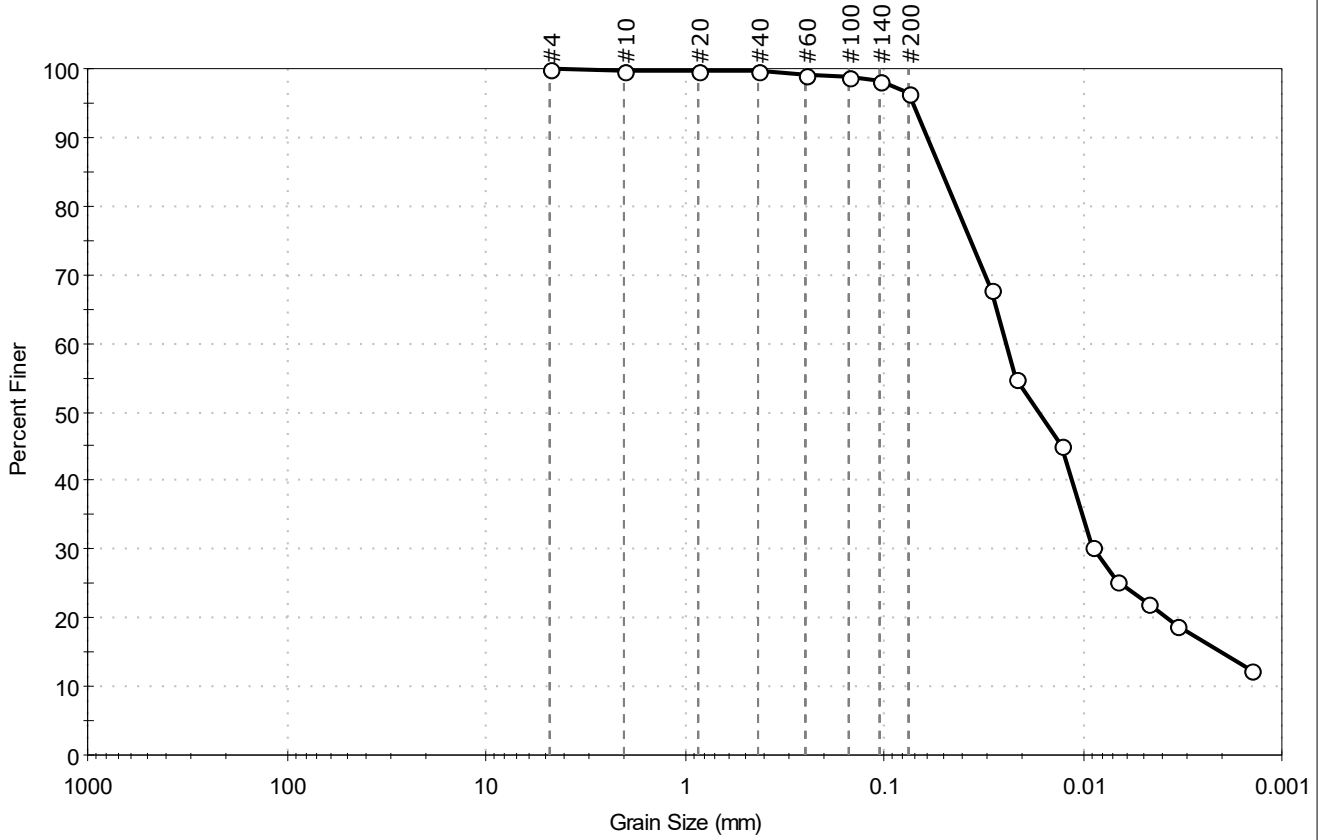
Classification	
ASTM	Elastic SILT (MH)
AASHTO	Clayey Soils (A-7-5 (44))

Sample/Test Description
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve



Client: Anchor QEA, LLC	Project: GascoSiltronic: US Moorings 05062021	Project No: GTX-313591
Location:	Boring ID: USMPDI-	Sample Type: bag
Tested By: ckg	Sample ID: 041SC-B-04-06-210427	Test Date: 05/14/21
Checked By: bfs	Depth: ---	Test Id: 618029
Test Comment: ---	Visual Description: Moist, dark olive gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	3.5	96.5

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	99		
#100	0.15	99		
#140	0.11	98		
#200	0.075	97		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0291	68		
---	0.0216	55		
---	0.0129	45		
---	0.0089	30		
---	0.0067	25		
---	0.0047	22		
---	0.0034	19		
---	0.0014	12		

Coefficients	
D ₈₅ = 0.0512 mm	D ₃₀ = 0.0087 mm
D ₆₀ = 0.0243 mm	D ₁₅ = 0.0020 mm
D ₅₀ = 0.0167 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

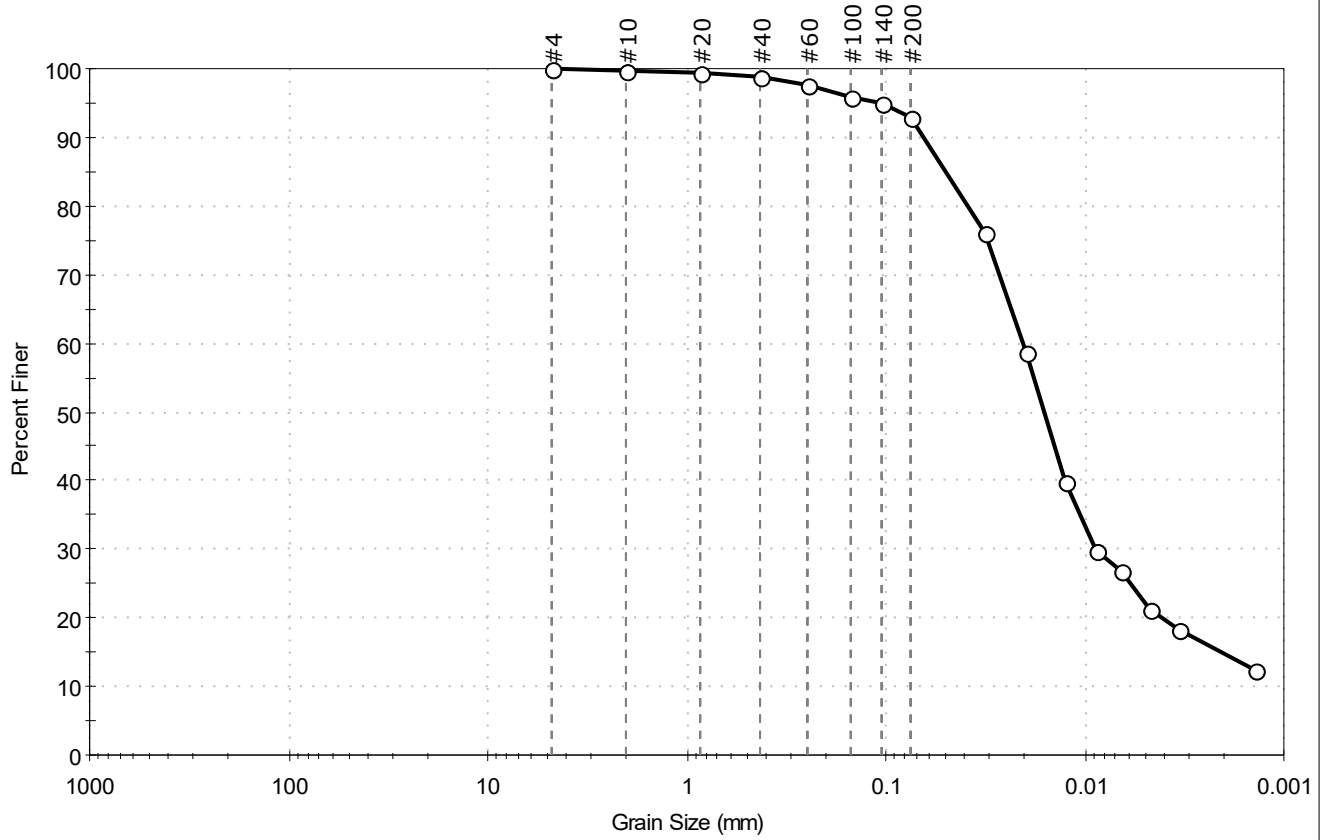
Classification	
ASTM	Elastic SILT (MH)
AASHTO	Clayey Soils (A-7-5 (72))

Sample/Test Description
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve



Client: Anchor QEA, LLC	Project: GascoSiltronic: US Moorings 05062021	Project No: GTX-313591
Location:	Boring ID: USMPDI-	Sample Type: bag
Tested By: ckg	Sample ID: 051SC-B-02-04-210430	Test Date: 05/21/21
Checked By: bfs	Depth: ---	Test Id: 618021
Test Comment: ---	Visual Description: Wet, dark olive gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	7.1	92.9

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	99		
#40	0.42	99		
#60	0.25	98		
#100	0.15	96		
#140	0.11	95		
#200	0.075	93		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0315	76		
---	0.0198	59		
---	0.0127	40		
---	0.0087	30		
---	0.0065	27		
---	0.0047	21		
---	0.0034	18		
---	0.0014	12		

Coefficients	
D ₈₅ = 0.0499 mm	D ₃₀ = 0.0088 mm
D ₆₀ = 0.0205 mm	D ₁₅ = 0.0021 mm
D ₅₀ = 0.0161 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

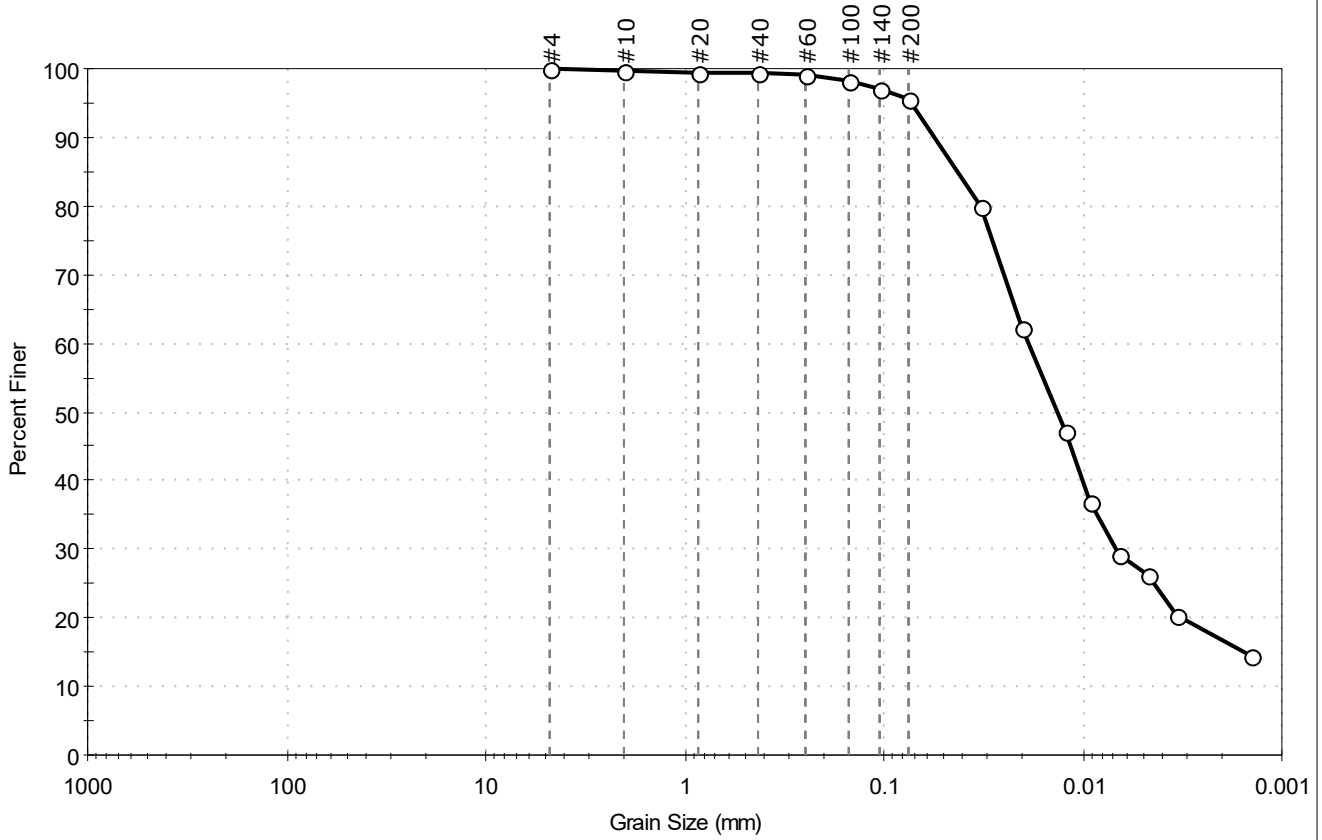
Classification	
ASTM	Elastic SILT (MH)
AASHTO	Clayey Soils (A-7-5 (35))

Sample/Test Description
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve



Client:	Anchor QEA, LLC		
Project:	GascoSiltronic: US Moorings 05062021		
Location:		Project No:	GTX-313591
Boring ID:	USMPDI-	Sample Type:	bag
Sample ID:	052SC-B-06-08-210428	Test Date:	05/18/21
Depth:	---	Test Id:	618026
Test Comment:	---		
Visual Description:	Moist, very dark grayish brown clay		
Sample Comment:	---		

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	4.4	95.6

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	99		
#40	0.42	99		
#60	0.25	99		
#100	0.15	98		
#140	0.11	97		
#200	0.075	96		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0328	80		
---	0.0202	62		
---	0.0122	47		
---	0.0092	37		
---	0.0065	29		
---	0.0047	26		
---	0.0034	20		
---	0.0014	14		

<u>Coefficients</u>	
D ₈₅ = 0.0427 mm	D ₃₀ = 0.0068 mm
D ₆₀ = 0.0188 mm	D ₁₅ = 0.0016 mm
D ₅₀ = 0.0134 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

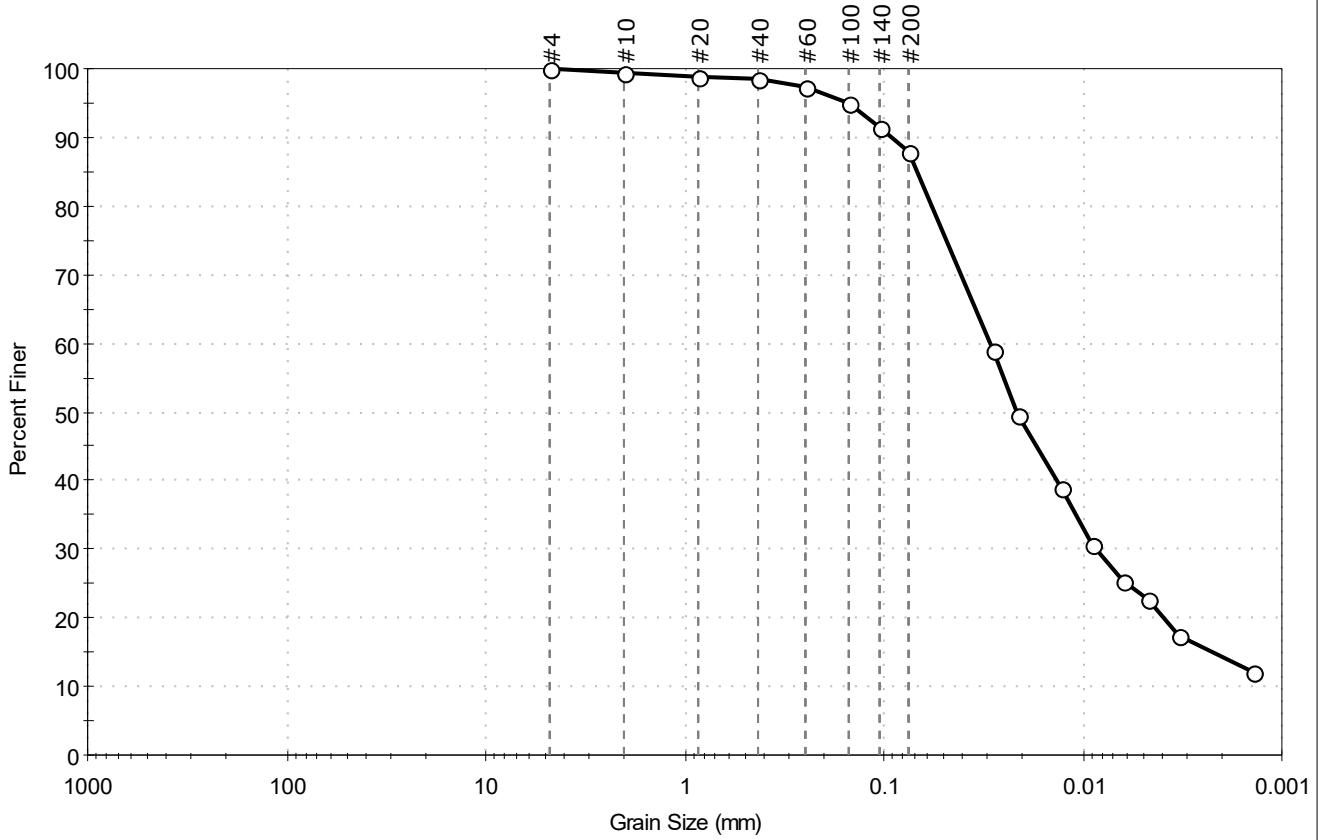
<u>Classification</u>	
<u>ASTM</u>	Fat CLAY (CH)
<u>AASHTO</u>	Clayey Soils (A-7-5 (62))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve



