Geotechnical Investigation Data Report

Chandeleur Island Restoration Project
(PO- 0199)
Geotechnical Services
St. Bernard Parish, Louisiana

for
Coastal Engineering Consultants, Inc.

May 6, 2024

GeoEngineers

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Baton Rouge, Louisiana 70809
225.293.2460

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Geotechnical Services
St. Bernard Parish, Louisiana

File No. 18274-022-01

May 6, 2024

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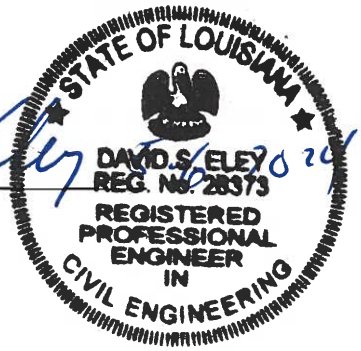

David S. Eley, P.E.
Principal

JEA:DSE:nl

Table of Contents

LIST OF FIGURES

APPENDICES

1.0 INTRODUCTION AND PROJECT UNDERSTANDING

The Chandeleur Island Restoration (PO-0199) Project (Project) is located on the Chandeleur Islands in St. Bernard Parish, Louisiana (Figure 1). The Chandeleur Island system includes those lands between Chandeleur Sound and the Gulf of Mexico, consisting of Chandeleur Island, Gosier Islands, Grand Gosier Islands, Curlew Islands, New Harbor Island, North Island, Freemason Island, and a few unnamed islands forming the Breton National Wildlife Refuge (Figure 2). This report's Study Area includes Chandeleur and New Harbor Islands and the seagrass beds and water bottoms surrounding them (Figure 3).

The purpose of the Project is to engineer and design a restoration project benefitting the Chandeleur Islands and the many species that use them as defined in the Restoration Plan and Environmental Assessment Plan No. 1 of the Region-wide Trustee Implementation Group (2021). Phase 1 of the Project focuses on plan formulation for restoration of the main Chandeleur Island and New Harbor Island. The Coastal Protection and Restoration Authority (CPRA) serves as the designated State agency for the Project.

GeoEngineers, Inc. (GeoEngineers) is pleased to present this Geotechnical Investigation Data Report to Coastal Engineering Consultants, Inc. (CEC) in support of the Project. The scope of services described herein have been completed in accordance with GeoEngineers' proposal dated June 23, 2022, and authorized under Work Order No. 1 under CEC Consulting Services Subcontract Agreement, dated June 6, 2023.

The objective of the PO-0199 Project is to complete the initial planning for restoration of the Chandeleur Islands, to improve the natural habitation of the islands for many species, especially for birds. The islands and seagrass beds within the scope of the restoration Project, are state and federally owned and are collectively managed by the Unites States Fish and Wildlife Service (USFWS) as the Breton National Wildlife Refuge.

This report presents the data collected to support the Project design. All elevations described in this report, including figures and appendices, are referenced to the North American Vertical Datum of 1988 (NAVD 88), Geoid 18.

2.0 SURVEY SERVICES

A magnetometer and coordinate location survey was performed by EMC, Inc., a member of the Project Design Team, to clear a 50-foot radius around each soil boring location for potential hazards. Boring locations were staked and cleared prior to mobilization of field exploration equipment.

3.0 FIELD EXPLORATION

Geotechnical field exploration for the PO-0199 Project was conducted between July 23 and August 3, 2023. The exploration consisted of drilling 26 soil borings at the locations shown in Figures 4a through 4c. The island is crescent shaped and extends in a north to south orientation. The borings were drilled along the existing beach on the east side of the island and on the west side of the island in Chandeleur Sound. The boring locations can be summarized as follows:

- Utilizing marsh buggy-mounted drilling equipment, nine (9) soil borings were drilled on the east side of the island. Six (6) borings were drilled to an approximate depth of 50 feet below the ground

surface (CI-05, CI-08, CI-11, CI-14, CI-16, and CI-22). Three (3) soil borings were drilled to an approximate depth of 80 feet below the ground surface (CI-03, CI-07, and CI-20).

- Utilizing a combination of airboat-mounted and marsh buggy-mounted drilling equipment, nine (9) soil borings were drilled on the west side of the island in shallow water areas. Three (3) soil borings were drilled to a depth of 40 feet each below the mudline (CI-01, CI-06, and CI-21). Five (5) soil borings were drilled to a depth of 50 feet each below the mudline (CI-03B, CI-09, CI-12, CI-17, and CI-19). One (1) soil boring was drilled to a depth of 80 feet below the mudline (CI-15).
- Utilizing a combination of airboat-mounted and pontoon-mounted drilling equipment, six (6) soil borings were drilled on the west side of the island in deeper water areas. These borings were drilled to a depth of 40 feet each below the mudline (CI-02, CI-04, CI-10, CI-13, CI-18, and CI-23).
- Utilizing marsh buggy-mounted and pontoon-mounted drilling equipment, two (2) soil borings were drilled to a depth of 50 feet each below the mudline (CI-24 and CI-25) around New Harbor Island.

The original Project scope included soil borings in Katrina Cut south of soil boring CI-22. Several attempts were made with the pontoon equipment and the marsh buggy equipment to drill in Katrina Cut; however, the waves were too high and the current too strong to maintain a stable position on these locations. After discussions with CEC, it was decided to forego these locations and to add a boring location (CI-03B) in between CI-03 and CI-04 on the west side of the island.

Additional details of the field exploration are included in Appendix A, including daily field reports prepared by GeoEngineers' on-site representatives and soil boring logs.

4.0 LABORATORY TESTING

Upon extrusion in the laboratory, each sample was examined to confirm or modify field classifications. Representative soil samples were selected for laboratory testing consisting of moisture content, unit weight, unconsolidated-undrained (UU) triaxial compression, organic content, percent passing the U.S. No. 200 sieve, grain size distribution (including weight of shell retained on U.S. No 4 sieve with 4.75-millimeter openings), one-dimensional consolidation, specific gravity, and Atterberg limits. Additional laboratory test information is included in Appendix B. The laboratory test results are presented on the soil boring logs in Appendix A and the laboratory test summaries and test sheets presented in Appendix B.

5.0 SUBSURFACE CONDITIONS

Generalized subsurface cross-sections based on the soil borings along the beach, in Chandeleur Sound, and on New Harbor Island are presented in Figures 5a through 5d, respectively. Inferred lines of stratigraphy are drawn between borings in Figures 5a through 5d based on similarities in soil type, density, and strength. Brief descriptions of the soil conditions encountered along these alignments are presented below. Water levels at each of the boring locations at the time of drilling are presented on the boring logs in Appendix A.

5.1. Chandeleur Island Beach Borings (Figure 5a)

On the east side of Chandeleur Island loose to firm sandy soils were encountered in the soil borings at the surface and extended to a depth varying from 14 feet to 33 feet below the ground surface. These sandy soils consisted of varying amounts of silt and some clay. Below the sandy soil, very soft to medium cohesive material was encountered in most of the soil borings. The clay consisted of varying amounts of silt and sand. A layer of firm silty sand and silt was encountered in the borings on the southern half of the island (CI-16, CI-20, and CI-22) between depths of 28 feet and 50 feet below the ground surface. A layer of shells

with silt, clay, and sand was encountered in boring CI-14 between depths of 28 feet and 43 feet. Shells and shell fragments were observed throughout the soil borings on the east side of the island. The percentage of shell material measured by dry mass retained on the No. 4 sieve during the grain size distribution testing is presented on the boring logs in Appendix A. However, it should be noted that shell fragments were also observed retained on sieves with openings smaller than the No. 4 sieve.

5.2. Chandeleur Sound Shallow Water Borings (Figure 5b)

Similar to the beach borings, in the shallow water areas of Chandeleur Sound, sandy soil was encountered at the surface of the soil borings extending to a depth between 14 feet and 58 feet below the mudline. The sandy soil consists of sand with varying amounts of silt and clay. In general, the depth to the bottom of the sand appears to be shallower at the north and south ends (CI-01 and CI-21) of the Project area and deepens toward the middle of the island. The upper 2 to 6 feet of borings CI-09, CI-12, CI-15, CI-17, and CI- 19 appear to be very loose to loose sand. The density of the sand below these depths varies from loose to very dense at some depths. Below the sand, soft clay and clay with silt with occasional layers of silt and silty clayey sand were encountered. Stiff to very stiff silty clay and sandy clay were observed in boring CI- 21. Shells and shell fragments were observed throughout the soil borings in Chandeleur Sound as noted on the boring logs in Appendix A.

5.3. Chandeleur Sound Deep Water Borings (Figure 5c)

Six (6) soil borings were performed further west in the deeper water of Chandeleur Sound. Sand with varying amounts of silt and clay was encountered in the soil borings from the surface to a depth between 12 feet and 40 feet below the mudline. The sand varied in density from loose to very dense. In borings CI-04, CI- 10, CI-13, CI-18, and CI-23 very soft to soft cohesive soils with varying amounts of silt and sand were encountered below the sand. At the base of the clay, clayey sand was observed at the bottom of boring CI- 13 and silty sand was observed at the bottom of boring CI-23. Shells and shell fragments were observed throughout the soil borings in the deep water borings performed in Chandeleur Sound as noted on the boring logs in Appendix A.

5.4. New Harbor Island Borings (Figure 5d)

Two (2) soil borings were performed to a depth of 50 feet each below the mudline near New Harbor Island. At the surface of the New Harbor Island soil borings, 2 to 8 feet of loose sandy silt was encountered. The surficial sandy silt layer was underlain by very soft to soft clay with varying amounts of silt and sand to the completion depth of the borings. Shell fragments were observed in some of the samples; however, they were not as prevalent as in the other soil borings around Chandeleur Island.

6.0 LIMITATIONS

The information presented in this report is based on field explorations completed for this study and judgments made by GeoEngineers. This report is specific to this site and should not be used other than for the design of the Chandeleur Island Restoration Project located in St. Bernard Parish, Louisiana. The requested information for the geotechnical data report has been provided in this document.

Within the limitations of scope, schedule, and budget, these services have been executed in accordance with generally accepted practices in the field of geotechnical engineering in this area at the time this report was prepared. No warranty or other conditions expressed or implied should be understood.

Please refer to Appendix C titled “Report Limitations and Guidelines for Use” for additional information pertaining to use of this report.

FIGURES

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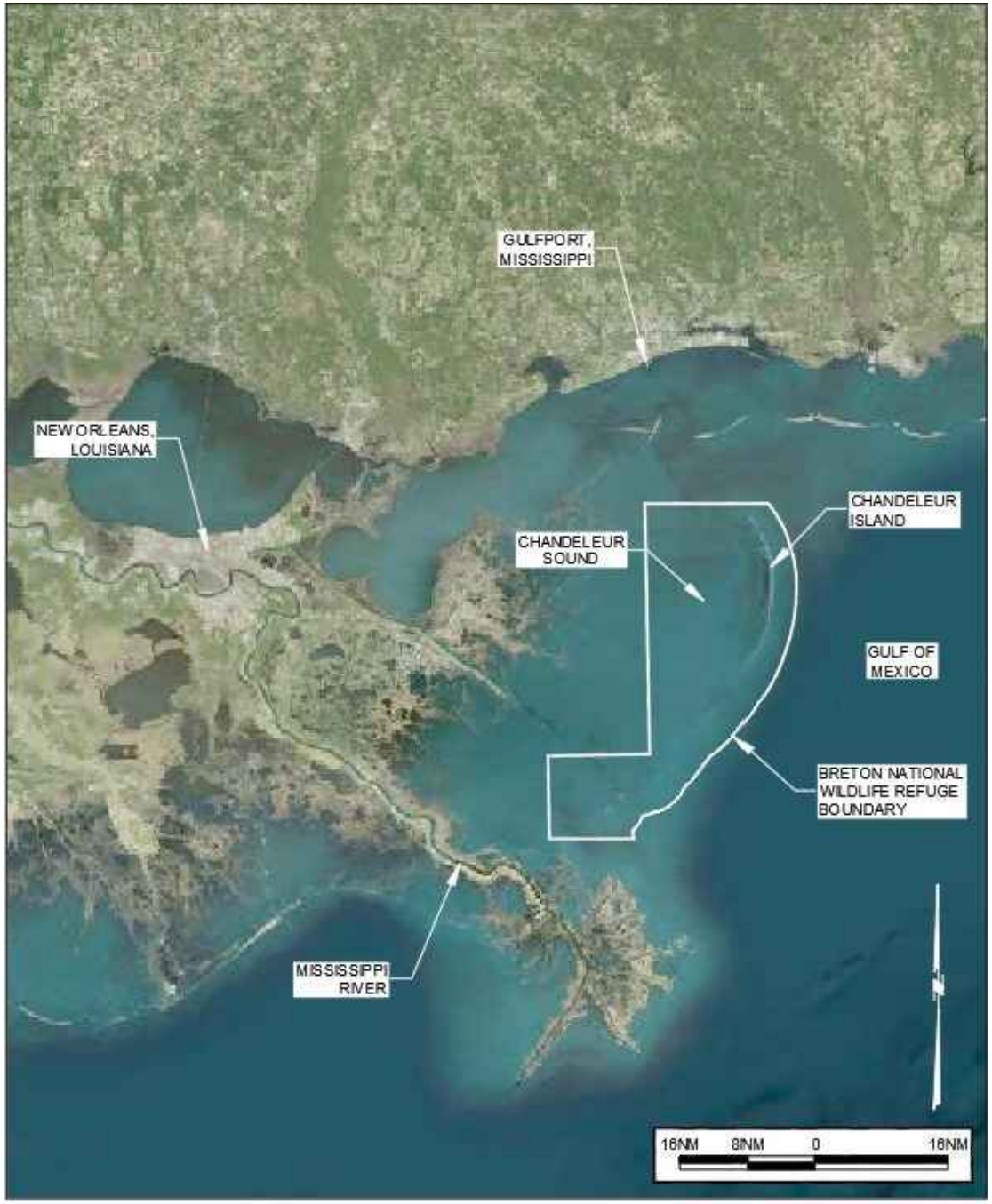

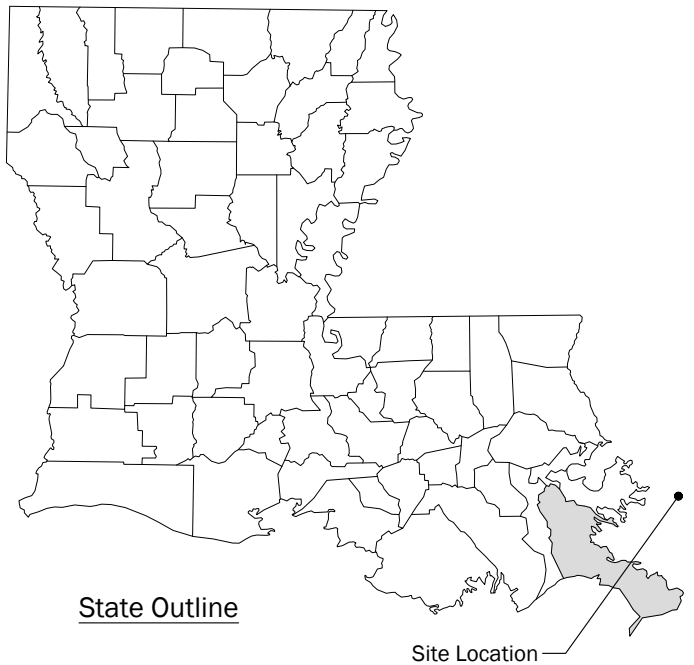

Project Vicinity Map

Chandeleur Island Restoration (PO-0199)
St. Bernard Parish, Louisiana

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Figure 1

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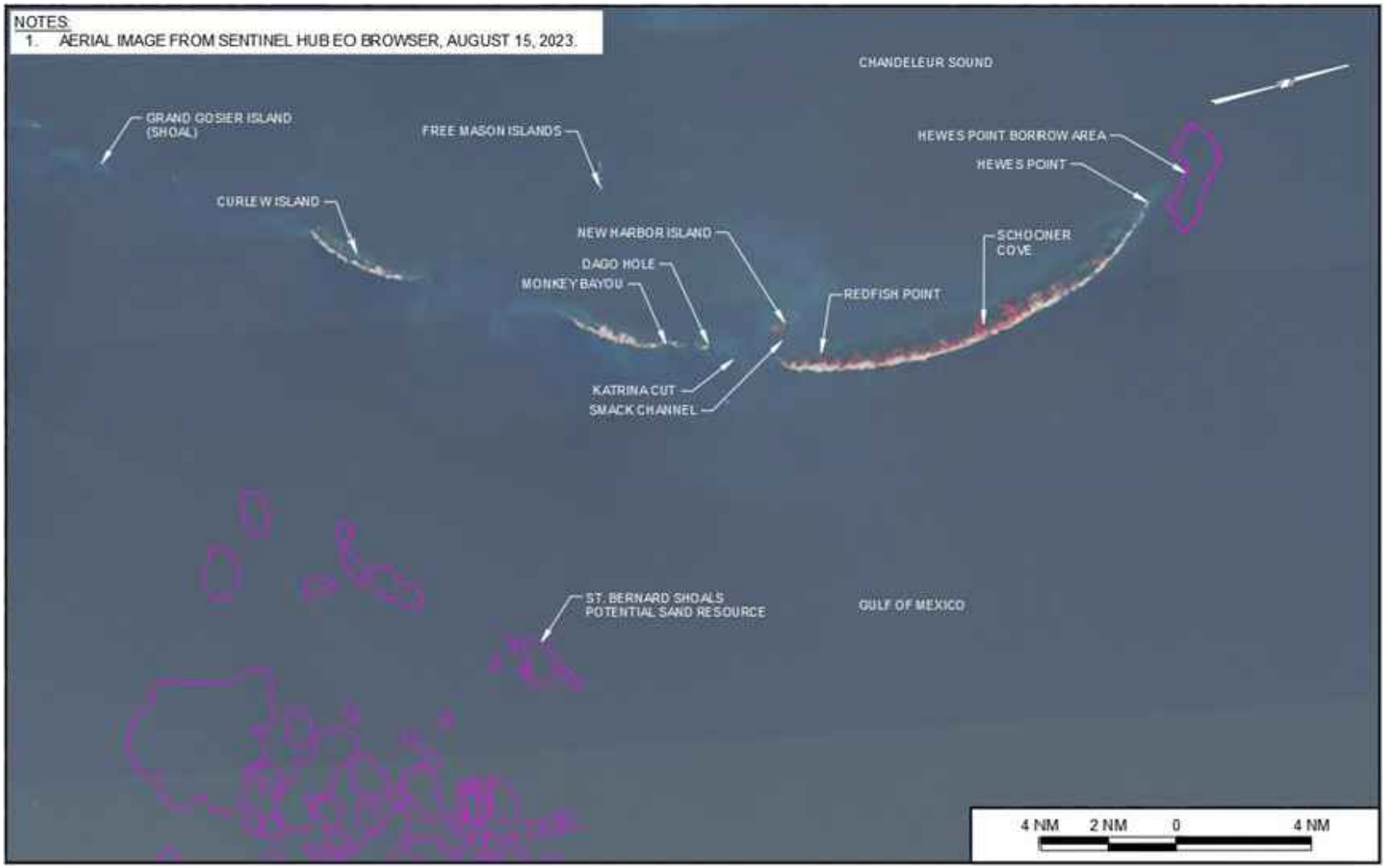

Map of Chandeleur Islands and Potential Borrow Area Locations

Chandeleur Island Restoration (PO-0199)
St. Bernard Parish, Louisiana

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Figure 2

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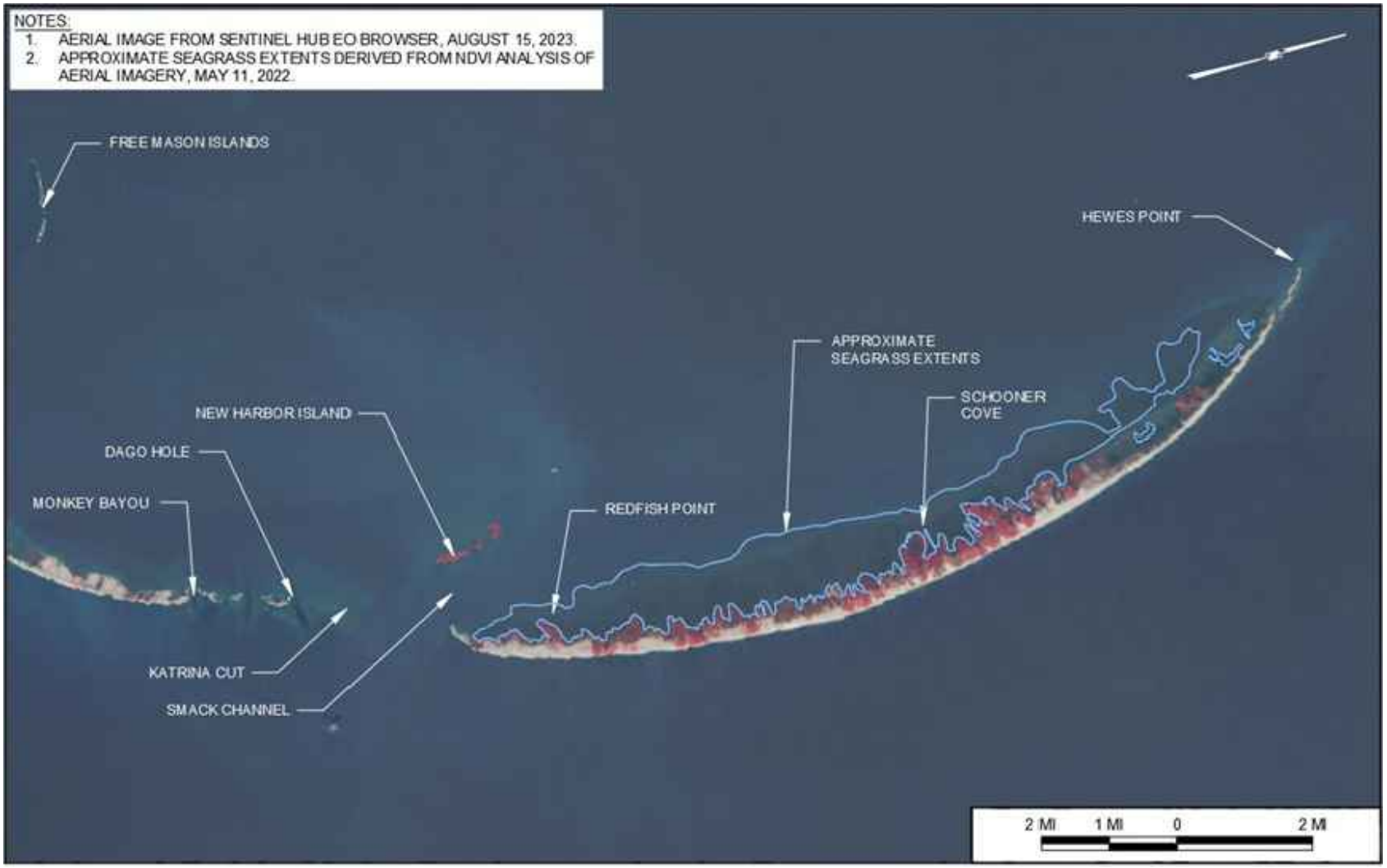

Project Area and Approximate Seagrass Extents

Chandeleur Island Restoration (PO-0199)
St. Bernard Parish, Louisiana

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Figure 3

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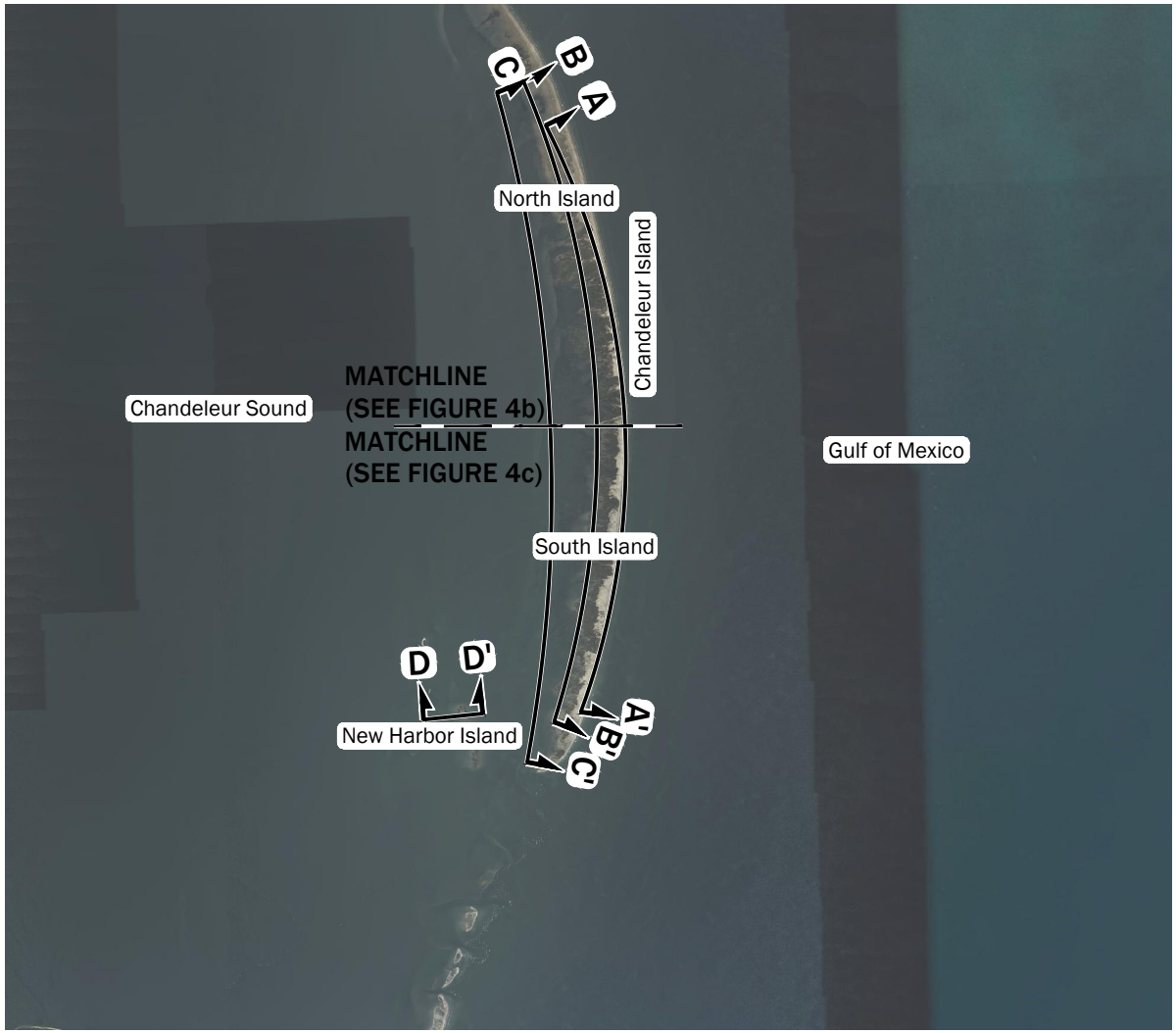


Legend

A — A' Cross Section Location

Source(s):
- Aerial from Microsoft Bing

Projection: Louisiana State Plane, Southern Zone, NAD83, US Foot

N

0 3

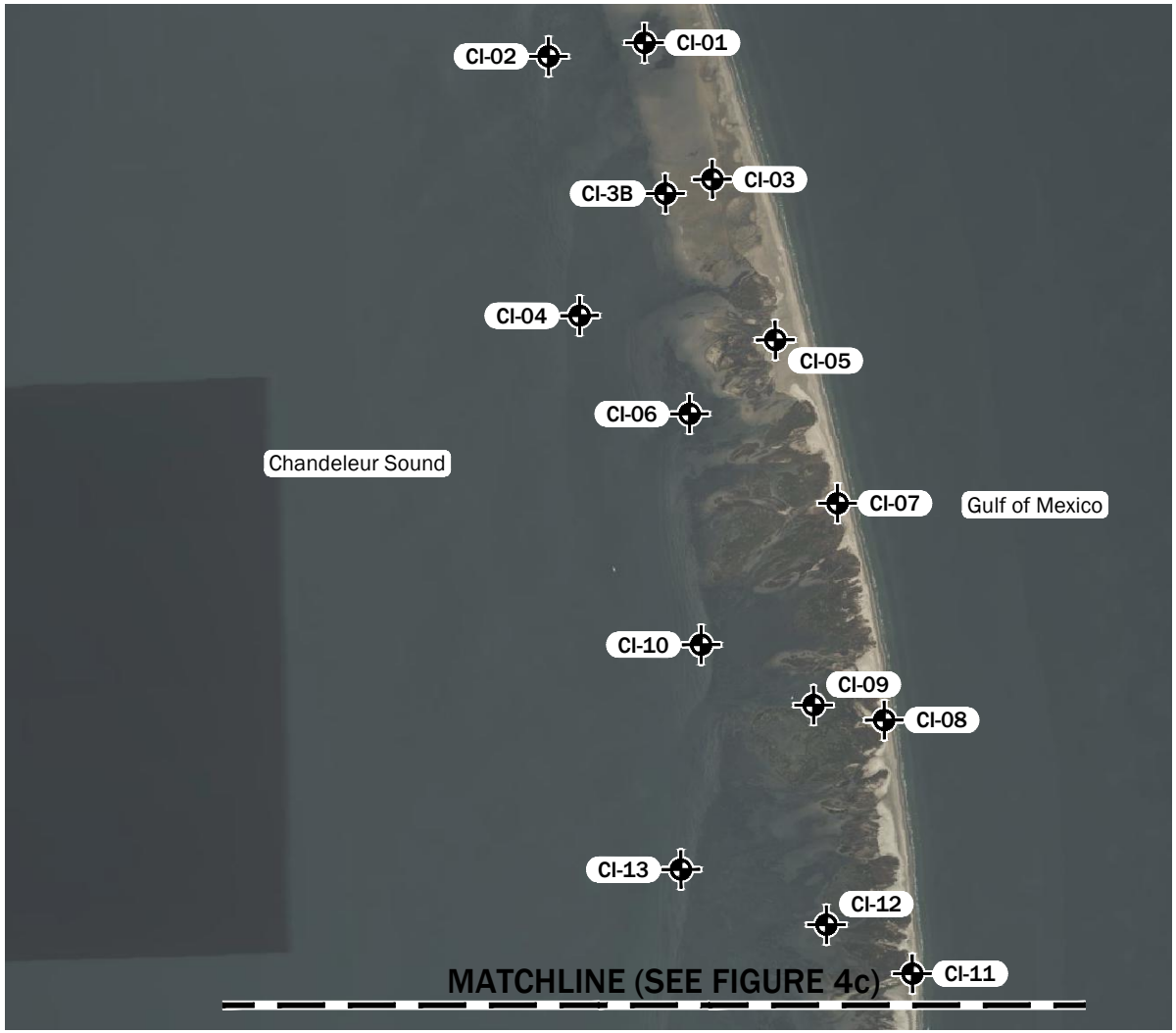
Miles

Site Plan

Chandeleur Island Restoration (PO-0199)
St. Bernard Parish, Louisiana

GeoEngineers

Figure 4a



Boring Details			
Boring #	**Latitude**	**Longitude**	**Depth (ft)**
CI-01	N029°59'59.20"	W088°50'36.89"	40
CI-02	N029°59'55.99"	W088°51'07.64"	40
CI-03	N029°59'20.86"	W088°50'16.20"	80
CI-3B	N029°59'17.20"	W088°50'31.30"	50
CI-04	N029°58'43.81"	W088°50'59.51"	40
CI-05	N029°58'35.88"	W088°49'57.26"	50
CI-06	N029°58'15.87"	W088°50'25.11"	40
CI-07	N029°57'50.14"	W088°49'38.52"	80
CI-08	N029°56'49.64"	W088°49'25.17"	50
CI-09	N029°56'54.24"	W088°49'47.58"	50
CI-10	N029°57'11.69"	W088°50'23.02"	40
CI-11	N029°55'39.06"	W088°49'17.96"	50
CI-12	N029°55'53.18"	W088°49'45.02"	50
CI-13	N029°56'09.39"	W088°50'31.03"	40

Legend

CI-01 Boring by GeoEngineers, Inc., 2023

Source(s):
- Aerial from Microsoft Bing

Projection: Louisiana State Plane, Southern Zone, NAD83, US Foot

N

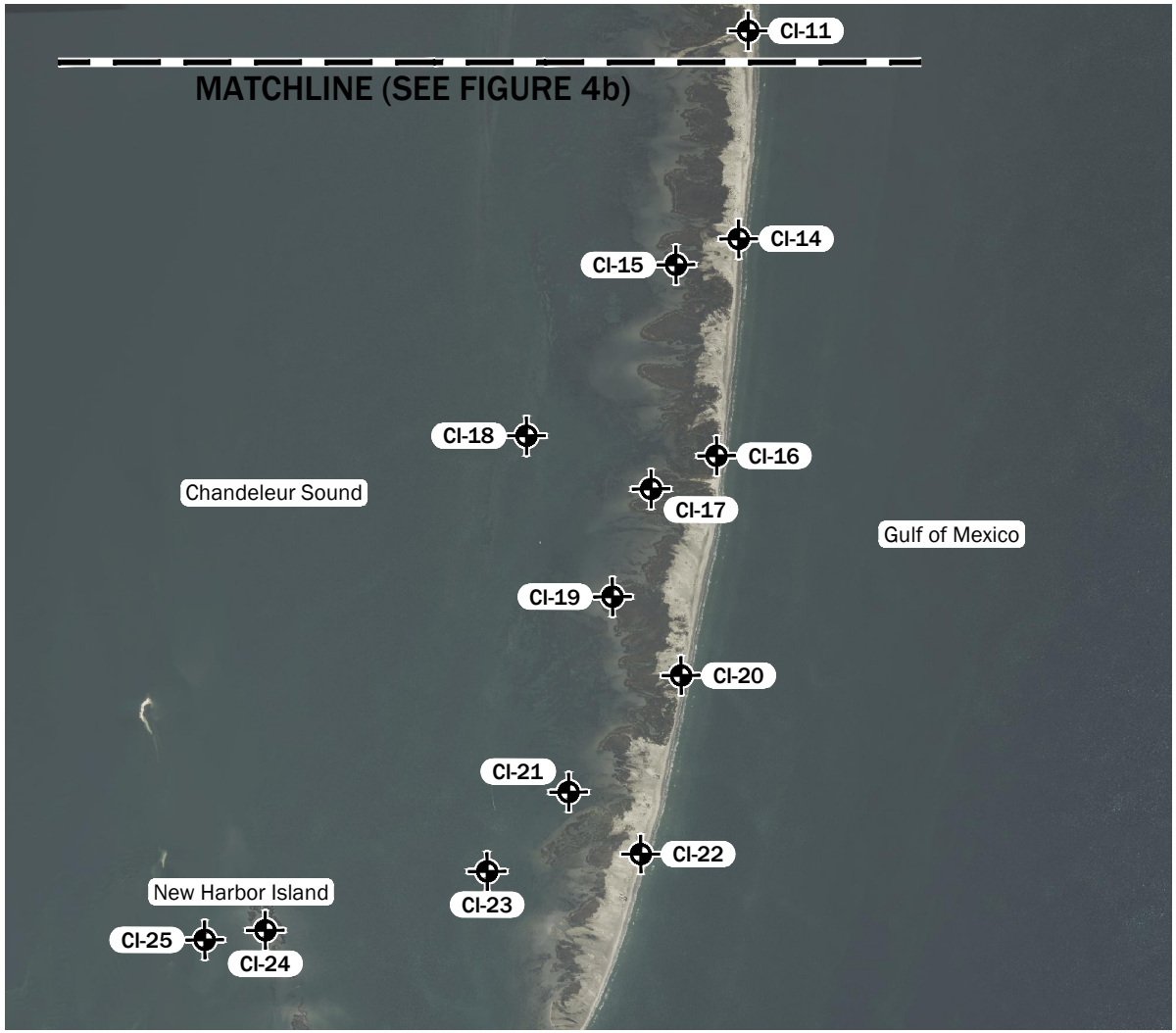
0 1
Mile

Boring Location Plan - North Island

Chandeleur Island Restoration (PO-0199)
St. Bernard Parish, Louisiana

GeoEngineers

Figure 4b



Boring Details			
Boring #	**Latitude**	**Longitude**	**Depth (ft)**
CI-11	N029°55'39.06"	W088°49'17.96"	50
CI-14	N029°54'41.34"	W088°49'22.42"	50
CI-15	N029°54'34.54"	W088°49'42.59"	80
CI-16	N029°53'41.25"	W088°49'30.99"	50
CI-17	N029°53'32.43"	W088°49'52.10"	50
CI-18	N029°53'47.95"	W088°50'31.43"	40
CI-19	N029°53'02.73"	W088°50'05.14"	50
CI-20	N029°52'40.45"	W088°49'43.83"	80
CI-21	N029°52'08.73"	W088°50'20.48"	40
CI-22	N029°51'51.09"	W088°49'57.91"	50
CI-23	N029°51'47.20"	W088°50'46.98"	40
CI-24	N029°51'32.18"	W088°51'58.06"	50
CI-25	N029°51'29.89"	W088°52'17.45"	50

Legend

CI-11 Boring by GeoEngineers, Inc., 2023

Source(s):
- Aerial from Microsoft Bing

Projection: Louisiana State Plane, Southern Zone, NAD83, US Foot

N

0 1

Mile

Boring Location Plan - South Island

Chandeleur Island Restoration (PO-0199)
St. Bernard Parish, Louisiana

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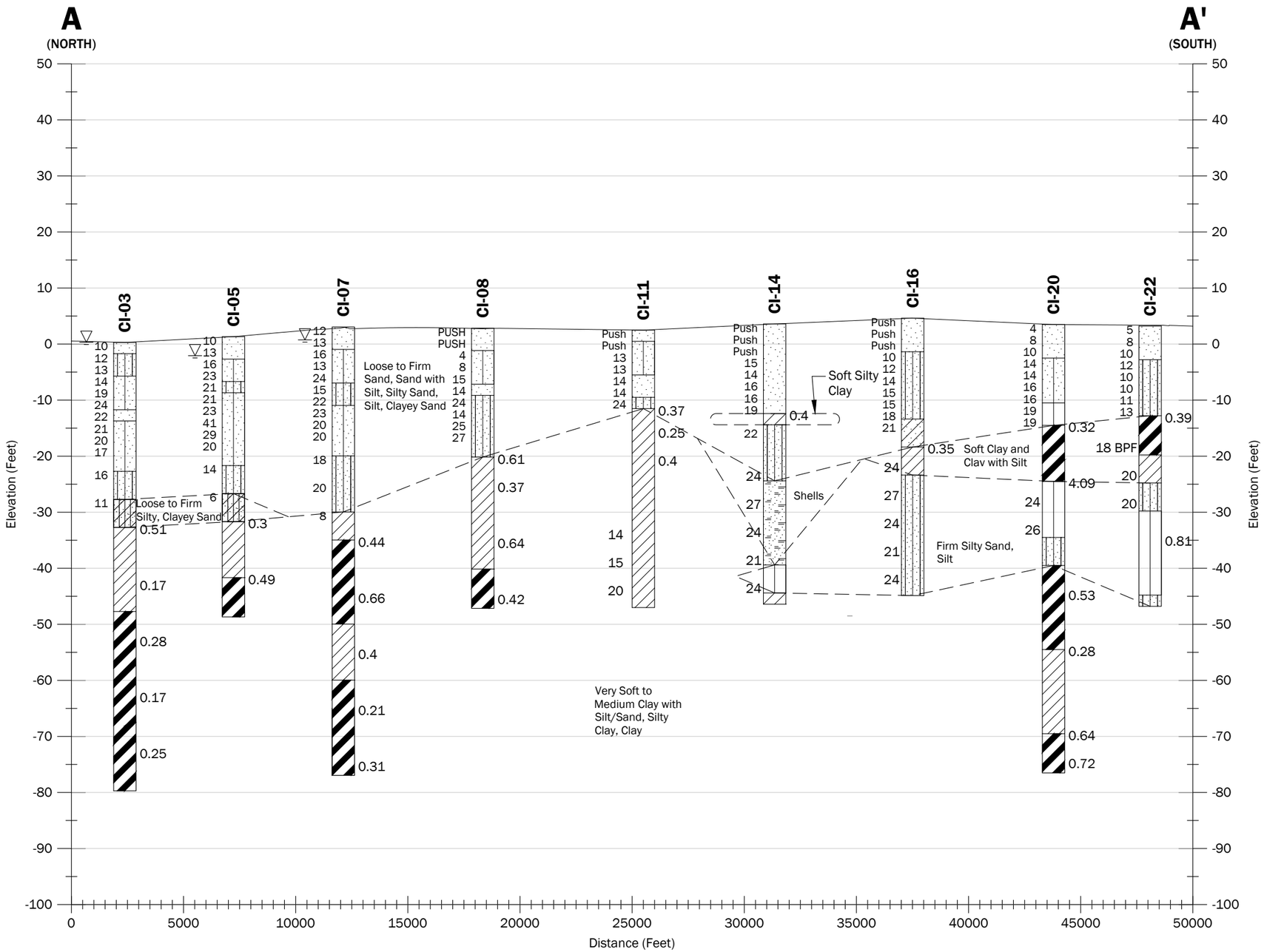
Figure 4c



Boring Legend

SPT (BPF) | Shear Strength (KSF)

BPF = Blows Per Foot

Assumed Existing Grade

Infered Soil Contact

Soil Classification

- CL
- SC-SM
- SP-SM
- SC & SP-SC
- CH
- SP
- PT
- SM
- OH
- ML
- Fill
- Shells

Note(s):

1. The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown.
2. Existing grade was extrapolated from boring elevations by EMC Inc.

Datum: NAVD88

0 5000
Horizontal Feet

0 20
Vertical Feet
Vertical Exaggeration = 250X

Generalized Subsurface Cross Section A-A' Beach Borings

Chandeleur Island Restoration (PO-0199)
St. Bernard Parish, Louisiana

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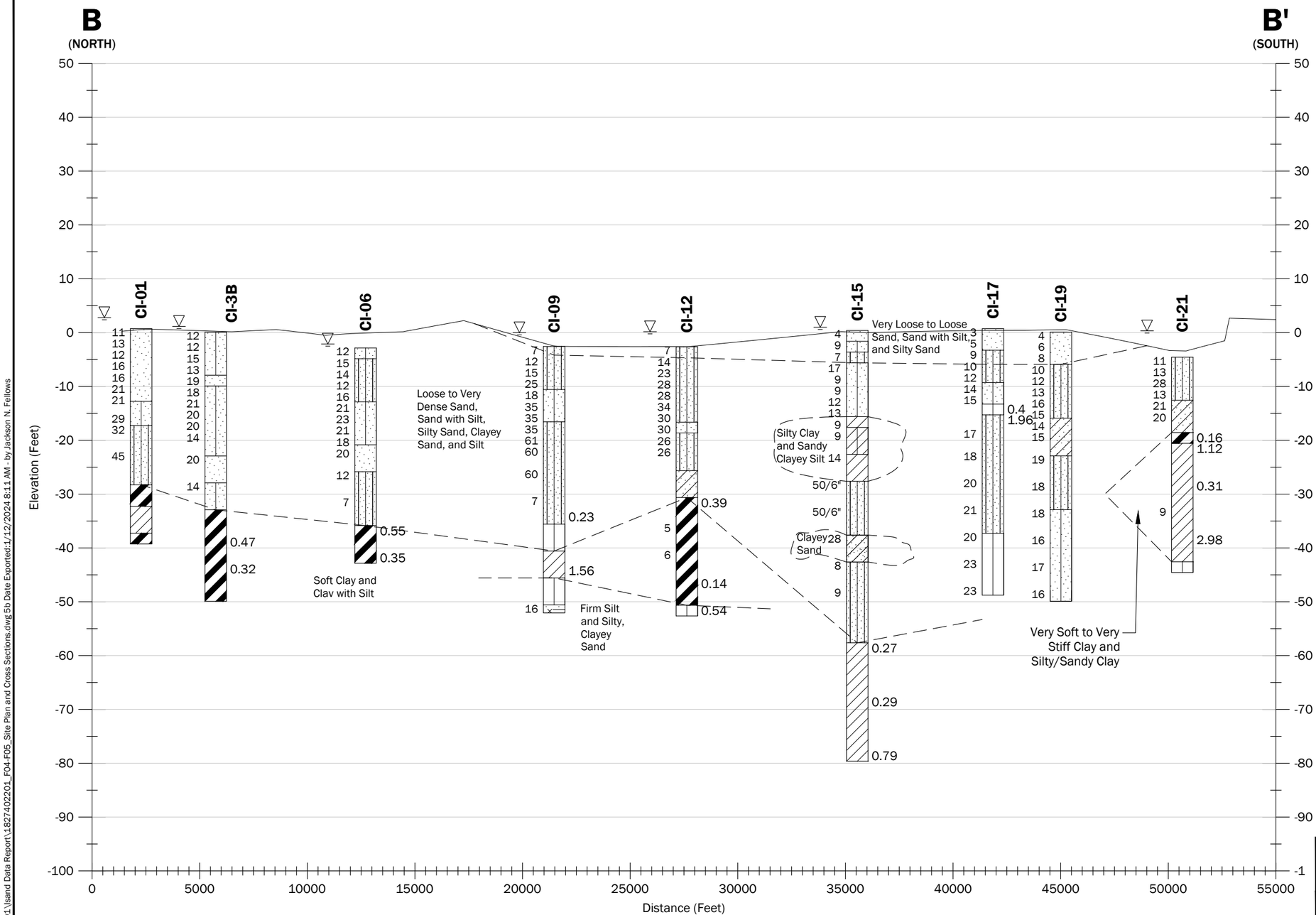
Figure 5a



Boring Legend

SPT (BPF) | Shear Strength (KSF)

BPF = Blows Per Foot

Assumed Existing Grade

Infered Soil Contact

Soil Classification

- CL
- SP-SM
- CH
- PT
- OH
- Fill
- SC-SM
- SC & SP-SC
- SP
- SM
- ML
- Shells

Note(s):

1. The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown.
2. Existing grade was extrapolated from boring elevations by EMC Inc.

Datum: NAVD88

0 5000
Horizontal Feet

0 20
Vertical Feet
Vertical Exaggeration = 250X

Generalized Subsurface Cross Section B-B'
Chandeleur Sound Shallow Water Borings

Chandeleur Island Restoration (PO-0199)
St. Bernard Parish, Louisiana

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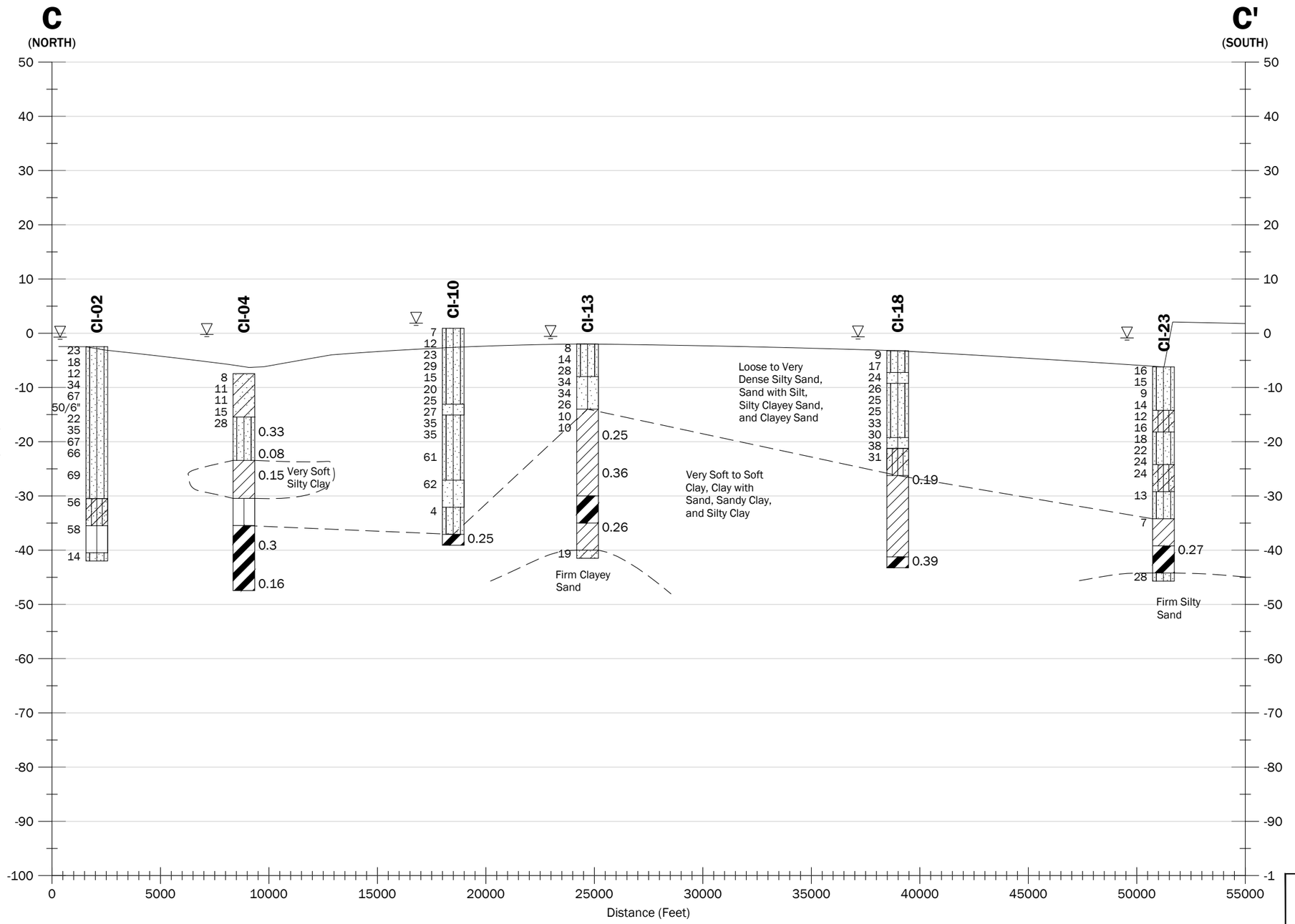
Figure 5b



Boring Legend

SPT (BPF) | Shear Strength (KSF)

BPF = Blows Per Foot

Assumed Existing Grade

Infered Soil Contact

Soil Classification

CL	SC-SM
SP-SM	SC & SP-SC
CH	SP
PT	SM
OH	ML
Fill	Shells

Note(s):

1. The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown.
2. Existing grade was extrapolated from boring elevations by EMC Inc.

Datum: NAVD88

0 5000
Horizontal Feet

0 20
Vertical Feet

Vertical Exaggeration = 250X

Generalized Subsurface Cross Section C-C'
Chandeleur Sound Deep Water Borings

Chandeleur Island Restoration (PO-0199)
St. Bernard Parish, Louisiana

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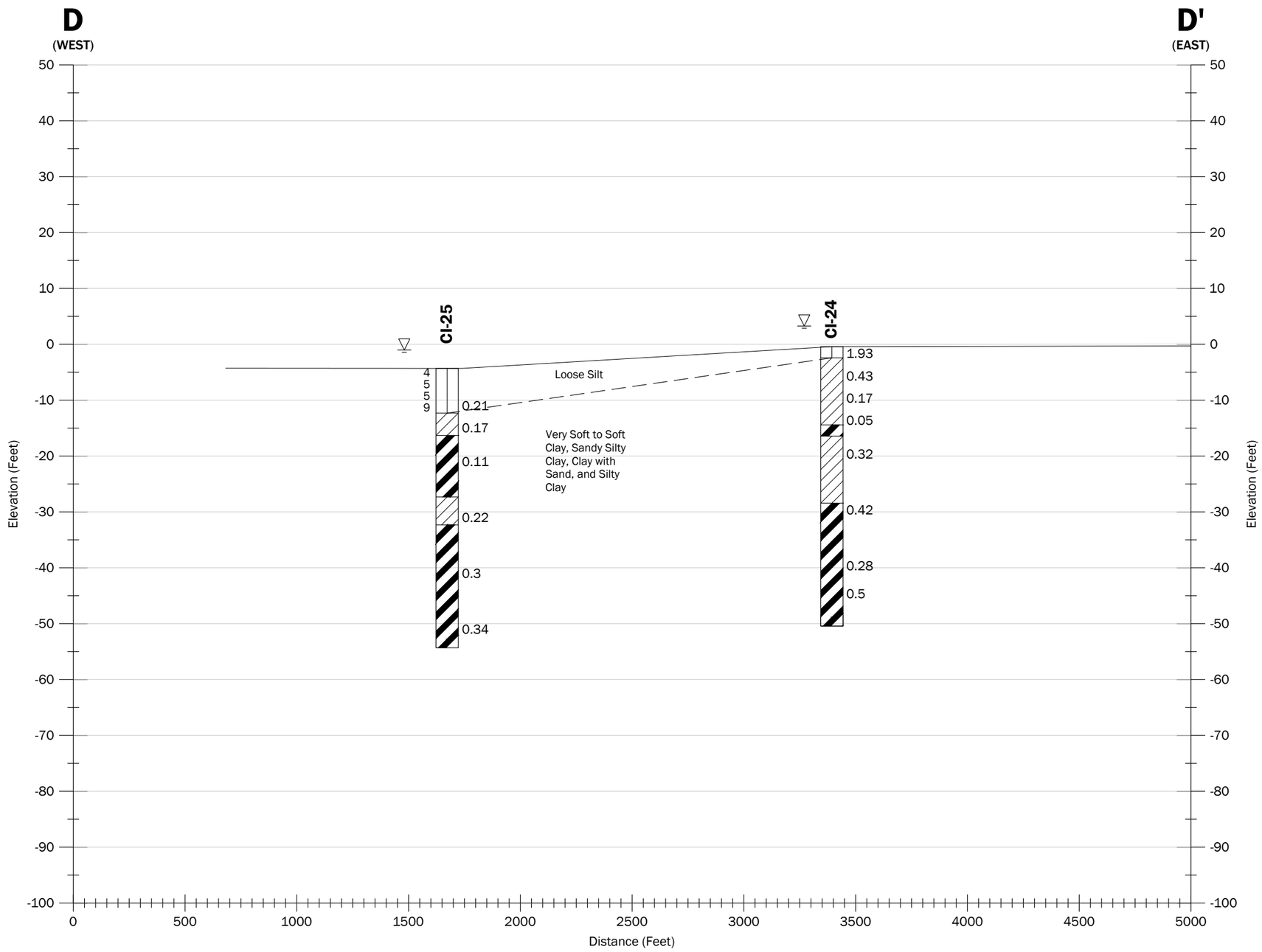
Figure 5c



Boring Legend

SPT (BPF) — Shear Strength (KSF)

BPF = Blows Per Foot

Assumed Existing Grade

Infered Soil Contact

Soil Classification

CL	SC-SM
SP-SM	SC & SP-SC
CH	SP
PT	SM
OH	ML
Fill	Shells

Note(s):

1. The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown.
2. Existing grade was extrapolated from boring elevations by EMC Inc.

Datum: NAVD88

0 500
Horizontal Feet

0 20
Vertical Feet
Vertical Exaggeration = 25X

Generalized Subsurface Cross Section D-D'
New Harbor Island Borings

Chandeleur Island Restoration (PO-0199)
St. Bernard Parish, Louisiana

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Figure 5d

APPENDICES

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APPENDIX A
Details of Field Exploration and Logs of Soil Borings

APPENDIX A
DETAILS OF FIELD EXPLORATION

This appendix provides additional information regarding the field exploration completed for the Chandeleur Island Restoration (PO-0199) Project.

General Field Exploration Information

GeoEngineers' field exploration took place between July 23 and August 3, 2023. Marsh buggy-mounted, airboat-mounted, and pontoon-mounted drilling equipment were used to complete the field exploration. The airboat and marsh buggy drilling equipment traveled to the site on the deck of an elevating boat, which also served as the quarters for the drilling crew and boat captains. Daily field reports for this work are included in this appendix.

Exploration Coordination

GeoEngineers contacted Louisiana "One-Call" to locate utilities prior to performing the field exploration. In addition, EMC, Inc. performed a magnetometer sweep around each proposed boring location and the staging area for the liftboat prior to mobilization to the field.

Soil Borings

Soil borings were advanced using wet rotary drilling methods with a drill rig mounted on a pontoon, airboat or marsh buggy. The equipment used to collect the soil samples at each location is noted on the boring logs. Soil samples were collected continuously in the top 20 feet below the ground surface/mudline and at 5-foot centers thereafter to the boring completion depths. Very soft to soft cohesive samples were collected using an Osterberg-style fixed piston sampler and 3-inch outside diameter (O.D.), thin-wall, steel Shelby tubes. Sand and silt were sampled by performing the standard penetration test (SPT) in accordance with ASTM International (ASTM) D1586 using a 2-inch O.D. split spoon. Where SPT tests were performed, blow counts are shown on the boring logs and a disturbed sample was collected. Boring logs are included in this appendix.

Immediately upon retrieval from the subsurface, each sample was examined by the GeoEngineers' field representative and visually classified. Samples collected with Shelby tubes were examined at the bottom end of the sample tube for classification in the field. A pocket penetrometer reading was performed on the bottom of the sample while in the Shelby tube and recorded on the boring log. The tubes were then capped, labeled, and stored upright to reduce the likelihood of sample disturbance during transport to the GeoEngineers soil mechanics laboratory in Baton Rouge, Louisiana. Disturbed SPT samples were sealed in plastic bags, labeled, and transported to the lab.

Soil borings were backfilled with cement-bentonite grout in accordance with Louisiana requirements upon completion. Boring logs are included in this appendix. For cohesive soil samples, descriptions of soil consistency are based on laboratory strength test results when available or field test results, such as pocket penetrometer values, in the absence of laboratory test results. Descriptions of consistency are based on the following ranges in undrained shear strength.

COHESIVE SOIL CONSISTENCY DETERMINATION

Range in Undrained Shear Strength, ksf	Consistency Determination
< 0.25	Very Soft
0.25 < Su < 0.49	Soft
0.50 < Su < 0.99	Medium
1.00 < Su < 1.99	Stiff
2.00 < Su < 3.99	Very Stiff
> 4.0	Hard

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES
	MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
MORE THAN 50% RETAINED ON NO. 200 SIEVE	SAND AND SANDY SOILS	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS
				SP	POORLY-GRADED SANDS, GRAVELLY SAND
	MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS, ROCK FLOUR, CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
MORE THAN 50% PASSING NO. 200 SIEVE	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS AND SILTS OF MEDIUM TO HIGH PLASTICITY
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: Multiple symbols are used to indicate borderline or dual soil classifications

ADDITIONAL MATERIAL SYMBOLS

SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
	AC	Asphalt Concrete
	CC	Cement Concrete
	CR	Crushed Rock/ Quarry Spalls
	SOD	Sod/Forest Duff
	TS	Topsoil

Groundwater Contact

Measured groundwater level in exploration, well, or piezometer

Water level observed at time of exploration

Graphic Log Contact

Distinct contact between soil strata

Approximate contact between soil strata

Material Description Contact

Contact between geologic units

Contact between soil of the same geologic unit

Sampler Symbol Descriptions

2.4-inch I.D. split barrel / Dames & Moore (D&M)

Standard Penetration Test (SPT)

Shelby tube

Piston

Direct-Push

Bulk or grab

Continuous Coring

Blowcount is recorded for driven samplers as the number of blows required to advance sampler 12 inches (or distance noted). See exploration log for hammer weight and drop.

"P" indicates sampler pushed using the weight of the drill rig.

"WOH" indicates sampler pushed using the weight of the hammer.

Laboratory / Field Tests

%F	Percent fines
%G	Percent gravel
AL	Atterberg limits
CA	Chemical analysis
CP	Laboratory compaction test
CS	Consolidation test
DD	Dry density
DS	Direct shear
HA	Hydrometer analysis
MC	Water content
MD	Water content and dry density
Mohs	Mohs hardness scale
OC	Organic content
PM	Permeability or hydraulic conductivity
PI	Plasticity index
PL	Plastic load test
PP	Pocket penetrometer
SA	Sieve analysis
TX	Triaxial compression
UC	Unconfined compression
UU	Unconsolidated undrained triaxial compression
VS	Vane shear

Sheen Classification

NS	No Visible Sheen
SS	Slight Sheen
MS	Moderate Sheen
HS	Heavy Sheen

NOTE: The reader must refer to the discussion in the report text and the logs of explorations for a proper understanding of subsurface conditions. Descriptions on the logs apply only at the specific exploration locations and at the time the explorations were made; they are not warranted to be representative of subsurface conditions at other locations or times.

Key to Exploration Logs

GeoEngineers

Figure A-1

Drilled	Start 8/2/2023	End 8/2/2023	Total Depth (ft)	40	Logged By / Checked By	BN / JEA	Driller	Specialized Environmental Resources, LLC	Drilling Method	Wet Rotary
Surface Elevation (ft) Vertical Datum	0.7 NAVD88		Hammer Data	Autohammer 140 (lbs) / 30 (in) Drop			Drilling Equipment	Marsh Buggy Drill		
Latitude Longitude	29.9998 -88.8436		System Datum	Decimal Degrees WGS84			Depth of water to mudline at time of exploration (ft)	2.3		

Notes: Borehole backfilled with cement-bentonite grout. The percent shells by dry mass is based on the mass retained on the No. 4 (4.75 mm) sieve.

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot or Pocket Pen (TSF)	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
0	0	20	11		1			SP	Gray poorly graded sand with traces of shell fragments (firm)	25.6							2.1	
		16	13		2				Gray sand with traces of shell fragments (firm)	24								
-5	5	18	12		3				Gray poorly graded sand with traces of shell fragments (firm)	23.9							2.6	0.01
		18	16		4				Gray sand with traces of shell fragments (firm)	23.2								
		17	16		5				Gray poorly graded sand with traces of shell fragments (firm)	27.7							1.9	0.01
-10	10	16	21		6				Gray sand with traces of shell fragments (firm)	27.8								
		16	21		7				Gray poorly graded sand with traces of shell fragments (firm)	24.5							4.7	
								SP-SM	Gray sand with silt (dense)									
-15	15	18	32		8					31.6								
		14	29		9				Gray sand with silt (firm)	30.8								
		12	32		10			SM	Gray silty sand with traces of shell fragments (dense)	26.2							24.1	1.17
-20	20																	
		18	45		11				Gray silty sand (dense)	28.6								
-25	25																	
		24	0.5		12				Gray silty sand									
								CH	Gray clay with sand layers (medium)	41.5	81.6	0.54	7.6	11	56	33	44.6	
-30	30																	
		24	0.25		13			CL	Gray clay with silt (very soft) (Specific Gravity = 2.67)	42.1	76.7				43	21		
	35																	

Coordinates Data Source: Horizontal approximated based on survey data collected by EMC., Vertical approximated based on survey data collected by EMC.
*Indicates a remold was used for strength testing.

Log of Boring CI-01

GeoEngineers

Project: Chandeleur Island Restoration Project (PO-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	FIELD DATA: Blows/foot or Pocket Pen (TSF)	FIELD DATA: Collected Sample	FIELD DATA: Sample Name	FIELD DATA: Water Level	FIELD DATA: Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
-35	35																	
		24	0.25		14			CH	Gray clay with silt pockets and sand pockets (soft)	51.6	72.4	0.45	10.2	8	50	28		
	40																	

Date:12/20/23 Path:P:\18\18274022\GINT\1827402201.GPJ DBLibrary/Library/GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_GEOTECH_LAB_MUDLINE

Log of Boring CI-01 (continued)

GeoEngineers

Project: Chandeleur Island Restoration Project (PO-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Drilled	Start 7/24/2023	End 7/24/2023	Total Depth (ft)	39.5	Logged By / Checked By	BN / JEA	Driller	Specialized Environmental Resources, LLC	Drilling Method	Wet Rotary
Surface Elevation (ft) Vertical Datum	-2.5 NAVD88		Hammer Data	Manual Hammer 140 (lbs) / 30 (in) Drop			Drilling Equipment	Airboat Drill		
Latitude Longitude	29.9989 -88.8521		System Datum	Decimal Degrees WGS84			Depth of water to mudline at time of exploration (ft)	2.0		

Notes: Borehole backfilled with cement-bentonite grout. The percent shells by dry mass is based on the mass retained on the No. 4 (4.75 mm) sieve.

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot or Pocket Pen (TSF)	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
	0	18	23		1			SM	Gray silty sand with shell fragments and organic matter (firm) (organic content = 0.7%)	25.2							24.2	
-5		18	18		2				Gray silty sand with shell fragments (firm)	30.7								
	5	20	12		3				Gray silty sand with shell fragments (firm)	25.2							28.9	
-10		18	34		4				Gray silty sand with shell fragments (dense)	28								
		24	67		5				Gray silty sand with shell fragments (very dense)	23.4								
	10	20	50/6"		6				Gray silty sand with shell fragments (very dense)	24							21.7	0.78
-15		24	22		7				Gray silty sand with shell fragments and organic matter (firm)	25.6								
	15	24	35		8				Gray silty sand with shell fragments (dense)	24.4								
		24	67		9				Gray silty sand with shell fragments (very dense)	26.7							32.1	
-20		24	66		10				Gray silty sand with shell fragments (very dense)	24.8								
	20																	
-25		24	69		11				Gray silty sand with shell fragments and traces of clay (very dense)	29.2							46.8	
	25																	
-30		24	56		12			SC-SM	Gray silty, clayey sand with shell fragments (very dense)	32.5								
	30																	
-35		22	58		13			ML	Gray sandy silt with shell fragments and traces of clay (very dense)	32					NP	NP	60.5	1.53
	35																	

Coordinates Data Source: Horizontal approximated based on survey data collected by EMC., Vertical approximated based on survey data collected by EMC.
*Indicates a remold was used for strength testing.

Date:12/20/23 Path:P:\18\18274022\GINT\18274022201.GPJ DBLibrary/Library/GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_GEOTECH_LAB_MUDLINE

Log of Boring CI-02

GeoEngineers

Project: Chandeleur Island Restoration Project (PO-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Figure A-3
Sheet 1 of 2

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	FIELD DATA: Blows/foot or Pocket Pen (TSF)	FIELD DATA: Collected Sample	FIELD DATA: Sample Name	FIELD DATA: Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	LABORATORY DATA: Dry Density, (pcf)	LABORATORY DATA: Shear Strength, (KSF)	LABORATORY DATA: Confining Pressure, (PSI)	LABORATORY DATA: Strain, %	LABORATORY DATA: Liquid Limit (LL), %	LABORATORY DATA: Plasticity Index (PI), %	LABORATORY DATA: Passing No. 200 Sieve, %	LABORATORY DATA: Percent Shells by Mass, %
	35																	
-40		20	14		14			SM	Gray silty sand with organic matter (firm)	27.8								

Date:12/20/23 Path:P:\18\18274022\GINT\18274022201.GPJ DBLibrary/Library/GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_GEOTECH_LAB_MUDLINE

Log of Boring CI-02 (continued)

GeoEngineers

Project: Chandeleur Island Restoration Project (PO-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Figure A-3
Sheet 2 of 2

Drilled	Start	End	Total Depth (ft)	Logged By	Checked By	Driller	Drilling Method
	8/3/2023	8/3/2023	80	BN	JEA	Specialized Environmental Resources, LLC	Wet Rotary

Surface Elevation (ft) Vertical Datum	0.3 NAVD88	Hammer Data	Autohammer 140 (lbs) / 30 (in) Drop	Drilling Equipment	Marsh Buggy Drill
Latitude Longitude	29.9891 -88.8378	System Datum	Decimal Degrees WGS84	Depth of water to mudline at time of exploration (ft)	0.3

Notes: Borehole backfilled with cement-bentonite grout. The percent shells by dry mass is based on the mass retained on the No. 4 (4.75 mm) sieve.

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot or Pocket Pen (TSF)	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
0	0		16	10		1			SP	Gray poorly graded sand (loose)	29.1							3.2	0.01
			17	12		2			SM	Gray silty sand (firm)	23.6								
-5	5		21	13		3				Gray silty sand (firm)	24							15	
			20	14		4			SP-SM	Gray sand with silt (firm)	21.2								
			20	19		5				Gray poorly graded sand with silt and shell fragments (firm)	21.4							7.4	0.07
-10	10		21	24		6				Gray sand with silt (firm)	22.3								
			14	22		7			SP	Gray poorly graded sand with shell fragments (firm)	24.8							4.9	0.74
-15	15		16	21		8			SP-SM	Gray sand with silt and shell fragments (firm)	22.8								
			14	20		9				Gray poorly graded sand with silt and shell fragments (firm)	24.4							6.3	1.28
			16	17		10				Gray sand with silt and shell fragments (firm)	23.1								
-20	20																		
			16	16		11			SM	Gray silty sand with shell fragments (firm)	24							13.7	
-25	25																		
			18	11		12			SC-SM	Gray silty, clayey sand (firm)	27.5								
-30	30																		
			24	0.25		13			CL	Gray silty clay with sand pockets (medium)	37.1	85.2	0.51	8.9	9			89.8	
	35																		

Coordinates Data Source: Horizontal approximated based on survey data collected by EMC., Vertical approximated based on survey data collected by EMC.
*Indicates a remold was used for strength testing.

Date:12/20/23 Path:P:\18\18274022\GINT\1827402201.GPJ DBLibrary/Library/GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_GEOTECH_LAB_MUDLINE

Log of Boring CI-03

GeoEngineers

Project: Chandeleur Island Restoration Project (PO-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Figure A-4
Sheet 1 of 3

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot or Pocket Pen (TSF)	Collected Sample: Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
-35	35																
		24	0.25	14				Gray clay with sand, silt, and shell fragments (very soft)	36.1								
-40	40																
		22	0.25	15				Gray clay with silt and sand (very soft)	39.1	83.8	0.17	11.5	15	42	22		
-45	45																
		24	0.25	16			CH	Gray clay (very soft)	45.4								
-50	50																
		24	0.25	17				Gray clay (soft)	59.5	66.1	0.28	14.1	15	82	49		
-55	55																
		24	0.25	18				Gray clay (very soft)	69.1								
-60	60																
		24	0.25	19				Gray clay with organic matter (very soft)	65.1	62.3	0.17	16.7	14				
-65	65																
		24	0.25	20				Gray clay (very soft) (Specific gravity = 2.689)	68.2	60.1				78	48		
-70	70																
		24	0.25	21				Gray clay (very soft)	65.1	63	0.25	19.3	14				
-75	75																

Date:12/20/23 Path:P:\18\18274022\GINT\18274022201.GPJ DBLibrary/Library\GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_GEOTECH_LAB_MUDLINE

Log of Boring CI-03 (continued)

GeoEngineers

Project: Chandeleur Island Restoration Project (PO-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Figure A-4
Sheet 2 of 3

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	FIELD DATA: Blows/foot or Pocket Pen (TSF)	FIELD DATA: Collected Sample	FIELD DATA: Sample Name	FIELD DATA: Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	LABORATORY DATA: Dry Density, (pcf)	LABORATORY DATA: Shear Strength, (KSF)	LABORATORY DATA: Confining Pressure, (PSI)	LABORATORY DATA: Strain, %	LABORATORY DATA: Liquid Limit (LL), %	LABORATORY DATA: Plasticity Index (PI), %	LABORATORY DATA: Passing No. 200 Sieve, %	LABORATORY DATA: Percent Shells by Mass, %
		22	0.25		22				Gray clay (very soft)	78.6								
	80																	

Log of Boring CI-03 (continued)

GeoEngineers

Project: Chandeleur Island Restoration Project (PO-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Figure A-4
Sheet 3 of 3

Drilled	Start	End	Total Depth (ft)	Logged By	Checked By	Driller	Drilling Method
	8/2/2023	8/2/2023	50	BN	JEA	Specialized Environmental Resources, LLC	Wet Rotary

Surface Elevation (ft) Vertical Datum	Hammer Data	Drilling Equipment
0.1 NAVD88	Autohammer 140 (lbs) / 30 (in) Drop	Marsh Buggy Drill

Latitude Longitude	System Datum	Depth of water to mudline at time of exploration (ft)
29.9881 -88.842	Decimal Degrees WGS84	1.3

Notes: Borehole backfilled with cement-bentonite grout. The percent shells by dry mass is based on the mass retained on the No. 4 (4.75 mm) sieve.

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot or Pocket Pen (TSF)	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
	0		16	12		1			SP-SM	Gray poorly graded sand with silt (firm)	28							8.6	
			14	12		2				Gray sand with silt (firm)	25.2								
-5	5		20	15		3				Gray poorly graded sand with silt and shell fragments (firm)	27.5							6.2	
			16	13		4				Gray sand with silt and shell fragments (firm)	26								
			18	19		5			SP	Gray poorly graded sand with traces of shell fragments (firm)	24.4							3.3	
-10	10		20	18		6			SP-SM	Gray sand with silt (firm)	25.3								
			17	21		7				Gray poorly graded sand with silt (firm)	26							9.3	
-15	15		18	20		8				Gray sand with silt (firm)	27.2								
			16	20		9				Gray poorly graded sand with silt (firm)	27.5							9.2	0.03
			16	14		10				Gray sand with silt (firm)	28.4								
-20	20																		
			14	20		11			SP	Gray poorly graded sand with shell fragments (firm)	27.1							3.4	
-25	25																		
			12	14		12			SP-SM	Gray sand with silt and shell fragments (firm)	29.1								
-30	30																		
			24	0.25		13			CH	Gray clay with a silty sand layer (very soft) (specific gravity = 2.707)	34.7	87.2				83	53		
	35																		

Coordinates Data Source: Horizontal approximated based on survey data collected by EMC., Vertical approximated based on survey data collected by EMC.
*Indicates a remold was used for strength testing.

Log of Boring CI-03B

GeoEngineers

Project: Chandeleur Island Restoration Project (PO-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	FIELD DATA: Blows/foot or Pocket Pen (TSF)	FIELD DATA: Collected Sample: Sample Name	FIELD DATA: Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
	35																
		24	0.25	14				Gray clay with sand lenses at top (soft)	62.8	64.8	0.47	10.2	11	71	44		
-40	40																
		24	0.25	15				Gray clay (soft)	58.9	67.4	0.32	11.5	15	77	47		
-45	45																
		24	0.25	16				Gray clay (very soft)	63.5								
	50																

Log of Boring CI-03B (continued)

GeoEngineers

Project: Chandeleur Island Restoration Project (PO-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Drilled	Start 7/28/2023	End 7/28/2023	Total Depth (ft)	40	Logged By / Checked By	BN / JEA	Driller	Specialized Environmental Resources, LLC	Drilling Method	Wet Rotary
Surface Elevation (ft) Vertical Datum	-7.5 NAVD88		Hammer Data	Manual Hammer 140 (lbs) / 30 (in) Drop			Drilling Equipment	Pontoon Drill		
Latitude Longitude	29.9788 -88.8499		System Datum	Decimal Degrees WGS84			Depth of water to mudline at time of exploration (ft)	7.4		

Notes: Borehole backfilled with cement-bentonite grout. The percent shells by dry mass is based on the mass retained on the No. 4 (4.75 mm) sieve.

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot or Pocket Pen (TSF)	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
10	0	12	8		1			SC	Gray clayey sand with silt, organic matter and shell fragments (loose) (organic content = 2.1%)	37.1							35.1	
		10	11		2				Gray clayey sand with silt, organic matter and shell fragments (firm)	34.1								
5	5	18	11		3				Gray clayey sand with silt and shell fragments (firm)	41.7					31	9	43.9	
		16	15		4				Gray clayey sand with silt and shell fragments (firm)	35.1								
15		20	28		5			SM	Gray silty sand with traces of clay and shell fragments (firm)	33.3							24.3	
	10	23	0.5		6				Gray silty sand with clay layers and shell fragments	32.1	92.5	0.33	5	15	28	6		
20		23	0.5		7				Gray silty sand with traces of clay and shell fragments	26								
	15	22	0.25		8				Gray silty sand with traces of clay and shell fragments	31.8	92.2	0.08	5	15				
25		24	0.25		9			CL	Gray silty clay with sand and shell fragments (very soft)	30.2								
		24	0.25		10				Gray silty clay with sand pockets (very soft)	45.5	77.9	0.15	5	15				
30	20																	
		24	0.25		11			ML	Gray sandy silt with traces of clay (very soft)	27.6								
35	25																	
		24	0.25		12			CH	Gray clay with silt pockets (very soft)	62.4								
40	30																	
		24	0.25		13				Gray clay (soft)	64.5	62	0.3	8.9	15				
	35																	

Coordinates Data Source: Horizontal approximated based on survey data collected by EMC., Vertical approximated based on survey data collected by EMC.
*Indicates a remold was used for strength testing.

Date:1/9/24 Path:P:\18\18274022\GINT\18274022201.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_GEOTECH_LAB_MUDLINE

Log of Boring CI-04

GeoEngineers

Project: Chandeleur Island Restoration Project (P0-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Figure A-6

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	FIELD DATA: Blows/foot or Pocket Pen (TSF)	FIELD DATA: Collected Sample: Sample Name	FIELD DATA: Water Level	FIELD DATA: Graphic Log	FIELD DATA: Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
-5	35																
		24	0.25	14				Gray clay (very soft)	78.5	56.1	0.16	10.2	15				
	40																

Log of Boring CI-04 (continued)

GeoEngineers

Project: Chandeleur Island Restoration Project (P0-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Figure A-6

Drilled	Start 8/1/2023	End 8/1/2023	Total Depth (ft) 50	Logged By BN / Checked By JEA	Driller Specialized Environmental Resources, LLC	Drilling Method Wet Rotary
Surface Elevation (ft) / Vertical Datum	1.3 NAVD88		Hammer Data	Autohammer 140 (lbs) / 30 (in) Drop	Drilling Equipment	Marsh Buggy Drill
Latitude / Longitude	29.9766 -88.8326		System Datum	Decimal Degrees WGS84	Groundwater Date Measured	Depth to Water (ft) 3.40 / Elevation (ft) -2.10
					8/1/2023	

Notes: Borehole backfilled with cement-bentonite grout. The percent shells by dry mass is based on the mass retained on the No. 4 (4.75 mm) sieve.

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot or Pocket Pen (TSF)	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
0	0		18	10		1			SP	Tan poorly graded sand with shell fragments (firm)	17.6							2.7	
			15	13		2				Tan poorly graded sand with shell fragments (firm)	18.6								
-5	5		16	16		3			SP-SM	Gray poorly graded sand with silt and shell fragments (firm)	22.5							7.2	0.68
			20	23		4				Gray poorly graded sand with silt and shell fragments (firm)	24.2								
			20	21		5			SM	Gray silty sand with shell fragments (firm)	20.7							30.9	0.96
-10	10		22	21		6			SP-SM	Gray sand with silt and shell fragments (firm)	22.7								
			16	23		7				Gray poorly graded sand with silt and shell fragments (firm)	24.4							6.9	0.27
-15	15		16	41		8				Gray sand with silt (dense)	21.7								
			17	29		9				Gray poorly graded sand with silt and shell fragments (firm)	22							6.5	5.96
			15	20		10				Gray sand with silt and shell fragments (firm)	24.3								
-20	20																		
			16	14		11			SM	Gray silty sand with shell fragments (firm)	33.5							20.9	3.40
-25	25																		
			14	6		12			SC-SM	Gray silty clayey sand (loose)	47.7								
-30	30																		
			20	0.25		13			CL	Dark gray silty clay with sand and shell fragments (soft)	33.6	88.5	0.3	8.9	14	41	21	76.5	
	35																		

Coordinates Data Source: Horizontal approximated based on survey data collected by EMC., Vertical approximated based on survey data collected by EMC.
*Indicates a remold was used for strength testing.

Date:1/10/24 Path:P:\18\18274022\GINT\18274022201.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_GEOTECH_LAB

Log of Boring CI-05

GeoEngineers

Project: Chandeleur Island Restoration Project (PO-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Figure A-7

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	FIELD DATA: Blows/foot or Pocket Pen (TSF)	FIELD DATA: Collected Sample: Sample Name	FIELD DATA: Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
-35	35																
			0.25	14				Gray clay with sand and shell fragments (very soft)	40								
-40	40																
		24	0.25	15			CH	Dark gray clay with silty sand layers (soft)	43.7	79.6	0.49	11.5	8	69	43		
-45	45																
		24	0.25	16				Gray clay with silt pockets and sand lenses (very soft)	38.9								
	50																

Log of Boring CI-05 (continued)

GeoEngineers

Project: Chandeleur Island Restoration Project (PO-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Figure A-7
Sheet 2 of 2

Drilled	Start	End	Total Depth (ft)	Logged By / Checked By	Driller	Drilling Method
	8/3/2023	8/3/2023	40	BN / JEA	Specialized Environmental Resources, LLC	Wet Rotary

Surface Elevation (ft) Vertical Datum	-2.9 NAVD88	Hammer Data	Autohammer 140 (lbs) / 30 (in) Drop	Drilling Equipment	Marsh Buggy Drill
Latitude Longitude	29.9711 -88.8403	System Datum	Decimal Degrees WGS84	Depth of water to mudline at time of exploration (ft)	1.3

Notes: Borehole backfilled with cement-bentonite grout. The percent shells by dry mass is based on the mass retained on the No. 4 (4.75 mm) sieve.

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot or Pocket Pen (TSF)	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
-5	0	16	12		1			SP-SM	Gray poorly graded sand with silt and traces of shells (firm)	24.5							6.5	
		12	15		2			SM	Gray silty sand with organic matter and shell fragments (firm)	25.2							20.3	
	5	14	14		3				Gray silty sand with organic matter (firm)	23.3								
-10		12	12		4				Gray silty sand with shell fragments (firm)	26.3							13.2	
		14	16		5				Gray silty sand (firm)	26.3								
-15	10	18	21		6			SP-SM	Gray poorly graded sand with silt and shell fragments (firm)	25.4							9.6	
		18	23		7				Gray poorly graded sand with silt (firm)	23.4								
-20	15	15	21		8				Gray poorly graded sand with silt and shell fragments (firm)	23.3							7.6	
		18	18		9				Gray poorly graded sand with silt (firm)	29.7								
-25	20	18	20		10			SP	Gray poorly graded sand (firm)	25							4	
	25	14	12		11			SM	Gray silty sand with shell fragments (firm)	30.9								
-30	30	20	7		12				Gray silty sand (loose)	26.9							31	
-35	35	24	0.25		13			CH	Gray clay with sand layers, sand pockets and shell fragments (medium)	42.5	80.1	0.55	8.9	7	51	29		

Coordinates Data Source: Horizontal approximated based on survey data collected by EMC., Vertical approximated based on survey data collected by EMC.
*Indicates a remold was used for strength testing.

Date:12/20/23 Path:P:\18\18274022\GINT\1827402201.GPJ DBLibrary/Library/GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_GEOTECH_LAB_MUDLINE

Log of Boring CI-06

GeoEngineers

Project: Chandeleur Island Restoration Project (P0-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Figure A-8

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	FIELD DATA: Blows/foot or Pocket Pen (TSF)	FIELD DATA: Collected Sample: Sample Name	FIELD DATA: Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
-40	35																
		24	0.25	14				Gray clay with sand lenses (soft) (specific gravity = 2.693)	50.3	72.3	0.35	10.2	15	75	45		
	40																

Log of Boring CI-06 (continued)

Drilled	Start 7/31/2023	End 7/31/2023	Total Depth (ft)	80	Logged By / Checked By	BN / JEA	Driller	Specialized Environmental Resources, LLC	Drilling Method	Wet Rotary
Surface Elevation (ft) / Vertical Datum	3.1 NAVD88		Hammer Data	Autohammer 140 (lbs) / 30 (in) Drop			Drilling Equipment	Marsh Buggy Drill		
Latitude / Longitude	29.9639 -88.8274		System Datum	Decimal Degrees WGS84			Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)	
							7/31/2023	2.30	0.80	

Notes: Borehole backfilled with cement-bentonite grout. The percent shells by dry mass is based on the mass retained on the No. 4 (4.75 mm) sieve.

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot or Pocket Pen (TSF)	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
0	0		16	12		1			SP	Gray poorly graded sand (firm)	18.5								
			17	13		2	▽			Gray poorly graded sand with shell fragments (firm)	22.5							1.5	0.30
-5	5		11	16		3			SP-SM	Gray poorly graded sand with silt (firm)	21.7								
			12	13		4				Gray poorly graded sand with silt (firm)	25.5							7.4	1.46
-10	10		12	24		5				Gray poorly graded sand with silt (firm)	21.9								
			18	15		6			SM	Gray silty sand with traces of shell fragments (firm)	21.9							14	12.15
			14	22		7				Gray silty sand (firm)	22.1								
-15	15		15	23		8			SP-SM	Gray poorly graded sand with silt, shells and shell fragments (firm)	20.2							11.7	8.86
			10	20		9				Gray poorly graded sand with silt and shells and shell fragments (firm)	24.7								
-20	20		10	20		10				Gray poorly graded sand with silt and shells and shell fragments (firm)	25.2							11.3	
			12	18		12			SM	Gray silty sand (firm)	27.8								
-25	25		11	20		13				Gray silty sand with shell fragments (firm)	25.3							34.8	3.85
-30	30		20	8		14			CL	Gray sandy clay with shells	46.4								
	35																		

Coordinates Data Source: Horizontal approximated based on survey data collected by EMC., Vertical approximated based on survey data collected by EMC.
*Indicates a remold was used for strength testing.

Date:1/10/24 Path:P:\18\18274022\GINT\18274022O1.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_GEOTECH_LAB

Log of Boring CI-07

GeoEngineers

Project: Chandeleur Island Restoration Project (P0-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Figure A-9
Sheet 1 of 3

Depth (feet)	Elevation (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot or Pocket Pen (TSF)	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
35	-35																	
		24	0.5		15			CH	Gray clay with sand pockets (soft)	48.6	74.3	0.44	10.2	11	56	32		
40	-40																	
		24	0.5		16				Gray clay with silty sand pockets (soft)	61.9								
45	-45																	
		22	0.25		17				Gray clay with sand lenses (medium)	52.7	71	0.66	12.8	7	69	43		
50	-50																	
		24	0.25		18			CL	Gray clay with sand (very soft)	35.4								
55	-55																	
		24	0.25		19				Gray silty clay with sand pockets (soft) (specific gravity = 2.741)	30.4	90.3	0.4	15.4	15	37	15		
60	-60																	
		24	0.25		20			CH	Gray clay with silty sand pockets (very soft)	49.6								
65	-65																	
		23	0.25		21				Gray clay with silty sand pockets (very soft)	53.4	67.8	0.21	18	15	58	32		
70	-70																	
		24	0.25		22				Gray clay with silty sand pockets (very soft)	57								
75																		

Date:1/10/24 Path:P:\18\18274022\GINT\18274022O1.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_GEOTECH_LAB

Log of Boring CI-07 (continued)

GeoEngineers

Project: Chandeleur Island Restoration Project (P0-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	FIELD DATA: Blows/foot or Pocket Pen (TSF)	FIELD DATA: Collected Sample: Sample Name	FIELD DATA: Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
-75	80	24	0.25	23				Gray clay with silty sand pockets (soft)	51.8	72.1	0.31	20.6	12	89	59		

Date:1/10/24 Path:P:\18\18274022\GINT\18274022O1.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_GEOTECH_LAB

Log of Boring CI-07 (continued)

GeoEngineers

Project: Chandeleur Island Restoration Project (P0-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Figure A-9

Drilled	Start 7/24/2023	End 7/24/2023	Total Depth (ft)	50	Logged By / Checked By	CB / JEA	Driller	Specialized Environmental Resources, LLC	Drilling Method	Wet Rotary
Surface Elevation (ft) Vertical Datum	2.9 NAVD88		Hammer Data	Autohammer 140 (lbs) / 30 (in) Drop			Drilling Equipment	Marsh Buggy Drill		
Latitude Longitude	29.9471 -88.8237		System Datum	Decimal Degrees WGS84			Groundwater not observed at time of exploration			

Notes: Borehole backfilled with cement-bentonite grout. The percent shells by dry mass is based on the mass retained on the No. 4 (4.75 mm) sieve.

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot or Pocket Pen (TSF)	Collected Sample	Sample Name	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
	0	18	PUSH		1		SP	Light gray poorly graded sand with shell fragments	14.1								
0		17	PUSH		2			Light gray poorly graded sand with shell fragments	11.9							0.9	2.99
	5	17	4		3		SP-SM	Gray poorly graded sand with silt and a layer of shell fragments (loose)	21.2								
-5		17	8		4			Gray poorly graded sand with silt and a layer of shell fragments (loose)	22.1							5	6.77
		18	15		5			Gray poorly graded sand with silt, shell fragments and organic matter (firm)	20.7								
	10	17	14		6		SP	Gray poorly graded sand with shell fragments (firm)	26.8							4.8	2.24
-10		17	24		7		SM	Gray silty sand with shell fragments (firm)	22.6								
	15	17	14		8			Gray silty sand with a layer of shell fragments (firm)	17.8								
		17	25		9			Gray silty sand with a layer of shell fragments (firm)	25.5							15.7	0.13
-15		18	27		10			Gray silty sand with a layer of shell fragments (firm)	24.1								
	20																
-20		24	0.5		11		CL	Dark gray sandy clay with silt and shell fragments (medium)	35	85.5	0.61	6.3	11	48	26		
	25																
-25		16	0.5		12			Gray clay with sand pockets and shell fragments (soft)	50.4	70.8	0.37	7.6	10				
	30																
-30		24	0.6		13			Gray silty clay with sand (medium)	38.8								
	35																

Coordinates Data Source: Horizontal approximated based on survey data collected by EMC., Vertical approximated based on survey data collected by EMC.
*Indicates a remold was used for strength testing.

Date:12/20/23 Path:P:\18\18274022\GINT\18274022-01.GPJ DBLibrary/Library/GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_GEOTECH_LAB_NO_GW

Log of Boring CI-08

GeoEngineers

Project: Chandeleur Island Restoration Project (PO-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Figure A-10
Sheet 1 of 2

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	FIELD DATA: Blows/foot or Pocket Pen (TSF)	FIELD DATA: Collected Sample: Sample Name	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
	35															
-35		24	0.6	14			Gray silty clay with sand (medium)	40.3	82.2	0.64	10.2	11				
	40															
-40		21	0.6	15		CH	Gray clay with silt lenses and shell fragments (medium)	55								
	45															
-45		23	0.6	16			Gray clay with silty sand layers (soft)	51.9	72.1	0.42	12.8	13				
	50															

Log of Boring CI-08 (continued)

Drilled	Start 7/25/2023	End 7/25/2023	Total Depth (ft)	49.5	Logged By / Checked By	BN / JEA	Driller	Specialized Environmental Resources, LLC	Drilling Method	Wet Rotary
Surface Elevation (ft) Vertical Datum	-2.6 NAVD88		Hammer Data	Manual Hammer 140 (lbs) / 30 (in) Drop			Drilling Equipment	Airboat Drill		
Latitude Longitude	29.9484 -88.8299		System Datum	Decimal Degrees WGS84			Depth of water to mudline at time of exploration (ft)	2.4		

Notes: Borehole backfilled with cement-bentonite grout. The percent shells by dry mass is based on the mass retained on the No. 4 (4.75 mm) sieve.

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot or Pocket Pen (TSF)	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
	0	14	7		1			SM	Gray silty sand with shell fragments and traces of organic matter (loose) (organic content = 1.3%)	27.5							12.7	
-5		18	12		2				Gray silty sand with traces of organic matter (firm)	25.8								
	5	14	15		3				Gray silty sand with traces of clay and organic matter (firm)	28.7					32	7	26.9	
-10		12	25		4				Gray silty sand with traces of clay (firm)	24.8								
		22	18		5			SP-SM	Gray poorly graded sand with silt and shell fragments (firm)	25.4							9.5	
	10	22	35		6				Gray poorly graded sand with silt and shell fragments (dense)	29.6								
-15		24	35		7				Gray poorly graded sand with silt and shell fragments (dense)	28.1							8	0.18
	15	22	35		8			SM	Gray silty sand with shell fragments (dense)	28.9								
-20		22	61		9				Dark gray silty sand with shell fragments (very dense)	27.6							12.1	
		22	60		10				Dark gray silty sand with shell fragments (very dense)	32.3								
-25	20																	
		20	60		11				Gray silty sand with shell fragments and traces of clay (very dense)	29.8								
-30	25																	
		18	7		12				Gray silty sand with clay pockets and shell fragments (loose)	35.4							40.3	
-35	30																	
		24			13			ML	Gray silt with sand, traces of clay and organic matter (specific gravity = 2.678)	34.7	87.1	0.23	8.9	15	NP	NP		
	35																	

Coordinates Data Source: Horizontal approximated based on survey data collected by EMC., Vertical approximated based on survey data collected by EMC.
*Indicates a remold was used for strength testing.

Date:12/20/23 Path:P:\18\18274022\GINT\18274022201.GPJ DBLibrary/Library/GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_GEOTECH_LAB_MUDLINE

Log of Boring CI-09

GeoEngineers

Project: Chandeleur Island Restoration Project (PO-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Figure A-11
Sheet 1 of 2

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	FIELD DATA: Blows/foot or Pocket Pen (TSF)	FIELD DATA: Collected Sample	FIELD DATA: Sample Name	FIELD DATA: Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
	35																	
-40		24			14			CL	Gray sandy clay with silt and shell fragments	35.9								
	40																	
-45		24			15			ML	Gray silt with clay, sand lenses and sand pockets	28.5	94.8	1.56	11.5	15	30	7		
	45																	
-50		16	16		16			SC-SM	Gray silty, clayey sand with organic matter and shell fragments (firm)	34.2								

Date:12/20/23 Path:P:\18\18274022\GINT\1827402201.GPJ DBLibrary/Library/GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_GEOTECH_LAB_MUDLINE

Log of Boring CI-09 (continued)

GeoEngineers

Project: Chandeleur Island Restoration Project (PO-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Figure A-11
Sheet 2 of 2

Drilled	Start	End	Total Depth (ft)	Logged By	Checked By	Driller	Drilling Method
	7/27/2023	7/27/2023	40	BN	JEA	Specialized Environmental Resources, LLC	Wet Rotary

Surface Elevation (ft) Vertical Datum	0.9 NAVD88	Hammer Data	Manual Hammer 140 (lbs) / 30 (in) Drop	Drilling Equipment	Airboat Drill
Latitude Longitude	29.9532 -88.8397	System Datum	Decimal Degrees WGS84	Depth of water to mudline at time of exploration (ft)	2.0

Notes: Borehole backfilled with cement-bentonite grout. The percent shells by dry mass is based on the mass retained on the No. 4 (4.75 mm) sieve.

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot or Pocket Pen (TSF)	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
0	0	10	7		1			SM	Gray silty sand with shell fragments and traces of clay (loose)	28.7							24.3	
		16	12		2				Gray silty sand with traces of organic matter (firm) (organic content = 1.6%)	27.1					26	3	31.9	
-5	5	16	23		3				Gray silty sand with shell fragments (firm)	31.1								
		20	29		4				Gray silty sand (firm)	25.8							22.4	
		20	15		5				Gray silty sand with organic matter (firm)	28.8								
-10	10	20	20		6				Gray silty sand with shell fragments (firm)	29.7							15.3	0.10
		20	25		7				Gray silty sand with shell fragments (firm)	35.4								
-15	15	16	27		8			SP-SM	Gray poorly graded sand with silt and shell fragments (firm)	26							6.8	0.35
		22	35		9			SM	Gray silty sand (dense)	28								
		17	35		10				Gray silty sand (dense)	27.7							12.6	
-20	20																	
		22	61		11				Gray silty sand (very dense)	34.6								
-25	25																	
		20	62		12			SP-SM	Gray poorly graded sand with silt (very dense)	27.2							7.6	0.02
-30	30																	
		20	4		13			SM	Gray silty sand with clay pockets and shell pockets (loose)	32.7								
	35																	

Coordinates Data Source: Horizontal approximated based on survey data collected by EMC., Vertical approximated based on survey data collected by EMC.
*Indicates a remold was used for strength testing.

Date:12/20/23 Path:P:\18\18274022\GINT\1827402201.GPJ DBLibrary/Library/GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_GEOTECH_LAB_MUDLINE

Log of Boring CI-10

GeoEngineers

Project: Chandeleur Island Restoration Project (PO-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Figure A-12

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	FIELD DATA: Blows/foot or Pocket Pen (TSF)	FIELD DATA: Collected Sample	FIELD DATA: Sample Name	FIELD DATA: Water Level	FIELD DATA: Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
-35	35																	
		22	0.5		14			CH	Dark gray clay with silt and sand pockets (soft)	47.5	76	0.25	10.2	12	68	43		
	40																	

Log of Boring CI-10 (continued)

GeoEngineers

Project: Chandeleur Island Restoration Project (PO-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Drilled: Start 7/25/2023 End 7/25/2023	Total Depth (ft): 49.5	Logged By: CB Checked By: JEA	Driller: Specialized Environmental Resources, LLC	Drilling Method: Wet Rotary	
Surface Elevation (ft): 2.5 Vertical Datum: NAVD88		Hammer Data: Autohammer 140 (lbs) / 30 (in) Drop		Drilling Equipment: Marsh Buggy Drill	
Latitude: 29.9275 Longitude: -88.8217		System Datum: Decimal Degrees WGS84		Groundwater not observed at time of exploration	

Notes: Borehole backfilled with cement-bentonite grout. The percent shells by dry mass is based on the mass retained on the No. 4 (4.75 mm) sieve.

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot or Pocket Pen (TSF)	Collected Sample	Sample Name	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
	0		18	Push		1		SP	Gray poorly graded sand with shell fragments	18.1							1	1.81
0			18	Push		2		SP-SM	Gray poorly graded sand with silt and shell fragments	22.1								
	5		18	13		3			Gray poorly graded sand with silt and shell fragments (firm)	22.9							7.3	1.25
-5			18	13		4			Gray poorly graded sand with silt and shell fragments (firm)	24.7								
			18	14		5		SP	Gray poorly graded sand with shell fragments (firm)	22.7							4.8	2.69
	10		18	14		6			Gray poorly graded sand with a layer of shell fragments (firm)	22								
-10			18	24		7		SM	Gray silty sand with a layer of shell fragments and clay layers (firm)	24.6							21.1	3.24
			24	0.5		8		CL	Gray clay with silt, shell fragments, sand layers and sand pockets (soft)	49.4	74.1	0.37	5	10	47	29		
	15		24	0.5		9			Gray clay with silt, sand pockets and shell fragments (medium)	61.5								
-15			24	0.5		10			Gray clay with sand, sand pockets and silt pockets (very soft) (specific gravity = 2.731)	38.6	85.1	0.25	5	15	50	28		
	20																	
-20			24	0.7		11			Gray sandy clay with silty sand layers (soft)	30.6	82	0.4	6.3	15	40	19		
	25																	
-25			18	0.8		12			Gray silty clay with sand and shell fragments (medium)	23.4								
	30																	
-30			11	0.5		13			Gray sandy clay with shell fragments (medium)	26.5								
	35																	

Coordinates Data Source: Horizontal approximated based on survey data collected by EMC., Vertical approximated based on survey data collected by EMC.
*Indicates a remold was used for strength testing.

Date:12/20/23 Path:P:\18\18274022\GINT\18274022201.GPJ DBLibrary/Library/GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_GEOTECH_LAB_NO_GW

Log of Boring CI-11

GeoEngineers

Project: Chandeleur Island Restoration Project (PO-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Figure A-13
Sheet 1 of 2

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	FIELD DATA: Blows/foot or Pocket Pen (TSF)	FIELD DATA: Collected Sample / Sample Name	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
-35	35															
		18	14	14			Gray sandy clay with a layer of shell fragments	34.9							68.6	
	40															
-40		16	15	15			Gray sandy clay with shell fragments	29.6								
	45															
-45		18	20	16			Gray sandy clay with shell fragments	26.9								

Log of Boring CI-11 (continued)

GeoEngineers

Project: Chandeleur Island Restoration Project (PO-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Drilled	Start 7/26/2023	End 7/26/2023	Total Depth (ft)	50	Logged By / Checked By	BN / JEA	Driller	Specialized Environmental Resources, LLC	Drilling Method	Wet Rotary
Surface Elevation (ft) Vertical Datum	-2.6 NAVD88		Hammer Data	Manual Hammer 140 (lbs) / 30 (in) Drop			Drilling Equipment	Airboat Drill		
Latitude Longitude	29.9314 -88.8292		System Datum	Decimal Degrees WGS84			Depth of water to mudline at time of exploration (ft)	3.0		

Notes: Borehole backfilled with cement-bentonite grout. The percent shells by dry mass is based on the mass retained on the No. 4 (4.75 mm) sieve.

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot or Pocket Pen (TSF)	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
	0	10	7		1			SM	Dark gray silty sand with traces of organic matter (loose) (organic content = 1.8%)	28.1							26.7	
-5		16	14		2				Gray silty sand with traces of organic matter (firm)	26.6								
	5	16	23		3				Gray silty sand with traces of organic matter and shell fragments (firm)	25.3							17.7	
-10		12	28		4				Gray silty sand (firm)	24.4								
		16	28		5				Gray silty sand with traces of organic matter and shell fragments (firm)	23.8							13.2	
	10	14	34		6				Gray silty sand (dense)	23								
-15		16	30		7				Gray silty sand (dense)	23.7								
	15	16	30		8			SP-SM	Gray poorly graded sand with silt (dense)	25.4							9.6	0.23
		14	26		9			SM	Gray silty sand with clay traces (firm)	24.4								
-20		16	26		10				Gray silty sand with shell fragments (firm)	29.7					NP	NP	31.8	
	20																	
-25					12			SC	Gray clayey sand with shell fragments	35.1								
	25																	
-30		24	0.5		13			CH	Gray clay with sand pockets and shell fragments (soft)	50.2	73.7	0.39	7.6	5	59	35		
	30																	
-35		22	5		14				Gray clay with sand pockets and shell fragments	65								
	35																	

Coordinates Data Source: Horizontal approximated based on survey data collected by EMC., Vertical approximated based on survey data collected by EMC.
*Indicates a remold was used for strength testing.

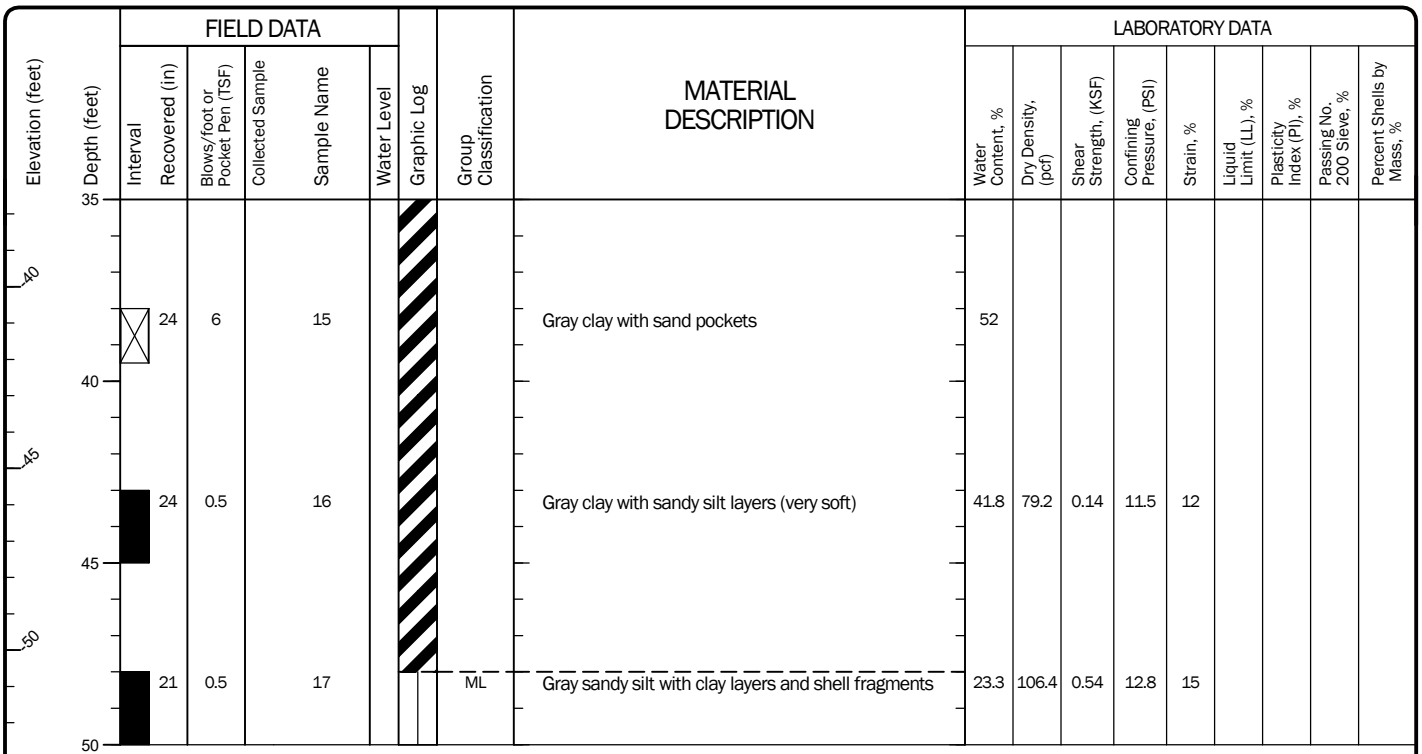
Date:1/9/24 Path:P:\18\18274022\GINT\18274022201.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_GEOTECH_LAB_MUDLINE

Log of Boring CI-12

GeoEngineers

Project: Chandeleur Island Restoration Project (P0-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Figure A-14
Sheet 1 of 2



Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot or Pocket Pen (TSF)	Collected Sample: Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
	35																
-40		24	6	15				Gray clay with sand pockets	52								
	40																
-45		24	0.5	16				Gray clay with sandy silt layers (very soft)	41.8	79.2	0.14	11.5	12				
	45																
-50		21	0.5	17			ML	Gray sandy silt with clay layers and shell fragments	23.3	106.4	0.54	12.8	15				
	50																

Log of Boring CI-12 (continued)

GeoEngineers

Project: Chandeleur Island Restoration Project (P0-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Drilled: Start 7/25/2023 End 7/25/2023	Total Depth (ft): 39.5	Logged By: BN / Checked By: JEA	Driller: Specialized Environmental Resources, LLC	Drilling Method: Wet Rotary	
Surface Elevation (ft) / Vertical Datum: -2 NAVD88	Hammer Data: Cathead 140 (lbs) / 30 (in) Drop	Drilling Equipment: Airboat Drill			
Latitude: 29.9359 / Longitude: -88.842	System Datum: Decimal Degrees WGS84	Depth of water to mudline at time of exploration (ft): 2.0			

Notes: Borehole backfilled with cement-bentonite grout. The percent shells by dry mass is based on the mass retained on the No. 4 (4.75 mm) sieve.

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot or Pocket Pen (TSF)	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
-5	0	16	8		1			SM	Gray silty sand with organic traces (loose)	27.3							21.5	
		16	14		2				Gray silty sand (firm)	26								
	5	20	28		3				Gray silty sand with shell fragments (firm)	30.4							13.7	
-10		20	34		4			SP-SM	Gray poorly graded sand with silt and shell fragments (dense)	28.7								
		20	34		5				Gray poorly graded sand with silt (dense)	25.7							8.4	
	10	22	26		6				Gray poorly graded sand with silt (firm)	26.5								
-15		20	10		7			CL	Gray clay with sand and shell fragments	38.6							70.9	
		16	10		8				Gray sandy clay	36								
	15	24	1.5		9				Gray clay with silt and sand pockets (very soft)	44.7	78.9	0.25	5	8	46	24		
-20		24	1.5		10				Gray clay with silt and sand layer	53.2								
	20																	
-25		24	1.5		11				Gray clay with silt and sand lenses and pockets (soft)	48.6	73.8	0.36	6.3	5				
	25																	
-30		24	1.0		12			CH	Gray clay with sand layer and silt pockets (specific gravity = 2.688)	39	80.9				54	33		
	30																	
-35		21	1.0		13			CL	Gray silty clay with sand pockets, sand layers and shell fragments (soft)	33.7	87.6	0.26	8.9	15	39	19		
	35																	

Coordinates Data Source: Horizontal approximated based on survey data collected by EMC., Vertical approximated based on survey data collected by EMC.
*Indicates a remold was used for strength testing.

Log of Boring CI-13

GeoEngineers

Project: Chandeleur Island Restoration Project (PO-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	FIELD DATA: Blows/foot or Pocket Pen (TSF)	FIELD DATA: Collected Sample	FIELD DATA: Sample Name	FIELD DATA: Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	LABORATORY DATA: Dry Density, (pcf)	LABORATORY DATA: Shear Strength, (KSF)	LABORATORY DATA: Confining Pressure, (PSI)	LABORATORY DATA: Strain, %	LABORATORY DATA: Liquid Limit (LL), %	LABORATORY DATA: Plasticity Index (PI), %	LABORATORY DATA: Passing No. 200 Sieve, %	LABORATORY DATA: Percent Shells by Mass, %
	35																	
-40		20	19		14			SC	Gray clayey sand with shell fragments (medium)	34.2								

Log of Boring CI-13 (continued)

Drilled: Start 7/26/2023 End 7/26/2023	Total Depth (ft): 50	Logged By: CB Checked By: JEA	Driller: Specialized Environmental Resources, LLC	Drilling Method: Wet Rotary	
Surface Elevation (ft): 3.6 Vertical Datum: NAVD88		Hammer Data: Autohammer 140 (lbs) / 30 (in) Drop		Drilling Equipment: Marsh Buggy Drill	
Latitude: 29.9115 Longitude: -88.8229		System Datum: Decimal Degrees WGS84		Groundwater not observed at time of exploration	

Notes: Borehole backfilled with cement-bentonite grout. The percent shells by dry mass is based on the mass retained on the No. 4 (4.75 mm) sieve.

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot or Pocket Pen (TSF)	Collected Sample	Sample Name	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
0	0		18	Push		1		SP	Tan poorly graded sand	3.2							0.2	
			18	Push		2			Light gray poorly graded sand	20.7								
-5	5		18	Push		3			Light gray poorly graded sand with shell fragments	19.2							0.7	2.13
			17	15		4			Gray sand with shell fragments (firm)	20.9								
-10			17	14		5			Gray poorly graded sand with shell fragments (firm)	15.2							2.6	42.94
	10		16	16		6			Gray sand with shell fragments (firm)	23								
-15			15	16		7			Gray poorly graded sand with shell fragments (firm)	23.6							3.6	5.00
			15	19		8			Gray sand with shell fragments (firm)	19.3								
	15		23	0.6		9		CL	Gray silty clay with sand and shell fragments (soft)	35	89.4	0.4	5	12	40	20		
-20			17	22		10		SM	Gray silty sand with shell fragments (firm)	27.2								
	20																	
-25			21	0.8		11			Gray silty sand with a layer of shell fragments	26.9								
	25																	
-30			14	23		12		SHELLS	Gray shell fragments with silty, clayey sand (firm)	18.6							23.7	10.67
	30																	
-35			16	25		13			Gray shell fragments with sand and silt (firm)	24.8								
	35																	

Coordinates Data Source: Horizontal approximated based on survey data collected by EMC., Vertical approximated based on survey data collected by EMC.
*Indicates a remold was used for strength testing.

Log of Boring CI-14

GeoEngineers

Project: Chandeleur Island Restoration Project (PO-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	FIELD DATA: Blows/foot or Pocket Pen (TSF)	FIELD DATA: Collected Sample: Sample Name	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
	35															
-35		15	28	14			Gray shell fragments with poorly graded sand and silt (firm)	24.1							11.7	18.74
	40															
-40		16	23	15		ML	Gray sandy silt with traces of clay (firm)	29.2								
	45															
-45		16	28	16		CL	Gray sandy silty clay	34.9					32	11	67.5	
	50															

Date:12/20/23 Path:P:\18\18274022\GINT\18274022201.GPJ DBLibrary/Library/GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_GEOTECH_LAB_NO_GW

Log of Boring CI-14 (continued)

GeoEngineers

Project: Chandeleur Island Restoration Project (PO-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Figure A-16
Sheet 2 of 2

Drilled: Start 7/30/2023 End 7/31/2023	Total Depth (ft): 80	Logged By: CB Checked By: JEA	Driller: Specialized Environmental Resources, LLC	Drilling Method: Wet Rotary	
Surface Elevation (ft) Vertical Datum: 0.4 NAVD88	Hammer Data: Autohammer 140 (lbs) / 30 (in) Drop	Drilling Equipment: Marsh Buggy Drill			
Latitude: 29.9096 Longitude: -88.8285	System Datum: Decimal Degrees WGS84	Depth of water to mudline at time of exploration (ft): 1.0			

Notes: Borehole backfilled with cement-bentonite grout. The percent shells by dry mass is based on the mass retained on the No. 4 (4.75 mm) sieve.

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot or Pocket Pen (TSF)	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
0	0		12	4		1			SP	Gray poorly graded sand with shell fragments and traces of organic matter (loose) (organic content = 0.3%)	23.5							3.7	0.06
			14	9		2			SP-SM	Gray poorly graded sand with silt and shell fragments (loose)	26.3								
-5	5		16	7		3			SM	Gray silty sand with shell fragments (loose)	30.5							12.5	0.34
			14	17		4			SP-SM	Gray sand with silt, shell fragments and organic matter (firm)	22.8								
			14	9		5				Gray poorly graded sand with silt (loose)	22.5							8.4	
-10	10		15	9		6				Gray sand with silt and shell fragments (loose)	29.8								
			14	12		7				Gray poorly graded sand with silt, shell fragments, and traces of organic matter (firm)	22.4							5.6	1.84
			14	13		8				Gray poorly graded sand with silt and shell fragments (firm)	24.2								
-15	15		14	9		9			CL	Gray silty clay with traces of shell fragments	38.4								
			14	9		10			CL-ML	Gray sandy, clayey silt with shell fragments (loose)	34.7					29	7	54.4	
-20	20																		
			14	14		11			CL	Gray sandy silty clay with shell fragments	37								
-25	25																		
			14	50/6"		12			SM	Gray silty sand with shell fragments and organic matter (very dense)	20							14.8	2.11
-30	30																		
			14	50/6"		13				Gray silty sand with shell fragments (very dense)	21.2								
	35																		

Coordinates Data Source: Horizontal approximated based on survey data collected by EMC., Vertical approximated based on survey data collected by EMC.
*Indicates a remold was used for strength testing.

Date:1/9/24 Path:P:\18\18274022\GINT\18274022201.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_GEOTECH_LAB_MUDLINE

Log of Boring CI-15

GeoEngineers

Project: Chandeleur Island Restoration Project (PO-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Figure A-17

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot or Pocket Pen (TSF)	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
-35	35																	
		12	28		14			SC	Gray clayey sand with shell fragments (firm)	26.8					34	19	28.5	0.36
-40	40																	
		6	8		15			SM	Gray silty sand with shell fragments (loose)	21.8								
-45	45																	
		16	9		16				Gray silty sand with shell fragments (loose)	32.4					31	6	50	
-50	50																	
		23	0.5		17				Gray silty sand with shell fragments	20.9								
-55	55																	
		24	0.5		18			CL	Gray silty clay with sand lenses (soft) (specific gravity = 2.756)	37	87	0.27	15.4	15	37	17		
-60	60																	
		24	0.5		19				Gray silty clay with sand and shell fragments (medium)	35.2								
-65	65																	
		24	0.25		20				Gray clay with silt, sand pockets and shell fragments (soft)	40.2	81.8	0.29	18	14	48	26		
-70	70																	
		23	0.25		21				Gray sandy silty clay with shell fragments (very soft)	25.7								
-75	75																	

Log of Boring CI-15 (continued)

GeoEngineers

Project: Chandeleur Island Restoration Project (P0-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	FIELD DATA: Blows/foot or Pocket Pen (TSF)	FIELD DATA: Collected Sample	FIELD DATA: Sample Name	FIELD DATA: Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	LABORATORY DATA: Dry Density, (pcf)	LABORATORY DATA: Shear Strength, (KSF)	LABORATORY DATA: Confining Pressure, (PSI)	LABORATORY DATA: Strain, %	LABORATORY DATA: Liquid Limit (LL), %	LABORATORY DATA: Plasticity Index (PI), %	LABORATORY DATA: Passing No. 200 Sieve, %	LABORATORY DATA: Percent Shells by Mass, %
		24	0.25		22				Gray clay with silt (medium)	44.2	78.1	0.79	20.6	3				
	80																	

Date:1/9/24 Path:P:\18\18274022\GINT\18274022201.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_GEOTECH_LAB_MUDLINE

Log of Boring CI-15 (continued)

GeoEngineers

Project: Chandeleur Island Restoration Project (P0-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Figure A-17
Sheet 3 of 3

Drilled	Start 7/26/2023	End 7/26/2023	Total Depth (ft) 49.5	Logged By CB / Checked By JEA	Driller Specialized Environmental Resources, LLC	Drilling Method Wet Rotary
Surface Elevation (ft) / Vertical Datum	4.6 NAVD88		Hammer Data	Autohammer 140 (lbs) / 30 (in) Drop	Drilling Equipment	Marsh Buggy Drill
Latitude / Longitude	29.8948 -88.8253		System Datum	Decimal Degrees WGS84	Groundwater not observed at time of exploration	

Notes: Borehole backfilled with cement-bentonite grout. The percent shells by dry mass is based on the mass retained on the No. 4 (4.75 mm) sieve.

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot or Pocket Pen (TSF)	Collected Sample	Sample Name	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
0	0	18	Push		1		SP	Tan poorly graded sand with shells and shell fragments	3.9							0.5	16.49
		18	Push		2			Tan sand with shell fragments	13.8								
-5	5	18	Push		3			Light gray poorly graded sand with shell fragments	15.3							1.7	
		18	10		4		SM	Gray silty sand with shell fragments (firm)	22.3								
		18	12		5			Gray silty sand (firm)	21.5							23.5	
-10	10	18	14		6			Gray silty sand with shell fragments (firm)	25.4								
		18	15		7			Gray silty sand with shell fragments (firm)	21.1							20.4	0.29
	15	18	15		8			Gray silty sand with shell fragments (firm)	25.1								
		18	18		9			Gray silty sand with shell fragments and clay traces (firm)	31.3								
-15	20	18	21		10		SC	Gray clayey sand with a layer of shell fragments (firm)	33.4							47	1.03
-20	25	24	0.9		11		CL	Gray clay with silt, sand, and shell fragments (soft) (specific gravity = 2.719)	40.1	82.8	0.35	6.3	13	48	27		
-25	30	15	24		12		SM	Gray silty sand with shell fragments (firm)	23.6								
-30	35	14	27		13			Gray silty sand with shell fragments and clay traces (firm)	20.6							20.1	16.56

Coordinates Data Source: Horizontal approximated based on survey data collected by EMC., Vertical approximated based on survey data collected by EMC.
*Indicates a remold was used for strength testing.

Date:12/20/23 Path:P:\18\18274022\GINT\1827402201.GPJ DBLibrary/Library/GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_GEOTECH_LAB_NO_GW

Log of Boring CI-16

GeoEngineers

Project: Chandeleur Island Restoration Project (PO-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Figure A-18
Sheet 1 of 2

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	FIELD DATA: Blows/foot or Pocket Pen (TSF)	FIELD DATA: Collected Sample / Sample Name	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
	35															
-35		11	24	14			Gray silty sand with shell fragments and clay traces (firm)	28.2								
	40															
-40		10	21	15			Gray silty sand with shell fragments and clay traces (firm)	20.5							24.3	23.75
	45															
		11	24	16			Gray silty sand with shell fragments and clay traces (firm)	20.8								

Log of Boring CI-16 (continued)

GeoEngineers

Project: Chandeleur Island Restoration Project (PO-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Drilled: Start 7/27/2023 End 7/27/2023	Total Depth (ft): 49.5	Logged By: CB Checked By: JEA	Driller: Specialized Environmental Resources, LLC	Drilling Method: Wet Rotary	
Surface Elevation (ft): 0.7 Vertical Datum: NAVD88		Hammer Data: Autohammer 140 (lbs) / 30 (in) Drop		Drilling Equipment: Marsh Buggy Drill	
Latitude: 29.8923 Longitude: -88.8311		System Datum: Decimal Degrees WGS84		Groundwater not observed at time of exploration	

Notes: Borehole backfilled with cement-bentonite grout. The percent shells by dry mass is based on the mass retained on the No. 4 (4.75 mm) sieve.

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot or Pocket Pen (TSF)	Collected Sample	Sample Name	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
0	0		18	3		1		SP	Gray poorly graded sand with traces of organic matter and shells (very loose) (organic content = 0.5%)	21.1							3.1	
			17	5		2			Gray poorly graded sand with traces of organic matter (very loose)	22							2.5	
-5	5		18	9		3		SM	Gray silty sand with traces of organic matter and shell fragments (loose)	28.8								
			17	10		4			Gray silty sand with shell fragments and traces of organic matter (firm)	26.6							22.9	
			17	12		5			Gray silty sand with traces of organic matter and shell fragments (firm)	29.2								
-10	10		17	14		6		SP-SM	Gray poorly graded sand with silt and shell fragments (firm)	24.8							9.7	1.87
			17	15		7			Gray sand with silt and shell fragments (firm)	29.6								
-15	15		22	0.6		8		ML	Gray sandy silt with shell fragments	29.4	96	0.4	5	15	32	8	51.5	
			11	0.6		9		SM	Gray silty sand with traces of clay, and shell fragments	23.3	106	1.96	5	15				
-20	20		17	17		10			Gray silty sand (firm)	23.1								
-25	25		16	18		11			Gray silty sand (firm)	26							33.1	
			16	20		12			Gray silty sand (firm)	28.2					NP	NP	39.3	
-30	30																	
			16	21		13			Gray silty sand (firm)	27.4								
	35																	

Coordinates Data Source: Horizontal approximated based on survey data collected by EMC., Vertical approximated based on survey data collected by EMC.
*Indicates a remold was used for strength testing.

Log of Boring CI-17

GeoEngineers

Project: Chandeleur Island Restoration Project (PO-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	FIELD DATA: Blows/foot or Pocket Pen (TSF)	FIELD DATA: Collected Sample	FIELD DATA: Sample Name	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
-35	35																
		18	20		14		ML	Gray sandy silt with clay pockets (firm)	32.6								
-40	40																
		18	23		15			Gray sandy silt with clay (firm)	31.5							63.8	
-45	45																
		18	23		16			Gray sandy silt with clay pockets (firm)	36.7								

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Log of Boring CI-17 (continued)

GeoEngineers

Project: Chandeleur Island Restoration Project (PO-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Figure A-19
Sheet 2 of 2

Drilled: Start 7/26/2023 End 7/26/2023	Total Depth (ft): 40	Logged By: BN / Checked By: JEA	Driller: Specialized Environmental Resources, LLC	Drilling Method: Wet Rotary	
Surface Elevation (ft) / Vertical Datum: -3.2 NAVD88	Hammer Data: Cathead 140 (lbs) / 30 (in) Drop	Drilling Equipment: Airboat Drill			
Latitude: 29.8967 / Longitude: -88.8421	System Datum: Decimal Degrees WGS84	Depth of water to mudline at time of exploration (ft): 2.0			

Notes: Borehole backfilled with cement-bentonite grout. The percent shells by dry mass is based on the mass retained on the No. 4 (4.75 mm) sieve.

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot or Pocket Pen (TSF)	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
0	0	16	9		1			SM	Gray silty sand with shell fragments (loose)	22.4							19.4	0.06
-5		20	17		2				Gray silty sand with traces of organic matter and shell fragments (firm)	30.1								
	5	20	24		3			SP-SM	Gray poorly graded sand with silt and shell fragments (firm) (organic content = 0.6%)	26.8							5.4	
-10		12	26		4			SM	Gray silty sand with traces of organic matter and shell fragments (firm)	26								
		20	25		5				Gray silty sand (firm)	29.5					NP	NP	27.4	
	10	28	25		6				Gray silty sand with traces of clay (firm)	31.5								
-15		22	33		7				Gray silty sand with shell fragments (dense)	28.7							30.4	
	15	20	30		8				Gray silty sand (dense)	29.1								
-20		16	38		9			SP-SM	Gray poorly graded sand with silt (dense)	28.1							6.7	
		14	31		10			SC-SM	Gray silty clayey sand (dense)	32.4								
-25	20																	
		21	0.5		11			CL	Gray silty clay with shell fragments, sand layers, and silt lenses (very soft)	36	87.4	0.19	6.3	15	38	18		
-30	25																	
		24	0.5		12				Gray silty clay with sand lenses and sand pockets (soft)	40.1							89.9	
-35	30																	
		24	0.5		13				Gray silty clay with sand (soft)	45.9								
	35																	

Coordinates Data Source: Horizontal approximated based on survey data collected by EMC., Vertical approximated based on survey data collected by EMC.
*Indicates a remold was used for strength testing.

Log of Boring CI-18

GeoEngineers

Project: Chandeleur Island Restoration Project (P0-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	FIELD DATA: Blows/foot or Pocket Pen (TSF)	FIELD DATA: Collected Sample: Sample Name	FIELD DATA: Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
	35																
-40																	
		24	0.25	14			CH	Gray clay with sand layers and sand pockets (soft)	47.9	75	0.39	10.2	5	59	37		
	40																

Log of Boring CI-18 (continued)

GeoEngineers

Project: Chandeleur Island Restoration Project (PO-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Drilled: Start 7/27/2023 End 7/27/2023	Total Depth (ft): 50	Logged By: CB Checked By: JEA	Driller: Specialized Environmental Resources, LLC	Drilling Method: Wet Rotary	
Surface Elevation (ft): 0.1 Vertical Datum: NAVD88		Hammer Data: Autohammer 140 (lbs) / 30 (in) Drop		Drilling Equipment: Marsh Buggy Drill	
Latitude: 29.8841 Longitude: -88.8348		System Datum: Decimal Degrees WGS84		Groundwater not observed at time of exploration	

Notes: Borehole backfilled with cement-bentonite grout. The percent shells by dry mass is based on the mass retained on the No. 4 (4.75 mm) sieve.

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot or Pocket Pen (TSF)	Collected Sample	Sample Name	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
	0		18	4		1		SP	Gray poorly graded sand with traces of shell fragments (loose)	27							2	0.57
			18	6		2			Gray poorly graded sand (loose)	24							3.8	
-5	5		18	8		3			Gray sand (loose)	24.5								
			18	10		4		SM	Gray silty sand (firm)	29							14	
			18	12		5			Gray silty sand (firm)	31.4								
-10	10		18	13		6			Gray silty sand (firm)	30.2							33	
			18	16		7			Gray silty sand (firm)	32.2					28	4	33.4	
-15	15		18	15		8			Gray silty sand (firm)	30.4								
			18	14		9		SC	Gray clayey sand (firm)	39.3					48	26	32.1	
-20	20		17	15		10			Gray clayey sand (firm)	37								
			17	19		11		SM	Gray silty sand with shells and shell fragments (firm)	19.8							18	15.69
-25	25																	
			16	18		12			Gray silty sand with shell fragments (firm)	22.7								
-30	30																	
			15	18		13		SP-SM	Gray poorly graded sand with silt and shell fragments (firm)	24.1							11.2	2.10
	35																	

Coordinates Data Source: Horizontal approximated based on survey data collected by EMC., Vertical approximated based on survey data collected by EMC.
*Indicates a remold was used for strength testing.

Log of Boring CI-19

GeoEngineers

Project: Chandeleur Island Restoration Project (PO-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	FIELD DATA: Blows/foot or Pocket Pen (TSF)	FIELD DATA: Collected Sample	FIELD DATA: Sample Name	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	LABORATORY DATA: Dry Density, (pcf)	LABORATORY DATA: Shear Strength, (KSF)	LABORATORY DATA: Confining Pressure, (PSI)	LABORATORY DATA: Strain, %	LABORATORY DATA: Liquid Limit (LL), %	LABORATORY DATA: Plasticity Index (PI), %	LABORATORY DATA: Passing No. 200 Sieve, %	LABORATORY DATA: Percent Shells by Mass, %
	35																
-40	40	14	16		14			Gray sand with silt and shell fragments (firm)	24.9								
-45	45	12	17		15			Gray poorly graded sand with silt and shell fragments (firm)	24.5							8.2	
	50	10	16		16			Gray sand with silt (firm)	23.4								

Date:12/22/23 Path:P:\18\18274022\GINT\18274022201.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_GEOTECH_LAB_NO_GW

Log of Boring CI-19 (continued)

GeoEngineers

Project: Chandeleur Island Restoration Project (P0-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Figure A-21
Sheet 2 of 2

Drilled: Start 7/28/2023 End 7/29/2023	Total Depth (ft): 80	Logged By: CB Checked By: JEA	Driller: Specialized Environmental Resources, LLC	Drilling Method: Wet Rotary	
Surface Elevation (ft): 3.5 Vertical Datum: NAVD88	Hammer Data: Autohammer 140 (lbs) / 30 (in) Drop	Drilling Equipment: Marsh Buggy Drill			
Latitude: 29.8779 Longitude: -88.8288	System Datum: Decimal Degrees WGS84	Groundwater not observed at time of exploration			

Notes: Borehole backfilled with cement-bentonite grout. The percent shells by dry mass is based on the mass retained on the No. 4 (4.75 mm) sieve.

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot or Pocket Pen (TSF)	Collected Sample	Sample Name	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
	0	18	4		1		SP	Light gray poorly graded sand with shell fragments and traces of organic matter (loose)	4.8							0.6	
		18	8		2			Light gray sand with shell fragments and traces of organic matter (loose)	12.1								
0	5	18	10		3			Gray poorly graded sand with shells and shell fragments (loose)	14.7							0.4	13.55
		18	14		4		SP-SM	Dark gray sand with silt and traces of organic matter (firm) (organic content = 1.6%)	41.5								
-5		18	14		5			Gray sand with silt and traces of shell fragments (firm)	23.5								
	10	18	16		6			Dark gray poorly graded sand with silt and traces of organic matter (firm)	29.2							10.3	
		18	16		7			Dark gray sand with silt, traces of organic matter, and shell fragments (firm)	56.7								
-10		18	19		8		ML	Gray sandy silt (firm)	27.4							51.9	
	15	18	19		9			Gray sandy silt with traces of clay (firm)	31.8								
-15		24	0.6		10		CH	Gray clay with sand pockets and shell fragments (soft)	51	73.2	0.32	5	7	62	36		
	20																
-20		24	0.6		11			Gray clay with sand pockets (medium)	52								
	25																
-25		22	0.7		12		ML	Gray sandy silt with traces of clay	24.5	102.8	4.09	7.6	12			57.3	
	30																
-30		18	24		13			Gray sandy silt with traces of clay (firm)	25.9								
	35																

Coordinates Data Source: Horizontal approximated based on survey data collected by EMC., Vertical approximated based on survey data collected by EMC.
*Indicates a remold was used for strength testing.

Log of Boring CI-20

GeoEngineers

Project: Chandeleur Island Restoration Project (PO-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot or Pocket Pen (TSF)	Collected Sample: Sample Name	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
	35															
-35		18	26	14		SM	Gray silty sand (firm)	24.9							38	
	40															
-40		24	0.8	15		CH	Gray clay (medium)	43.4								
	45															
-45		24	0.8	16			Gray clay with organic matter (medium)	36	82.4	0.53	12.8	15				
	50															
-50		24	1.2	17			Gray clay with traces of shell fragments (stiff)	57.1								
	55															
-55		24	1.3	18		CL	Gray clay with silt (soft)	39.5	82	0.28	15.4	14	47	25		
	60															
-60		24	1.3	19			Gray clay with silt and shell fragments	30.6								
	65															
-65		24	1.3	20			Gray clay with silt and sand lenses	51.3								
	70															
-70		21	1.5	21		CH	Gray clay with silt pockets (medium) (specific gravity = 2.723)	46.1	75.8	0.64	19.3	8	79	49		
	75															

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Log of Boring CI-20 (continued)

GeoEngineers

Project: Chandeleur Island Restoration Project (PO-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Figure A-22
Sheet 2 of 3

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	FIELD DATA: Blows/foot or Pocket Pen (TSF)	FIELD DATA: Collected Sample	FIELD DATA: Sample Name	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
-75	80	24	1.7		22			Gray clay with silt pockets and silt lenses (medium)	56.4	66.8	0.72	20.6	9				

Log of Boring CI-20 (continued)

Drilled: Start 7/27/2023 End 7/27/2023	Total Depth (ft): 40	Logged By: BN Checked By: JEA	Driller: Specialized Environmental Resources, LLC	Drilling Method: Wet Rotary	
Surface Elevation (ft) Vertical Datum: -4.6 NAVD88	Hammer Data: Cathead 140 (lbs) / 30 (in) Drop	Drilling Equipment: Airboat Drill			
Latitude: 29.8691 Longitude: -88.839	System Datum: Decimal Degrees WGS84	Depth of water to mudline at time of exploration (ft): 5.0			

Notes: Borehole backfilled with cement-bentonite grout. The percent shells by dry mass is based on the mass retained on the No. 4 (4.75 mm) sieve.

Elevation (feet)	Depth (feet)	Interval	Recovered (in)	Blows/foot or Pocket Pen (TSF)	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
										FIELD DATA									
										LABORATORY DATA									
5	0		14	11		1			SM	Gray silty sand (firm)	26							17.8	
			14	13		2				Gray silty sand (firm)	24.4								
0			22	28		3				Gray silty sand with traces of clay (firm)	31							38.6	
-5	5		22	13		4				Gray silty sand with traces of clay and shell fragments (firm)	23.1								
			22	21		5			SC	Gray clayey sand with a clay layer (firm)	30.8					34	16	43.1	
-10	10		22	20		6				Gray clayey sand with shell fragments (firm)	23.3								
			20	0.5		7				Gray clayey sand with shell fragments and organic material	31.8							24.4	
-15	15		24	0.5		8			CH	Gray clay with silty clay layers, sand, organic material and shell fragments (very soft)	45.3	75.6	0.16	5	12	53	31		
			24	0.5		9			CL	Gray silty clay with sand and organic material (stiff)	33.4	91.3	1.12	5	15				
-20	20					10				Gray silty clay with sand, organic material and shell fragments	40.5								
			24	0.5		11				Gray sandy clay with silt pockets (soft)	32.2	92.6	0.31	6.3	15				
-25	25																		
			20	9		12				Gray silty clay with sand pockets	41								
-30	30																		
			22	0.5		13				Gray sandy clay with sand layers and shell fragments (very stiff)	20.6	107.5	2.98	8.9	15				
-35	35																		

Coordinates Data Source: Horizontal approximated based on survey data collected by EMC., Vertical approximated based on survey data collected by EMC.
*Indicates a remold was used for strength testing.

Date:12/20/23 Path:P:\18\18274022\GINT\18274022201.GPJ DBLibrary/Library/GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_GEOTECH_LAB_MUDLINE

Log of Boring CI-21

GeoEngineers

Project: Chandeleur Island Restoration Project (P0-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Figure A-23
Sheet 1 of 2

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	FIELD DATA: Blows/foot or Pocket Pen (TSF)	FIELD DATA: Collected Sample	FIELD DATA: Sample Name	FIELD DATA: Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
-40	35																	
		18	0.5		14			ML	Gray sandy silt with traces of clay and shell fragments	29.4								
	40																	

Log of Boring CI-21 (continued)

GeoEngineers

Project: Chandeleur Island Restoration Project (PO-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Drilled: Start 7/29/2023 End 7/29/2023	Total Depth (ft): 50	Logged By: CB Checked By: JEA	Driller: Specialized Environmental Resources, LLC	Drilling Method: Wet Rotary	
Surface Elevation (ft): 3.3 Vertical Datum: NAVD88		Hammer Data: Autohammer 140 (lbs) / 30 (in) Drop		Drilling Equipment: Marsh Buggy Drill	
Latitude: 29.8642 Longitude: -88.8328		System Datum: Decimal Degrees WGS84		Groundwater not observed at time of exploration	

Notes: Borehole backfilled with cement-bentonite grout. The percent shells by dry mass is based on the mass retained on the No. 4 (4.75 mm) sieve.

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot or Pocket Pen (TSF)	Collected Sample	Sample Name	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
	0		18	5		1		SP	Gray poorly graded sand with shell fragments (loose)	5.2							0.5	
			18	8		2			Gray sand (loose)	19.1								
0	5		18	10		3			Gray poorly graded sand with shell fragments (loose)	25.2							2.6	0.50
			17	12		4		SM	Gray silty sand with shell fragments (firm)	32.9								
-5			17	10		5			Gray silty sand with shell fragments (firm)	24.9							19.8	
	10		16	10		6			Gray silty sand (firm)	22.1								
			16	11		7			Gray silty sand (firm)	25.4							41.5	
-10	15		16	13		8			Gray silty sand (firm)	28.8								
			24	0.6		9		CH	Gray clay with sand pockets (soft)	57.7	66.6	0.39	5	6	64	39		
-15			23	0.6		10			Gray clay with silt pockets (medium) (Specific gravity = 2.746)	74.6	56				67	40		
	20																	
-20			17	18		11		CL	Gray sandy silty clay	27.8					37	18	59.2	
	25																	
-25				20		12		SM	Gray silty sand (firm)	24.7								
	30																	
-30				20		13		ML	Gray sandy silt with traces of clay and shell fragments (firm)	26.1								
	35																	

Coordinates Data Source: Horizontal approximated based on survey data collected by EMC., Vertical approximated based on survey data collected by EMC.
*Indicates a remold was used for strength testing.

Log of Boring CI-22

GeoEngineers

Project: Chandeleur Island Restoration Project (PO-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	FIELD DATA: Blows/foot or Pocket Pen (TSF)	FIELD DATA: Collected Sample: Sample Name	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
	35															
-35		15	0.7	14			Gray sandy silt with clay pockets	28.6	96	0.81	10.2	10				
	40															
-40		23	0.8	15			Gray silt with clay pockets	31.4					32	5		
	45															
-45		11	0.9	16		SM	Gray silty sand with shell fragments	18.9								
	50															

Log of Boring CI-22 (continued)

Drilled: Start 7/28/2023 End 7/28/2023	Total Depth (ft): 39.5	Logged By: BN Checked By: JEA	Driller: Specialized Environmental Resources, LLC	Drilling Method: Wet Rotary	
Surface Elevation (ft) Vertical Datum: -6.2 NAVD88		Hammer Data: Cathead 140 (lbs) / 30 (in) Drop		Drilling Equipment: Pontoon Drill	
Latitude: 29.8631 Longitude: -88.8464		System Datum: Decimal Degrees WGS84		Depth of water to mudline at time of exploration (ft): 5.7	

Notes: Borehole backfilled with cement-bentonite grout. The percent shells by dry mass is based on the mass retained on the No. 4 (4.75 mm) sieve.

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot or Pocket Pen (TSF)	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
-10	0		16	16		1			SM	Gray silty sand with shell fragments and traces of organic matter (firm) (organic content = 0.7%)	23.1							15.4	
			16	15		2				Gray silty sand with traces of organic matter and clay (firm)	28.3								
	5		20	9		3				Gray silty sand with shell fragments (loose)	23.1							17.3	0.07
			11	14		4				Gray silty sand with clay and shell fragments (firm)	29.7								
-15			12	12		5			SC-SM	Gray silty clayey sand (firm)	33.9							43.6	
	10		16	16		6				Gray silty clayey sand (firm)	46.5								
-20			10	18		7			SM	Gray silty sand with shell fragments (firm)	25.3							17.2	0.08
	15		24	22		8				Gray silty sand with organic matter (firm)	23.8								
			12	24		9				Gray silty sand with shell fragments and organic matter (firm)	25.7							21.7	0.07
-25			20	24		10			SC-SM	Gray silty clayey sand with shell fragments (firm)	25.9								
	20																		
-30			21	13		11			SM	Gray silty sand (firm)	21.8							15.1	
	25																		
-35			20	7		12			CL	Gray silty clay with sand	49.7								
	30																		
-40			24	0.5		13			CH	Gray clay with sand layers and organic matter (soft) (specific gravity = 2.71)	43.5	74.3	0.27	8.9	13	60	36		
	35																		

Coordinates Data Source: Horizontal approximated based on survey data collected by EMC., Vertical approximated based on survey data collected by EMC.
*Indicates a remold was used for strength testing.

Date:12/22/23 Path:P:\18\18274022\GINT\18274022201.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_GEOTECH_LAB_MUDLINE

Log of Boring CI-23

GeoEngineers

Project: Chandeleur Island Restoration Project (P0-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Figure A-25

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	FIELD DATA: Blows/foot or Pocket Pen (TSF)	FIELD DATA: Collected Sample	FIELD DATA: Sample Name	FIELD DATA: Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	LABORATORY DATA: Dry Density, (pcf)	LABORATORY DATA: Shear Strength, (KSF)	LABORATORY DATA: Confining Pressure, (PSI)	LABORATORY DATA: Strain, %	LABORATORY DATA: Liquid Limit (LL), %	LABORATORY DATA: Plasticity Index (PI), %	LABORATORY DATA: Passing No. 200 Sieve, %	LABORATORY DATA: Percent Shells by Mass, %
	35																	
-45		21	28		14			SM	Gray silty sand with shell fragments and traces of clay (firm)	24.9								

Date:12/22/23 Path:P:\18\18274022\GINT\18274022201.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_GEOTECH_LAB_MUDLINE

Log of Boring CI-23 (continued)

GeoEngineers

Project: Chandeleur Island Restoration Project (P0-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Figure A-25
Sheet 2 of 2

Drilled	Start 7/30/2023	End 7/30/2023	Total Depth (ft)	50	Logged By	CB	Driller	Specialized Environmental Resources, LLC	Drilling Method	Wet Rotary
					Checked By	JEA				

Surface Elevation (ft) Vertical Datum	-0.3 NAVD88	Hammer Data	Autohammer 140 (lbs) / 30 (in) Drop	Drilling Equipment	Marsh Buggy Drill
Latitude Longitude	29.8589 -88.8661	System Datum	Decimal Degrees WGS84	Depth of water to mudline at time of exploration (ft)	3.6

Notes: Borehole backfilled with cement-bentonite grout. The percent shells by dry mass is based on the mass retained on the No. 4 (4.75 mm) sieve.

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot or Pocket Pen (TSF)	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
	0		23	0.3		1			ML	Gray sandy silt with organic matter and traces of shells	30.6	91.6	1.93	5	14	32	4	55.4	
			24	0.3		2			CL	Gray sandy silty clay (soft)	33.6								
-5	5		24	0.4		3				Gray sandy silty clay (soft)	29.9	95.6	0.43	5	15				
			24	0.5		4				Gray sandy clay (soft)	29.6								
-10			20	0.5		5				Gray silty clay with sand and shell fragments (very soft) (specific gravity = 2.677)	35.9	85.4	0.17	5	14	39	14		
	10		24	0.5		6				Gray clay with sand and silt (soft)	37.2							96.5	
			24	0.5		7				Gray clay with silt and shell fragments (very soft)	46.1	76	0.05	5	14	48	27		
-15			23	0.7		8			CH	Gray clay (medium)	50.8								
	15		24	0.7		9			CL	Gray clay with silt and sand pockets (medium)	37.6								
-20			24	1.0		10				Gray clay with sand layers, silt, and organic matter (soft)	52.2	70.3	0.32	5	9				
	20																		
			24	1.0		11				Gray clay with sand and silt	30.9								
-25	25																		
			24	1.0		12			CH	Gray clay (soft)	52.8	69.5	0.42	7.6	7				
-30	30																		
			22	1.0		13				Gray clay with silt pockets and sand lenses	58.9								
-35	35																		

Coordinates Data Source: Horizontal approximated based on survey data collected by EMC., Vertical approximated based on survey data collected by EMC.
*Indicates a remold was used for strength testing.

Log of Boring CI-24

GeoEngineers

Project: Chandeleur Island Restoration Project (PO-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Figure A-26
Sheet 1 of 2

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot or Pocket Pen (TSF)	Collected Sample: Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
	35																
-40		23	1.0	14				Gray clay with silt lenses and sand pockets (soft)	46.2	77	0.28	10.2	15				
	40																
-45		22	1.2	15				Gray clay with silt lenses and sand pockets (medium)	54.1	69.9	0.5	11.5	9				
	45																
-50		24	1.3	16				Gray clay (stiff)	39.7								
	50																

Log of Boring CI-24 (continued)

Drilled Start 7/28/2023 End 7/28/2023	Total Depth (ft) 50	Logged By BN / Checked By JEA	Driller Specialized Environmental Resources, LLC	Drilling Method Wet Rotary	
Surface Elevation (ft) / Vertical Datum -4.3 NAVD88		Hammer Data Manual Hammer 140 (lbs) / 30 (in) Drop		Drilling Equipment Pontoon Drill	
Latitude 29.8583 / Longitude -88.8715		System Datum Decimal Degrees WGS84		Depth of water to mudline at time of exploration (ft) 3.0	

Notes: Borehole backfilled with cement-bentonite grout. The percent shells by dry mass is based on the mass retained on the No. 4 (4.75 mm) sieve.

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot or Pocket Pen (TSF)	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
-5	0		15	4		1			ML	Gray sandy silt with traces of shells (loose)	34.9					33	7	56.2	0.12
			16	5		2				Gray sandy silt (loose)	28.9								
-10	5		22	5		3				Gray sandy silt with clay and shell fragments (loose)	35					34	9	77.1	
			20	9		4				Gray sandy silt with clay, organic matter and shell fragments (loose)	34.4								
-15	10		24	0.25		5			CL	Gray silty clay with sand pockets (very soft)	41.7	80.7	0.21	5	14				
			23	0.25		6				Gray silty clay (very soft)	58								
-20	15		24	0.5		7			CH	Gray clay with silt lenses (very soft)	44.3	79.1	0.17	5	14	51	32		
			24	0.5		8				Gray clay with silt lenses (soft)	53.4								
			24	0.5		9				Gray clay with silt lenses and silt layers (soft)	53.3								
-25	20		24	0.6		10				Gray clay with silt layers (very soft)	48	70.3	0.11	5	11				
			22	0.5		11			CL	Gray silty clay (soft) (Specific gravity = 2.650)	48.6	71.9				40	18		
-30	25		24	0.5		12			CH	Gray clay with silt (very soft)	45.9	76	0.22	7.6	12				
-35	30		24	0.5		13				Gray clay with silt seams (soft)	47.7								
	35																		

Coordinates Data Source: Horizontal approximated based on survey data collected by EMC., Vertical approximated based on survey data collected by EMC.
*Indicates a remold was used for strength testing.

Date:1/9/24 Path:P:\18\18274022\GINT\18274022201.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_GEOTECH_LAB_MUDLINE

Log of Boring CI-25

GeoEngineers

Project: Chandeleur Island Restoration Project (P0-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Figure A-27
Sheet 1 of 2

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	FIELD DATA: Blows/foot or Pocket Pen (TSF)	FIELD DATA: Collected Sample: Sample Name	FIELD DATA: Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	LABORATORY DATA: Water Content, %	Dry Density, (pcf)	Shear Strength, (KSF)	Confining Pressure, (PSI)	Strain, %	Liquid Limit (LL), %	Plasticity Index (PI), %	Passing No. 200 Sieve, %	Percent Shells by Mass, %
-40	35																
		24	0.5	14				Gray clay with silt lenses (soft)	44.9	78.4	0.3	10.2	14				
-45	40																
		22	0.5	15				Gray clay with traces of silt (soft)	52.5								
-50	45																
		24	0.5	16				Gray clay with sand pockets (soft)	42.8	80	0.34	0.3	15				
	50																

Log of Boring CI-25 (continued)

GeoEngineers

Project: Chandeleur Island Restoration Project (P0-0199)
Project Location: St. Bernard Parish, Louisiana
Project Number: 18274-022-01

Figure A-27
Sheet 2 of 2

GeoEngineers

11923 Sun Belt Court
Baton Rouge, LA 70809
225.293.2460

FIELD REPORT

	Project: Chandeleur Island Restoration Project (PO-0199)		File Number: 18274-022-01
			Date: 07/23/2023
	Client: Coastal Engineering Consultants, LLC	Time of Arrival: 7:00AM	Report Number: DFR-1
Prepared by: Bobby Nations & Charles Brown	Location: Chandeleur Island, Louisiana	Time of Departure: 6:30PM	Page: 1 of 4
Purpose of visit: Geotechnical Exploration	Weather: Sunny; 90-100 °F	Travel Time: 4 hours	Permit Number: N/A

Please refer to attached safety documentation.

Personnel

NAME	COMPANY	ROLE	STAYING ON LIFTBOAT	
			YES	NO
Bobby Nations, Jr.	GeoEngineers	Sr. Const. Inspector	☒	☐
Charles Brown	GeoEngineers	Const. Inspector	☒	☐
Kyle Kilfian	GeoEngineers	Sr. Const. Inspector	☒	☐
Hunter Smith	SER	Driller's Helper	☒	☐
Jude Boudreux	SER	Driller's Helper	☒	☐
Drake Blanchard	SER	Driller	☒	☐
Jayce Hulin	SER	Driller's Helper	☒	☐
Randy Lecompte	SER	Sample Runner	☒	☐
Roosevelt James	SER	Driller's Helper	☒	☐
E Travis Stelly	SER	Sample Runner	☒	☐
Nata Sedatol	SER	Driller	☒	☐

Supplies

SUPPLIES	COMPANY	QUANTITY
Grout	SER	N/A

☐ **THIS FIELD REPORT IS PRELIMINARY**
A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.

FIELD REPRESENTATIVE Bobby Nations & Charles Brown — **DATE** 07/23/2023

☑ **THIS FIELD REPORT IS FINAL**
A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.

REVIEWED BY Jennie Aguettant, PE — **DATE** 07/24/2023

Attachments: None

Figure A-28a

Equipment

Equipment On-Site	Company	Quantity	In-Use	Stand-By	Stand-By Location
200-Class Liftboat	Offshore Liftboats	1	☒	☐	
Airboat-Drill Set	SER	1	☒	☐	
Large Support Airboat	SER	1	☒	☐	
Marsh Buggy-Drill	SER	1	☐	☒	Liftboat
Outboard Support Boat	SER	1	☒	☐	
Pontoon-Drill	SER	1	☐	☒	Gulfport
Marshmaster	SER	1	☐	☒	Liftboat
Piston Sampler	SER	2	☐	☒	Liftboat
Sample Run (Outboard) Boat	SER	1	☒	☐	

Geotechnical Boring Summary Status						
Boring Name	Boring Depth (FEET)	Drill Rig Used	Water Depth (FEET)	Today (FEET)	To Date (FEET)	% COMPLETE
CI-1	40	Choose an item.				
CI-2	40	Choose an item.				
CI-3	80	Choose an item.				
CI-4	40	Choose an item.				
CI-5	50	Choose an item.				
CI-6	40	Choose an item.				
CI-7	80	Choose an item.				
CI-8	50	Choose an item.				
CI-9	50	Choose an item.				
CI-10	40	Choose an item.				
CI-11	50	Choose an item.				
CI-12	50	Choose an item.				
CI-13	40	Choose an item.				
CI-14	50	Choose an item.				
CI-15	80	Choose an item.				
CI-16	50	Choose an item.				
CI-17	50	Choose an item.				
CI-18	40	Choose an item.				
CI-19	50	Choose an item.				
CI-20	80	Choose an item.				

CI-21	40	Choose an item.				
CI-22	50	Choose an item.				
CI-23	40	Choose an item.				
CI-24	50	Choose an item.				
CI-25	50	Choose an item.				
CI-26	50	Choose an item.				
CI-27	80	Choose an item.				
CI-28	50	Choose an item.				
CI-29	50	Choose an item.				

Observations and Activities:

07:00 I, Bobby Nations of GeoEngineers, leave the Baton Rouge office with Charles Brown and Kyle Kifian heading to Gulfport, Mississippi.

10:00 We arrive at the Jones Park boat launch in Gulfport, Mississippi and meet SER. SER is preparing to launch the pontoon-drill and sample transport boat.

12:50 Boat trailers and trucks have been secured. GeoEngineers and SER begin heading to Chandeleur Island. The pontoon-drill barge is being left in boat slip 215. SER will return tomorrow to bring it to Chandeleur Island. The weather today was not optimal to move it to the island.

14:00 We arrived at the jack up barge and began preparing to offload the airboats to bring them to the island.

Figure 1: Airboat drill being lifted from the liftboat to the water.

15:30 We have offloaded the airboat drill set and the support airboat. We leave the jack-up barge heading to Chandeleur Island to stage equipment.

17:00 We return to the jack up barge. The crane operator lifts the supply boat and places it on the jack up barge for the evening.

18:00 We attend a site orientation and safety briefing with boat captain.

18:30 End of day.

GeoEngineers

11923 Sun Belt Court
Baton Rouge, LA 70809
225.293.2460

FIELD REPORT

	Project: Chandeleur Island Restoration Project (PO-0199)		File Number: 18274-022-01
			Date: 07/24/2023
	Client: Coastal Engineering Consultants, LLC	Time of Arrival: 6:00AM	Report Number: DFR-2
Prepared by: Bobby Nations & Charles Brown	Location: Chandeleur Island, Louisiana	Time of Departure: 6:00PM	Page: 1 of 8
Purpose of visit: Geotechnical Exploration	Weather: Sunny; 90-100 °F	Travel Time: 1 hour	Permit Number: N/A

Please refer to attached safety documentation.

Personnel

NAME	COMPANY	ROLE	STAYING ON LIFTBOAT	
			YES	NO
Bobby Nations, Jr.	GeoEngineers	Sr. Const. Inspector	☒	☐
Charles Brown	GeoEngineers	Const. Inspector	☒	☐
Kyle Kilfian	GeoEngineers	Sr. Const. Inspector	☒	☐
Hunter Smith	SER	Driller's Helper	☒	☐
Jude Boudreux	SER	Driller's Helper	☒	☐
Drake	SER	Driller	☒	☐
Jayce Hulin	SER	Driller's Helper	☒	☐
Randy Lecaught	SER	Sample Runner	☒	☐
Roosevelt James	SER	Driller's Helper	☒	☐
E Travis Stelly	SER	Sample Runner	☒	☐
Nata Sedatol	SER	Driller	☒	☐

Supplies

SUPPLIES	COMPANY	FOOTAGE
Grout	SER	90 feet

☐ **THIS FIELD REPORT IS PRELIMINARY**
A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.

FIELD REPRESENTATIVE Bobby Nations & Charles Brown — **DATE** 07/24/2023

☑ **THIS FIELD REPORT IS FINAL**
A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.

REVIEWED BY Jennie Aguettant, PE — **DATE** 07/25/2023

Attachments: None

Figure A-29a

Equipment

Equipment On-Site	Company	Quantity	In-Use	Stand-By	Stand-By Location
200-Class Liftboat	Offshore Liftboats	1	☒	☐	
Airboat-Drill Set	SER	1	☒	☐	
Support Airboat	SER	1	☒	☐	
Marsh Buggy-Drill	SER	1	☒	☐	
Support Outboard Boat	SER	1	☒	☐	
Pontoon-Drill	SER	1	☐	☒	Gulfport
Marshmaster	SER	1	☒	☐	
Piston Sampler	SER	2	☒	☐	
Sample Run Boat	SER	1	☒	☐	

Geotechnical Boring Summary Status						
Boring Name	Boring Depth (FEET)	Drill Rig Used	Water Depth (FEET)	Today (FEET)	To Date (FEET)	% COMPLETE
CI-1	40	Choose an item.				
CI-2	40	Airboat-Drill	2.0	40	40	100
CI-3	80	Choose an item.				
CI-4	40	Choose an item.				
CI-5	50	Choose an item.				
CI-6	40	Choose an item.				
CI-7	80	Choose an item.				
CI-8	50	Marsh Buggy-Drill	On Land	50	50	100
CI-9	50	Choose an item.				
CI-10	40	Choose an item.				
CI-11	50	Choose an item.				
CI-12	50	Choose an item.				
CI-13	40	Choose an item.				
CI-14	50	Choose an item.				
CI-15	80	Choose an item.				
CI-16	50	Choose an item.				
CI-17	50	Choose an item.				
CI-18	40	Choose an item.				
CI-19	50	Choose an item.				

CI-20	80	Choose an item.				
CI-21	40	Choose an item.				
CI-22	50	Choose an item.				
CI-23	40	Choose an item.				
CI-24	50	Choose an item.				
CI-25	50	Choose an item.				
CI-26	50	Choose an item.				
CI-27	80	Choose an item.				
CI-28	50	Choose an item.				
CI-29	50	Choose an item.				

Observations and Activities:

06:00 I, Bobby Nations, Charles Brown and Kyle Kilfian of GeoEngineers attend the morning safety meeting with SER and the LB Janie crew.

7:00 SER works with the LB Janie crew to have the boats lifted into the water as well as the marsh buggy and marshmaster.

Figure 1: Marsh buggy drill being lifted into the water.

09:00 All equipment is unloaded into the water. Crews began taking marshmaster and mash buggy drill rig to the Island.

0930 Both drill crews begin making their way to the first drilling locations. Locations C1-02 and C1-08 will be drilled first. Conditions at each boring location before and after drilling are shown below.

10:30 Many sand bars are encountered on the way to C1-02. Note: Location C1-06 will have to be reached with the marsh buggy drill and location C1-04 with the pontoon drill boat.

12:30 Lunch.

13:00 Resume drilling operations.

Figure 2: Boring CI-08 Site Conditions Before Drilling

Figure 3: Boring CI-08 Site Conditions After Drilling

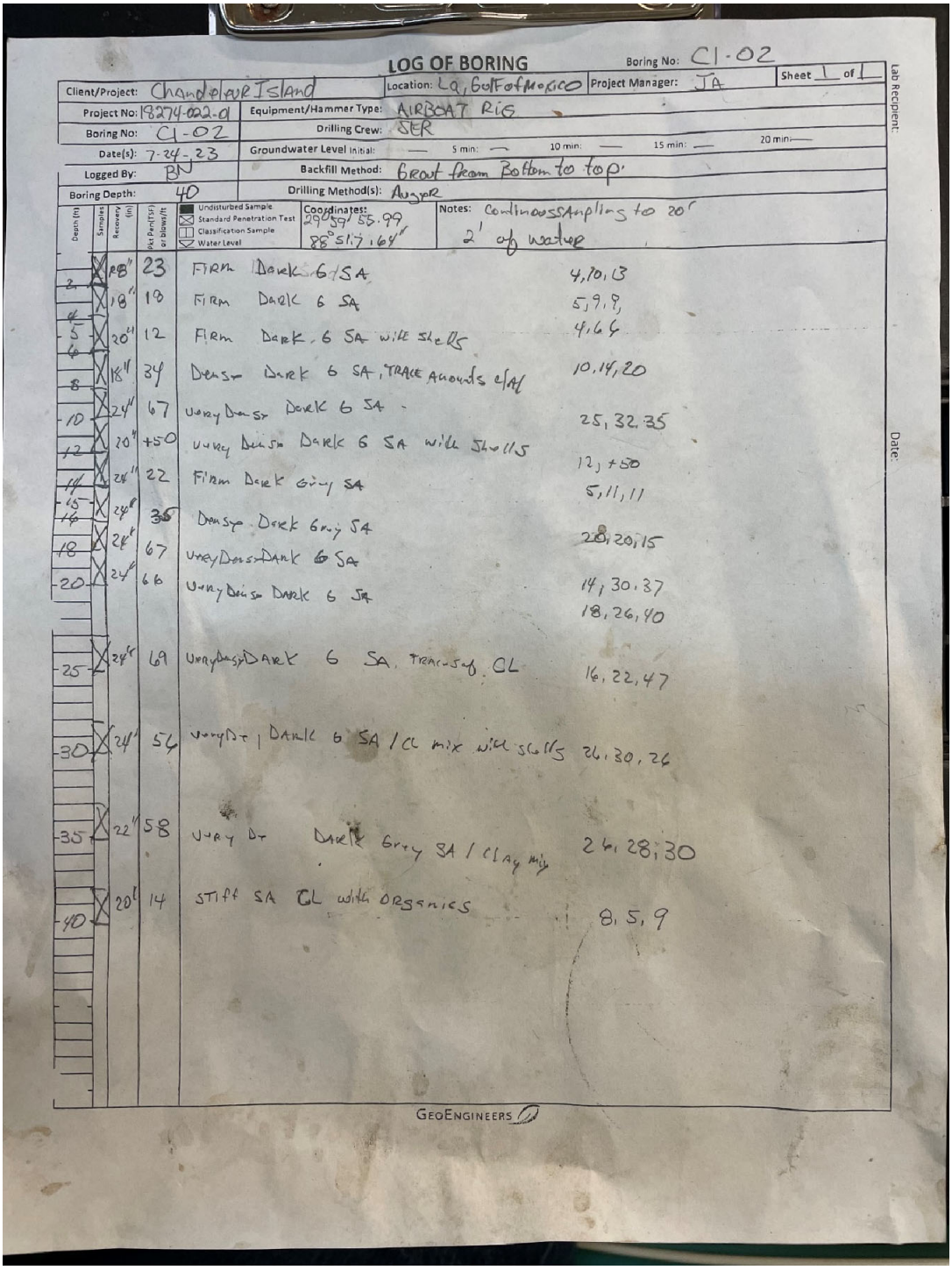
Figure 4: Boring CI-02 Site Conditions Before Drilling

Figure 5: Boring CI-02 Site Conditions After Drilling

16:30 We begin making our way back to the boat channel to be picked up.

17:20 SER and the LB Janie crew begin loading boats back onto the liftboat.

18:00 Work has concluded. End of day.



LOG OF BORING

Boring No: C1-02

Client/Project: Chandeleur Island | Location: La, Gulf of Mexico | Project Manager: JA | Sheet 1 of 1

Project No: 18274-022-01 | Equipment/Hammer Type: AIRBOAT RIG

Boring No: C1-02 | Drilling Crew: SER

Date(s): 7-24-23 | Groundwater Level Initial: — 5 min: — 10 min: — 15 min: — 20 min: —

Logged By: BN | Backfill Method: Grout from Bottom to top.