Client: Anchor QEA, LLC
 Project: GascoSiltronic: US Moorings 05062021
 Location: _____ Project No: GTX-313591
 Boring ID: USMPDI- Sample Type: bag Tested By: ckg
 Sample ID: 053SC-B-10-12-210428 Test Date: 05/18/21 Checked By: bfs
 Depth: --- Test Id: 618027
 Test Comment: ---
 Visual Description: Wet, very dark gray silt
 Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	12.2	87.8

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	99		
#20	0.85	99		
#40	0.42	99		
#60	0.25	97		
#100	0.15	95		
#140	0.11	92		
#200	0.075	88		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0284	59		
---	0.0212	49		
---	0.0129	39		
---	0.0091	31		
---	0.0063	25		
---	0.0047	23		
---	0.0033	17		
---	0.0014	12		

Coefficients	
D ₈₅ = 0.0683 mm	D ₃₀ = 0.0086 mm
D ₆₀ = 0.0295 mm	D ₁₅ = 0.0023 mm
D ₅₀ = 0.0215 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

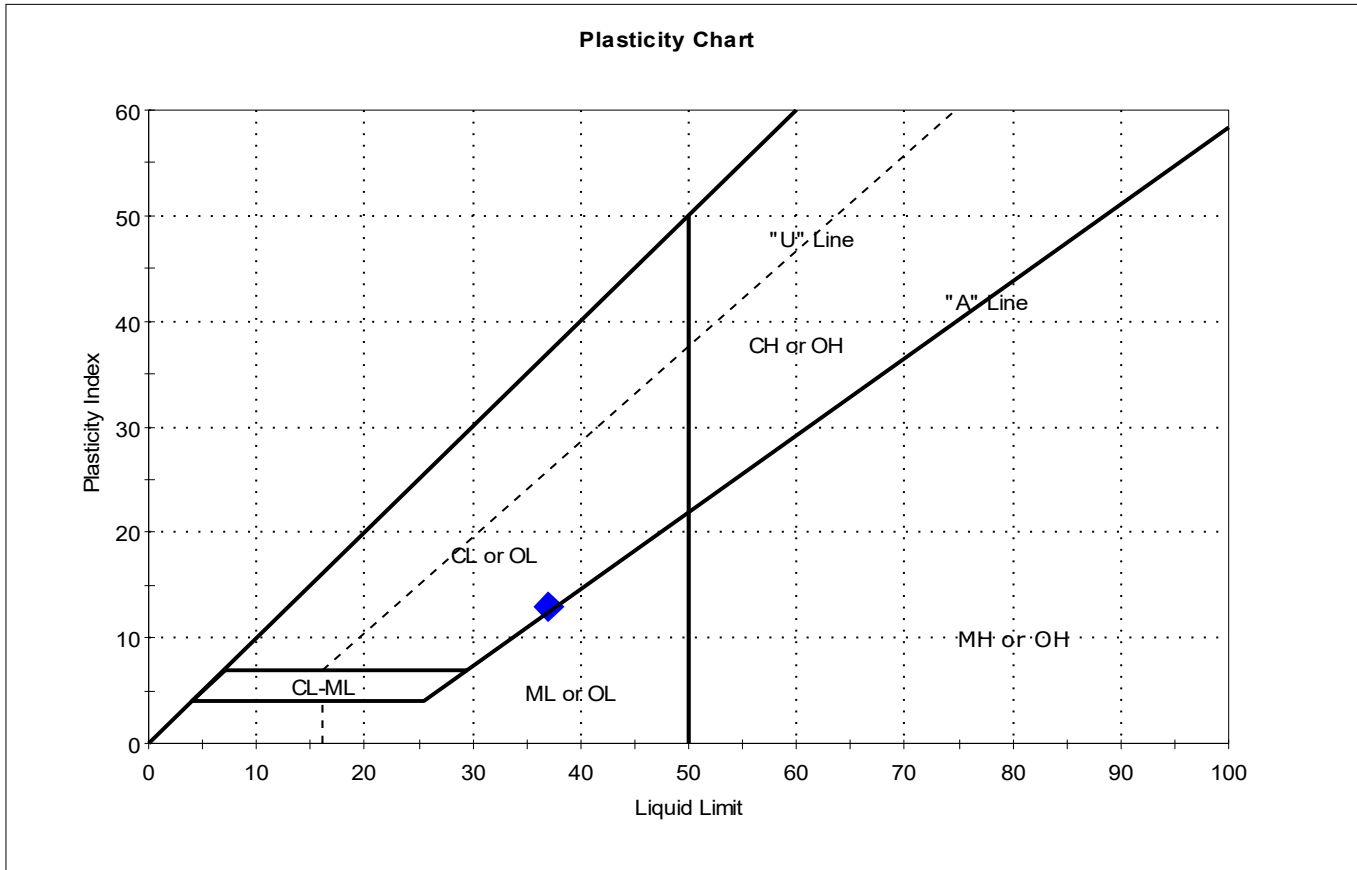
Classification	
ASTM	Elastic SILT (MH)
AASHTO	Clayey Soils (A-7-5 (33))

Sample/Test Description
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve



Client:	Anchor QEA, LLC		
Project:	GascoSiltronic: US Moorings 05062021		
Location:		Project No:	GTX-313591
Boring ID:	USMPDI-	Sample Type:	bag
Sample ID:	005SC-B-00-02-210502	Test Date:	05/13/21
Depth:	---	Checked By:	bfs
		Test Id:	617987
Test Comment:	---		
Visual Description:	Wet, very dark gray clayey sand		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



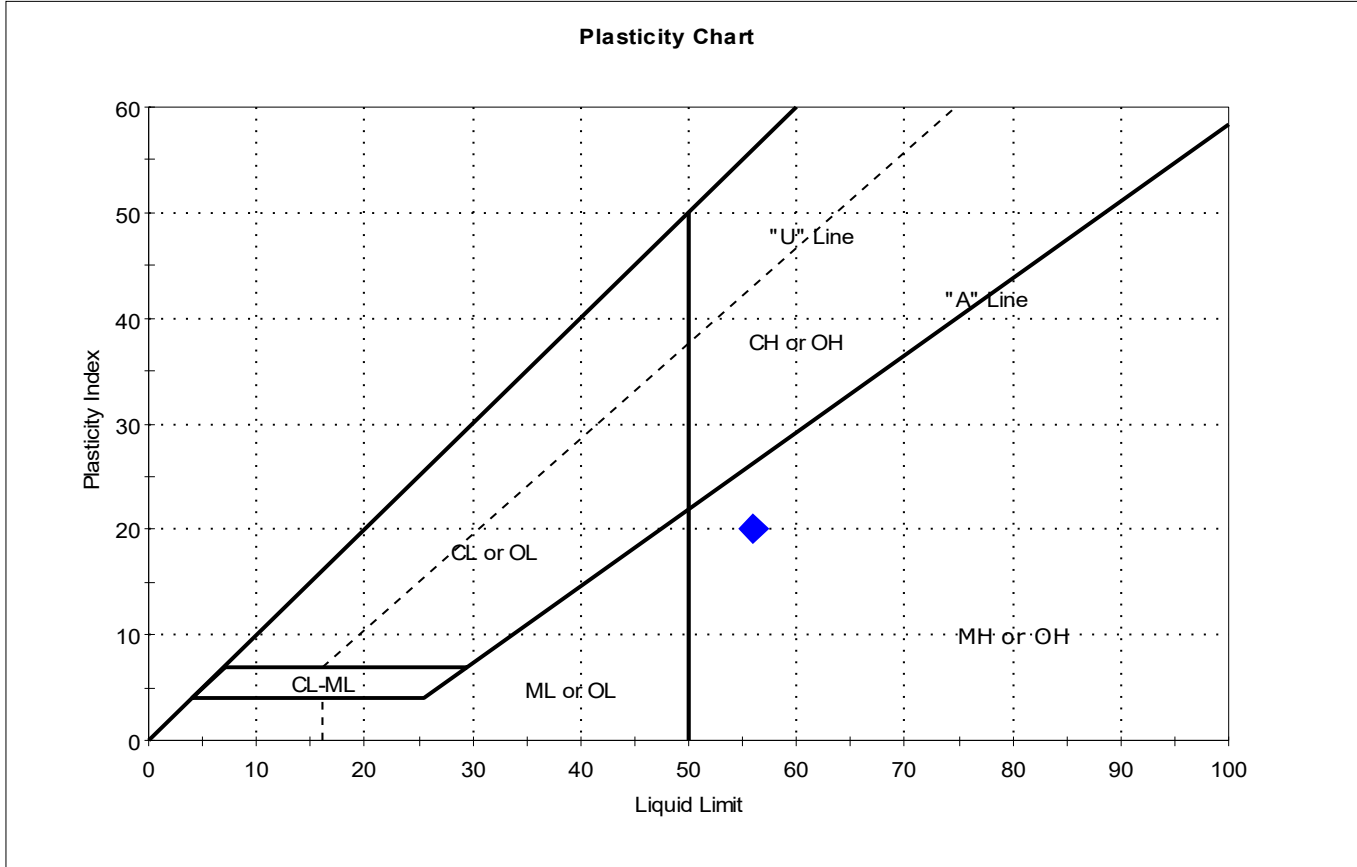
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	5SC-B-00-02-2105	USMPDI-	---	47	37	24	13	1.8	Clayey SAND (SC)

Sample Prepared using the WET method
 10% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: SLOW
 Toughness: LOW



Client:	Anchor QEA, LLC		
Project:	GascoSiltronic: US Moorings 05062021		
Location:		Project No:	GTX-313591
Boring ID:	USMPDI-	Sample Type:	bag
Sample ID:	007SC-B-04-06-210428	Test Date:	05/17/21
Depth:	---	Test Id:	618000
Test Comment:	---		
Visual Description:	Moist, dark grayish brown silt with sand		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



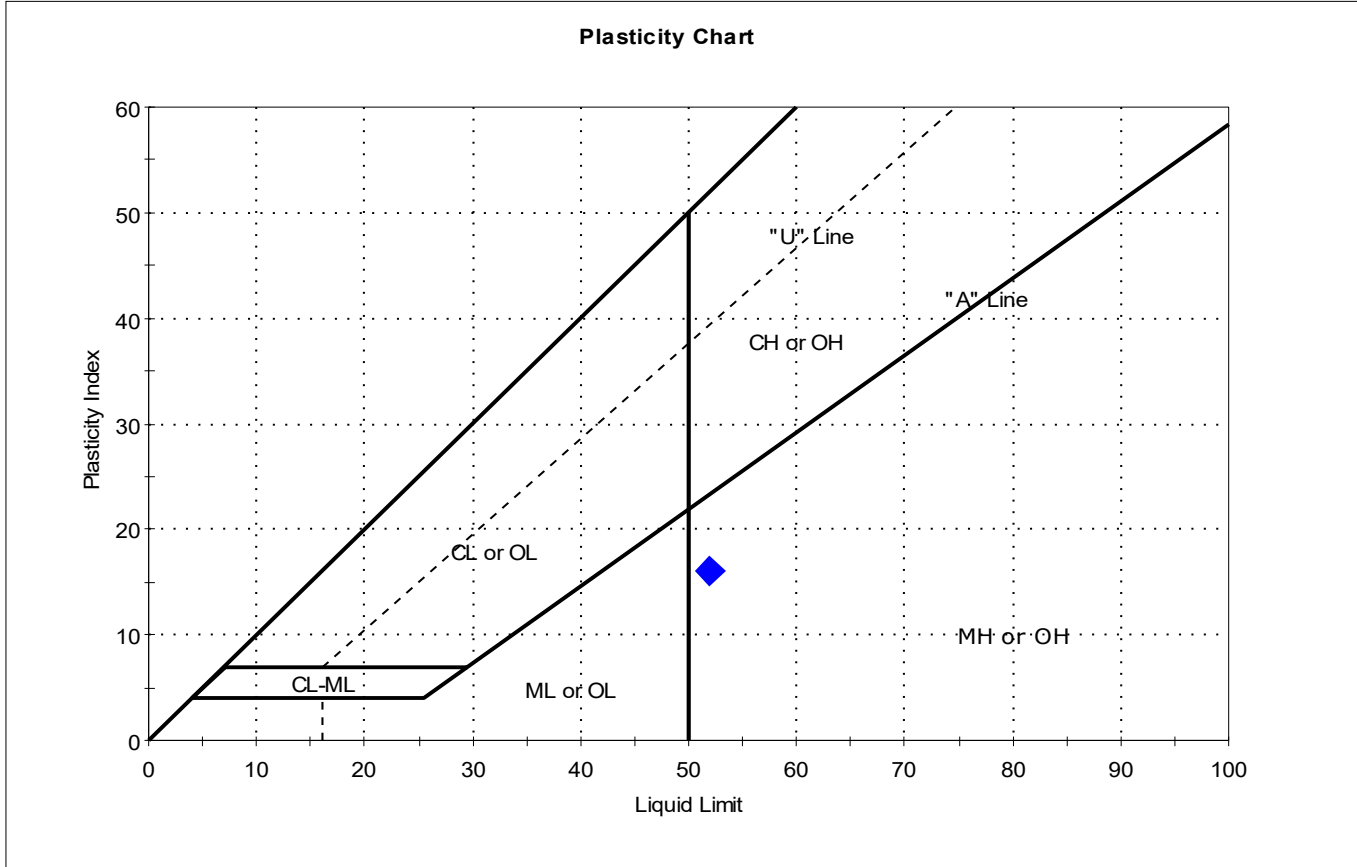
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	7SC-B-04-06-2104	USMPDI-	---	69	56	36	20	1.6	Elastic SILT with Sand (MH)

Sample Prepared using the WET method
 4% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: SLOW
 Toughness: LOW



Client:	Anchor QEA, LLC		
Project:	GascoSiltronic: US Moorings 05062021		
Location:		Project No:	GTX-313591
Boring ID:	USMPDI-	Sample Type:	bag
Sample ID:	008SC-B-02-3.8-210502	Test Date:	05/13/21
Depth:	---	Checked By:	bfs
		Test Id:	617988
Test Comment:	---		
Visual Description:	Wet, dark gray silt with sand		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



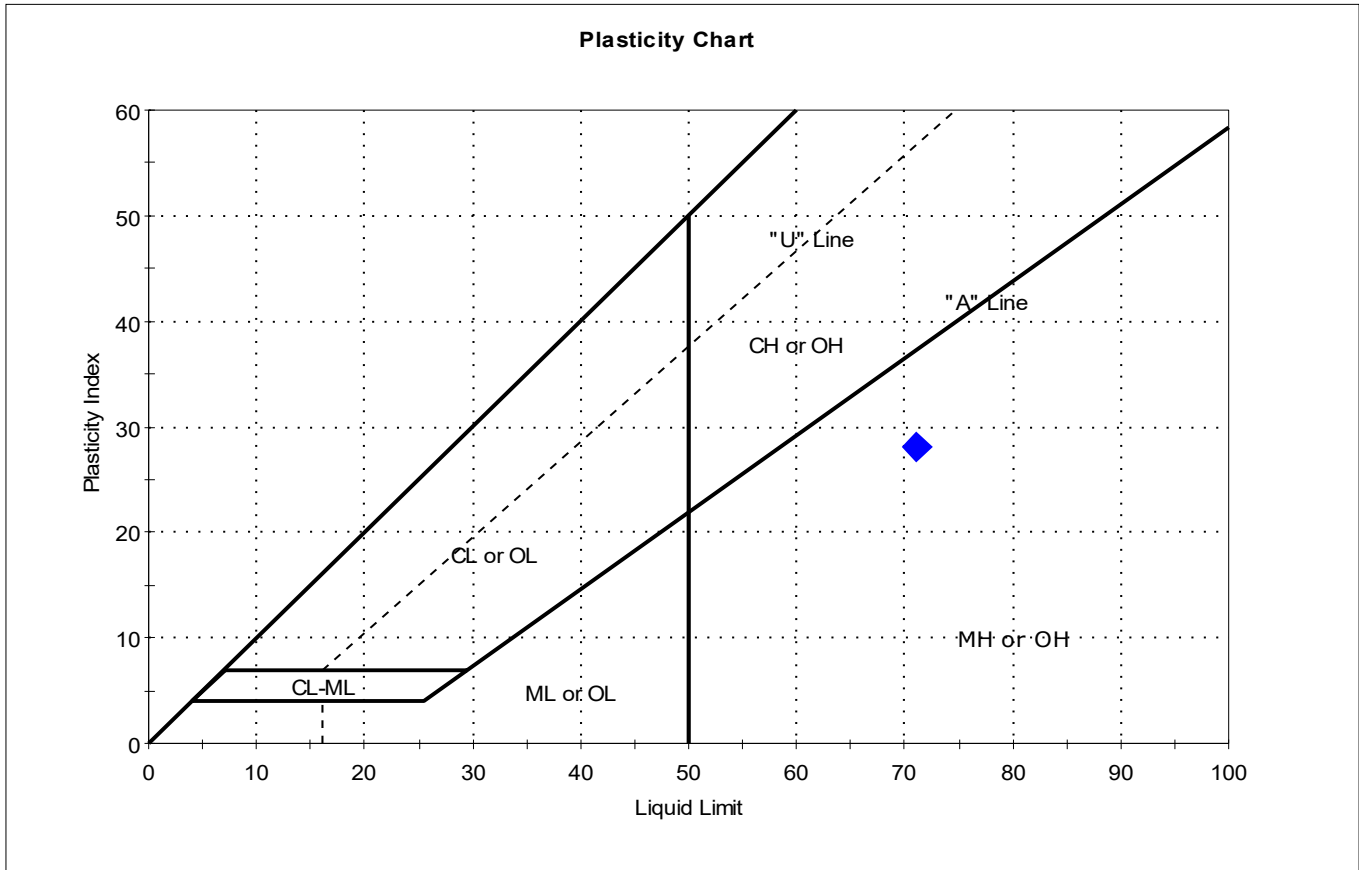
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	008SC-B-02-3.8-210502	USMPDI-	---	63	52	36	16	1.7	Elastic SILT with Sand (MH)