Boring Depth: 40 | Drilling Method(s): Auger

Undisturbed Sample | Standard Penetration Test | Classification Sample | Water Level

Coordinates: 29°59'55.99" 88°51'1.68"

Notes: Continuous Samplings to 20' 2' of water

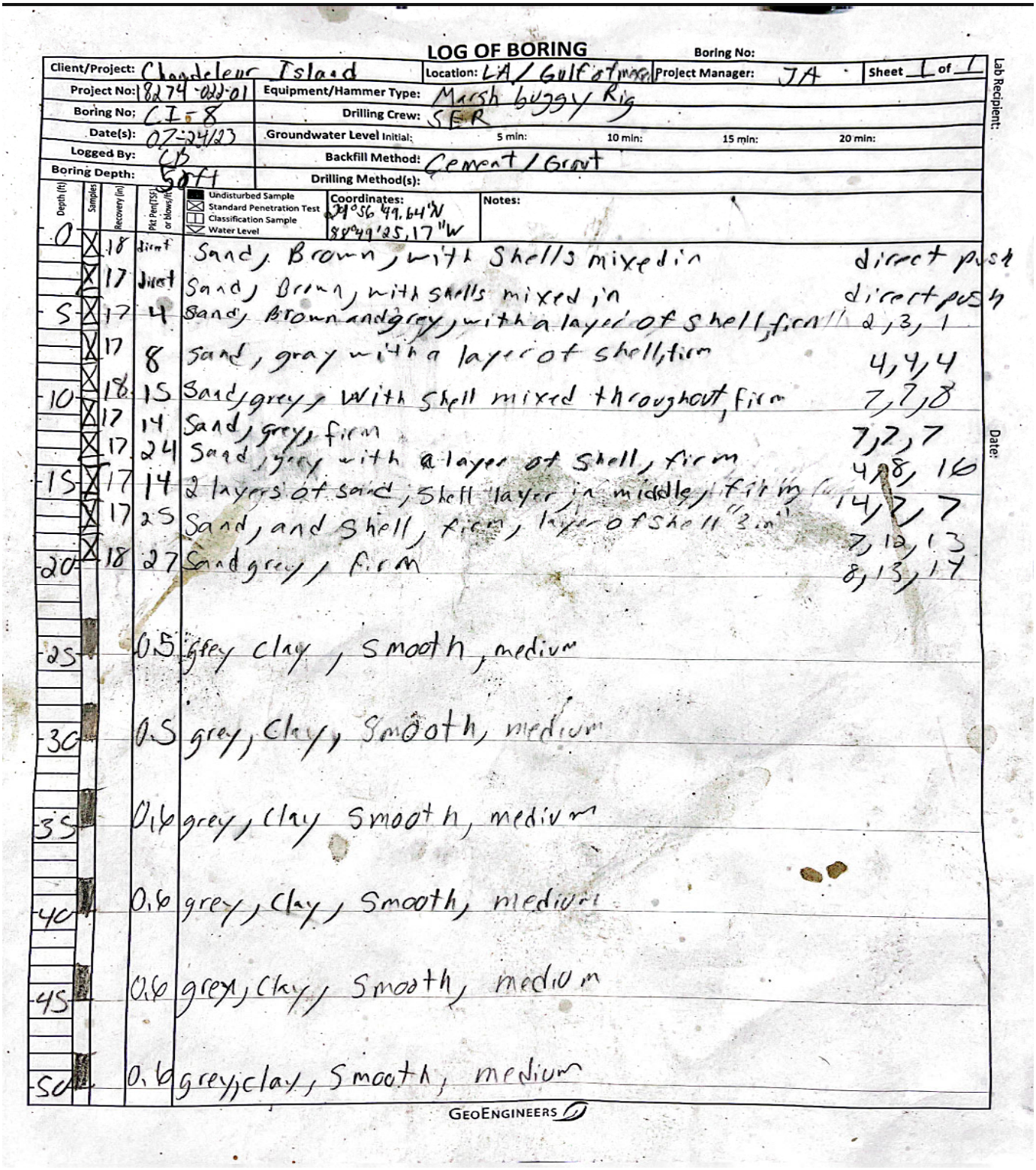
Lab Recipient:

Date:

Depth (ft)	Samples	Recovery (in)	Pkt Pen (tsf) or blows/ft		
2	X	28"	23	FIRM Dark G/SA	4,10,13
4	X	18"	19	FIRM Dark G SA	5,9,8,
5	X	20"	12	FIRM Dark G SA with Shells	4,6,6
8	X	18"	34	Dense Dark G SA, TRACE Amounts of Af	10,14,20
10	X	24"	67	Very Dense Dark G SA -	25, 32, 35
12	X	20"	+50	Very Dense Dark G SA with Shells	12, +50
14	X	24"	22	FIRM Dark Grey SA	5,11,11
16	X	24"	35	Dense Dark Grey SA	20, 20, 15
18	X	24"	67	Very Dense Dark G SA	14, 30, 37
20	X	24"	66	Very Dense Dark G SA	18, 26, 40
25	X	24"	69	Very Dense Dark G SA, Trace of CL	16, 22, 47
30	X	24"	54	Very Dr Dark G SA / CL mix with Shells	26, 30, 26
35	X	22"	58	Very Dr Dark Grey SA / Clay mix	24, 28, 30
40	X	20"	14	STIFF SA CL with ORGANICS	8, 5, 9

GeoEngineers

Figure A-29g



LOG OF BORING

Boring No:

Client/Project: Chandeleur Island | Location: LA / Gulf of Mex. | Project Manager: JA | Sheet 1 of 1 | Lab Recipient:

Project No: 18274-022-01 | Equipment/Hammer Type: Marsh buggy Rig

Boring No: CI-8 | Drilling Crew: SER

Date(s): 07-24/23 | Groundwater Level Initial: | 5 min: | 10 min: | 15 min: | 20 min:

Logged By: CB | Backfill Method: Cement / Grout

Boring Depth: 50ft | Drilling Method(s):

Undisturbed Sample; Standard Penetration Test; Classification Sample; Water Level

Coordinates: 29°56'49.64"N 88°49'25.17"W

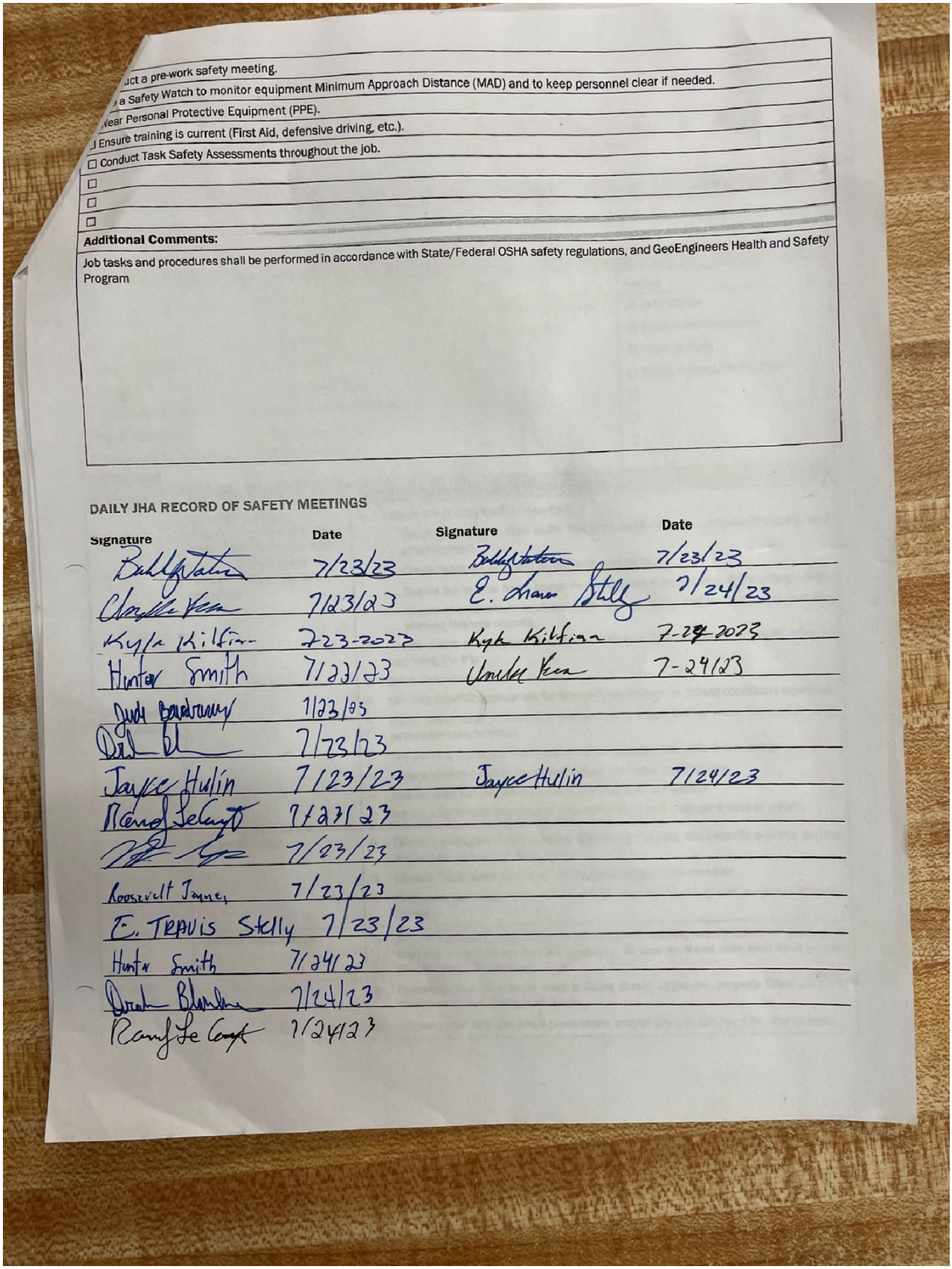
Notes:

Depth (ft)	Samples	Recovery (in)	Pkt Pen (TSF) or blows/ft		
0	X	18	direct	Sand, Brown, with Shells mixed in	direct push
	X	17	direct	Sand, Brown, with shells mixed in	direct push
5	X	17	4	Sand, Brown and grey, with a layer of shell, firm	2, 3, 1
	X	17	8	Sand, gray with a layer of shell, firm	4, 4, 4
10	X	18	15	Sand, grey, with shell mixed throughout, firm	7, 7, 8
	X	17	14	Sand, grey, firm	7, 7, 7
	X	17	24	Sand, grey with a layer of shell, firm	4, 8, 10
15	X	17	14	2 layers of sand, Shell layer in middle, firm	14, 7, 7
	X	17	25	Sand, and Shell, firm, layer of shell "3 in"	7, 12, 13
20	X	18	27	Sand grey, firm	8, 13, 17
25			0.5	grey clay, smooth, medium	
30			0.5	grey, clay, smooth, medium	
35			0.6	grey, clay smooth, medium	
40			0.6	grey, clay, smooth, medium	
45			0.6	grey, clay, smooth, medium	
50			0.6	grey, clay, smooth, medium	

Date:

GeoEngineers

Figure A-29h



uct a pre-work safety meeting.
a Safety Watch to monitor equipment Minimum Approach Distance (MAD) and to keep personnel clear if needed.
Wear Personal Protective Equipment (PPE).
Ensure training is current (First Aid, defensive driving, etc.).
☐ Conduct Task Safety Assessments throughout the job.
☐
☐
☐

Additional Comments:

Job tasks and procedures shall be performed in accordance with State/Federal OSHA safety regulations, and GeoEngineers Health and Safety Program

DAILY JHA RECORD OF SAFETY MEETINGS

Signature	Date	Signature	Date
Bobby Watson	7/23/23	Bobby Watson	7/23/23
Charlie Vera	7/23/23	E. Travis Stilly	7/24/23
Kyle Kilfin	7-23-2023	Kyle Kilfin	7-24-2023
Hunter Smith	7/23/23	Charlie Vera	7-24-23
Judd Bardrawy	7/23/23		
Dick Bl	7/23/23		
Jayce Hulin	7/23/23	Jayce Hulin	7/24/23
Randy LeCompte	7/23/23		
[illegible]	7/23/23		
Roosevelt Jayne	7/23/23		
E. Travis Stilly	7/23/23		
Hunter Smith	7/24/23		
Derek Blanchard	7/24/23		
Randy LeCompte	7/24/23		

Figure A-29i

GeoEngineers

11923 Sun Belt Court
Baton Rouge, LA 70809
225.293.2460

FIELD REPORT

	Project: Chandeleur Island Restoration Project (PO-0199)		File Number: 18274-022-01
			Date: 07/25/2023
	Client: Coastal Engineering Consultants, LLC	Time of Arrival: 6:00AM	Report Number: DFR-3
Prepared by: Bobby Nations & Charles Brown	Location: Chandeleur Island, Louisiana	Time of Departure: 6:00PM	Page: 1 of 10
Purpose of visit: Geotechnical Exploration	Weather: Sunny; 90-100 °F	Travel Time: 1 hours	Permit Number: N/A

Please refer to attached safety documentation.

Personnel

NAME	COMPANY	ROLE	STAYING ON LIFTBOAT	
			YES	NO
Bobby Nations, Jr.	GeoEngineers	Sr. Const. Inspector	☒	☐
Charles Brown	GeoEngineers	Const. Inspector	☒	☐
Kyle Kilfian	GeoEngineers	Sr. Const. Inspector	☒	☐
Hunter Smith	SER	Driller's Helper	☒	☐
Jude Boudreaux	SER	Driller's Helper	☒	☐
Drake Blanchard	SER	Driller	☒	☐
Jayce Hulin	SER	Driller's Helper	☒	☐
Randy Lecompte	SER	Sample Runner	☒	☐
Roosevelt James	SER	Driller's Helper	☒	☐
E Travis Stelly	SER	Sample Runner	☒	☐
Nata Sedatol	SER	Driller	☒	☐

Supplies

SUPPLIES	COMPANY	FOOTAGE
Grout	SER	140 feet

☐ **THIS FIELD REPORT IS PRELIMINARY**
A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.

FIELD REPRESENTATIVE Bobby Nations & Charles Brown — **DATE** 07/25/2023

☑ **THIS FIELD REPORT IS FINAL**
A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.

REVIEWED BY Jennie Aguettant, PE — **DATE** 07/25/2023

Attachments: None

Figure A-30a

Equipment

Equipment On-Site	Company	Quantity	In-Use	Stand-by	Stand-by Location
200-Class Liftboat	Offshore Liftboats	1	☒	☐	
Airboat-Drill Set	SER	1	☒	☐	
Support Airboat	SER	1	☒	☐	
Marsh Buggy-Drill	SER	1	☒	☐	
Support Outboard Boat	SER	1	☒	☐	
Pontoon-Drill	SER	1	☐	☒	Gulfport
Marshmaster	SER	1	☒	☐	
Piston Sampler	SER	2	☒	☐	
Sample Run (Outboard) Boat	SER	1	☒	☐	

Geotechnical Boring Summary Status						
Boring Name	Boring Depth (FEET)	Drill Rig Used	Water Depth (FEET)	Today (FEET)	To Date (FEET)	% COMPLETE
CI-1	40	Choose an item.				
CI-2	40	Airboat-Drill	2.0		40	100
CI-3	80	Choose an item.				
CI-4	40	Choose an item.				
CI-5	50	Choose an item.				
CI-6	40	Choose an item.				
CI-7	80	Choose an item.				
CI-8	50	Marsh Buggy-Drill			50	100
CI-9	50	Airboat-Drill	2.4	50	50	100
CI-10	40	Choose an item.				
CI-11	50	Marsh Buggy-Drill	On Land	50	50	100
CI-12	50	Choose an item.				
CI-13	40	Airboat-Drill	2.0	40	40	100
CI-14	50	Choose an item.				
CI-15	80	Choose an item.				
CI-16	50	Choose an item.				
CI-17	50	Choose an item.				
CI-18	40	Choose an item.				
CI-19	50	Choose an item.				

CI-20	80	Choose an item.				
CI-21	40	Choose an item.				
CI-22	50	Choose an item.				
CI-23	40	Choose an item.				
CI-24	50	Choose an item.				
CI-25	50	Choose an item.				
CI-26	50	Choose an item.				
CI-27	80	Choose an item.				
CI-28	50	Choose an item.				
CI-29	50	Choose an item.				

Observations and Activities:

06:00 Bobby Nations, Charles Brown, and Kyle Kilfian of GeoEngineers attend the morning safety meeting with SER and the Offshore Liftboat Operators.

07:00 SER and the liftboat crew lift the support boats into the water.

08:00 GeoEngineers and SER mobilize to the Island. Each team begins moving to the next boring locations. Photographs of before and after drill site conditions are presented below.

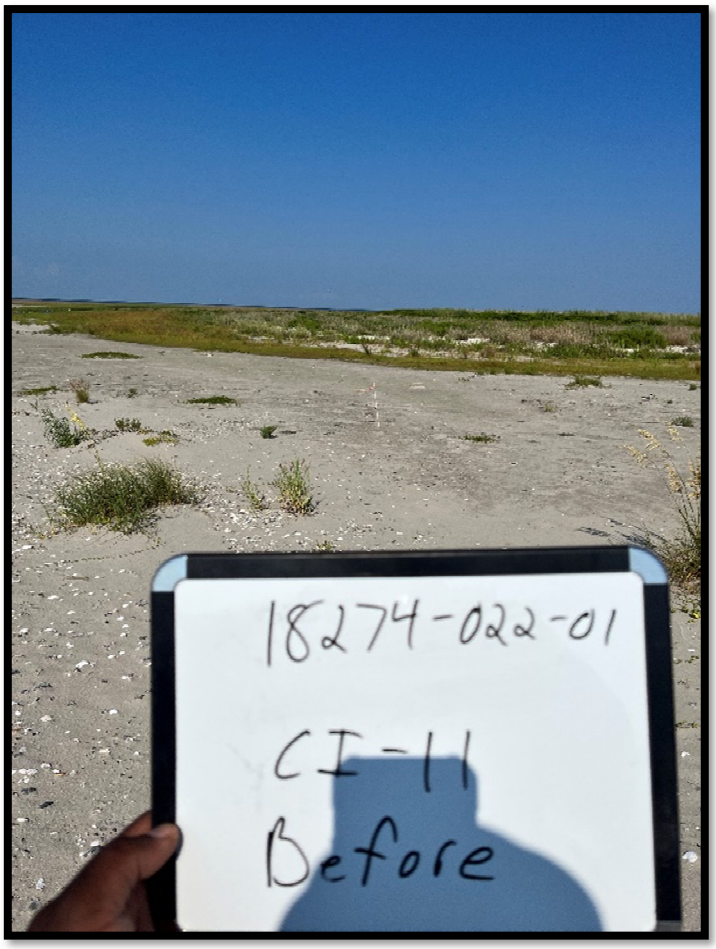


Figure 1: Boring CI-11 Site Condition Before Drilling

Figure 2: Boring CI-11 Site Conditions After Drilling

Figure 3: Boring CI-9 Site Conditions Before Drilling

Figure 4: Boring CI-9 Site Conditions After Drilling

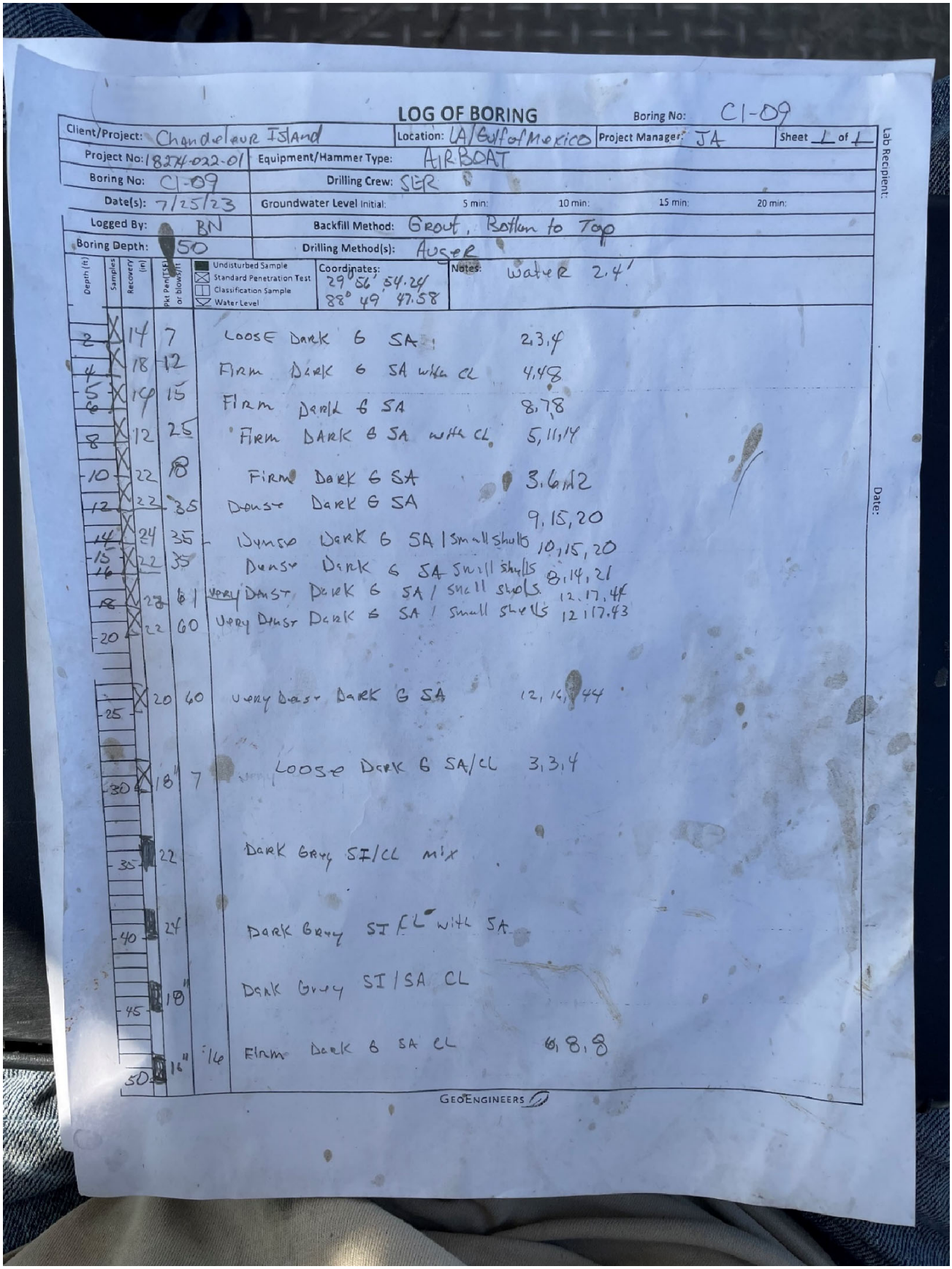
Figure 5: Boring C-13 Site Conditions Before Drilling

Figure 6: Boring CI-13 Site Conditions After Drilling

16:30 We began making our way back to the boat channel to be picked up.

17:20 SER and the liftboat crew begin loading the boats back onto the liftboat.

18:00 End of day.



LOG OF BORING

Boring No: C1-09

Client/Project: Chandeleur Island | Location: LA/Gulf of Mexico | Project Manager: JA | Sheet 1 of 1

Project No: 18274-022-01 | Equipment/Hammer Type: AIRBOAT

Boring No: C1-09 | Drilling Crew: SER

Date(s): 7/25/23 | Groundwater Level Initial: | 5 min: | 10 min: | 15 min: | 20 min:

Logged By: BN | Backfill Method: Grout, Bottom to Top

Boring Depth: 50 | Drilling Method(s): Auger

Lab Recipient:

Date:

Undisturbed Sample
Standard Penetration Test
Classification Sample
Water Level

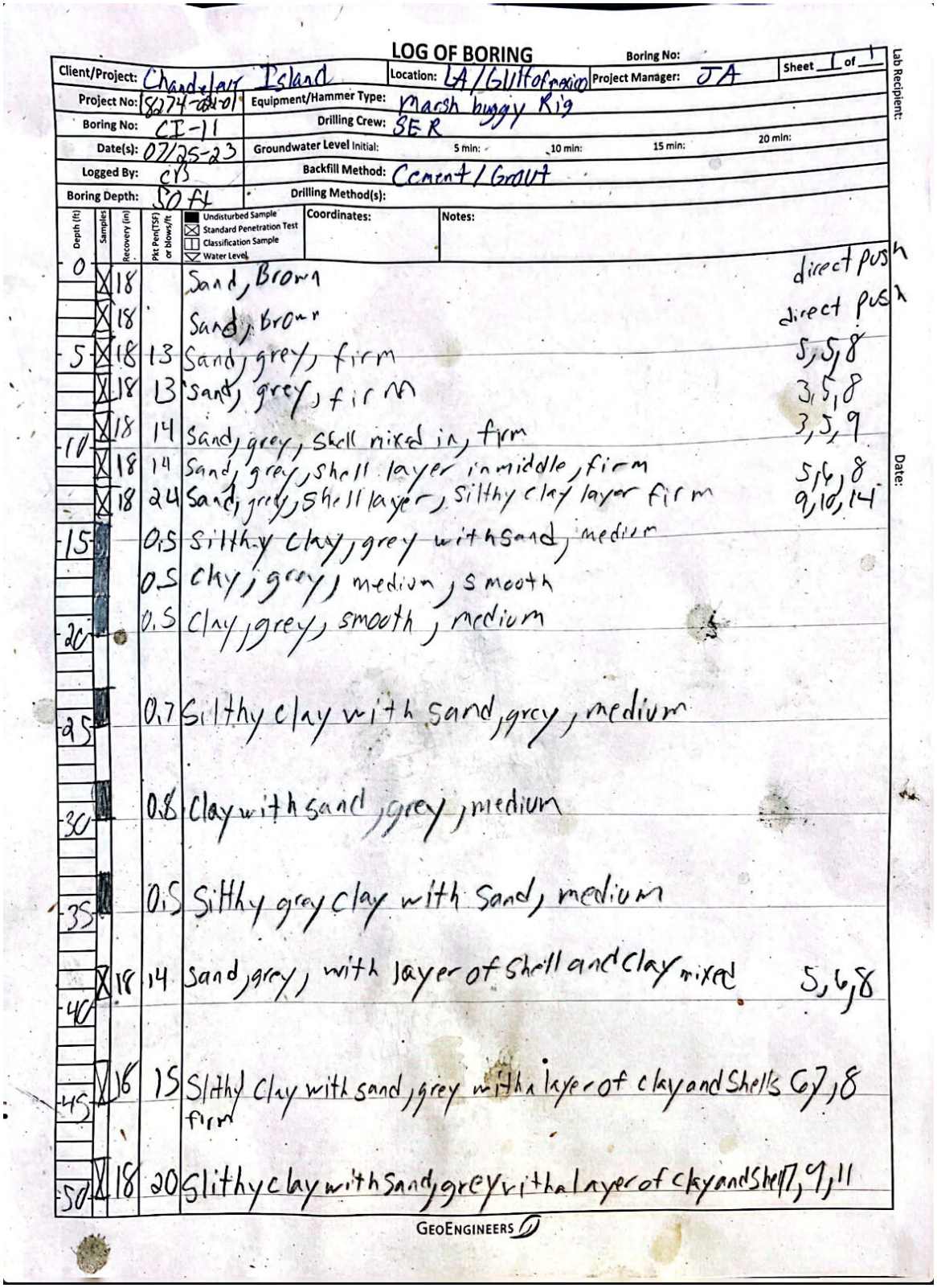
Coordinates: 29° 56' 54.24" 88° 49' 47.58"

Notes: Water 2.4'

Depth (ft)	Samples	Recovery (in)	Pkt Pen (TSF) or blows/ft		
2	X	14	7	Loose Dark G SA	2,3,4
4	X	18	12	Firm Dark G SA with CL	4,4,8
5	X	19	15	Firm Dark G SA	8,7,8
8	X	12	25	Firm DARK G SA with CL	5,11,14
10	X	22	18	Firm Dark G SA	3,6,12
12	X	22	35	Dense Dark G SA	9,15,20
14	X	24	35	Dense Dark G SA / small shells	10,15,20
15	X	22	35	Dense Dark G SA small shells	8,14,21
16	X	23	61	Very Dense Dark G SA / small shells	12,17,44
18	X	22	60	Very Dense Dark G SA / small shells	12,17,43
20	X	20	60	Very Dense Dark G SA	12,16,44
25	X	18"	7	Loose Dark G SA/CL	3,3,4
30		22		Dark Gray SI/CL mix	
35		24		Dark Gray SI/CL with SA	
40		18"		Dark Gray SI/SA CL	
45		16"	16	Firm Dark G SA CL	6,8,8
50					

GeoEngineers

Figure A-30g



LOG OF BORING

Boring No:

Client/Project: Chandeleur Island | Location: LA/Gulf of mexico | Project Manager: JA | Sheet 1 of 1

Project No: 18274-022-01 | Equipment/Hammer Type: marsh buggy Rig

Boring No: CI-11 | Drilling Crew: SER

Date(s): 07/25-23 | Groundwater Level Initial: | 5 min: | 10 min: | 15 min: | 20 min:

Logged By: CB | Backfill Method: Cement / Grout

Boring Depth: 50 ft | Drilling Method(s):

Undisturbed Sample | Standard Penetration Test | Classification Sample | Water Level

Coordinates:

Notes:

Lab Recipient:

Date:

Depth (ft)	Samples	Recovery (in)	Pkt Pen(TSF) or blows/ft		
0	X	18		Sand, Brown	direct push
	X	18		Sand, Brown	direct push
5	X	18	13	Sand, grey, firm	5,5,8
	X	18	13	Sand, grey, firm	3,5,8
10	X	18	14	Sand, grey, shell mixed in, firm	3,5,9
	X	18	14	Sand, grey, shell layer in middle, firm	5,6,8
	X	18	24	Sand, grey, shell layer, silthy clay layer firm	9,10,14
15			0.5	silthy clay, grey with sand, medium	
			0.5	clay, grey, medium, smooth	
20			0.5	clay, grey, smooth, medium	
25			0.7	Silthy clay with sand, grey, medium	
30			0.8	Clay with sand, grey, medium	
35			0.5	Silthy grey clay with sand, medium	
40	X	18	14	Sand, grey, with layer of shell and clay mixed	5,6,8
45	X	16	15	Silthy clay with sand, grey with a layer of clay and shells firm	6,7,8
50	X	18	20	Silthy clay with Sand, grey with a layer of clay and shell	7,9,11

GeoEngineers

Figure A-30h

LOG OF BORING

Boring No: CI-13

Client/Project: Chandeleur Island. | Location: LA / Gulf of Mexico | Project Manager: JA | Sheet 1 of 1

Project No: 18274-022-01 | Equipment/Hammer Type: AIRBoat

Boring No: CI-13 | Drilling Crew: SER

Date(s): 7/25/23 | Groundwater Level Initial: | 5 min: | 10 min: | 15 min: | 20 min:

Logged By: BN | Backfill Method: Cement Grout

Boring Depth: 40 | Drilling Method(s): Auger

Undisturbed Sample; Standard Penetration Test; Classification Sample; Water Level

Coordinates: 29° 86'9.39'' 88° 50' 31.03''

Notes: water 2.0'

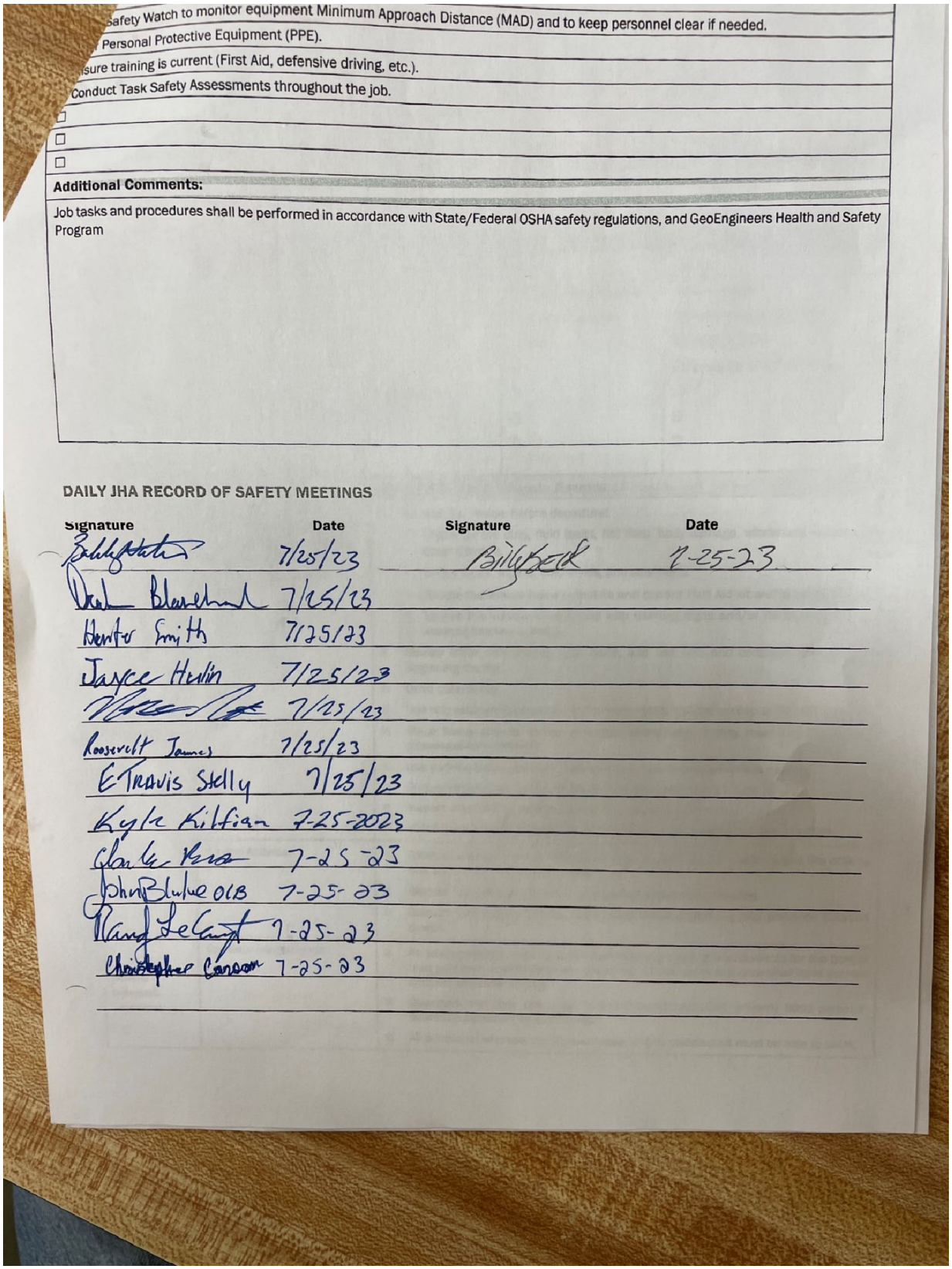
Depth (ft)	Samples	Recovery (in)	Pkt Pen (TSF) or blows/ft	
2	X	14	8	Loose Dark G SA 2,3,5
4	X	16	14	Firm Dark G SA 4,5,9,
6	X	20	28	Firm Dark G SA 6-12-16
8	X	20	34	Dense Dark G SA 9-16-18
10	X	20	34	Dense Dark G SA 9-15 19
12	X	22	24	Firm DARK G SA, small shells 11, 12, 14
14	X	20	10	Firm Dark G SA Clay with shells 4, 4, 6
15	X	16	10	Firm Dark G SI SA CL with shells 4,5,5,
16				
18			1.5	Stiff Dark G CL
20			15	Stiff Dark G CL
25			1.5	Stiff DARK G CL
30			1.0	Stiff DARK G CL
35			1.0	Stiff Dark G SA CL
40	X	20	19	Firm DARK G SA 8,9 10

GeoEngineers

Lab Recipient:

Date:

Figure A-30i



Safety Watch to monitor equipment Minimum Approach Distance (MAD) and to keep personnel clear if needed.
Personal Protective Equipment (PPE).
Ensure training is current (First Aid, defensive driving, etc.).
Conduct Task Safety Assessments throughout the job.
☐
☐
☐

Additional Comments:

Job tasks and procedures shall be performed in accordance with State/Federal OSHA safety regulations, and GeoEngineers Health and Safety Program

DAILY JHA RECORD OF SAFETY MEETINGS

Signature	Date	Signature	Date
[signature]	7/25/23	[signature]	7-25-23
[signature]	7/25/23		
Hunter Smith	7/25/23		
Jayce Herlin	7/25/23		
[signature]	7/25/23		
Roosevelt James	7/25/23		
E Travis Stelly	7/25/23		
Kyle Kilfian	7-25-2023		
[signature]	7-25-23		
[signature]	7-25-23		
[signature]	7-25-23		
[signature]	7-25-23		

Figure A-30j

GeoEngineers

11923 Sun Belt Court
Baton Rouge, LA 70809
225.293.2460

FIELD REPORT

	Project: Chandeleur Island Restoration Project (PO-0199)		File Number: 18274-022-01
			Date: 07/26/2023
	Client: Coastal Engineering Consultants, LLC	Time of Arrival: 6:00AM	Report Number: DFR-4
Prepared by: Bobby Nations & Charles Brown	Location: Chandeleur Island, Louisiana	Time of Departure: 6:00PM	Page: 1 of 11
Purpose of visit: Geotechnical Exploration	Weather: Sunny; 90-100 °F	Travel Time: 1 hour	Permit Number: N/A

Please refer to attached safety documentation.

Personnel

NAME	COMPANY	ROLE	STAYING ON LIFTBOAT	
			YES	NO
Bobby Nations, Jr.	GeoEngineers	Sr. Const. Inspector	☒	☐
Charles Brown	GeoEngineers	Const. Inspector	☒	☐
Kyle Kilfian	GeoEngineers	Sr. Const. Inspector	☒	☐
Hunter Smith	SER	Driller's Helper	☒	☐
Jude Boudreaux	SER	Driller's Helper	☒	☐
Drake Blanchard	SER	Driller	☒	☐
Jayce Hulin	SER	Driller's Helper	☒	☐
Randy Lecompte	SER	Sample Runner	☒	☐
Roosevelt James	SER	Driller's Helper	☒	☐
E Travis Stelly	SER	Sample Runner	☒	☐
Nata Sedatol	SER	Driller	☒	☐

Supplies

SUPPLIES	COMPANY	FOOTAGE
Grout	SER	180 feet

☐ **THIS FIELD REPORT IS PRELIMINARY**
A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.

FIELD REPRESENTATIVE Bobby Nations & Charles Brown — **DATE** 07/26/2023

☑ **THIS FIELD REPORT IS FINAL**
A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.

REVIEWED BY Jennie Aguettant, PE — **DATE** 07/27/2023

Attachments: None

Figure A-31a

Equipment

Equipment On-Site	Company	Quantity	In-Use	Stand-By	Stand-By Location
200-Class Liftboat	Offshore Liftboats	1	☒	☐	
Airboat-Drill Set	SER	1	☒	☐	
Large Support Airboat	SER	1	☒	☐	
Marsh Buggy-Drill	SER	1	☒	☐	
Support Outboard Boat	SER	1	☒	☐	
Pontoon-Drill	SER	1	☐	☒	Chandeleur Island
Marshmaster	SER	1	☒	☐	
Piston Sampler	SER	2	☒	☐	
Sample Run (Outboard) Boat	SER	1	☒	☐	

Geotechnical Boring Summary Status						
Boring Name	Boring Depth (FEET)	Drill Rig Used	Water Depth (FEET)	Today (FEET)	To Date (FEET)	% COMPLETE
CI-1	40	Choose an item.				
CI-2	40	Airboat-Drill	2.0		40	100
CI-3	80	Choose an item.				
CI-4	40	Choose an item.				
CI-5	50	Choose an item.				
CI-6	40	Choose an item.				
CI-7	80	Choose an item.				
CI-8	50	Marsh Buggy-Drill	On Land		50	100
CI-9	50	Airboat-Drill	2.4		50	100
CI-10	40	Choose an item.				
CI-11	50	Marsh Buggy-Drill	On Land		50	100
CI-12	50	Airboat-Drill	3.0	40	40	80
CI-13	40	Airboat-Drill	2.0		40	100
CI-14	50	Marsh Buggy-Drill	On Land	50	50	100
CI-15	80	Choose an item.				
CI-16	50	Marsh Buggy-Drill	On Land	50	50	100

CI-17	50	Marsh Buggy-Drill				
CI-18	40	Airboat-Drill	2.0	40	40	100
CI-19	50	Choose an item.				
CI-20	80	Choose an item.				
CI-21	40	Choose an item.				
CI-22	50	Choose an item.				
CI-23	40	Choose an item.				
CI-24	50	Choose an item.				
CI-25	50	Choose an item.				
CI-26	50	Choose an item.				
CI-27	80	Choose an item.				
CI-28	50	Choose an item.				
CI-29	50	Choose an item.				

Observations and Activities:

06:00 Bobby Nations, Charles Brown, and Kyle Kilfian of GeoEngineers attend the safety meeting with SER and the Offshore Liftboat operators.

07:00 SER works with the liftboat crew to lift the boats into the water. Randy leaves to get the pontoon drill from Gulfport.

08:00 GeoEngineers and SER have reached the Island. The teams begin moving to the next boring locations, CI-12 and CI-14.

10:30 A hydraulic line burst on the airboat drill rig while working on CI-12. Work was stopped while the hose was replaced.

13:30 The airboat drill is repaired. The tide is too low to return to CI-12. The airboat drill is moved to location CI-18.

Figure 1: Boring CI-12 Site Conditions Before Drilling

Figure 2: Boring CI-18 Site Conditions Before Drilling

Figure 3: Boring CI-18 Site Conditions After Drilling

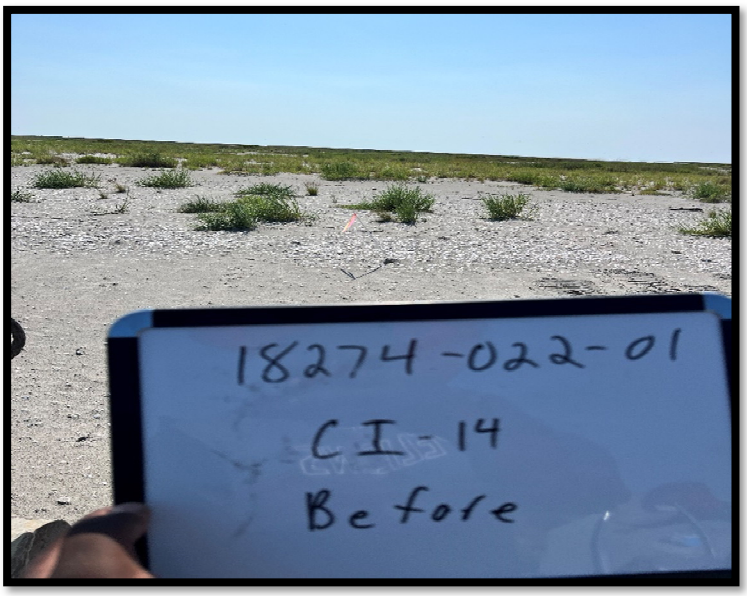


Figure 4: Boring CI-14 Site Conditions Before Drilling

Figure 5: Boring CI-14 Site Conditions After Drilling

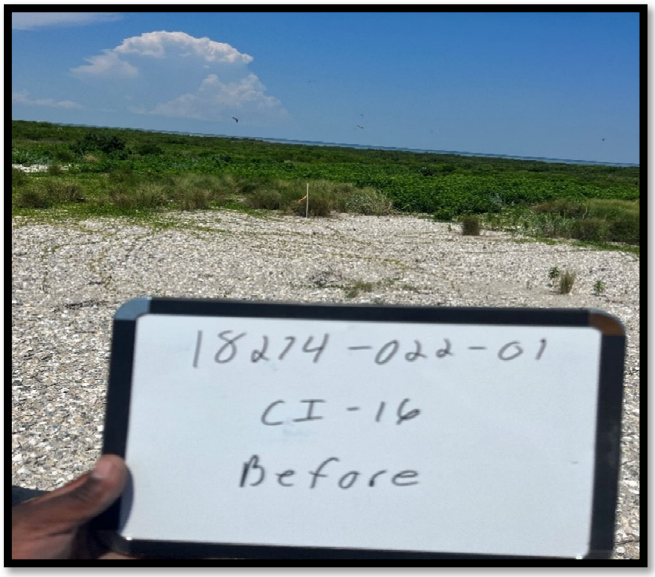
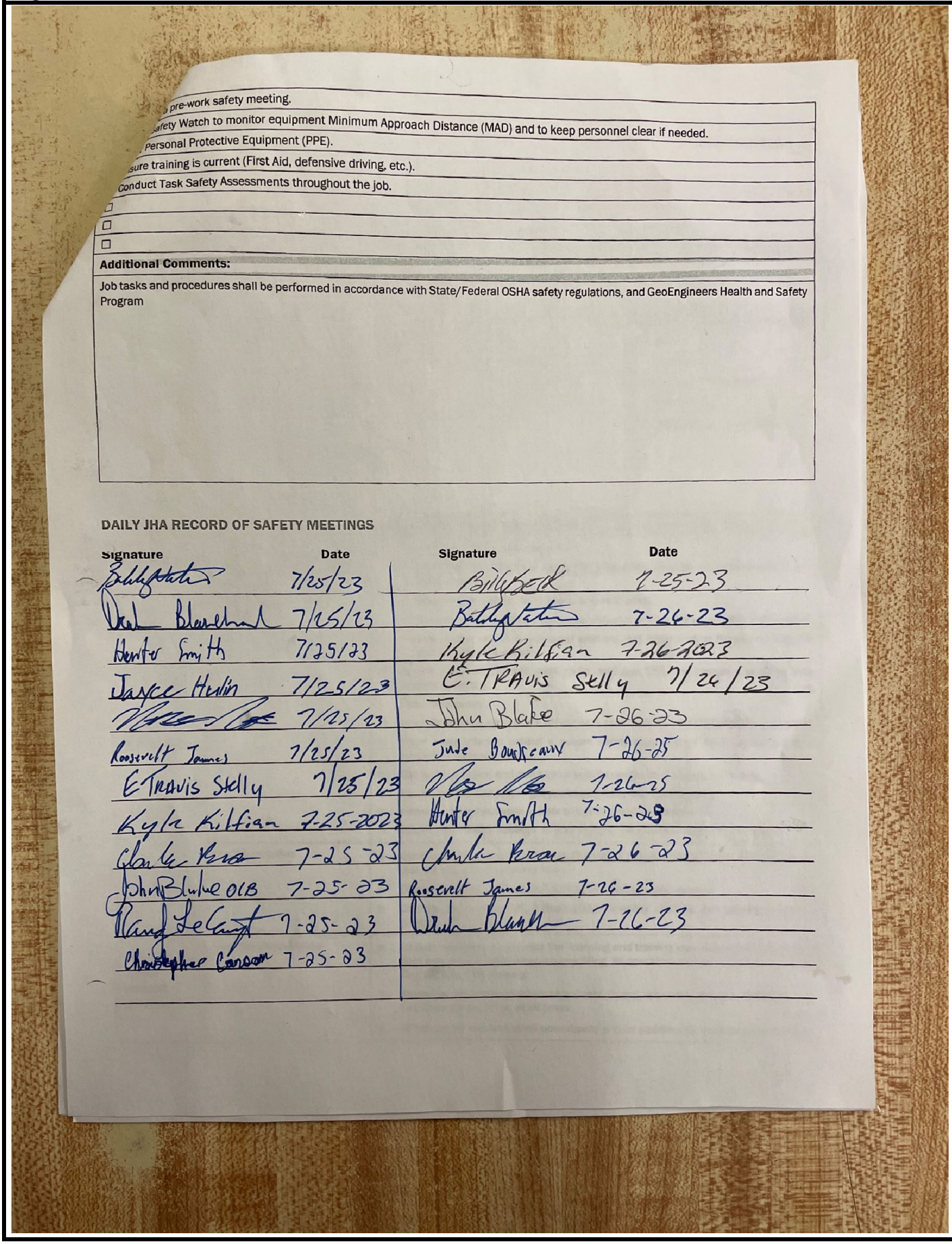


Figure 6: Boring CI-16 Site Conditions Before Drilling

16:30 We began making our way back to the boat channel to be picked up.

17:20 SER works with the liftboat crew to load the boats back onto the liftboat.

18:00 End of day.



a pre-work safety meeting.
afety Watch to monitor equipment Minimum Approach Distance (MAD) and to keep personnel clear if needed.
Personal Protective Equipment (PPE).
sure training is current (First Aid, defensive driving, etc.).
Conduct Task Safety Assessments throughout the job.
☐
☐
☐

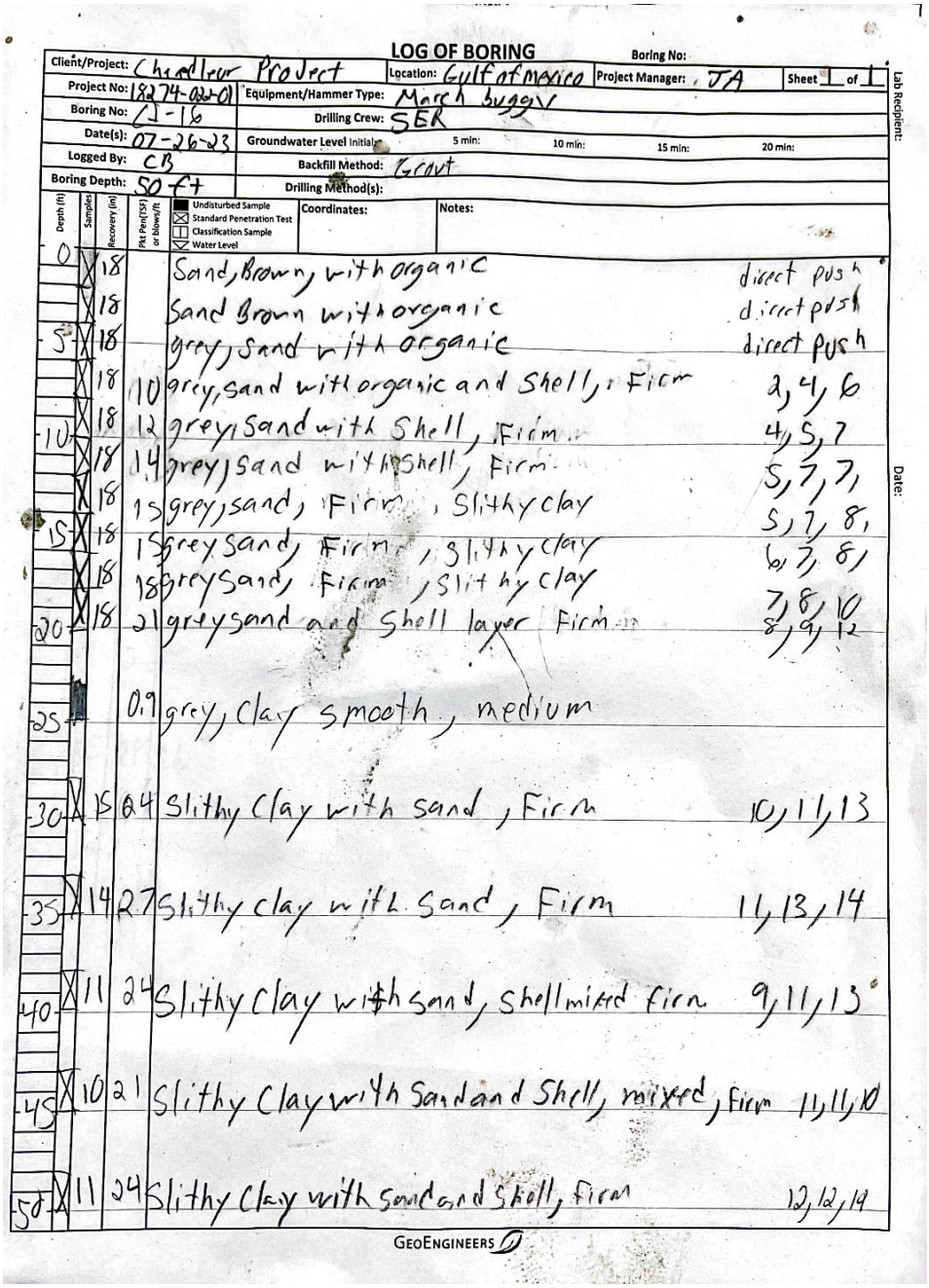
Additional Comments:

Job tasks and procedures shall be performed in accordance with State/Federal OSHA safety regulations, and GeoEngineers Health and Safety Program

DAILY JHA RECORD OF SAFETY MEETINGS

Signature	Date	Signature	Date
[signature]	7/25/23	[signature]	7-25-23
[signature]	7/25/23	[signature]	7-26-23
Hunter Smith	7/25/23	Kyle Kilfian	7-26-2023
Jayce Hurlin	7/25/23	E. TRAVIS Stelly	7/26/23
[signature]	7/25/23	John Blake	7-26-23
Roosevelt James	7/25/23	Jude Bourgeois	7-26-25
E Travis Stelly	7/25/23	[signature]	7-26-25
Kyle Kilfian	7-25-2023	Hunter Smith	7-26-23
[signature]	7-25-23	[signature]	7-26-23
John Blake OIB	7-25-23	Roosevelt James	7-26-23
[signature]	7-25-23	[signature]	7-26-23
Christopher Carson	7-25-23		

Figure A-31g



LOG OF BORING

Boring No:

Client/Project: Chevron Project | Location: Gulf of Mexico | Project Manager: JA | Sheet 1 of 1

Project No: 18274-022-01 | Equipment/Hammer Type: Marsh buggy

Boring No: B-16 | Drilling Crew: SER

Date(s): 07-26-23 | Groundwater Level Initial: 5 min: 10 min: 15 min: 20 min:

Logged By: CB | Backfill Method: Grout

Boring Depth: 50 ft | Drilling Method(s):

Coordinates: | Notes:

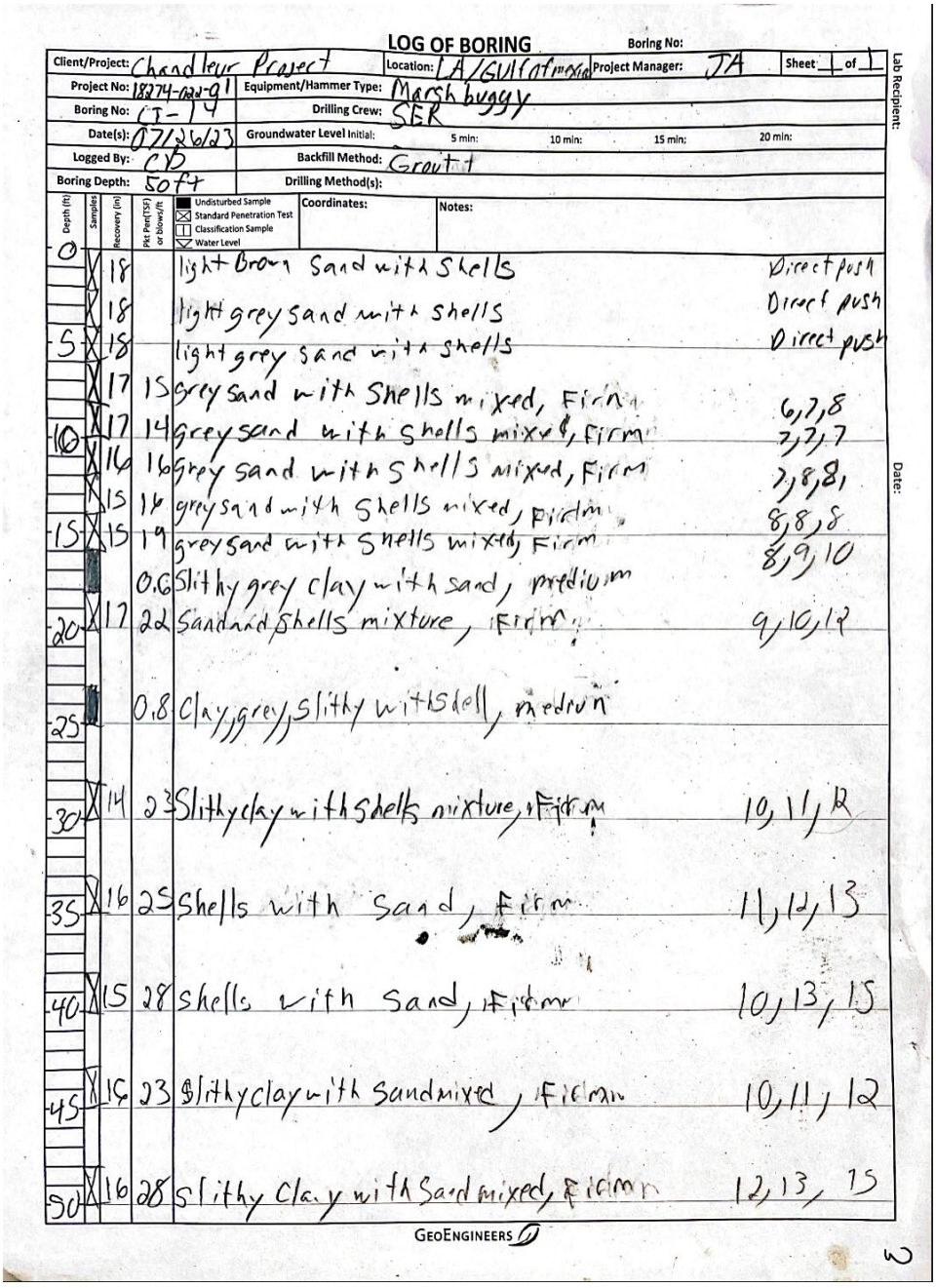
Undisturbed Sample; Standard Penetration Test; Classification Sample; Water Level

Lab Recipient: | Date:

Depth (ft)	Samples	Recovery (in)	Pkt Pen (TSF) or blows/ft		
0	X	18		Sand, Brown, with organic	direct push
	X	18		Sand Brown with organic	direct push
-5	X	18		grey, sand with organic	direct push
	X	18	10	grey, sand with organic and shell, Firm	2, 4, 6
-10	X	18	12	grey, sand with shell, Firm	4, 5, 7
	X	18	14	grey, sand with shell, Firm	5, 7, 7,
	X	18	15	grey, sand, Firm, Slithy clay	5, 7, 8,
-15	X	18	15	grey sand, Firm, Slithy clay	6, 7, 8,
	X	18	18	grey sand, Firm, Slithy clay	7, 8, 10
-20	X	18	21	grey sand and shell layer Firm	8, 9, 12
-25			0.9	grey, clay smooth, medium	
-30	X	18	24	Slithy clay with sand, Firm	10, 11, 13
-35	X	14	27	Slithy clay with sand, Firm	11, 13, 14
-40	X	11	24	Slithy clay with sand, shell mixed Firm	9, 11, 13
-45	X	10	21	Slithy clay with Sand and Shell, mixed, Firm	11, 11, 10
-50	X	11	24	Slithy clay with sand and Shell, Firm	12, 12, 14

GeoEngineers

Figure A-31h



LOG OF BORING

Boring No:

Client/Project: Chandleur Project | Location: LA/Gulf of mexico | Project Manager: JA | Sheet 1 of 1

Project No: 18274-022-01 | Equipment/Hammer Type: Marsh buggy

Boring No: CJ-14 | Drilling Crew: SER

Date(s): 07/26/23 | Groundwater Level Initial: | 5 min: | 10 min: | 15 min: | 20 min:

Logged By: CD | Backfill Method: Grout

Boring Depth: 50ft | Drilling Method(s):

Undisturbed Sample; Standard Penetration Test; Classification Sample; Water Level

Coordinates:

Notes:

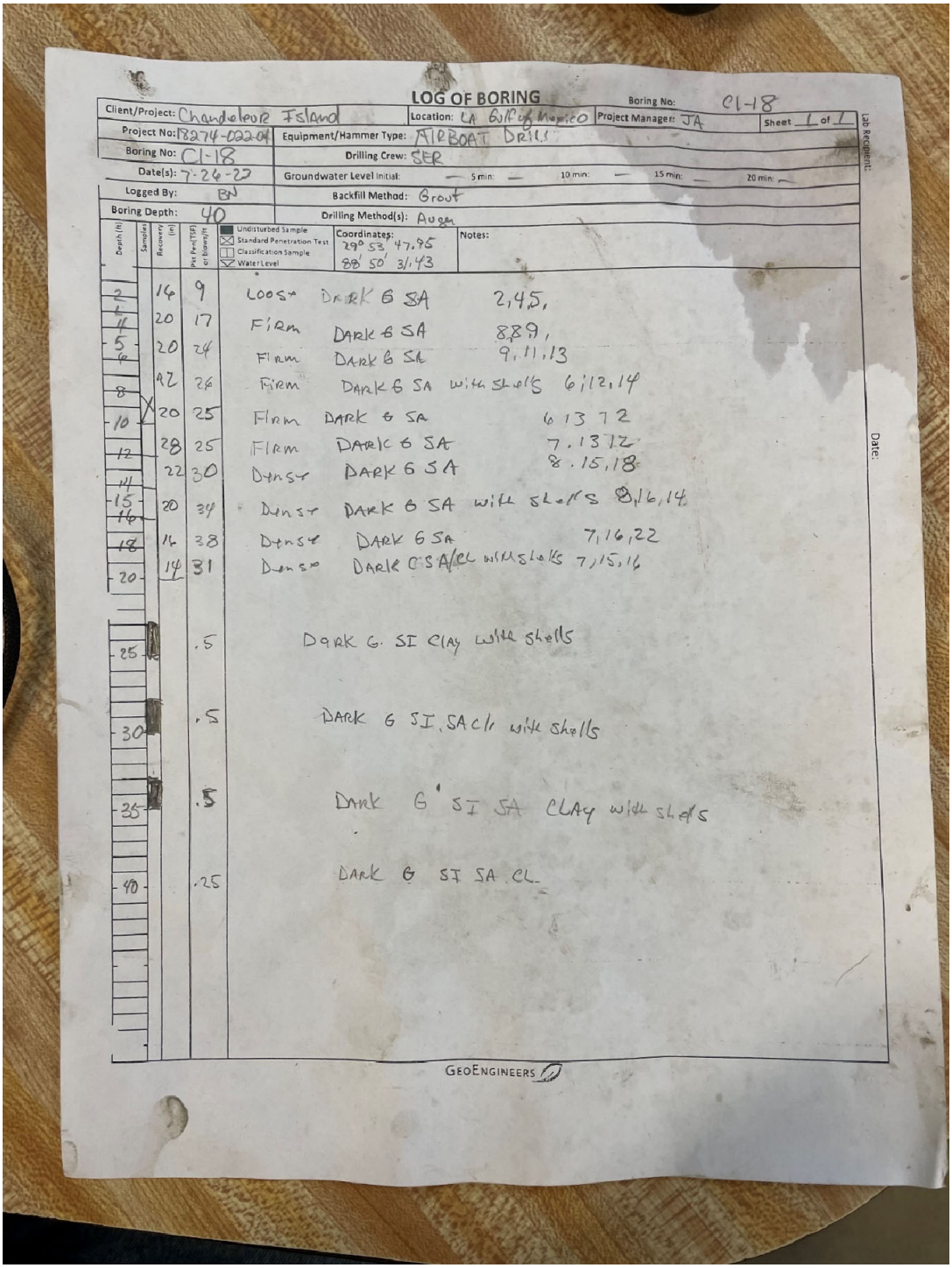
Lab Recipient:

Date:

Depth (ft)	Samples	Recovery (in)	Pkt Pen(TSF) or blows/ft		
0	X	18		light Brown Sand with Shells	Direct push
	X	18		light grey sand with shells	Direct push
5	X	18		light grey sand with shells	Direct push
	X	17	15	grey sand with shells mixed, Firm	6,7,8
10	X	17	14	grey sand with shells mixed, Firm	7,7,7
	X	16	16	grey sand with shells mixed, Firm	7,8,8,
	X	15	14	grey sand with shells mixed, Firm	8,8,8
15	X	15	19	grey sand with shells mixed, Firm	8,9,10
			0.6	Slithy grey clay with sand, medium	
20	X	17	22	Sand and shells mixture, Firm	9,10,12
			0.8	Clay, grey, slithy with shell, medium	
25					
30	X	14	23	Slithy clay with shells mixture, Firm	10,11,12
35	X	16	25	Shells with Sand, Firm	11,12,13
40	X	15	28	shells with Sand, Firm	10,13,15
45	X	16	23	Slithy clay with Sand mixed, Firm	10,11,12
50	X	16	28	Slithy Clay with Sand mixed, Firm	12,13,15

GeoEngineers

3



LOG OF BORING

Boring No: C1-18

Client/Project: Chandeleur Island
Location: LA Gulf of Mexico
Project Manager: JA
Sheet 1 of 1
Project No: 18274-022-01
Equipment/Hammer Type: AIRBOAT Drill
Boring No: C1-18
Drilling Crew: SER
Date(s): 7-26-23
Groundwater Level Initial: — 5 min: — 10 min: — 15 min: — 20 min: —
Logged By: BN
Backfill Method: Grout
Boring Depth: 40
Drilling Method(s): Auger

Undisturbed Sample
Standard Penetration Test
Classification Sample
Water Level

Coordinates: 29° 53' 47.85 / 88° 50' 3.43

Notes:

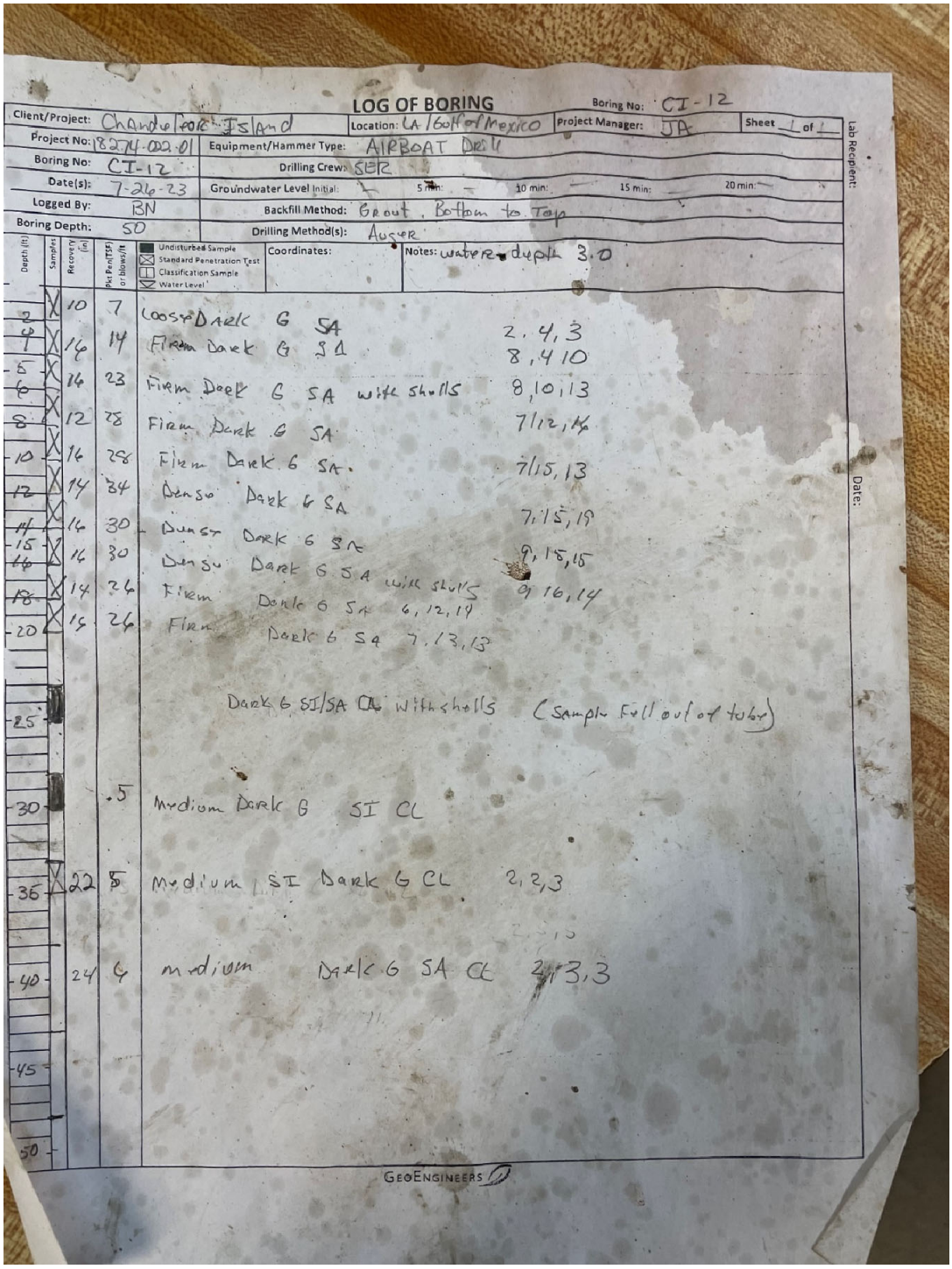
Lab Recipient:

Date:

Depth (ft)	Samples	Recovery (in)	Pen (TSF) or Blows/ft	
2		16	9	Loose Dark G SA 2,4,5,
4		20	17	Firm Dark G SA 8,8,9,
5		20	24	Firm Dark G SA 9,11,13
8		22	26	Firm Dark G SA with shells 6,12,14
10	X	20	25	Firm Dark G SA 6 13 12
12		28	25	Firm Dark G SA 7.13.12
14		22	30	Dense Dark G SA 8.15.18
15		20	34	Dense Dark G SA with shells 8,16,14
16				
18		16	38	Dense Dark G SA 7,16,22
20		14	31	Dense Dark G SA/CL with shells 7,15,16
25			.5	Dark G. SI Clay with shells
30			.5	Dark G SI. SA Clay with shells
35			.5	Dark G SI SA Clay with shells
40			.25	Dark G SI SA CL

GeoEngineers

Figure A-31j



LOG OF BORING

Boring No: CI-12

Client/Project: Chandeleur Island
Location: LA / Gulf of Mexico
Project Manager: JA
Sheet 1 of 1
Project No: 18274-022-01
Equipment/Hammer Type: AIRBOAT Drill
Boring No: CI-12
Drilling Crew: SER
Date(s): 7-26-23
Groundwater Level Initial: — 5 min: — 10 min: — 15 min: — 20 min: —
Logged By: BN
Backfill Method: Grout, Bottom to Top
Boring Depth: 50
Drilling Method(s): Auger
Undisturbed Sample
Standard Penetration Test
Classification Sample
Water Level
Coordinates:
Notes: water depth 3.0
Lab Recipient:
Date:

Depth (ft)	Samples	Recovery (in)	Pen (TSF) or blows/ft	
2	X	10	7	Loose Dark G SA — 2, 4, 3
4	X	16	14	Firm Dark G SA — 8, 4 10
6	X	16	23	Firm Dark G SA with shells — 8, 10, 13
8	X	12	28	Firm Dark G SA — 7/12, 16
10	X	16	28	Firm Dark G SA. — 7/15, 13
12	X	14	34	Dense Dark G SA — 7, 15, 19
14	X	16	30	Dense Dark G SA — 9, 15, 15
16	X	16	30	Dense Dark G SA with shells — 9, 16, 14
18	X	14	34	Firm Dark G SA 6, 12, 14
20	X	15	26	Firm Dark G SA 7, 13, 13
25				Dark G SI/SA CL with shells (Sample Fell out of tube)
30			.5	Medium Dark G SI CL
36	X	22	5	Medium SI Dark G CL — 2, 2, 3
40		24	6	medium Dark G SA CL — 2, 3, 3
45				
50				

GeoEngineers

Figure A-31k

GeoEngineers 11923 Sun Belt Court Baton Rouge, LA 70809 225.293.2460	**FIELD REPORT**		File Number: 18274-022-01
	Project: Chandeleur Island Restoration Project (PO-0199)		Date: 07/27/2023
	Client: Coastal Engineering Consultants, LLC	Time of Arrival: 6:00AM	Report Number: DFR-5
Prepared by: Bobby Nations & Charles Brown	Location: Chandeleur Island, Louisiana	Time of Departure: 6:00PM	Page: 1 of 13
Purpose of visit: Geotechnical Exploration	Weather: Sunny; 90-100 °F	Travel Time: 1 hour	Permit Number: N/A

Please refer to attached safety documentation.

Personnel

NAME	COMPANY	ROLE	STAYING ON LIFTBOAT	
			YES	NO
Bobby Nations, Jr.	GeoEngineers	Sr. Const. Inspector	☒	☐
Charles Brown	GeoEngineers	Const. Inspector	☒	☐
Kyle Kilfian	GeoEngineers	Sr. Const. Inspector	☐	☒
Hunter Smith	SER	Driller's Helper	☒	☐
Jude Boudreaux	SER	Driller's Helper	☒	☐
Drake Blanchard	SER	Driller	☒	☐
Jayce Hulin	SER	Driller's Helper	☒	☐
Randy Lecompte	SER	Sample Runner	☒	☐
Roosevelt James	SER	Driller's Helper	☒	☐
E Travis Stelly	SER	Sample Runner	☒	☐
Nata Sedatol	SER	Driller	☒	☐

Supplies

SUPPLIES	COMPANY	FOOTAGE
Grout	SER	190 feet

☐ **THIS FIELD REPORT IS PRELIMINARY**
A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.

FIELD REPRESENTATIVE Bobby Nations & Charles Brown — **DATE** 07/27/2023

☑ **THIS FIELD REPORT IS FINAL**
A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.

REVIEWED BY Jennie Aguettant, PE — **DATE** 07/27/2023

Attachments: None

Figure A-32a

Equipment

Equipment On-Site	Company	Quantity	In-Use	Stand-By	Stand-By Location
200-Class Liftboat	Offshore Liftboats	1	☒	☐	
Airboat-Drill Set	SER	1	☒	☐	
Support Airboat	SER	1	☒	☐	
Marsh Buggy-Drill	SER	1	☒	☐	
Support Outboard Boat	SER	1	☒	☐	
Pontoon-Drill	SER	1	☐	☒	Chandeleur Island
Marshmaster	SER	1	☒	☐	
Piston Sampler	SER	2	☒	☐	
Sample Run (Outboard) Boat	SER	1	☒	☐	

Geotechnical Boring Summary Status						
Boring Name	Boring Depth (FEET)	Drill Rig Used	Water Depth (FEET)	Today (FEET)	To Date (FEET)	% COMPLETE
CI-1	40	Choose an item.				
CI-2	40	Airboat-Drill	2.0		40	100
CI-3	80	Choose an item.				
CI-4	40	Choose an item.				
CI-5	50	Choose an item.				
CI-6	40	Choose an item.				
CI-7	80	Choose an item.				
CI-8	50	Marsh Buggy-Drill	On Land		50	100
CI-9	50	Airboat-Drill	2.4		50	100
CI-10	40	Choose an item.	2.0	40	40	100
CI-11	50	Marsh Buggy-Drill	On Land		50	100
CI-12	50	Airboat-Drill	3.0	10	50	100
CI-13	40	Airboat-Drill	2.0		40	100
CI-14	50	Marsh Buggy-Drill	On Land		50	100
CI-15	80	Choose an item.				
CI-16	50	Marsh Buggy-Drill	On Land		50	100

CI-17	50	Marsh Buggy-Drill	On Land	50	50	100
CI-18	40	Airboat-Drill	2.0		40	100
CI-19	50	Marsh Buggy-Drill	On Land	50	50	100
CI-20	80	Choose an item.				
CI-21	40	Airboat-Drill	5.0	40	40	100
CI-22	50	Choose an item.				
CI-23	40	Choose an item.				
CI-24	50	Choose an item.				
CI-25	50	Choose an item.				
CI-26	50	Choose an item.				
CI-27	80	Choose an item.				
CI-28	50	Choose an item.				
CI-29	50	Choose an item.				

Observations and Activities:

06:00 Bobby Nations, Charles Brown, and Kyle Kilfian of GeoEngineers attend the morning safety meeting with SER and the Offshore Liftboat operators.

07:00 SER and the liftboat crew lift the support boats into the water.

08:00 GeoEngineers and SER mobilize to the Island. Each team begins moving to the next boring locations. Photographs of before and after drill site conditions are presented below.

Figure 1: Boring CI-21 Site Condition Before Drilling

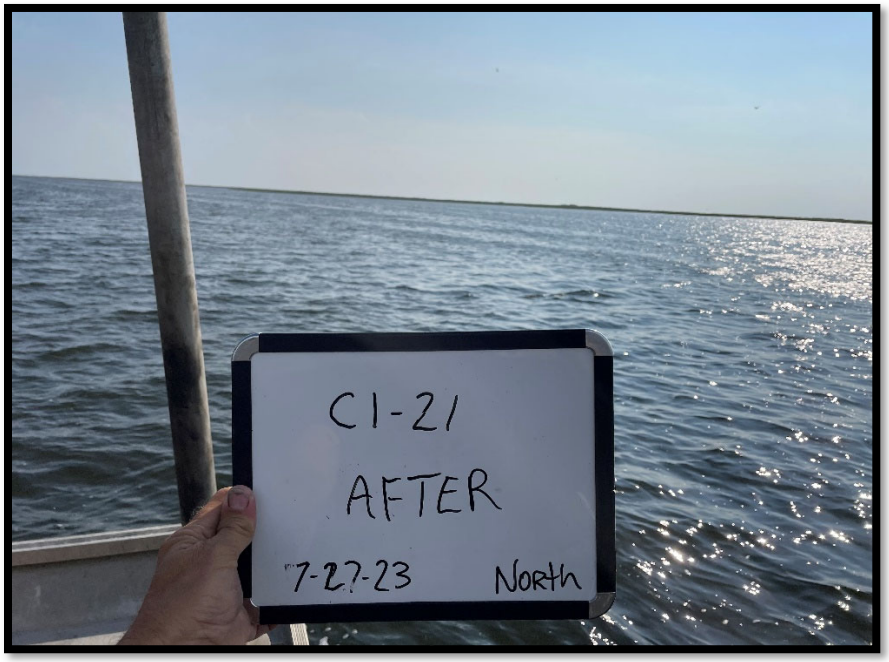


Figure 2: Boring CI-21 Site Conditions After Drilling

Figure 3: Boring CI-10 Site Conditions Before Drilling

Figure 4: Boring CI-10 Site Conditions After Drilling

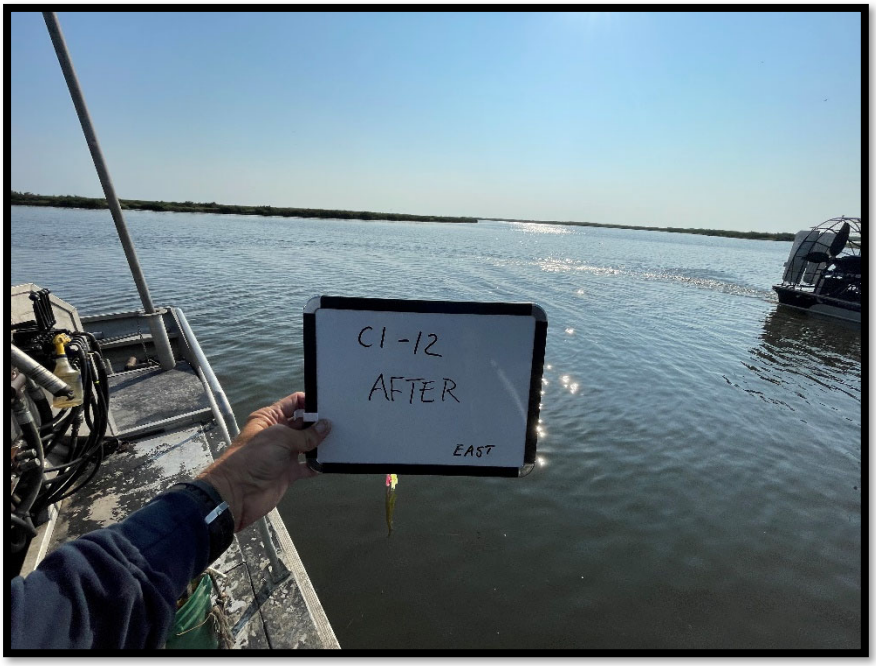


Figure 5: Boring CI-12 Site Conditions After Drilling

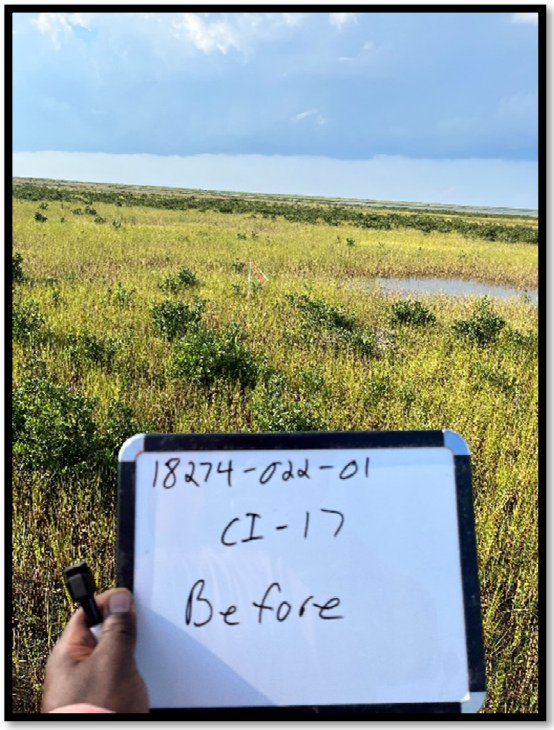


Figure 6: Boring CI-17 Site Conditions Before Drilling

Figure 7: Boring CI-17 Site Conditions After Drilling

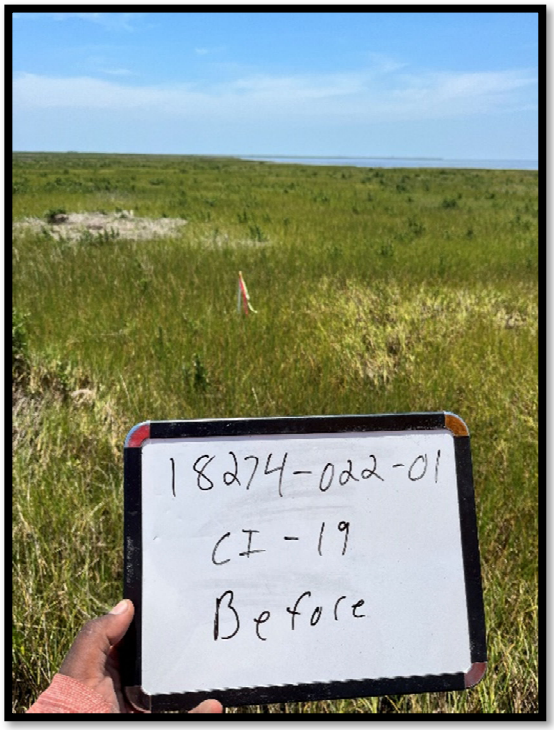


Figure 8: Boring CI-19 Site Conditions Before Drilling

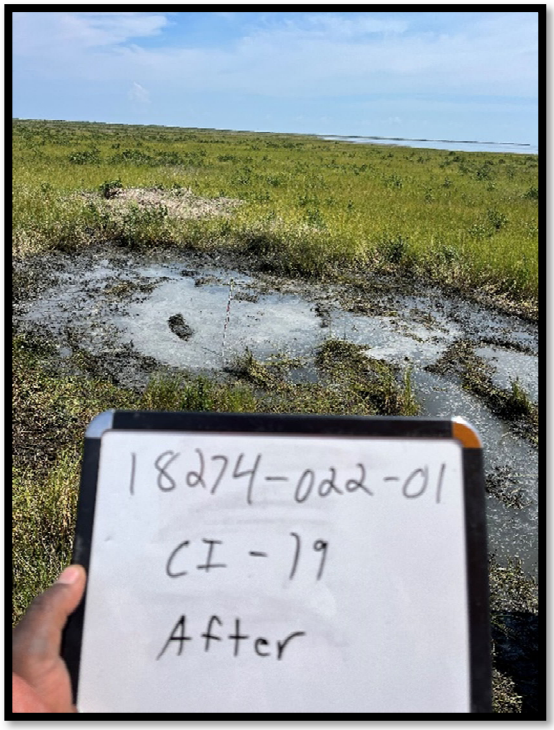


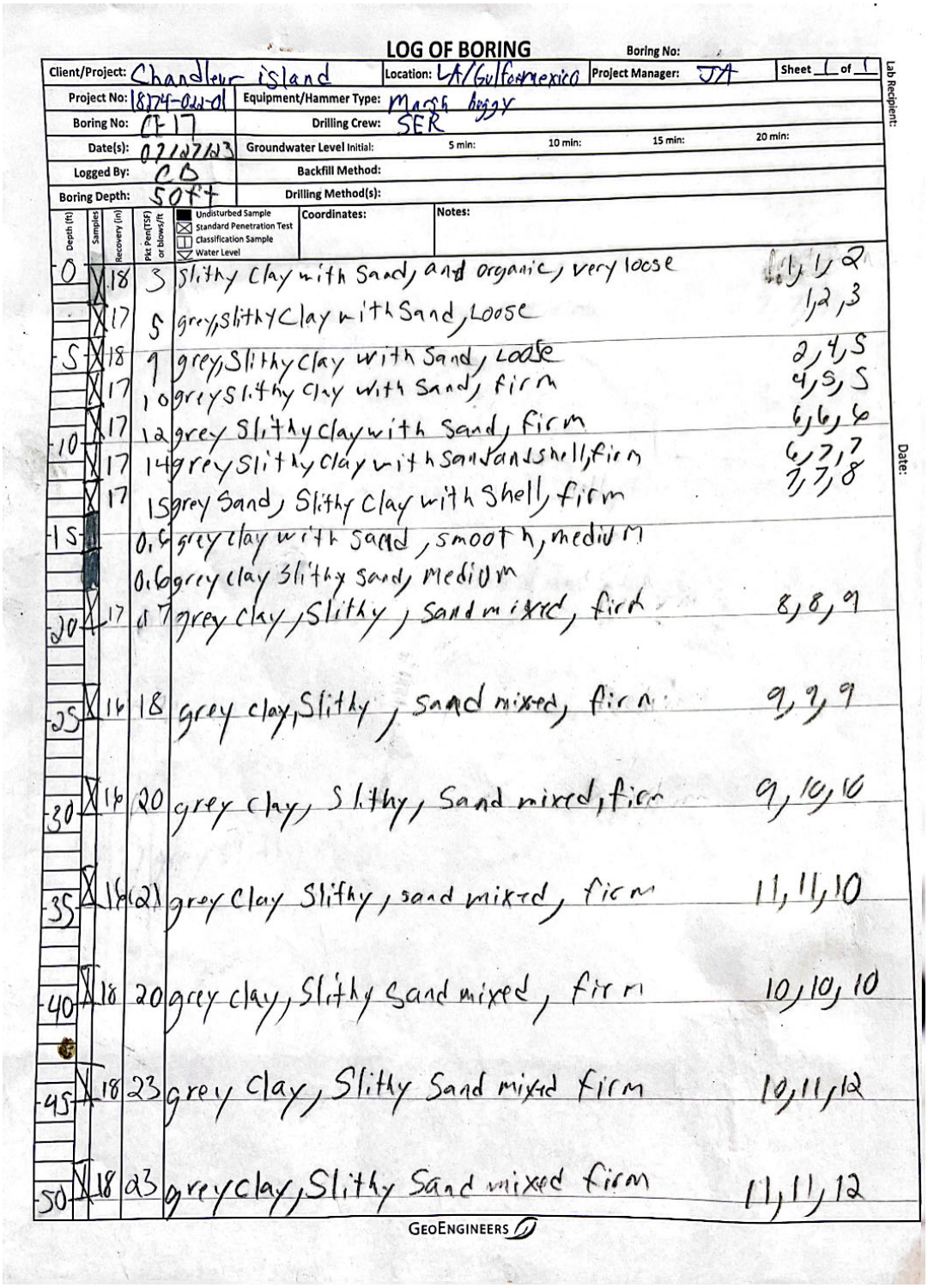
Figure 9: Boring CI-19 Site Conditions After Drilling

10:30 Kyle Kilfian leaves the site taking collected samples back to the Baton Rouge lab.