Sample Prepared using the WET method
 2% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: SLOW
 Toughness: LOW



Client:	Anchor QEA, LLC		
Project:	GascoSiltronic: US Moorings 05062021		
Location:		Project No:	GTX-313591
Boring ID:	USMPDI-	Sample Type:	bag
Sample ID:	010SC-B-10-11.5-210502	Test Date:	05/13/21
Depth:	---	Test Id:	617989
Test Comment:	---		
Visual Description:	Moist, dark olive brown silt		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



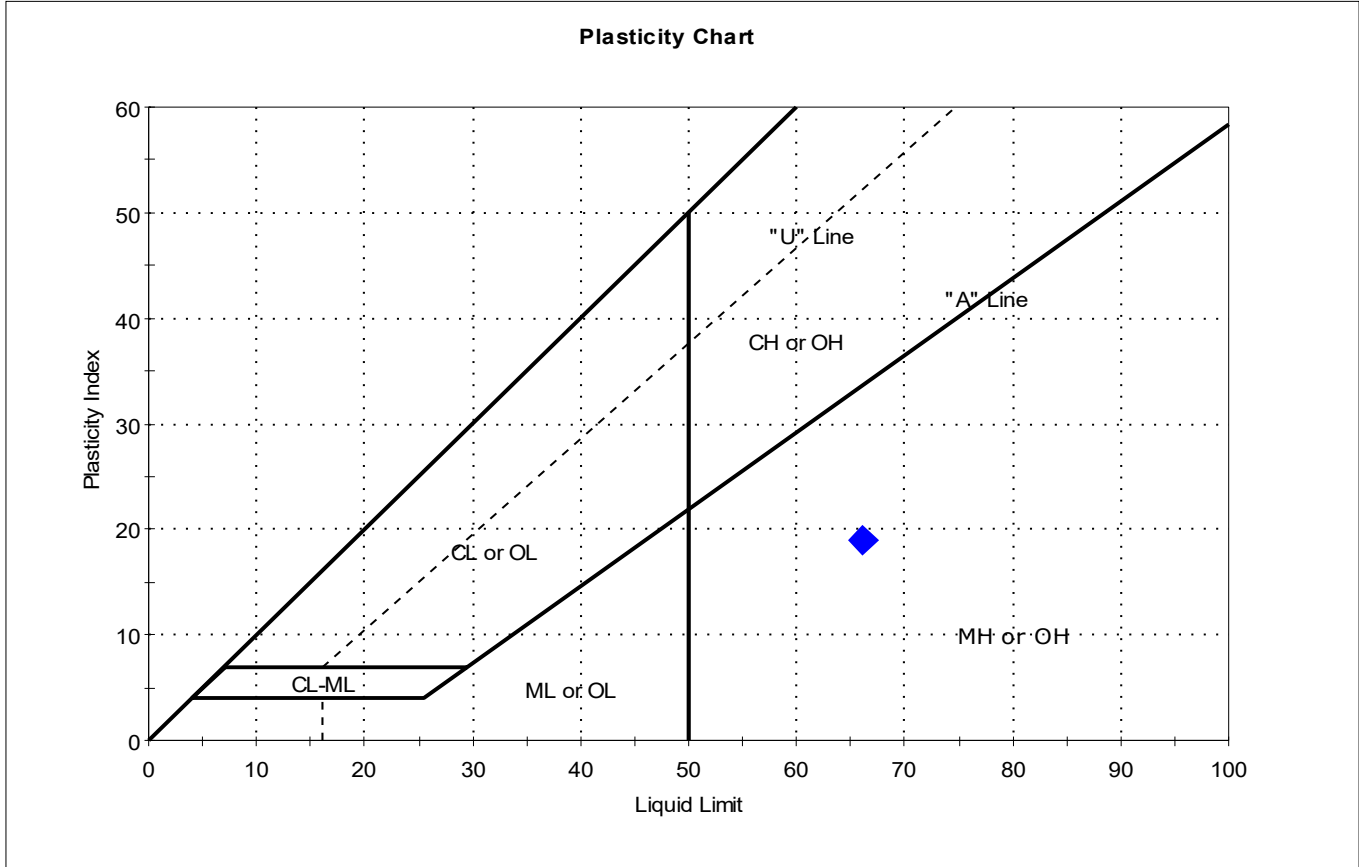
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	SC-B-10-11.5-210	USMPDI-	---	69	71	43	28	0.9	Elastic SILT (MH)

Sample Prepared using the WET method
 0% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: SLOW
 Toughness: LOW



Client:	Anchor QEA, LLC		
Project:	GascoSiltronic: US Moorings 05062021		
Location:		Project No:	GTX-313591
Boring ID:	USMPDI-	Sample Type:	bag
Sample ID:	015SC-B-02-05-210501	Test Date:	05/13/21
Depth:	---	Checked By:	bfs
		Test Id:	617991
Test Comment:	---		
Visual Description:	Wet, dark olive brown silt		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



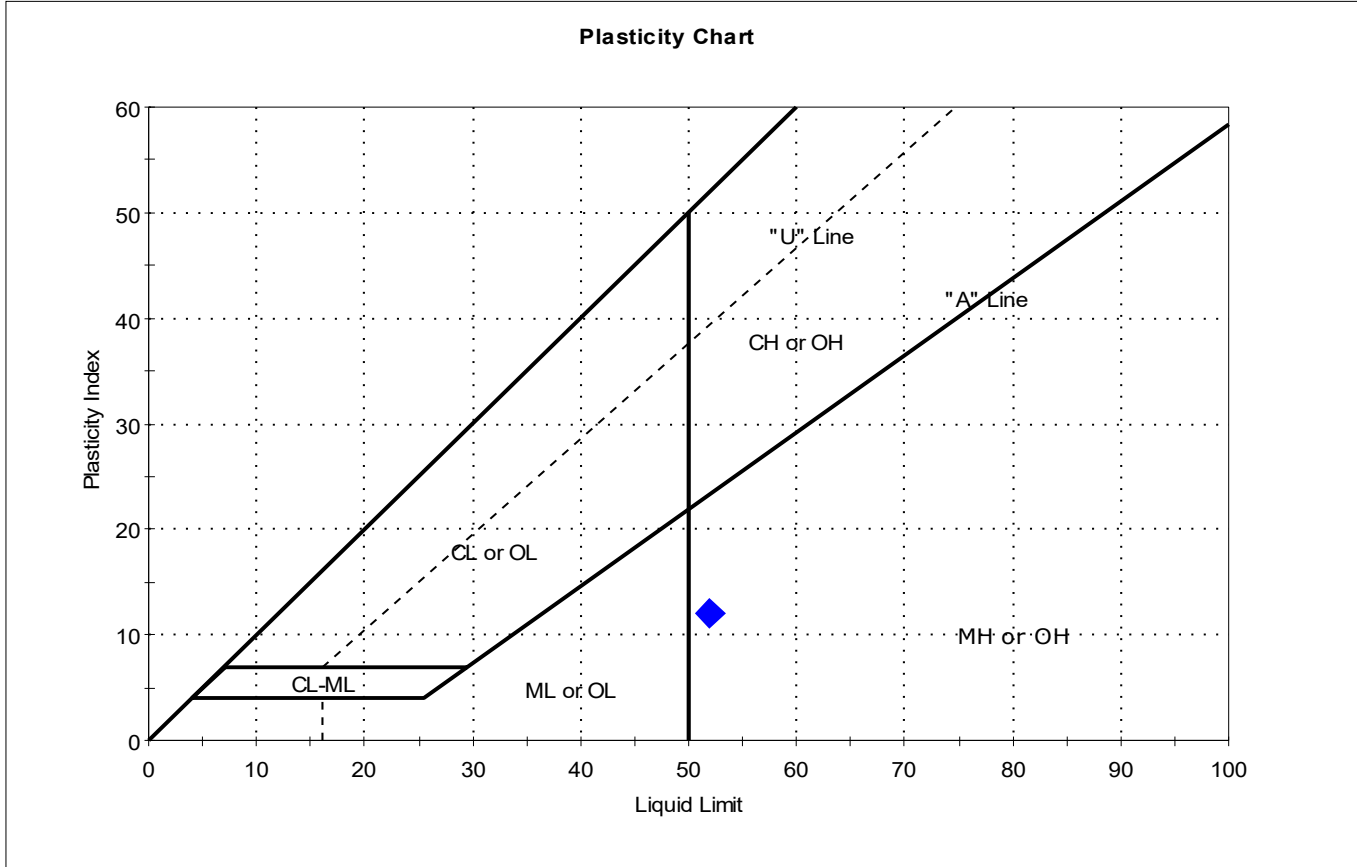
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	5SC-B-02-05-2105	USMPDI-	---	78	66	47	19	1.6	Elastic SILT (MH)

Sample Prepared using the WET method
 2% Retained on #40 Sieve
 Dry Strength: HIGH
 Dilatancy: n/a
 Toughness: n/a



Client:	Anchor QEA, LLC		
Project:	GascoSiltronic: US Moorings 05062021		
Location:		Project No:	GTX-313591
Boring ID:	USMPDI-	Sample Type:	bag
Sample ID:	016SC-B-05-07-210501	Test Date:	05/13/21
Depth:	---	Checked By:	bfs
		Test Id:	617992
Test Comment:	---		
Visual Description:	Wet, dark gray silt		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



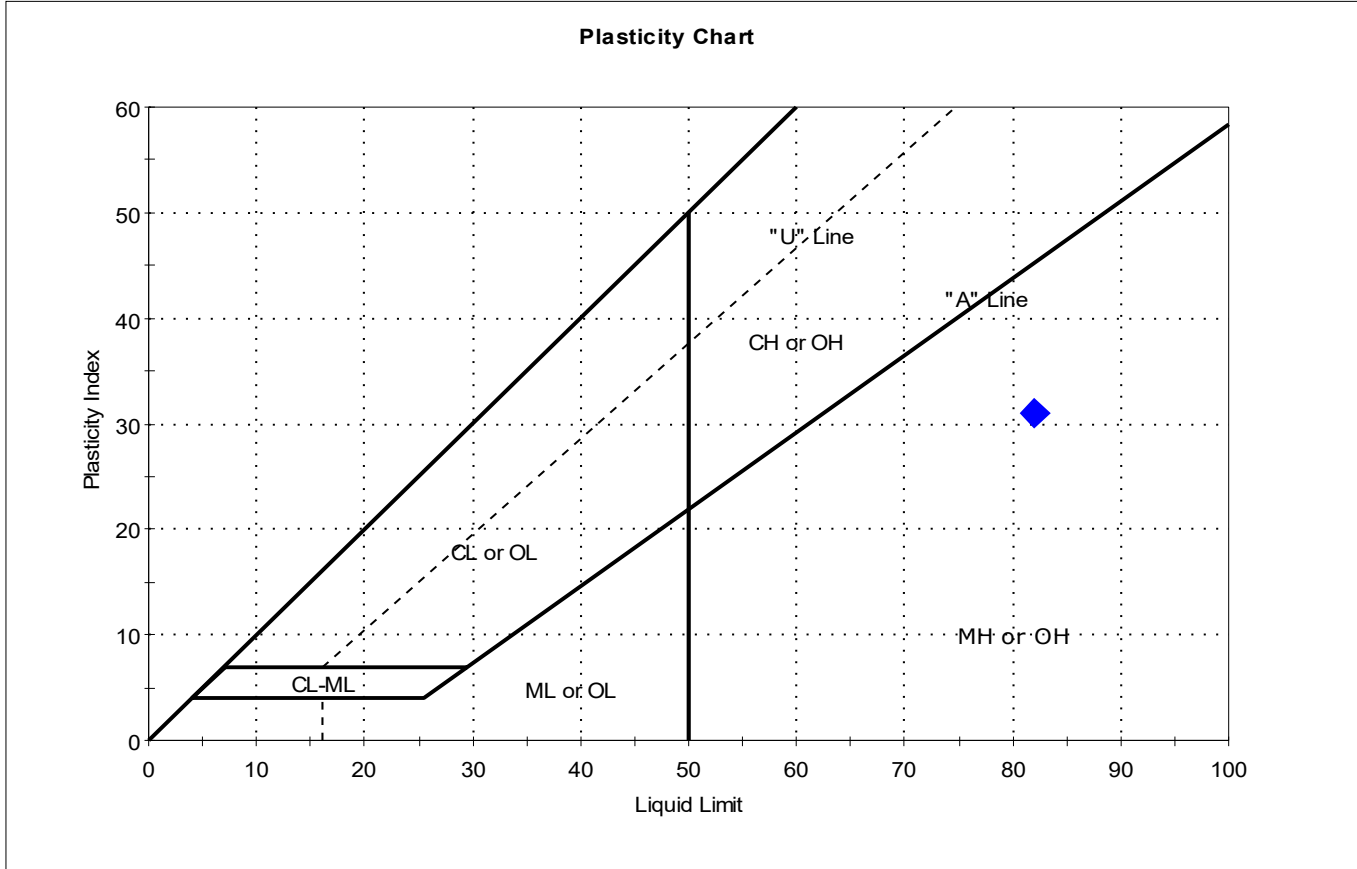
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	6SC-B-05-07-2105	USMPDI-	---	65	52	40	12	2.1	Elastic SILT (MH)

Sample Prepared using the WET method
 1% Retained on #40 Sieve
 Dry Strength: MEDIUM
 Dilatancy: SLOW
 Toughness: LOW



Client: Anchor QEA, LLC	Project: GascoSiltronic: US Moorings 05062021	Project No: GTX-313591
Location:		
Boring ID: USMPDI-	Sample Type: bag	Tested By: cam
Sample ID: 016SG-210413	Test Date: 05/13/21	Checked By: bfs
Depth: ---	Test Id: 618006	
Test Comment: ---		
Visual Description: Wet, dark gray silt		
Sample Comment: ---		

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	016SG-210413	USMPDI-	---	123	82	51	31	2.3	Elastic SILT (MH)

Sample Prepared using the WET method
 1% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: SLOW
 Toughness: LOW



Client:	Anchor QEA, LLC		
Project:	GascoSiltronic: US Moorings 05062021		
Location:		Project No:	GTX-313591
Boring ID:	USMPDI-	Sample Type:	bag
Sample ID:	017SC-B-16-17.8-210429	Test Date:	05/13/21
Depth :	---	Test Id:	617998
Test Comment:	---		
Visual Description:	Moist, dark brown silty sand		
Sample Comment:	---		

Atterberg Limits - ASTM D4318

Sample Determined to be non-plastic

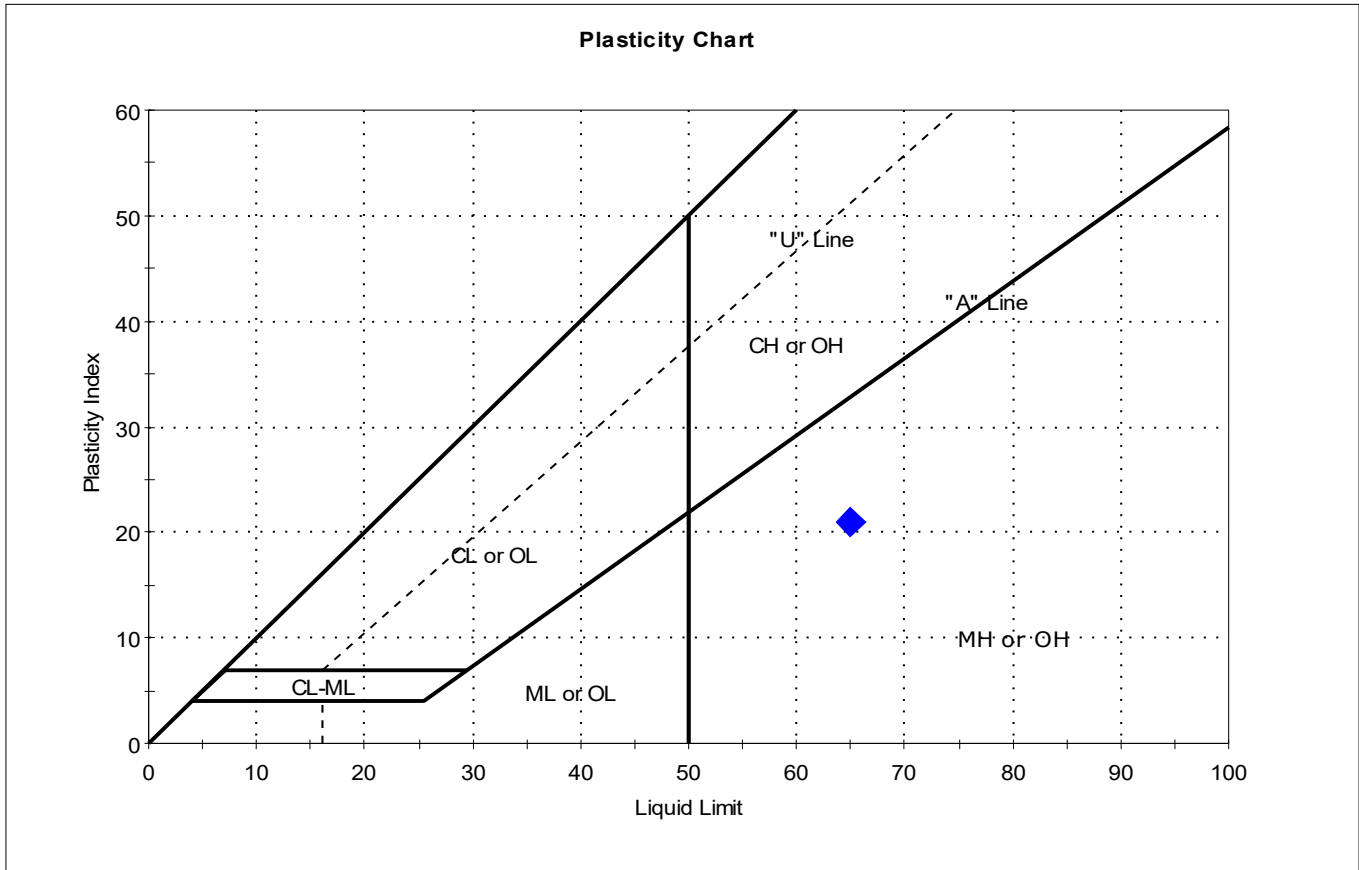
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	SC-B-16-17.8-210	USMPDI-	---	43	n/a	n/a	n/a	n/a	Silty SAND (SM)