16:30 We begin making our way back to the boat channel to be picked up. All locations that can be reached with airboats have been completed. We plan to switch to the pontoon tomorrow.

17:20 SER and the liftboat crew begin loading the boats back onto the liftboat.

18:00 End of day.



LOG OF BORING

Boring No:

Client/Project: Chandeleur Island | Location: LA/Gulf of Mexico | Project Manager: JA | Sheet 1 of 1

Project No: 18274-022-01 | Equipment/Hammer Type: Marsh buggy

Boring No: CI-17 | Drilling Crew: SER

Date(s): 07/27/23 | Groundwater Level Initial: 5 min: 10 min: 15 min: 20 min:

Logged By: CD | Backfill Method:

Boring Depth: 50ft | Drilling Method(s):

Undisturbed Sample; Standard Penetration Test; Classification Sample; Water Level

Coordinates:

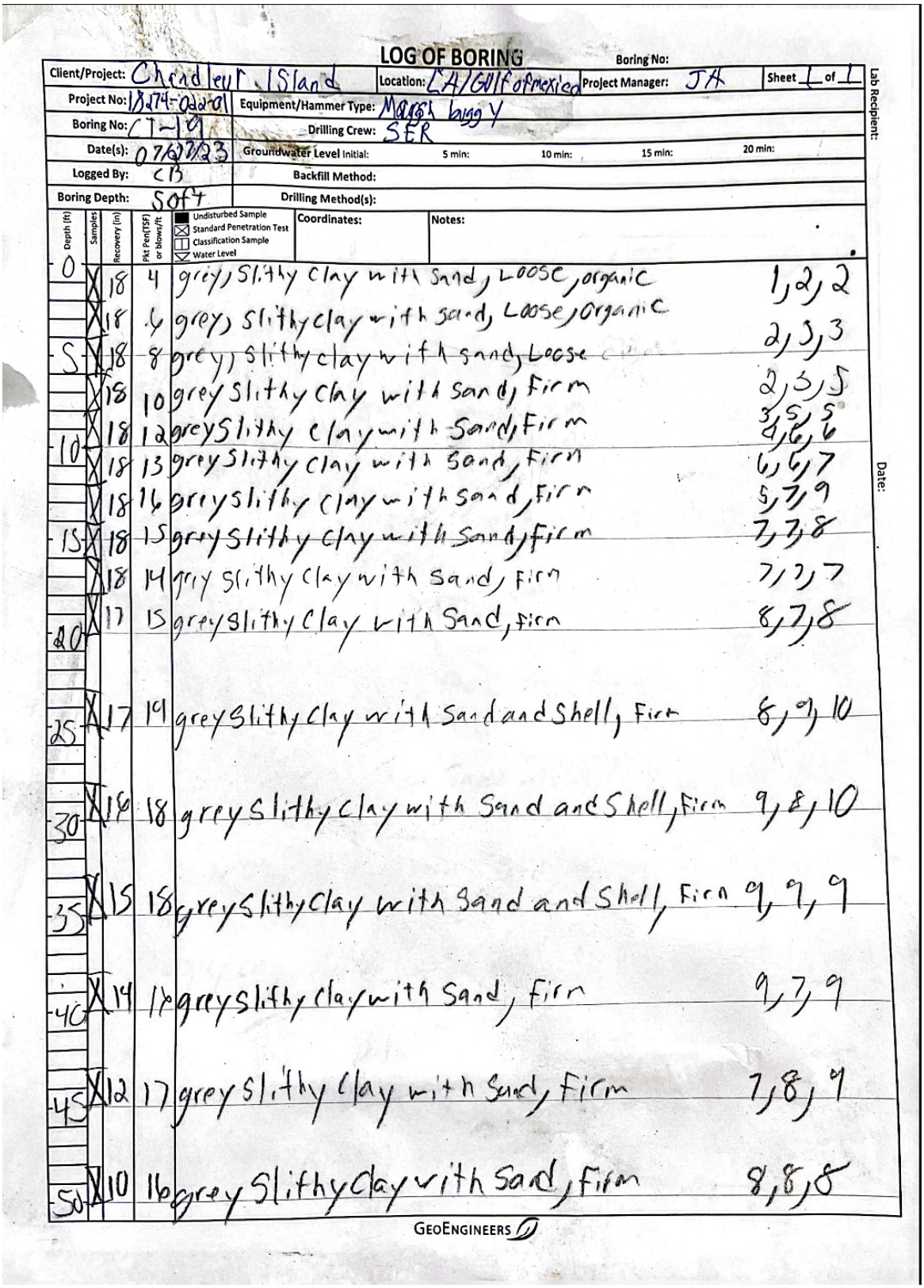
Notes:

Lab Recipient:

Date:

Depth (ft)	Samples	Recovery (in)	Pkt Pen(TSF) or blows/ft		
0	X	18	3	Slithy clay with Sand, and organic, very loose	1, 1, 2
	X	17	5	grey, Slithy Clay with Sand, Loose	1, 2, 3
5	X	18	9	grey, Slithy clay with Sand, Loose	2, 4, 5
	X	17	10	grey Slithy clay with Sand, firm	4, 5, 5
	X	17	12	grey Slithy clay with Sand, firm	6, 6, 6
10	X	17	14	grey Slithy clay with sand and shell, firm	6, 7, 7
	X	17	15	grey Sand, Slithy Clay with Shell, firm	7, 7, 8
15			0.6	grey clay with Sand, smooth, medium	
			0.6	grey clay Slithy sand, medium	
20	X	17	17	grey clay, Slithy, Sand mixed, firm	8, 8, 9
25	X	14	18	grey clay, Slithy, Sand mixed, firm	9, 9, 9
30	X	16	20	grey clay, Slithy, Sand mixed, firm	9, 10, 10
35	X	16	(21)	grey clay Slithy, sand mixed, firm	11, 11, 10
40	X	18	20	grey clay, Slithy Sand mixed, firm	10, 10, 10
45	X	18	23	grey clay, Slithy Sand mixed firm	10, 11, 12
50	X	18	23	grey clay, Slithy Sand mixed firm	11, 11, 12

GeoEngineers



LOG OF BORING

Boring No:

Client/Project: Chandeleur Island | Location: LA/Gulf of Mexico | Project Manager: JA | Sheet 1 of 1

Project No: 18274-022-01 | Equipment/Hammer Type: Mayhi buggy

Boring No: CT-19 | Drilling Crew: SER

Date(s): 07/27/23 | Groundwater Level Initial: 5 min: 10 min: 15 min: 20 min:

Logged By: CB | Backfill Method:

Boring Depth: 50ft | Drilling Method(s):

Undisturbed Sample; Standard Penetration Test; Classification Sample; Water Level

Coordinates:

Notes:

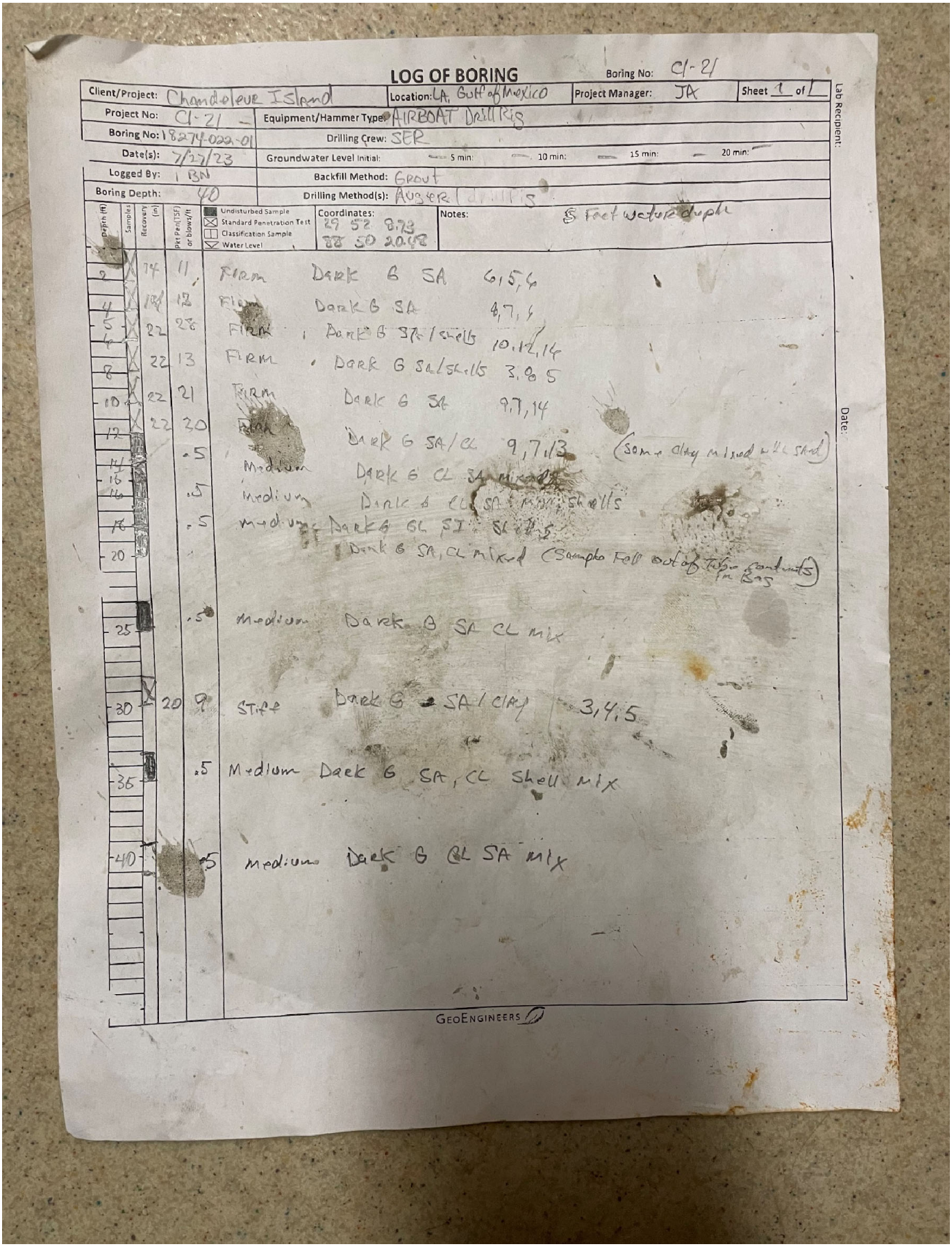
Lab Recipient:

Date:

Depth (ft)	Samples	Recovery (in)	Pkt Pen(TSF) or blows/ft		
0	X	18	4	grey, slithy clay with sand, Loose, organic	1,2,2
	X	18	4	grey, slithy clay with sand, Loose, organic	2,3,3
5	X	18	8	grey, slithy clay with sand, Loose	2,3,5
	X	18	10	grey slithy clay with sand, Firm	3,5,5
	X	18	12	grey slithy clay with sand, Firm	4,6,6
10	X	18	13	grey slithy clay with sand, Firm	6,6,7
	X	18	16	grey slithy clay with sand, Firm	5,7,9
15	X	18	15	grey slithy clay with sand, Firm	7,7,8
	X	18	14	grey slithy clay with sand, Firm	7,7,7
	X	17	15	grey slithy clay with sand, Firm	8,7,8
20					
25	X	17	19	grey slithy clay with sand and shell, Firm	8,9,10
30	X	18	18	grey slithy clay with sand and shell, Firm	9,8,10
35	X	15	18	grey slithy clay with sand and shell, Firm	9,9,9
40	X	14	18	grey slithy clay with sand, Firm	9,7,9
45	X	12	17	grey slithy clay with sand, Firm	7,8,9
50	X	10	16	grey slithy clay with sand, Firm	8,8,8

GeoEngineers

Figure A-32i



LOG OF BORING

Boring No: C1-21

Client/Project: Chandeleur Island | Location: LA, Gulf of Mexico | Project Manager: JA | Sheet 1 of 1

Project No: C1-21 | Equipment/Hammer Type: AIRBOAT Drill Rig

Boring No: 18274-022-01 | Drilling Crew: SER

Date(s): 7/27/23 | Groundwater Level Initial: — 5 min: — 10 min: — 15 min: — 20 min: —

Logged By: I BN | Backfill Method: Grout

Boring Depth: 40 | Drilling Method(s): Auger drilling

Undisturbed Sample; Standard Penetration Test; Classification Sample; Water Level

Coordinates: 29 52 8.73 88 50 20.42

Notes: 5 Foot water depth

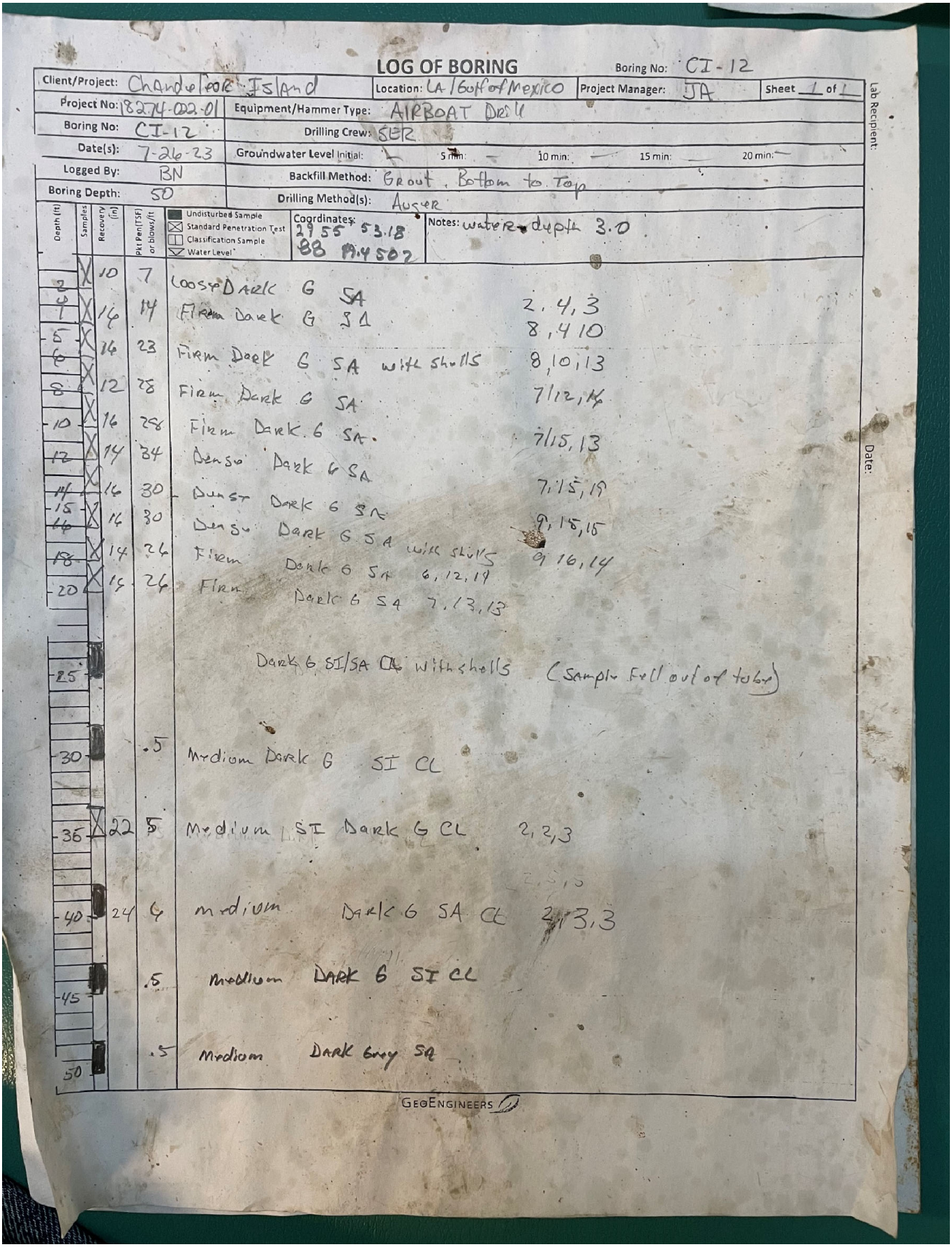
Lab Recipient:

Date:

Depth (ft)	Samples	Recovery (in)	Pen (TSF) or blows/ft		
2	X	14	11	Firm	Dark G SA 6,5,4
4	X	18	12	Firm	Dark G SA 4,7,4
5	X	22	28	FIRM	Dark G SA/shells 10,12,14
8	X	22	13	FIRM	Dark G SA/Shells 3,8 5
10	X	22	21	FIRM	Dark G SA 9,7,14
12	X	22	30	FIRM	Dark G SA/CL 9,7,13 (Some clay mixed w/ sand)
14			.5	Medium	Dark G CL SA mixed
16			.5	Medium	Dark G CL SA mix shells
18			.5	Medium	Dark G CL SA Shells
20					Dark G SA, CL mixed (Sample Fell out of Tube in Bag contents)
25			.5	Medium	Dark G SA CL mix
30	X	20	9	Stiff	Dark G SA/clay 3,4,5
35			.5	Medium	Dark G SA, CL Shell mix
40			.5	Medium	Dark G CL SA mix

GeoEngineers

Figure A-32j



LOG OF BORING

Boring No: CI-12

Client/Project: Chandeleur Island | Location: LA / Gulf of Mexico | Project Manager: JA | Sheet 1 of 1

Project No: 18274-022-01 | Equipment/Hammer Type: AIRBOAT Drill

Boring No: CI-12 | Drilling Crew: SER

Date(s): 7-26-23 | Groundwater Level Initial: — 5 min: — 10 min: — 15 min: — 20 min: —

Logged By: BN | Backfill Method: Grout, Bottom to Top

Boring Depth: 50 | Drilling Method(s): Auger

Undisturbed Sample | Standard Penetration Test | Classification Sample | Water Level

Coordinates: 29 55 53.18 / 88 19.4502

Notes: water depth 3.0

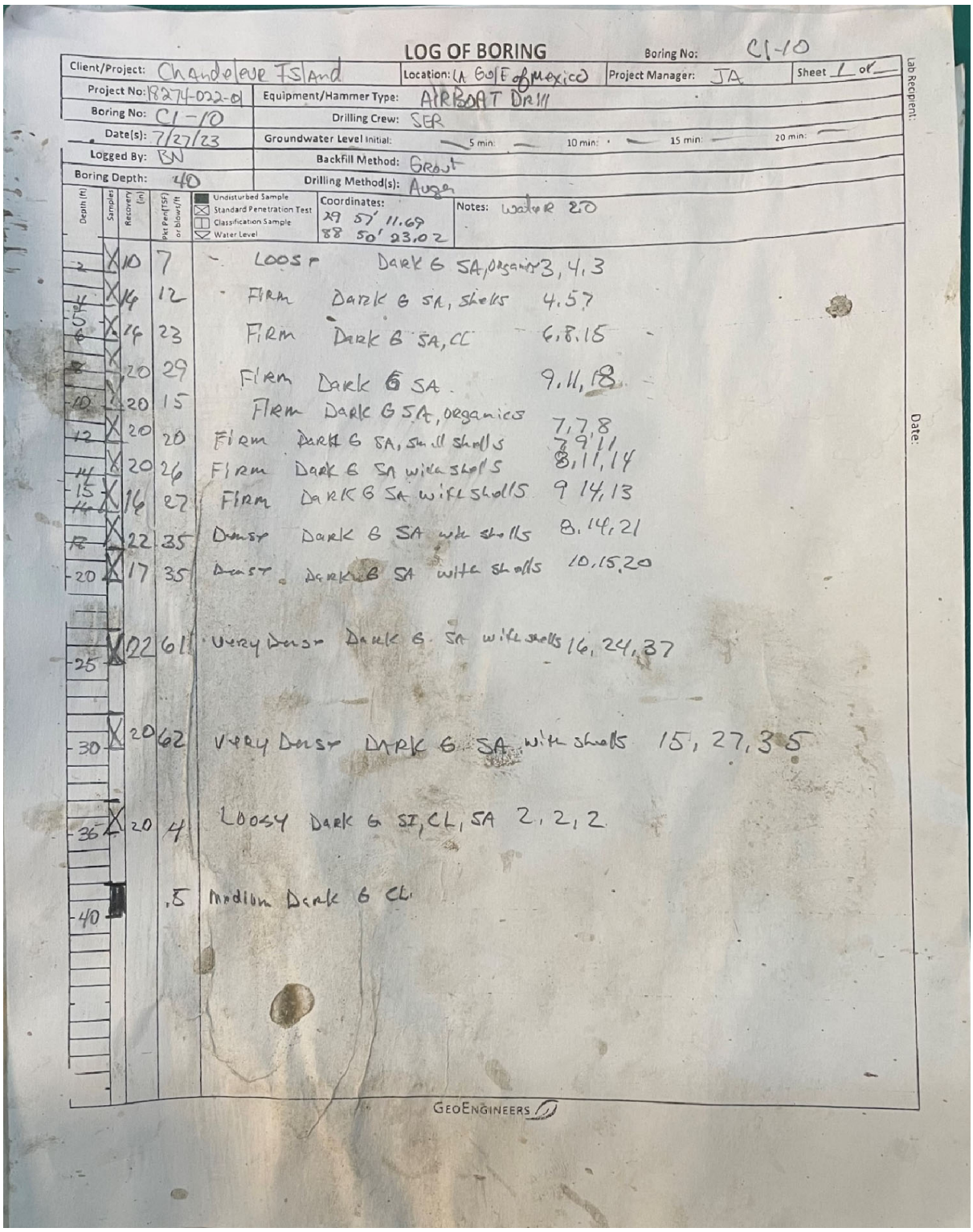
Lab Recipient:

Date:

Depth (ft)	Samples	Recovery (in)	Pkt Pen (TSF) or blows/ft		
2	X	10	7	Loose Dark G SA	2, 4, 3
4	X	16	14	Firm Dark G SA	8, 4 10
6	X	16	23	Firm Dark G SA with shells	8, 10, 13
8	X	12	28	Firm Dark G SA	7/12, 16
10	X	16	28	Firm Dark G SA.	7/15, 13
12	X	14	34	Dense Dark G SA	7, 15, 19
14	X	16	30	Dense Dark G SA	9, 15, 15
16	X	16	30	Dense Dark G SA with shells	9 16, 14
18	X	14	26	Firm Dark G SA 6, 12, 14	
20	X	19	26	Firm Dark G SA 7, 13, 13	
25				Dark G SI/SA CL with shells (Sample Fell out of tube)	
30			.5	Medium Dark G SI CL	
35	X	22	5	Medium SI Dark G CL	2, 2, 3
40	X	24	4	medium Dark G SA CL	2, 3, 3
45			.5	Medium DARK G SI CL	
50			.5	Medium Dark Grey SA	

GeoEngineers

Figure A-32k



LOG OF BORING

Boring No: C1-10

Client/Project: Chandeleur Island | Location: LA Gulf of Mexico | Project Manager: JA | Sheet 1 of

Project No: 18274-022-01 | Equipment/Hammer Type: AIRBOAT Drill

Boring No: C1-10 | Drilling Crew: SER

Date(s): 7/27/23 | Groundwater Level Initial: 5 min: 10 min: 15 min: 20 min:

Logged By: BN | Backfill Method: Grout

Boring Depth: 40 | Drilling Method(s): Auger

Undisturbed Sample | Standard Penetration Test | Classification Sample | Water Level

Coordinates: 29 57' 11.69 88 50' 23.02

Notes: water 2.0

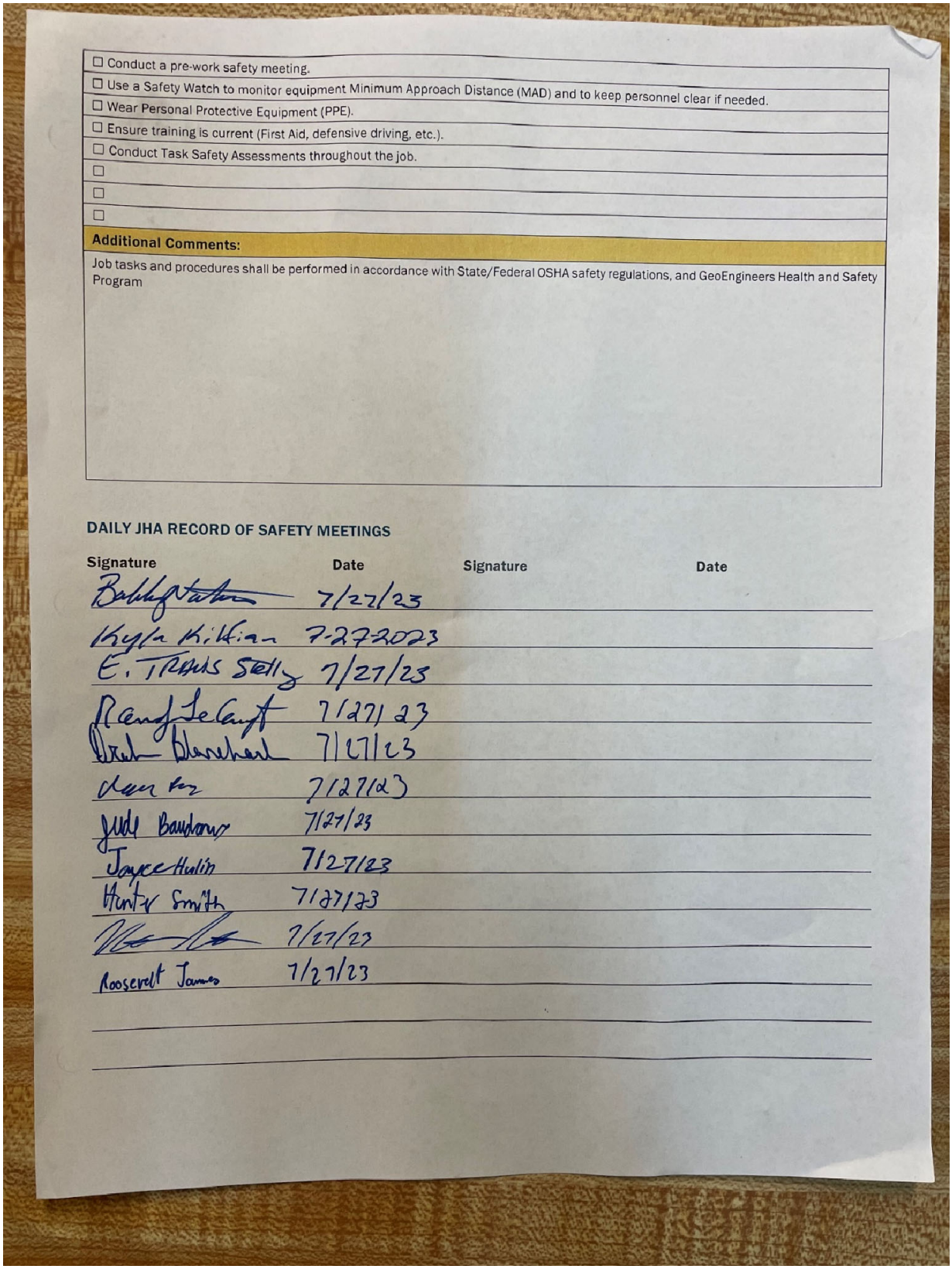
Lab Recipient:

Date:

Depth (ft)	Sample	Recovery (in)	Pen (TSF) or blows/ft	
2	X	10	7	Loose Dark G SA, Organics 3, 4, 3
4	X	14	12	Firm Dark G SA, shells 4, 5, 7
6	X	14	23	Firm Dark G SA, CC 6, 8, 15
8	X	20	29	Firm Dark G SA 9, 11, 18
10	X	20	15	Firm Dark G SA, organics 7, 7, 8
12	X	20	20	Firm Dark G SA, small shells 7, 9, 11
14	X	20	26	Firm Dark G SA with shells 8, 11, 14
15	X	16	27	Firm Dark G SA with shells 9, 14, 13
17	X	22	35	Dense Dark G SA wk shells 8, 14, 21
20	X	17	35	Dense Dark G SA with shells 10, 15, 20
25	X	22	61	Very Dense Dark G SA with shells 16, 24, 37
30	X	20	62	Very Dense DARK G SA with shells 15, 27, 35
35	X	20	4	Loosy Dark G SI, CL, SA 2, 2, 2
40			.5	Medium Dark G CL

GeoEngineers

Figure A-32l



☐ Conduct a pre-work safety meeting.
☐ Use a Safety Watch to monitor equipment Minimum Approach Distance (MAD) and to keep personnel clear if needed.
☐ Wear Personal Protective Equipment (PPE).
☐ Ensure training is current (First Aid, defensive driving, etc.).
☐ Conduct Task Safety Assessments throughout the job.
☐
☐
☐

Additional Comments:

Job tasks and procedures shall be performed in accordance with State/Federal OSHA safety regulations, and GeoEngineers Health and Safety Program

DAILY JHA RECORD OF SAFETY MEETINGS

Signature	Date	Signature	Date
[signature]	7/27/23		
Kyla Killian	7-27-2023		
E. Travis Stelly	7/27/23		
[signature]	7/27/23		
[signature]	7/27/23		
[signature]	7/27/23		
[signature]	7/27/23		
Joyce Hollin	7/27/23		
Hunter Smith	7/27/23		
[signature]	7/27/23		
Roosevelt James	7/27/23		

Figure A-32m

GeoEngineers 11923 Sun Belt Court Baton Rouge, LA 70809 225.293.2460	**FIELD REPORT**		File Number: 18274-022-01
	Project: Chandeleur Island Restoration Project (PO-0199)		Date: 07/28/2023
	Client: Coastal Engineering Consultants, LLC	Time of Arrival: 6:00AM	Report Number: DFR-6
Prepared by: Bobby Nations & Charles Brown	Location: Chandeleur Island, Louisiana	Time of Departure: 6:00PM	Page: 1 of 8
Purpose of visit: Geotechnical Exploration	Weather: Sunny; 90-100 °F	Travel Time: 1 hours	Permit Number: N/A

Please refer to attached safety documentation.

Personnel

NAME	COMPANY	ROLE	STAYING ON LIFTBOAT	
			YES	NO
Bobby Nations, Jr.	GeoEngineers	Sr. Const. Inspector	☒	☐
Charles Brown	GeoEngineers	Const. Inspector	☒	☐
Hunter Smith	SER	Driller's Helper	☒	☐
Jude Boudreaux	SER	Driller's Helper	☒	☐
Drake Blanchard	SER	Driller	☒	☐
Jayce Hulin	SER	Driller's Helper	☒	☐
Randy Lecompte	SER	Sample Runner	☒	☐
Roosevelt James	SER	Driller's Helper	☒	☐
E Travis Stelly	SER	Sample Runner	☒	☐
Nata Sedatol	SER	Driller	☒	☐

Supplies

SUPPLIES	COMPANY	FOOTAGE
Grout	SER	90 feet

☐ **THIS FIELD REPORT IS PRELIMINARY** A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.	**FIELD REPRESENTATIVE** Bobby Nations & Charles Brown	**DATE** 07/28/2023
☑ **THIS FIELD REPORT IS FINAL** A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.	**REVIEWED BY** Jennie Aguettant, PE	**DATE** 07/29/2023

Attachments: None

Equipment

Equipment On-Site	Company	Quantity	In-Use	Stand-By	Stand-By Location
200-Class Liftboat	Offshore Liftboats	1	☒	☐	
Airboat-Drill Set	SER	1	☐	☒	Liftboat
Support Airboat	SER	1	☒	☐	
Marsh Buggy-Drill	SER	1	☒	☐	
Support Outboard Boat	SER	1	☒	☐	
Pontoon-Drill	SER	1	☒	☐	
Marshmaster	SER	1	☒	☐	
Piston Sampler	SER	2	☒	☐	
Sample Run (Outboard) Boat	SER	1	☒	☐	

Geotechnical Boring Summary Status						
Boring Name	Boring Depth (FEET)	Drill Rig Used	Water Depth (FEET)	Today (FEET)	To Date (FEET)	% COMPLETE
CI-1	40	Choose an item.				
CI-2	40	Airboat-Drill	2.0		40	100
CI-3	80	Choose an item.				
CI-4	40	Choose an item.				
CI-5	50	Choose an item.				
CI-6	40	Choose an item.				
CI-7	80	Choose an item.				
CI-8	50	Marsh Buggy-Drill	On Land		50	100
CI-9	50	Airboat-Drill	2.4		50	100
CI-10	40	Airboat-Drill	2.0		40	100
CI-11	50	Marsh Buggy-Drill	On Land		50	100
CI-12	50	Airboat-Drill	3.0		50	100
CI-13	40	Airboat-Drill	2.0		40	100
CI-14	50	Marsh Buggy-Drill	On Land		50	100
CI-15	80	Choose an item.				
CI-16	50	Marsh Buggy-Drill	On Land		50	100

CI-17	50	Marsh Buggy-Drill	On Land		50	100
CI-18	40	Airboat-Drill	2.0		40	100
CI-19	50	Marsh Buggy-Drill	On Land		50	100
CI-20	80	Marsh Buggy-Drill	On Land	40	40	50
CI-21	40	Airboat-Drill	5.0		40	100
CI-22	50	Choose an item.				
CI-23	40	Pontoon-Drill	5.3	40	40	100
CI-24	50	Choose an item.				
CI-25	50	Pontoon-Drill	3.0	50	50	100
CI-26	50	Choose an item.				
CI-27	80	Choose an item.				
CI-28	50	Choose an item.				
CI-29	50	Choose an item.				

Observations and Activities:

06:00 Bobby Nations and Charles Brown, of GeoEngineers, attend the morning safety meeting with SER and the Offshore Liftboat crew.

07:00 SER and the liftboat crew lift the support boats into the water.

08:00 GeoEngineers and SER mobilize to the Island. The airboat drill set will be loaded back onto liftboat as there are no further boring locations we can access with the airboat drill. Each team begins moving to the next boring locations. Photographs of before and after drill site conditions are presented below.

Figure 1: Boring CI-23 Site Condition Before Drilling

Figure 2: Boring CI-23 Site Conditions After Drilling

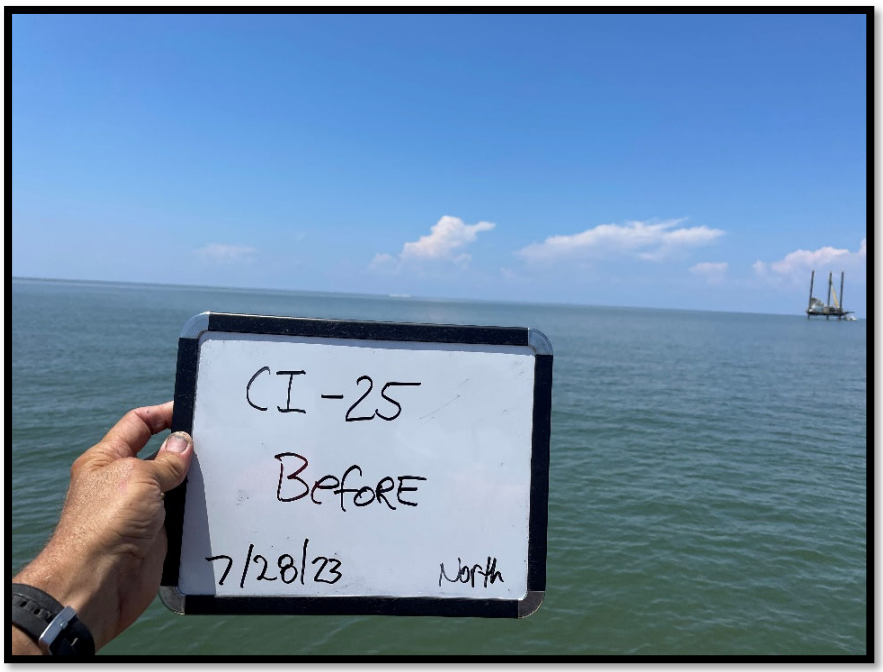


Figure 3: Boring CI-25 Site Conditions Before Drilling

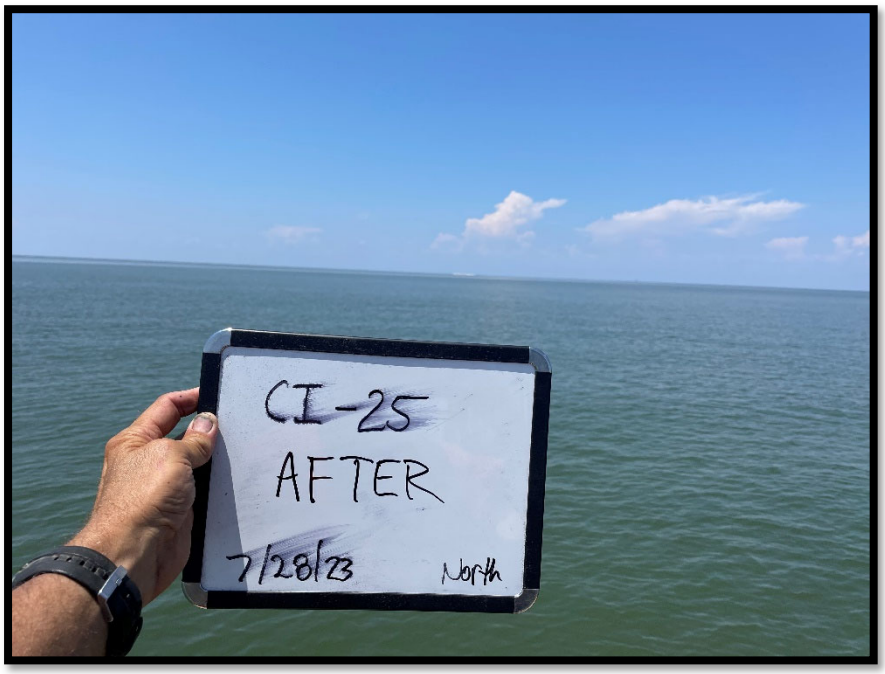


Figure 4: Boring CI-25 Site Conditions After Drilling

12:30 We setup on CI-26 with the pontoon drill, weather was calm, no wind. Tide was going out but waves were coming from the Gulf. The pontoon drill barge was getting moved around by the waves coming in from the east. The movement of the pontoon was causing the drill pipe to hit the moonpool. This caused concerns of the drill pipe breaking, and we moved off location. The location of CI-26B did not look any better. We moved the pontoon drill to CI-25. The marsh buggy rig set up to drill on CI-20 but had a hydraulic hose blow on their rig before they finished the boring. The marsh buggy crew fixed the hydraulic hose and helped load the airboat drill set on the liftboat.

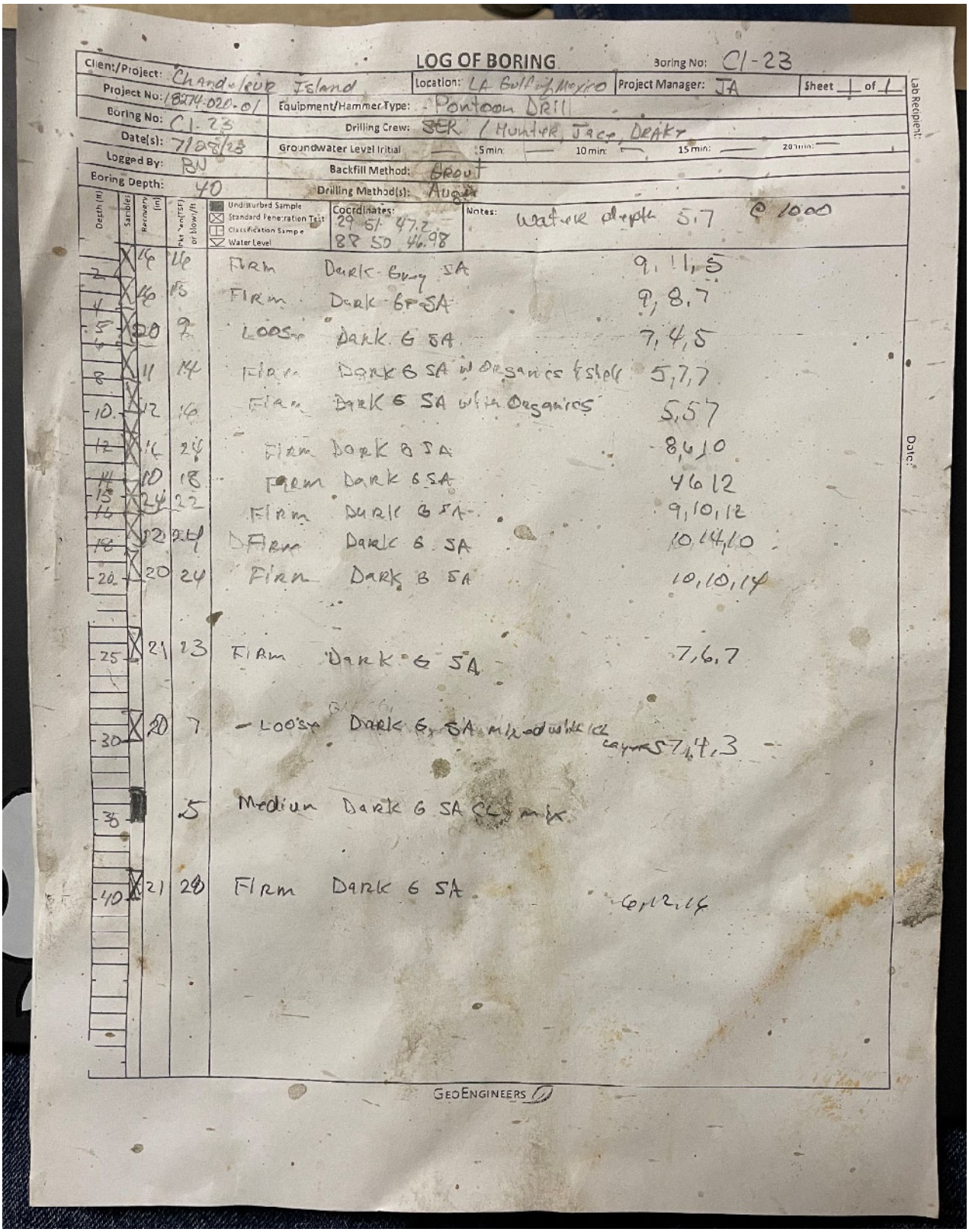
13:50 The support airboat got stuck on the sand due to the tide dropping. The crew worked to free the airboat.

15:30 The airboat was freed, but the crew can't make it back to the location due to the tide dropping.

16:30 We began making our way back to the boat channel to be picked up.

17:20 SER and the liftboat crew begin loading the support boats back onto the liftboat.

18:00 End of day.



LOG OF BORING

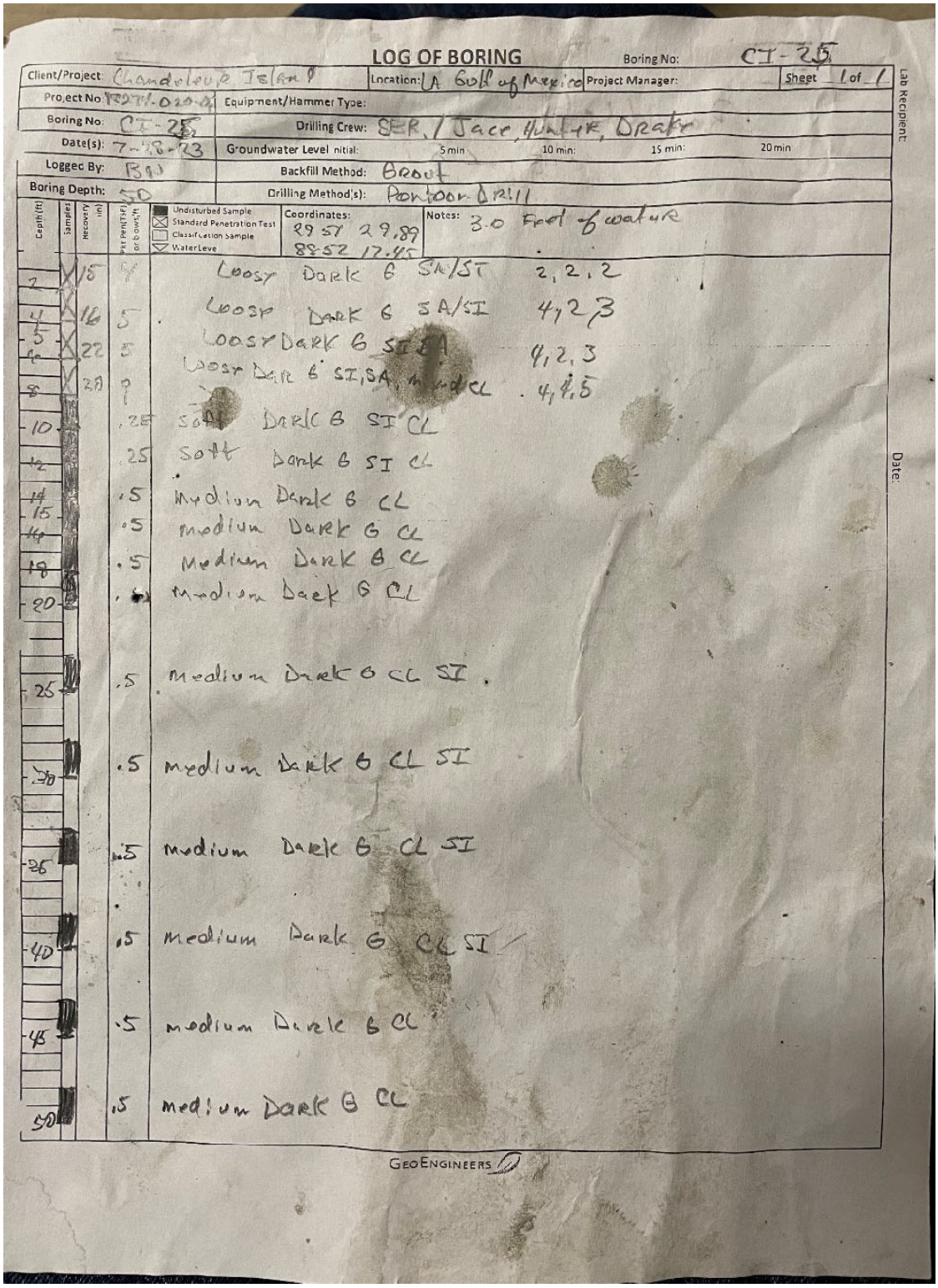
Boring No: C1-23

Client/Project: Chandeleur Island
Location: LA Gulf of Mexico
Project Manager: JA
Sheet 1 of 1
Project No: 18274-020-01
Equipment/Hammer Type: Pontoon Drill
Boring No: C1-23
Drilling Crew: SER / Hunter, Jace, Drake
Date(s): 7/28/23
Groundwater Level Initial — 5 min: — 10 min: — 15 min: — 20 min: —
Logged By: BW
Backfill Method: Grout
Boring Depth: 40
Drilling Method(s): Auger
Undisturbed Sample
Standard Penetration Test
Classification Sample
Water Level
Coordinates: 29 51 47.2 88 50 46.98
Notes: Water depth 5.7 @ 1000
Lab Recipient:
Date:

Depth (ft)	Samples	Recovery (in)	Pen (TSF) or blow/ft		
0	X	16	16	Firm	Dark Grey SA	9, 11, 5
2	X	16	15	Firm	Dark GY SA	9, 8, 7
4	X	20	9	Loose	Dark G SA	7, 4, 5
6	X	11	14	Firm	Dark G SA w/ Organics & Shell	5, 7, 7
8	X	12	16	Firm	Dark G SA with Organics	5, 5, 7
10	X	16	24	Firm	Dark G SA	8, 6, 10
12	X	10	18	Firm	Dark G SA	4, 6, 12
14	X	24	22	Firm	Dark G SA	9, 10, 12
16	X	22	24	Firm	Dark G SA	10, 14, 10
18	X	20	24	Firm	Dark G SA	10, 10, 14
20					
25	X	21	23	Firm	Dark G SA	7, 6, 7
30	X	20	7	Loose	Dark G SA w/ wood & shell layers	5, 4, 3
35		5		Medium	Dark G SA CL mix	
40	X	21	28	Firm	Dark G SA	6, 12, 14

GeoEngineers

Figure A-33g



LOG OF BORING

Boring No: CI-25

Client/Project: Chandeleur Island

Location: LA Gulf of Mexico

Project Manager:

Sheet 1 of 1

Project No: 18274-022-01

Equipment/Hammer Type:

Boring No: CI-25

Drilling Crew: SER, Jace, Hunter, Drake

Date(s): 7-28-23

Groundwater Level nitial: 5 min 10 min: 15 min: 20 min

Logged By: BSD

Backfill Method: Grout

Boring Depth: 50

Drilling Method(s): Pontoon Drill

Undisturbed Sample
Standard Penetration Test
Classification Sample
Water Level

Coordinates: 29 57 29.89
88 52 17.45

Notes: 3.0 Feet of water

Lab Recipient:

Date:

Depth (ft)	Samples	Recovery (in)	Pen/Pull (TSF) or blows/ft		
2	X	15	4	Loosy Dark G SA/ST	2,2,2
4	X	16	5	Loosy Dark G SA/SI	4,2,3
6	X	22	5	Loosy Dark G SI&A	4,2,3
8	X	20	?	Loosy Dark G SI,SA, Medium CL	4,4,5
10			.25	Soft Dark G SI CL	
12			.25	Soft Dark G SI CL	
14			.5	Medium Dark G CL	
15			.5	medium Dark G CL	
16			.5	Medium Dark G CL	
18			.5	Medium Dark G CL	
20			.5	Medium Dark G CL	
25			.5	Medium Dark G CL SI	
30			.5	medium Dark G CL SI	
35			.5	medium Dark G CL SI	
40			.5	medium Dark G CL SI	
45			.5	medium Dark G CL	
50			.5	medium Dark G CL	

GeoEngineers

Figure A-33h

GeoEngineers

11923 Sun Belt Court
Baton Rouge, LA 70809
225.293.2460

FIELD REPORT

			File Number: 18274-022-01
	Project: Chandeleur Island Restoration Project (PO-0199)		Date: 07/29/2023
	Client: Coastal Engineering Consultants, LLC	Time of Arrival: 6:00AM	Report Number: DFR-7
Prepared by: Bobby Nations & Charles Brown	Location: Chandeleur Island, Louisiana	Time of Departure: 6:00PM	Page: 1 of 11
Purpose of visit: Geotechnical Exploration	Weather: Sunny; 90-100 °F	Travel Time: 1 hour	Permit Number: N/A

Please refer to attached safety documentation.

Personnel

NAME	COMPANY	ROLE	STAYING ON LIFTBOAT	
			YES	NO
Bobby Nations, Jr.	GeoEngineers	Sr. Const. Inspector	☒	☐
Charles Brown	GeoEngineers	Const. Inspector	☒	☐
Herbert Johnstone	GeoEngineers	Const. Inspector	☒	☐
Hunter Smith	SER	Driller's Helper	☒	☐
Jude Boudreaux	SER	Driller's Helper	☒	☐
Drake Blanchard	SER	Driller	☒	☐
Jayce Hulin	SER	Driller's Helper	☒	☐
Randy Lecompte	SER	Sample Runner	☒	☐
Roosevelt James	SER	Driller's Helper	☒	☐
E Travis Stelly	SER	Sample Runner	☒	☐
Nata Sedatol	SER	Driller	☒	☐

Supplies

SUPPLIES	COMPANY	FOOTAGE
Grout	SER	170 feet

☐ **THIS FIELD REPORT IS PRELIMINARY**
A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.

FIELD REPRESENTATIVE Bobby Nations & Charles Brown — **DATE** 07/29/2023

☑ **THIS FIELD REPORT IS FINAL**
A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.

REVIEWED BY Jennie Aguettant, PE — **DATE** 07/29/2023

Attachments: None

Figure A-34a

Equipment

Equipment On-Site	Company	Quantity	In-Use	Stand-By	Stand-By Location
200-Class Liftboat	Offshore Liftboats	1	☒	☐	
Airboat-Drill Set	SER	1	☐	☒	Liftboat
Support Airboat	SER	1	☒	☐	
Marsh Buggy-Drill	SER	1	☒	☐	
Support Outboard Boat	SER	1	☒	☐	
Pontoon-Drill	SER	1	☒	☐	
Marshmaster	SER	1	☒	☐	
Piston Sampler	SER	2	☒	☐	
Sample Run (Outboard) Boat	SER	1	☒	☐	

Geotechnical Boring Summary Status						
Boring Name	Boring Depth (FEET)	Drill Rig Used	Water Depth (FEET)	Today (FEET)	To Date (FEET)	% COMPLETE
CI-1	40	Choose an item.				
CI-2	40	Airboat-Drill	2.0		40	100
CI-3	80	Choose an item.				
CI-4	40	Pontoon-Drill	7.4	40	40	100
CI-5	50	Choose an item.				
CI-6	40	Choose an item.				
CI-7	80	Choose an item.				
CI-8	50	Marsh Buggy-Drill	On Land		50	100
CI-9	50	Airboat-Drill	2.4		50	100
CI-10	40	Airboat-Drill	2.0		40	100
CI-11	50	Marsh Buggy-Drill	On Land		50	100
CI-12	50	Airboat-Drill	3.0		50	100
CI-13	40	Airboat-Drill	2.0		40	100
CI-14	50	Marsh Buggy-Drill	On Land		50	100
CI-15	80	Choose an item.				
CI-16	50	Marsh Buggy-Drill	On Land		50	100

CI-17	50	Marsh Buggy-Drill	On Land		50	100
CI-18	40	Airboat-Drill			40	100
CI-19	50	Marsh Buggy-Drill	On Land		50	100
CI-20	80	Marsh Buggy-Drill	On Land	40	80	100
CI-21	40	Airboat-Drill	5.0		40	100
CI-22	50	Marsh Buggy-Drill	On Land	50	50	100
CI-23	40	Pontoon-Drill	5.3		40	100
CI-24	50	Choose an item.				
CI-25	50	Pontoon-Drill	3.0		50	100
CI-26	50	Choose an item.				
CI-27	80	Choose an item.				
CI-28	50	Choose an item.				
CI-29	50	Choose an item.				

Observations and Activities:

06:00 Bobby Nations and Charles Brown, of GeoEngineers, attend the morning safety meeting with SER and the Offshore Liftboat crew.

07:00 SER and the liftboat crew lift the support boats into the water.

0730 One boat leaves to go to Gulfport to pick up Herbert Johnstone of GeoEngineers.

08:00 GeoEngineers and SER mobilize to the Island. The pontoon drill barge will be moved to locations CI-26, CI-27, CI-28, and CI-29 today. The marsh buggy crew returned to CI-20 to complete the boring started yesterday.

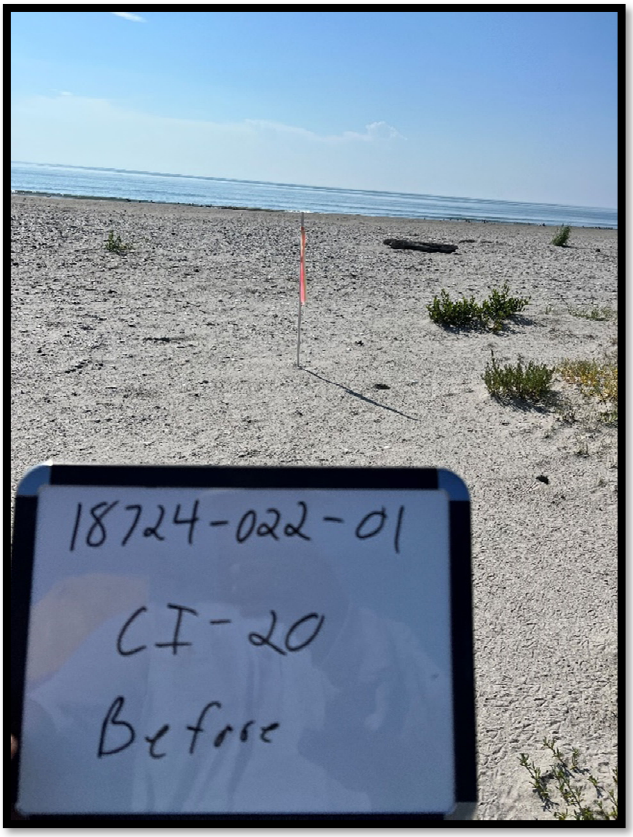


Figure 1: Boring CI-20 Site Condition Before Drilling

Figure 2: Boring CI-20 Site Condition After Drilling

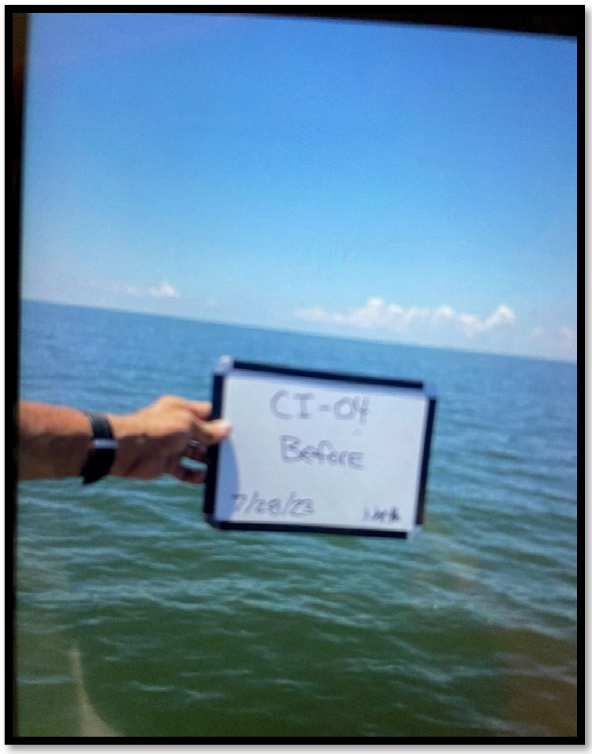


Figure 3: Boring CI-04 Site Condition Before Drilling

Figure 4: Boring CI-04 Site Condition After Drilling

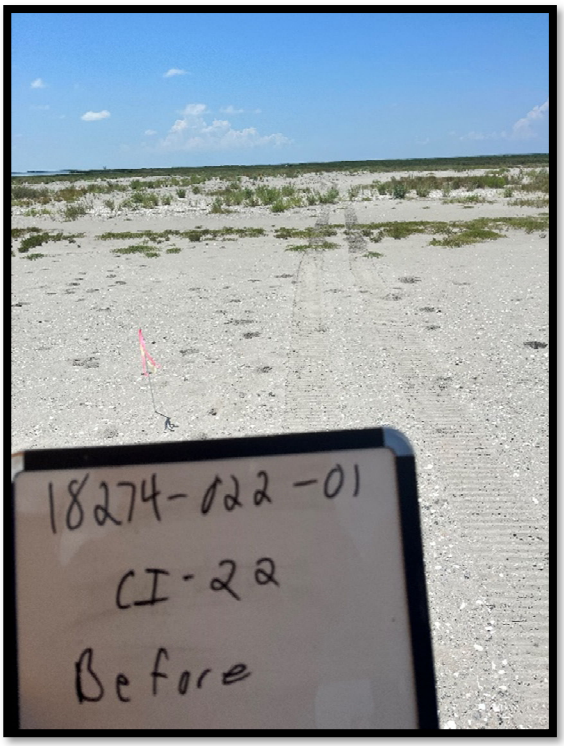


Figure 5: Boring CI-22 Site Condition Before Drilling

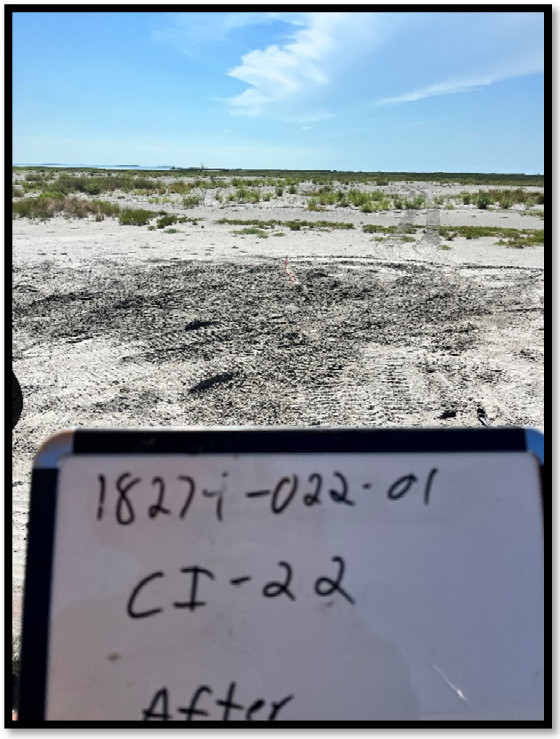


Figure 6: Boring CI-22 Site Condition After Drilling

09:30 We setup the pontoon drill on CI-26 ,weather was calm, no wind. Tide was high but waves were coming from the Gulf. The pontoon drill barge was unable to stay stationary with the waves coming in. We assessed the location of CI-27, but the conditions were too rough for the pontoon drill to safely drill the boring. We looked at CI-28. The pontoon drill may be able to drill at CI-28 if the water is calm. We will reassess CI-28 in the morning. CI-29 can't be reached with pontoon due to water depth of 1.5 feet at high tide. Location CI-29 will have to be reached with the marsh buggy rig.

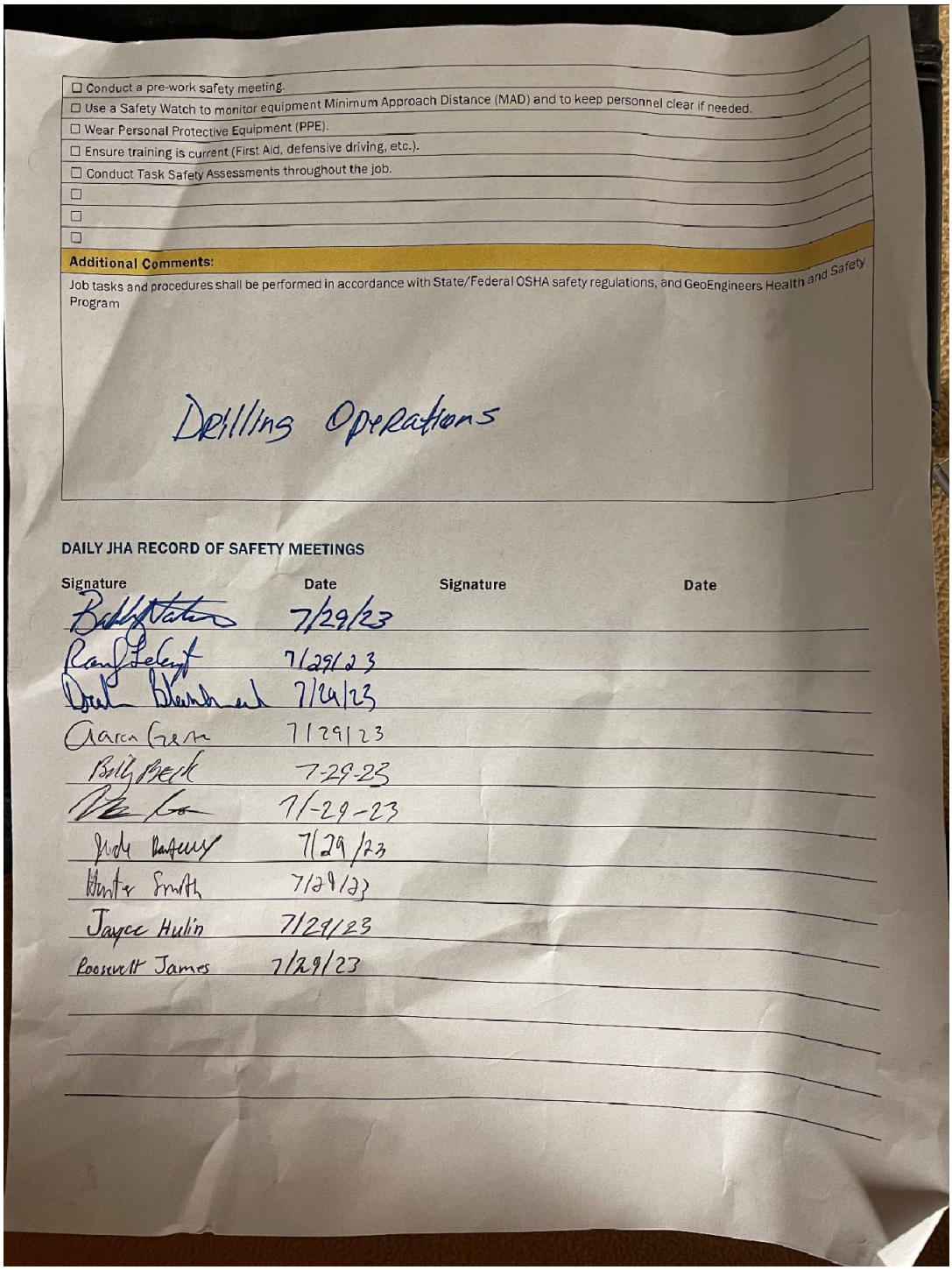
12:30 We moved the pontoon drill barge to location CI-04.

14:30 We completed location CI-04 and moved the pontoon boat to protected waters.

16:30 We began making our way back to the boat channel to be picked up.

17:20 SER and the liftboat crew begin loading the boats back onto the liftboat.

18:00 End of day.



☐ Conduct a pre-work safety meeting.
☐ Use a Safety Watch to monitor equipment Minimum Approach Distance (MAD) and to keep personnel clear if needed.
☐ Wear Personal Protective Equipment (PPE).
☐ Ensure training is current (First Aid, defensive driving, etc.).
☐ Conduct Task Safety Assessments throughout the job.
☐
☐
☐

Additional Comments:

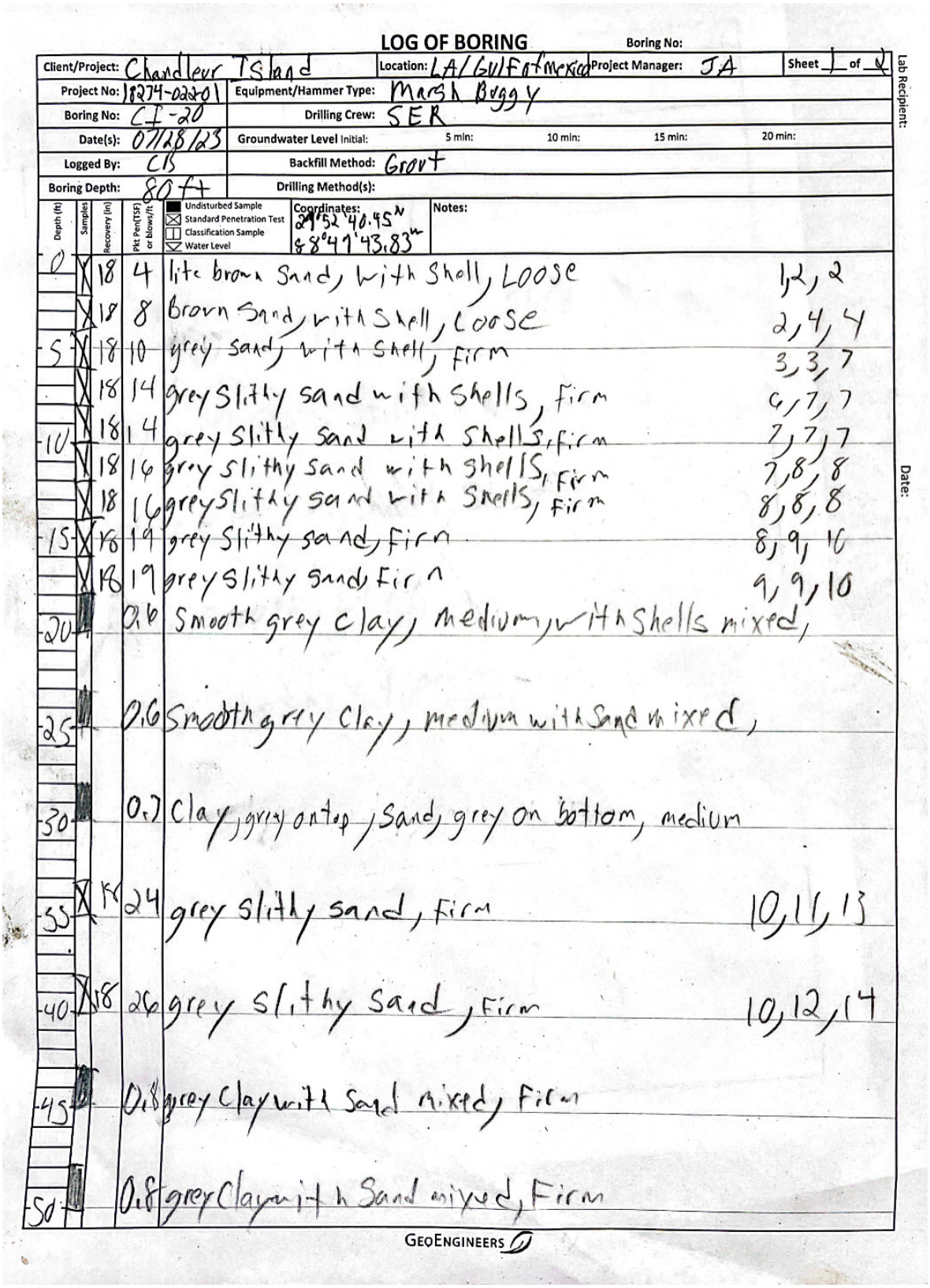
Job tasks and procedures shall be performed in accordance with State/Federal OSHA safety regulations, and GeoEngineers Health and Safety Program

Drilling Operations

DAILY JHA RECORD OF SAFETY MEETINGS

Signature	Date	Signature	Date
[signature]	7/29/23		
[signature]	7/29/23		
[signature]	7/29/23		
[signature]	7/29/23		
[signature]	7-29-23		
[signature]	7/-29-23		
[signature]	7/29/23		
[signature]	7/29/23		
Jayce Hulin	7/29/23		
Roosevelt James	7/29/23		

Figure A-34h



LOG OF BORING

Boring No:

Client/Project: Chandleur Island | Location: LA/Gulf of Mexico | Project Manager: JA | Sheet 1 of 2

Project No: 18274-022-01 | Equipment/Hammer Type: Marsh Buggy

Boring No: CI-20 | Drilling Crew: SER

Date(s): 07/28/23 | Groundwater Level Initial: 5 min: 10 min: 15 min: 20 min:

Logged By: CB | Backfill Method: Grout

Boring Depth: 80 ft | Drilling Method(s):

Undisturbed Sample; Standard Penetration Test; Classification Sample; Water Level

Coordinates: 29°52'40.95"N & 88°41'43.83"W

Notes:

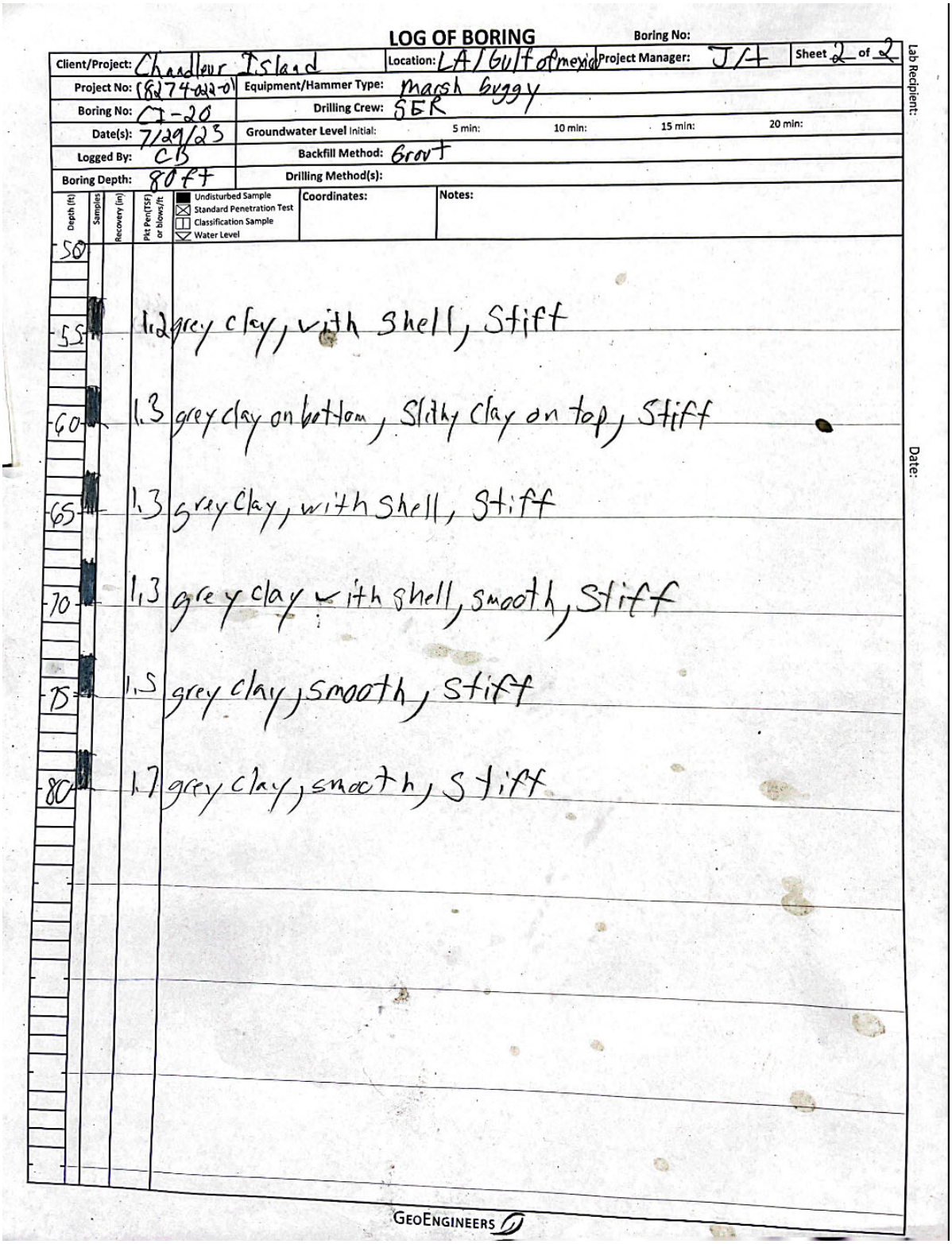
Lab Recipient:

Date:

Depth (ft)	Samples	Recovery (in)	Pkt Pen(TSF) or blows/ft		
0	X	18	4	lite brown Sand, with Shell, Loose	1,2,2
	X	18	8	Brown Sand, with Shell, Loose	2,4,4
5	X	18	10	grey sand, with Shell, Firm	3,3,7
	X	18	14	grey Slithy sand with Shells, Firm	6,7,7
10	X	18	14	grey Slithy Sand with Shells, Firm	7,7,7
	X	18	16	grey Slithy Sand with Shells, Firm	7,8,8
	X	18	16	grey Slithy Sand with Shells, Firm	8,8,8
15	X	18	19	grey Slithy sand, Firm	8,9,16
	X	18	19	grey Slithy Sand, Firm	9,9,10
20			0.6	Smooth grey clay, medium, with Shells mixed,	
25			0.6	Smooth grey clay, medium with Sand mixed,	
30			0.7	Clay, grey on top, Sand, grey on bottom, medium	
35	X	24		grey Slithy sand, Firm	10,11,13
40	X	18	26	grey Slithy Sand, Firm	10,12,17
45			0.8	grey Clay with Sand mixed, Firm	
50			0.8	grey Clay with Sand mixed, Firm	

GeoEngineers

Figure A-34i



LOG OF BORING

Boring No:

Client/Project: Chandleur Island | Location: LA/Gulf of Mexico | Project Manager: JA | Sheet 2 of 2

Project No: (8274-022-01 | Equipment/Hammer Type: marsh buggy

Boring No: CI-20 | Drilling Crew: SER

Date(s): 7/29/23 | Groundwater Level Initial: 5 min: 10 min: 15 min: 20 min:

Logged By: CB | Backfill Method: Grout

Boring Depth: 80ft | Drilling Method(s):

Undisturbed Sample; Standard Penetration Test; Classification Sample; Water Level

Coordinates:

Notes:

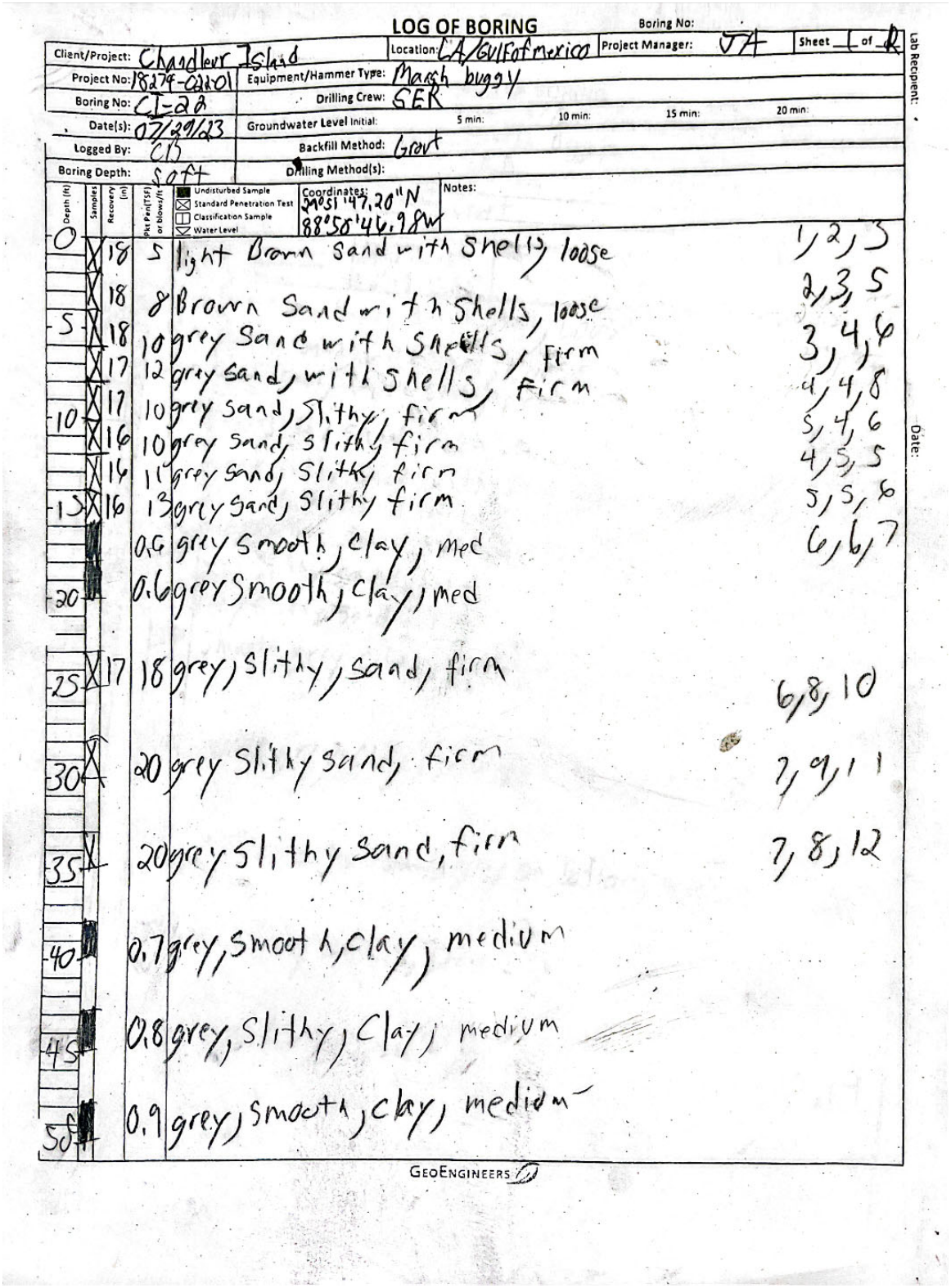
Lab Recipient:

Date:

Depth (ft)	Samples	Recovery (in)	Pkt Pen(TSF) or blows/ft	
50				
55			1.2	grey clay, with shell, stiff
60			1.3	grey clay on bottom, silty clay on top, stiff
65			1.3	grey clay, with shell, stiff
70			1.3	grey clay with shell, smooth, stiff
75			1.5	grey clay, smooth, stiff
80			1.7	grey clay, smooth, stiff

GeoEngineers

Figure A-34j



LOG OF BORING

Boring No:

Client/Project: Chandeur Island | Location: LA/Gulf of Mexico | Project Manager: JA | Sheet 1 of 1

Project No: 18274-022-01 | Equipment/Hammer Type: Marsh buggy

Boring No: CI-28 | Drilling Crew: GER

Date(s): 07/29/23 | Groundwater Level Initial: 5 min: 10 min: 15 min: 20 min:

Logged By: CB | Backfill Method: Grout

Boring Depth: 50 ft | Drilling Method(s):

Undisturbed Sample; Standard Penetration Test; Classification Sample; Water Level

Coordinates: 29°51'47.20"N 88°58'46.98"W

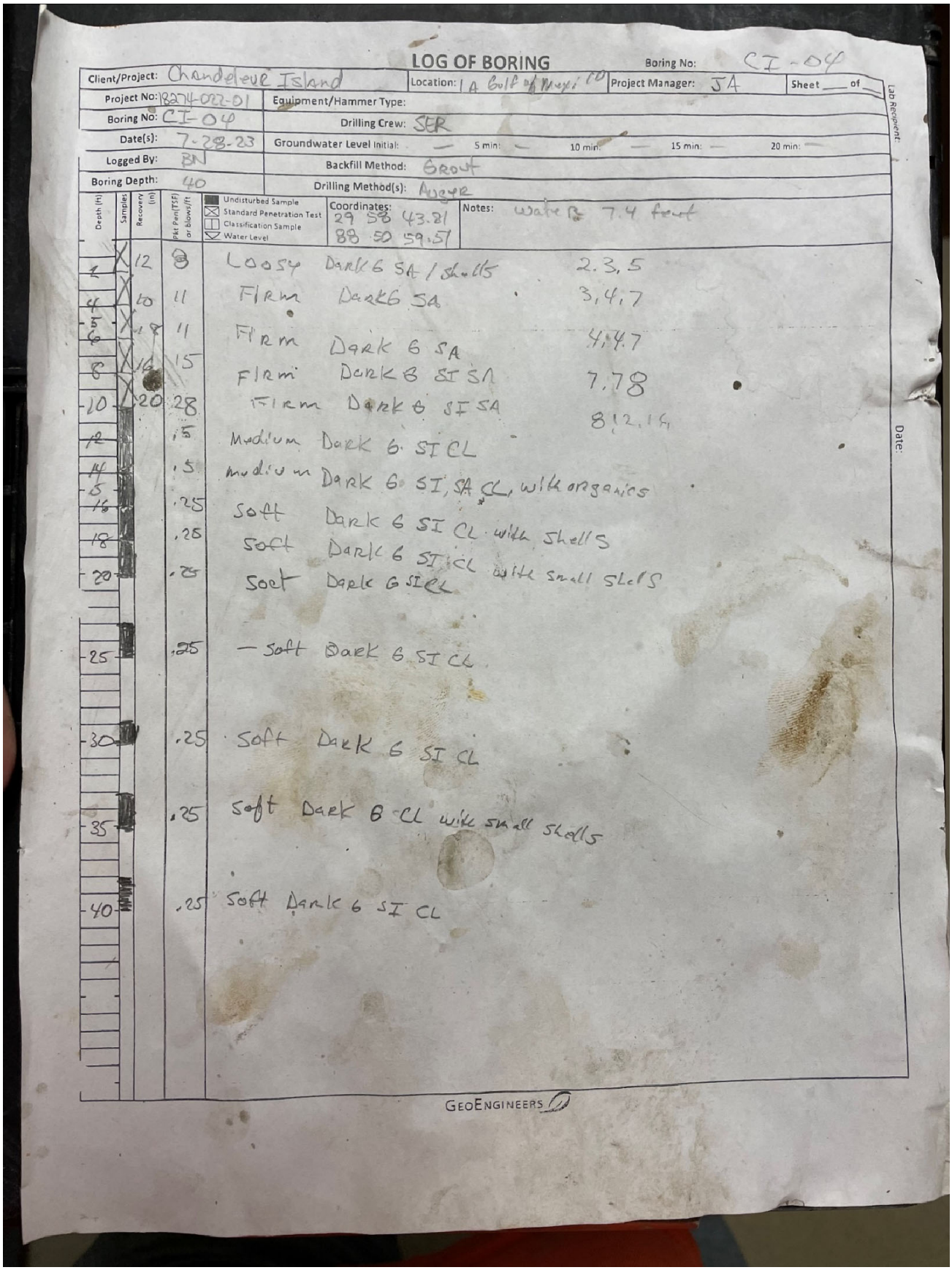
Notes:

Lab Recipient:

Date:

Depth (ft)	Samples	Recovery (in)	Pkt Pen (TSF) or blows/ft		
0	X	18	5	light Brown Sand with Shells, loose	1, 2, 3
	X	18	8	Brown Sand with Shells, loose	2, 3, 5
-5	X	18	10	grey Sand with Shells, firm	3, 4, 6
	X	17	12	grey sand, with shells, firm	4, 4, 8
-10	X	17	10	grey sand, slithy, firm	5, 4, 6
	X	16	10	grey sand, slithy, firm	4, 5, 5
	X	16	11	grey sand, slithy, firm	5, 5, 6
-15	X	16	13	grey sand, slithy firm	6, 6, 7
			0.6	grey smooth, clay, med	
-20			0.6	grey Smooth, clay, med	
-25	X	17	18	grey, slithy, sand, firm	6, 8, 10
-30	X		20	grey slithy sand, firm	7, 9, 11
-35	X		20	grey slithy sand, firm	7, 8, 12
-40			0.7	grey, Smooth, clay, medium	
-45			0.8	grey, slithy, clay, medium	
-50			0.9	grey, smooth, clay, medium	

GeoEngineers



LOG OF BORING

Boring No: CI-04

Client/Project: Chandeleur Island | Location: LA Gulf of Mexico | Project Manager: JA | Sheet ___ of ___

Project No: 18274-022-01 | Equipment/Hammer Type:

Boring No: CI-04 | Drilling Crew: SER

Date(s): 7-28-23 | Groundwater Level Initial: — 5 min: — 10 min: — 15 min: — 20 min: —

Logged By: BN | Backfill Method: Grout

Boring Depth: 40 | Drilling Method(s): Auger

Lab Recipient:

Date:

Undisturbed Sample
Standard Penetration Test
Classification Sample
Water Level

Coordinates: 29 58 43.81 / 88 50 59.57

Notes: Water @ 7.4 feet

Depth (ft)	Sample	Recovery (in)	Pkt Pen (TSF) or blows/ft		
1	X	12	8	Loosy	Dark G SA / shells 2.3.5
4	X	10	11	Firm	Dark G SA 3,4,7
5	X	18	11	Firm	Dark G SA 4,4.7
8	X	16	15	Firm	Dark G SI SA 7,7.8
10	X	20	28	Firm	Dark G SI SA 8,12,14
12			.5	Medium	Dark G SI CL
14			.5	medium	Dark G SI, SA CL, wilh organics
16			.25	Soft	Dark G SI CL with shells
18			.25	Soft	Dark G SI CL with shells
20			.25	Soft	Dark G SI CL with small shells
25			.25	— Soft	Dark G SI CL
30			.25	Soft	Dark G SI CL
35			.25	soft	Dark G CL with small shells
40			.25	Soft	Dark G SI CL

GeoEngineers

Figure A-34l

GeoEngineers

11923 Sun Belt Court
Baton Rouge, LA 70809
225.293.2460

FIELD REPORT

	Project: Chandeleur Island Restoration Project (PO-0199)		File Number: 18274-022-01
			Date: 07/30/2023
	Client: Coastal Engineering Consultants, LLC	Time of Arrival: 6:00AM	Report Number: DFR-8
Prepared by: Bobby Nations & Charles Brown	Location: Chandeleur Island, Louisiana	Time of Departure: 6:00PM	Page: 1 of 8
Purpose of visit: Geotechnical Exploration	Weather: Sunny; 90-100 °F	Travel Time: 1 hour	Permit Number: N/A

Please refer to attached safety documentation.