1% Retained on #40 Sieve
Dry Strength: LOW
Dilatancy: RAPID
Toughness: n/a
The sample was determined to be Non-Plastic



Client:	Anchor QEA, LLC		
Project:	GascoSiltronic: US Moorings 05062021		
Location:		Project No:	GTX-313591
Boring ID:	USMPDI-	Sample Type:	bag
Sample ID:	019SC-B-00-02-210502	Test Date:	05/13/21
Depth:	---	Checked By:	bfs
		Test Id:	617990
Test Comment:	---		
Visual Description:	Wet, dark gray silt		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



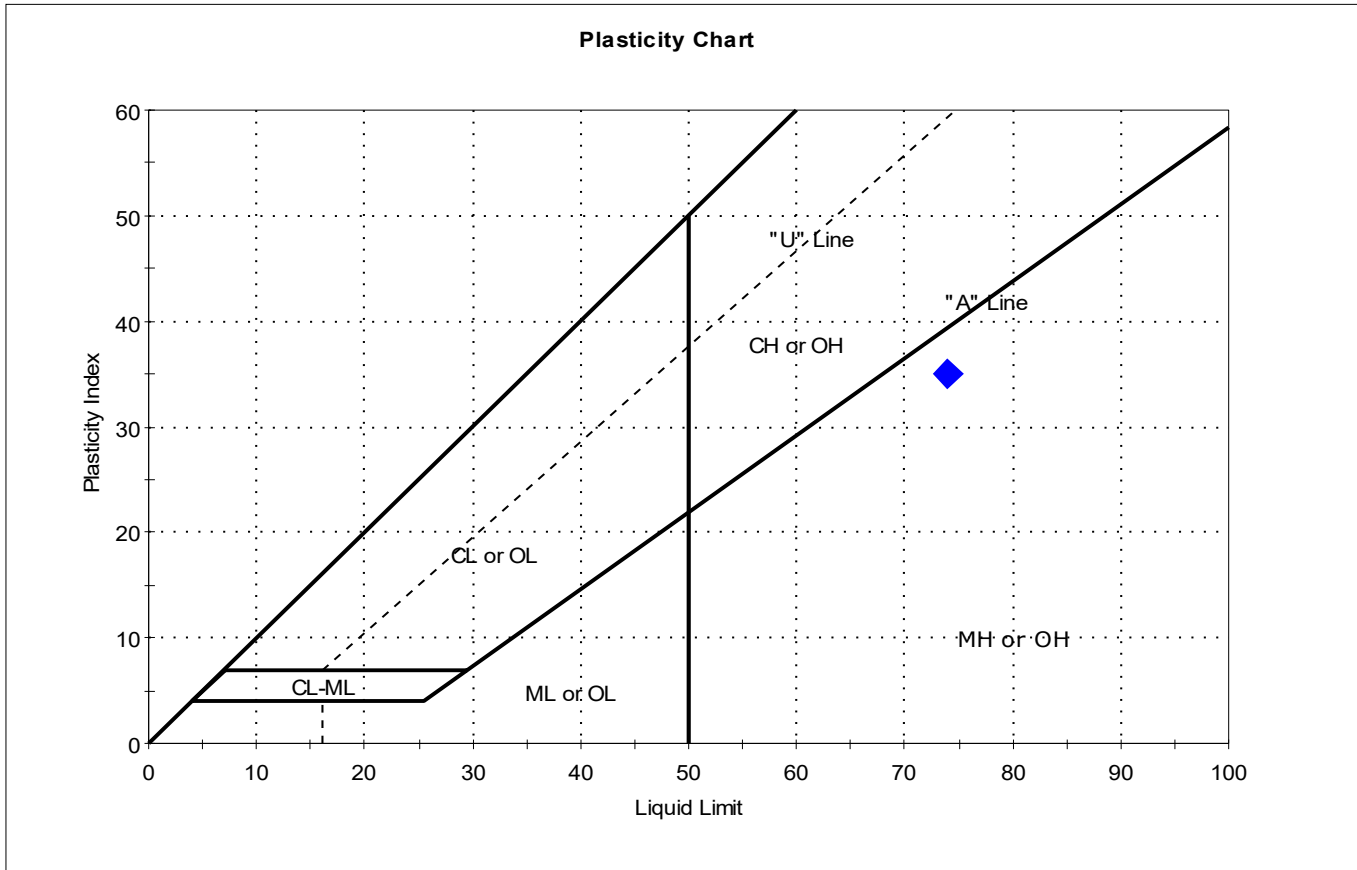
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	9SC-B-00-02-2105	USMPDI-	---	92	65	44	21	2.3	Elastic SILT (MH)

Sample Prepared using the WET method
 0% Retained on #40 Sieve
 Dry Strength: HIGH
 Dilatancy: SLOW
 Toughness: LOW



Client:	Anchor QEA, LLC		
Project:	GascoSiltronic: US Moorings 05062021		
Location:		Project No:	GTX-313591
Boring ID:	USMPDI-	Sample Type:	bag
Sample ID:	020SC-B-10-13-210429	Test Date:	05/13/21
Depth:	---	Checked By:	bfs
		Test Id:	617999
Test Comment:	---		
Visual Description:	Moist, very dark gray silt with sand		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



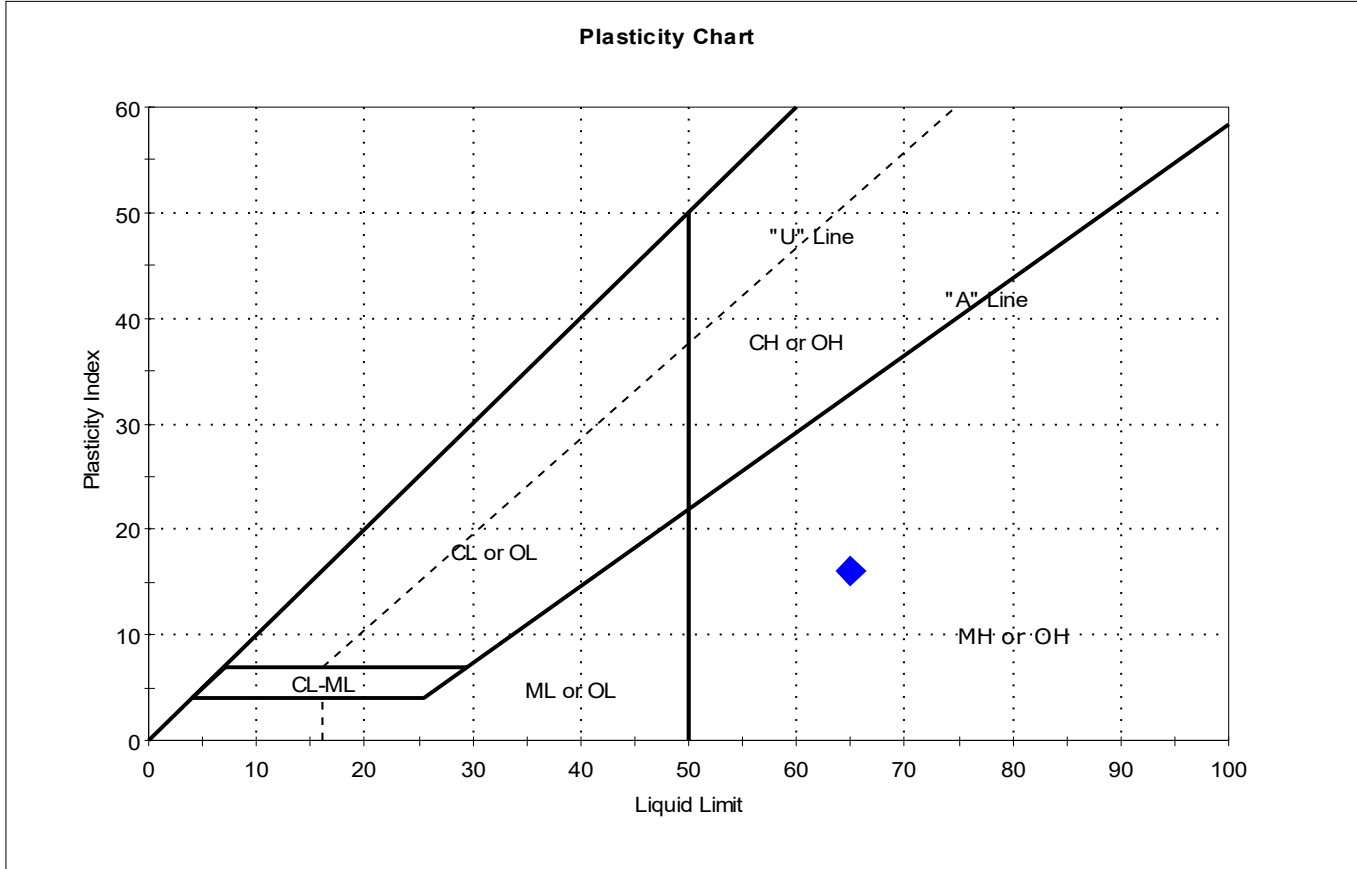
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	0SC-B-10-13-2104	USMPDI-	---	68	74	39	35	0.8	Elastic SILT with Sand (MH)

Sample Prepared using the WET method
 1% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: SLOW
 Toughness: LOW



Client:	Anchor QEA, LLC		
Project:	GascoSiltronic: US Moorings 05062021		
Location:		Project No:	GTX-313591
Boring ID:	USMPDI-	Sample Type:	bag
Sample ID:	024SC-B-00-02-210430	Test Date:	05/12/21
Depth :	---	Test Id:	617995
Test Comment:	---		
Visual Description:	Wet, dark olive brown silt		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



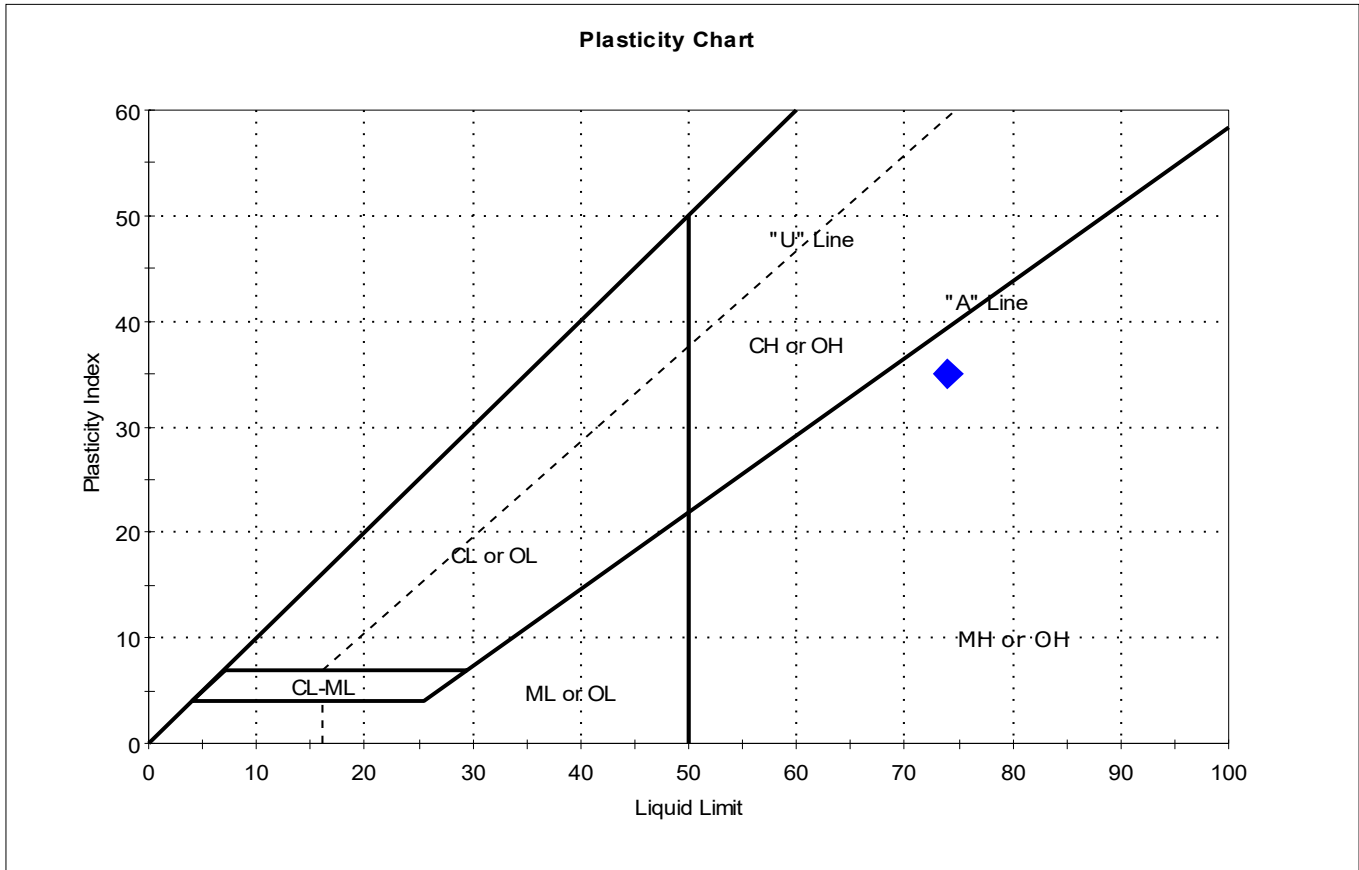
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	4SC-B-00-02-2104	USMPDI-	---	90	65	49	16	2.6	Elastic SILT (MH)

Sample Prepared using the WET method
 2% Retained on #40 Sieve
 Dry Strength: HIGH
 Dilatancy: SLOW
 Toughness: LOW



Client:	Anchor QEA, LLC		
Project:	GascoSiltronic: US Moorings 05062021		
Location:		Project No:	GTX-313591
Boring ID:	USMPDI-	Sample Type:	bag
Sample ID:	025SC-B-07-10-210428	Test Date:	05/13/21
Depth:	---	Checked By:	bfs
		Test Id:	618001
Test Comment:	---		
Visual Description:	Moist, dark grayish brown silt		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



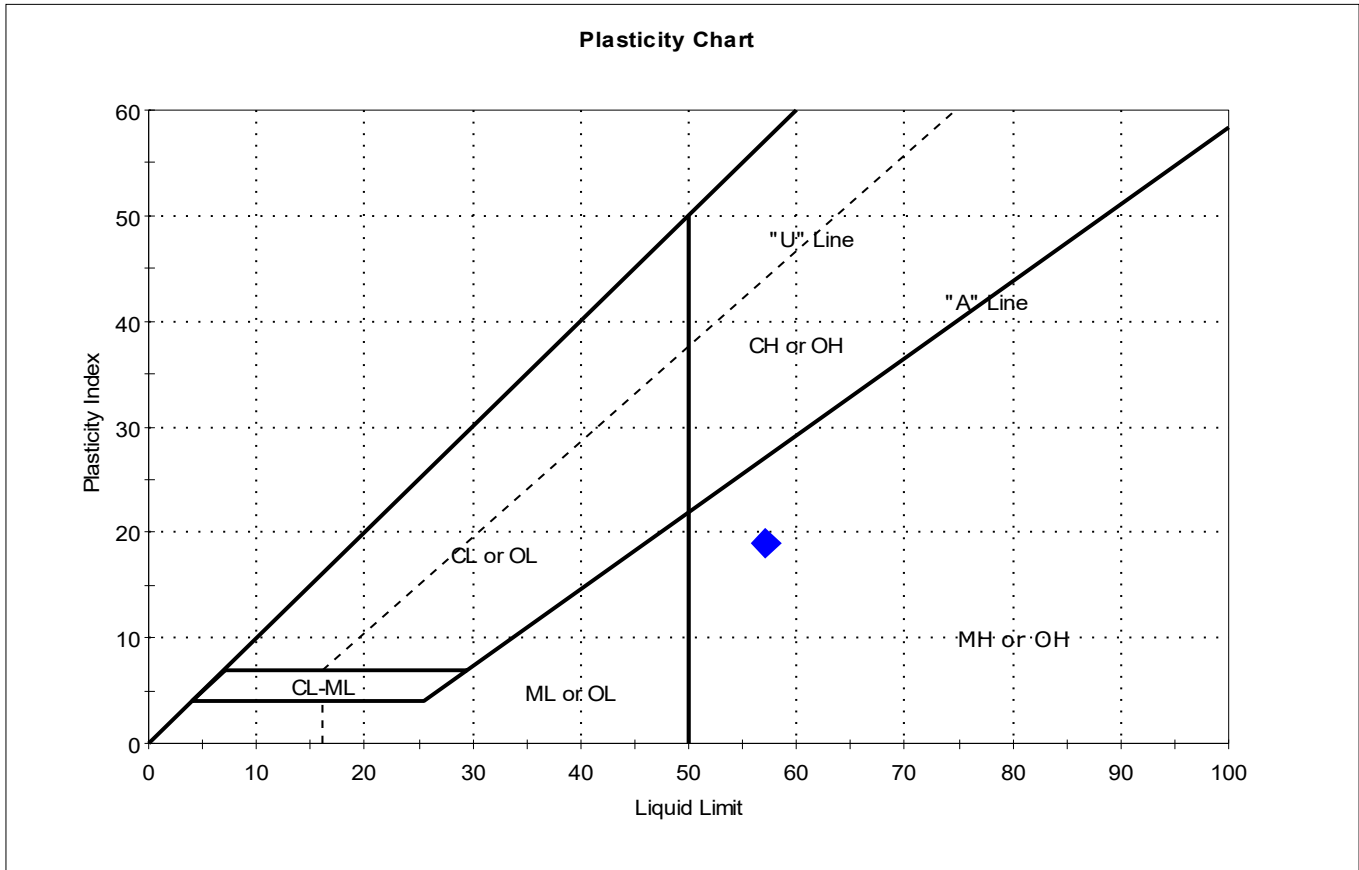
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	5SC-B-07-10-2104	USMPDI-	---	64	74	39	35	0.7	Elastic SILT (MH)