Personnel

NAME	COMPANY	ROLE	STAYING ON LIFTBOAT	
			YES	NO
Bobby Nations, Jr.	GeoEngineers	Sr. Const. Inspector	☒	☐
Charles Brown	GeoEngineers	Const. Inspector	☒	☐
Herbert Johnstone	GeoEngineers	Const. Inspector	☒	☐
Hunter Smith	SER	Driller's Helper	☒	☐
Jude Boudreaux	SER	Driller's Helper	☒	☐
Drake Blanchard	SER	Driller	☒	☐
Jayce Hulin	SER	Driller's Helper	☒	☐
Randy Lecompte	SER	Sample Runner	☒	☐
Roosevelt James	SER	Driller's Helper	☒	☐
E Travis Stelly	SER	Sample Runner	☒	☐
Nata Sedatol	SER	Driller	☒	☐

Supplies

SUPPLIES	COMPANY	FOOTAGE
Grout	SER	50 feet

☐ **THIS FIELD REPORT IS PRELIMINARY**
A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.

FIELD REPRESENTATIVE Bobby Nations & Charles Brown — **DATE** 07/30/2023

☑ **THIS FIELD REPORT IS FINAL**
A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.

REVIEWED BY Jennie Aguettant, PE — **DATE** 07/31/2023

Attachments: None

Equipment

Equipment On-Site	Company	Quantity	In-Use	Stand-By	Stand-By Location
200-Class Liftboat	Offshore Liftboats	1	☒	☐	
Airboat-Drill Set	SER	1	☐	☒	Liftboat
Support Airboat	SER	1	☒	☐	
Marsh Buggy-Drill	SER	1	☒	☐	
Support Outboard Boat	SER	1	☒	☐	
Pontoon-Drill	SER	1	☒	☐	
Marshmaster	SER	1	☒	☐	
Piston Sampler	SER	2	☒	☐	
Sample Run (Outboard) Boat	SER	1	☒	☐	

Geotechnical Boring Summary Status						
Boring Name	Boring Depth (feet)	Drill Rig Used	Water Depth (feet)	Today (feet)	To Date (feet)	% Complete
CI-1	40	Choose an item.				
CI-2	40	Airboat-Drill	2.0		40	100
CI-3	80	Choose an item.				
CI-4	40	Pontoon-Drill	7.4		40	100
CI-5	50	Choose an item.				
CI-6	40	Choose an item.				
CI-7	80	Choose an item.				
CI-8	50	Marsh Buggy-Drill	On Land		50	100
CI-9	50	Airboat-Drill	2.4		50	100
CI-10	40	Airboat-Drill	2.0		40	100
CI-11	50	Marsh Buggy-Drill	On Land		50	100
CI-12	50	Airboat-Drill	3.0		50	100
CI-13	40	Airboat-Drill	2.0		40	100
CI-14	50	Marsh Buggy-Drill	On Land		50	100
CI-15	80	Marsh Buggy-Drill	On Land	25	25	32
CI-16	50	Marsh Buggy-Drill	On Land		50	100

CI-17	50	Marsh Buggy-Drill	On Land		50	100
CI-18	40	Airboat-Drill			40	100
CI-19	50	Marsh Buggy-Drill	On Land		50	100
CI-20	80	Marsh Buggy-Drill	On Land		80	100
CI-21	40	Airboat-Drill	5.0		40	100
CI-22	50	Marsh Buggy-Drill	On Land		40	100
CI-23	40	Pontoon-Drill	5.3		40	100
CI-24	50	Marsh Buggy-Drill	3.5	50	50	100
CI-25	50	Pontoon-Drill	3.0		50	100
CI-26	50	Choose an item.				
CI-27	80	Choose an item.				
CI-28	50	Choose an item.				
CI-29	50	Choose an item.				

Observations and Activities:

06:00 Bobby Nations and Charles Brown, of GeoEngineers, attend the morning safety meeting with SER and the Offshore Liftboat crew.

07:00 SER and the liftboat crew lift the support boats into the water.

07:30 Both boats hook up to the marsh buggy and the marshmaster and head to Location CI-24. Waves are two to three feet high.

10:15 We arrive with the marsh buggy drill at location CI-24.

11:00 We attempt to set up the pontoon drill on CI-28, but the waves are 3 feet high. The pontoon drill was hitting sand when motoring to site. Conditions at CI-28 are unsafe to set up for drilling. We turn the vessel around due to rolling waves.

14:30 CI-24 is complete. We move the marsh buggy drill to location CI-15. The water is still too rough to set up on CI-28 or CI-29.

Figure 1: PVC Pipe Laid on Grass for Staging the Support Airboat Overnight

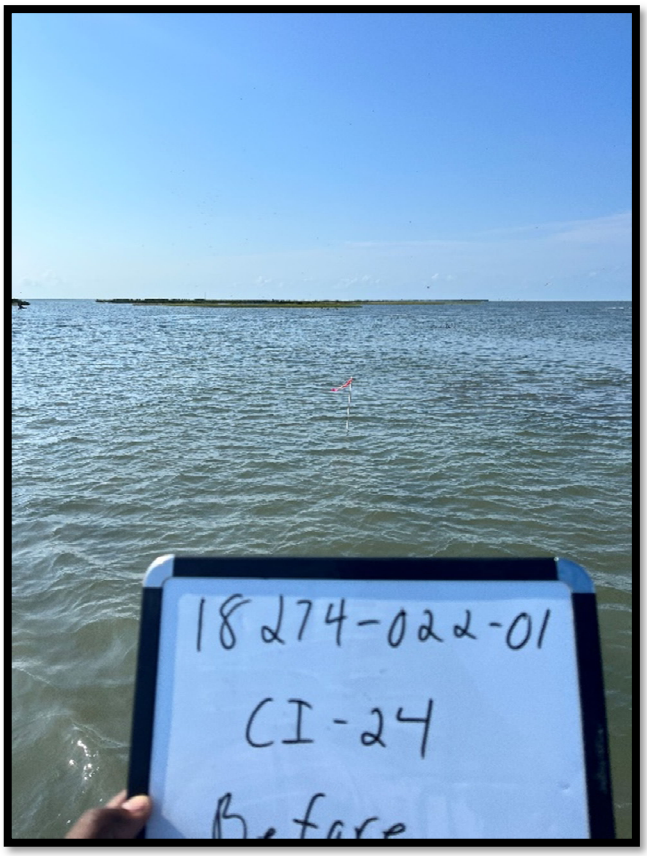


Figure 2: Boring CI-24 Site Condition Before Drilling

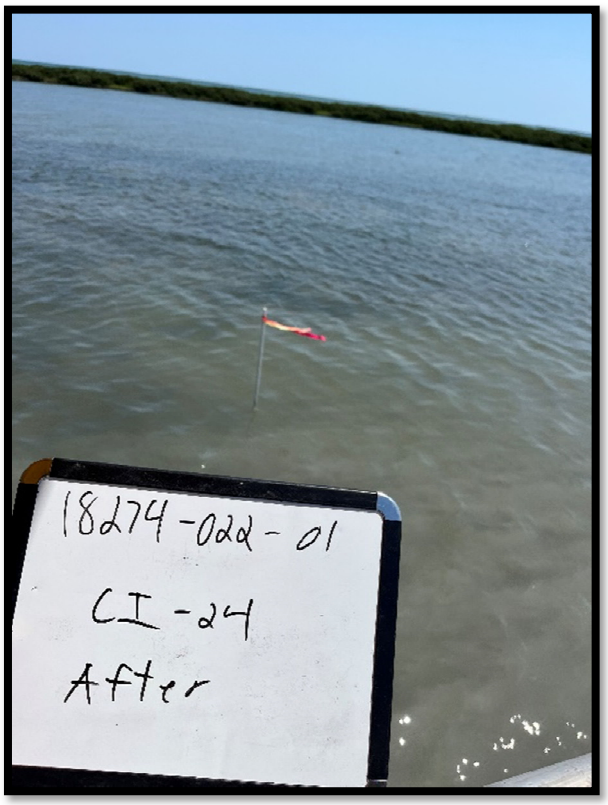


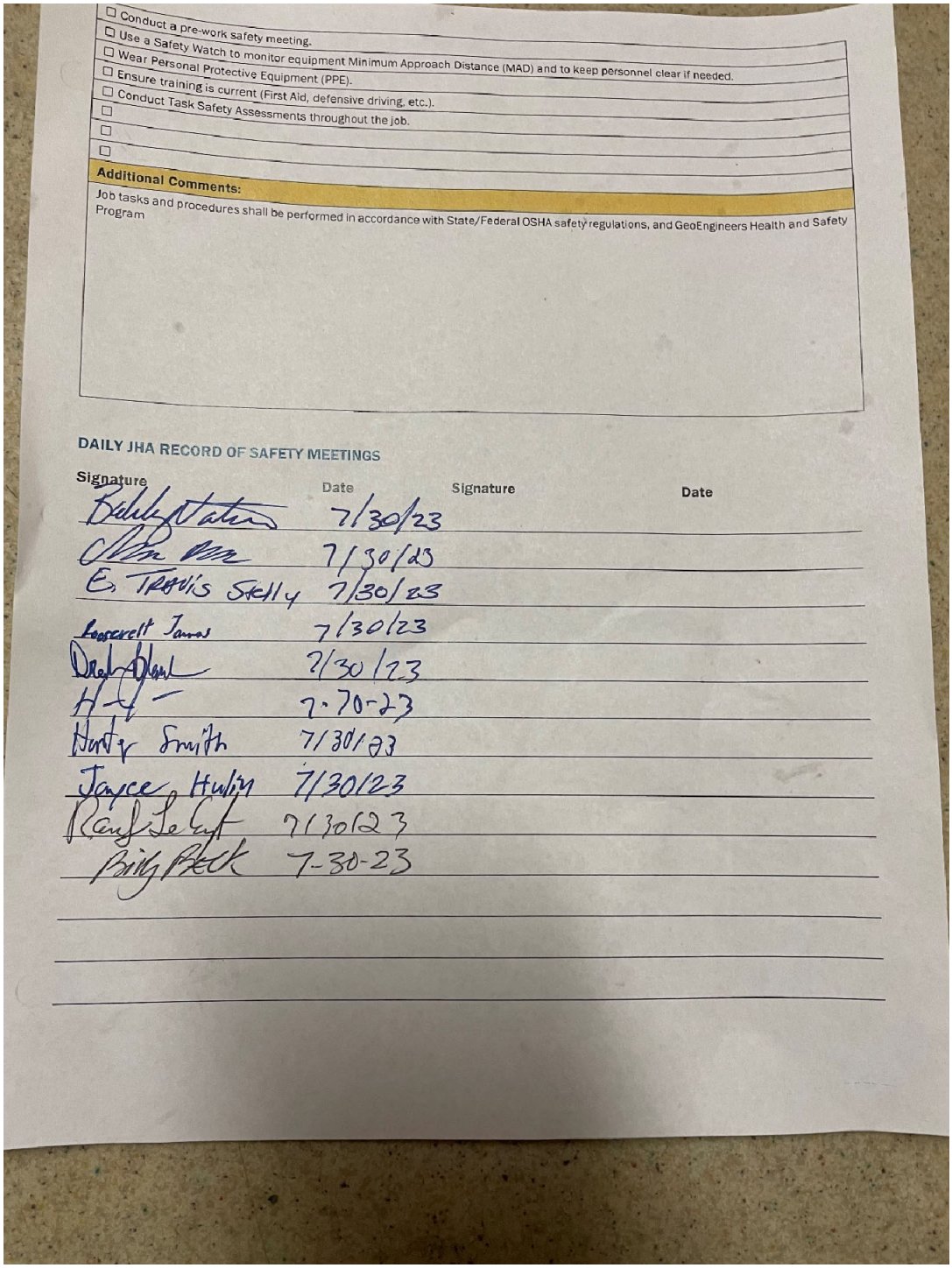
Figure 3: Boring CI-24 Site Condition After Drilling

Figure 4: Boring CI-15 Site Condition Before Drilling

16:30 We began making our way back to the boat channel to be picked up. The support airboat is parked on PVC pipes on the bank in the grass (Figure 1).

17:20 SER and the liftboat crew begin loading the boats back onto the liftboat. Thunderstorms are expected tonight.

18:00 End of day.



☐ Conduct a pre-work safety meeting.
☐ Use a Safety Watch to monitor equipment Minimum Approach Distance (MAD) and to keep personnel clear if needed.
☐ Wear Personal Protective Equipment (PPE).
☐ Ensure training is current (First Aid, defensive driving, etc.).
☐ Conduct Task Safety Assessments throughout the job.
☐
☐
☐

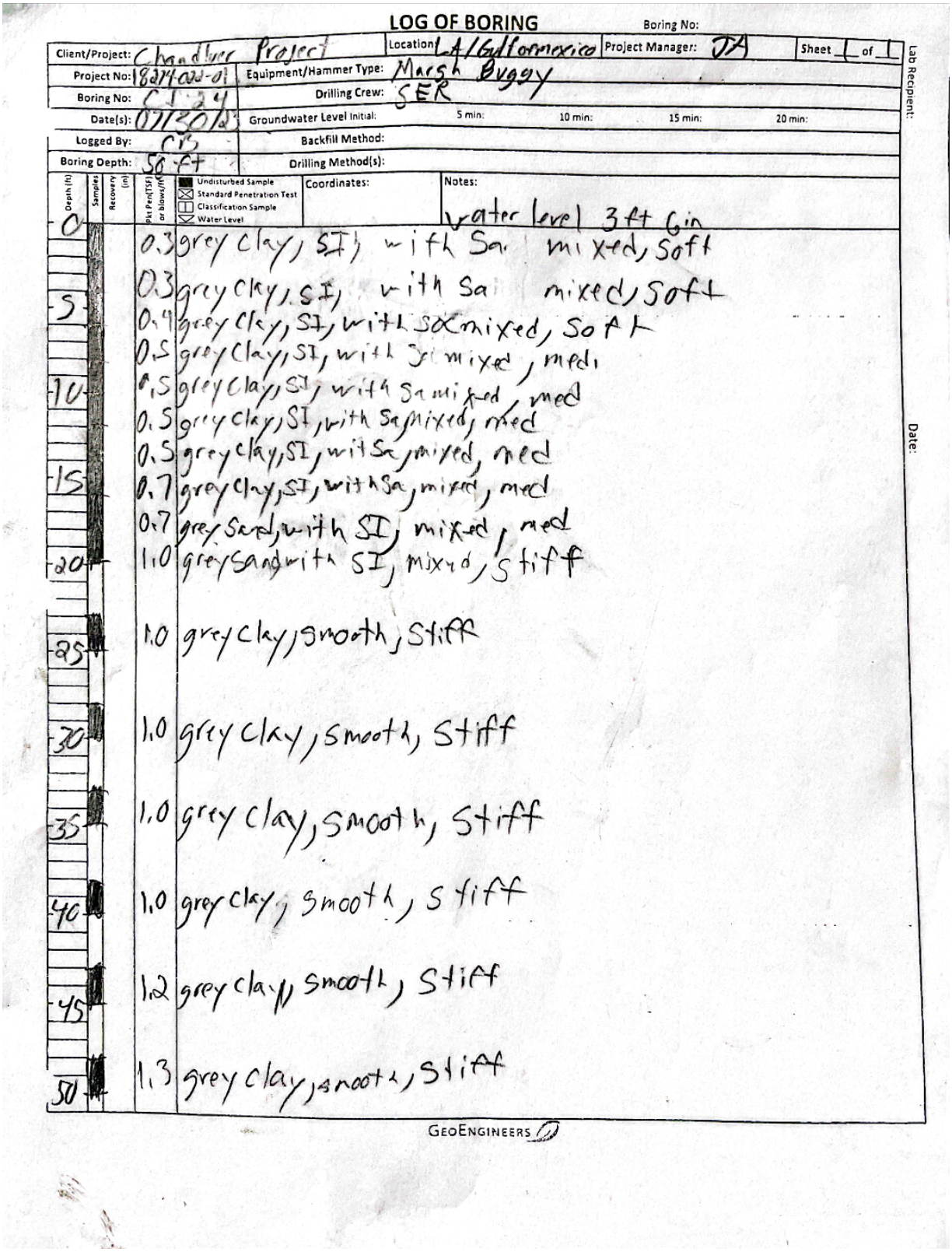
Additional Comments:

Job tasks and procedures shall be performed in accordance with State/Federal OSHA safety regulations, and GeoEngineers Health and Safety Program

DAILY JHA RECORD OF SAFETY MEETINGS

Signature	Date	Signature	Date
[signature]	7/30/23		
[signature]	7/30/23		
E. Travis Stelly	7/30/23		
Roosevelt James	7/30/23		
[signature]	7/30/23		
[signature]	7-30-23		
Hunter Smith	7/30/23		
Joyce Hulin	7/30/23		
[signature]	7/30/23		
[signature]	7-30-23		

Figure A-35f



LOG OF BORING

Boring No:

Client/Project: Chandler Project | Location: LA/Gulf of Mexico | Project Manager: JA | Sheet 1 of 1

Project No: 18274-022-01 | Equipment/Hammer Type: Marsh Buggy

Boring No: C1-24 | Drilling Crew: SER

Date(s): 07/20/23 | Groundwater Level Initial: | 5 min: | 10 min: | 15 min: | 20 min:

Logged By: CR | Backfill Method:

Boring Depth: 50 ft | Drilling Method(s):

Undisturbed Sample | Standard Penetration Test | Classification Sample | Water Level

Coordinates:

Notes: water level 3 ft 6 in

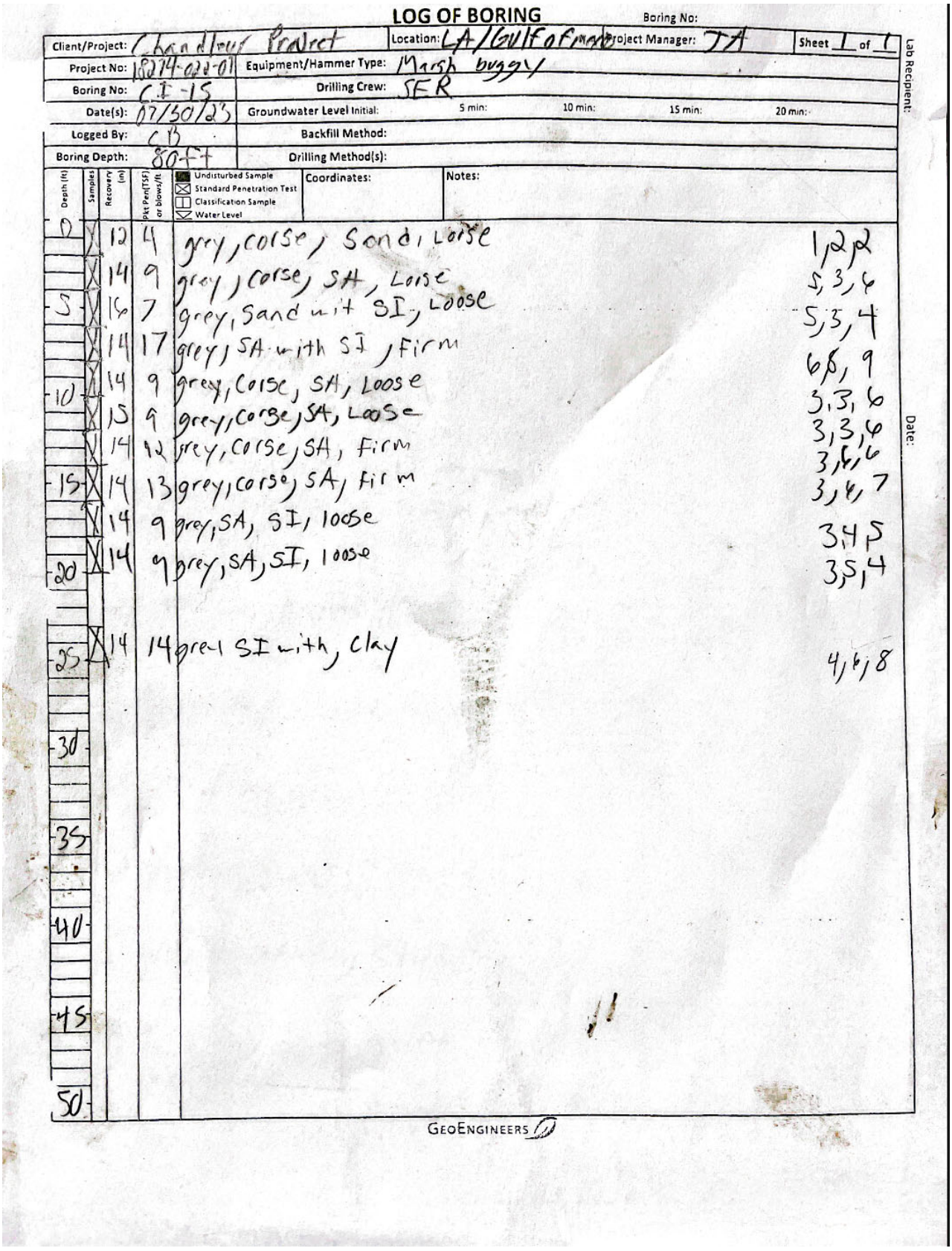
Lab Recipient:

Date:

Depth (ft)	Samples	Recovery (in)	Pkt Pen (TSF) or blows/ft	Description
0			0.3	grey clay, SI, with Sa mixed, soft
			0.3	grey clay, SI, with Sa mixed, soft
5			0.4	grey clay, SI, with Sa mixed, soft
			0.5	grey clay, SI, with Si mixed, med
10			0.5	grey clay, SI, with Sa mixed, med
			0.5	grey clay, SI, with Sa mixed, med
			0.5	grey clay, SI, with Sa, mixed, med
15			0.7	grey clay, SI, with Sa, mixed, med
			0.7	grey Sand, with SI, mixed, med
20			1.0	grey Sand with SI, mixed, Stiff
25			1.0	grey clay, smooth, Stiff
30			1.0	grey clay, smooth, Stiff
35			1.0	grey clay, smooth, Stiff
40			1.0	grey clay, smooth, Stiff
45			1.2	grey clay, smooth, Stiff
50			1.3	grey clay, smooth, Stiff

GeoEngineers

Figure A-35g



LOG OF BORING

Boring No:

Client/Project: Chandler Project | Location: LA/Gulf of Mex | Project Manager: JA | Sheet 1 of 1

Project No: 18274-022-01 | Equipment/Hammer Type: Marsh buggy

Boring No: C-I-15 | Drilling Crew: SER

Date(s): 07/30/23 | Groundwater Level Initial: 5 min: 10 min: 15 min: 20 min:

Logged By: CB | Backfill Method:

Boring Depth: 80 ft | Drilling Method(s):

Undisturbed Sample; Standard Penetration Test; Classification Sample; Water Level

Coordinates:

Notes:

Lab Recipient:

Date:

Depth (ft)	Samples	Recovery (in)	Pkt Pen (TSF) or blows/ft		
0	X	12	4	grey, corse, Sand, Loise	1,2,2
	X	14	9	grey, corse, SA, Loise	5,3,6
5	X	16	7	grey, Sand with SI, Loose	5,3,4
	X	14	17	grey, SA with SI, Firm	6,6,9
10	X	14	9	grey, Corse, SA, Loose	3,3,6
	X	15	9	grey, Corse, SA, Loose	3,3,6
	X	14	12	grey, Corse, SA, Firm	3,4,6
15	X	14	13	grey, Corse, SA, Firm	3,4,7
	X	14	9	grey, SA, SI, loose	3,4,5
20	X	14	9	grey, SA, SI, loose	3,5,4
25	X	14	14	grey SI with, Clay	4,6,8
30					
35					
40					
45					
50					

GeoEngineers

Figure A-35h

GeoEngineers

11923 Sun Belt Court
Baton Rouge, LA 70809
225.293.2460

FIELD REPORT

			File Number: 18274-022-01
	Project: Chandeleur Island Restoration Project (PO-0199)		Date: 07/31/2023
	Client: Coastal Engineering Consultants, LLC	Time of Arrival: 6:00AM	Report Number: DFR-9
Prepared by: Bobby Nations & Charles Brown	Location: Chandeleur Island, Louisiana	Time of Departure: 6:00PM	Page: 1 of 8
Purpose of visit: Geotechnical Exploration	Weather: Sunny; 90-100 °F	Travel Time: 1 hours	Permit Number: N/A

Please refer to attached safety documentation.

Personnel

NAME	COMPANY	ROLE	STAYING ON LIFTBOAT	
			YES	NO
Bobby Nations, Jr.	GeoEngineers	Sr. Const. Inspector	☒	☐
Charles Brown	GeoEngineers	Const. Inspector	☐	☒
Herbert Johnstone	GeoEngineers	Const. Inspector	☐	☒
Hunter Smith	SER	Driller's Helper	☒	☐
Jude Boudreaux	SER	Driller's Helper	☐	☒
Drake Blanchard	SER	Driller	☒	☐
Jayce Hulin	SER	Driller's Helper	☒	☐
Randy Lecompte	SER	Sample Runner	☒	☐
Roosevelt James	SER	Driller's Helper	☐	☒
E Travis Stelly	SER	Sample Runner	☒	☐
Nata Sedatol	SER	Driller	☐	☒

Supplies

SUPPLIES	COMPANY	FOOTAGE
Grout	SER	80 feet

☐ **THIS FIELD REPORT IS PRELIMINARY**
A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.

FIELD REPRESENTATIVE Bobby Nations & Charles Brown — **DATE** 07/31/2023

☑ **THIS FIELD REPORT IS FINAL**
A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.

REVIEWED BY Jennie Aguettant, PE — **DATE** 08/01/2023

Attachments: None

Equipment

Equipment On-Site	Company	Quantity	In-Use	Stand-By	Stand-By Location
200-Class Liftboat	Offshore Liftboats	1	☒	☐	
Airboat-Drill Set	SER	1	☐	☒	Liftboat
Support Airboat	SER	1	☒	☐	
Marsh Buggy-Drill	SER	1	☒	☐	
Support Outboard Boat	SER	1	☒	☐	
Pontoon-Drill	SER	1	☒	☐	
Marshmaster	SER	1	☒	☐	
Piston Sampler	SER	1	☒	☐	
Sample Run (Outboard) Boat	SER	1	☒	☐	

Geotechnical Boring Summary Status						
Boring Name	Boring Depth (feet)	Drill Rig Used	Water Depth (feet)	Today (feet)	To Date (feet)	% Complete
CI-1	40	Choose an item.				
CI-2	40	Airboat-Drill	2.0		40	100
CI-3	80	Choose an item.				
CI-4	40	Pontoon-Drill	7.4		40	100
CI-5	50	Choose an item.				
CI-6	40	Choose an item.				
CI-7	80	Marsh Buggy-Drill	On Land	20	20	25%
CI-8	50	Marsh Buggy-Drill	On Land		50	100
CI-9	50	Airboat-Drill	2.4		50	100
CI-10	40	Airboat-Drill	2.0		40	100
CI-11	50	Marsh Buggy-Drill	On Land		50	100
CI-12	50	Airboat-Drill	3.0		50	100
CI-13	40	Airboat-Drill	2.0		40	100
CI-14	50	Marsh Buggy-Drill	On Land		50	100
CI-15	80	Marsh Buggy-Drill	1.0	55	80	100

CI-16	50	Marsh Buggy-Drill	On Land		50	100
CI-17	50	Marsh Buggy-Drill	On Land		50	100
CI-18	40	Airboat-Drill	2.0		40	100
CI-19	50	Marsh Buggy-Drill	On Land		50	100
CI-20	80	Marsh Buggy-Drill	On Land		80	100
CI-21	40	Airboat-Drill	5.0		40	100
CI-22	50	Marsh Buggy-Drill	On Land		40	100
CI-23	40	Pontoon-Drill	5.3		40	100
CI-24	50	Marsh Buggy-Drill	3.5		50	100
CI-25	50	Pontoon-Drill	3.0		50	100
CI-26	50	Choose an item.				
CI-27	80	Choose an item.				
CI-28	50	Choose an item.				
CI-29	50	Choose an item.				

Observations and Activities:

06:00 Bobby Nations and Charles Brown, of GeoEngineers, attend the morning safety meeting with SER and the Offshore Liftboat crew.

07:00 SER and the liftboat crew lift the support boats into the water. Three SER members and two GeoEngineer's employees are going home today.

08:30 The pontoon drill and drill crew head for Biloxi. The marsh buggy crew resumes drilling at location CI-15.

11:00 CI-15 is complete, and the marsh buggy moves to CI-07. We used the support boat to push the marsh buggy between the locations. The support boat has trouble with the boat engines.

14:00 The marsh buggy arrived at CI-07 and began drilling operations.

14:30 We realize the valve on the water tank won't shut off, and it has a crack on the side.

Figure 1: Boring CI-15 Site Conditions After Drilling

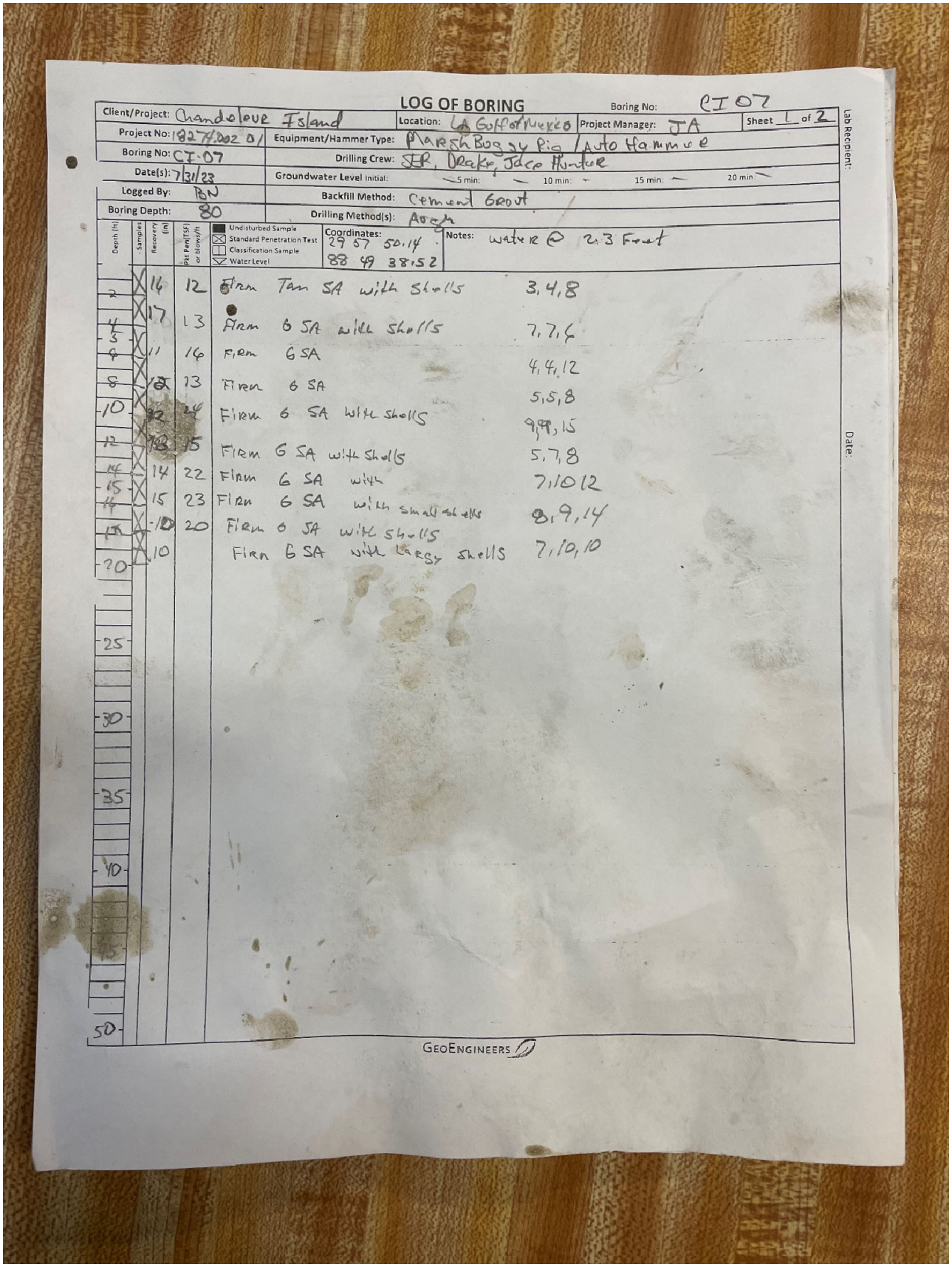
Figure 2: Boring CI-07 Site Conditions Before Drilling

17:00 We began making our way back to the boat channel to be picked up. The support airboat is parked on PVC pipes on the bank in the grass.

17:20 The support boat is broken down and stuck on a sand bar. Both engines on the boat are down. We drove the marshmaster to the support airboat.

17:30 We picked up the boat captain, Travis, and anchored the support boat so it doesn't float off when the tide rises. We will haul the boat back to the liftboat in the morning.

18:00 End of day.



LOG OF BORING

Boring No: CI 07

Client/Project: Chandeleur Island
Location: LA Gulf of Mexico
Project Manager: JA
Sheet 1 of 2

Project No: 18274.002.01
Equipment/Hammer Type: Marsh Buggy Rig / Auto Hammer

Boring No: CI-07
Drilling Crew: SER, Drake, Jace Hunter

Date(s): 7/31/23
Groundwater Level Initial: 5 min: 10 min: 15 min: 20 min:

Logged By: PBN
Backfill Method: Cement Grout

Boring Depth: 80
Drilling Method(s): Auger

Undisturbed Sample
Standard Penetration Test
Classification Sample
Water Level

Coordinates: 29 57 50.14
88 49 38.52

Notes: Water @ 2.3 Feet

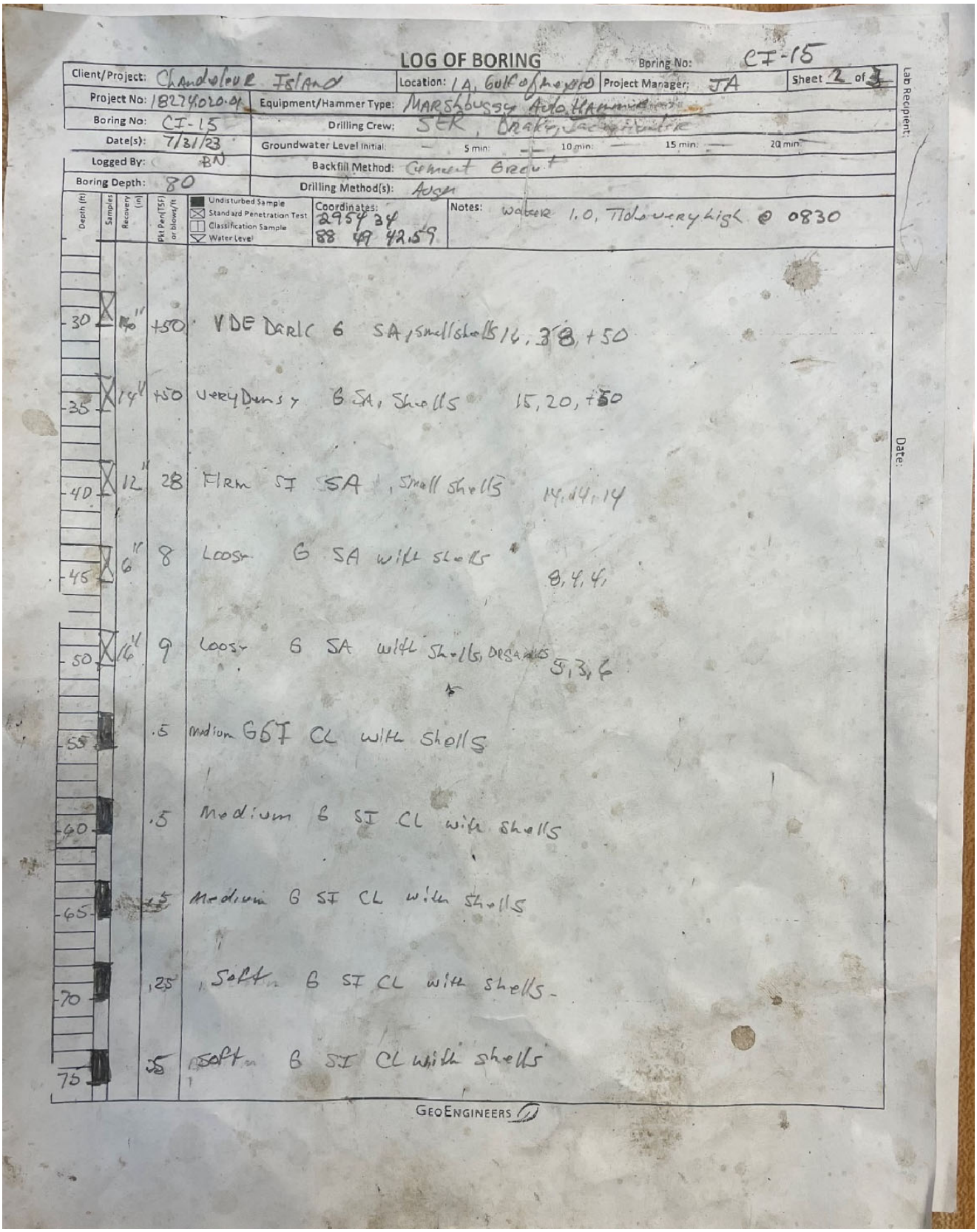
Lab Recipient:

Date:

Depth (ft)	Samples	Recovery (in)	Pkt Pen (tsf) or blows/ft		
2	X	16	12	Firm Tan SA with Shells	3,4,8
4	X	17	13	Firm G SA with Shells	7,7,6
5	X				
6	X	11	16	Firm G SA	4,4,12
8	X	12	13	Firm G SA	5,5,8
10	X	12	24	Firm G SA with shells	9,9,15
12	X	18	15	Firm G SA with Shells	5,7,8
14	X	14	22	Firm G SA with	7,10,12
15	X	15	23	Firm G SA with small shells	8,9,14
16	X	10	20	Firm G SA with Shells	
18	X	10		Firm G SA with large shells	7,10,10
20	X				
25					
30					
35					
40					
45					
50					

GeoEngineers

Figure A-36f



LOG OF BORING

Boring No: CI-15

Client/Project: Chandeleur Island
Location: LA, Gulf of Mexico
Project Manager: JA
Sheet 2 of 3

Project No: 18274020.01
Equipment/Hammer Type: Marshbuggy Auto Hammer

Boring No: CI-15
Drilling Crew: SER, Drake, Jacobsmeier

Date(s): 7/31/23
Groundwater Level Initial: — 5 min: — 10 min: — 15 min: — 20 min:

Logged By: BN
Backfill Method: Cement Grout

Boring Depth: 80
Drilling Method(s): Auger

Undisturbed Sample
Standard Penetration Test
Classification Sample
Water Level

Coordinates: 29.54 34
88 49 42.59

Notes: Water 1.0, Tide very high @ 0830

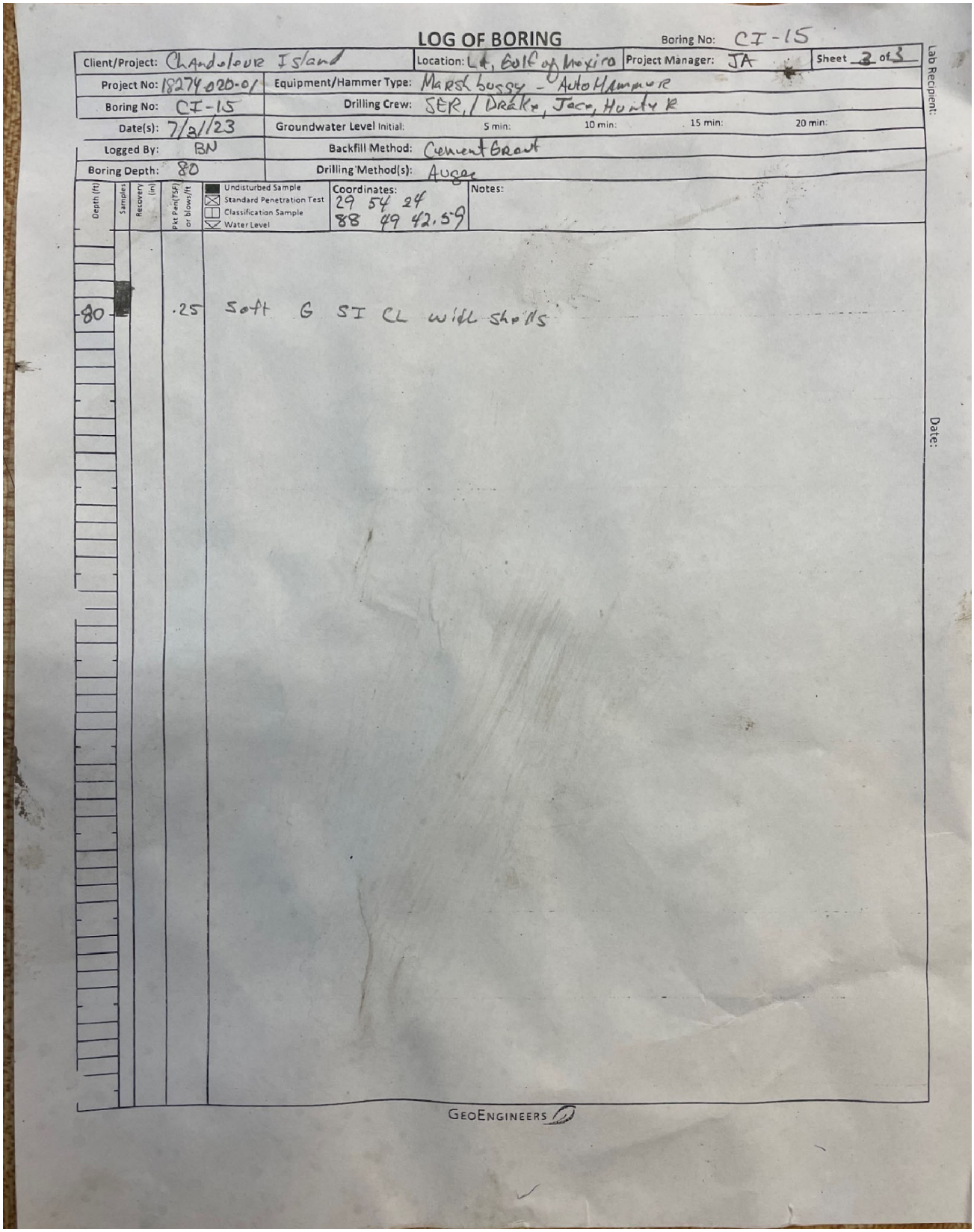
Lab Recipient:

Date:

Depth (ft)	Samples	Recovery (in)	Pkt Pen (TSF) or blows/ft	
30		16"	+50	VDE Dark G SA, small shells 16, 38, +50
35		14"	+50	Very Dense G SA, Shells 15, 20, +50
40		12"	28	Firm SI SA, small shells 14, 14, 14
45		6"	8	Loose G SA with shells 8, 4, 4,
50		16"	9	Loose G SA with shells, organics 5, 3, 6
55			.5	Medium GSI CL with shells
60			.5	Medium G SI CL with shells
65			.5	Medium G SI CL with shells
70			.25	Soft G SI CL with shells
75			.5	Soft G SI CL with shells

GeoEngineers

Figure A-36g



LOG OF BORING

Boring No: CI-15

Client/Project: Chandeleur Island
Location: LA, Gulf of Mexico
Project Manager: JA
Sheet 3 of 3

Project No: 18274-020-01
Equipment/Hammer Type: Marsh buggy - Auto Hammer

Boring No: CI-15
Drilling Crew: SER, J Drake, Jace, Hunter R

Date(s): 7/21/23
Groundwater Level Initial: 5 min: 10 min: 15 min: 20 min:

Logged By: BN
Backfill Method: Cement Grout

Boring Depth: 80
Drilling Method(s): Auger

Lab Recipient:

Date:

Depth (ft) | Samples | Recovery (in) | Pkt Pen(TSF) or blows/ft

■ Undisturbed Sample
☒ Standard Penetration Test
☐ Classification Sample
☒ Water Level

Coordinates: 29 54 24
88 49 42.59

Notes:

80 — .25 Soft G SI CL with shells

GeoEngineers

Figure A-36h

GeoEngineers

11923 Sun Belt Court
Baton Rouge, LA 70809
225.293.2460

FIELD REPORT

			File Number: 18274-022-01
	Project: Chandeleur Island Restoration Project (PO-0199)		Date: 08/01/2023
	Client: Coastal Engineering Consultants, LLC	Time of Arrival: 6:00AM	Report Number: DFR-10
Prepared by: Bobby Nations	Location: Chandeleur Island, Louisiana	Time of Departure: 6:00PM	Page: 1 of 9
Purpose of visit: Geotechnical Exploration	Weather: Sunny; 90-100 °F	Travel Time: 1 hour	Permit Number: N/A

Please refer to attached safety documentation.

Personnel

NAME	COMPANY	ROLE	STAYING ON LIFTBOAT	
			YES	NO
Bobby Nations, Jr.	GeoEngineers	Sr. Const. Inspector	☒	☐
Hunter Smith	SER	Driller's Helper	☒	☐
Drake Blanchard	SER	Driller	☒	☐
Jayce Hulin	SER	Driller's Helper	☒	☐
Randy Lecompte	SER	Sample Runner	☒	☐
E Travis Stelly	SER	Sample Runner	☒	☐

Supplies

SUPPLIES	COMPANY	FOOTAGE
Grout	SER	130 feet

☐ **THIS FIELD REPORT IS PRELIMINARY**
A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.

FIELD REPRESENTATIVE Bobby Nations & Charles Brown — **DATE** 08/01/2023

☑ **THIS FIELD REPORT IS FINAL**
A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.

REVIEWED BY Jennie Aguettant, PE — **DATE** 08/02/2023

Attachments: None

Equipment

Equipment On-Site	Company	Quantity	In-Use	Stand-By	Stand-By Location
200-Class Liftboat	Offshore Liftboats	1	☒	☐	
Airboat-Drill Set	SER	1	☐	☒	Liftboat
Support Airboat	SER	1	☒	☐	
Marsh Buggy-Drill	SER	1	☒	☐	
Support Outboard Boat	SER	1	☒	☐	
Pontoon-Drill	SER	0	☐	☐	
Marshmaster	SER	1	☒	☐	
Piston Sampler	SER	1	☒	☐	
Sample Run (Outboard) Boat	SER	1	☒	☐	

Geotechnical Boring Summary Status						
Boring Name	Boring Depth (feet)	Drill Rig Used	Water Depth (feet)	Today (feet)	To Date (feet)	% Complete
CI-1	40	Choose an item.				
CI-2	40	Airboat-Drill	2.0		40	100
CI-3	80	Choose an item.				
CI-4	40	Pontoon-Drill	7.4		40	100
CI-5	50	Marsh Buggy-Drill	On Land	50	50	100
CI-6	40	Choose an item.				
CI-7	80	Marsh Buggy-Drill	On Land	60	80	100
CI-8	50	Marsh Buggy-Drill	On Land		50	100
CI-9	50	Airboat-Drill	2.4		50	100
CI-10	40	Airboat-Drill	2.0		40	100
CI-11	50	Marsh Buggy-Drill	On Land		50	100
CI-12	50	Airboat-Drill	3.0		50	100
CI-13	40	Airboat-Drill	2.0		40	100
CI-14	50	Marsh Buggy-Drill	On Land		50	100
CI-15	80	Marsh Buggy-Drill	1.0		80	100

CI-16	50	Marsh Buggy-Drill	On Land		50	100
CI-17	50	Marsh Buggy-Drill	On Land		50	100
CI-18	40	Airboat-Drill	2.0		40	100
CI-19	50	Marsh Buggy-Drill	On Land		50	100
CI-20	80	Marsh Buggy-Drill	On Land		80	100
CI-21	40	Airboat-Drill	5.0		40	100
CI-22	50	Marsh Buggy-Drill	On Land		40	100
CI-23	40	Pontoon-Drill	5.3		40	100
CI-24	50	Marsh Buggy-Drill	3.5		50	100
CI-25	50	Pontoon-Drill	3.0		50	100
CI-26	50	Choose an item.	Inaccessible			
CI-27	80	Choose an item.	Inaccessible			
CI-28	50	Choose an item.	Inaccessible			
CI-29	50	Choose an item.	Inaccessible			

Observations and Activities:

06:00 I, Bobby Nations, of GeoEngineers, attend the morning safety meeting with SER and the Offshore Liftboat crew.

07:00 SER and the liftboat crew lift the support boat into the water. One boat is still at the Island because of the engine problems yesterday.

07:30 We arrive at the Island and board the marshmaster to head to location CI-07. We resume drilling operations on CI-07.

11:30 We complete the boring at CI-07 and begin tracking to CI-05.

15:30 We complete the boring at CI-05 and begin tracking to CI-03.

16:30 We stage the marsh buggy at CI-03 and begin tracking back to the access channel with the marshmaster to meet the support boat.

17:30 We arrive at the support boat and begin the trip to the liftboat. The support boat still has one engine not working.

18:00 End of day.

Figure 1: Boring CI-07 Site Condition After Drilling

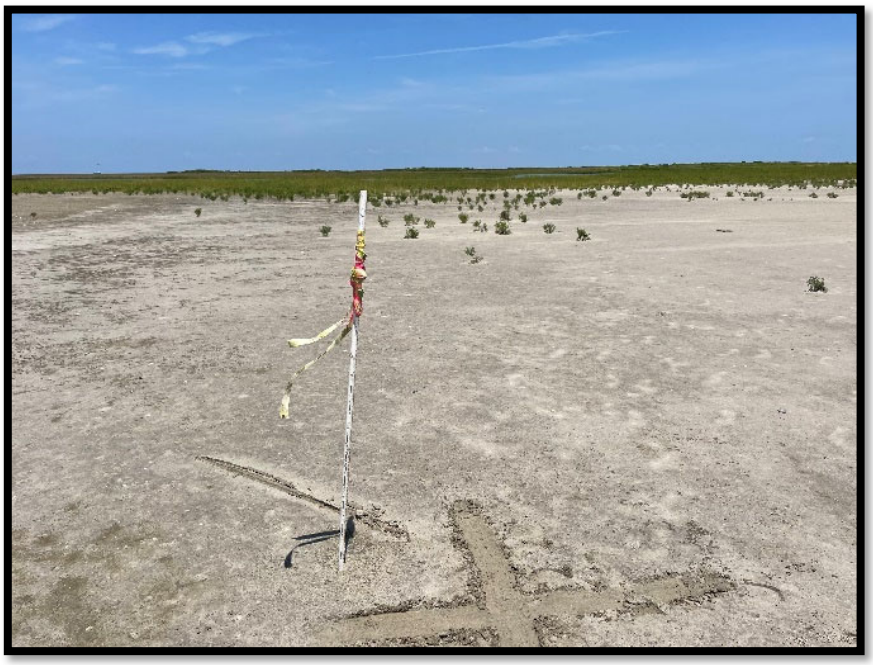
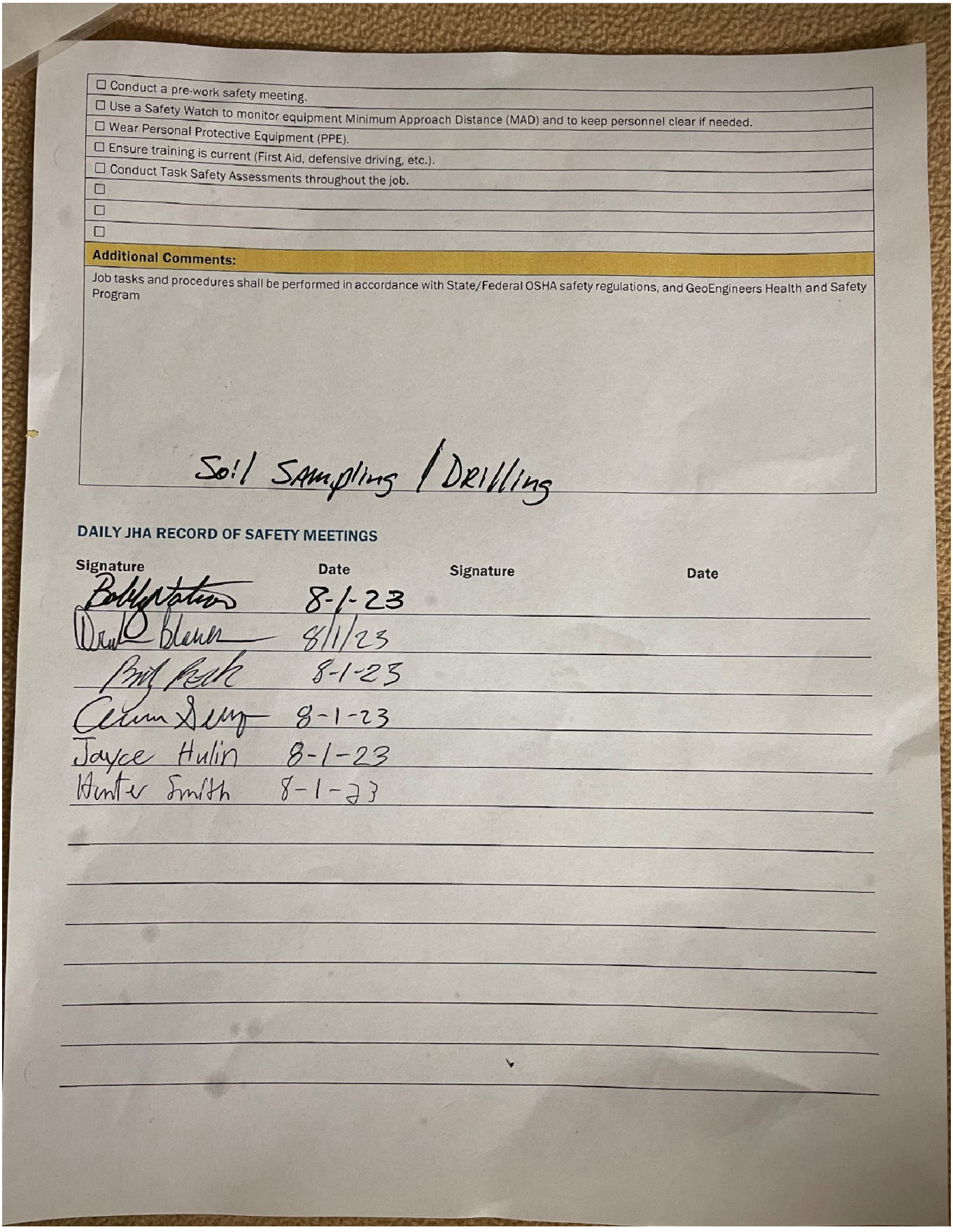


Figure 2: Boring CI-05 Site Condition Before Drilling

Figure 3: Boring CI-05 Site Condition Drilling



☐ Conduct a pre-work safety meeting.
☐ Use a Safety Watch to monitor equipment Minimum Approach Distance (MAD) and to keep personnel clear if needed.
☐ Wear Personal Protective Equipment (PPE).
☐ Ensure training is current (First Aid, defensive driving, etc.).
☐ Conduct Task Safety Assessments throughout the job.
☐
☐
☐

Additional Comments:

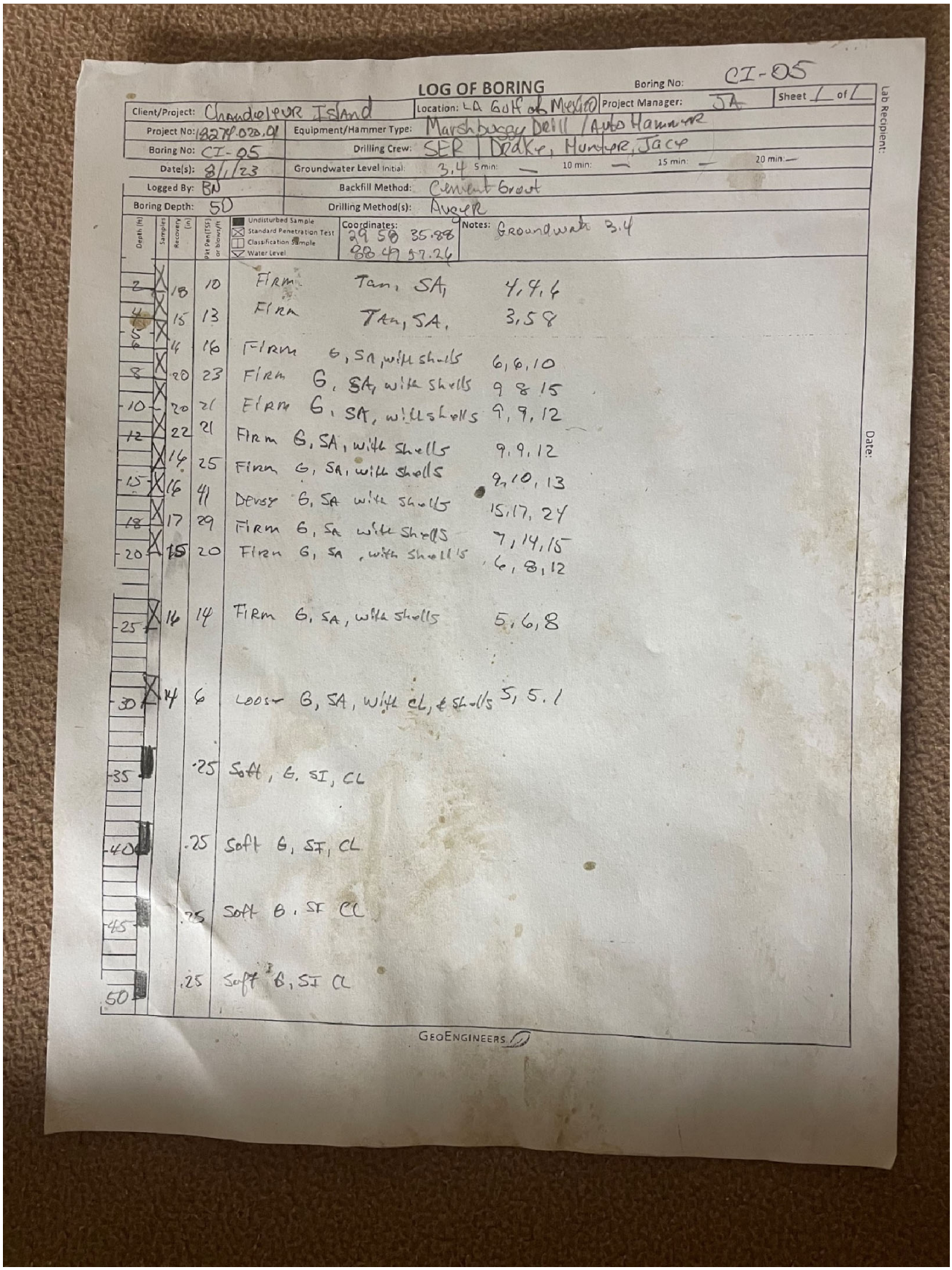
Job tasks and procedures shall be performed in accordance with State/Federal OSHA safety regulations, and GeoEngineers Health and Safety Program

Soil Sampling / Drilling

DAILY JHA RECORD OF SAFETY MEETINGS

Signature	Date	Signature	Date
[signature]	8-1-23		
[signature]	8/1/23		
[signature]	8-1-23		
[signature]	8-1-23		
Jayce Hulin	8-1-23		
Hunter Smith	8-1-23		

Figure A-37f



LOG OF BORING

Boring No: CI-05

Client/Project: Chandeleur Island | Location: LA Gulf of Mexico | Project Manager: SA | Sheet 1 of 1

Project No: 1827.022.01 | Equipment/Hammer Type: Marshbuggy Drill / Auto Hammer

Boring No: CI-05 | Drilling Crew: SER | Drake, Hunter, Jacy

Date(s): 8/1/23 | Groundwater Level Initial: 3.4 5 min: — 10 min: — 15 min: — 20 min: —

Logged By: BN | Backfill Method: Cement Grout

Boring Depth: 50 | Drilling Method(s): Auger

Undisturbed Sample | Standard Penetration Test | Classification Sample | Water Level

Coordinates: 29 58 35.88 / 88 47 57.24

Notes: Groundwater 3.4

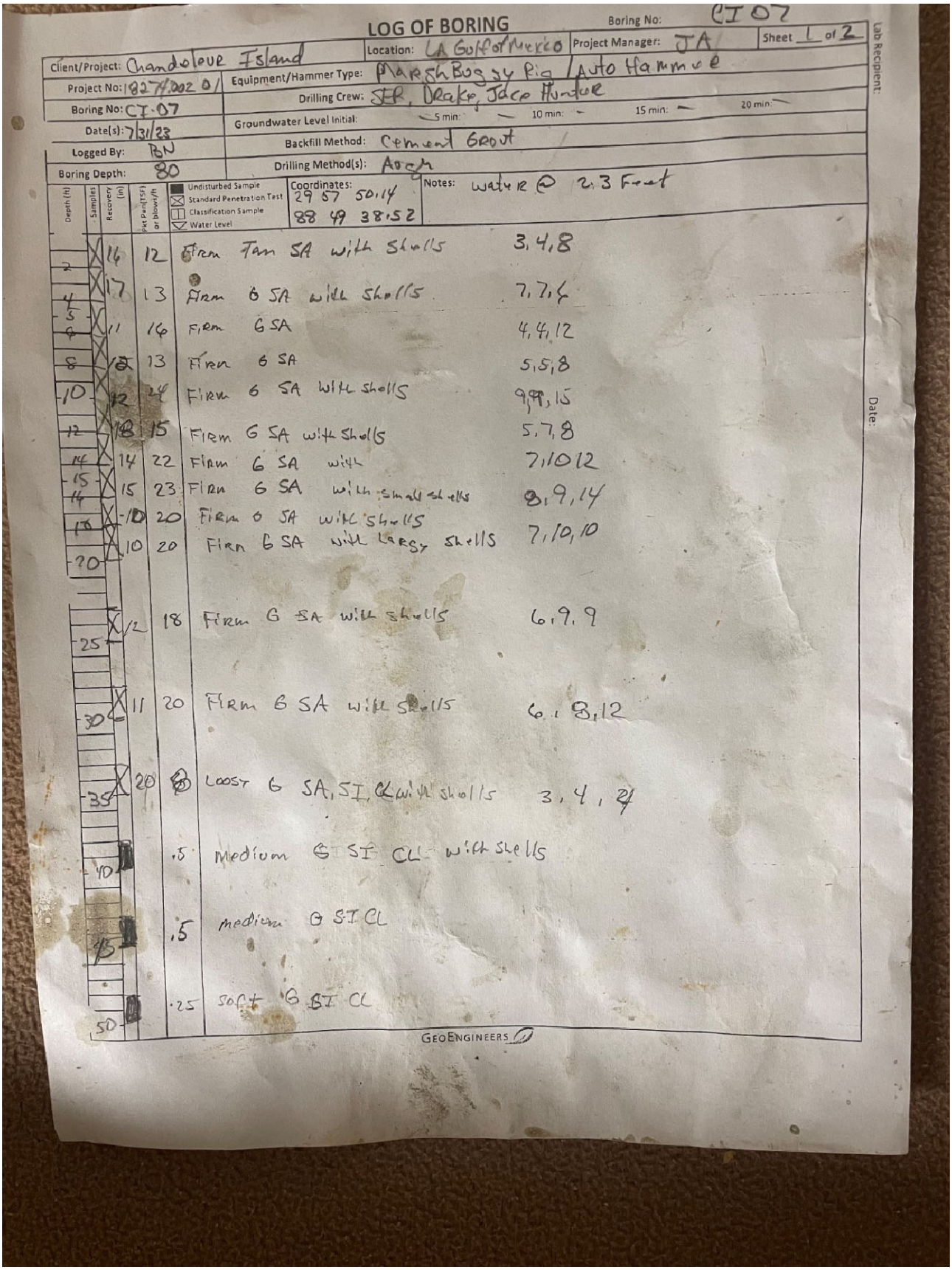
Lab Recipient:

Date:

Depth (ft)	Samples	Recovery (in)	Pen [TSF] or blows/ft		
2	X	18	10	Firm Tan, SA,	4,4,4
4	X	15	13	Firm Tan, SA,	3,5 8
6	X	14	16	Firm G, SA, with shells	6,6,10
8	X	20	23	Firm G, SA, with shells	9 8 15
10	X	20	21	Firm G, SA, with shells	9,9,12
12	X	22	21	Firm G, SA, with shells	9,9,12
14	X	14	25	Firm G, SA, with shells	9,10,13
15	X	16	41	Dense G, SA with shells	15,17,24
18	X	17	29	Firm G, SA with shells	7,14,15
20	X	15	20	Firm G, SA, with shells	6,8,12
25	X	16	14	Firm G, SA, with shells	5,6,8
30	X	14	6	Loose G, SA, with CL, & shells	5,5,1
35			.25	Soft, G, SI, CL	
40			.25	Soft G, SI, CL	
45			.25	Soft G, SI CL	
50			.25	Soft G, SI CL	

GeoEngineers

Figure A-37g



LOG OF BORING

Boring No: CT07

Client/Project: Chandeleur Island | Location: LA Gulf of Mexico | Project Manager: JA | Sheet 1 of 2

Project No: 18274022 01 | Equipment/Hammer Type: Marsh Buggy Rig / Auto Hammer

Boring No: CT-07 | Drilling Crew: SER, Drake, Jace Hunter

Date(s): 7/31/23 | Groundwater Level Initial: — 5 min: — 10 min: — 15 min: — 20 min: —

Logged By: BN | Backfill Method: Cement Grout

Boring Depth: 80 | Drilling Method(s): Auger

Undisturbed Sample | Standard Penetration Test | Classification Sample | Water Level

Coordinates: 29 57 50.14 / 88 49 38.52

Notes: water @ 2.3 Feet

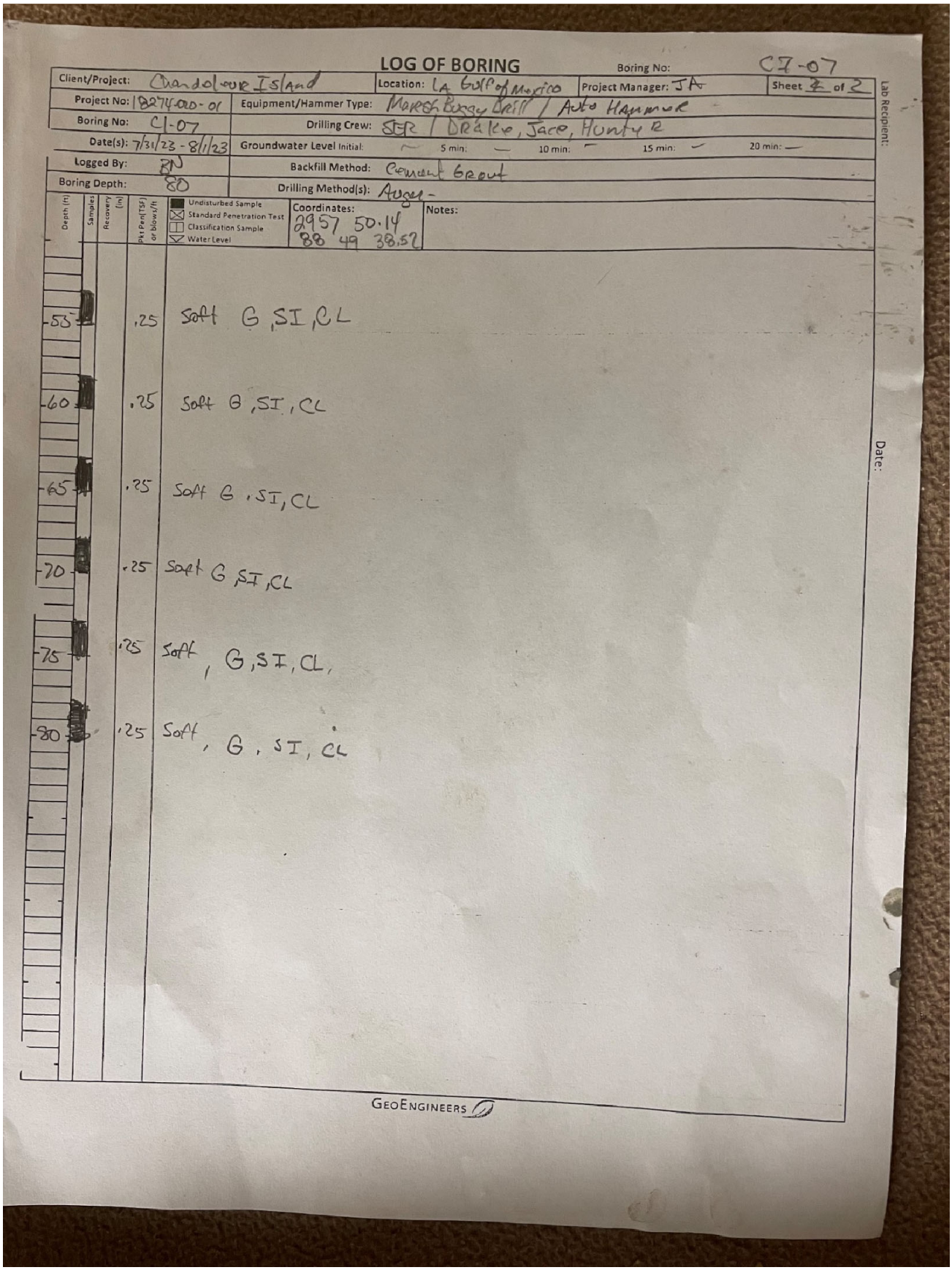
Lab Recipient:

Date:

Depth (ft)	Samples	Recovery (in)	Pen (TSF) or blows/ft		
2	X	14	12	Firm Tan SA with Shells	3,4,8
4	X	17	13	Firm G SA with Shells	7,7,6
6	X	11	16	Firm G SA	4,4,12
8	X	12	13	Firm G SA	5,5,8
10	X	12	24	Firm G SA with shells	9,9,15
12	X	18	15	Firm G SA with Shells	5,7,8
14	X	14	22	Firm G SA with	7,10,12
15	X	15	23	Firm G SA with small shells	8,9,14
16	X	10	20	Firm G SA with Shells	
20	X	10	20	Firm G SA with large shells	7,10,10
25	X	12	18	Firm G SA with shells	6,9,9
30	X	11	20	Firm G SA with Shells	6,8,12
35	X	20	8	Loose G SA, SI, & with shells	3,4,4
40			.5	Medium G SI CL with shells	
45			.5	medium G SI CL	
50			.25	soft G SI CL	

GeoEngineers

Figure A-37h



LOG OF BORING

Boring No: C1-07

Client/Project: Chandeleur Island | Location: LA Gulf of Mexico | Project Manager: JA | Sheet 2 of 2

Project No: 18274-022-01 | Equipment/Hammer Type: Marsh Buggy Drill / Auto Hammer

Boring No: C1-07 | Drilling Crew: SER / Drake, Jace, Hunter

Date(s): 7/31/23 - 8/1/23 | Groundwater Level Initial: — 5 min: — 10 min: — 15 min: — 20 min: —

Logged By: RN | Backfill Method: Cement Grout

Boring Depth: 80 | Drilling Method(s): Auger -

Lab Recipient:

Date:

Depth (ft) | Samples | Recovery (in) | Pkt Pen (TSF) or blows/ft

■ Undisturbed Sample
☒ Standard Penetration Test
☐ Classification Sample
▽ Water Level

Coordinates: 2957 50.14 88 49 38.52

Notes:

Depth (ft)	Pkt Pen (TSF) or blows/ft	
55	.25	Soft G, SI, CL
60	.25	Soft G, SI, CL
65	.25	Soft G, SI, CL
70	.25	Soft G, SI, CL
75	.25	Soft, G, SI, CL,
80	.25	Soft, G, SI, CL

GeoEngineers

Figure A-37i

GeoEngineers

11923 Sun Belt Court
Baton Rouge, LA 70809
225.293.2460

FIELD REPORT

			File Number: 18274-022-01
	Project: Chandeleur Island Restoration Project (PO-0199)		Date: 08/02/2023
	Client: Coastal Engineering Consultants, LLC	Time of Arrival: 6:00AM	Report Number: DFR-11
Prepared by: Bobby Nations	Location: Chandeleur Island, Louisiana	Time of Departure: 6:00PM	Page: 1 of 9
Purpose of visit: Geotechnical Exploration	Weather: Sunny; 90-100 °F	Travel Time: 1 hours	Permit Number: N/A

Please refer to attached safety documentation.

Personnel

NAME	COMPANY	ROLE	STAYING ON LIFTBOAT	
			YES	NO
Bobby Nations, Jr.	GeoEngineers	Sr. Const. Inspector	☒	☐
Hunter Smith	SER	Driller's Helper	☒	☐
Drake Blanchard	SER	Driller	☒	☐
Jayce Hulin	SER	Driller's Helper	☒	☐
Randy Lecompte	SER	Sample Runner	☒	☐
E Travis Stelly	SER	Sample Runner	☒	☐

Supplies

SUPPLIES	COMPANY	FOOTAGE
Grout	SER	120 feet

☐ **THIS FIELD REPORT IS PRELIMINARY**
A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.

FIELD REPRESENTATIVE Bobby Nations & Charles Brown — **DATE** 08/02/2023

☑ **THIS FIELD REPORT IS FINAL**
A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.

REVIEWED BY Jennie Aguettant, PE — **DATE** 08/03/2023

Attachments: None

Equipment

Equipment On-Site	Company	Quantity	In-Use	Stand-By	Stand-By Location
200-Class Liftboat	Offshore Liftboats	1	☒	☐	
Airboat-Drill Set	SER	1	☐	☒	Liftboat
Support Airboat	SER	1	☒	☐	
Marsh Buggy-Drill	SER	1	☒	☐	
Support Outboard Boat	SER	1	☒	☐	
Pontoon-Drill	SER	0	☐	☐	
Marshmaster	SER	1	☒	☐	
Piston Sampler	SER	1	☒	☐	
Sample Run (Outboard) Boat	SER	1	☒	☐	

Geotechnical Boring Summary Status						
Boring Name	Boring Depth (FEET)	Drill Rig Used	Water Depth (FEET)	Today (FEET)	To Date (FEET)	% COMPLETE
CI-1	40	Marsh Buggy-Drill	4 inches	40	40	100
CI-2	40	Airboat-Drill	2.0		40	100
CI-3	80	Marsh Buggy-Drill	2.3	80	80	100
CI-4	40	Pontoon-Drill	7.4		40	100
CI-5	50	Marsh Buggy-Drill	On Land		50	100
CI-6	40	Choose an item.				
CI-7	80	Marsh Buggy-Drill	On Land		80	100
CI-8	50	Marsh Buggy-Drill	On Land		50	100
CI-9	50	Airboat-Drill	2.4		50	100
CI-10	40	Airboat-Drill	2.0		40	100
CI-11	50	Marsh Buggy-Drill	On Land		50	100
CI-12	50	Airboat-Drill	3.0		50	100
CI-13	40	Airboat-Drill	2.0		40	100
CI-14	50	Marsh Buggy-Drill	On Land		50	100

CI-15	80	Marsh Buggy-Drill	1.0		80	100
CI-16	50	Marsh Buggy-Drill	On Land		50	100
CI-17	50	Marsh Buggy-Drill	On Land		50	100
CI-18	40	Airboat-Drill	2.0		40	100
CI-19	50	Marsh Buggy-Drill	On Land		50	100
CI-20	80	Marsh Buggy-Drill	On Land		80	100
CI-21	40	Airboat-Drill	5.0		40	100
CI-22	50	Marsh Buggy-Drill	On Land		40	100
CI-23	40	Pontoon-Drill	5.3		40	100
CI-24	50	Marsh Buggy-Drill	3.5		50	100
CI-25	50	Pontoon-Drill	3.0		50	100
CI-26	50	Choose an item.	Inaccessible			
CI-27	80	Choose an item.	Inaccessible			
CI-28	50	Choose an item.	Inaccessible			
CI-29	50	Choose an item.	Inaccessible			

Observations and Activities:

06:00 I, Bobby Nations, of GeoEngineers attend the morning safety meeting with SER and the Offshore Liftboat crew.

07:00 SER and the liftboat crew lift the support boats into the water.

07:30 We travel to CI-03 and begin drilling operations. The tide begins to come in while we are drilling.

11:30 Sampling is complete at CI-03. We take lunch while we are tracking to CI-01.

13:30 We arrive at the location of CI-01.

16:15 We complete sampling operations at CI-01. I leave the Shelby tube samples on the marsh buggy until the morning.

17:30 We arrive at the support boat and begin the trip to the liftboat. We plan to move the marsh buggy in the morning to the next boring location.

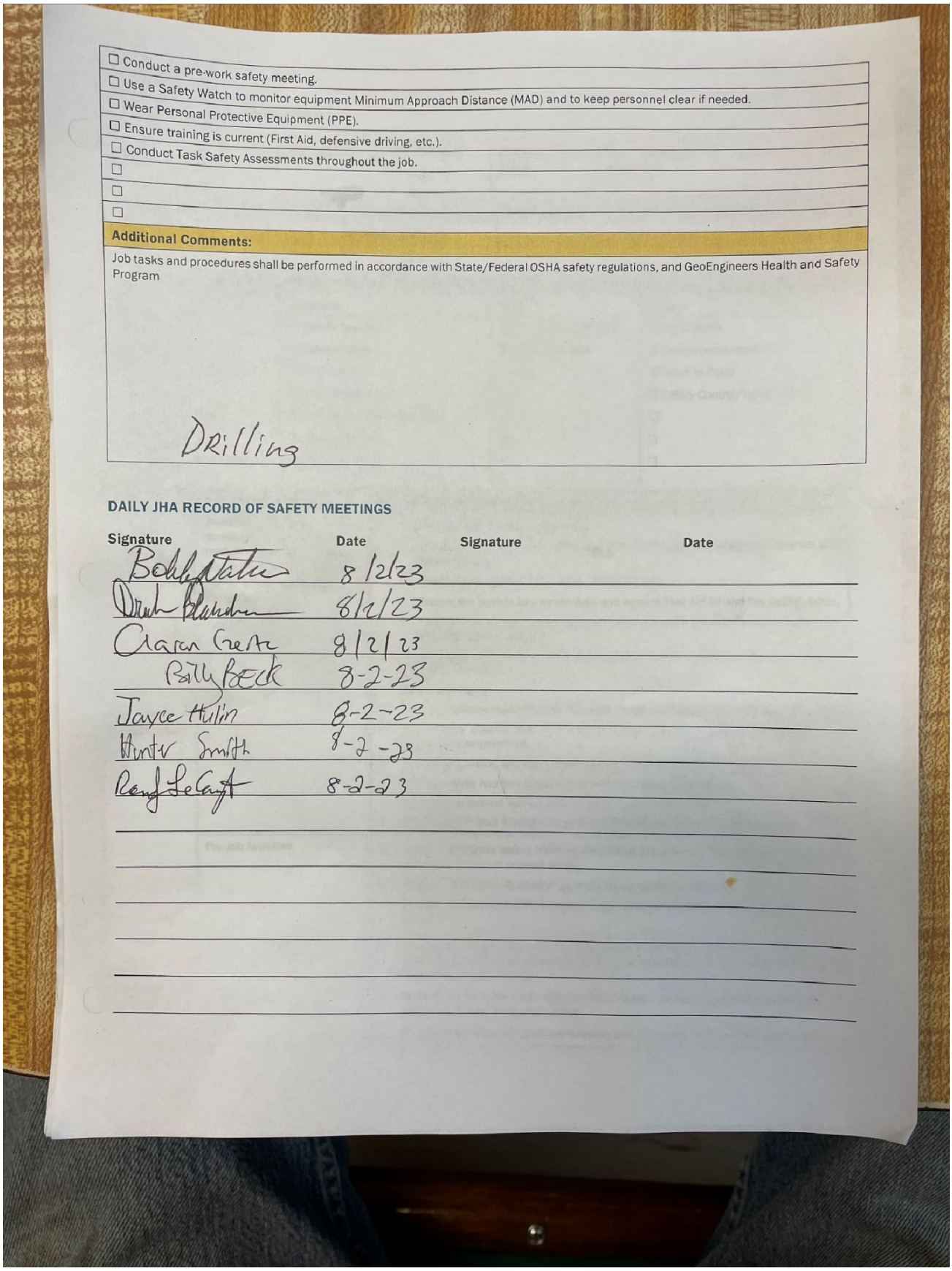
18:00 End of day.

Figure 1: Boring CI-03 Site Conditions Before Drilling

Figure 2: Boring CI-03 Site Conditions After Drilling

Figure 3: Boring CI-01 Site Conditions Before Drilling

Figure 4: Boring CI-01 Site Conditions After Drilling



- ☐ Conduct a pre-work safety meeting.
- ☐ Use a Safety Watch to monitor equipment Minimum Approach Distance (MAD) and to keep personnel clear if needed.
- ☐ Wear Personal Protective Equipment (PPE).
- ☐ Ensure training is current (First Aid, defensive driving, etc.).
- ☐ Conduct Task Safety Assessments throughout the job.
- ☐
- ☐
- ☐

Additional Comments:

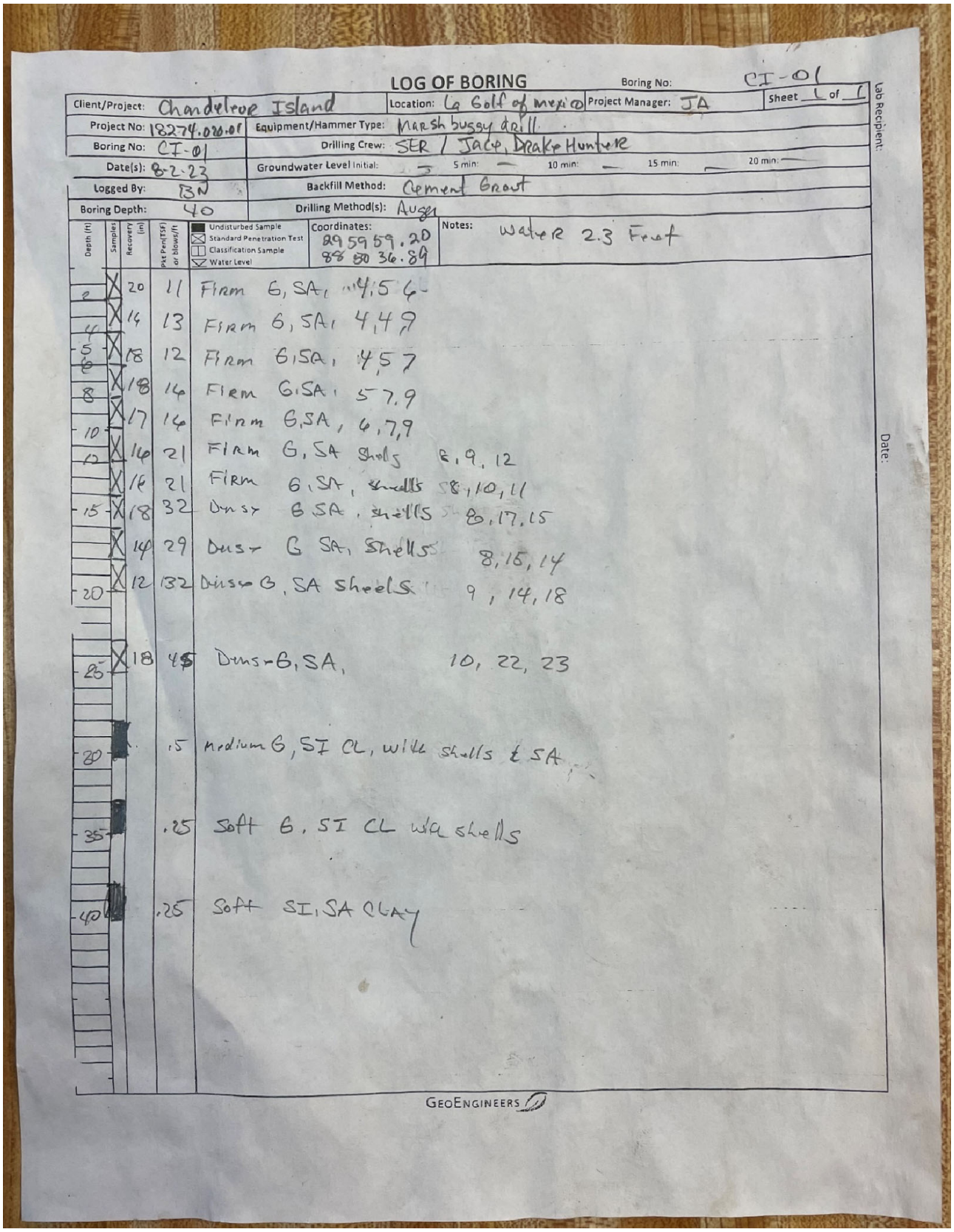
Job tasks and procedures shall be performed in accordance with State/Federal OSHA safety regulations, and GeoEngineers Health and Safety Program

Drilling

DAILY JHA RECORD OF SAFETY MEETINGS

Signature	Date	Signature	Date
Bobby Statler	8/2/23		
Derek Blanchard	8/2/23		
Ciaran Costa	8/2/23		
Billy Beck	8-2-23		
Jayce Hulin	8-2-23		
Hunter Smith	8-2-23		
Ronald LeCuyer	8-2-23		

Figure A-38f



LOG OF BORING

Boring No: CI-01

Client/Project: Chandeleur Island | Location: La Gulf of Mexico | Project Manager: JA | Sheet 1 of 1

Project No: 18274.022.01 | Equipment/Hammer Type: Marsh buggy drill

Boring No: CI-01 | Drilling Crew: SER / Jack, Drake Hunter

Date(s): 8-2-23 | Groundwater Level Initial: — 5 min: — 10 min: — 15 min: — 20 min: —

Logged By: BN | Backfill Method: Cement Grout

Boring Depth: 40 | Drilling Method(s): Auger

Undisturbed Sample; Standard Penetration Test; Classification Sample; Water Level

Coordinates: 29 59 59.20 / 88 50 36.89

Notes: Water 2.3 Feet

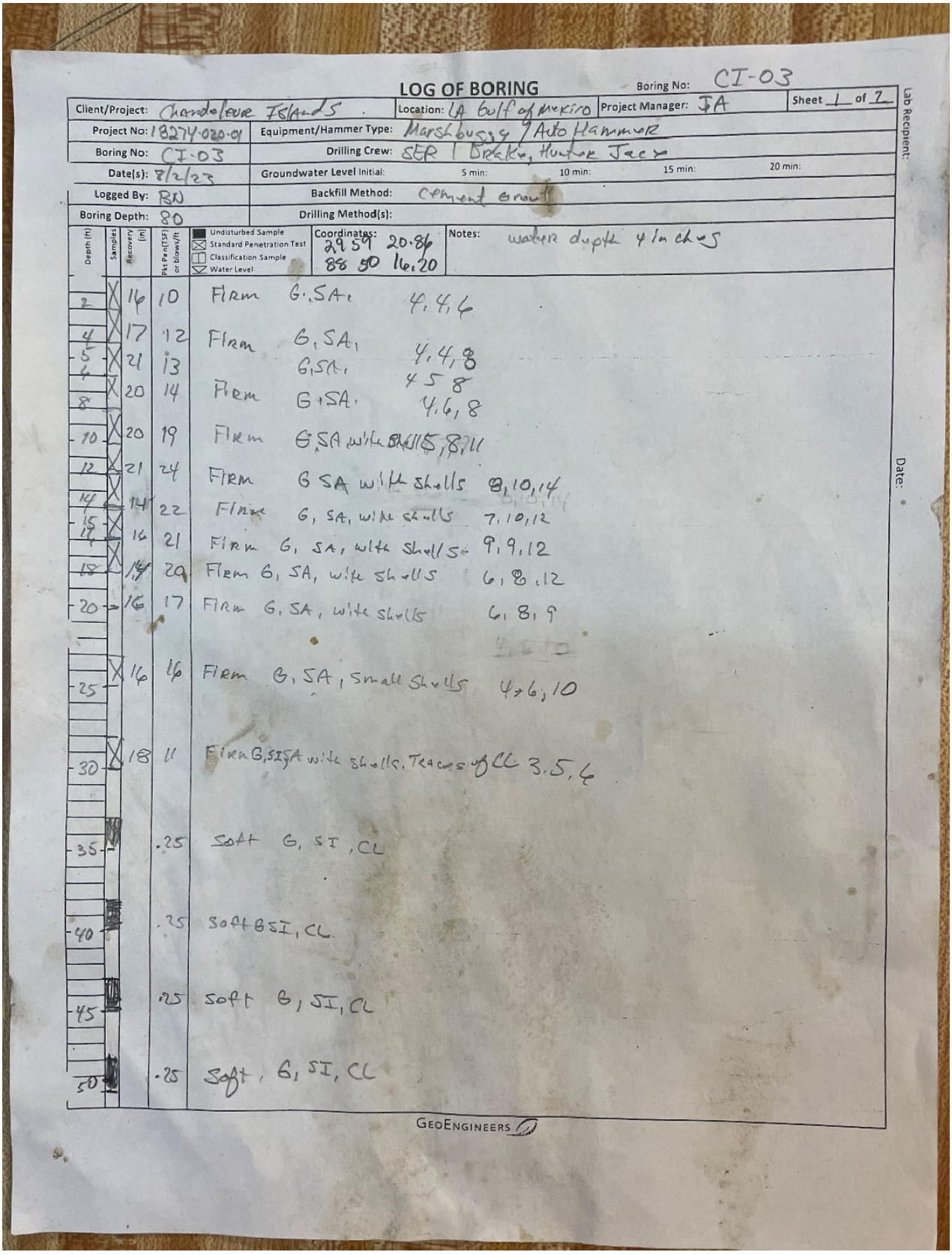
Lab Recipient:

Date:

Depth (ft)	Samples	Recovery (in)	Pkt Pen(TSF) or blows/ft	
2	X	20	11	Firm G, SA, 4,5 6
4	X	14	13	Firm G, SA, 4,4,9
5	X	18	12	Firm G, SA, 4,5 7
8	X	18	14	Firm G, SA, 5 7,9
10	X	17	14	Firm G, SA, 6,7,9
12	X	16	21	Firm G, SA Shells 8,9,12
	X	16	21	Firm G, SA, Shells 8,10,11
15	X	18	32	Dns-r G SA, Shells 8,17,15
	X	14	29	Dns-r G SA, Shells 8,15,14
20	X	12	132	Dns-r G, SA Shells 9, 14, 18
25	X	18	45	Dns-G, SA, 10, 22, 23
30			.5	Medium G, SI CL, with Shells & SA
35			.25	Soft G, SI CL w/a Shells
40			.25	Soft SI, SA CLAY

GeoEngineers

Figure A-38g



LOG OF BORING

Boring No: CI-03

Client/Project: Chandeleur Islands
Location: LA Gulf of Mexico
Project Manager: JA
Sheet 1 of 2

Project No: 18274-020-01
Equipment/Hammer Type: Marshbuggy / Auto Hammer

Boring No: CI-03
Drilling Crew: SER / Brake, Hunter Jacox

Date(s): 8/2/23
Groundwater Level Initial: 5 min: 10 min: 15 min: 20 min:

Logged By: RN
Backfill Method: cement grout

Boring Depth: 80
Drilling Method(s):

Undisturbed Sample
Standard Penetration Test
Classification Sample
Water Level

Coordinates: 29 59 20.86 / 88 50 16.20

Notes: water depth 4 inches

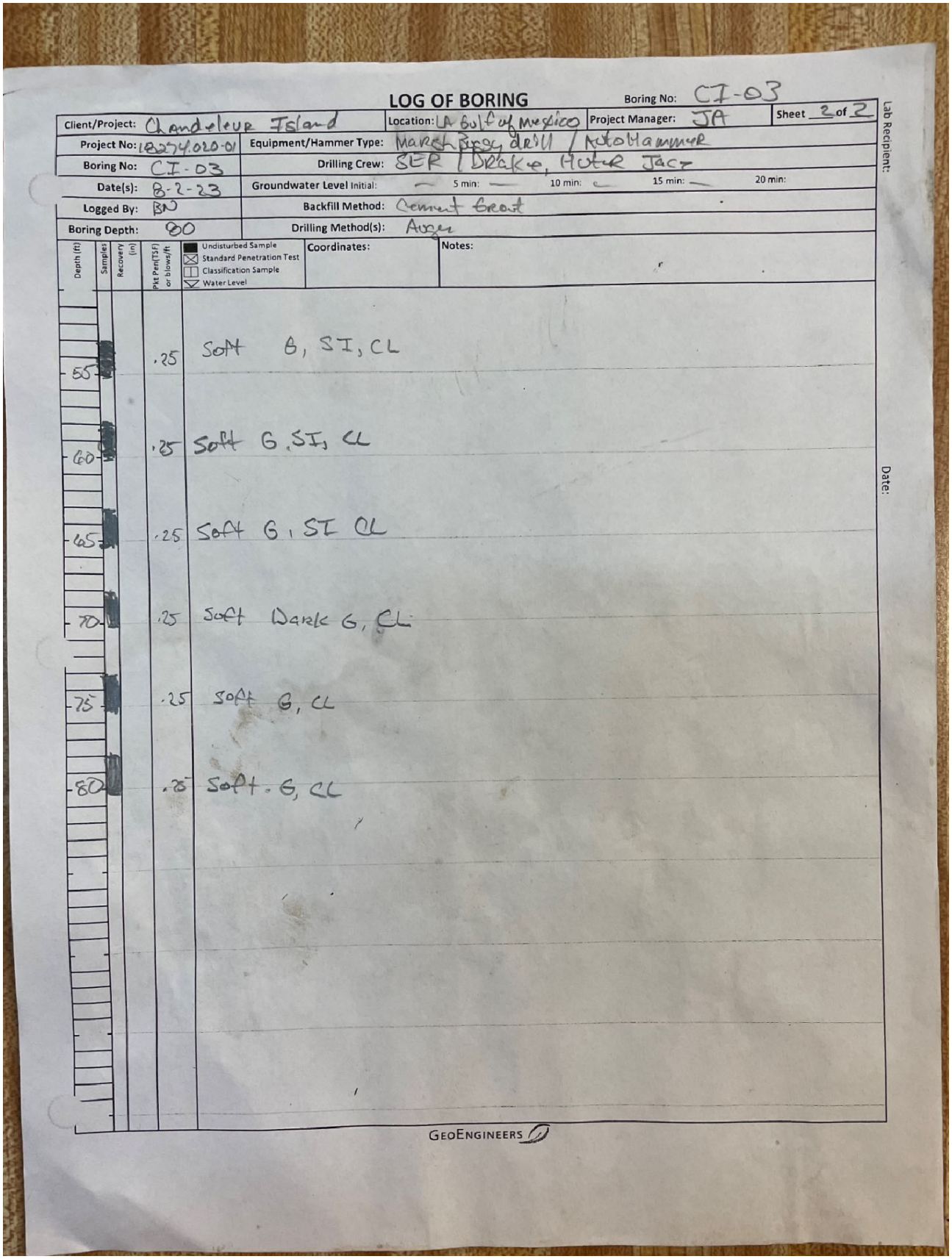
Lab Recipient:

Date:

Depth (ft)	Samples	Recovery (in)	Pkt Pen (TSF) or Blows/ft	
2	X	16	10	Firm G, SA, 4, 4, 6
4	X	17	12	Firm G, SA, 4, 4, 8
5	X	21	13	G, SA, 4 5 8
8	X	20	14	Firm G, SA, 4, 6, 8
10	X	20	19	Firm G, SA with Shells 5, 8, 11
12	X	21	24	Firm G SA with shells 8, 10, 14
14	X	14	22	Firm G, SA, with shells 7, 10, 12
15	X	16	21	Firm G, SA, with shells 9, 9, 12
18	X	19	20	Firm G, SA, with shells 6, 8, 12
20	X	16	17	Firm G, SA, with shells 6, 8, 9
25	X	16	16	Firm G, SA, Small Shells 4, 6, 10
30	X	18	11	Firm G, SI SA with shells, Traces of CL 3, 5, 4
35			.25	Soft G, SI, CL
40			.25	Soft G SI, CL
45			.25	Soft G, SI, CL
50			.25	Soft, G, SI, CL

GeoEngineers

Figure A-38h



LOG OF BORING

Boring No: CI-03

Client/Project: Chandeleur Island	Location: LA Gulf of Mexico	Project Manager: JA	Sheet 2 of 2
Project No: 18274.020-01	Equipment/Hammer Type: Marsh Buggy drill / Auto Hammer		
Boring No: CI-03	Drilling Crew: SER / Drake, Hotar Jack		
Date(s): 8-2-23	Groundwater Level Initial: — 5 min: — 10 min: — 15 min: — 20 min:		
Logged By: BN	Backfill Method: Cement Grout		
Boring Depth: 80	Drilling Method(s): Auger		

Lab Recipient:

Date:

Undisturbed Sample; Standard Penetration Test; Classification Sample; Water Level

Coordinates:

Notes:

Depth (ft)	Samples	Recovery (in)	Pkt Pen (TSF) or Blows/ft	
55			.25	Soft B, SI, CL
60			.25	Soft G, SI, CL
65			.25	Soft G, SI CL
70			.25	Soft Dark G, CL
75			.25	Soft G, CL
80			.25	Soft. G, CL

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Figure A-38i

GeoEngineers 11923 Sun Belt Court Baton Rouge, LA 70809 225.293.2460	**FIELD REPORT**		File Number: 18274-022-01
	Project: Chandeleur Island Restoration Project (PO-0199)		Date: 08/03/2023
	Client: Coastal Engineering Consultants, LLC	Time of Arrival: 6:00AM	Report Number: DFR-12
Prepared by: Bobby Nations	Location: Chandeleur Island, Louisiana	Time of Departure: 4:00PM	Page: 1 of 9
Purpose of visit: Geotechnical Exploration	Weather: Sunny; 90-100 °F	Travel Time: 3.5 hours	Permit Number: N/A

Please refer to attached safety documentation.

Personnel

NAME	COMPANY	ROLE	STAYING ON LIFTBOAT	
			YES	NO
Bobby Nations, Jr.	GeoEngineers	Sr. Const. Inspector	☐	☒
Hunter Smith	SER	Driller's Helper	☐	☒
Drake Blanchard	SER	Driller	☐	☒
Jayce Hulin	SER	Driller's Helper	☐	☒
Randy Lecompte	SER	Sample Runner	☐	☒
E Travis Stelly	SER	Sample Runner	☐	☒

Supplies

SUPPLIES	COMPANY	FOOTAGE
Grout	SER	90 feet

☐ **THIS FIELD REPORT IS PRELIMINARY** A preliminary report is provided solely as evidence that field observation was performed. Observations and/or conclusions and/or recommendations conveyed in the final report may vary from and shall take precedence over those indicated in a preliminary report.	**FIELD REPRESENTATIVE** Bobby Nations & Charles Brown	**DATE** 08/03/2023
☑ **THIS FIELD REPORT IS FINAL** A final report is an instrument of professional service. Any conclusions drawn from this report should be discussed with and evaluated by the professional involved.	**REVIEWED BY** Jennie Aguettant, PE	**DATE** 08/07/2023

Attachments: None

Figure A-39a

Equipment

Equipment On-Site	Company	Quantity	In-Use	Stand-By	Stand-By Location
200-Class Liftboat	Offshore Liftboats	1	☒	☐	
Airboat-Drill Set	SER	1	☐	☒	Liftboat
Support Airboat	SER	1	☒	☐	
Marsh Buggy-Drill	SER	1	☒	☐	
Support Outboard Boat	SER	1	☒	☐	
Pontoon-Drill	SER	0	☐	☐	
Marshmaster	SER	1	☒	☐	
Piston Sampler	SER	1	☒	☐	
Sample Run (Outboard) Boat	SER	1	☒	☐	

Geotechnical Boring Summary Status						
Boring Name	Boring Depth (feet)	Drill Rig Used	Water Depth (feet)	Today (feet)	To Date (feet)	% Complete
CI-1	40	Marsh Buggy-Drill	4 inches		40	100
CI-2	40	Airboat-Drill	2.0		40	100
CI-3	80	Marsh Buggy-Drill	2.3		80	100
CI-3B	50	Marsh Buggy-Drill	1.3	50	50	100
CI-4	40	Pontoon-Drill	7.4		40	100
CI-5	50	Marsh Buggy-Drill	On Land		50	100
CI-6	40	Marsh Buggy-Drill	1.3	40	40	100
CI-7	80	Marsh Buggy-Drill	On Land		80	100
CI-8	50	Marsh Buggy-Drill	On Land		50	100
CI-9	50	Airboat-Drill	2.4		50	100
CI-10	40	Airboat-Drill	2.0		40	100
CI-11	50	Marsh Buggy-Drill	On Land		50	100
CI-12	50	Airboat-Drill	3.0		50	100
CI-13	40	Airboat-Drill	2.0		40	100

CI-14	50	Marsh Buggy-Drill	On Land		50	100
CI-15	80	Marsh Buggy-Drill	1.0		80	100
CI-16	50	Marsh Buggy-Drill	On Land		50	100
CI-17	50	Marsh Buggy-Drill	On Land		50	100
CI-18	40	Airboat-Drill	2.0		40	100
CI-19	50	Marsh Buggy-Drill	On Land		50	100
CI-20	80	Marsh Buggy-Drill	On Land		80	100
CI-21	40	Airboat-Drill	5.0		40	100
CI-22	50	Marsh Buggy-Drill	On Land		40	100
CI-23	40	Pontoon-Drill	5.3		40	100
CI-24	50	Marsh Buggy-Drill	3.5		50	100
CI-25	50	Pontoon-Drill	3.0		50	100
CI-26	50	Choose an item.	Inaccessible			
CI-27	80	Choose an item.	Inaccessible			
CI-28	50	Choose an item.	Inaccessible			
CI-29	50	Choose an item.	Inaccessible			

Observations and Activities:

06:00 I, Bobby Nations of GeoEngineers, attend the morning safety meeting with SER and the Offshore Liftboat crew.

07:00 SER and the liftboat crew lift the support boats into the water. One boats heads to shore with samples and to pick up Brett Borne with CEC.

07:30 Drilling operations begin at CI-03B. This is an added location. Checking the weather there appear to be thunderstorms in the area today.

09:30 We complete sampling operations at CI-03B. A waterspout passed by on the other side of the island.

10:00 We arrive at C1-06 and begin drilling to a depth of 40 feet. We are watching the weather. Thunderstorms are visible to the north but clear at this location.

12:15 Sampling is complete at CI-06. The sample run boat arrives back at the site with Brett Borne. We make our way back to the liftboat with the marsh buggy, marshmaster, and support airboat.

13:30 Randy Lecompte takes Brett to the south end of the island. SER and I help the liftboat crew safely load drilling equipment back on the liftboat.

16:00 We have finished loading and securing the drilling equipment on the liftboat. All SER crew, Brett Borne, and I load the support boats and head for the Jones Park Marina.

17:30 We arrive at the marina and load up our trucks and the boats.

18:30 Heading for home.

20:30 I arrive home. End of day.

Figure 1: Boring CI-03B Site Conditions Before Drilling

Figure 2: Boring CI-03B Site Conditions After Drilling

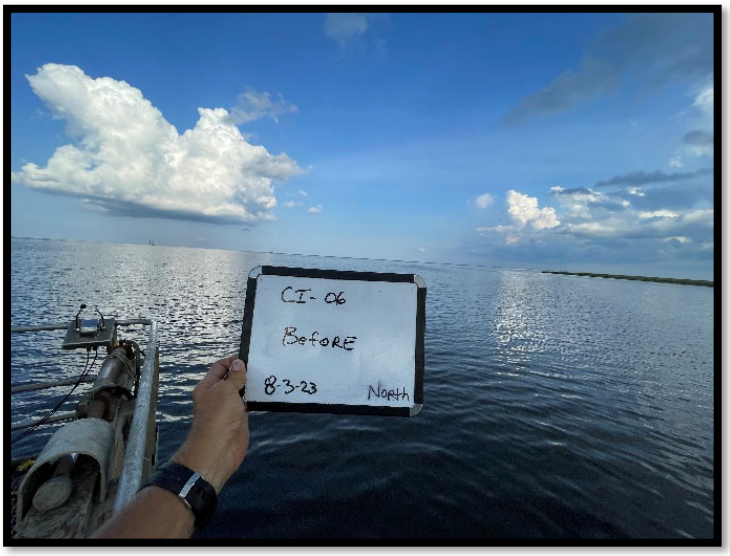
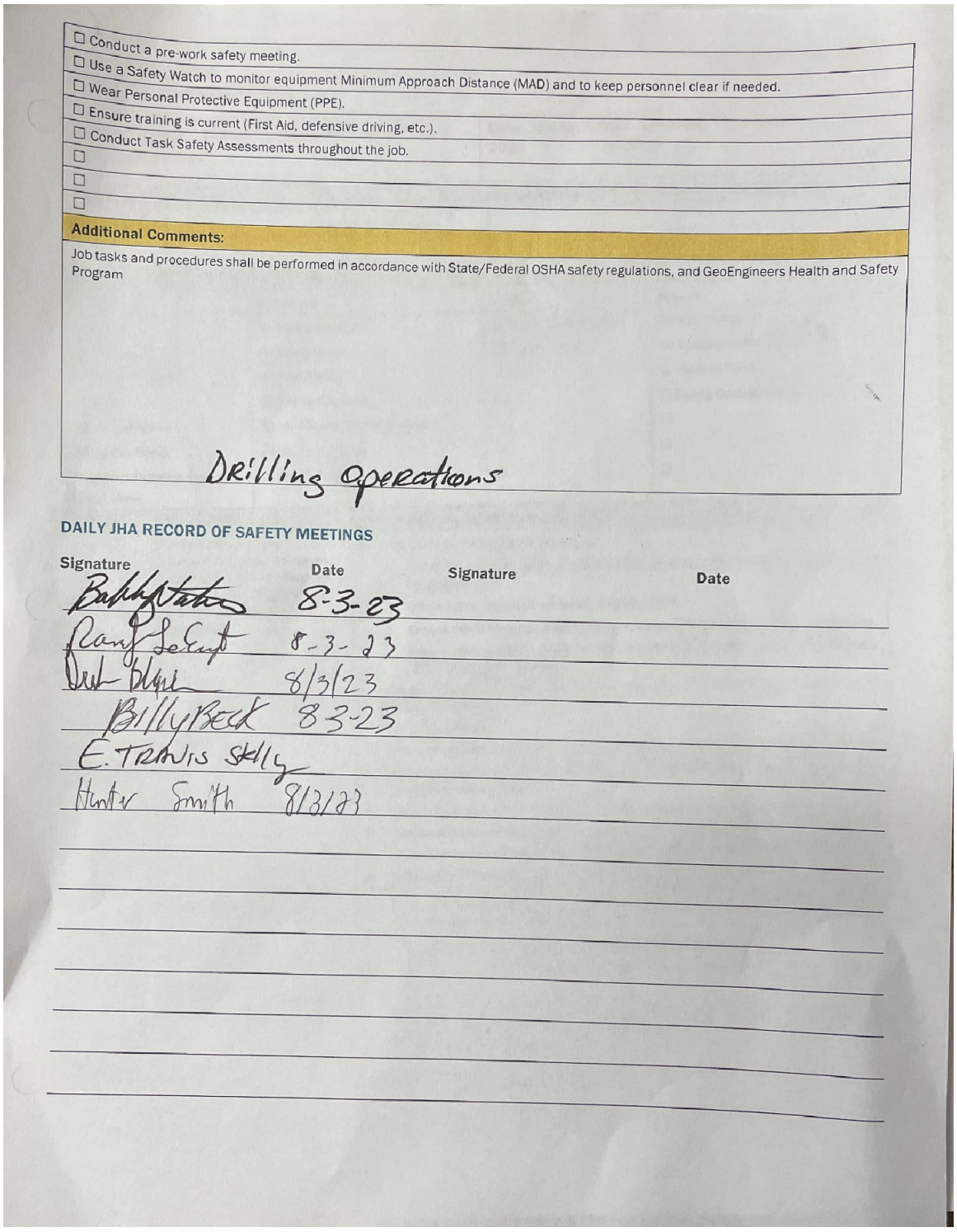


Figure 3: Boring CI-06 Site Conditions Before Drilling

Figure 4: Waterspout Passing to the South

Figure 5: Marsh Buggy and Marshmaster Equipment Being Towed to Liftboat



- ☐ Conduct a pre-work safety meeting.
- ☐ Use a Safety Watch to monitor equipment Minimum Approach Distance (MAD) and to keep personnel clear if needed.
- ☐ Wear Personal Protective Equipment (PPE).
- ☐ Ensure training is current (First Aid, defensive driving, etc.).
- ☐ Conduct Task Safety Assessments throughout the job.
- ☐
- ☐
- ☐

Additional Comments:

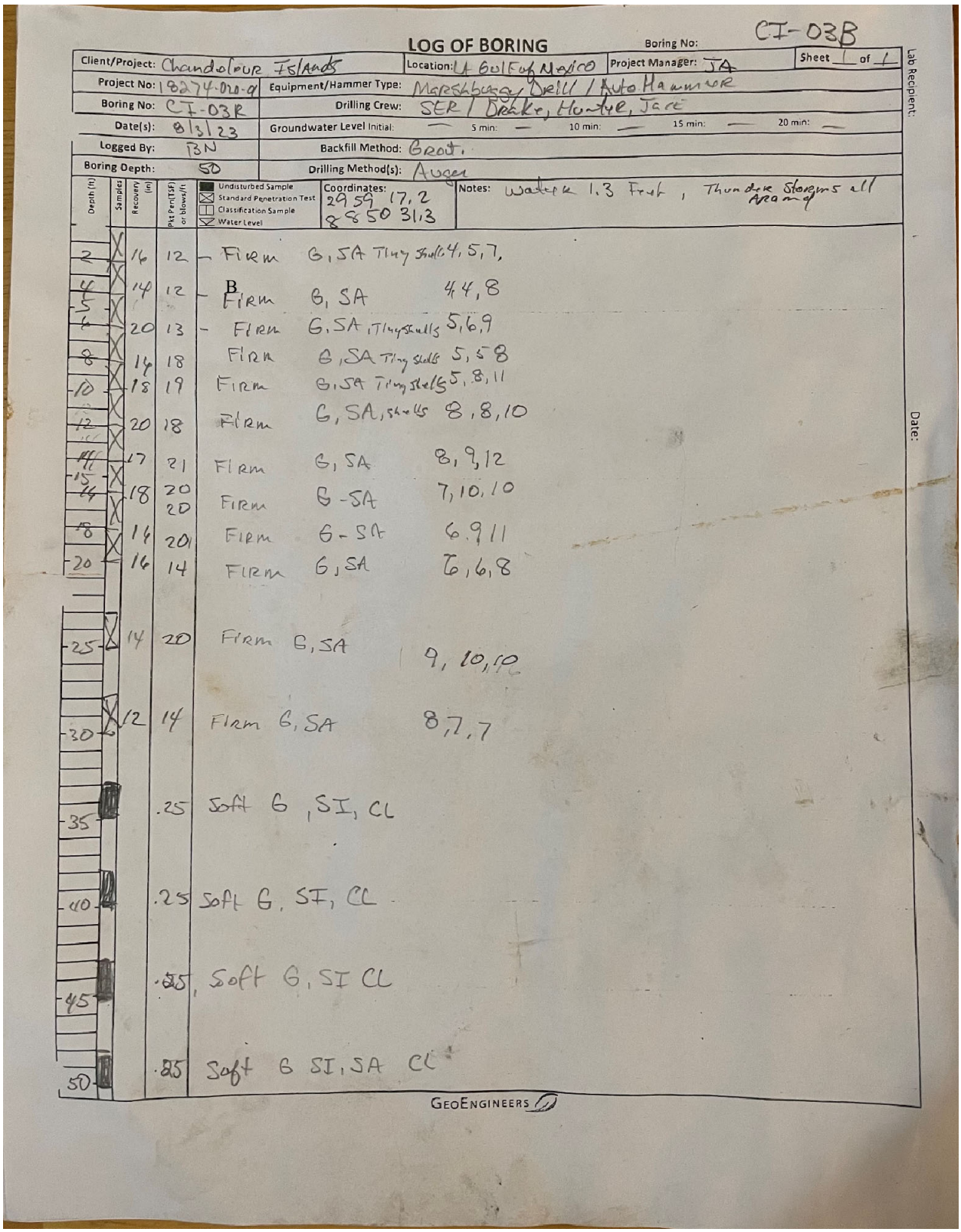
Job tasks and procedures shall be performed in accordance with State/Federal OSHA safety regulations, and GeoEngineers Health and Safety Program

Drilling Operations

DAILY JHA RECORD OF SAFETY MEETINGS

Signature	Date	Signature	Date
[illegible]	8-3-23		
[illegible]	8-3-23		
[illegible]	8/3/23		
Billy Beck	8-3-23		
E. Travis Skilly			
Hunter Smith	8/3/23		

Figure A-39g



LOG OF BORING

Boring No: CI-03B

Client/Project: Chandeleur Islands
Location: Gulf of Mexico
Project Manager: JA
Sheet 1 of 1
Project No: 18274-022-01
Equipment/Hammer Type: Marshberg Drill / Auto Hammer
Boring No: CI-03R
Drilling Crew: SER / Drake, Hunter, Jare
Date(s): 8/3/23
Groundwater Level Initial: — 5 min: — 10 min: — 15 min: — 20 min: —
Logged By: TJN
Backfill Method: Grout
Boring Depth: 50
Drilling Method(s): Auger
Coordinates: 29 59 17,2 / 88 50 31,3
Notes: Water 1.3 Feet, Thunder Storms all Around

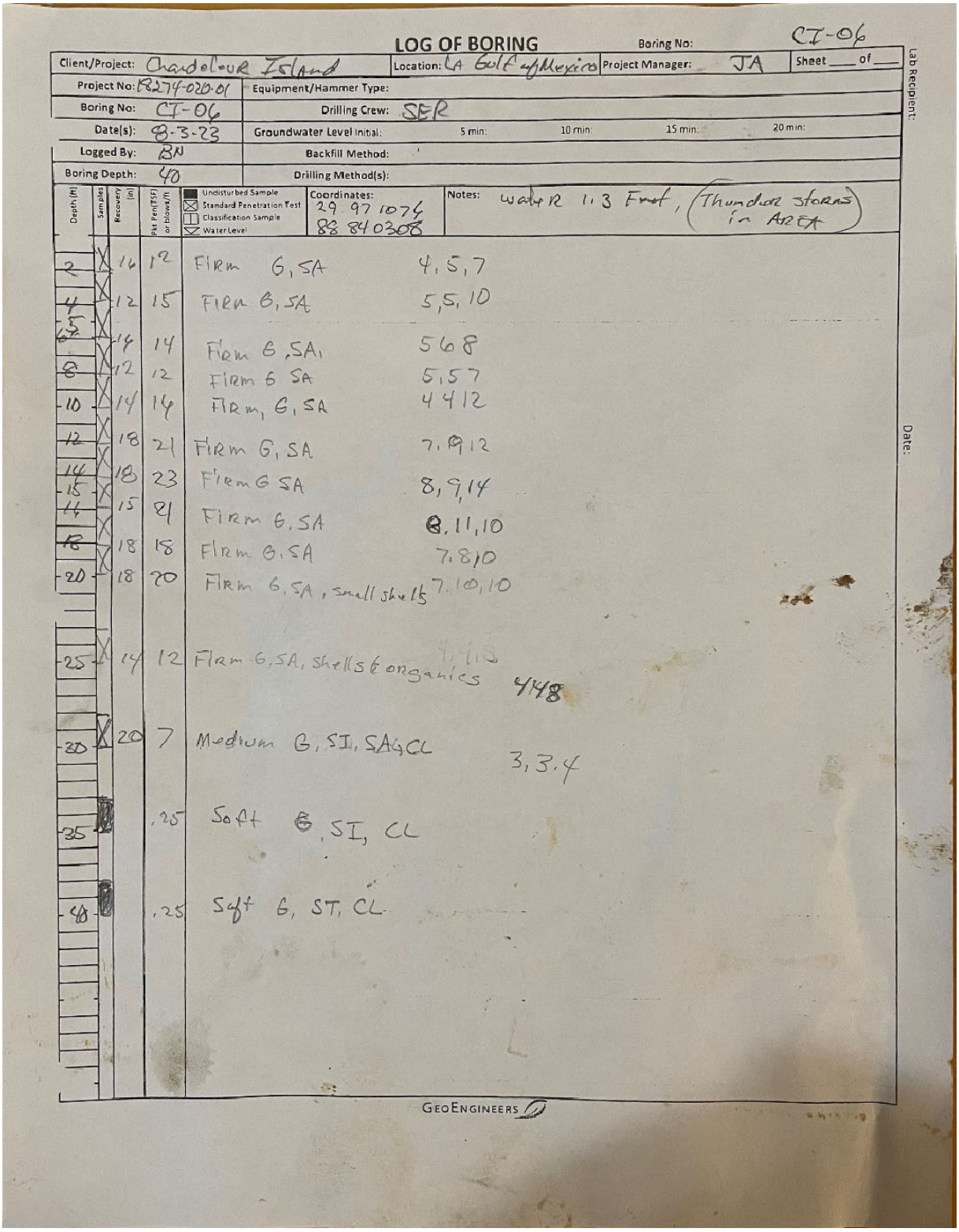
Undisturbed Sample
Standard Penetration Test
Classification Sample
Water Level

Lab Recipient:
Date:

Depth (ft)	Samples	Recovery (in)	Pkt Pen (TSF) or blows/ft		
2	X	16	12	Firm	G, SA Tiny Shells 4, 5, 7,
4	X	14	12	Firm	G, SA 4, 4, 8
6	X	20	13	Firm	G, SA, Tiny Shells 5, 6, 9
8	X	14	18	Firm	G, SA Tiny Shells 5, 5, 8
10	X	18	19	Firm	G, SA Tiny Shells 5, 8, 11
12	X	20	18	Firm	G, SA, Shells 8, 8, 10
14	X	17	21	Firm	G, SA 8, 9, 12
16	X	18	20 / 20	Firm	G-SA 7, 10, 10
18	X	14	20	Firm	G-SA 6, 9, 11
20	X	16	14	Firm	G, SA 6, 6, 8
25	X	14	20	Firm	G, SA 9, 10, 10
30	X	12	14	Firm	G, SA 8, 7, 7
35			.25	Soft	G, SI, CL
40			.25	Soft	G, SI, CL
45			.25	Soft	G, SI CL
50			.25	Soft	G SI, SA CL

GeoEngineers

Figure A-39h



LOG OF BORING

Boring No: CT-06

Client/Project: Chandeleur Island | Location: LA Gulf of Mexico | Project Manager: JA | Sheet ___ of ___

Project No: 18274-020-01 | Equipment/Hammer Type:

Boring No: CT-06 | Drilling Crew: SER

Date(s): 8-3-23 | Groundwater Level Initial: | 5 min: | 10 min: | 15 min: | 20 min:

Logged By: BN | Backfill Method:

Boring Depth: 40 | Drilling Method(s):

Lab Recipient:

Date:

Undisturbed Sample
Standard Penetration Test
Classification Sample
Water Level

Coordinates: 29 97 1074 / 88 84 0308

Notes: water 1.3 Feet, (Thunder storms in AREA

Depth (ft)	Samples	Recovery (in)	Pkt Pen (TSF) or blows/ft		
2	X	16	12	Firm G, SA	4, 5, 7
4	X	12	15	Firm G, SA	5, 5, 10
6	X	14	14	Firm G, SA	5 6 8
8	X	12	12	Firm G SA	5, 5 7
10	X	14	14	Firm, G, SA	4 4 12
12	X	18	21	Firm G, SA	7, 9 12
14	X	18	23	Firm G SA	8, 9, 14
15	X	15	21	Firm G, SA	8, 11, 10
16	X	18	18	Firm G, SA	7, 8, 10
20	X	18	20	Firm G, SA, small shells	7, 10, 10
25	X	14	12	Firm G, SA, shells & organics	4/48
30	X	20	7	Medium G, SI, SA & CL	3, 3, 4
35			.25	Soft G, SI, CL	
40			.25	Soft G, ST, CL	

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Figure A-39i

APPENDIX B
Soil Boring Laboratory Testing Results

APPENDIX B
SOIL BORING LABORATORY TESTING RESULTS

This appendix provides additional information regarding the laboratory testing completed on soil boring samples for the Chandeleur Island Restoration (PO-0199) Project.

General

Soil samples obtained during field exploration were transported to the soil mechanics laboratory in Baton Rouge, Louisiana and examined to confirm or modify field classifications. Representative samples were selected for laboratory testing to determine moisture content, organic content, Atterberg Limits, percent passing the U.S. No. 200 sieve, grain size analyses (including the weight of shell retained on the U.S. No 4 sieve), undrained shear strength, specific gravity, and compressibility. Laboratory test procedures for the specific tests used for this Project are discussed in more detail below. The results of the laboratory testing are presented on the boring logs in Appendix A and in the Summary of Lab Results included herein.

Moisture Content

Moisture content tests were completed for representative samples in general accordance with ASTM D2216. Test results are presented on the boring logs at the respective sample depths.

Organic Content

Organic content tests were completed for representative samples in general accordance with ASTM D2974. Test results are presented on the boring logs at the respective sample depths.

Atterberg Limits

Atterberg Limits tests were performed on selected fine-grained soil samples in general accordance with ASTM D4318. The tests were used to classify the soil as well as to evaluate its index properties. The Atterberg Limits test results are shown on the boring logs at the respective sample depths.

Percent Passing the U.S. No. 200 Sieve

The percent passing the U.S. No. 200 sieve was evaluated for selected samples in general accordance with ASTM D1140. The results of these analyses were classified in general accordance with the Unified Soil Classification System (USCS) and are included in this appendix. The percentage passing the U.S. No. 200 sieve is shown on the boring logs at the respective sample depths.

Grain Size Distribution

Grain size distribution was evaluated for selected samples in general accordance with ASTM D422. The results of these analyses were classified in general accordance with USCS, and the grain size curves are included with this appendix. The percentage of shell fragments retained on the U.S. No. 4 sieve (4.75- millimeter openings) is also noted on the boring logs at the respective sample depths. It should be noted that shell fragments were also observed on sieves with openings smaller than the U.S. No. 4 sieve. However, only the percentage of the tested sample that was retained on the U.S. No. 4 sieve is presented on the boring logs at the request of CEC.

Unconsolidated-Undrained Triaxial Tests

Unconsolidated-undrained (UU) triaxial tests were performed on selected cohesive soil samples obtained from the borings. The tests were used to evaluate shear strength characteristics and were completed in general accordance with ASTM D2850. Natural moisture content and unit weight were also measured in conjunction with UU testing. Test results are presented on the boring logs at their respective sample depths.

One-Dimensional Consolidation Tests

One-dimensional consolidation tests were performed on selected cohesive soil samples obtained from the borings. The tests were used to evaluate the deformation characteristics of the soil and were completed in general accordance with ASTM D2435. Test results were plotted on the consolidation curves included with this appendix. Consolidation curves are presented both in terms of percent strain and void ratio. Also, the time rate of consolidation curves for each test are presented for log-time and square root-of-time.

Specific Gravity

Specific gravity tests were performed on the same samples that one-dimensional consolidation tests were performed in general accordance with ASTM D854. The results of the specific gravity tests are presented on the boring logs at the respective sample depths.

Soil Boring ID	Depth Interval (ft)	D2488	Test Type	D2216	D2166/D2850		D4318			D422/D1140 /D6913	D2166/D2850					D4648	Comments
		Visual Description		Moisture (%)	Unit Weight (PCF)		Atterberg Limits			%<#200 Sieve	Shear Strength (KSF)	Remolded Strength (KSF)	Failure Strain (%)	Confining Pressure (PSI)	Failure Type	Mini Vane Shear Strength (KSF)	
					Wet	Dry	LL	PL	PI								
CI-01	0.0 - 1.5	Gray poorly graded sand with traces of shell fragments (SP)	SV	25.6						2.1							
CI-01	2.0 - 3.5	Gray sand with traces of shell fragments (SP)	MC	24.0													
CI-01	4.0 - 5.5	Gray poorly graded sand with traces of shell fragments (SP)	SV	23.9						2.6							
CI-01	6.0 - 7.5	Gray sand with traces of shell fragments (SP)	MC	23.2													
CI-01	8.0 - 9.5	Gray poorly graded sand with traces of shell fragments (SP)	SV	27.7						1.9							
CI-01	10.0 - 11.5	Gray sand with traces of shell fragments (SP)	MC	27.8													
CI-01	12.0 - 13.5	Gray poorly graded sand with traces of shell fragments (SP)	SV	24.5						4.7							
CI-01	14.0 - 15.5	Gray sand with silt (SP-SM)	MC	31.6													
CI-01	16.0 - 17.5	Gray sand with silt (SP-SM)	MC	30.8													
CI-01	18.0 - 19.5	Gray silty sand with traces of shell fragments (SM)	SV	26.2						24.1							
CI-01	23.0 - 24.5	Gray silty sand (SM)	MC	28.6													
CI-01	28.0 - 30.0	Gray silty sand (SM) transitioned to medium gray clay with sand layers (CH)	UU -200 AL	41.5	115.5	81.6	56	23	33	44.6	0.54		10.8	7.6	B		
CI-01	33.0 - 35.0	Gray clay with silt (CL)	AL SG	42.1	109.0	76.7	43	22	21								SG = 2.669, Consol
CI-01	38.0 - 40.0	Soft gray clay with silt pockets and sand pockets (CH)	UU AL MC	51.6	109.8	72.4	50	22	28		0.45		7.6	10.2	B		

Disclaimer: The results presented relate only to those samples tested.
Note: ASTM standard identification numbers shown above each test description.

Multiple Shear = MS Slickensided = SLS Vertical Shear = VS Bulge = B Angle Shear = AS Crumble = C

AASHTO ACCREDITED

Technical Responsibility: Donna Easterling

Title: Senior Lab Technician

Date: 12/21/2023

Summary of Lab Results
Project No.: 18274-022-01

Chandeleur Island, Louisiana

GeoEngineers

Figure B-1

Soil Boring ID	Depth Interval (ft)	D2488	Test Type	D2216	D2166/D2850		D4318			D422/D1140 /D6913	D2166/D2850					D4648	Comments
		Visual Description		Moisture (%)	Unit Weight (PCF)		Atterberg Limits			%<#200 Sieve	Shear Strength (KSF)	Remolded Strength (KSF)	Failure Strain (%)	Confining Pressure (PSI)	Failure Type	Mini Vane Shear Strength (KSF)	
					Wet	Dry	LL	PL	PI								
CI-02	0.0 - 1.5	Gray silty sand with shell fragments and organic matter (SM)	SV ORG	25.2						24.2							OC = 0.7%
CI-02	2.0 - 3.5	Gray silt with shell fragments (SM)	MC	30.7													
CI-02	4.0 - 5.5	Gray silty sand with shell fragments (SM)	SV	25.2						28.9							
CI-02	6.0 - 7.5	Gray silty sand with shell fragments (SM)	MC	28.0													
CI-02	8.0 - 9.5	Gray silty sand with shell fragments (SM)	MC	23.4													
CI-02	10.0 - 11.5	Gray silty sand with shell fragments (SM)	SV	24.0						21.7							
CI-02	12.0 - 13.5	Gray silty sand with shell fragments and organic matter (SM)	MC	25.6													
CI-02	14.0 - 15.5	Gray silty sand with shell fragments (SM)	MC	24.4													
CI-02	16.0 - 17.5	Gray silty sand with shell fragments (SM)	SV	26.7						32.1							
CI-02	18.0 - 19.5	Gray silty sand with shell fragments (SM)	MC	24.8													
CI-02	23.0 - 24.5	Gray silty sand with shell fragments and traces of clay (SM)	SV	29.2						46.8							
CI-02	28.0 - 29.5	Gray silty, clayey sand with shell fragments (SC-SM)	MC	32.5													
CI-02	33.0 - 34.5	Gray sandy silt with shell fragments and traces of clay (ML)	AL SV	32.0			NP	NP	NP	60.5							Non Plastic
CI-02	38.0 - 39.5	Gray silty sand with organic matter (SM)	MC	27.8													

Disclaimer: The results presented relate only to those samples tested.
Note: ASTM standard identification numbers shown above each test description.

Multiple Shear = MS Slickensided = SLS Vertical Shear = VS Bulge = B Angle Shear = AS Crumble = C

AASHTO ACCREDITED

Technical Responsibility: Donna Easterling

Title: Senior Lab Technician

Date: 12/21/2023

Summary of Lab Results
Project No.: 18274-022-01

Chandeleur Island, Louisiana

GeoEngineers

Figure B-2

Soil Boring ID	Depth Interval (ft)	D2488 Visual Description	Test Type	D2216 Moisture (%)	D2166/D2850 Unit Weight (PCF) Wet	D2166/D2850 Unit Weight (PCF) Dry	D4318 Atterberg Limits LL	D4318 Atterberg Limits PL	D4318 Atterberg Limits PI	D422/D1140 /D6913 %<#200 Sieve	D2166/D2850 Shear Strength (KSF)	D2166/D2850 Remolded Strength (KSF)	D2166/D2850 Failure Strain (%)	D2166/D2850 Confining Pressure (PSI)	D2166/D2850 Failure Type	D4648 Mini Vane Shear Strength (KSF)	Comments
CI-03	0.0 - 1.5	Dark gray poorly graded sand (SP)	SV	29.1						3.2							
CI-03	2.0 - 3.5	Gray silty sand (SM)	MC	23.6													
CI-03	4.0 - 5.5	Gray silty sand (SM)	SV	24.0						15.0							
CI-03	6.0 - 7.5	Gray sand with silt (SP-SM)	MC	21.2													
CI-03	8.0 - 9.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	SV	21.4						7.4							
CI-03	10.0 - 11.5	Gray sand with silt (SP-SM)	MC	22.3													
CI-03	12.0 - 13.5	Gray poorly graded sand with shell fragments (SP)	SV	24.8						4.9							
CI-03	14.0 - 15.5	Gray sand with silt and shell fragments (SP-SM)	MC	22.8													
CI-03	16.0 - 17.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	SV	24.4						6.3							
CI-03	18.0 - 19.5	Gray sand with silt and shell fragments (SP-SM)	MC	23.1													
CI-03	23.0 - 24.5	Gray silty sand with shell fragments (SM)	-200	24.0						13.7							
CI-03	28.0 - 29.5	Gray silty, clayey sand (SC-SM)	MC	27.5													
CI-03	33.0 - 35.0	Medium gray silty clay with and pockets (CL)	UU -200	37.1	116.8	85.2				89.8	0.51		9.3	8.9	B		
CI-03	38.0 - 40.0	Gray clay with sand, silt, and shell fragments (CL)	MC	36.1													
CI-03	43.0 - 45.0	Very Soft gray clay with silt and sand (CL)	UU AL	39.1	116.6	83.8	42	20	22		0.17		14.6	11.5	B		
CI-03	48.0 - 50.0	Gray clay (CH)	MC	45.4													
CI-03	53.0 - 55.0	Soft gray clay (CH)	UU AL	59.5	105.4	66.1	82	33	49		0.28		14.9	14.1	B		
CI-03	58.0 - 60.0	Gray clay (CH)	MC	69.1													

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Title: Senior Lab Technician

Date: 12/21/2023

Summary of Lab Results
Project No.: 18274-022-01

Chandeleur Island, Louisiana

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Figure B-3a

Soil Boring ID	Depth Interval (ft)	D2488	Test Type	D2216	D2166/D2850		D4318			D422/D1140 /D6913	D2166/D2850					D4648	Comments
		Visual Description		Moisture (%)	Unit Weight (PCF)		Atterberg Limits			%<#200 Sieve	Shear Strength (KSF)	Remolded Strength (KSF)	Failure Strain (%)	Confining Pressure (PSI)	Failure Type	Mini Vane Shear Strength (KSF)	
					Wet	Dry	LL	PL	PI								
CI-03	63.0 - 65.0	Very soft gray clay with organic matter (CH)	UU	65.1	102.9	62.3					0.17		14.3	16.7	B		
CI-03	68.0 - 70.0	Gray clay (CH)	AL SG	68.2	101.1	60.1	78	30	48								SG = 2.689, Consol
CI-03	73.0 - 75.0	Very soft gray clay (CH)	UU	65.1	104.1	63.0					0.25		13.8	19.3	B		
CI-03	78.0 - 80.0	Gray clay (CH)	MC	78.6													

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Title: Senior Lab Technician

Date: 12/21/2023

Summary of Lab Results
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Figure B-3b

Soil Boring ID	Depth Interval (ft)	D2488	Test Type	D2216	D2166/D2850		D4318			D422/D1140 /D6913	D2166/D2850					D4648	Comments
		Visual Description		Moisture (%)	Unit Weight (PCF)		Atterberg Limits			%<#200 Sieve	Shear Strength (KSF)	Remolded Strength (KSF)	Failure Strain (%)	Confining Pressure (PSI)	Failure Type	Mini Vane Shear Strength (KSF)	
					Wet	Dry	LL	PL	PI								
CI-03B	0.0 - 1.5	Gray poorly graded sand with silt (SP-SM)	SV	28.0						8.6							
CI-03B	2.0 - 3.5	Gray sand with silt (SP-SM)	MC	25.2													
CI-03B	4.0 - 5.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	SV	27.5						6.2							
CI-03B	6.0 - 7.5	Gray sand with silt and shell fragments (SP-SM)	MC	26.0													
CI-03B	8.0 - 9.5	Gray poorly graded sand with traces of shell fragments (SP)	SV	24.4						3.3							
CI-03B	10.0 - 11.5	Gray sand with silt (SP-SM)	MC	25.3													
CI-03B	12.0 - 13.5	Gray poorly graded sand with silt (SP-SM)	SV	26.0						9.3							
CI-03B	14.0 - 15.5	Gray sand with silt (SP-SM)	MC	27.2													
CI-03B	16.0 - 17.5	Gray poorly graded sand with silt (SP-SM)	SV	27.5						9.2							
CI-03B	18.0 - 19.5	Gray sand with silt (SP-SM)	MC	28.4													
CI-03B	23.0 - 24.5	Gray poorly graded sand with shell fragments (SP)	SV	27.1						3.4							
CI-03B	28.0 - 29.5	Gray sand with silt and shell fragments (SP-SM)	MC	29.1													
CI-03B	33.0 - 35.0	Gray clay with a silty sand layer (CH)	AL	34.7	117.5	87.2	83	30	53								SG=2.707, Consol
CI-03B	38.0 - 40.0	Soft gray clay with sand lenses at top (CH)	UU AL	62.8	105.5	64.8	71	27	44		0.47		11.3	10.2	B		
CI-03B	43.0 - 45.0	Soft gray clay (CH)	UU AL	58.9	107.1	67.4	77	30	47		0.32		15.0	11.5	B		
CI-03B	48.0 - 50.0	Gray clay (CH)	MC	63.5													

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Title: Senior Lab Technician

Date: 12/21/2023

Summary of Lab Results
Project No.: 18274-022-01

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Figure B-4

Soil Boring ID	Depth Interval (ft)	D2488	Test Type	D2216	D2166/D2850		D4318			D422/D1140 /D6913	D2166/D2850					D4648	Comments
		Visual Description		Moisture (%)	Unit Weight (PCF)		Atterberg Limits			%<#200 Sieve	Shear Strength (KSF)	Remolded Strength (KSF)	Failure Strain (%)	Confining Pressure (PSI)	Failure Type	Mini Vane Shear Strength (KSF)	
					Wet	Dry	LL	PL	PI								
CI-04	0.0 - 1.5	Gray clayey sand with silt, organic matter, and shell fragments (SC)	SV ORG MC	37.1						35.1							OC = 2.1%
CI-04	2.0 - 3.5	Gray clayey sand with silt, organic matter, and shell fragments (SC)		34.1													
CI-04	4.0 - 5.5	Gray clayey sand with silt and shell fragments (SC)	-200 AL	41.7			31	22	9	43.9							
CI-04	6.0 - 7.5	Gray clayey sand with silt and shell fragments (SC)	MC	35.1													
CI-04	8.0 - 9.5	Gray silty sand with traces of clay and shell fragments (SM)	SV	33.3						24.3							
CI-04	10.0 - 12.0	Gray silty sand with clay layers and shell fragments (SM)	UU AL EXT_MC	32.1	122.2	92.5	28	22	6		0.33		15.0	5.0	B		
CI-04	12.0 - 14.0	Gray silty sand with traces of clay and shell fragments (SM)	MC EXT_MC	26.0													
CI-04	14.0 - 16.0	Gray silty sand with traces of clay and shell fragments (SM)	UU EXT_MC	31.8	121.5	92.2					0.08		15.0	5.0	B		
CI-04	16.0 - 18.0	Gray silty clay with sand and shell fragments (CL)	MC EXT_MC	30.2													
CI-04	18.0 - 20.0	Very soft gray silty clay with sand pockets (CL)	UU EXT_MC	45.5	113.3	77.9					0.15		14.8	5.0	B		
CI-04	23.0 - 25.0	Gray sandy silt with traces of clay (ML)	MC EXT_MC	27.6													
CI-04	28.0 - 30.0	Gray clay with silt pockets (CH)	MC EXT_MC	62.4													disturbed
CI-04	33.0 - 35.0	Soft gray clay (CH)	UU EXT_MC	64.5	102.1	62.0					0.30		14.8	8.9	B		The H:D ratio does not fall within the range specified by ASTM 2850.
CI-04	38.0 - 40.0	Very soft gray clay (CH)	UU EXT_MC	78.5	100.1	56.1					0.16		15.0	10.2	B		

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Slickensided = SLS Bulge = B Crumble = C

Technical Responsibility: Donna Easterling
Title: Senior Lab Technician
AASHTO ACCREDITED Date: 12/21/2023

Summary of Lab Results
Project No.: 18274-022-01

Chandeleur Island, Louisiana

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Figure B-5

Soil Boring ID	Depth Interval (ft)	D2488 Visual Description	Test Type	D2216 Moisture (%)	D2166/D2850 Unit Weight (PCF) Wet	D2166/D2850 Unit Weight (PCF) Dry	D4318 Atterberg Limits LL	D4318 Atterberg Limits PL	D4318 Atterberg Limits PI	D422/D1140 /D6913 %<#200 Sieve	D2166/D2850 Shear Strength (KSF)	D2166/D2850 Remolded Strength (KSF)	D2166/D2850 Failure Strain (%)	D2166/D2850 Confining Pressure (PSI)	D2166/D2850 Failure Type	D4648 Mini Vane Shear Strength (KSF)	Comments
CI-05	0.0 - 1.5	Tan poorly graded sand with shell fragments (SP)	SV	17.6						2.7							
CI-05	2.0 - 3.5	Tan poorly graded sand with shell fragments (SP)	MC	18.6													
CI-05	4.0 - 5.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	SV	22.5						7.2							
CI-05	6.0 - 7.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	MC	24.2													
CI-05	8.0 - 9.5	Gray silty sand with shell fragments (SM)	SV	20.7						30.9							
CI-05	10.0 - 11.5	Gray sand with silt and shell fragments (SP-SM)	MC	22.7													
CI-05	12.0 - 13.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	SV	24.4						6.9							
CI-05	14.0 - 15.5	Gray sand with silt (SP-SM)	MC	21.7													
CI-05	16.0 - 17.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	SV	22.0						6.5							
CI-05	18.0 - 19.5	Gray sand with silt and shell fragments (SP-SM)	MC	24.3													
CI-05	23.0 - 24.5	Gray silty sand with shell fragments (SM)	SV	33.5						20.9							
CI-05	28.0 - 29.5	Gray silty clayey sand (SC-SM)	MC	47.7													
CI-05	33.0 - 35.0	Soft dark gray silty clay with sand and shell fragments (CL)	UU -200 AL	33.6	118.2	88.5	41	20	21	76.5	0.30		14.1	8.9	B		
CI-05	38.0 - 40.0	Gray clay with sand and shell fragments (CL)	MC	40.0													
CI-05	43.0 - 45.0	Soft dark gray clay with silty sand layers (CH)	UU AL	43.7	114.4	79.6	69	26	43		0.49		7.8	11.5	B		
CI-05	48.0 - 50.0	Gray clay with silt pockets and sand lenses (CH)	MC	38.9													

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Technical Responsibility: Donna Easterling

Title: Senior Lab Technician

Date: 12/21/2023

Summary of Lab Results
Project No.: 18274-022-01

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Figure B-6

Soil Boring ID	Depth Interval (ft)	D2488 Visual Description	Test Type	D2216 Moisture (%)	D2166/D2850 Unit Weight (PCF) Wet	D2166/D2850 Unit Weight (PCF) Dry	D4318 Atterberg Limits LL	D4318 Atterberg Limits PL	D4318 Atterberg Limits PI	D422/D1140 /D6913 %<#200 Sieve	D2166/D2850 Shear Strength (KSF)	D2166/D2850 Remolded Strength (KSF)	D2166/D2850 Failure Strain (%)	D2166/D2850 Confining Pressure (PSI)	D2166/D2850 Failure Type	D4648 Mini Vane Shear Strength (KSF)	Comments
CI-06	0.0 - 1.5	Gray poorly graded sand with silt and traces of shells (SP-SM)	SV MC	24.5						6.5							
CI-06	2.0 - 3.5	Gray silty sand with organic matter and shell fragments (SM)	SV	25.2						20.3							
CI-06	4.0 - 5.5	Gray silty sand with organic matter (SM)	MC	23.3													
CI-06	6.0 - 7.5	Gray silty sand with shell fragments (SM)	SV	26.3						13.2							
CI-06	8.0 - 9.5	Gray silty sand (SM)	MC	26.3													
CI-06	10.0 - 11.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	SV	25.4						9.6							
CI-06	12.0 - 13.5	Gray poorly graded sand with silt (SP-SM)	MC	23.4													
CI-06	14.0 - 15.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	SV	23.3						7.6							
CI-06	16.0 - 17.5	Gray poorly graded sand with silt (SP-SM)	MC	29.7													
CI-06	18.0 - 19.5	Gray poorly graded sand (SP)	SV	25.0						4.0							
CI-06	23.0 - 24.5	Gray silty sand with shell fragments (SM)	MC	30.9													
CI-06	28.0 - 29.5	Gray silty sand (SM)	SV	26.9						31.0							
CI-06	33.0 - 35.0	Medium gray clay with sand layers sand pockets and shell fragments (CH)	UU AL	42.5	114.1	80.1	51	22	29		0.55		7.1	8.9	MS		
CI-06	38.0 - 40.0	Soft gray clay with sand lenses (CH)	UU AL SG	50.3	108.7	72.3	75	30	45		0.35		14.8	10.2	B		SG = 2.693, Consol

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Title: Senior Lab Technician

Date: 12/21/2023

Summary of Lab Results
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Figure B-7

Soil Boring ID	Depth Interval (ft)	D2488	Test Type	D2216	D2166/D2850		D4318			D422/D1140 /D6913	D2166/D2850					D4648	Comments
		Visual Description		Moisture (%)	Unit Weight (PCF)		Atterberg Limits			%<#200 Sieve	Shear Strength (KSF)	Remolded Strength (KSF)	Failure Strain (%)	Confining Pressure (PSI)	Failure Type	Mini Vane Shear Strength (KSF)	
					Wet	Dry	LL	PL	PI								
CI-07	0.0 - 1.5	Gray poorly graded sand (SP)	MC	18.5													
CI-07	2.0 - 3.5	Gray poorly graded sand with shell fragments (SP)	SV	22.5						1.5							
CI-07	4.0 - 5.5	Gray poorly graded sand with silt (SP-SM)	MC	21.7													
CI-07	6.0 - 7.5	Gray poorly graded sand with silt (SP-SM)	SV	25.5						7.4							
CI-07	8.0 - 9.5	Gray poorly graded sand with silt (SP-SM)	MC	21.9													
CI-07	10.0 - 11.5	Gray silty sand with traces of shell fragments (SM)	SV	21.4						14.3							
CI-07	12.0 - 13.5	Gray silty sand (SM)	MC	22.1													
CI-07	14.0 - 15.5	Gray poorly graded sand with silt, shells, and shell fragments (SP-SM)	SV	20.2						11.7							
CI-07	16.0 - 17.5	Gray poorly graded sand with silt, shells, and shell fragments (SP-SM)	MC	24.7													
CI-07	18.0 - 19.5	Gray poorly graded sand with silt, shells, and shell fragments (SP-SM)	SV	25.2						11.3							
CI-07	23.0 - 24.5	Gray silty sand (SM)	MC	27.8													
CI-07	28.0 - 29.5	Gray silty sand with shell fragments (SM)	SV	25.3						34.8							
CI-07	33.0 - 34.5	Gray sandy clay with shells (CL)	MC	46.4													
CI-07	38.0 - 40.0	Soft gray clay with sand pockets (CH)	UU AL	48.6	110.4	74.3	56	24	32		0.44		11.1	10.2	MS		
CI-07	43.0 - 45.0	Gray clay with silty sand pockets (CH)	MC	61.9													
CI-07	48.0 - 50.0	Medium gray clay with sand lenses (CH)	UU AL	52.7	108.4	71.0	69	26	43		0.66		6.6	12.8	MS		
CI-07	53.0 - 55.0	Gray clay with sand (CL)	MC	35.4													
CI-07	58.0 - 60.0	Soft gray silty clay with sand pockets (CL)	UU AL SG	30.4	117.8	90.3	37	22	15		0.40		15.0	15.4	B		SG = 2.741, Consol

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Title: Senior Lab Technician

Date: 12/21/2023

Summary of Lab Results
Project No.: 18274-022-01

Chandeleur Island, Louisiana

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Figure B-8a

Soil Boring ID	Depth Interval (ft)	D2488	Test Type	D2216	D2166/D2850		D4318			D422/D1140 /D6913	D2166/D2850					D4648	Comments
		Visual Description		Moisture (%)	Unit Weight (PCF)		Atterberg Limits			%<#200 Sieve	Shear Strength (KSF)	Remolded Strength (KSF)	Failure Strain (%)	Confining Pressure (PSI)	Failure Type	Mini Vane Shear Strength (KSF)	
					Wet	Dry	LL	PL	PI								
CI-07	63.0 - 65.0	Gray clay with silty sand pockets (CH)	MC	49.6													
CI-07	68.0 - 70.0	Very soft gray clay with silty sand pockets (CH)	UU AL	53.4	104.0	67.8	58	26	32		0.21		15.0	18.0	B		
CI-07	73.0 - 75.0	Gray clay with silty sand pockets (CH)	MC	57.0													
CI-07	78.0 - 80.0	Soft gray clay with silty sand pockets (CH)	UU AL	51.8	109.5	72.1	89	30	59		0.31		12.0	20.6	B		

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Title: Senior Lab Technician

Date: 12/21/2023

Summary of Lab Results
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Figure B-8b

Soil Boring ID	Depth Interval (ft)	D2488 Visual Description	Test Type	D2216 Moisture (%)	D2166/D2850 Unit Weight (PCF)		D4318 Atterberg Limits			D422/D1140 /D6913 %<#200 Sieve	D2166/D2850					D4648 Mini Vane Shear Strength (KSF)	Comments
					Wet	Dry	LL	PL	PI		Shear Strength (KSF)	Remolded Strength (KSF)	Failure Strain (%)	Confining Pressure (PSI)	Failure Type		
CI-08	0.0 - 1.5	Light gray poorly graded sand with shell fragments (SP)	MC	14.1													
CI-08	2.0 - 3.5	Light gray poorly graded sand with shell fragments (SP)	SV	11.9						0.9							
CI-08	4.0 - 5.5	Gray poorly graded sand with silt and a layer of shell fragments (SP-SM)	MC	21.2													
CI-08	6.0 - 7.5	Gray poorly graded sand with silt and a layer of shell fragments (SP-SM)	SV	22.1						5.0							
CI-08	8.0 - 9.5	Gray poorly graded sand with silt, shell fragments, and organic matter (SP-SM)	MC	20.7													
CI-08	10.0 - 11.5	Gray poorly graded sand with shell fragments (SP)	SV	26.8						4.8							
CI-08	12.0 - 13.5	Gray silty sand with shell fragments (SM)	MC	22.6													
CI-08	14.0 - 15.5	Gray silty sand with a layer of shell fragments (SM)	MC	17.8													
CI-08	16.0 - 17.5	Gray silty sand with a layer of shell fragments (SM)	SV	25.5						15.7							
CI-08	18.0 - 19.5	Gray silty sand with a layer of shell fragments (SM)	MC	24.1													
CI-08	23.0 - 25.0	Medium dark gray sandy clay with silt and shell fragments (CL)	UU AL	35.0	115.4	85.5	48	22	26		0.61		11.1	6.3	B		
CI-08	28.0 - 30.0	Soft gray clay with sand pockets and shell fragments (CL)	UU	50.4	106.5	70.8					0.37		9.6	7.6	MS		
CI-08	33.0 - 35.0	Gray silty clay with sand (CL)	MC	38.8													
CI-08	38.0 - 40.0	Medium gray silty clay with sand (CL)	UU	40.3	115.3	82.2					0.64		11.3	10.2	B		
CI-08	43.0 - 45.0	Gray clay with silt lenses and shell fragments (CH)	MC	55.0													
CI-08	48.0 - 50.0	Soft gray clay with silty sand layers (CH)	UU	51.9	109.5	72.1					0.42		12.9	12.8	B		The H:D ratio does not fall within the range specified by ASTM 2850.