Sample Prepared using the WET method
 0% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: SLOW
 Toughness: LOW



Client:	Anchor QEA, LLC		
Project:	GascoSiltronic: US Moorings 05062021		
Location:		Project No:	GTX-313591
Boring ID:	USMPDI-	Sample Type:	bag
Sample ID:	028SC-B-02-05-210504	Test Date:	05/12/21
Depth:	---	Checked By:	bfs
		Test Id:	617983
Test Comment:	---		
Visual Description:	Wet, dark olive gray silt		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



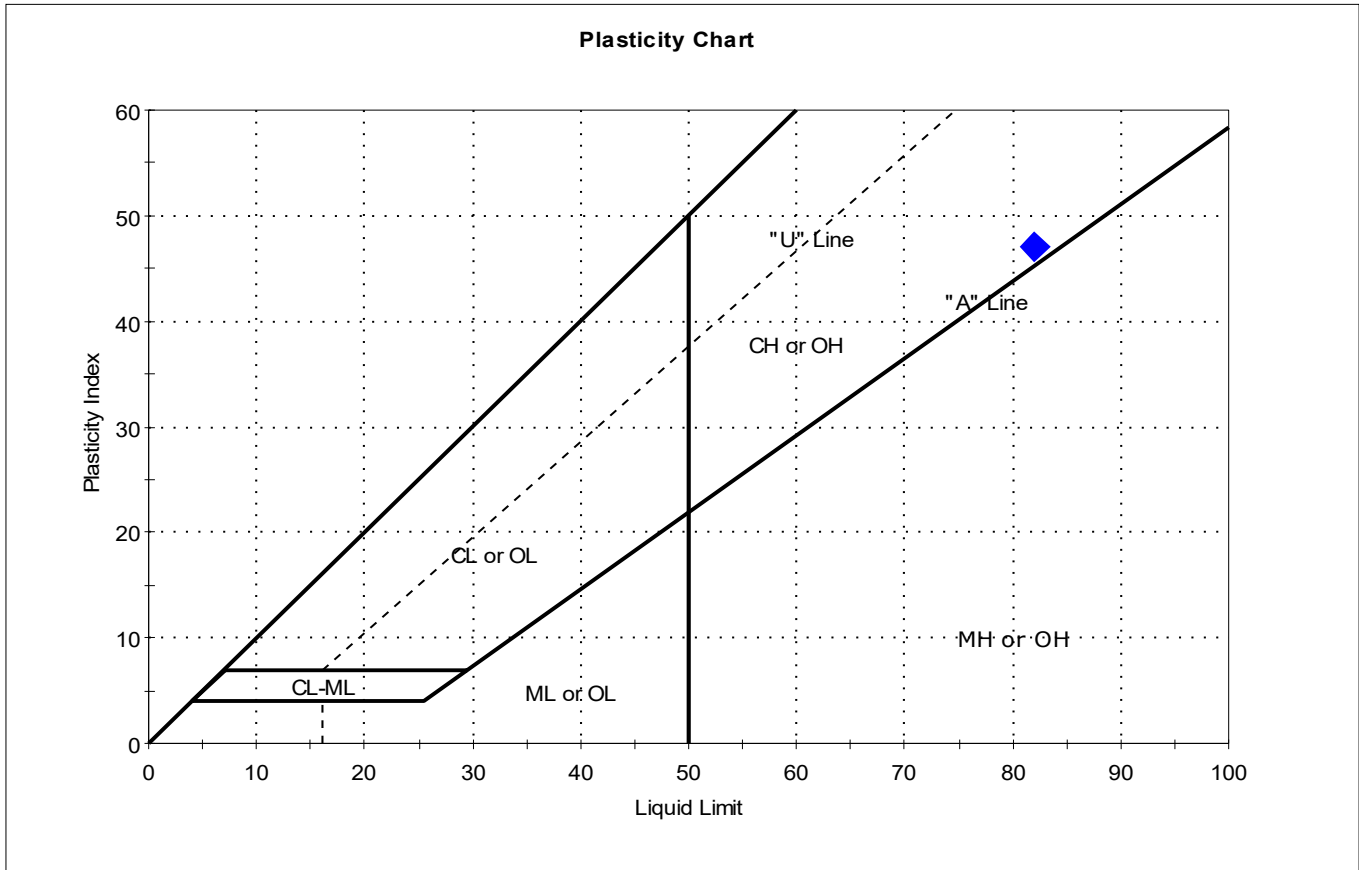
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	8SC-B-02-05-2105	USMPDI-	---	78	57	38	19	2.1	Elastic SILT (MH)

Sample Prepared using the WET method
 0% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: SLOW
 Toughness: LOW



Client:	Anchor QEA, LLC		
Project:	GascoSiltronic: US Moorings 05062021		
Location:		Project No:	GTX-313591
Boring ID:	USMPDI-	Sample Type:	bag
Sample ID:	029SC-B-05-07-210430	Test Date:	05/13/21
Depth:	---	Checked By:	bfs
		Test Id:	617996
Test Comment:	---		
Visual Description:	Wet, dark olive gray clay		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



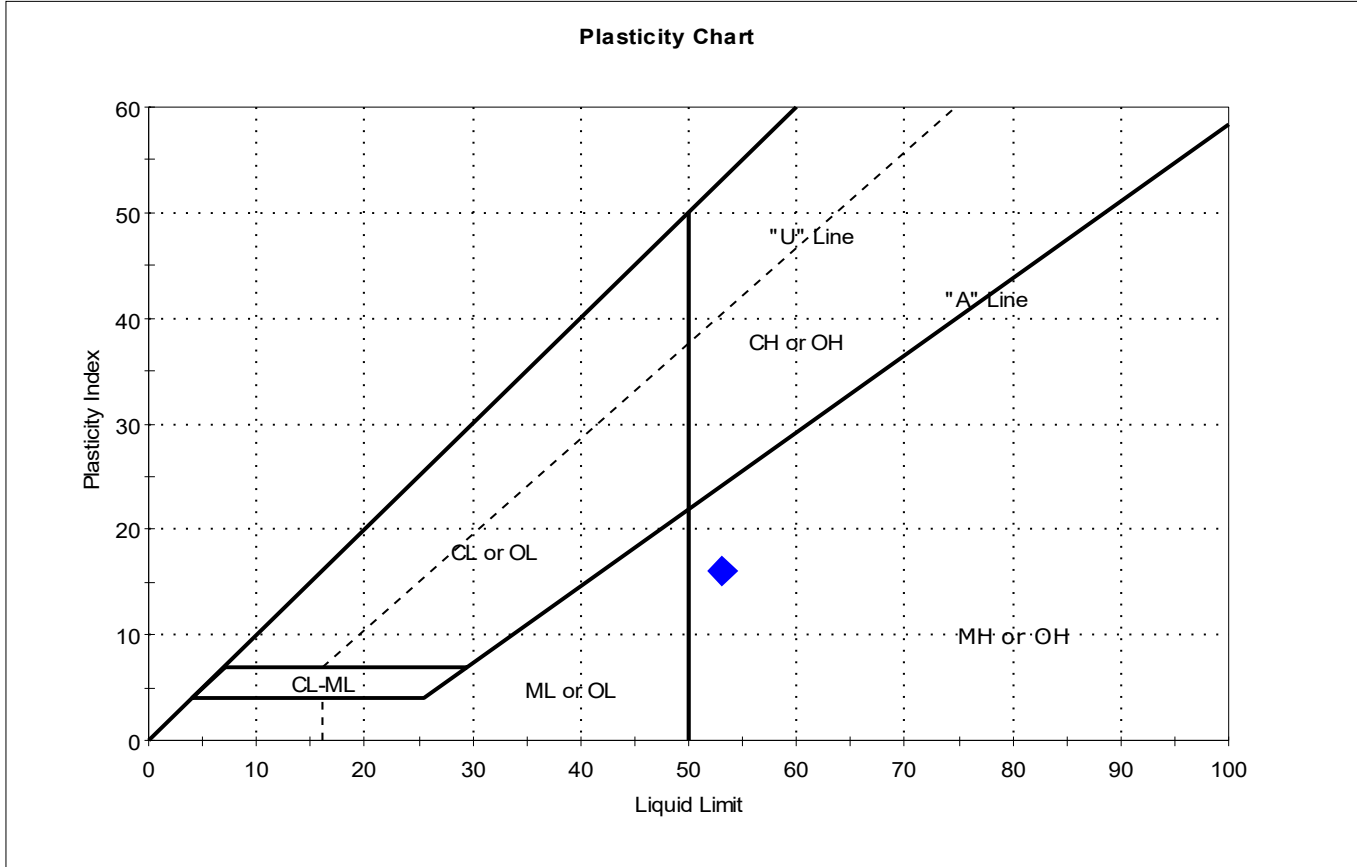
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	9SC-B-05-07-2104	USMPDI-	---	86	82	35	47	1.1	Fat CLAY (CH)

Sample Prepared using the WET method
 0% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: SLOW
 Toughness: LOW



Client:	Anchor QEA, LLC		
Project:	GascoSiltronic: US Moorings 05062021		
Location:		Project No:	GTX-313591
Boring ID:	USMPDI-	Sample Type:	bag
Sample ID:	030SC-B-00-02-210503	Test Date:	05/14/21
Depth:	---	Checked By:	bfs
		Test Id:	617986
Test Comment:	---		
Visual Description:	Wet, dark olive brown silt with sand		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



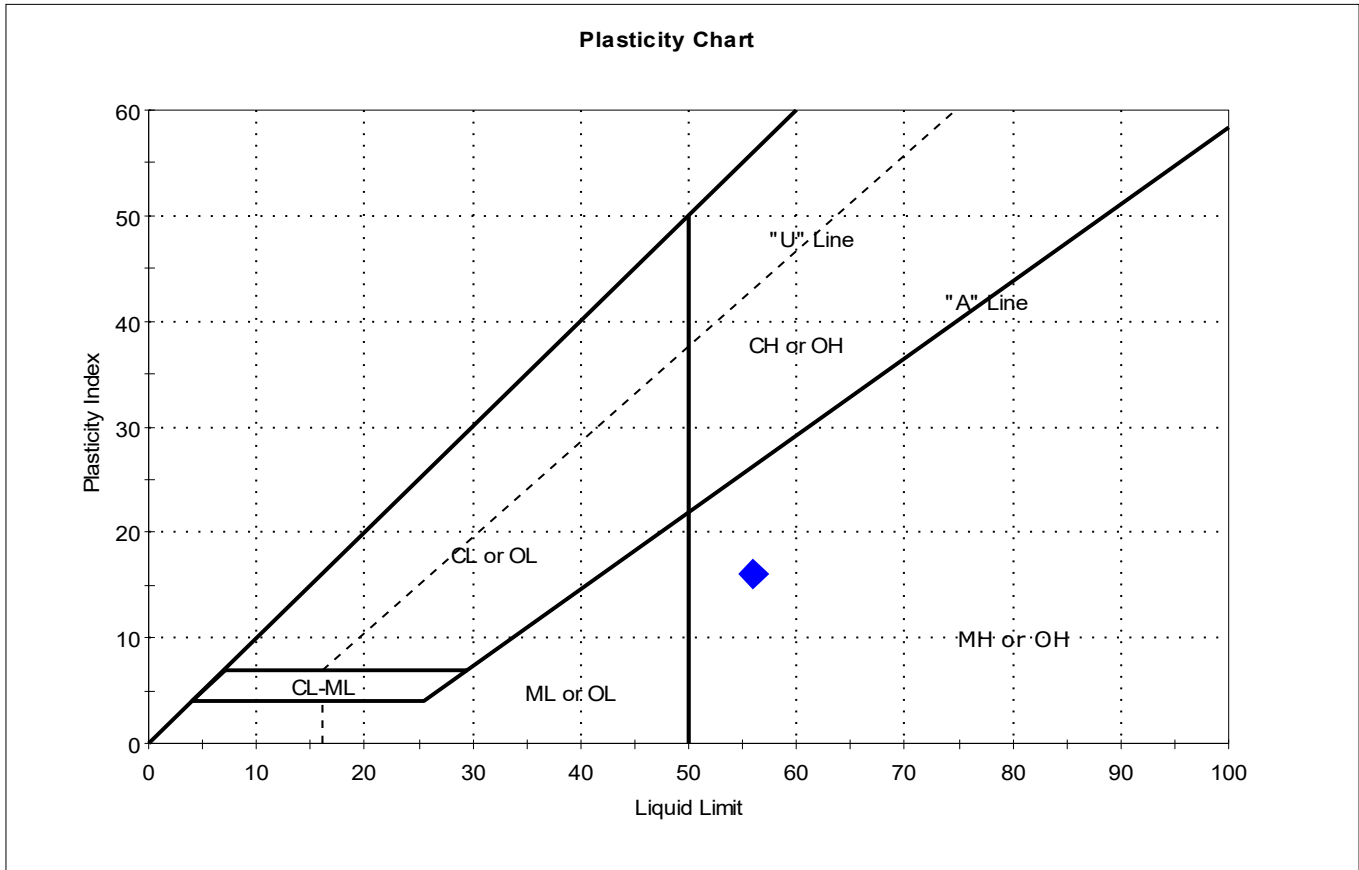
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	030SC-B-00-02-210503	USMPDI-	---	76	53	37	16	2.4	Elastic SILT with Sand (MH)

Sample Prepared using the WET method
 3% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: SLOW
 Toughness: LOW



Client:	Anchor QEA, LLC		
Project:	GascoSiltronic: US Moorings 05062021		
Location:		Project No:	GTX-313591
Boring ID:	USMPDI-	Sample Type:	bag
Sample ID:	031SC-B-00-02-210504	Test Date:	05/13/21
Depth :	---	Checked By:	bfs
		Test Id:	617984
Test Comment:	---		
Visual Description:	Wet, dark olive gray silt		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



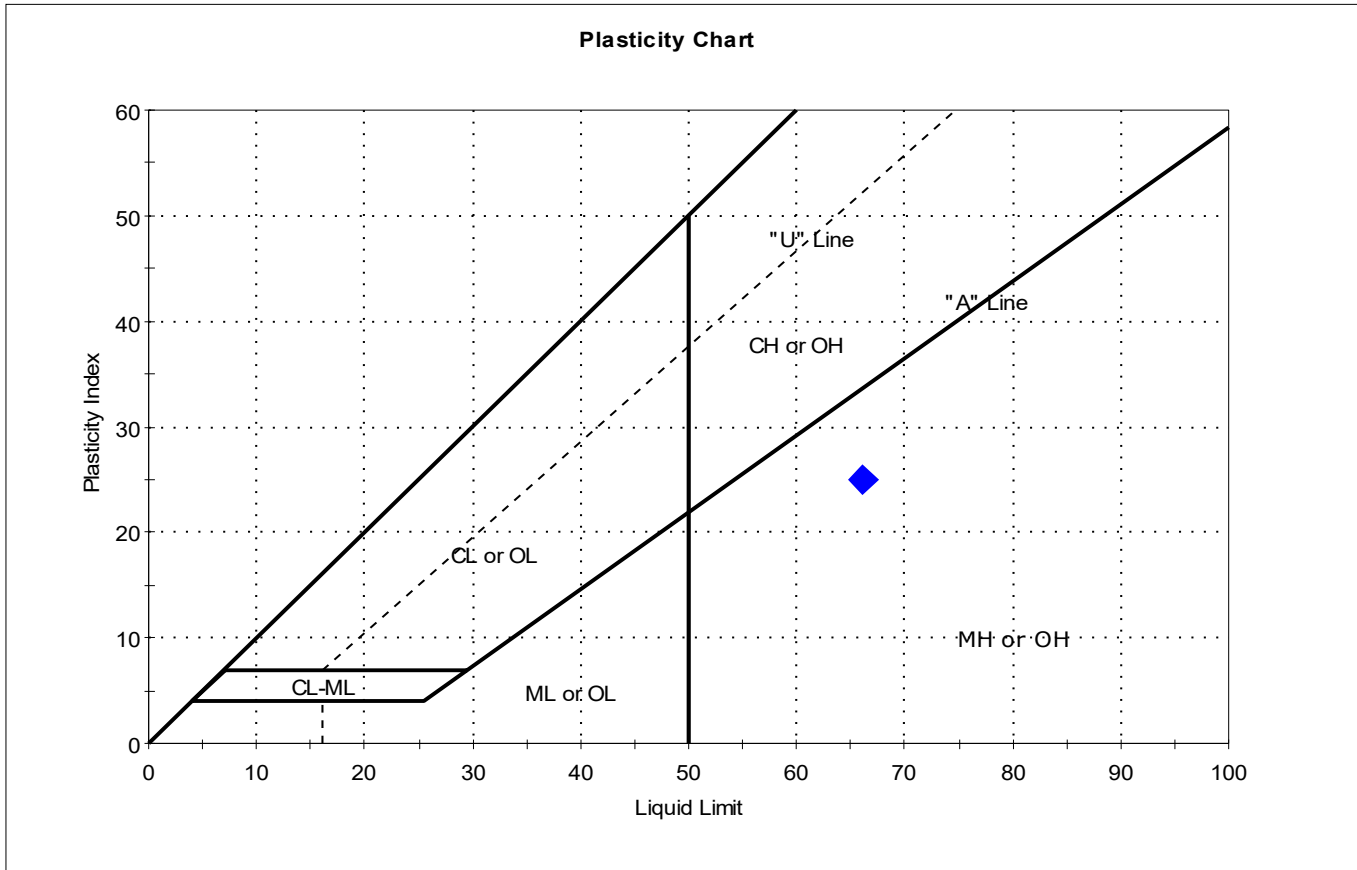
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	1SC-B-00-02-2105	USMPDI-	---	96	56	40	16	3.5	Elastic SILT (MH)