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Title: Senior Lab Technician

Date: 12/21/2023

Summary of Lab Results
Project No.: 18274-022-01

Chandeleur Island, Louisiana

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Figure B-9

Soil Boring ID	Depth Interval (ft)	D2488 Visual Description	Test Type	D2216 Moisture (%)	D2166/D2850 Unit Weight (PCF) Wet	D2166/D2850 Unit Weight (PCF) Dry	D4318 Atterberg Limits LL	D4318 Atterberg Limits PL	D4318 Atterberg Limits PI	D422/D1140 /D6913 %<#200 Sieve	D2166/D2850 Shear Strength (KSF)	D2166/D2850 Remolded Strength (KSF)	D2166/D2850 Failure Strain (%)	D2166/D2850 Confining Pressure (PSI)	D2166/D2850 Failure Type	D4648 Mini Vane Shear Strength (KSF)	Comments
CI-09	0.0 - 1.5	Gray silty sand with shell fragments and traces of organic matter (SM)	SV ORG	27.5						12.7							OC = 1.3%
CI-09	2.0 - 3.5	Gray silty sand with traces of organic matter (SM)	MC	25.8													
CI-09	4.0 - 5.5	Gray silty sand with traces of clay and organic matter (SM)	AL SV	28.7			32	25	7	26.9							
CI-09	6.0 - 7.5	Gray silty sand with traces of clay (SM)	MC	24.8													
CI-09	8.0 - 9.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	SV	25.4						9.5							
CI-09	10.0 - 11.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	MC	29.6													
CI-09	12.0 - 13.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	SV	28.1						8.0							
CI-09	14.0 - 15.5	Gray silty sand with shell fragments (SM)	MC	28.9													
CI-09	16.0 - 17.5	Dark gray silty sand with shell fragments (SM)	SV	27.6						12.1							
CI-09	18.0 - 19.5	Dark gray silty sand with shell fragments (SM)	MC	32.3													
CI-09	23.0 - 24.5	Gray silty sand with shell fragments, and traces of clay (SM)	MC	29.8													
CI-09	28.0 - 29.5	Gray silty sand with clay pockets and shell fragments (SM)	SV MC	35.4						40.3							
CI-09	33.0 - 35.0	Gray silt with sand, traces of clay, and organic matter (ML)	UU AL SG	36.0	118.4	87.1	NP	NP	NP		0.23		15.0	8.9	B		SG = 2.678, Consol. Non Plastic.
CI-09	38.0 - 40.0	Gray sandy clay with silt and shell fragments (CL)	MC	35.9													
CI-09	43.0 - 45.0	Gray silt with clay, sand lenses, and sand pockets (ML)	UU AL	28.5	121.8	94.8	30	23	7		1.56		15.0	11.5	B		
CI-09	48.0 - 49.5	Gray silty, clayey sand with organic matter, shell fragments, and organic matter (SC-SM)	MC	34.2													

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Title: Senior Lab Technician

Date: 12/21/2023

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Chandeleur Island, Louisiana

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Figure B-10

Soil Boring ID	Depth Interval (ft)	D2488 Visual Description	Test Type	D2216 Moisture (%)	D2166/D2850 Unit Weight (PCF) Wet	D2166/D2850 Unit Weight (PCF) Dry	D4318 Atterberg Limits LL	D4318 Atterberg Limits PL	D4318 Atterberg Limits PI	D422/D1140 /D6913 %<#200 Sieve	D2166/D2850 Shear Strength (KSF)	D2166/D2850 Remolded Strength (KSF)	D2166/D2850 Failure Strain (%)	D2166/D2850 Confining Pressure (PSI)	D2166/D2850 Failure Type	D4648 Mini Vane Shear Strength (KSF)	Comments
CI-10	0.0 - 1.5	Gray silty sand with shell fragments and traces of clay (SM)	SV MC	28.7						24.3							
CI-10	2.0 - 3.5	Gray silty sand with traces of organic matter (SM)	AL SV ORG	27.1			26	23	3	31.9							OC = 1.6%
CI-10	4.0 - 5.5	Gray silty sand with shell fragments (SM)	MC	31.1													
CI-10	6.0 - 7.5	Gray silty sand (SM)	SV	25.8						22.4							
CI-10	8.0 - 9.5	Gray silty sand with organic matter (SM)	MC	28.8													
CI-10	10.0 - 11.5	Gray silty sand with shell fragments (SM)	SV	29.7						15.3							
CI-10	12.0 - 13.5	Gray silty sand with shell fragments (SM)	MC	35.4													
CI-10	14.0 - 15.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	SV	26.0						6.8							
CI-10	16.0 - 17.5	Gray silty sand (SM)	MC	28.0													
CI-10	18.0 - 19.5	Gray silty sand (SM)	SV	27.7						12.6							
CI-10	23.0 - 24.5	Gray silty sand (SM)	MC	34.6													
CI-10	28.0 - 29.5	Gray poorly graded sand with silt (SP-SM)	SV	27.2						7.6							
CI-10	33.0 - 34.5	Gray silty sand with clay pockets and shell pockets (SM)	MC	32.7													
CI-10	38.0 - 40.0	Very soft dark gray clay with silt and sand pockets (CH)	UU AL	47.5	112.0	76.0	68	25	43		0.25		11.8	10.2	B		

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Summary of Lab Results
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Chandeleur Island, Louisiana

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Figure B-11

Soil Boring ID	Depth Interval (ft)	D2488 Visual Description	Test Type	D2216 Moisture (%)	D2166/D2850 Unit Weight (PCF) Wet	D2166/D2850 Unit Weight (PCF) Dry	D4318 Atterberg Limits LL	D4318 Atterberg Limits PL	D4318 Atterberg Limits PI	D422/D1140 /D6913 %<#200 Sieve	D2166/D2850 Shear Strength (KSF)	D2166/D2850 Remolded Strength (KSF)	D2166/D2850 Failure Strain (%)	D2166/D2850 Confining Pressure (PSI)	D2166/D2850 Failure Type	D4648 Mini Vane Shear Strength (KSF)	Comments
CI-11	0.0 - 1.5	Gray poorly graded sand with shell fragments (SP)	SV	18.1						1.0							
CI-11	2.0 - 3.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	MC	22.1													
CI-11	4.0 - 5.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	SV	22.9						7.3							
CI-11	6.0 - 7.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	MC	24.7													
CI-11	8.0 - 9.5	Gray poorly graded sand with shell fragments (SP)	SV	22.7						4.8							
CI-11	10.0 - 11.5	Gray poorly graded sand with a layer of shell fragments (SP)	MC	22.0													
CI-11	12.0 - 13.5	Gray silty sand with a layer of shell fragments, and clay layers (SM)	SV	24.6						21.1							
CI-11	14.0 - 16.0	Soft gray clay with silt, shell fragments, sand layers, and sand pockets (CL)	UU AL	49.4	110.7	74.1	47	18	29		0.37		10.0	5.0	B		
CI-11	16.0 - 18.0	Gray clay with silty, sand pockets, and shell fragments (CL)	MC	61.5													
CI-11	18.0 - 20.0	Soft gray clay with sand, sand pockets, and silt pockets (CL)	UU AL SG	38.6	117.9	85.1	50	22	28		0.25		14.6	5.0	B		
CI-11	23.0 - 25.0	Soft gray sandy clay with silty sand layers (CL)	UU AL	30.6	107.1	82.0	40	21	19		0.40		15.0	6.3	B		
CI-11	28.0 - 30.0	Gray silty clay with sand and shell fragments (CL)	MC	23.4													SG = 2.731, Consol
CI-11	33.0 - 35.0	Gray sandy clay with shell fragments (CL)	MC	26.5													
CI-11	38.0 - 39.5	Gray sandy clay with a layer of shell fragments (CL)	SV	34.9						68.6							
CI-11	43.0 - 44.5	Gray sandy clay with shell fragments (CL)	MC	29.6													
CI-11	48.0 - 49.5	Gray sandy clay with shell fragments (CL)	MC	26.9													

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Slickensided = SLS Bulge = B Crumble = C

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Figure B-12

Soil Boring ID	Depth Interval (ft)	D2488 Visual Description	Test Type	D2216 Moisture (%)	D2166/D2850 Unit Weight (PCF) Wet	D2166/D2850 Unit Weight (PCF) Dry	D4318 Atterberg Limits LL	D4318 Atterberg Limits PL	D4318 Atterberg Limits PI	D422/D1140 /D6913 %<#200 Sieve	D2166/D2850 Shear Strength (KSF)	D2166/D2850 Remolded Strength (KSF)	D2166/D2850 Failure Strain (%)	D2166/D2850 Confining Pressure (PSI)	D2166/D2850 Failure Type	D4648 Mini Vane Shear Strength (KSF)	Comments
CI-12	0.0 - 1.5	Dark gray silty sand with organic matter (SM)	SV ORG	28.1						26.7							OC = 1.8%
CI-12	2.0 - 3.5	Gray silty sand with organic matter (SM)	MC	26.6													
CI-12	4.0 - 5.5	Gray silty sand with organic matter and shell fragments (SM)	SV	25.3						17.7							
CI-12	6.0 - 7.5	Gray silty sand (SM)	MC	24.4													
CI-12	8.0 - 9.5	Gray silty sand with organic matter and shell fragments (SM)	SV	23.8						13.2							
CI-12	10.0 - 11.5	Gray silty sand (SM)	MC	23.0													
CI-12	12.0 - 13.5	Gray silty sand (SM)	MC	23.7													
CI-12	14.0 - 15.5	Gray poorly graded sand with silt (SP-SM)	SV	25.4						9.6							
CI-12	16.0 - 17.5	Gray silty sand with clay traces (SM)	MC	24.4													
CI-12	18.0 - 19.5	Gray silty, clayey sand with shell fragments (SC- SM)	AL SV	29.7			NP	NP	NP	31.8							Non plastic.
CI-12	23.0 - 25.0	Gray clayey sand with shell fragments (SC)	MC	35.1													
CI-12	28.0 - 30.0	Soft gray clay with sand pockets and shell fragments (CH)	UU AL	50.2	110.7	73.7	59	24	35		0.39		5.3	7.6	MS		
CI-12	33.0 - 34.5	Gray clay with sand pockets and shell fragments (CH)	MC	65.0													
CI-12	38.0 - 40.0	Gray clay with sand pockets (CH)	MC	52.0													
CI-12	43.0 - 45.0	Very soft gray clay with sandy silt layers (CL)	UU	41.8	112.2	79.2					0.14		12.3	11.5	B		
CI-12	48.0 - 50.0	Gray sandy silt with clay layers and shell fragments (ML)	UU	23.3	131.1	106.4					0.54		15.0	12.8	B		

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Figure B-13

Soil Boring ID	Depth Interval (ft)	D2488 Visual Description	Test Type	D2216 Moisture (%)	D2166/D2850 Unit Weight (PCF) Wet	D2166/D2850 Unit Weight (PCF) Dry	D4318 Atterberg Limits LL	D4318 Atterberg Limits PL	D4318 Atterberg Limits PI	D422/D1140 /D6913 %<#200 Sieve	D2166/D2850 Shear Strength (KSF)	D2166/D2850 Remolded Strength (KSF)	D2166/D2850 Failure Strain (%)	D2166/D2850 Confining Pressure (PSI)	D2166/D2850 Failure Type	D4648 Mini Vane Shear Strength (KSF)	Comments
CI-13	0.0 - 1.5	Gray silty sand with organic traces (SM)	SV	27.3						21.5							
CI-13	2.0 - 3.5	Gray silty sand (SM)	MC	26.0													
CI-13	4.0 - 5.5	Gray silty sand with shell fragments (SM)	SV	30.4						13.7							
CI-13	6.0 - 7.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	MC	28.7													
CI-13	8.0 - 9.5	Gray poorly graded sand with silt (SP-SM)	SV	25.7						8.4							
CI-13	10.0 - 11.5	Gray poorly graded sand with silt (SP-SM)	MC	26.5													
CI-13	12.0 - 13.5	Gray clay with sand and shell fragments (CL)	SV	38.6						70.9							
CI-13	14.0 - 15.5	Gray sandy clay (CL)	MC	36.0													
CI-13	16.0 - 18.0	Very soft gray clay with silt and sand pockets (CL)	UU AL	44.7	114.2	78.9	46	22	24		0.25		7.8	5.0	B		
CI-13	18.0 - 20.0	Gray clay with silt and sand layer (CL)	MC	53.2													
CI-13	23.0 - 25.0	Soft gray clay with silt and sand lenses and pockets (CL)	UU	48.6	109.7	73.8					0.36		5.1	6.3	MS		
CI-13	28.0 - 30.0	Gray clay with sand layer and silt pockets (CH)	AL	39.0	112.4	80.9	54	21	33								SG = 2.688, Consol. Tested by AME.
CI-13	33.0 - 35.0	Soft gray silty clay with sand pockets, sand layers, and shell fragments (CL)	UU AL	33.7	117.1	87.6	39	20	19		0.26		15.0	8.9	B		
CI-13	38.0 - 39.5	Gray clayey sand with shell fragments (SC)	MC	34.2													

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Figure B-14

Soil Boring ID	Depth Interval (ft)	D2488 Visual Description	Test Type	D2216 Moisture (%)	D2166/D2850 Unit Weight (PCF) Wet	D2166/D2850 Unit Weight (PCF) Dry	D4318 Atterberg Limits LL	D4318 Atterberg Limits PL	D4318 Atterberg Limits PI	D422/D1140 /D6913 %<#200 Sieve	D2166/D2850 Shear Strength (KSF)	D2166/D2850 Remolded Strength (KSF)	D2166/D2850 Failure Strain (%)	D2166/D2850 Confining Pressure (PSI)	D2166/D2850 Failure Type	D4648 Mini Vane Shear Strength (KSF)	Comments
CI-14	0.0 - 1.5	Tan poorly graded sand (SP)	SV	3.2						0.2							
CI-14	2.0 - 3.5	Light gray poorly graded sand (SP)	MC	20.7													
CI-14	4.0 - 5.5	Light gray poorly graded sand with shell fragments (SP)	SV	19.2						0.7							
CI-14	6.0 - 7.5	Gray sand with shell fragments (SP)	MC	20.9													
CI-14	8.0 - 9.5	Gray poorly graded sand with shell fragments (SP)	SV	15.2						2.6							
CI-14	10.0 - 11.5	Gray sand with shell fragments (SP)	MC	23.0													
CI-14	12.0 - 13.5	Gray poorly graded sand with shell fragments (SP)	SV	23.6						3.6							
CI-14	14.0 - 15.5	Gray sand with shell fragments (SP)	MC	19.3													
CI-14	16.0 - 18.0	Soft gray silty clay with sand and shell fragments (CL)	UU AL	35.0	120.6	89.4	40	20	20		0.40		12.1	5.0	B		
CI-14	18.0 - 19.5	Gray silty sand with shell fragments (SM)	MC	27.2													
CI-14	23.0 - 25.0	Gray silty sand with a layer shell fragments (SM)	MC	26.9													
CI-14	28.0 - 29.5	Gray shell fragments with silty, clayey sand (SHELLS)	SV	18.6						23.7							
CI-14	33.0 - 34.5	Gray shell fragments with sand and silt (SHELLS)	MC	24.8													This sample was mostly comprised of shell fragments.
CI-14	38.0 - 39.5	Gray shell fragments with poorly graded sand and silt (SHELLS)	SV	24.1						11.7							This sample was mostly comprised of shell fragments.
CI-14	43.0 - 44.5	Gray sandy silt with traces of clay (ML)	MC	29.2													
CI-14	48.0 - 49.5	Gray sandy silty clay (CL)	-200 AL	34.9			32	21	11	67.5							

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Summary of Lab Results
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Figure B-15

Soil Boring ID	Depth Interval (ft)	D2488 Visual Description	Test Type	D2216 Moisture (%)	D2166/D2850 Unit Weight (PCF) Wet	D2166/D2850 Unit Weight (PCF) Dry	D4318 Atterberg Limits LL	D4318 Atterberg Limits PL	D4318 Atterberg Limits PI	D422/D1140 /D6913 %<#200 Sieve	D2166/D2850 Shear Strength (KSF)	D2166/D2850 Remolded Strength (KSF)	D2166/D2850 Failure Strain (%)	D2166/D2850 Confining Pressure (PSI)	D2166/D2850 Failure Type	D4648 Mini Vane Shear Strength (KSF)	Comments
CI-15	0.0 - 1.5	Gray poorly graded sand with shell fragments and traces of organic matter (SP)	SV ORG	23.5						3.7							OC = 0.3%
CI-15	2.0 - 3.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	MC	26.3													
CI-15	4.0 - 5.5	Gray silty sand with shell fragments (SM)	SV	30.5						12.5							
CI-15	6.0 - 7.5	Gray sand with silt, shell fragments, and organic matter (SP-SM)	MC	22.8													
CI-15	8.0 - 9.5	Gray poorly graded sand with silt (SP-SM)	SV	22.5						8.4							
CI-15	10.0 - 11.5	Gray sand with silt and shell fragments (SP-SM)	MC	29.8													
CI-15	12.0 - 13.5	Gray poorly graded sand with silt, shell fragments, and traces of organic matter (SP-SM)	SV	22.4						5.6							
CI-15	14.0 - 15.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	MC	24.2													
CI-15	16.0 - 17.5	Gray silty clay with traces of shell fragments (CL)	MC	38.4													
CI-15	18.0 - 19.5	Gray sandy, clayey silt with shell fragments (CL-ML)	-200 AL	34.7			29	22	7	54.4							
CI-15	23.0 - 24.5	Gray sandy, silty clay with shell fragments (CL)	MC	37.0													
CI-15	28.0 - 29.5	Gray silty sand with shell fragments and organic matter (SM)	SV	20.0						14.8							
CI-15	33.0 - 34.5	Gray silty sand with shell fragments (SM)	MC	21.2													
CI-15	38.0 - 39.5	Gray clayey sand with shell fragments (SC-SM)	AL SV	26.8			34	15	19	28.5							
CI-15	43.0 - 44.5	Gray silty sand with shell fragments (SM)	MC	21.8													
CI-15	48.0 - 49.5	Gray silty sand with shell fragments (SM)	-200 AL	32.4			31	25	6	50.0							
CI-15	53.0 - 55.0	Gray silty sand with shell fragments (SM)	MC UDW	20.9													
CI-15	58.0 - 60.0	Soft gray silty clay with sand lenses (CL)	UU AL SG UDW	37.0	119.3	87.0	37	20	17		0.27		14.7	15.4	B		SG = 2.756, Consol

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Summary of Lab Results
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Figure B-16a

Soil Boring ID	Depth Interval (ft)	D2488	Test Type	D2216	D2166/D2850		D4318			D422/D1140 /D6913	D2166/D2850					D4648	Comments
		Visual Description		Moisture (%)	Unit Weight (PCF)		Atterberg Limits			%<#200 Sieve	Shear Strength (KSF)	Remolded Strength (KSF)	Failure Strain (%)	Confining Pressure (PSI)	Failure Type	Mini Vane Shear Strength (KSF)	
					Wet	Dry	LL	PL	PI								
CI-15	63.0 - 65.0	Gray silty clay with sand and shell fragments (CL)	MC UDW	35.2													
CI-15	68.0 - 70.0	Soft gray clay with silt, sand pockets, and shell fragments (CL)	UU AL UDW	40.2	114.7	81.8	48	22	26		0.29		14.4	18.0	B		
CI-15	73.0 - 75.0	Gray sandy silty clay with shell fragments (CL)	MC UDW	25.7													
CI-15	78.0 - 80.0	Medium gray clay with silt (CL)	UU UDW	44.2	112.7	78.1					0.79		3.3	20.6	AS(45)		

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Figure B-16b

Soil Boring ID	Depth Interval (ft)	D2488	Test Type	D2216	D2166/D2850		D4318			D422/D1140 /D6913	D2166/D2850					D4648	Comments
		Visual Description		Moisture (%)	Unit Weight (PCF)		Atterberg Limits			%<#200 Sieve	Shear Strength (KSF)	Remolded Strength (KSF)	Failure Strain (%)	Confining Pressure (PSI)	Failure Type	Mini Vane Shear Strength (KSF)	
					Wet	Dry	LL	PL	PI								
CI-16	0.0 - 1.5	Tan poorly graded sand with shells and shell fragments (SP)	SV	3.9						0.5							
CI-16	2.0 - 3.5	Tan sand with shell fragments (SP)	MC	13.8													
CI-16	4.0 - 5.5	Light gray poorly graded sand with shell fragments (SP)	SV	15.3						1.7							
CI-16	6.0 - 7.5	Gray silty sand with shell fragments (SM)	MC	22.3													
CI-16	8.0 - 9.5	Gray silty sand (SM)	SV	21.5						23.5							
CI-16	10.0 - 11.5	Gray silty sand with shell fragments (SM)	MC	25.4													
CI-16	12.0 - 13.5	Gray silty sand with shell fragments (SM)	SV	21.1						20.4							
CI-16	14.0 - 15.5	Gray silty sand with shell fragments (SM)	MC	25.1													
CI-16	16.0 - 17.5	Gray silty sand with shell fragments and clay traces (SM)	MC	31.3													
CI-16	18.0 - 19.5	Gray clayey sand with a layer of shell fragments (SC)	SV	33.4						47.0							
CI-16	23.0 - 25.0	Soft gray clay with silt, sand, and shell fragments (CL)	UU AL SG	40.1	116.0	82.8	48	21	27		0.35		12.8	6.3	B		SG = 2.719, Consol
CI-16	28.0 - 29.5	Gray silty sand with shell fragments (SM)	MC	23.6													
CI-16	33.0 - 34.5	Gray silty sand with shell fragments and clay traces (SM)	SV	20.6						20.1							
CI-16	38.0 - 39.5	Gray silty sand with shell fragments and clay traces (SM)	MC	28.2													
CI-16	43.0 - 44.5	Gray silty sand with shell fragments and clay traces (SM)	SV	20.5						24.3							
CI-16	48.0 - 49.5	Gray silty sand with shell fragments and clay traces (SM)	MC	20.8													

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Figure B-17

Soil Boring ID	Depth Interval (ft)	D2488 Visual Description	Test Type	D2216 Moisture (%)	D2166/D2850 Unit Weight (PCF)		D4318 Atterberg Limits			D422/D1140 /D6913 %<#200 Sieve	D2166/D2850					D4648	Comments
					Wet	Dry	LL	PL	PI		Shear Strength (KSF)	Remolded Strength (KSF)	Failure Strain (%)	Confining Pressure (PSI)	Failure Type	Mini Vane Shear Strength (KSF)	
CI-17	0.0 - 1.5	Gray poorly graded sand with traces of organic matter and traces of shells (SP)	SV MC	21.1						3.1							OC = 0.5%
CI-17	2.0 - 3.5	Gray poorly graded sand and traces of organic matter (SP)	SV ORG	22.0						2.5							
CI-17	4.0 - 5.5	Gray silty sand with traces of organic matter and shell fragments (SM)	MC	28.8													
CI-17	6.0 - 7.5	Gray silty sand with shell fragments and traces of organic matter (SM)	SV	26.6						22.9							
CI-17	8.0 - 9.5	Gray silty sand with traces of organic matter and shell fragments (SM)	MC	29.2													
CI-17	10.0 - 11.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	SV	24.8						9.7							
CI-17	12.0 - 13.5	Gray sand with silt and shell fragments (SP-SM)	MC	29.6													
CI-17	14.0 - 16.0	Gray sandy clay with shell fragments (CL)	UU -200 AL	29.4	124.2	96.0	32	24	8	51.5	0.40		15.0	5.0	B		
CI-17	16.0 - 18.0	Gray silty sand with traces of clay, and shell fragments (SM)	UU	23.3	130.8	106.0					1.92		14.8	5.0	B		
CI-17	18.0 - 19.5	Gray silty sand (SM)	MC	23.1													
CI-17	23.0 - 24.5	Gray silty sand (SM)	SV	26.0						33.1							
CI-17	28.0 - 29.5	Gray silty sand (SM)	-200 AL	28.2			NP	NP	NP	39.3							Non Plastic
CI-17	33.0 - 34.5	Gray silty sand (SM)	MC	27.4													
CI-17	38.0 - 39.5	Gray sandy silt with clay pockets (ML)	MC	32.6													
CI-17	43.0 - 44.5	Gray sandy silt with organic matter (ML)	SV	31.5						63.8							
CI-17	48.0 - 49.5	Gray sandy silt with clay pockets (ML)	MC	36.7													

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Title: Senior Lab Technician

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Figure B-18

Soil Boring ID	Depth Interval (ft)	D2488 Visual Description	Test Type	D2216 Moisture (%)	D2166/D2850 Unit Weight (PCF) Wet	D2166/D2850 Unit Weight (PCF) Dry	D4318 Atterberg Limits LL	D4318 Atterberg Limits PL	D4318 Atterberg Limits PI	D422/D1140 /D6913 %<#200 Sieve	D2166/D2850 Shear Strength (KSF)	D2166/D2850 Remolded Strength (KSF)	D2166/D2850 Failure Strain (%)	D2166/D2850 Confining Pressure (PSI)	D2166/D2850 Failure Type	D4648 Mini Vane Shear Strength (KSF)	Comments
CI-18	0.0 - 1.5	gray silty sand with shell fragments (SM)	SV	22.4						19.4							
CI-18	2.0 - 3.5	gray silty sand with organic matter and shell fragments (SM)	MC	30.1													
CI-18	4.0 - 5.5	gray poorly graded sand with silt and shell fragments (SP-SM)	SV ORG	26.8						5.4							OC = 0.6%
CI-18	6.0 - 7.5	gray silty sand with organic matter and shell fragments (SM)	MC	26.0													
CI-18	8.0 - 9.5	gray silty clayey sand (SC-SM)	-200 AL	29.5			NP	NP	NP	27.4							Non Plastic
CI-18	10.0 - 11.5	gray silty sand with traces of clay (SM)	MC	31.5													
CI-18	12.0 - 13.5	gray silty sand with organic matter and shell fragments (SM)	SV	28.7						30.4							
CI-18	14.0 - 15.5	gray silty sand with organic matter (SM)	MC	29.1													
CI-18	16.0 - 17.5	gray poorly graded sand with silt and organic matter (SP-SM)	SV	28.1						6.7							
CI-18	18.0 - 19.5	gray silty clayey sand (SC-SM)	MC	32.4													
CI-18	23.0 - 25.0	Very soft gray clay with shell fragments, sand layers, and silt lenses (CH)	UU AL	36.0	118.9	87.4	38	20	18		0.19		15.0	6.3	B		
CI-18	28.0 - 30.0	Gray silty clay with sand lenses, and sand pockets (CL)	-200	40.1						89.9							
CI-18	33.0 - 35.0	Gray silty sandy clay (CL)	MC	45.9													
CI-18	38.0 - 40.0	Soft gray clay with sand layers, and sand pockets (CH)	UU AL	47.9	110.8	75.0	59	22	37		0.39		5.4	10.2	MS		

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Chandeleur Island, Louisiana

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Figure B-19

Soil Boring ID	Depth Interval (ft)	D2488	Test Type	D2216	D2166/D2850		D4318			D422/D1140 /D6913	D2166/D2850					D4648	Comments
		Visual Description		Moisture (%)	Unit Weight (PCF)		Atterberg Limits			%<#200 Sieve	Shear Strength (KSF)	Remolded Strength (KSF)	Failure Strain (%)	Confining Pressure (PSI)	Failure Type	Mini Vane Shear Strength (KSF)	
					Wet	Dry	LL	PL	PI								
CI-19	0.0 - 1.5	Gray poorly graded sand with traces of shell fragments (SP)	SV MC	27.0						2.0							
CI-19	2.0 - 3.5	Gray poorly graded sand (SP)	SV	24.0						3.8							
CI-19	4.0 - 5.5	Gray poorly graded sand (SP)	MC	24.5													
CI-19	6.0 - 7.5	Gray silty sand (SM)	SV	29.0						14.0							
CI-19	8.0 - 9.5	Gray silty sand (SM)	MC	31.4													
CI-19	10.0 - 11.5	Gray silty sand (SM)	SV	30.2						33.0							
CI-19	12.0 - 13.5	Gray silty sand (SM)	-200 AL	32.2			28	24	4	33.4							
CI-19	14.0 - 15.5	Gray silty sand (SM)	MC	30.4													
CI-19	16.0 - 17.5	Gray clayey sand (SC)	-200 AL	39.3			48	22	26	32.1							
CI-19	18.0 - 19.5	Gray clayey sand (SC)	MC	37.0													
CI-19	23.0 - 214.5	Gray silty sand with shells and shell fragments (SM)	SV	19.8						18.0							
CI-19	28.0 - 29.5	Gray silty sand with shell fragments (SM)	MC	22.7													
CI-19	33.0 - 34.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	SV	24.1						11.2							
CI-19	38.0 - 39.5	Gray sand with silt and shell fragments (SP-SM)	MC	24.9													
CI-19	43.0 - 44.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	SV	24.5						8.2							
CI-19	48.0 - 49.5	Gray sand with silt (SP-SM)	MC	23.4													

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Chandeleur Island, Louisiana

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Figure B-20

Soil Boring ID	Depth Interval (ft)	D2488 Visual Description	Test Type	D2216 Moisture (%)	D2166/D2850 Unit Weight (PCF) Wet	D2166/D2850 Unit Weight (PCF) Dry	D4318 Atterberg Limits LL	D4318 Atterberg Limits PL	D4318 Atterberg Limits PI	D422/D1140 /D6913 %<#200 Sieve	D2166/D2850 Shear Strength (KSF)	D2166/D2850 Remolded Strength (KSF)	D2166/D2850 Failure Strain (%)	D2166/D2850 Confining Pressure (PSI)	D2166/D2850 Failure Type	D4648 Mini Vane Shear Strength (KSF)	Comments
CI-20	0.0 - 1.5	Light gray poorly graded sand with shell fragments and traces of organic matter (SP)	SV	4.8						0.6							
CI-20	2.0 - 3.5	Light gray sand with shell fragments and traces of organic matter (SP)	MC	12.1													
CI-20	4.0 - 5.5	Gray poorly graded sand with shells and shell fragments (SP)	SV	14.7						0.4							
CI-20	6.0 - 7.5	Dark gray sand with silt and traces of organic matter (SP-SM)	ORG MC	41.5													OC = 1.6%
CI-20	8.0 - 9.5	Gray sand with silt and traces of shell fragment traces (SP-SM)	MC	23.5													
CI-20	10.0 - 11.5	Dark gray poorly graded sand with silt and traces of organic matter (SP-SM)	SV	29.2						10.3							
CI-20	12.0 - 13.5	Dark gray sand with silt, traces of organic matter, and shell fragments (SP-SM)	MC	56.7													
CI-20	14.0 - 15.5	Gray sandy silt (ML)	SV	27.4						51.9							
CI-20	16.0 - 17.5	Gray sandy silt with traces of clay (ML)	MC	31.8													
CI-20	18.0 - 20.0	Soft gray clay with sand pockets, and shell fragments (CH)	UU AL	51.0	110.5	73.2	62	26	36		0.32		7.1	5.0	B		
CI-20	23.0 - 25.0	Gray clay with sand pockets (CH)	MC	52.0													
CI-20	28.0 - 30.0	Gray sandy silt with traces of clay (ML)	UU -200	24.5	128.0	102.8				57.3	4.09		12.1	7.6	B		
CI-20	33.0 - 34.5	Gray sandy silt with traces of clay (ML)	MC	25.9													
CI-20	38.0 - 39.5	Gray silty sand (SM)	SV	24.9						38.0							
CI-20	43.0 - 45.0	Gray clay (CH)	MC	43.4													
CI-20	48.0 - 50.0	Medium gray clay with organic matter (CH)	UU	36.0	112.0	82.4					0.53		15.0	12.8	B		
CI-20	53.0 - 55.0	Gray clay with traces of organic matter, and shell fragments (CH)	MC	57.1													
CI-20	58.0 - 60.0	Soft gray clay with silt (CL)	UU AL	39.5	114.4	82.0	47	22	25		0.28		13.6	15.4	B		

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Figure B-21a

Soil Boring ID	Depth Interval (ft)	D2488 Visual Description	Test Type	D2216 Moisture (%)	D2166/D2850 Unit Weight (PCF) Wet	D2166/D2850 Unit Weight (PCF) Dry	D4318 Atterberg Limits LL	D4318 Atterberg Limits PL	D4318 Atterberg Limits PI	D422/D1140 /D6913 %<#200 Sieve	D2166/D2850 Shear Strength (KSF)	D2166/D2850 Remolded Strength (KSF)	D2166/D2850 Failure Strain (%)	D2166/D2850 Confining Pressure (PSI)	D2166/D2850 Failure Type	D4648 Mini Vane Shear Strength (KSF)	Comments
CI-20	63.0 - 65.0	Gray clay with silt and shell fragments (CL)	MC	30.6													
CI-20	68.0 - 70.0	Gray clay with silt and sand lenses (CL)	MC	51.3													
CI-20	73.0 - 75.0	Medium gray clay with silt pockets (CH)	UU AL SG	46.1	110.8	75.8	79	30	49		0.64		7.5	19.3	AS(55)		SG = 2.723, Consol
CI-20	78.0 - 80.0	Medium gray clay with silt pockets and silt lenses (CH)	UU	56.4	104.4	66.8					0.72		9.0	20.6	AS(74)		

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Summary of Lab Results
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Figure B-21b

Soil Boring ID	Depth Interval (ft)	D2488 Visual Description	Test Type	D2216 Moisture (%)	D2166/D2850 Unit Weight (PCF) Wet	D2166/D2850 Unit Weight (PCF) Dry	D4318 Atterberg Limits LL	D4318 Atterberg Limits PL	D4318 Atterberg Limits PI	D422/D1140 /D6913 %<#200 Sieve	D2166/D2850 Shear Strength (KSF)	D2166/D2850 Remolded Strength (KSF)	D2166/D2850 Failure Strain (%)	D2166/D2850 Confining Pressure (PSI)	D2166/D2850 Failure Type	D4648 Mini Vane Shear Strength (KSF)	Comments
CI-21	0.0 - 1.5	Gray silty sand (SM)	SV	26.0						17.8							
CI-21	2.0 - 3.5	Gray silty sand (SM)	MC	24.4													
CI-21	4.0 - 5.5	Gray silty sand with traces of clay (SM)	SV	31.0						38.6							
CI-21	6.0 - 7.5	Gray silty sand with traces of clay and shell fragments (SM)	MC	23.1													
CI-21	8.0 - 9.5	Gray clayey sand with a clay layer (SC)	AL SV	30.8			34	18	16	43.1							
CI-21	10.0 - 11.5	Gray clayey sand with shell fragments (SC)	MC	23.3													
CI-21	12.0 - 14.0	Gray clayey sand with shell fragments and organic material (SC)	-200	31.8						24.4							
CI-21	14.0 - 16.0	Very soft gray clay with silty clay layers, sand, organic material, and shell fragments (CH)	UU AL	45.3	109.9	75.6	53	22	31		0.16		11.6	5.0	B		
CI-21	16.0 - 18.0	Stiff gray silty clay with sand and organic material (CL)	UU	33.4	121.9	91.3					1.12		15.0	5.0	B		
CI-21	18.0 - 20.0	Gray silty clay with sand, organic material, and shell fragments (CL)	MC	40.5													
CI-21	23.0 - 25.0	Gray sandy clay with silt pockets (CL)	UU	32.2	122.3	92.6					0.31		15.0	6.3	B		
CI-21	28.0 - 29.5	Gray silty clay with sand pockets (CL)	MC	41.0													
CI-21	33.0 - 35.0	Very stiff gray sandy clay with sand layers and shell fragments (CL)	UU	20.6	129.7	107.5					2.98		15.0	8.9	B		
CI-21	38.0 - 40.0	Gray sandy silt with traces of clay and shell fragments (ML)		29.4													

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Summary of Lab Results
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Figure B-22

Soil Boring ID	Depth Interval (ft)	D2488	Test Type	D2216	D2166/D2850		D4318			D422/D1140 /D6913	D2166/D2850					D4648	Comments
		Visual Description		Moisture (%)	Unit Weight (PCF)		Atterberg Limits			%<#200 Sieve	Shear Strength (KSF)	Remolded Strength (KSF)	Failure Strain (%)	Confining Pressure (PSI)	Failure Type	Mini Vane Shear Strength (KSF)	
					Wet	Dry	LL	PL	PI								
CI-22	0.0 - 1.5	Gray poorly graded sand with shell fragments (SP)	SV	5.2						0.5							
CI-22	2.0 - 3.5	Gray sand (SP)	MC	19.1													
CI-22	4.0 - 5.5	Gray poorly graded sand with shell fragments (SP)	SV	25.2						2.6							
CI-22	6.0 - 7.5	Gray silty sand with shell fragments (SM)	MC	32.9													
CI-22	8.0 - 9.5	Gray silty sand with shell fragments (SM)	SV	24.9						19.8							
CI-22	10.0 - 11.5	Gray silty sand (SM)	MC	22.1													
CI-22	12.0 - 13.5	Gray silty sand (SM)	SV	25.4						41.5							
CI-22	14.0 - 15.5	Gray silty sand (SM)	MC	28.8													
CI-22	16.0 - 18.0	Soft gray clay with sand pockets (CH)	UU AL	57.7	105.0	66.6	64	25	39		0.39		6.3	5.0	B		
CI-22	18.0 - 20.0	Gray clay with silt pockets (CH)	EXT_MC	74.6	97.8	56.0											SG = 2.746, Consol. Tested by AME.
CI-22	23.0 - 24.5	Gray sandy silty clay (CL)	-200 AL	27.8			37	19	18	59.2							
CI-22	28.0 - 29.5	Gray silty sand (SM)	MC	24.7													
CI-22	33.0 - 34.5	Gray sandy silt with traces of clay and shell fragments (ML)	MC	26.1													
CI-22	38.0 - 40.0	Gray sandy silt with clay pockets (ML)	UU	28.6	123.4	96.0					0.81		9.6	10.2	B		
CI-22	43.0 - 45.0	Gray silt with clay pockets (ML)	AL MC EXT_MC	31.4			32	27	5								
CI-22	48.0 - 50.0	Gray silty sand with shell fragments (SM)	MC EXT_MC	18.9													disturbed (put in bag after extrusion)

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Project No.: 18274-022-01

Chandeleur Island, Louisiana

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Figure B-23

Soil Boring ID	Depth Interval (ft)	D2488	Test Type	D2216	D2166/D2850		D4318			D422/D1140 /D6913	D2166/D2850					D4648	Comments
		Visual Description		Moisture (%)	Unit Weight (PCF)		Atterberg Limits			%<#200 Sieve	Shear Strength (KSF)	Remolded Strength (KSF)	Failure Strain (%)	Confining Pressure (PSI)	Failure Type	Mini Vane Shear Strength (KSF)	
					Wet	Dry	LL	PL	PI								
CI-23	0.0 - 1.5	Gray silty sand with shell fragments and traces of organic matter (SM)	SV ORG	23.1						15.4							OC = 0.7%
CI-23	2.0 - 3.5	Gray silty sand with traces of organic matter and clay (SM)	MC	28.3													
CI-23	4.0 - 5.5	Gray silty sand with shell fragments (SM)	SV	23.1						17.3							
CI-23	6.0 - 7.5	Gray silty sand with clay and shell fragments (SM)	MC	29.7													
CI-23	8.0 - 9.5	Gray silty clayey sand (SC-SM)	SV	33.9						43.6							
CI-23	10.0 - 11.5	Gray silty clayey sand (SC-SM)	MC	46.5													
CI-23	12.0 - 13.5	Gray silty sand with shell fragments (SM)	SV	25.3						17.2							
CI-23	14.0 - 15.5	Gray silty sand with organic matter (SM)	MC	23.8													
CI-23	16.0 - 17.5	Gray silty sand with shell fragments and organic matter (SM)	SV	25.7						21.7							
CI-23	18.0 - 19.5	Gray silty clayey sand with shell fragments (SC-SM)	MC	25.9													
CI-23	23.0 - 24.5	Gray silty sand (SM)	SV	21.8						15.1							
CI-23	28.0 - 29.5	Gray silty clay with sand (CL)	MC	49.7													
CI-23	33.0 - 35.0	Soft gray clay with sand layers and organic matter. (CH)	UU AL SG	43.5	106.7	74.3	60	24	36		0.27		13.3	8.9	MS		SG = 2.710, Console
CI-23	38.0 - 39.5	Gray silty sand with shell fragments and traces of clay (SM)	MC	24.9													

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Summary of Lab Results
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Figure B-24

Soil Boring ID	Depth Interval (ft)	D2488	Test Type	D2216	D2166/D2850		D4318			D422/D1140 /D6913	D2166/D2850					D4648	Comments
		Visual Description		Moisture (%)	Unit Weight (PCF)		Atterberg Limits			%<#200 Sieve	Shear Strength (KSF)	Remolded Strength (KSF)	Failure Strain (%)	Confining Pressure (PSI)	Failure Type	Mini Vane Shear Strength (KSF)	
					Wet	Dry	LL	PL	PI								
CI-24	0.0 - 2.0	Gray sandy silt with organic matter and traces of shells (ML)	UU AL SV	30.6	119.7	91.6	32	28	4	55.4	1.93		13.9	5.0	B		
CI-24	2.0 - 4.0	Gray sandy silty clay (CL)	MC EXT_MC	33.6													
CI-24	4.0 - 6.0	Soft gray sandy silty clay (CL)	UU	29.9	124.3	95.6					0.43		15.0	5.0	B		
CI-24	6.0 - 8.0	Gray sandy clay (CL)	MC EXT_MC	29.6													
CI-24	8.0 - 10.0	Very soft gray silty clay with sand and shell fragments (CL)	UU AL SG	35.9	116.1	85.4	39	25	14		0.17		14.3	5.0	B		SG = 2.677, Consol
CI-24	10.0 - 12.0	Gray clay with sand and silt (CL)	-200	37.2						96.5							
CI-24	12.0 - 14.0	Very soft gray clay with silt and shell fragments (CL)	UU AL	46.1	111.0	76.0	48	21	27		0.05		13.8	5.0	B		
CI-24	14.0 - 16.0	Gray clay (CH)	MC EXT_MC	50.8													
CI-24	16.0 - 18.0	Gray clay with silt and sand pockets (CL)	MC EXT_MC	37.6													
CI-24	18.0 - 20.0	Soft gray clay with sand layers, silt, and organic matter (CL)	UU	52.2	107.1	70.3					0.32		8.8	5.0	B		
CI-24	23.0 - 25.0	Gray clay with sand and silt (CL)	MC EXT_MC	30.9													
CI-24	28.0 - 30.0	Soft gray clay (CH)	UU MC EXT_MC	52.8	106.2	69.5					0.42		6.8	7.6	B		
CI-24	33.0 - 35.0	Gray clay with silt pockets and sand layers (CH)	MC EXT_MC	58.9													
CI-24	38.0 - 40.0	Soft gray clay with silt lenses and sand pockets (CH)	UU	46.2	112.6	77.0					0.28		15.0	10.2	B		
CI-24	43.0 - 45.0	Medium gray clay with silt lenses and sand pockets (CH)	UU	54.1	107.7	69.9					0.50		8.7	11.5	B		
CI-24	48.0 - 50.0	Gray clay (CH)	MC EXT_MC	39.7													Disturbed

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Chandeleur Island, Louisiana

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Figure B-25

Soil Boring ID	Depth Interval (ft)	D2488 Visual Description	Test Type	D2216 Moisture (%)	D2166/D2850 Unit Weight (PCF)		D4318 Atterberg Limits			D422/D1140 /D6913	D2166/D2850					D4648	Comments
					Wet	Dry	LL	PL	PI	%<#200 Sieve	Shear Strength (KSF)	Remolded Strength (KSF)	Failure Strain (%)	Confining Pressure (PSI)	Failure Type	Mini Vane Shear Strength (KSF)	
CI-25	0.0 - 1.5	Gray sandy silt with traces of shells (ML)	AL SV	34.9			33	26	7	56.2							
CI-25	2.0 - 3.5	Gray sandy silt (ML)	MC	28.9													
CI-25	4.0 - 5.5	Gray sandy silt with clay and shell fragments (ML)	-200 AL	35.0			34	25	9	77.1							
CI-25	6.0 - 7.5	Gray sandy silt with clay, organic matter, and shell fragments (ML)	MC	34.4													
CI-25	8.0 - 10.0	Very soft gray silty clay with sand pockets (CL)	UU	41.7	114.4	80.7					0.21		13.6	5.0	B		
CI-25	10.0 - 12.0	Gray silty clay (CL)	MC EXT_MC	58.0													
CI-25	12.0 - 14.0	Very soft gray clay with silt lenses (CH)	UU AL	44.3	114.2	79.1	51	19	32		0.17		13.8	5.0	B		
CI-25	14.0 - 16.0	Gray clay with silt lenses (CH)	MC EXT_MC	53.4													
CI-25	16.0 - 18.0	Gray silty clay with silt lenses and silt layers (CH)	MC EXT_MC	53.3													
CI-25	18.0 - 20.0	Very soft gray clay with silt layers (CH)	UU	48.0	104.1	70.3					0.11		10.5	5.0	B		
CI-25	23.0 - 25.0	Gray clay with traces of silt (CH)	EXT_MC	48.6	106.8	71.9											SG = 2.650, Consol. Tested by AME.
CI-25	28.0 - 30.0	Very soft gray clay with silt (CH)	UU	45.9	110.9	76.0					0.22		12.1	7.6	B		
CI-25	33.0 - 35.0	Gray clay with silt seams (CH)	MC EXT_MC	47.7													
CI-25	38.0 - 40.0	Soft gray clay with silt lenses (CH)	UU	44.9	113.7	78.4					0.30		14.4	10.2	B		
CI-25	43.0 - 45.0	Gray clay with traces of silt (CH)	MC EXT_MC	52.5													
CI-25	48.0 - 50.0	Soft gray clay with sand pockets (CH)		42.8	114.2	80.0					0.34		14.8	0.3	B		

Disclaimer: The results presented relate only to those samples tested.
Note: ASTM standard identification numbers shown above each test description.

Multiple Shear = MS Slickensided = SLS Vertical Shear = VS Bulge = B Angle Shear = AS Crumble = C

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Technical Responsibility: Donna Easterling

Title: Senior Lab Technician

Date: 12/21/2023

Summary of Lab Results
Project No.: 18274-022-01

Chandeleur Island, Louisiana

GeoEngineers

Figure B-26

Soil Boring ID	Depth Interval (ft)	Visual Description	Weight Bottle + Water (gm)	Weight Bottle + Water + Soil (gm)	Weight Dry Soil + Tare (gm)	Weight Tare (gm)	Test Temperature (°C)	Specific Gravity at 20°C
CI-01	33.0 - 35.0	Gray clay with silt (CL)	336.98	361.13	329.76	291.14	20.2	2.669

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Specific Gravity Worksheet
ASTM D854

Project No.: 18274-022-01

Chandeleur Island, Louisiana

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Figure B-27

Soil Boring ID	Depth Interval (ft)	Visual Description	Weight Bottle + Water (gm)	Weight Bottle + Water + Soil (gm)	Weight Dry Soil + Tare (gm)	Weight Tare (gm)	Test Temperature (°C)	Specific Gravity at 20°C
CI-03	68.0 - 70.0	Gray clay (CH)	380.69	404.41	328.00	290.24	20.3	2.689

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Specific Gravity Worksheet
ASTM D854

Project No.: 18274-022-01

Chandeleur Island, Louisiana

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Figure B-28

Soil Boring ID	Depth Interval (ft)	Visual Description	Weight Bottle + Water (gm)	Weight Bottle + Water + Soil (gm)	Weight Dry Soil + Tare (gm)	Weight Tare (gm)	Test Temperature (°C)	Specific Gravity at 20°C
CI-03B	33.0 - 35.0	Gray clay with a silty sand layer (CH)	380.70	404.22	328.40	291.10	20.1	2.707

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Specific Gravity Worksheet
ASTM D854

Project No.: 18274-022-01

Chandeleur Island, Louisiana

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Figure B-29

Soil Boring ID	Depth Interval (ft)	Visual Description	Weight Bottle + Water (gm)	Weight Bottle + Water + Soil (gm)	Weight Dry Soil + Tare (gm)	Weight Tare (gm)	Test Temperature (°C)	Specific Gravity at 20°C
CI-06	38.0 - 40.0	Soft gray clay with sand lenses (CH)	380.70	404.08	328.30	291.11	20.0	2.693

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Specific Gravity Worksheet
ASTM D854

Project No.: 18274-022-01

Chandeleur Island, Louisiana

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Figure B-30

Soil Boring ID	Depth Interval (ft)	Visual Description	Weight Bottle + Water (gm)	Weight Bottle + Water + Soil (gm)	Weight Dry Soil + Tare (gm)	Weight Tare (gm)	Test Temperature (°C)	Specific Gravity at 20°C
CI-07	58.0 - 60.0	Soft gray silty clay with sand pockets (CL)	379.50	403.73	330.01	291.86	20.1	2.741

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Specific Gravity Worksheet
ASTM D854

Project No.: 18274-022-01

Chandeleur Island, Louisiana

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Figure B-31

Soil Boring ID	Depth Interval (ft)	Visual Description	Weight Bottle + Water (gm)	Weight Bottle + Water + Soil (gm)	Weight Dry Soil + Tare (gm)	Weight Tare (gm)	Test Temperature (°C)	Specific Gravity at 20°C
CI-09	33.0 - 35.0	Gray silt with sand, traces of clay, and organic matter (ML)	334.75	358.80	328.75	290.37	20.1	2.678

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Specific Gravity Worksheet
ASTM D854

Project No.: 18274-022-01

Chandeleur Island, Louisiana

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Figure B-32

Soil Boring ID	Depth Interval (ft)	Visual Description	Weight Bottle + Water (gm)	Weight Bottle + Water + Soil (gm)	Weight Dry Soil + Tare (gm)	Weight Tare (gm)	Test Temperature (°C)	Specific Gravity at 20°C
CI-11	18.0 - 20.0	Soft gray clay with sand, sand pockets, and silt pockets (CL)	379.50	403.33	327.62	290.02	20.1	2.731

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Project No.: 18274-022-01

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Figure B-33

Soil Boring ID	Depth Interval (ft)	Visual Description	Weight Bottle + Water (gm)	Weight Bottle + Water + Soil (gm)	Weight Dry Soil + Tare (gm)	Weight Tare (gm)	Test Temperature (°C)	Specific Gravity at 20°C
CI-15	58.0 - 60.0	Soft gray silty clay with sand lenses (CL)	336.99	361.55	552.90	514.35	20.1	2.756

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Project No.: 18274-022-01

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Figure B-34

Soil Boring ID	Depth Interval (ft)	Visual Description	Weight Bottle + Water (gm)	Weight Bottle + Water + Soil (gm)	Weight Dry Soil + Tare (gm)	Weight Tare (gm)	Test Temperature (°C)	Specific Gravity at 20°C
CI-16	23.0 - 25.0	Soft gray clay with silt, sand, and shell fragments (CL)	379.50	404.45	545.52	506.06	20.1	2.719

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ASTM D854

Project No.: 18274-022-01

Chandeleur Island, Louisiana

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Figure B-35

Soil Boring ID	Depth Interval (ft)	Visual Description	Weight Bottle + Water (gm)	Weight Bottle + Water + Soil (gm)	Weight Dry Soil + Tare (gm)	Weight Tare (gm)	Test Temperature (°C)	Specific Gravity at 20°C
CI-20	73.0 - 75.0	Medium gray clay with silt pockets (CH)	336.99	360.16	552.63	516.01	20.1	2.723

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Specific Gravity Worksheet
ASTM D854

Project No.: 18274-022-01

Chandeleur Island, Louisiana

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Figure B-36

Soil Boring ID	Depth Interval (ft)	Visual Description	Weight Bottle + Water (gm)	Weight Bottle + Water + Soil (gm)	Weight Dry Soil + Tare (gm)	Weight Tare (gm)	Test Temperature (°C)	Specific Gravity at 20°C
CI-23	33.0 - 35.0	Soft gray clay with sand layers and organic matter. (CH)	380.69	405.11	549.16	510.46	20.2	2.710

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Specific Gravity Worksheet
ASTM D854

Project No.: 18274-022-01

Chandeleur Island, Louisiana

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Figure B-37

Soil Boring ID	Depth Interval (ft)	Visual Description	Weight Bottle + Water (gm)	Weight Bottle + Water + Soil (gm)	Weight Dry Soil + Tare (gm)	Weight Tare (gm)	Test Temperature (°C)	Specific Gravity at 20°C
CI-24	8.0 - 10.0	Very soft gray silty clay with sand and shell fragments (CL)	334.79	358.91	549.10	510.60	20.3	2.677

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Specific Gravity Worksheet
ASTM D854

Project No.: 18274-022-01

Chandeleur Island, Louisiana

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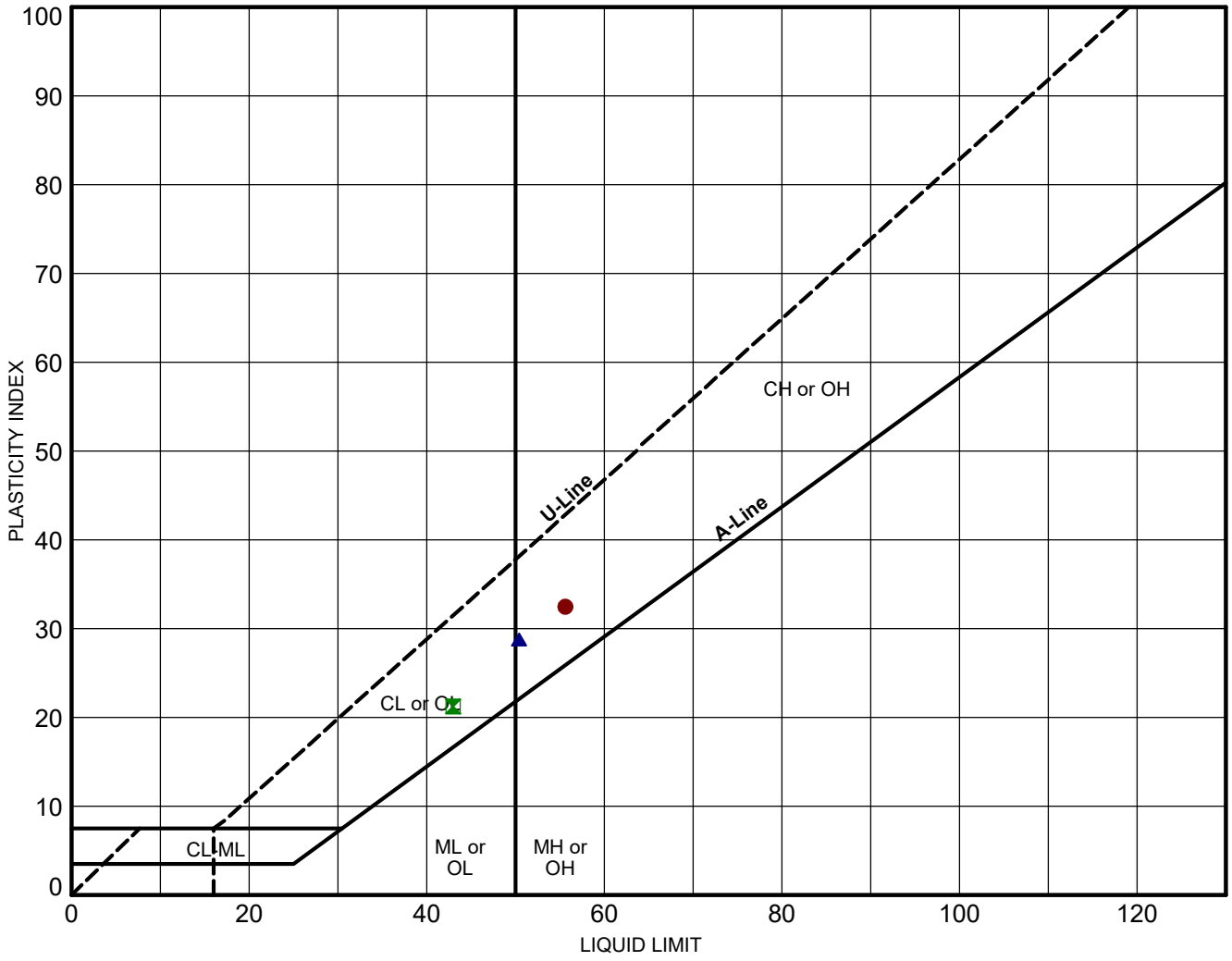
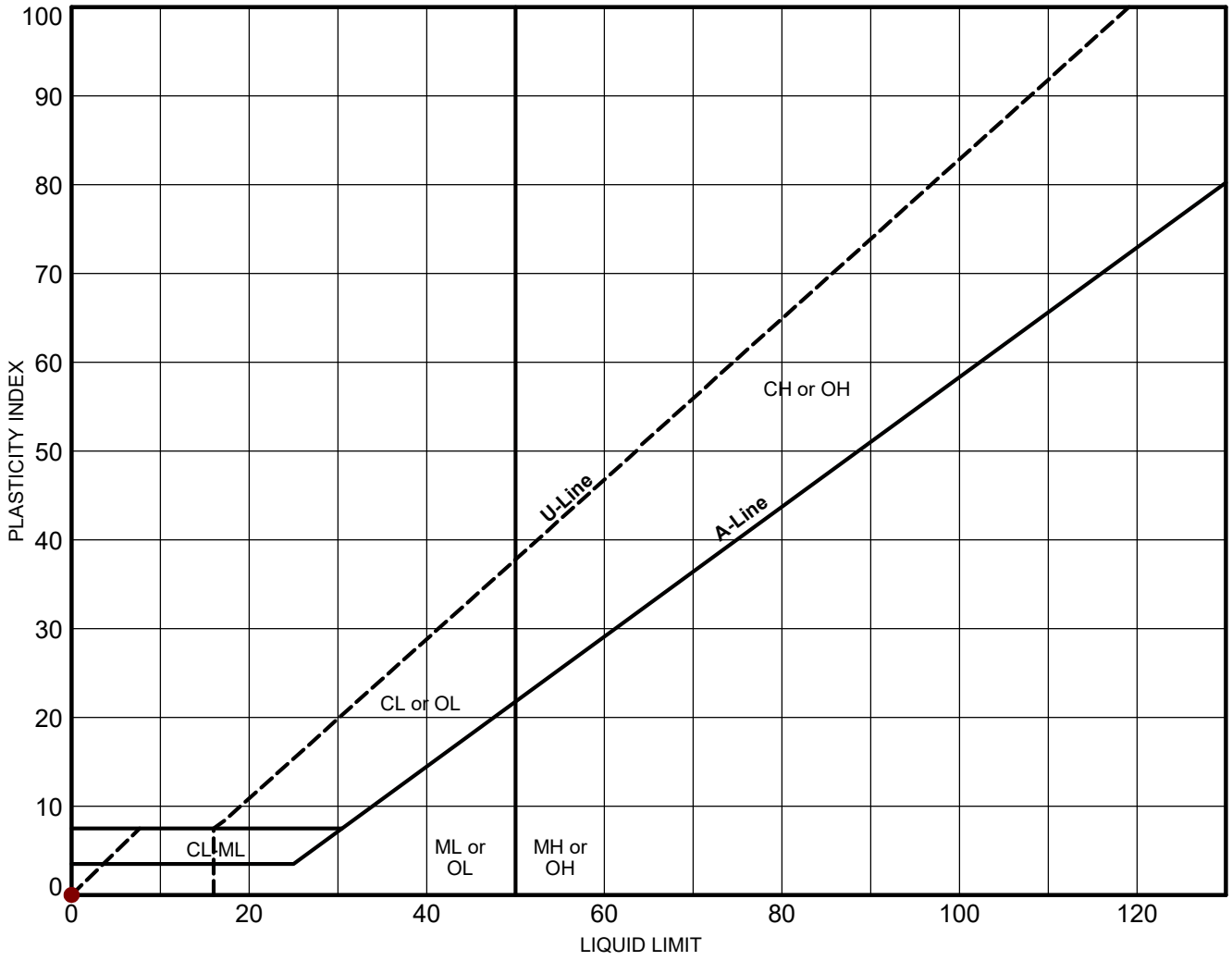
Figure B-38



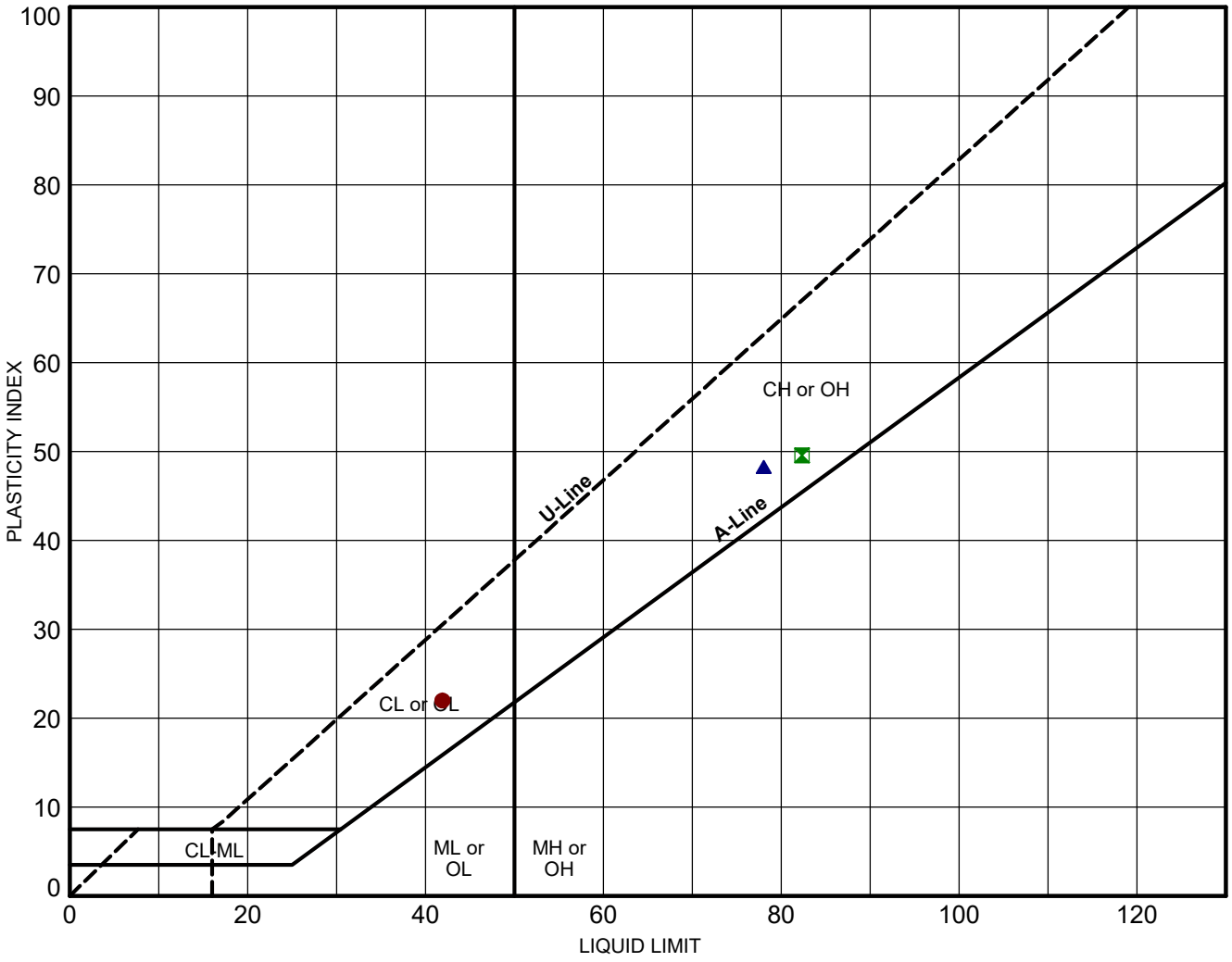
Soil Boring ID	Depth (ft)	WC	LL	PL	PI	Fines	Classification
CI-01	28.0 - 30.0	41.5	56	23	33	45	Gray silty sand (SM) transitioned to medium gray clay with sand layers (CH)
CI-01	33.0 - 35.0	33.7	43	22	21		Gray clay with silt (CL)
CI-01	38.0 - 40.0	51.6	50	22	28		Soft gray clay with silt pockets and sand pockets (CH)

Tested By:	Date Tested:	ATTERBERG LIMITS RESULTS ASTM D4318	Chandeleur Island, Louisiana	
Donna Easterling	8/30/2023			
Reviewed By:	Date Reviewed:		GeoEngineers	Figure B-39
Dustin Blanchard	8/31/2023	Project No.: 18274-022-01		



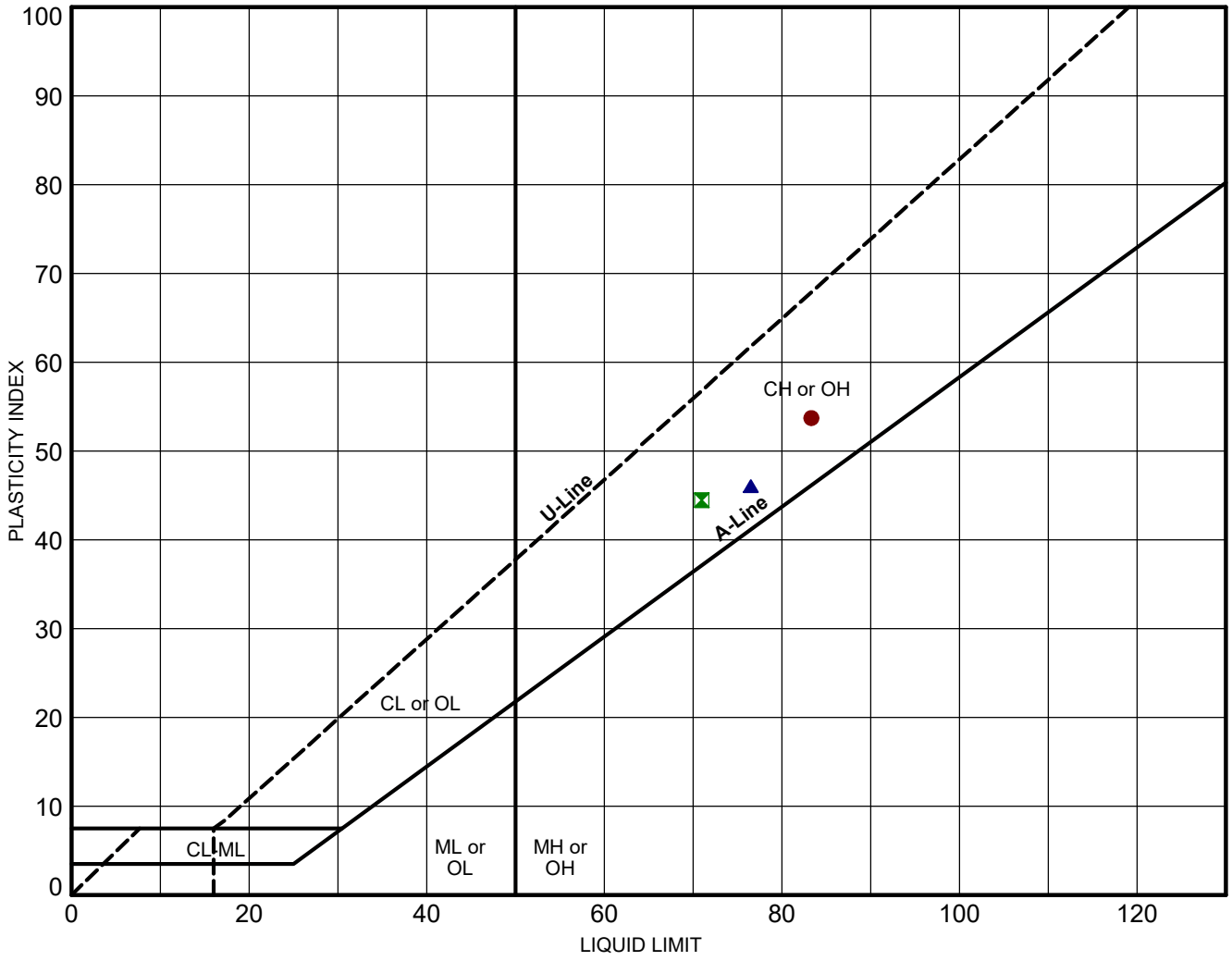
Soil Boring ID	Depth (ft)	WC	LL	PL	PI	Fines	Classification
CI-02	33.0 - 34.5	32.0	NP	NP	NP	60	Gray sandy silt with shell fragments and traces of clay (ML)

Tested By:	Date Tested:	ATTERBERG LIMITS RESULTS ASTM D4318	Chandeleur Island, Louisiana
Donna Easterling	8/30/2023		
Reviewed By:	Date Reviewed:	Project No.: 18274-022-01	GeoEngineers — Figure B-40
Dustin Blanchard	9/5/2023		



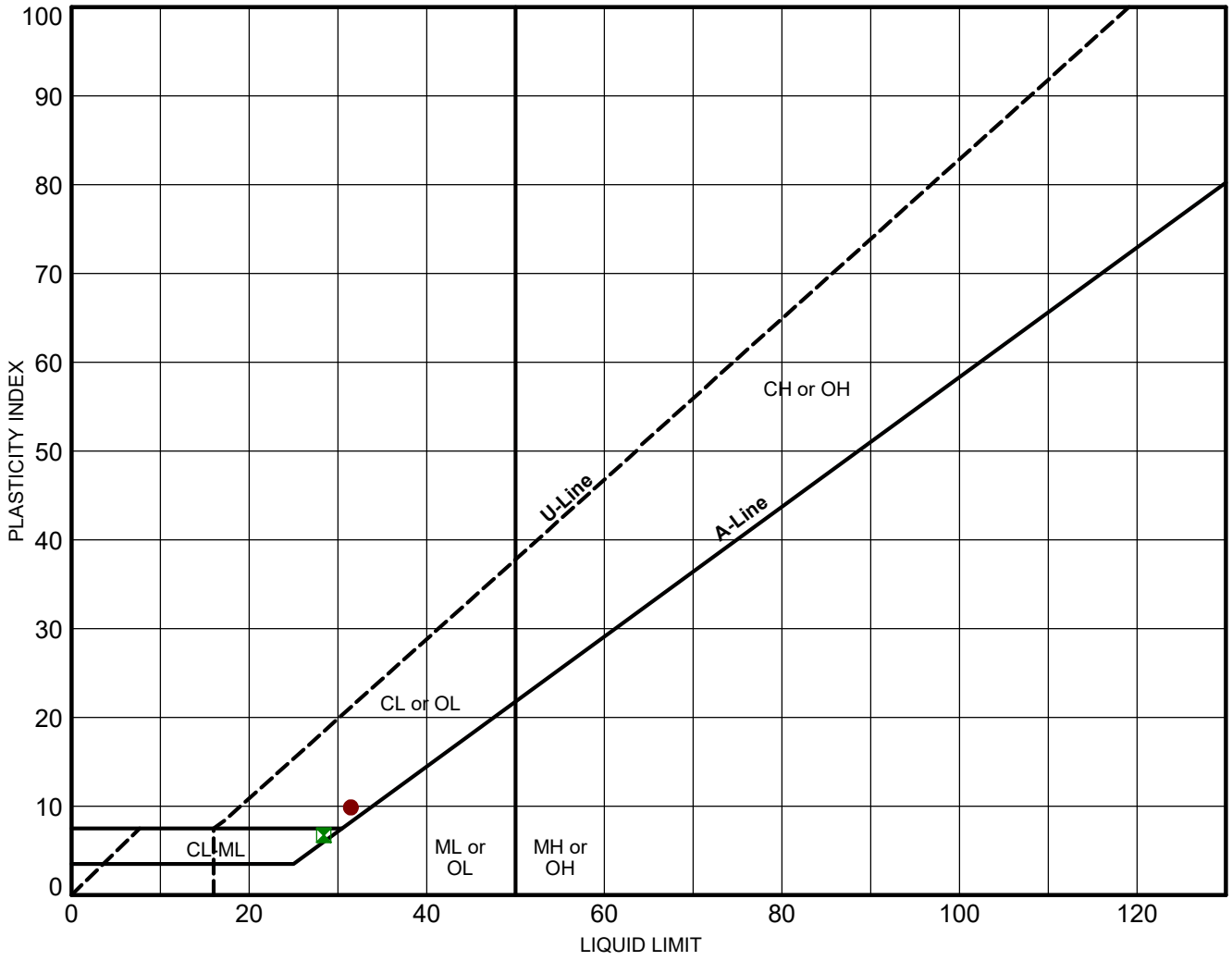
	Soil Boring ID	Depth (ft)	WC	LL	PL	PI	Fines	Classification
●	CI-03	43.0 - 45.0	39.1	42	20	22		Very Soft gray clay with silt and sand (CL)
⊠	CI-03	53.0 - 55.0	59.5	82	33	49		Soft gray clay (CH)
▲	CI-03	68.0 - 70.0	71.4	78	30	48		Gray clay (CH)

Tested By: Donna Easterling	Date Tested: 8/30/2023	**ATTERBERG LIMITS RESULTS ASTM D4318**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 8/31/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-41**



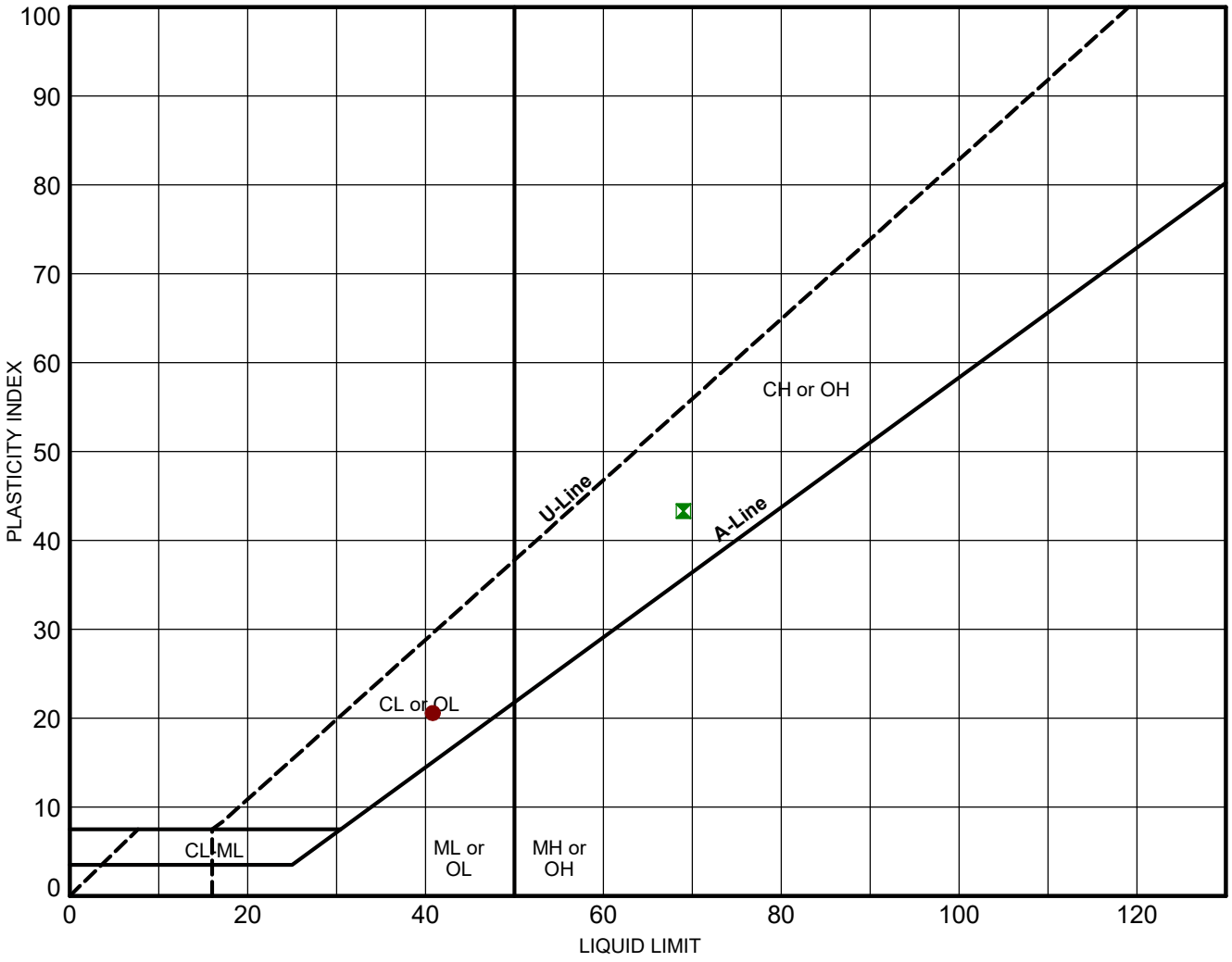
Soil Boring ID	Depth (ft)	WC	LL	PL	PI	Fines	Classification
CI-03B	33.0 - 35.0	57.5	83	30	53		Gray clay with a silty sand layer (CH)
CI-03B	38.0 - 40.0	62.8	71	27	44		Soft gray clay with sand lenses at top (CH)
CI-03B	43.0 - 45.0	58.9	77	30	47		Soft gray clay (CH)

Tested By: Donna easterling	Date Tested: 10/30/2023	**ATTERBERG LIMITS RESULTS ASTM D4318**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/31/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-42**



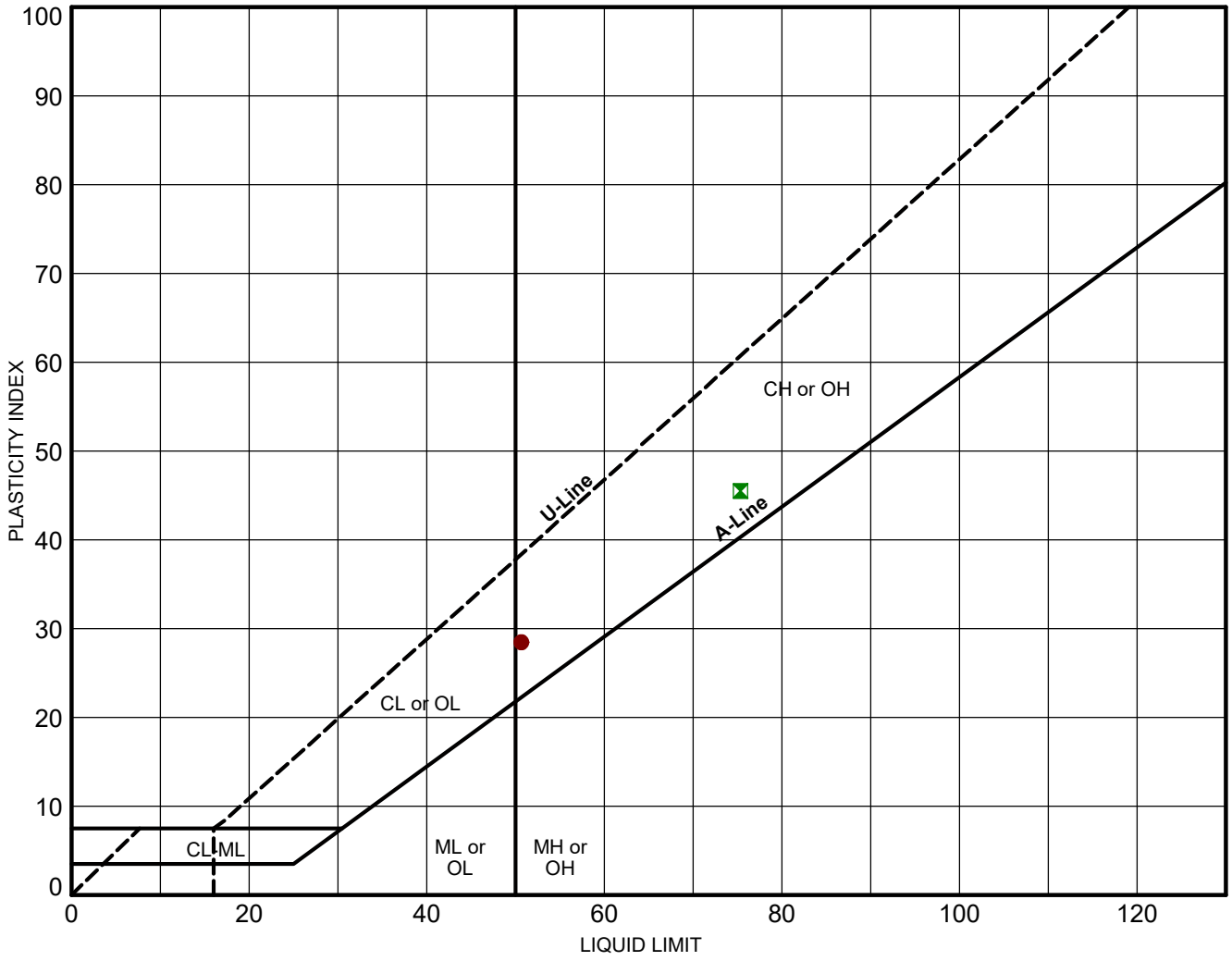
Soil Boring ID	Depth (ft)	WC	LL	PL	PI	Fines	Classification
CI-04	4.0 - 5.5	41.7	31	22	9	44	Gray clayey sand with silt and shell fragments (SC)
CI-04	10.0 - 12.0	32.1	28	22	6		Gray silty sand with clay layers and shell fragments (SM)

Tested By:	Date Tested:	ATTERBERG LIMITS RESULTS ASTM D4318	Chandeleur Island, Louisiana
Donna Easterling	9/1/2023		
Reviewed By:	Date Reviewed:	Project No.: 18274-022-01	GeoEngineers / Figure B-43
Dustin Blanchard	9/5/2023		



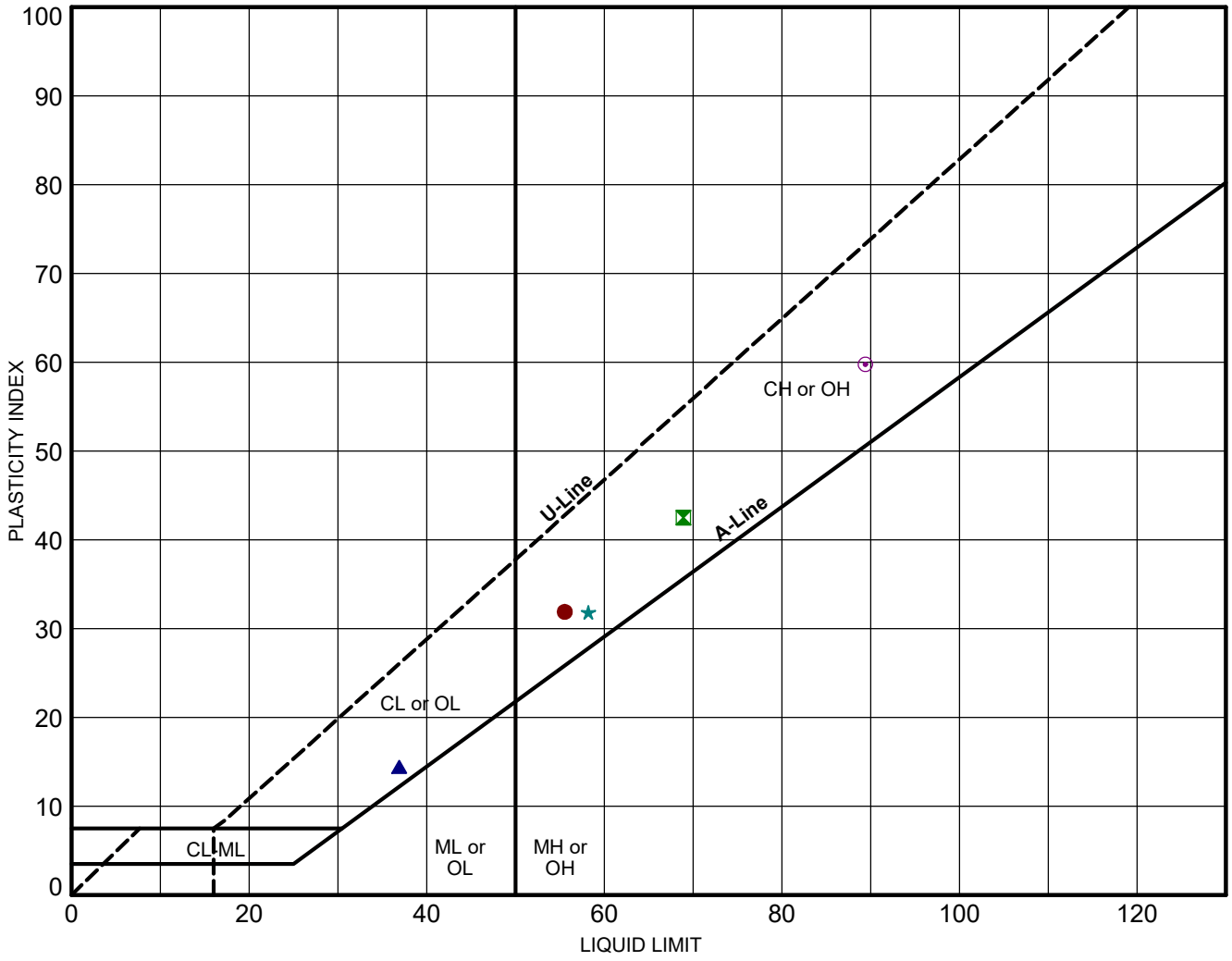
Soil Boring ID	Depth (ft)	WC	LL	PL	PI	Fines	Classification
CI-05	33.0 - 35.0	33.6	41	20	21	77	Soft dark gray silty clay with sand and shell fragments (CL)
CI-05	43.0 - 45.0	43.7	69	26	43		Soft dark gray clay with silty sand layers (CH)

Tested By:	Date Tested:	ATTERBERG LIMITS RESULTS ASTM D4318	Chandeleur Island, Louisiana
Preston Causey	9/18/2023		
Reviewed By:	Date Reviewed:	Project No.: 18274-022-01	GeoEngineers — Figure B-44
Dustin Blanchard	9/19/2023		