Sample Prepared using the WET method
 0% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: SLOW
 Toughness: LOW



Client:	Anchor QEA, LLC		
Project:	GascoSiltronic: US Moorings 05062021		
Location:		Project No:	GTX-313591
Boring ID:	USMPDI-	Sample Type:	bag
Sample ID:	033SC-B-06-08-210427	Test Date:	05/13/21
Depth:	---	Checked By:	bfs
		Test Id:	618004
Test Comment:	---		
Visual Description:	Moist, grayish brown silt with sand		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



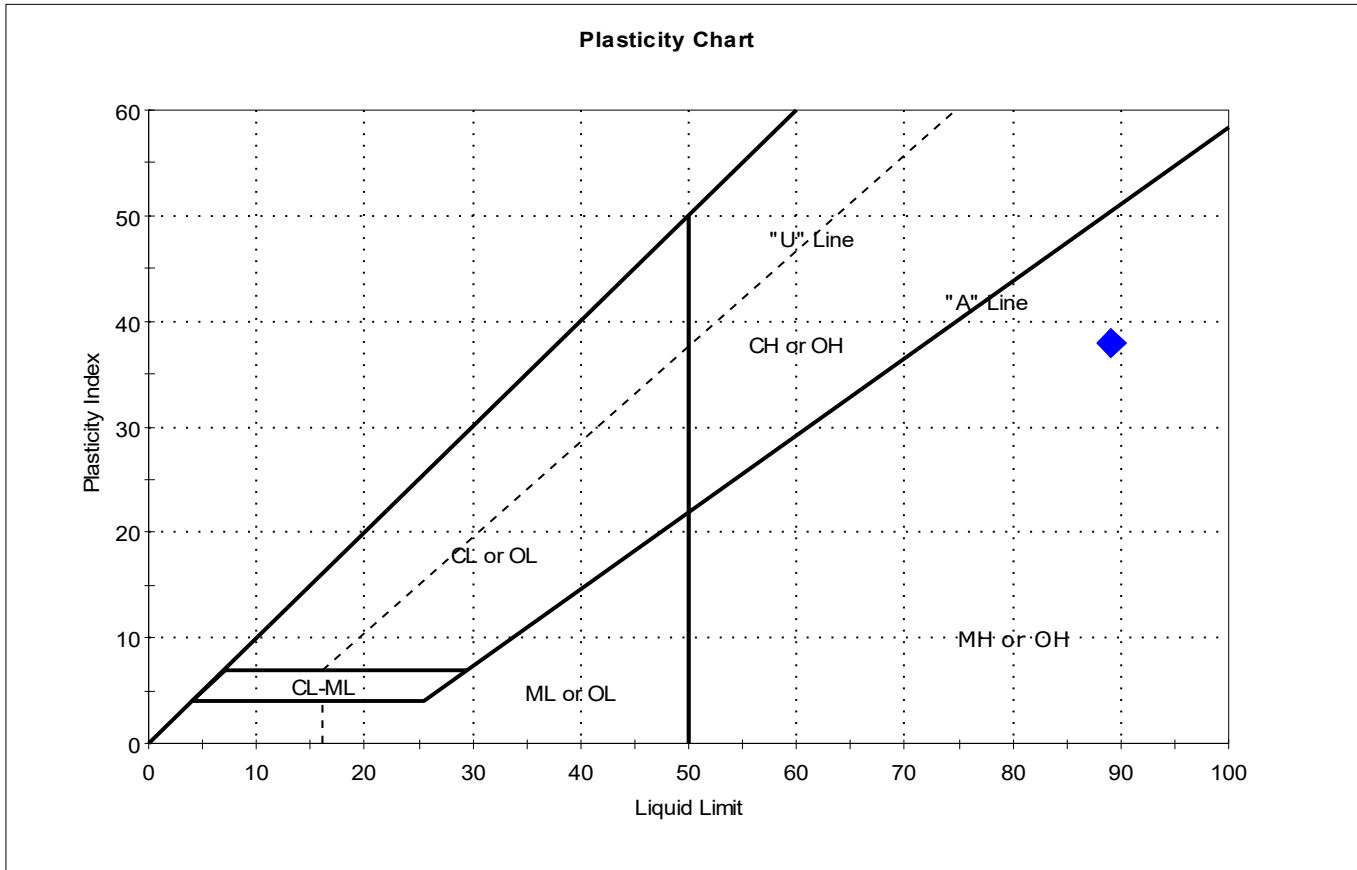
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	3SC-B-06-08-2104	USMPDI-	---	65	66	41	25	1	Elastic SILT with Sand (MH)

Sample Prepared using the WET method
 2% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: SLOW
 Toughness: LOW



Client:	Anchor QEA, LLC		
Project:	GascoSiltronic: US Moorings 05062021		
Location:		Project No:	GTX-313591
Boring ID:	USMPDI-	Sample Type:	bag
Sample ID:	035SC-B-02-05-210504	Test Date:	05/12/21
Depth:	---	Checked By:	bfs
		Test Id:	617985
Test Comment:	---		
Visual Description:	Moist, dark olive gray silt		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



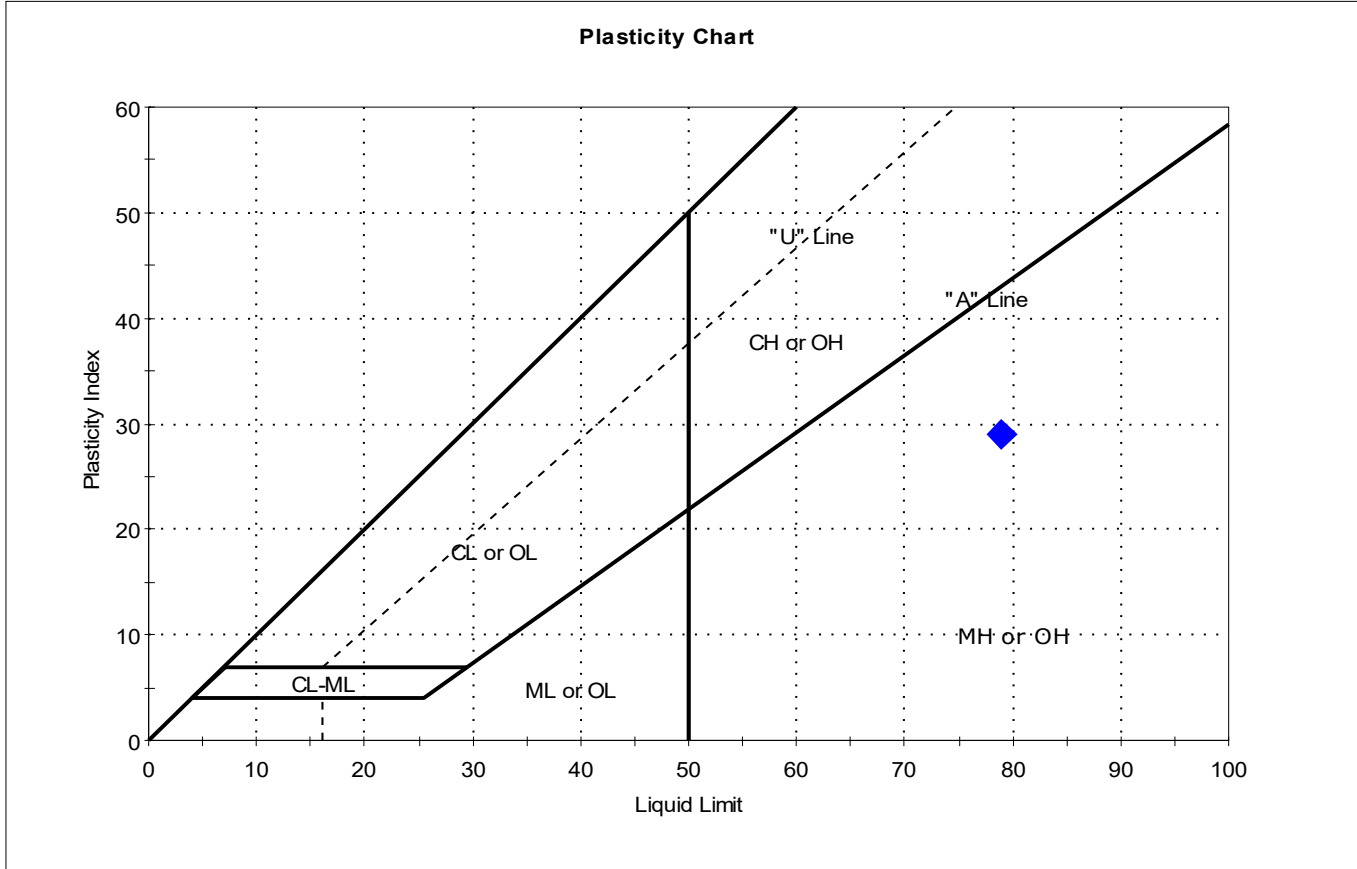
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	5SC-B-02-05-2105	USMPDI-	---	80	89	51	38	0.8	Elastic SILT (MH)

Sample Prepared using the WET method
 0% Retained on #40 Sieve
 Dry Strength: HIGH
 Dilatancy: SLOW
 Toughness: LOW



Client:	Anchor QEA, LLC		
Project:	GascoSiltronic: US Moorings 05062021		
Location:		Project No:	GTX-313591
Boring ID:	USMPDI-	Sample Type:	bag
Sample ID:	036SC-B-02-05-210501	Test Date:	05/14/21
Depth:	---	Checked By:	bfs
		Test Id:	617993
Test Comment:	---		
Visual Description:	Wet, dark olive gray silt		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



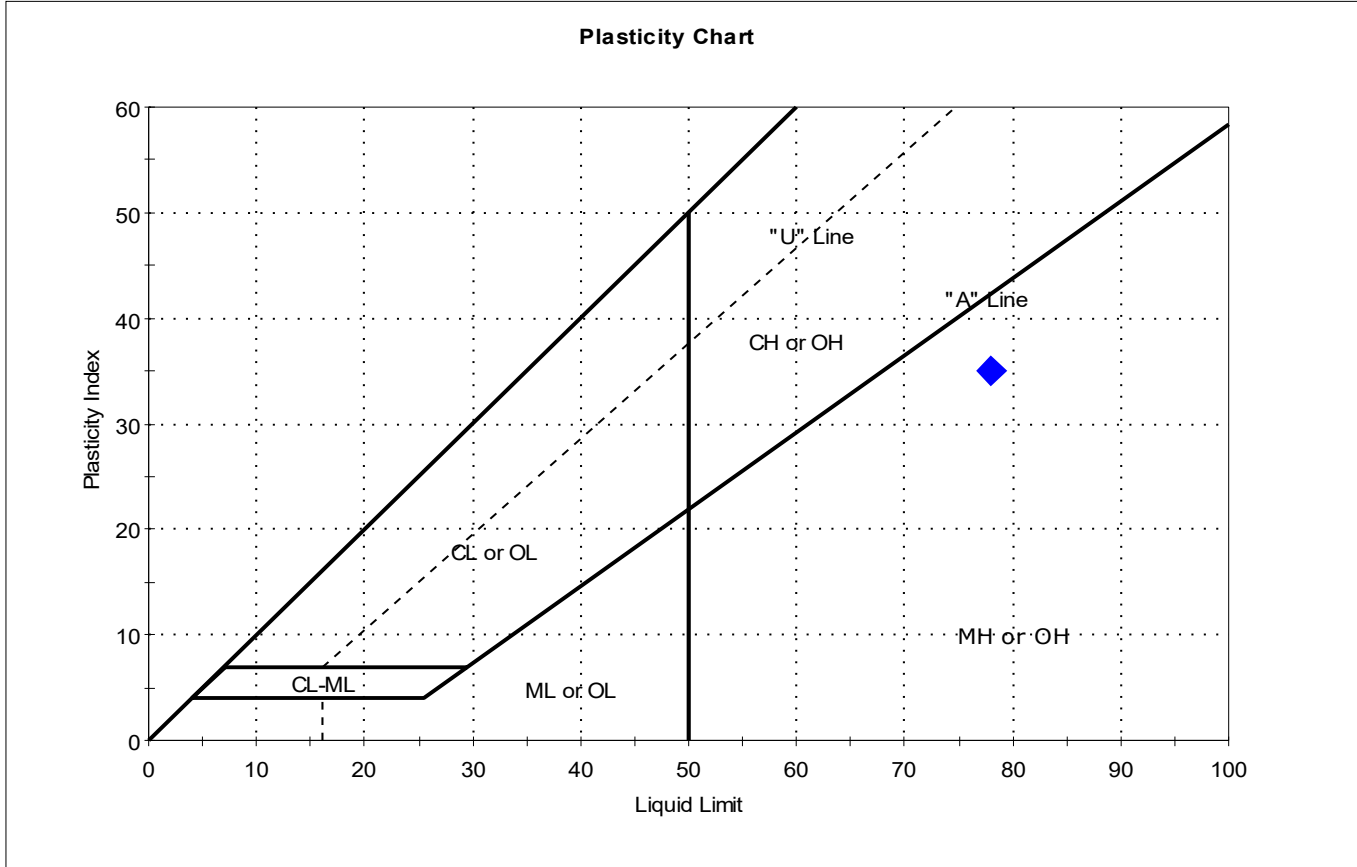
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	6SC-B-02-05-2105	USMPDI-	---	106	79	50	29	1.9	Elastic SILT (MH)

Sample Prepared using the WET method
 0% Retained on #40 Sieve
 Dry Strength: HIGH
 Dilatancy: SLOW
 Toughness: LOW



Client:	Anchor QEA, LLC		
Project:	GascoSiltronic: US Moorings 05062021		
Location:		Project No:	GTX-313591
Boring ID:	USMPDI-	Sample Type:	bag
Sample ID:	037SC-B-10-12.1-210501	Test Date:	05/14/21
Depth:	---	Test Id:	617994
Test Comment:	---		
Visual Description:	Moist, dark grayish brown silt		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



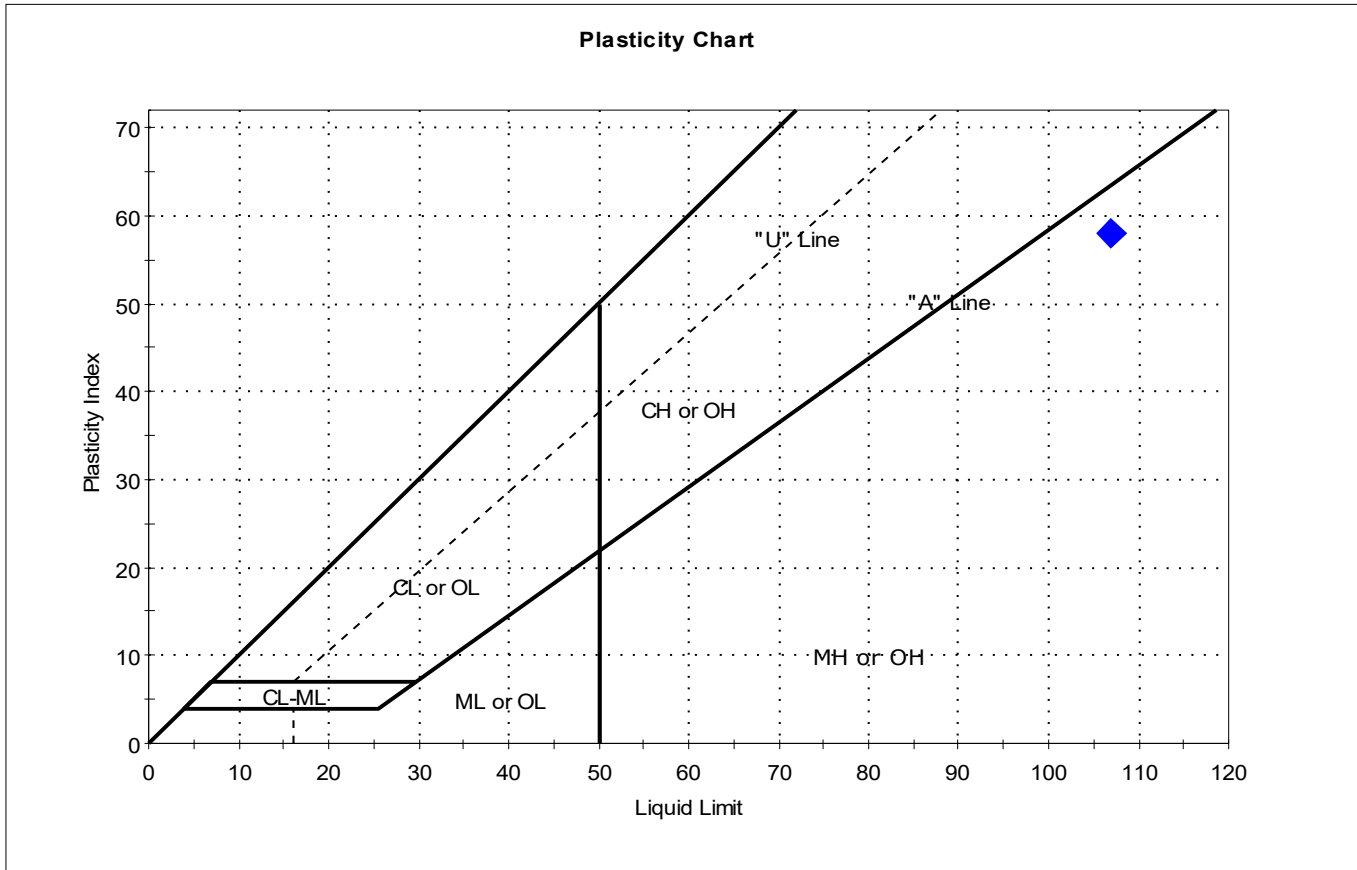
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	SC-B-10-12.1-210	USMPDI-	---	73	78	43	35	0.9	Elastic SILT (MH)

Sample Prepared using the WET method
 0% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: SLOW
 Toughness: LOW



Client:	Anchor QEA, LLC		
Project:	GascoSiltronic: US Moorings 05062021		
Location:		Project No:	GTX-313591
Boring ID:	USMPDI-	Sample Type:	bag
Sample ID:	041SC-B-04-06-210427	Test Date:	05/13/21
Depth:	---	Checked By:	bfs
		Test Id:	618005
Test Comment:	---		
Visual Description:	Moist, dark olive gray silt		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



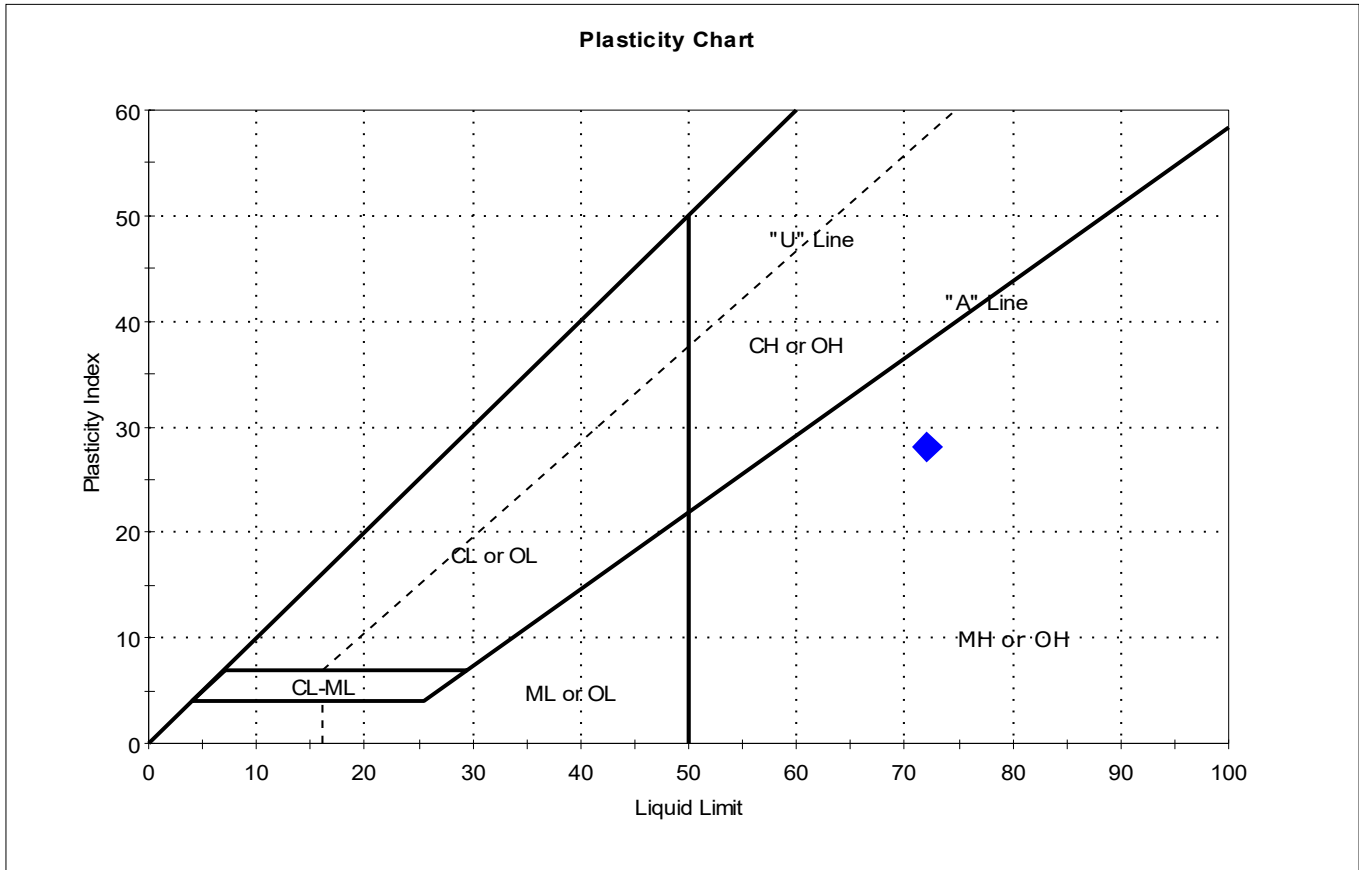
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	1SC-B-04-06-2104	USMPDI-	---	96	107	49	58	0.8	Elastic SILT (MH)

Sample Prepared using the WET method
 0% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: SLOW
 Toughness: LOW



Client:	Anchor QEA, LLC		
Project:	GascoSiltronic: US Moorings 05062021		
Location:		Project No:	GTX-313591
Boring ID:	USMPDI-	Sample Type:	bag
Sample ID:	051SC-B-02-04-210430	Test Date:	05/12/21
Depth:	---	Checked By:	bfs
		Test Id:	617997
Test Comment:	---		
Visual Description:	Wet, dark olive gray silt		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



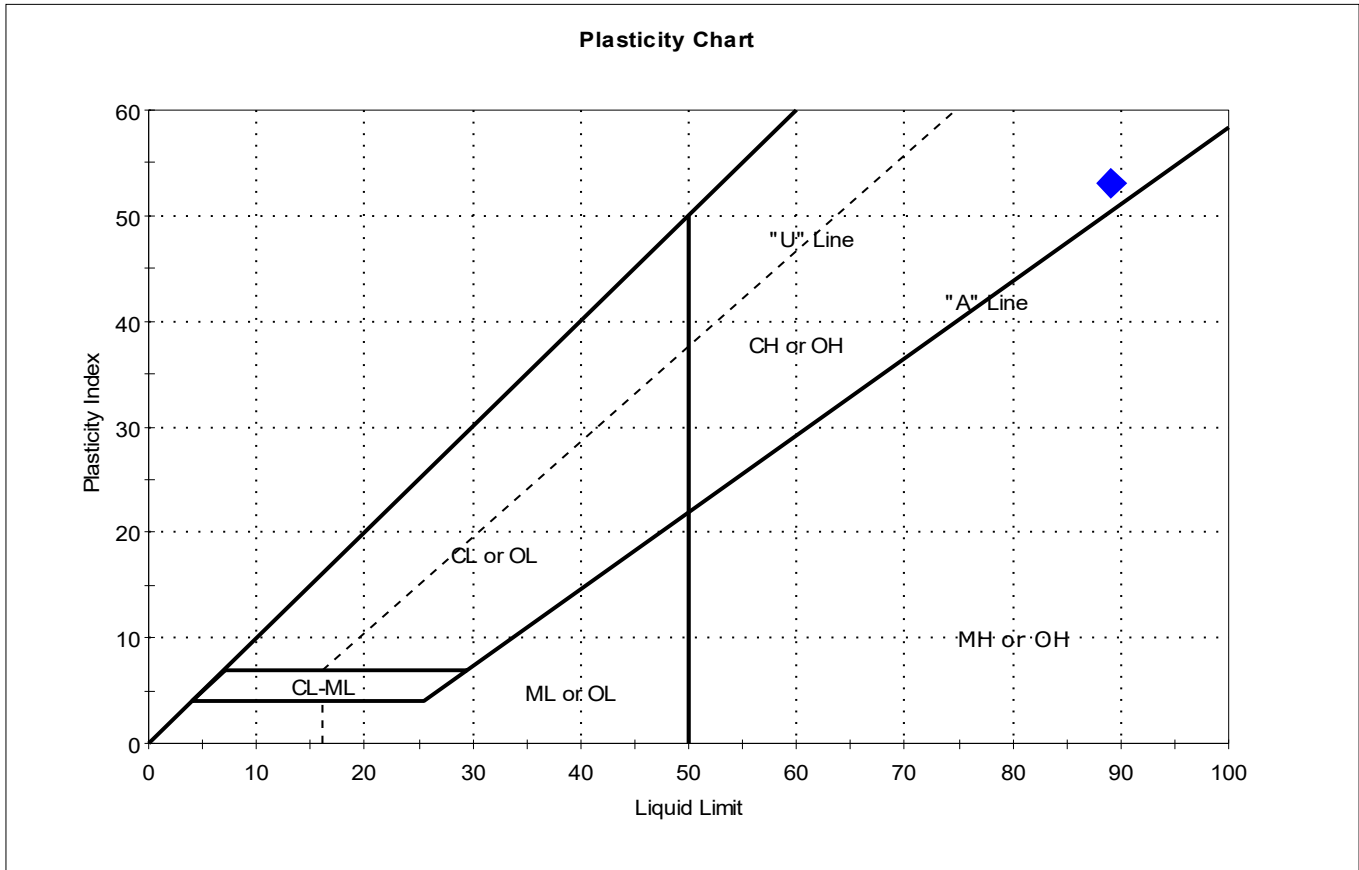
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	1SC-B-02-04-2104	USMPDI-	---	98	72	44	28	1.9	Elastic SILT (MH)

Sample Prepared using the WET method
 1% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: SLOW
 Toughness: LOW



Client:	Anchor QEA, LLC		
Project:	GascoSiltronic: US Moorings 05062021		
Location:		Project No:	GTX-313591
Boring ID:	USMPDI-	Sample Type:	bag
Sample ID:	052SC-B-06-08-210428	Test Date:	05/13/21
Depth:	---	Checked By:	bfs
		Test Id:	618002
Test Comment:	---		
Visual Description:	Moist, very dark grayish brown clay		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



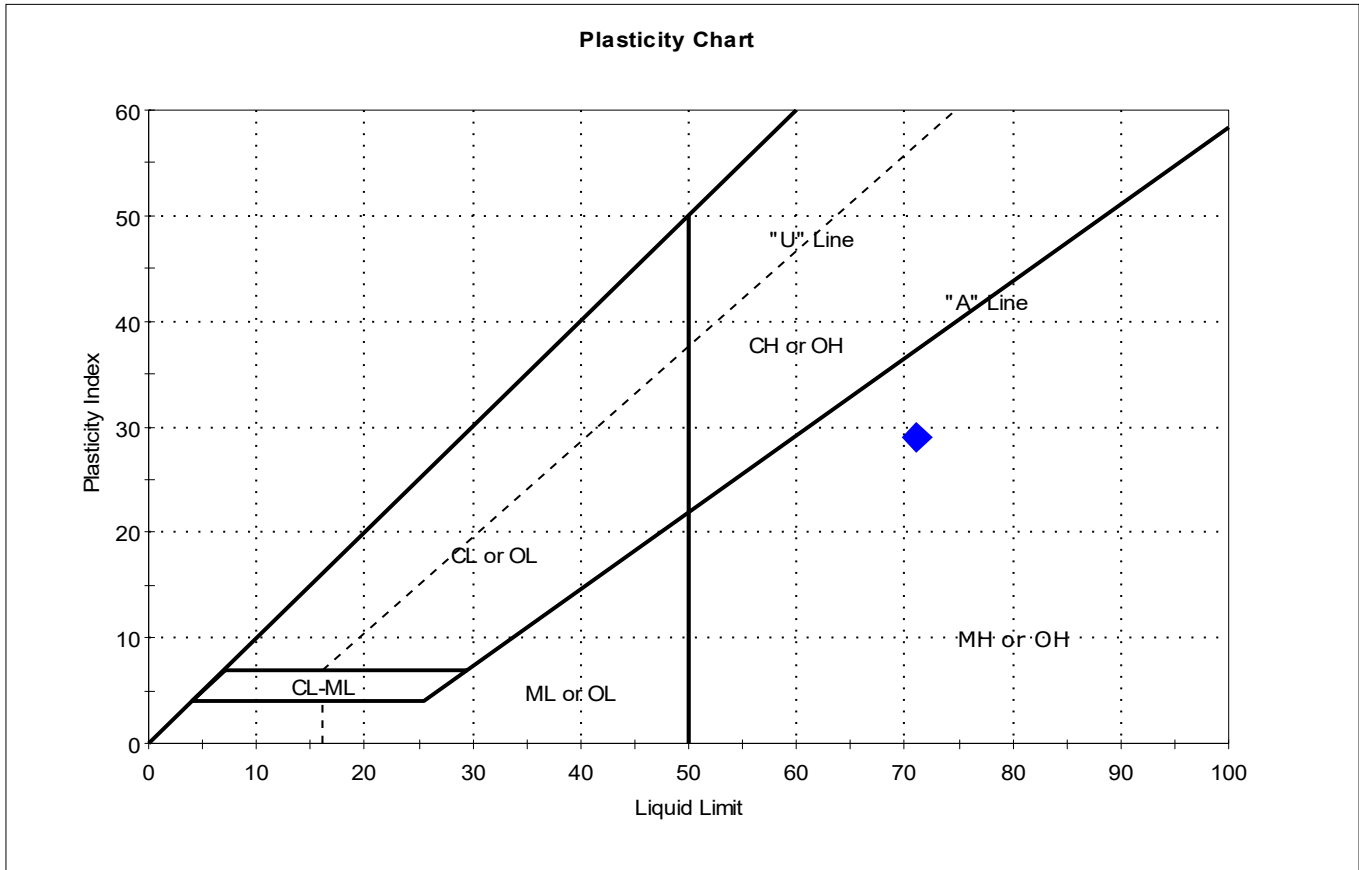
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	2SC-B-06-08-2104	USMPDI-	---	87	89	36	53	1	Fat CLAY (CH)

Sample Prepared using the WET method
 1% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: SLOW
 Toughness: LOW



Client:	Anchor QEA, LLC		
Project:	GascoSiltronic: US Moorings 05062021		
Location:		Project No:	GTX-313591
Boring ID:	USMPDI-	Sample Type:	bag
Sample ID:	053SC-B-10-12-210428	Test Date:	05/12/21
Depth:	---	Checked By:	bfs
		Test Id:	618003
Test Comment:	---		
Visual Description:	Wet, very dark gray silt		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	3SC-B-10-12-2104	USMPDI-	---	80	71	42	29	1.3	Elastic SILT (MH)

Sample Prepared using the WET method
 1% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: SLOW
 Toughness: LOW

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

COC ID: GEO-20210504-121002
Sample Custodian: CO
Lab: Geotesting Express

POC: # Delaney Peterson (360-715-2707)
 1605 Cornwall Avenue, Bellingham, WA 98225
Project: GascoSiltronic: US Moorings
Client: NW Natural

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
001	USMPDI-028SC-B-02-05-210504	N	SE	05/04/2021	8:45	1	<input type="checkbox"/>	Atterberg Limits	D4318	30	4°C
								Grain Size	D6913/D7928	30	4°C
								Moisture Content	D2216	30	4°C
								Specific gravity	D854	30	4°C
002	USMPDI-031SC-B-00-02-210504	N	SE	05/04/2021	11:05	1	<input type="checkbox"/>	Atterberg Limits	D4318	30	4°C
								Grain Size	D6913/D7928	30	4°C
								Moisture Content	D2216	30	4°C
								Specific gravity	D854	30	4°C
003	USMPDI-035SC-B-02-05-210504	N	SE	05/04/2021	10:00	1	<input type="checkbox"/>	Atterberg Limits	D4318	30	4°C
								Grain Size	D6913/D7928	30	4°C
								Moisture Content	D2216	30	4°C
								Specific gravity	D854	30	4°C

Comment:

GeoTesting Express

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature <i>[Signature]</i>	Signature <i>[Signature]</i>	Signature	Signature	Signature	Signature
Print Name <i>Hayley Marken</i>	Print Name MAY 06 2021	Print Name	Print Name	Print Name	Print Name
Company <i>AQ</i>	Company Receiving Dept.	Company	Company	Company	Company
Date/Time <i>5/5/21 10:00</i>	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

POC: # Delaney Peterson (360-715-2707)
1605 Cornwall Avenue, Bellingham, WA 98225

Project: GascoSiltronic: US Moorings
Client: NW Natural

COC ID: GEO-20210503-151637
Sample Custodian: CO
Lab: Geotesting Express

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
001	USMPDI-030SC-B-00-02-210503	N	SE	05/03/2021	14:00	1	<input type="checkbox"/>				
								Atterberg Limits	D4318	30	4°C
								Grain Size	D6913/D7928	30	4°C
								Moisture Content	D2216	30	4°C
								Specific gravity	D854	30	4°C

Comment:					
GeoTesting Express					
Relinquished By:	Relinquished By:	Received By:	Relinquished By:	Received By:	Received By:
Signature <i>[Signature]</i>	Signature	Signature	Signature	Signature	Signature
Print Name <i>Harley Sharkey</i>	Print Name MAY 06 2021	Print Name	Print Name	Print Name	Print Name
Company AQ	Company	Company	Company	Company	Company
Date/Time 5/5/21 10:00	Date/Time Receiving Dept.	Date/Time	Date/Time	Date/Time	Date/Time

* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

POC: # Delaney Peterson (360-715-2707)
 1605 Cornwall Avenue, Bellingham, WA 98225

Project: GascoSiltronic: US Moorings
Client: NW Natural

COC ID: GEO-20210502-142848
Sample Custodian: SN
Lab: Geotesting Express

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
001	USMPDI-005SC-B-00-02-210502	N	SE	05/02/2021	11:20	1	<input type="checkbox"/>	Atterberg Limits	D4318	30	4°C
								Grain Size	D6913/D7928	30	4°C
								Moisture Content	D2216	30	4°C
								Specific gravity	D854	30	4°C
002	USMPDI-008SC-B-02-3.8-210502	N	SE	05/02/2021	10:15	1	<input type="checkbox"/>	Atterberg Limits	D4318	30	4°C
								Grain Size	D6913/D7928	30	4°C
								Moisture Content	D2216	30	4°C
								Specific gravity	D854	30	4°C
003	USMPDI-010SC-B-10-11.5-210502	N	SE	05/02/2021	13:30	1	<input type="checkbox"/>	Atterberg Limits	D4318	30	4°C
								Grain Size	D6913/D7928	30	4°C
								Moisture Content	D2216	30	4°C
								Specific gravity	D854	30	4°C
004	USMPDI-019SC-B-00-02-210502	N	SE	05/02/2021	8:30	1	<input type="checkbox"/>	Atterberg Limits	D4318	30	4°C
								Grain Size	D6913/D7928	30	4°C
								Moisture Content	D2216	30	4°C
								Specific gravity	D854	30	4°C

Comment:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature:	Signature:	Signature:	Signature:
Print Name: <i>[Name]</i>	Print Name: <i>[Name]</i>	Print Name:	Print Name:	Print Name:	Print Name:
Company: <i>[Company]</i>	Company: <i>[Company]</i>	Company:	Company:	Company:	Company:
Date/Time: <i>[Date/Time]</i>	Date/Time: <i>[Date/Time]</i>	Date/Time:	Date/Time:	Date/Time:	Date/Time:

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

COC ID: GEO-20210501-145635
Sample Custodian: SN
Lab: Geotesting Express

POC: # Delaney Peterson (360-715-2707)
1605 Cornwall Avenue, Bellingham, WA 98225
Project: GascoSiltronic: US Moorings
Client: NW Natural

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
001	USMPDI-015SC-B-02-05-210501	N	SE	05/01/2021	14:30	1	<input type="checkbox"/>	Atterberg Limits Grain Size Moisture Content Specific gravity	D4318 D6913/D7928 D2216 D854	30 30 30 30	4°C 4°C 4°C 4°C
002	USMPDI-016SC-B-05-07-210501	N	SE	05/01/2021	12:55	1	<input type="checkbox"/>	Atterberg Limits Grain Size Moisture Content Specific gravity	D4318 D6913/D7928 D2216 D854	30 30 30 30	4°C 4°C 4°C 4°C
003	USMPDI-036SC-B-02-05-210501	N	SE	05/01/2021	8:15	1	<input type="checkbox"/>	Atterberg Limits Grain Size Moisture Content Specific gravity	D4318 D6913/D7928 D2216 D854	30 30 30 30	4°C 4°C 4°C 4°C
004	USMPDI-037SC-B-10-12.1-210501	N	SE	05/01/2021	10:05	1	<input type="checkbox"/>	Atterberg Limits Grain Size Moisture Content Specific gravity	D4318 D6913/D7928 D2216 D854	30 30 30 30	4°C 4°C 4°C 4°C

Comment:					
Relinquished By: Signature	Received By: Signature	Relinquished By: Signature	Received By: Signature	Relinquished By: Signature	Received By: Signature
<i>Hayley Sharkey</i>	Geotesting Express				
Print Name	Print Name	Print Name	Print Name	Print Name	Print Name
<i>Hayley Sharkey</i>	MAY 06 2021				
Company	Company	Company	Company	Company	Company
<i>AQ</i>					
Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time
<i>5/5/21 10:00</i>	Receiving Dept				

* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

COC ID: GEO-20210430-130346
Sample Custodian: SN
Lab: Geotesting Express

POC: # Delaney Peterson (360-715-2707) **Project:** GascoSiltronic: US Moorings
 1605 Cornwall Avenue, Bellingham, WA 98225 **Client:** NW Natural

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
001	USMPDI-024SC-B-00-02-210430	N	SE	04/30/2021	10:25	1	<input type="checkbox"/>	Atterberg Limits	D4318	30	4°C
								Grain Size	D6913/D7928	30	4°C
								Moisture Content	D2216	30	4°C
								Specific gravity	D854	30	4°C
002	USMPDI-029SC-B-05-07-210430	N	SE	04/30/2021	14:15	1	<input type="checkbox"/>	Atterberg Limits	D4318	30	4°C
								Grain Size	D6913/D7928	30	4°C
								Moisture Content	D2216	30	4°C
								Specific gravity	D854	30	4°C
003	USMPDI-051SC-B-02-04-210430	N	SE	04/30/2021	8:15	1	<input type="checkbox"/>	Atterberg Limits	D4318	30	4°C
								Grain Size	D6913/D7928	30	4°C
								Moisture Content	D2216	30	4°C
								Specific gravity	D854	30	4°C

Comment:

Geotesting Express

Relinquished By: <i>Hayley Smarkey</i>		Relinquished By:		Received By:		Relinquished By:		Received By:	
Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature	Signature
Print Name	Print Name	Print Name	Print Name	Print Name	Print Name	Print Name	Print Name	Print Name	Print Name
Company	Company	Company	Company	Company	Company	Company	Company	Company	Company
Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time
5/5/21 10:00	Receiving Dept.								

* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

COC ID: GEO-20210429-151203
Sample Custodian: CO
Lab: Geotesting Express

POC: # Delaney Peterson (360-715-2707)
 1605 Cornwall Avenue, Bellingham, WA 98225
Project: GascoSiltronic: US Moorings
Client: NW Natural

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
001	USMPDI-017SC-B-16-17.8-210429	N	SE	04/29/2021	9:00	1	<input type="checkbox"/>	Atterberg Limits	D4318	30	4°C
								Grain Size	D6913/D7928	30	4°C
								Moisture Content	D2216	30	4°C
								Specific gravity	D854	30	4°C
002	USMPDI-020SC-B-10-13-210429	N	SE	04/29/2021	12:40	1	<input type="checkbox"/>	Atterberg Limits	D4318	30	4°C
								Grain Size	D6913/D7928	30	4°C
								Moisture Content	D2216	30	4°C
								Specific gravity	D854	30	4°C

Comment:					
Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature: <i>[Signature]</i>	Signature: Geotesting Express	Signature:	Signature:	Signature:	Signature:
Print Name: <i>Hayley Sharkey</i>	Print Name: MAY 06 2021	Print Name:	Print Name:	Print Name:	Print Name:
Company: <i>AG</i>	Company:	Company:	Company:	Company:	Company:
Date/Time: <i>10:00 5/5/21</i>	Date/Time: Receiving Dept.	Date/Time:	Date/Time:	Date/Time:	Date/Time:

* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

POC: # Delaney Peterson (360-715-2707)
 1605 Cornwall Avenue, Bellingham, WA 98225

Project: GascoSiltronic: US Moorings
Client: NW Natural

COC ID: GEO-20210428-155104
Sample Custodian: Cheronne Oreiro
Lab: Geotesting Express

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
001	USMPDI-007SC-B-04-06-210428	N	SE	04/28/2021	15:20	1	<input type="checkbox"/>	Atterberg Limits	D4318	30	4°C
								Grain Size	D6913/D7928	30	4°C
								Moisture Content	D2216	30	4°C
								Specific gravity	D854	30	4°C
002	USMPDI-025SC-B-07-10-210428	N	SE	04/28/2021	13:00	1	<input type="checkbox"/>	Atterberg Limits	D4318	30	4°C
								Grain Size	D6913/D7928	30	4°C
								Moisture Content	D2216	30	4°C
								Specific gravity	D854	30	4°C
003	USMPDI-052SC-B-06-08-210428	N	SE	04/28/2021	10:15	1	<input type="checkbox"/>	Atterberg Limits	D4318	30	4°C
								Grain Size	D6913/D7928	30	4°C
								Moisture Content	D2216	30	4°C
								Specific gravity	D854	30	4°C
004	USMPDI-053SC-B-10-12-210428	N	SE	04/28/2021	8:05	1	<input type="checkbox"/>	Atterberg Limits	D4318	30	4°C
								Grain Size	D6913/D7928	30	4°C
								Moisture Content	D2216	30	4°C
								Specific gravity	D854	30	4°C

Comment:					
Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature <i>[Handwritten Signature]</i>	Geotesting Express	Signature	Signature	Signature	Signature
Print Name <i>[Handwritten Name]</i>	Print Name	Print Name	Print Name	Print Name	Print Name
Company <i>[Handwritten Company]</i>	Company MAY 06 2021	Company	Company	Company	Company
Date/Time <i>[Handwritten Date/Time]</i>	Date/Time Receiving Dept.	Date/Time	Date/Time	Date/Time	Date/Time

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

POC: # Delaney Peterson (360-715-2707)
1605 Cornwall Avenue, Bellingham, WA 98225

Project: GascoSiltronic: US Moorings
Client: NW Natural

COC ID: GEO-20210427-154339
Sample Custodian: CO
Lab: Geotesting Express

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
001	USMPDI-033SC-B-06-08-210427	N	SE	04/27/2021	9:25	1	<input type="checkbox"/>	Atterberg Limits	D4318	30	4°C
								Grain Size	D6913/D7928	30	4°C
								Moisture Content	D2216	30	4°C
								Specific gravity	D854	30	4°C
002	USMPDI-041SC-B-04-06-210427	N	SE	04/27/2021	14:00	1	<input type="checkbox"/>	Atterberg Limits	D4318	30	4°C
								Grain Size	D6913/D7928	30	4°C
								Moisture Content	D2216	30	4°C
								Specific gravity	D854	30	4°C

Comment:					
Geotesting Express					
Relinquished By: Signature	Relinquished By: Signature	Received By: Signature	Relinquished By: Signature	Received By: Signature	Received By: Signature
<i>[Signature]</i>	<i>[Signature]</i>				
Print Name	Print Name	Print Name	Print Name	Print Name	Print Name
<i>Haley Sharkey</i>	MAY 06 2021				
Company	Company	Company	Company	Company	Company
<i>AQ</i>					
Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time
<i>5/5/21 10:00</i>	Receiving Dept.				

* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

COC ID: GEO-20210413-150954
Sample Custodian: dp, cd, jm
Lab: Geotesting Express

POC: # Delaney Peterson (360-715-2707)
 1605 Cornwall Avenue, Bellingham, WA 98225
Project: GascoSiltronic: US Moorings
Client: NW Natural

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative	
001	USMPDI-016SG-210413	N	SE	04/13/2021	11:58	1	<input type="checkbox"/>					
									Atterberg Limits	D4318	30	4°C
									Bulk Density	D7263	30	
									Grain Size	D6913/D7928	30	4°C
									Moisture Content	D2216	30	4°C
									Specific gravity	D854	30	4°C

Comment:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature <i>[Signature]</i>	Signature Geotesting Express	Signature	Signature	Signature	Signature
Print Name <i>Hunter Sharkey</i>	Print Name MAY 06 2021	Print Name	Print Name	Print Name	Print Name
Company <i>AQ</i>	Company Receiving Dept.	Company	Company	Company	Company
Date/Time <i>5/5/21 10:00</i>	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

WARRANTY and LIABILITY

GeoTesting Express (GTX) warrants that all tests it performs are run in general accordance with the specified test procedures and accepted industry practice. GTX will correct or repeat any test that does not comply with this warranty. GTX has no specific knowledge as to conditioning, origin, sampling procedure or intended use of the material.

GTX may report engineering parameters that require us to interpret the test data. Such parameters are determined using accepted engineering procedures. However, GTX does not warrant that these parameters accurately reflect the true engineering properties of the *in situ* material. Responsibility for interpretation and use of the test data and these parameters for engineering and/or construction purposes rests solely with the user and not with GTX or any of its employees.

GTX's liability will be limited to correcting or repeating a test which fails our warranty. GTX's liability for damages to the Purchaser of testing services for any cause whatsoever shall be limited to the amount GTX received for the testing services. GTX will not be liable for any damages, or for any lost benefits or other consequential damages resulting from the use of these test results, even if GTX has been advised of the possibility of such damages. GTX will not be responsible for any liability of the Purchaser to any third party.

Commonly Used Symbols

A	pore pressure parameter for $\Delta\sigma_1 - \Delta\sigma_3$	S_r	Post cyclic undrained shear strength
B	pore pressure parameter for $\Delta\sigma_3$	T	temperature
CAI	CERCHAR Abrasiveness Index	t	time
CIU	isotropically consolidated undrained triaxial shear test	U, UC	unconfined compression test
CR	compression ratio for one dimensional consolidation	UU, Q	unconsolidated undrained triaxial test
CSR	cyclic stress ratio	u_a	pore gas pressure
C_c	coefficient of curvature, $(D_{30})^2 / (D_{10} \times D_{60})$	u_e	excess pore water pressure
C_u	coefficient of uniformity, D_{60}/D_{10}	u, u_w	pore water pressure
C_c	compression index for one dimensional consolidation	V	total volume
C_a	coefficient of secondary compression	V_g	volume of gas
c_v	coefficient of consolidation	V_s	volume of solids
c	cohesion intercept for total stresses	V_s	shear wave velocity
c'	cohesion intercept for effective stresses	V_v	volume of voids
D	diameter of specimen	V_w	volume of water
D	damping ratio	V_o	initial volume
D_{10}	diameter at which 10% of soil is finer	v	velocity
D_{15}	diameter at which 15% of soil is finer	W	total weight
D_{30}	diameter at which 30% of soil is finer	W_s	weight of solids
D_{50}	diameter at which 50% of soil is finer	W_w	weight of water
D_{60}	diameter at which 60% of soil is finer	w	water content
D_{85}	diameter at which 85% of soil is finer	w_c	water content at consolidation
d_{50}	displacement for 50% consolidation	w_f	final water content
d_{90}	displacement for 90% consolidation	w_l	liquid limit
d_{100}	displacement for 100% consolidation	w_n	natural water content
E	Young's modulus	w_p	plastic limit
e	void ratio	w_s	shrinkage limit
e_c	void ratio after consolidation	w_o, w_i	initial water content
e_o	initial void ratio	α	slope of q_f versus p_f
G	shear modulus	α'	slope of q_f versus p_f'
G_s	specific gravity of soil particles	γ_t	total unit weight
H	height of specimen	γ_d	dry unit weight
H_R	Rebound Hardness number	γ_s	unit weight of solids
i	gradient	γ_w	unit weight of water
I_S	Uncorrected point load strength	ϵ	strain
$I_{S(50)}$	Size corrected point load strength index	ϵ_{vol}	volume strain
H_A	Modified Taber Abrasion	ϵ_h, ϵ_v	horizontal strain, vertical strain
H_T	Total hardness	μ	Poisson's ratio, also viscosity
K_o	lateral stress ratio for one dimensional strain	σ	normal stress
k	permeability	σ'	effective normal stress
LI	Liquidity Index	σ_c, σ'_c	consolidation stress in isotropic stress system
m_v	coefficient of volume change	σ_h, σ'_h	horizontal normal stress
n	porosity	σ_v, σ'_v	vertical normal stress
PI	plasticity index	σ'_{vc}	Effective vertical consolidation stress
P_c	preconsolidation pressure	σ_1	major principal stress
p	$(\sigma_1 + \sigma_3) / 2, (\sigma_v + \sigma_h) / 2$	σ_2	intermediate principal stress
p'	$(\sigma'_1 + \sigma'_3) / 2, (\sigma'_v + \sigma'_h) / 2$	σ_3	minor principal stress
p'_c	p' at consolidation	τ	shear stress
Q	quantity of flow	ϕ	friction angle based on total stresses
q	$(\sigma_1 - \sigma_3) / 2$	ϕ'	friction angle based on effective stresses
q_f	q at failure	ϕ'_r	residual friction angle
q_o, q_i	initial q	ϕ_{ult}	ϕ for ultimate strength
q_c	q at consolidation		