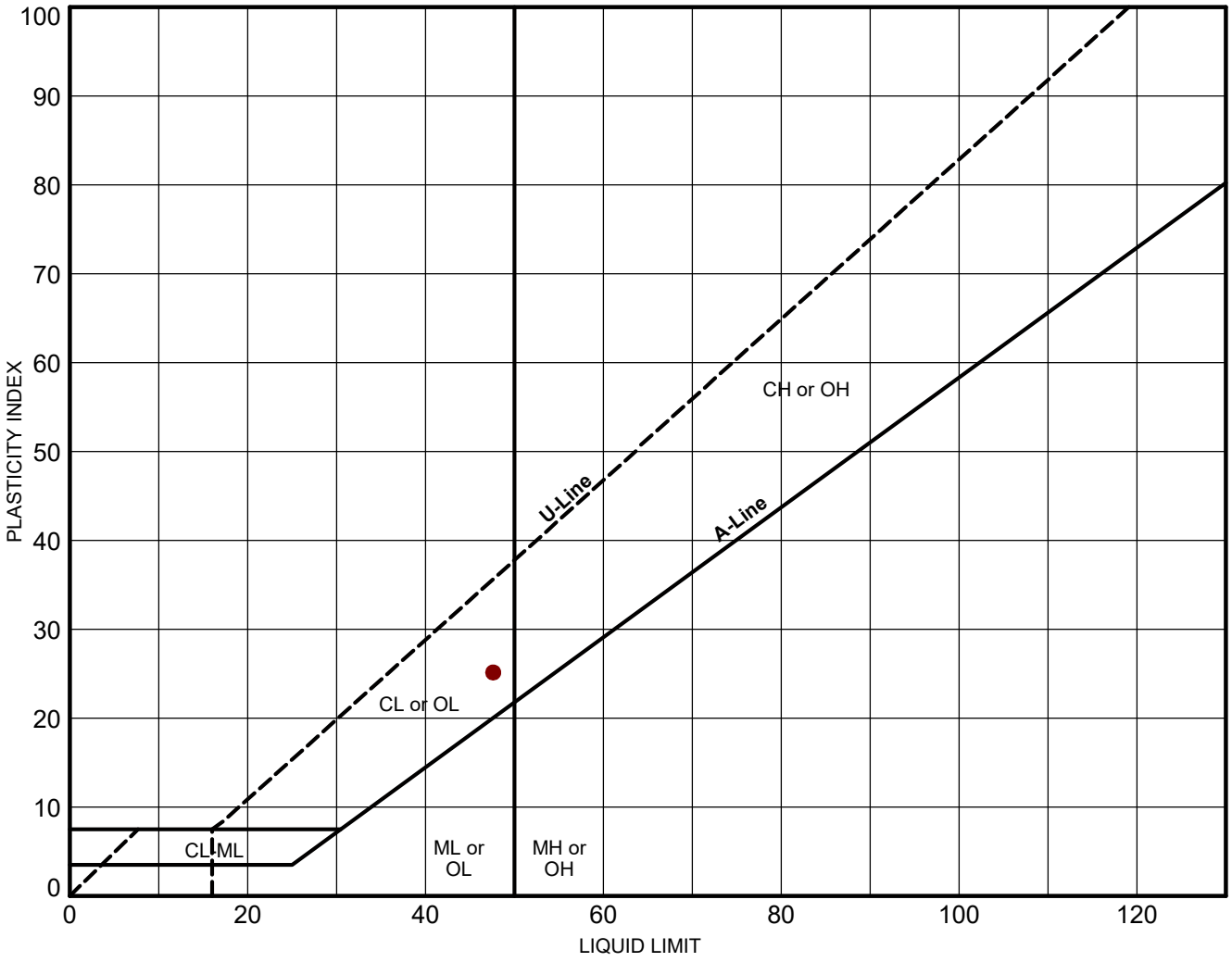
Soil Boring ID	Depth (ft)	WC	LL	PL	PI	Fines	Classification
CI-06	33.0 - 35.0	42.5	51	22	29		Medium gray clay with sand layers sand pockets and shell fragments (CH)
CI-06	38.0 - 40.0	50.3	75	30	45		Soft gray clay with sand lenses (CH)

Tested By:	Date Tested:	ATTERBERG LIMITS RESULTS ASTM D4318	Chandeleur Island, Louisiana
Preston Causey	9/21/2023		
Reviewed By:	Date Reviewed:	Project No.: 18274-022-01	GeoEngineers — Figure B-45
Dustin Blanchard	9/22/2023		



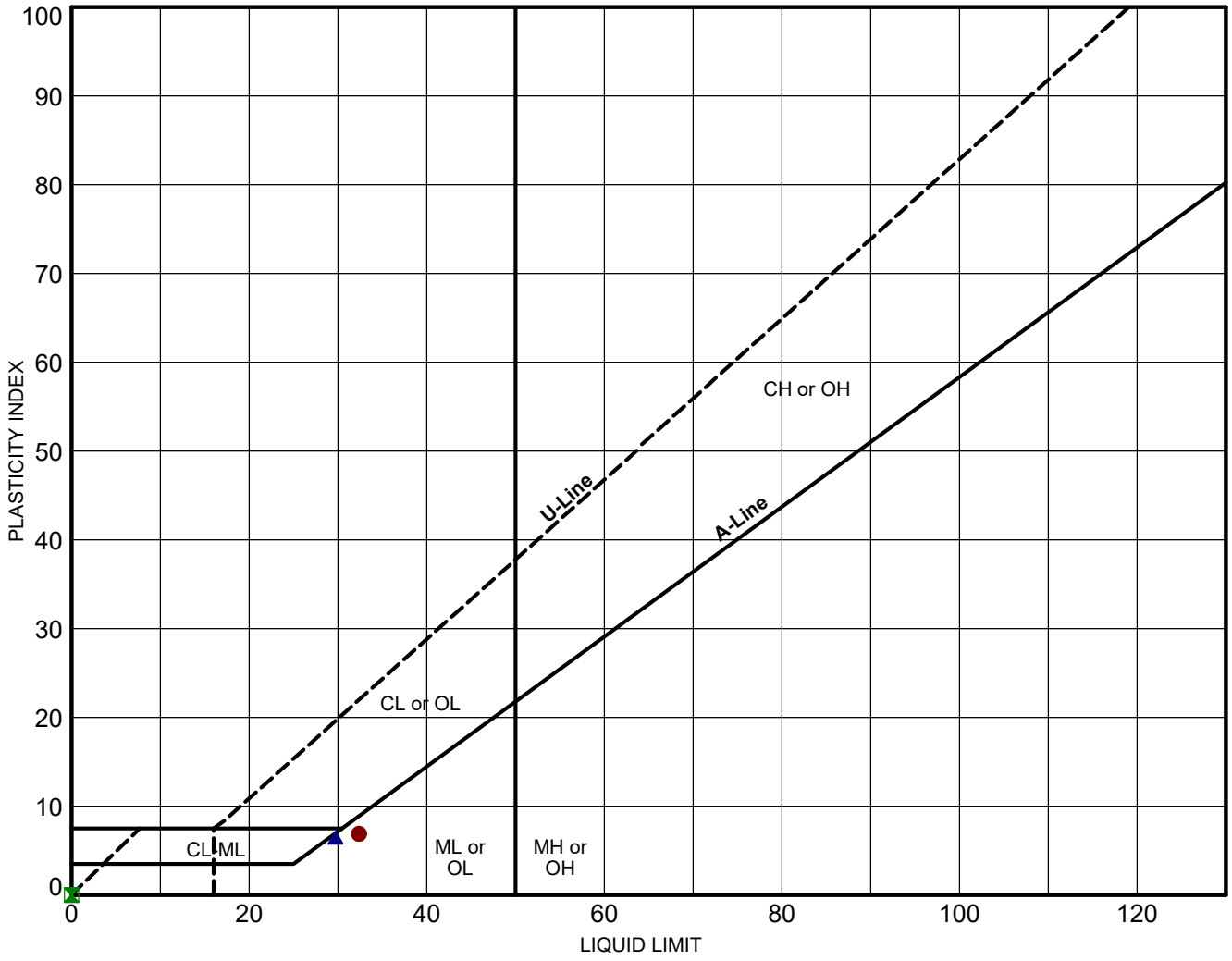
	Soil Boring ID	Depth (ft)	WC	LL	PL	PI	Fines	Classification
●	CI-07	38.0 - 40.0	48.6	56	24	32		Soft gray clay with sand pockets (CH)
⊠	CI-07	48.0 - 50.0	52.7	69	26	43		Medium gray clay with sand lenses (CH)
▲	CI-07	58.0 - 60.0	30.4	37	22	15		Soft gray silty clay with sand pockets (CL)
★	CI-07	68.0 - 70.0	53.4	58	26	32		Very soft gray clay with silty sand pockets (CH)
⊙	CI-07	78.0 - 80.0	51.8	89	30	59		Soft gray clay with silty sand pockets (CH)

Tested By: Preston Causey	Date Tested: 9/21/2023	**ATTERBERG LIMITS RESULTS ASTM D4318**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/21/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-46**



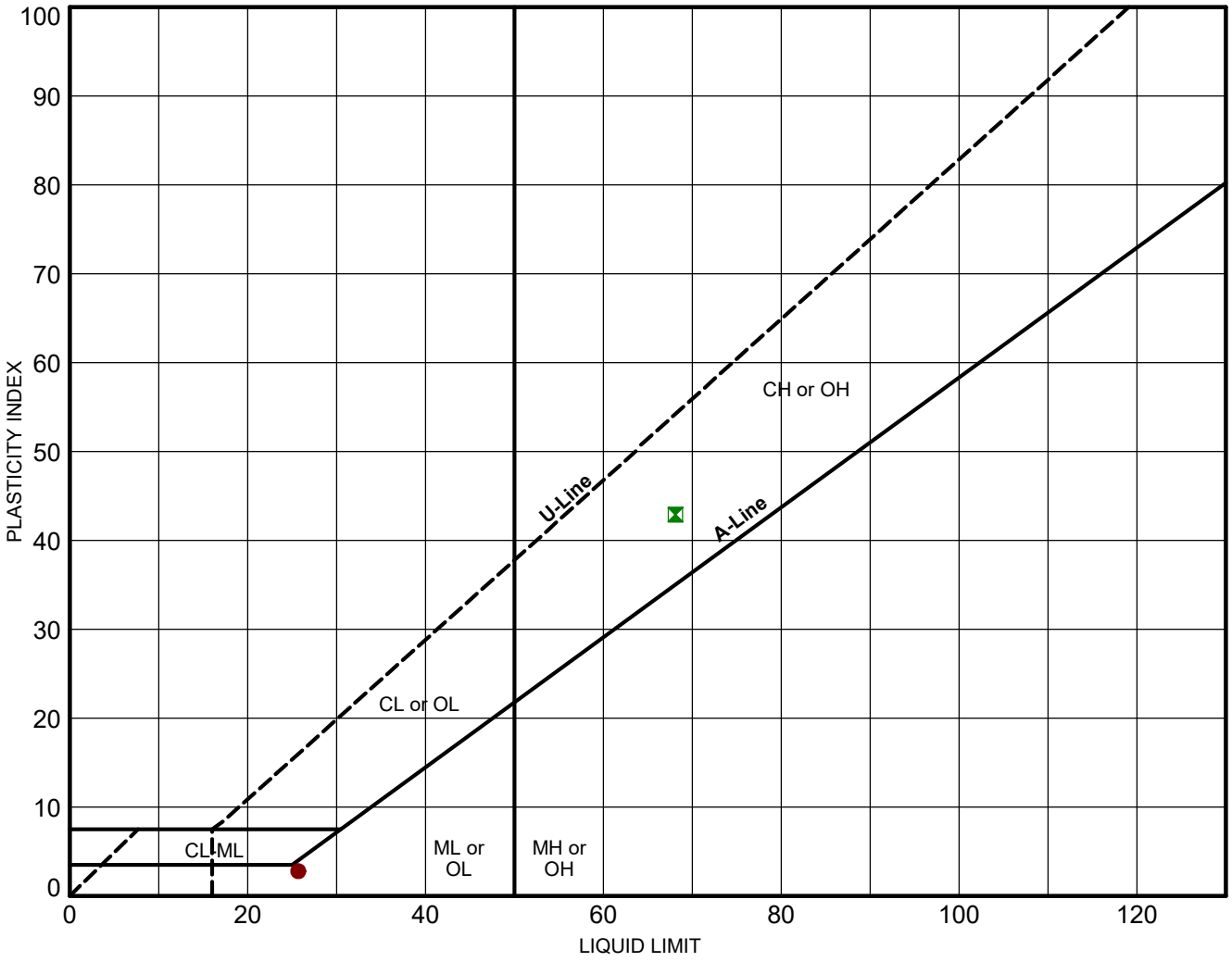
Soil Boring ID	Depth (ft)	WC	LL	PL	PI	Fines	Classification
CI-08	23.0 - 25.0	35.0	48	22	26		Medium dark gray sandy clay with silt and shell fragments (CL)

Tested By:	Date Tested:	ATTERBERG LIMITS RESULTS ASTM D4318	Chandeleur Island, Louisiana
Alex Fontenot	9/21/2023		
Reviewed By:	Date Reviewed:	Project No.: 18274-022-01	GeoEngineers / Figure B-47
Dustin Blanchard	9/25/2023		



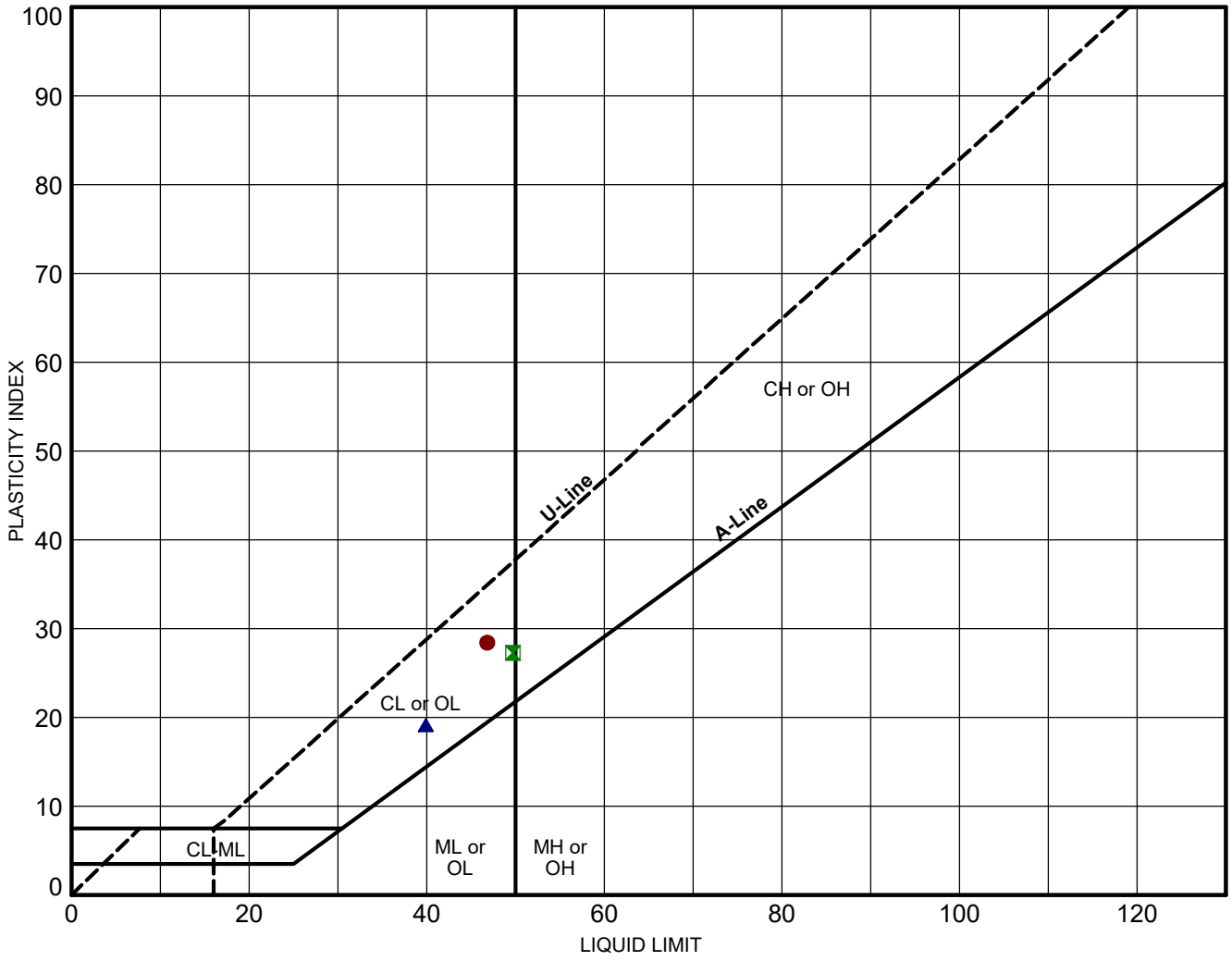
	Soil Boring ID	Depth (ft)	WC	LL	PL	PI	Fines	Classification
●	CI-09	4.0 - 5.5	28.7	32	25	7	27	Gray silty sand with traces of clay and organic matter (SM)
⊠	CI-09	33.0 - 35.0	36.0	NP	NP	NP		Gray silt with sand, traces of clay, and organic matter (ML)
▲	CI-09	43.0 - 45.0	28.5	30	23	7		Gray silt with clay, sand lenses, and sand pockets (ML)

Tested By: Preston Causey	Date Tested: 9/28/2023	**ATTERBERG LIMITS RESULTS ASTM D4318**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/2/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-48**



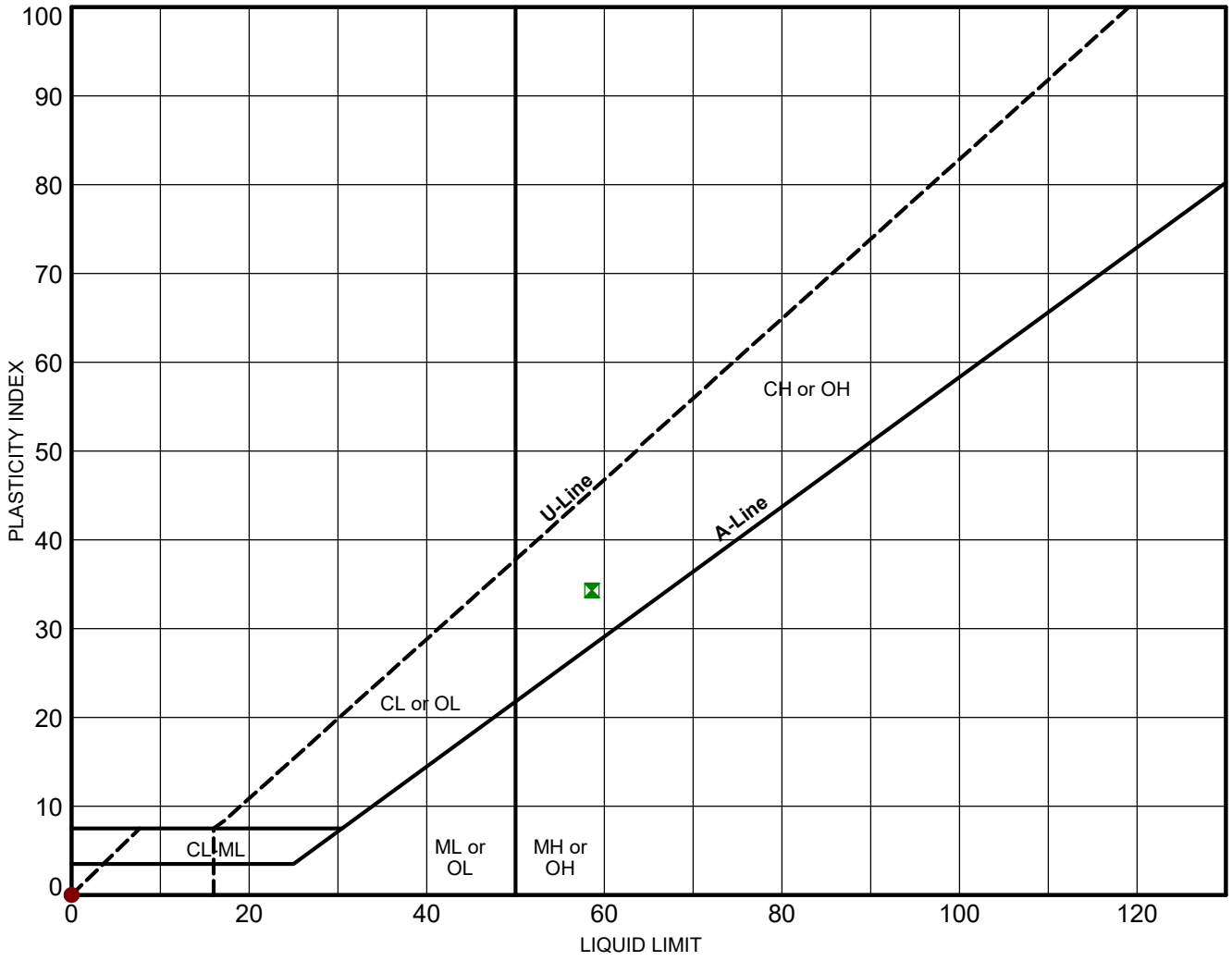
Soil Boring ID	Depth (ft)	WC	LL	PL	PI	Fines	Classification
CI-10	2.0 - 3.5	27.1	26	23	3	32	Gray silty sand with traces of organic matter (SM)
CI-10	38.0 - 40.0	47.5	68	25	43		Very soft dark gray clay with silt and sand pockets (CH)

Tested By:	Date Tested:	ATTERBERG LIMITS RESULTS ASTM D4318	Chandeleur Island, Louisiana
Preston Causey	10/4/2023		
Reviewed By:	Date Reviewed:	Project No.: 18274-022-01	GeoEngineers — Figure B-49
Dustin Blanchard	10/5/2023		



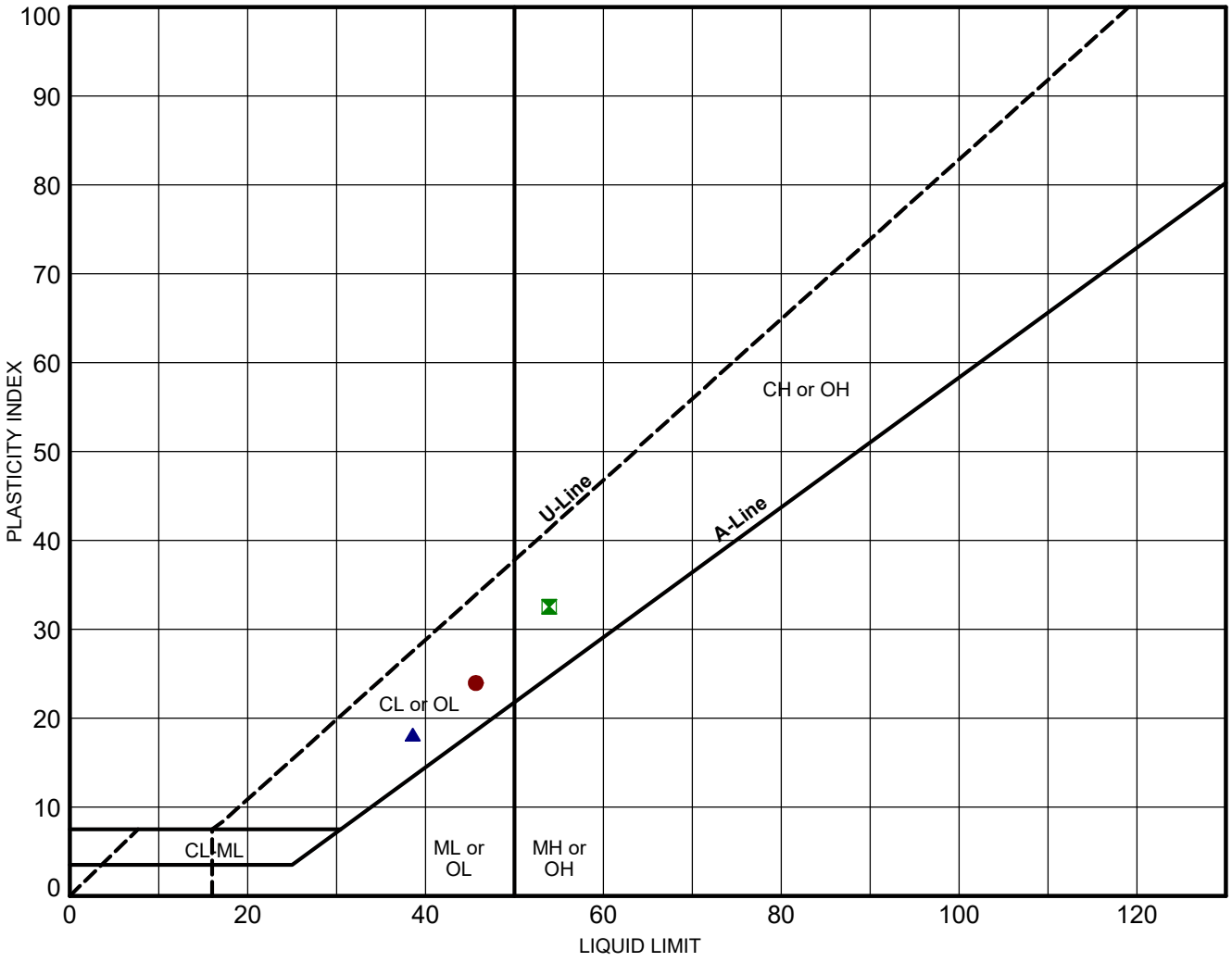
	Soil Boring ID	Depth (ft)	WC	LL	PL	PI	Fines	Classification
●	CI-11	14.0 - 16.0	49.4	47	18	29		Soft gray clay with silt, shell fragments, sand layers, and sand pockets (CL)
⊠	CI-11	18.0 - 20.0	38.6	50	22	28		Soft gray clay with sand, sand pockets, and silt pockets (CL)
▲	CI-11	23.0 - 25.0	30.6	40	21	19		Soft gray sandy clay with silty sand layers (CL)

Tested By: Preston Causey	Date Tested: 9/28/2023	**ATTERBERG LIMITS RESULTS ASTM D4318**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/2/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-50**



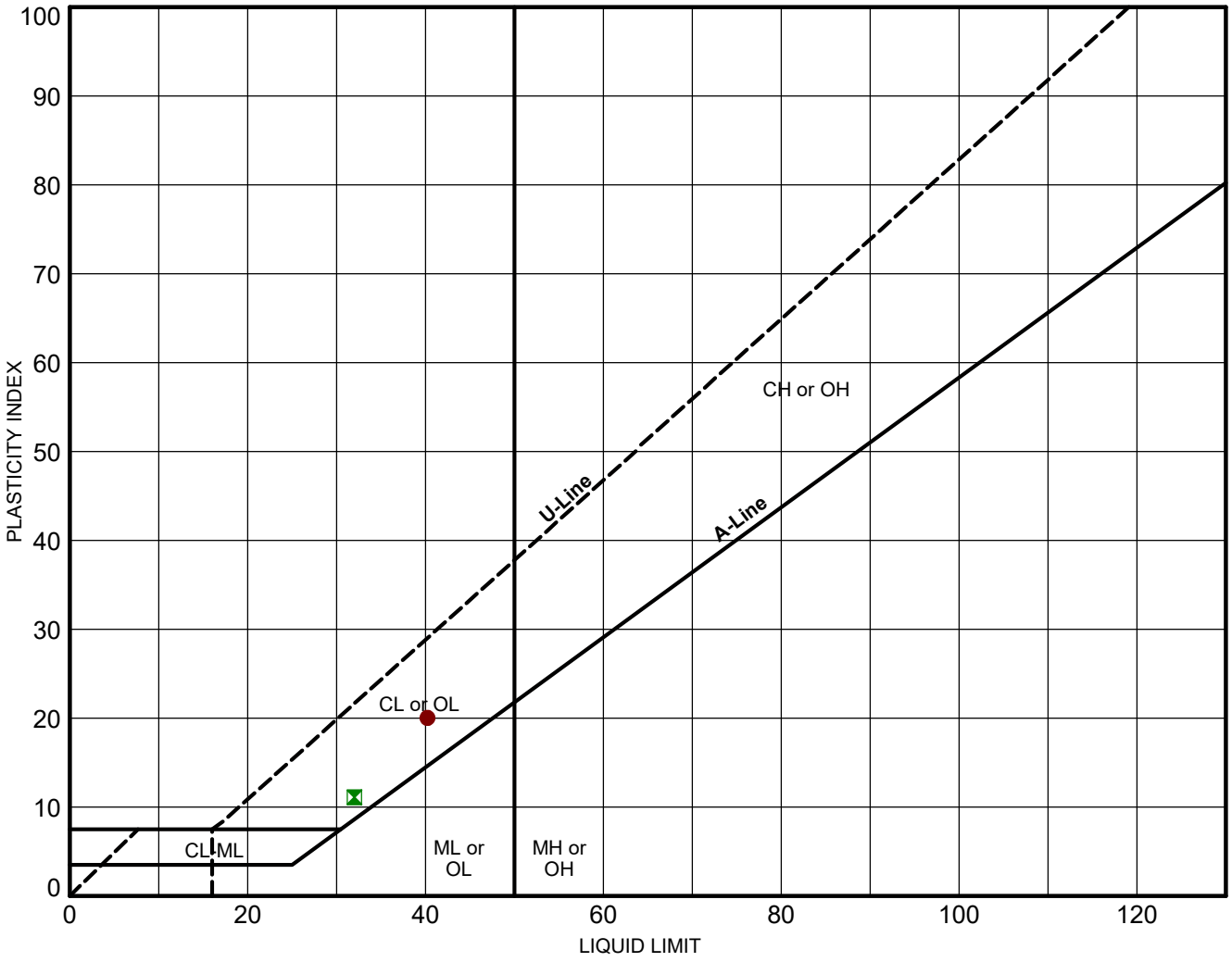
	Soil Boring ID	Depth (ft)	WC	LL	PL	PI	Fines	Classification
●	CI-12	18.0 - 19.5	29.7	NP	NP	NP	32	Gray silty sand with shell fragments (SM)
⊠	CI-12	28.0 - 30.0	50.2	59	24	35		Soft gray clay with sand pockets and shell fragments (CH)

Tested By: Preston Causey	Date Tested: 9/29/2023	**ATTERBERG LIMITS RESULTS ASTM D4318**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/2/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-51**



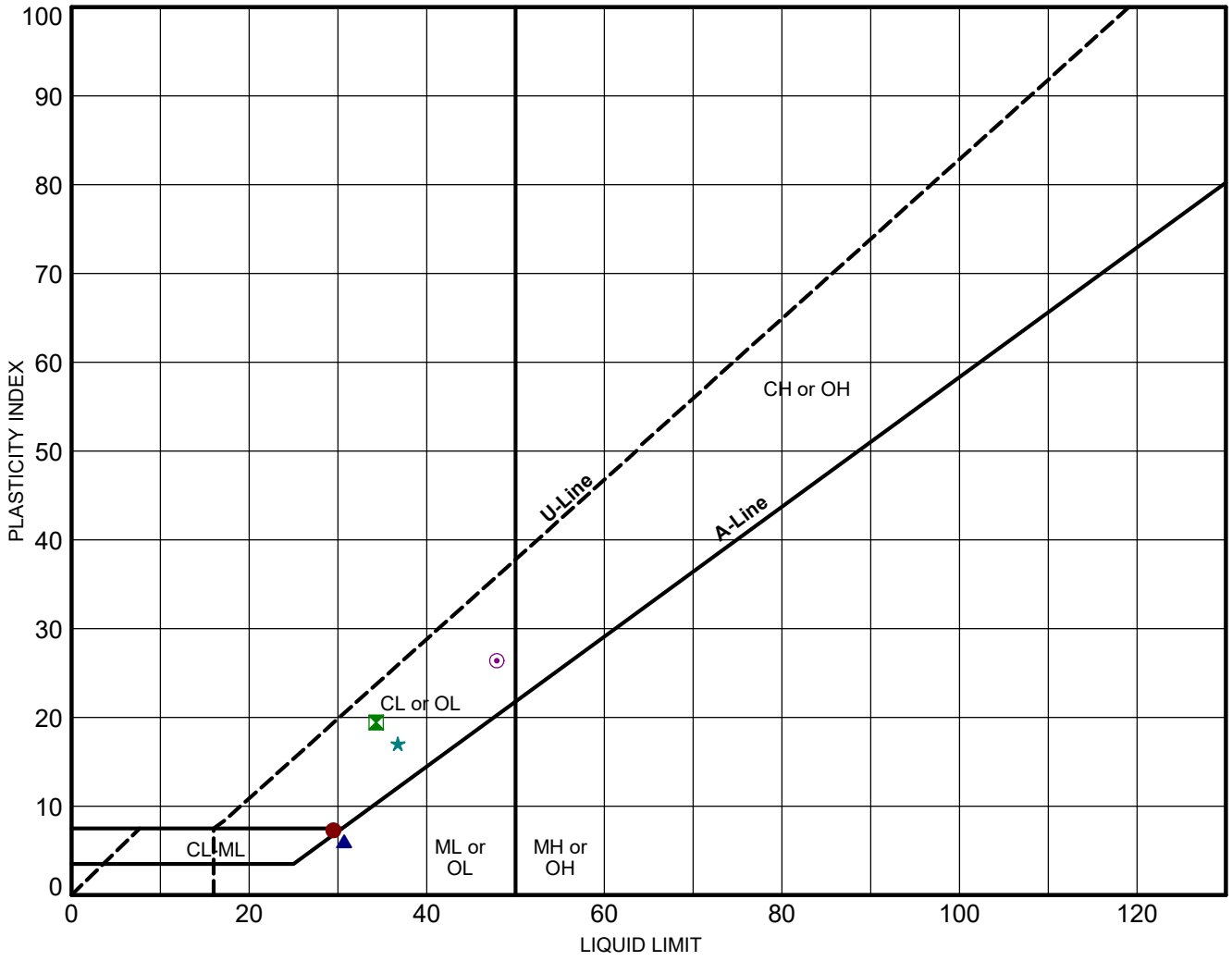
	Soil Boring ID	Depth (ft)	WC	LL	PL	PI	Fines	Classification
●	CI-13	16.0 - 18.0	44.7	46	22	24		Very soft gray clay with silt and sand pockets (CL)
⊠	CI-13	28.0 - 30.0	39.0	54	21	33		Gray clay with sand layer and silt pockets (CH)
▲	CI-13	33.0 - 35.0	33.7	39	20	19		Soft gray silty clay with sand pockets, sand layers, and shell fragments (CL)

Tested By: Preston Causey	Date Tested: 9/29/2023	**ATTERBERG LIMITS RESULTS ASTM D4318**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/2/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-52**



	Soil Boring ID	Depth (ft)	WC	LL	PL	PI	Fines	Classification
●	CI-14	16.0 - 18.0	35.0	40	20	20		Soft gray silty clay with sand and shell fragments (CL)
⊠	CI-14	48.0 - 49.5	34.9	32	21	11	68	Gray sandy silty clay (CL)

Tested By: Preston Causey	Date Tested: 9/29/2023	**ATTERBERG LIMITS RESULTS ASTM D4318**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/2/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-53**



Soil Boring ID	Depth (ft)	WC	LL	PL	PI	Fines	Classification
CI-15	18.0 - 19.5	34.7	29	22	7	54	Gray sandy, clayey silt with shell fragments (CL-ML)
CI-15	38.0 - 39.5	26.8	34	15	19	28	Gray clayey sand with shell fragments (SC-SM)
CI-15	48.0 - 49.5	32.4	31	25	6	50	Gray silty sand with shell fragments (SM)
CI-15	58.0 - 60.0	37.0	37	20	17		Soft gray silty clay with sand lenses (CL)
CI-15	68.0 - 70.0	40.2	48	22	26		Soft gray clay with silt, sand pockets, and shell fragments (CL)

Tested By: Donna Easterling | Date Tested: 10/2/2023

Reviewed By: Dustin Blanchard | Date Reviewed: 10/3/2023

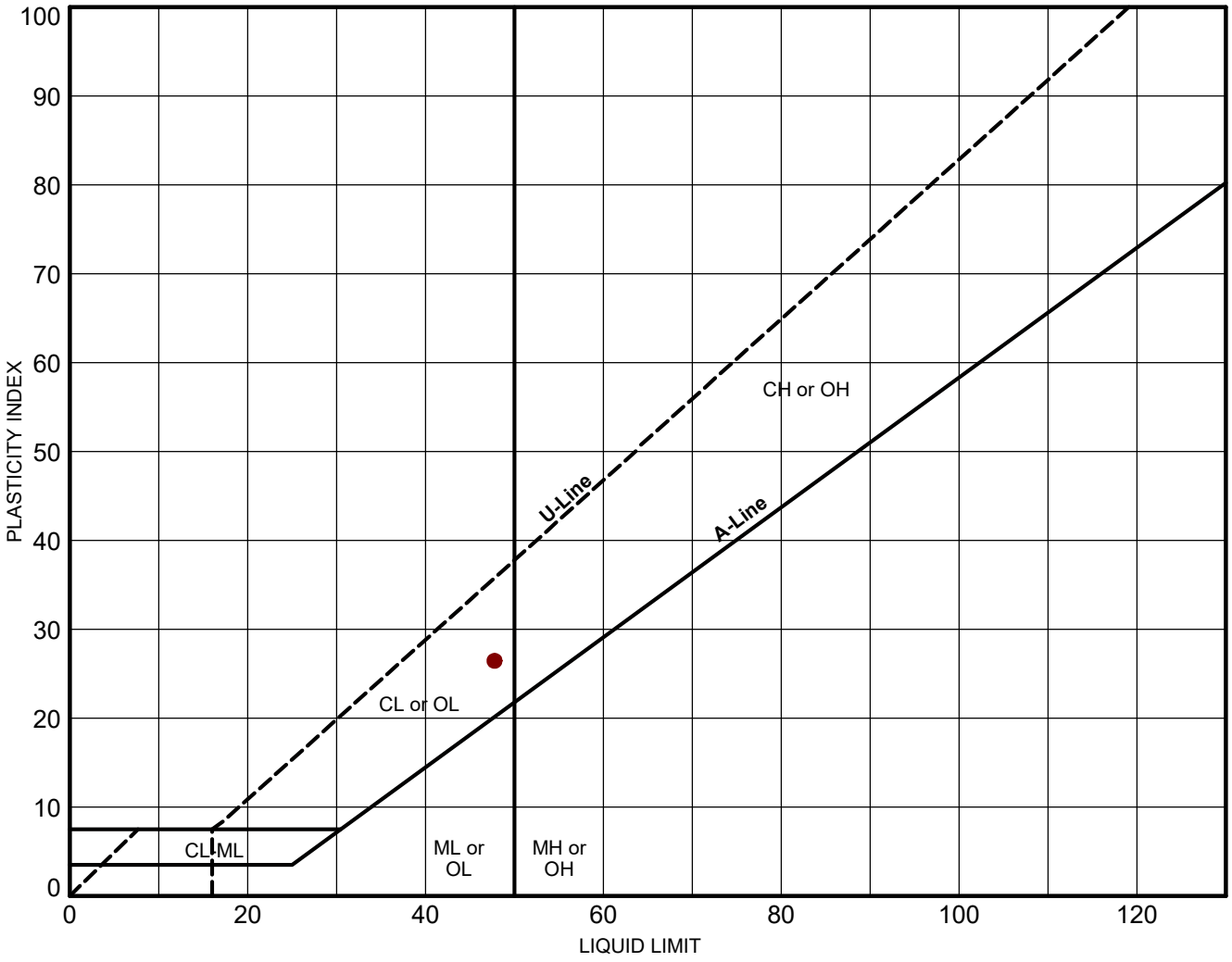
ATTERBERG LIMITS RESULTS
ASTM D4318

Project No.: 18274-022-01

Chandeleur Island, Louisiana

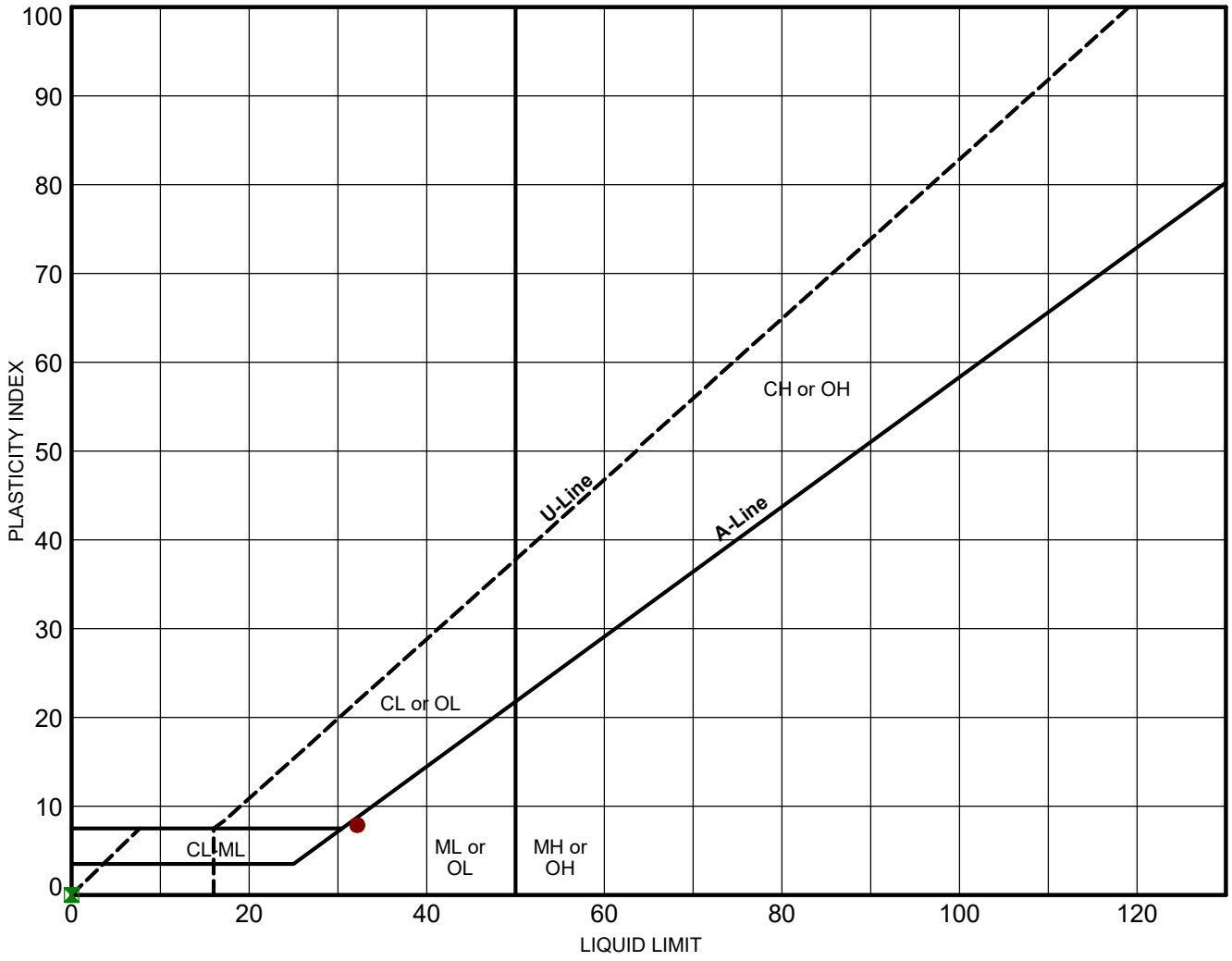
GeoEngineers

Figure B-54



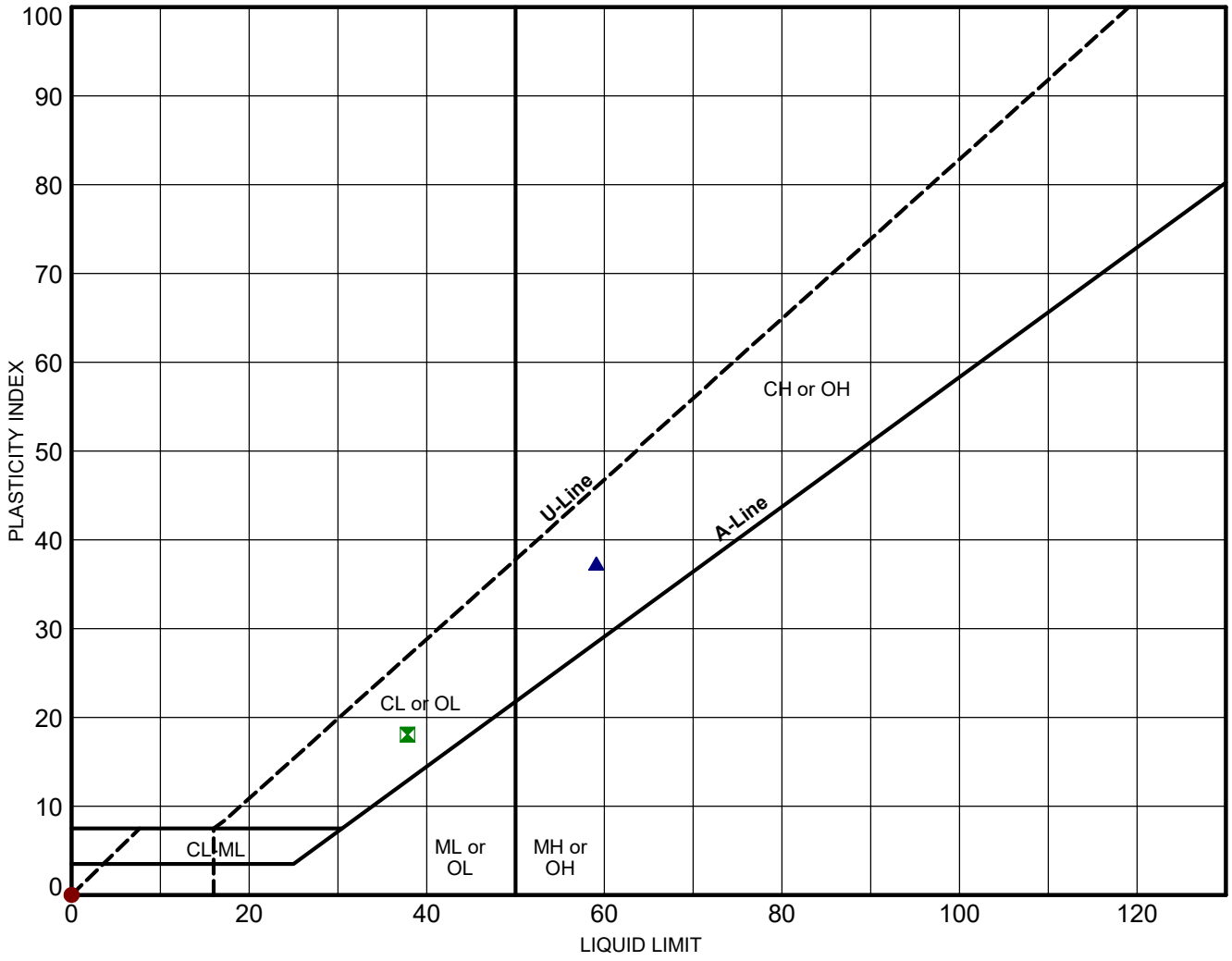
Soil Boring ID	Depth (ft)	WC	LL	PL	PI	Fines	Classification
CI-16	23.0 - 25.0	40.1	48	21	27		Soft gray clay with silt, sand, and shell fragments (CL)

Tested By:	Date Tested:	ATTERBERG LIMITS RESULTS ASTM D4318	Chandeleur Island, Louisiana
Preston Causey	10/3/2023		
Reviewed By:	Date Reviewed:		GeoEngineers
Dustin Blanchard	10/4/2023	Project No.: 18274-022-01	Figure B-55



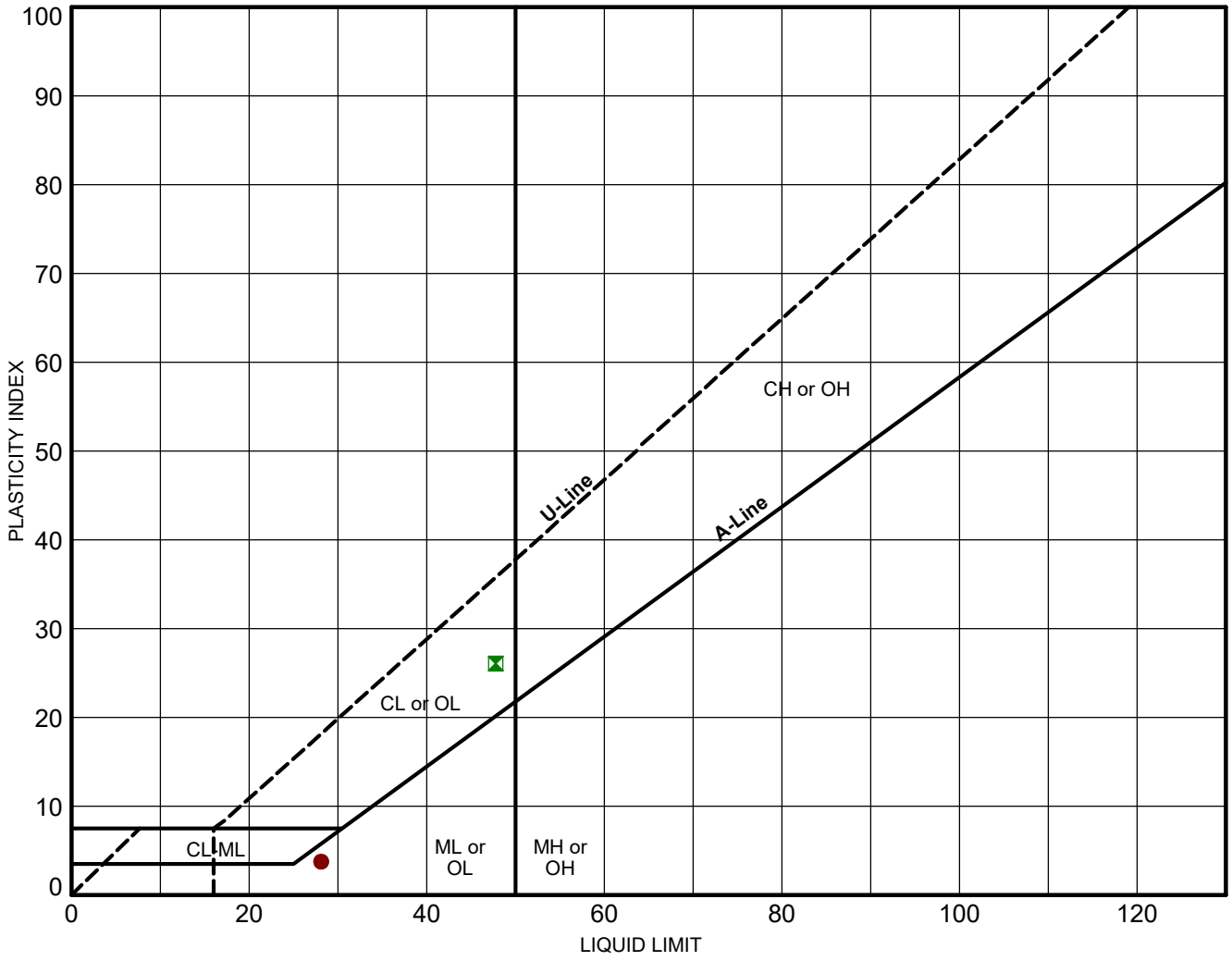
	Soil Boring ID	Depth (ft)	WC	LL	PL	PI	Fines	Classification
●	CI-17	14.0 - 16.0	29.4	32	24	8	51	Gray sandy clay with shell fragments (CL)
⊠	CI-17	28.0 - 29.5	28.2	NP	NP	NP	39	Gray silty sand (SM)

Tested By: Preston Causey	Date Tested: 10/4/2023	**ATTERBERG LIMITS RESULTS ASTM D4318**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/6/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-56**



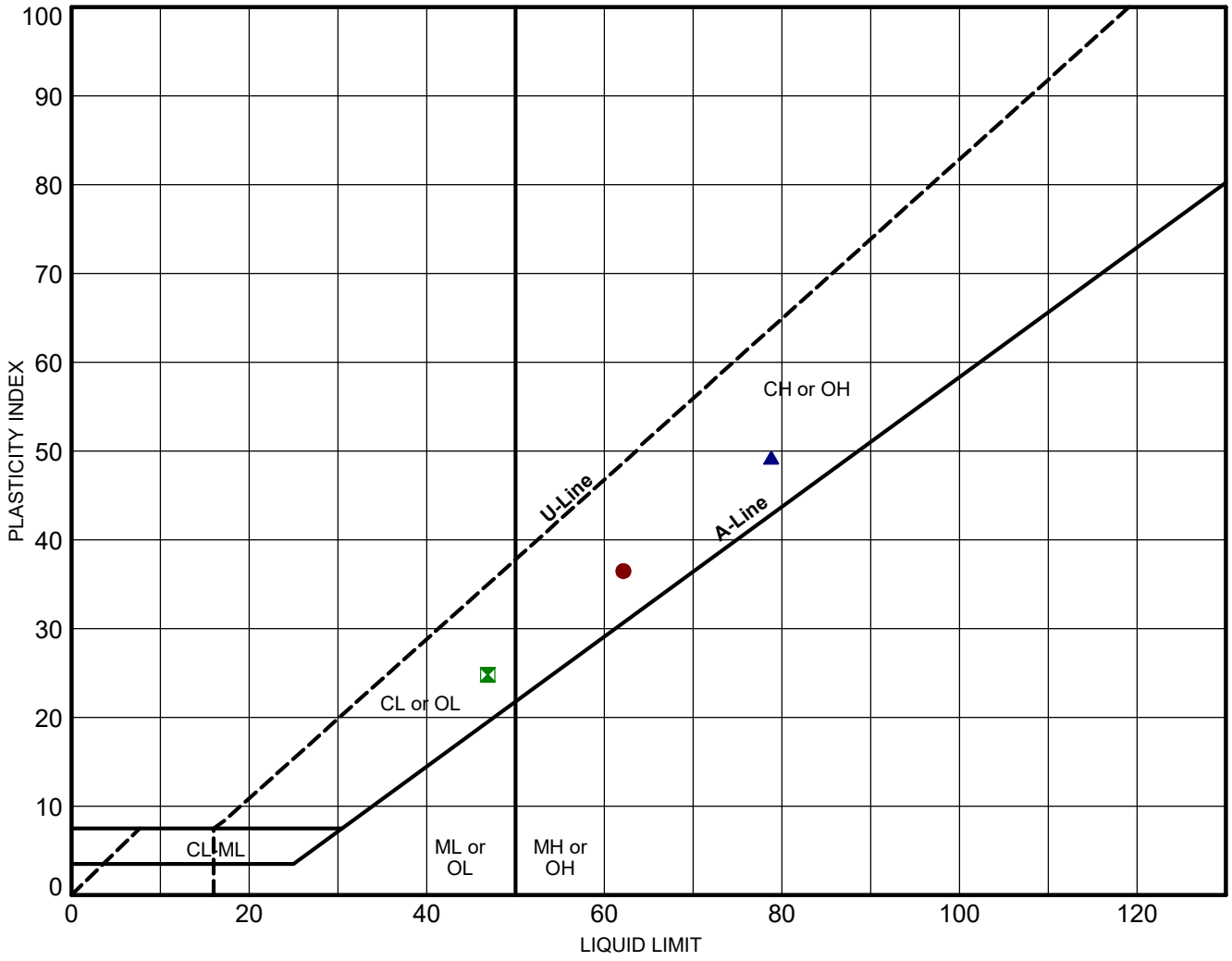
	Soil Boring ID	Depth (ft)	WC	LL	PL	PI	Fines	Classification
●	CI-18	8.0 - 9.5	29.5	NP	NP	NP	27	gray silty clayey sand (SC-SM)
⊠	CI-18	23.0 - 25.0	36.0	38	20	18		Very soft gray clay with shell fragments, sand layers, and silt lenses (CH)
▲	CI-18	38.0 - 40.0	47.9	59	22	37		Soft gray clay with sand layers, and sand pockets (CH)

Tested By: Preston Causey	Date Tested: 10/4/2023	**ATTERBERG LIMITS RESULTS ASTM D4318**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/6/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-57**



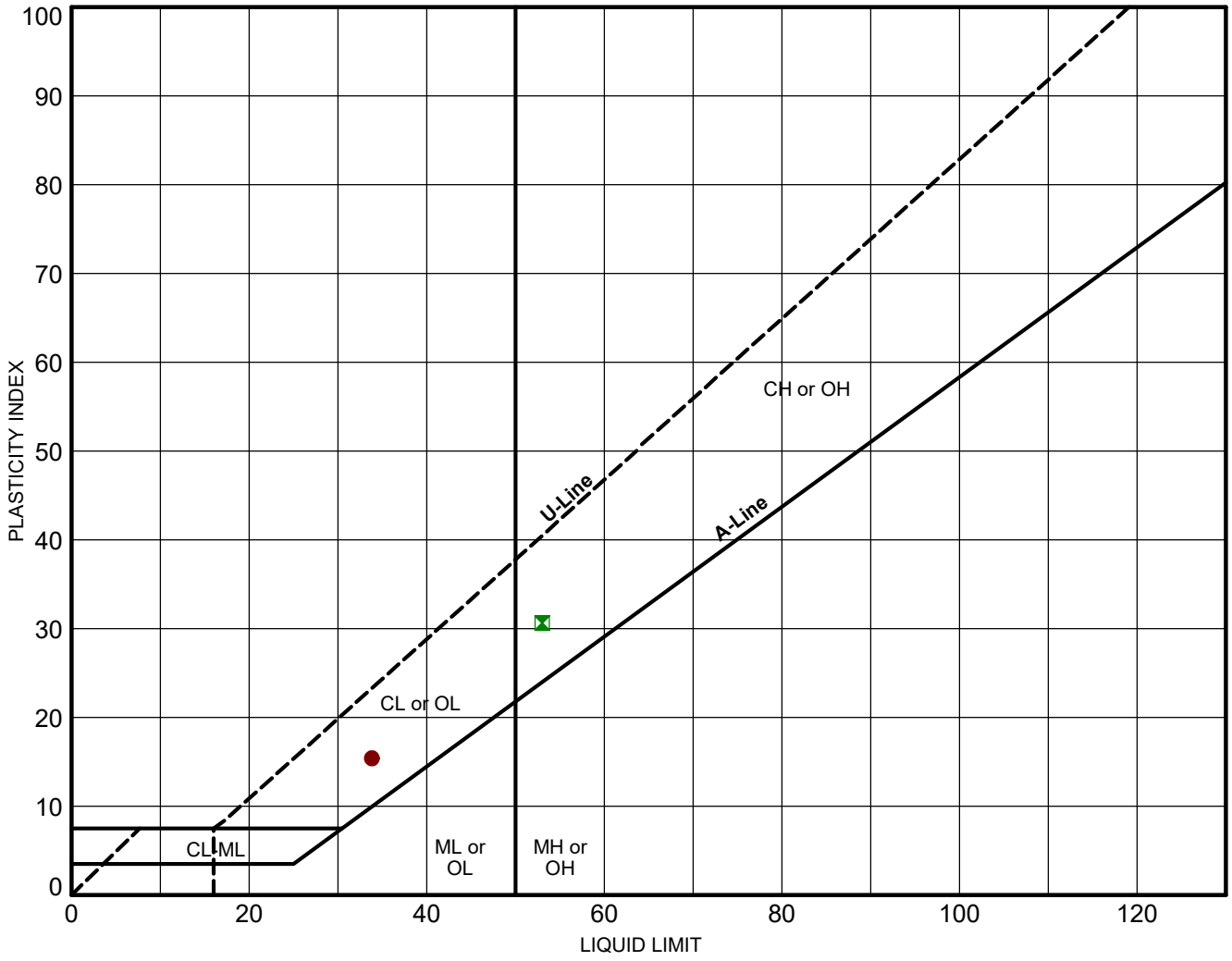
	Soil Boring ID	Depth (ft)	WC	LL	PL	PI	Fines	Classification
●	CI-19	12.0 - 13.5	32.2	28	24	4	33	Gray silty sand (SM)
⊠	CI-19	16.0 - 17.5	39.3	48	22	26	32	Gray clayey sand (SC)

Tested By:	Date Tested:	ATTERBERG LIMITS RESULTS ASTM D4318	Chandeleur Island, Louisiana
Preston Causey	10/4/2023		
Reviewed By:	Date Reviewed:	Project No.: 18274-022-01	GeoEngineers — Figure B-58
Dustin Blanchard	10/4/2023		



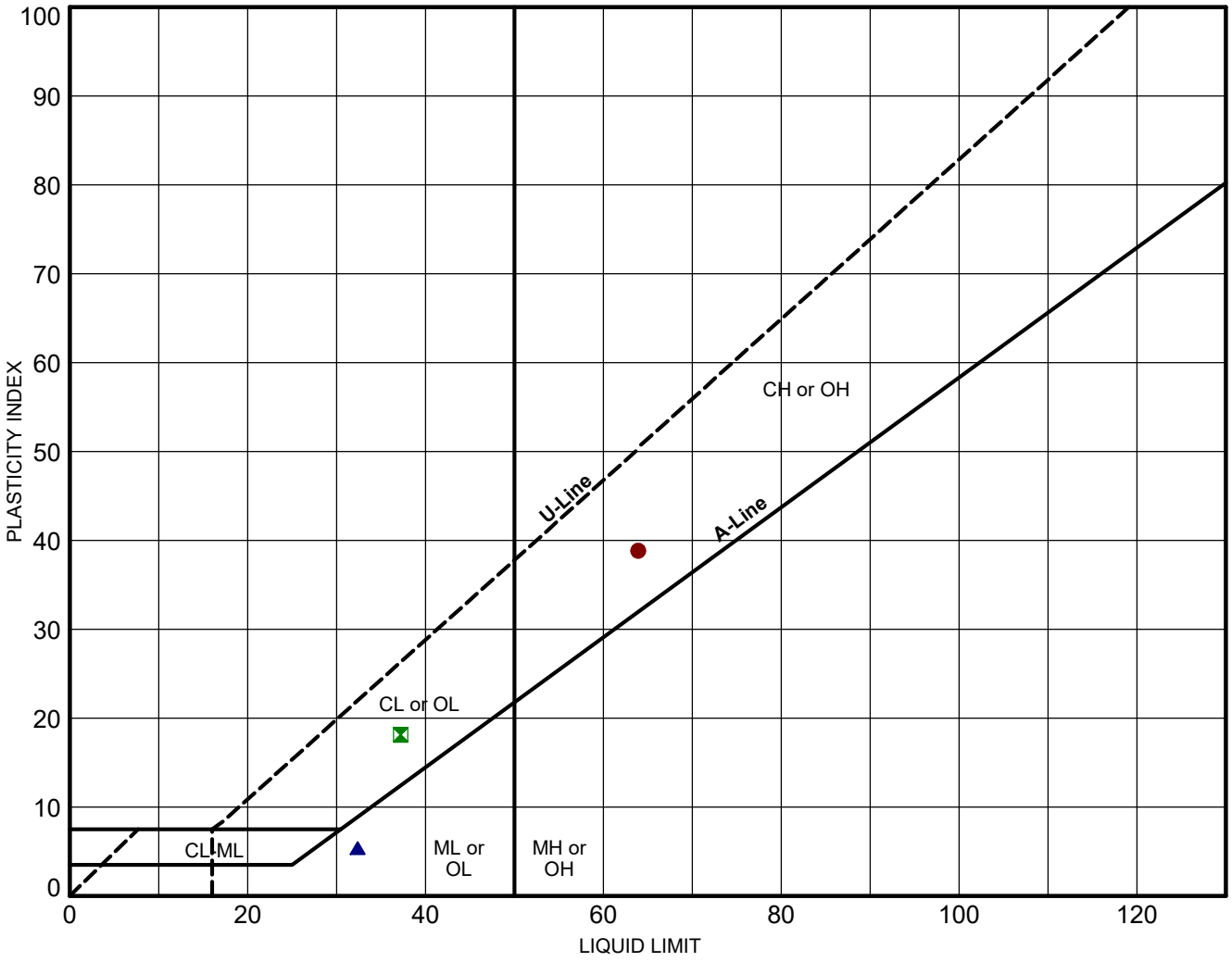
	Soil Boring ID	Depth (ft)	WC	LL	PL	PI	Fines	Classification
●	CI-20	18.0 - 20.0	51.0	62	26	36		Soft gray clay with sand pockets, and shell fragments (CH)
⊠	CI-20	58.0 - 60.0	39.5	47	22	25		Soft gray clay with silt (CL)
▲	CI-20	73.0 - 75.0	46.1	79	30	49		Medium gray clay with silt pockets (CH)

Tested By:	Date Tested:	**ATTERBERG LIMITS RESULTS ASTM D4318**	**Chandeleur Island, Louisiana**	
Donna Easterling	10/5/2023			
Reviewed By:	Date Reviewed:		GeoEngineers	**Figure B-59**
Dustin Blanchard	10/6/2023	**Project No.: 18274-022-01**		



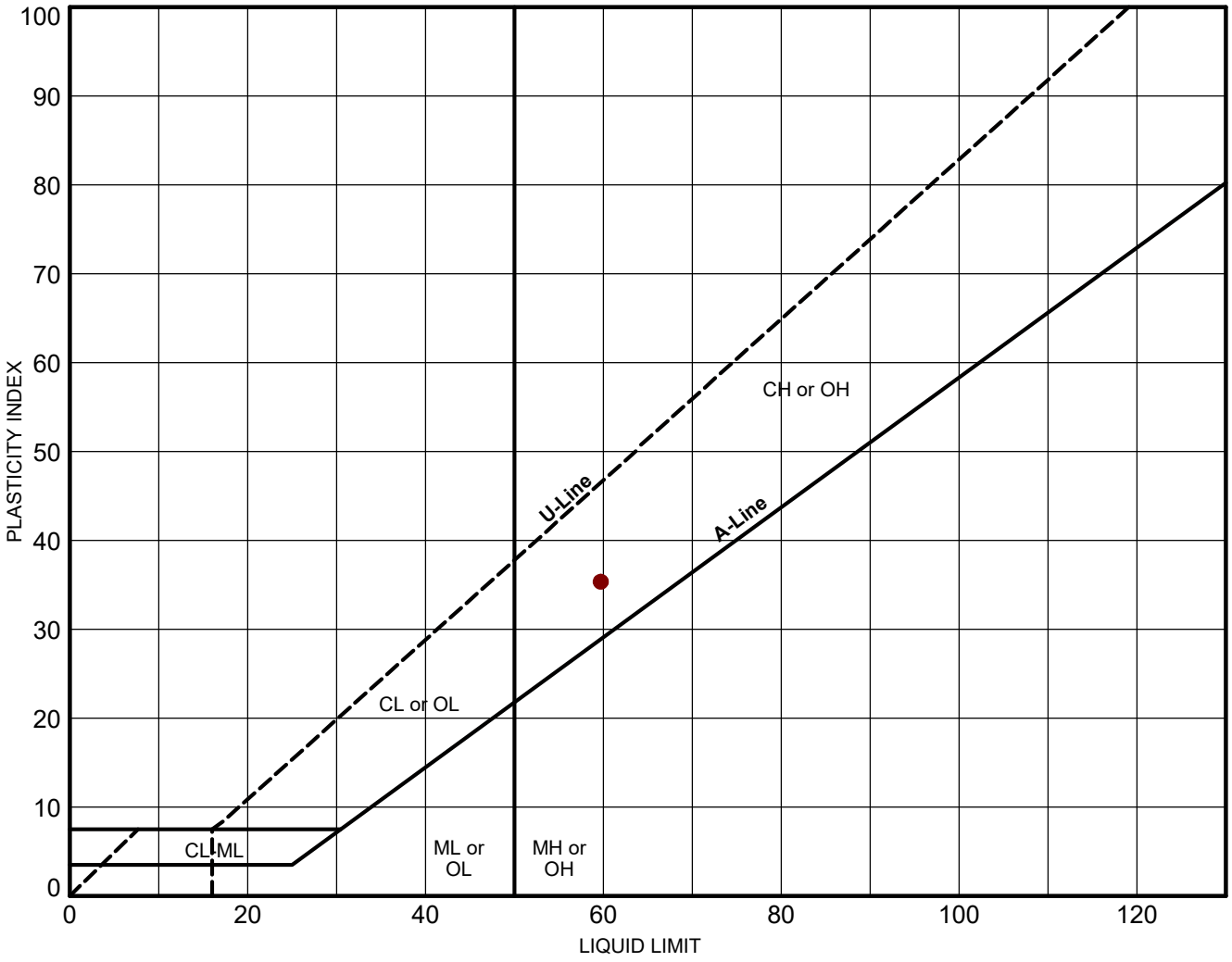
	Soil Boring ID	Depth (ft)	WC	LL	PL	PI	Fines	Classification
●	CI-21	8.0 - 9.5	30.8	34	18	16	43	Gray clayey sand with a clay layer (SC)
⊠	CI-21	14.0 - 16.0	45.3	53	22	31		Very soft gray clay with silty clay layers, sand, organic material, and shell fragments (CH)

Tested By: Donna Easterling	Date Tested: 11/3/2023	**ATTERBERG LIMITS RESULTS ASTM D4318**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 11/6/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-60**



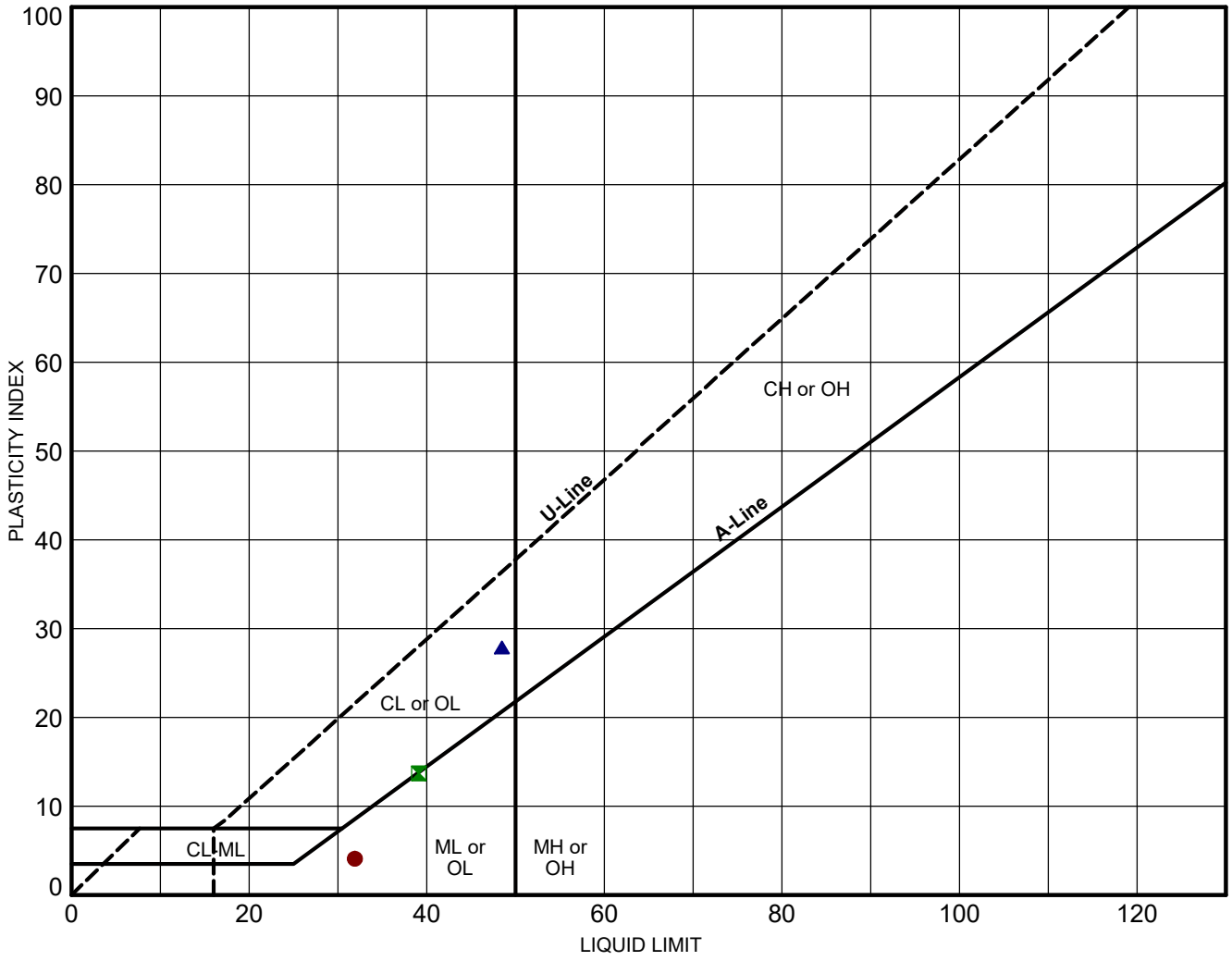
	Soil Boring ID	Depth (ft)	WC	LL	PL	PI	Fines	Classification
●	CI-22	16.0 - 18.0	57.7	64	25	39		Soft gray clay with sand pockets (CH)
⊠	CI-22	23.0 - 24.5	27.8	37	19	18	59	Gray sandy silty clay (CL)
▲	CI-22	43.0 - 45.0	31.4	32	27	5		Gray silt with clay pockets (ML)

Tested By: Donna Easterling	Date Tested: 10/9/2023	**ATTERBERG LIMITS RESULTS ASTM D4318**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/16/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-61**



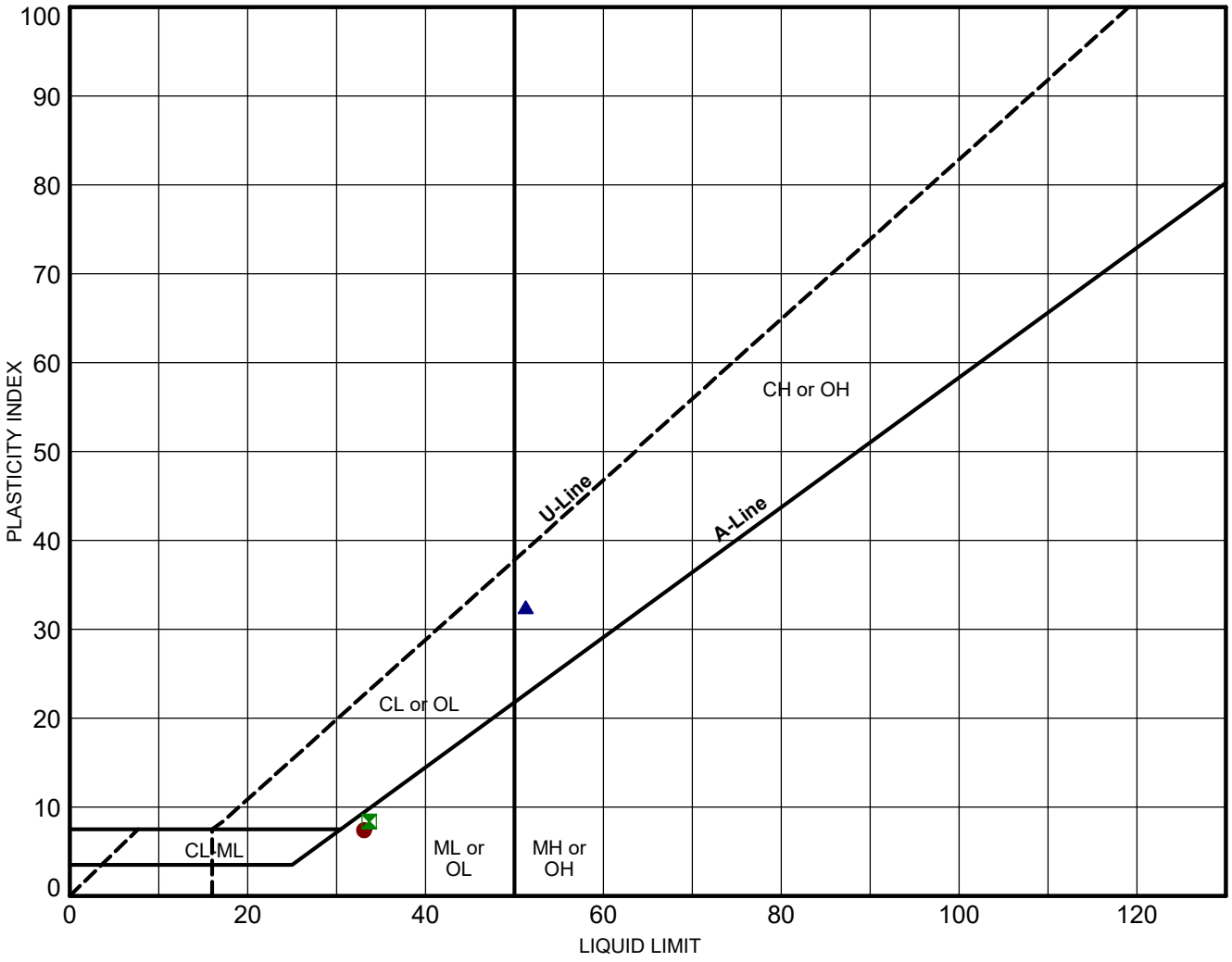
Soil Boring ID	Depth (ft)	WC	LL	PL	PI	Fines	Classification
CI-23	33.0 - 35.0	43.5	60	24	36		Soft gray clay with sand layers and organic matter. (CH)

Tested By: Donna Easterling	Date Tested: 10/10/2023	**ATTERBERG LIMITS RESULTS ASTM D4318**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/11/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-62**



	Soil Boring ID	Depth (ft)	WC	LL	PL	PI	Fines	Classification
●	CI-24	0.0 - 2.0	30.6	32	28	4	55	Gray sandy silt with organic matter and traces of shells (ML)
⊠	CI-24	8.0 - 10.0	35.9	39	25	14		Very soft gray silty clay with sand and shell fragments (CL)
▲	CI-24	12.0 - 14.0	46.1	48	21	27		Very soft gray clay with silt and shell fragments (CL)

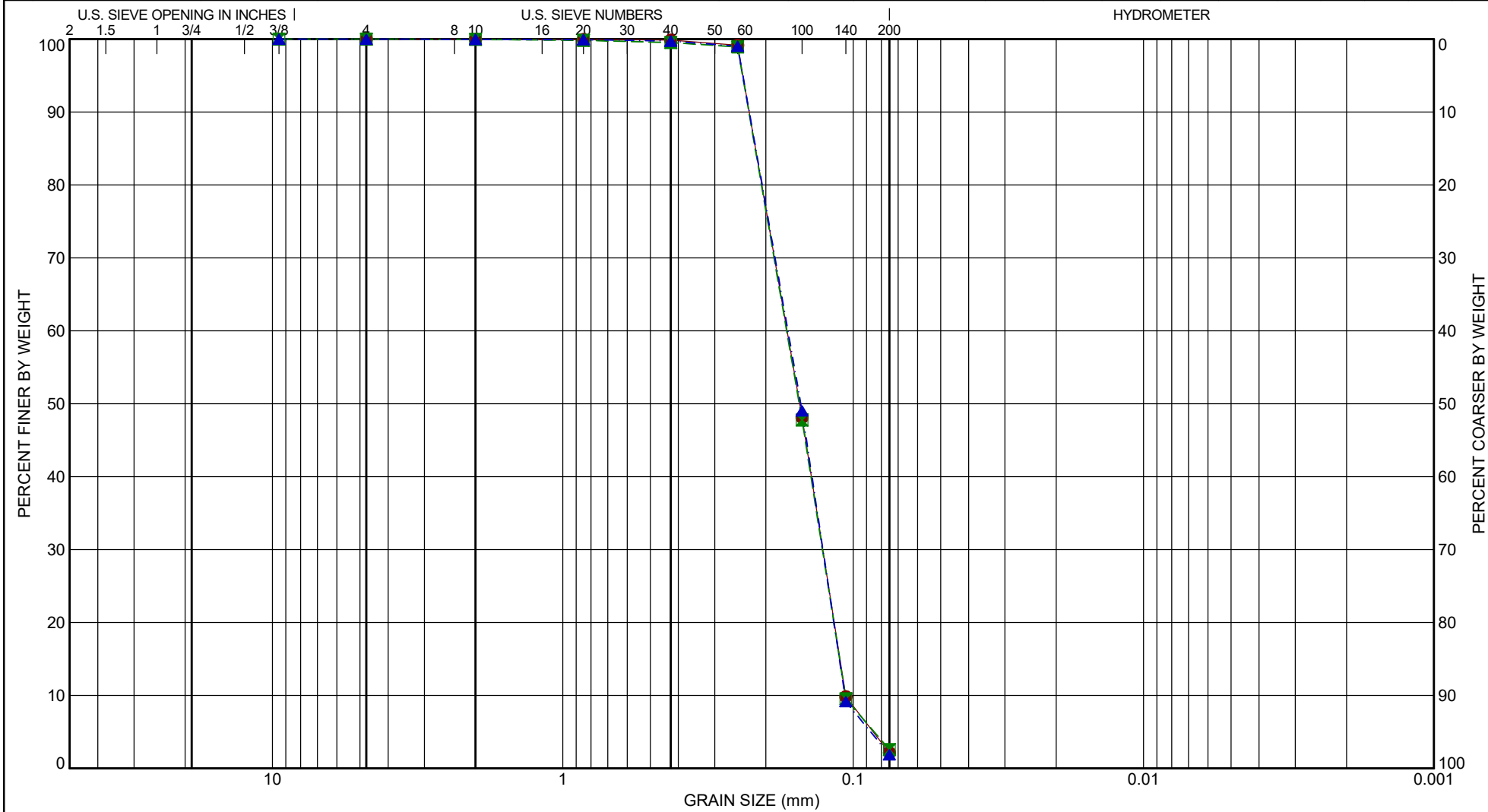
Tested By: Preston Causey	Date Tested: 10/10/2023	**ATTERBERG LIMITS RESULTS ASTM D4318**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/11/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-63**



	Soil Boring ID	Depth (ft)	WC	LL	PL	PI	Fines	Classification
●	CI-25	0.0 - 1.5	34.9	33	26	7	56	Gray sandy silt with traces of shells (ML)
⊠	CI-25	4.0 - 5.5	35.0	34	25	9	77	Gray sandy silt with clay and shell fragments (ML)
▲	CI-25	12.0 - 14.0	44.3	51	19	32		Very soft gray clay with silt lenses (CH)

Tested By: Preston Causey	Date Tested: 10/10/2023	**ATTERBERG LIMITS RESULTS ASTM D4318**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/11/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-64**

Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
CI-01	0.0 - 1.5	Gray poorly graded sand with traces of shell fragments (SP)	0.0	97.9	2.1		0.228	0.169	0.153	0.127	0.106	0.90	1.59			
CI-01	4.0 - 5.5	Gray poorly graded sand with traces of shell fragments (SP)	0.0	97.4	2.6		0.229	0.169	0.153	0.128	0.106	0.90	1.59			
CI-01	8.0 - 9.5	Gray poorly graded sand with traces of shell fragments (SP)	0.0	98.1	1.9		0.228	0.168	0.152	0.127	0.107	0.90	1.57			

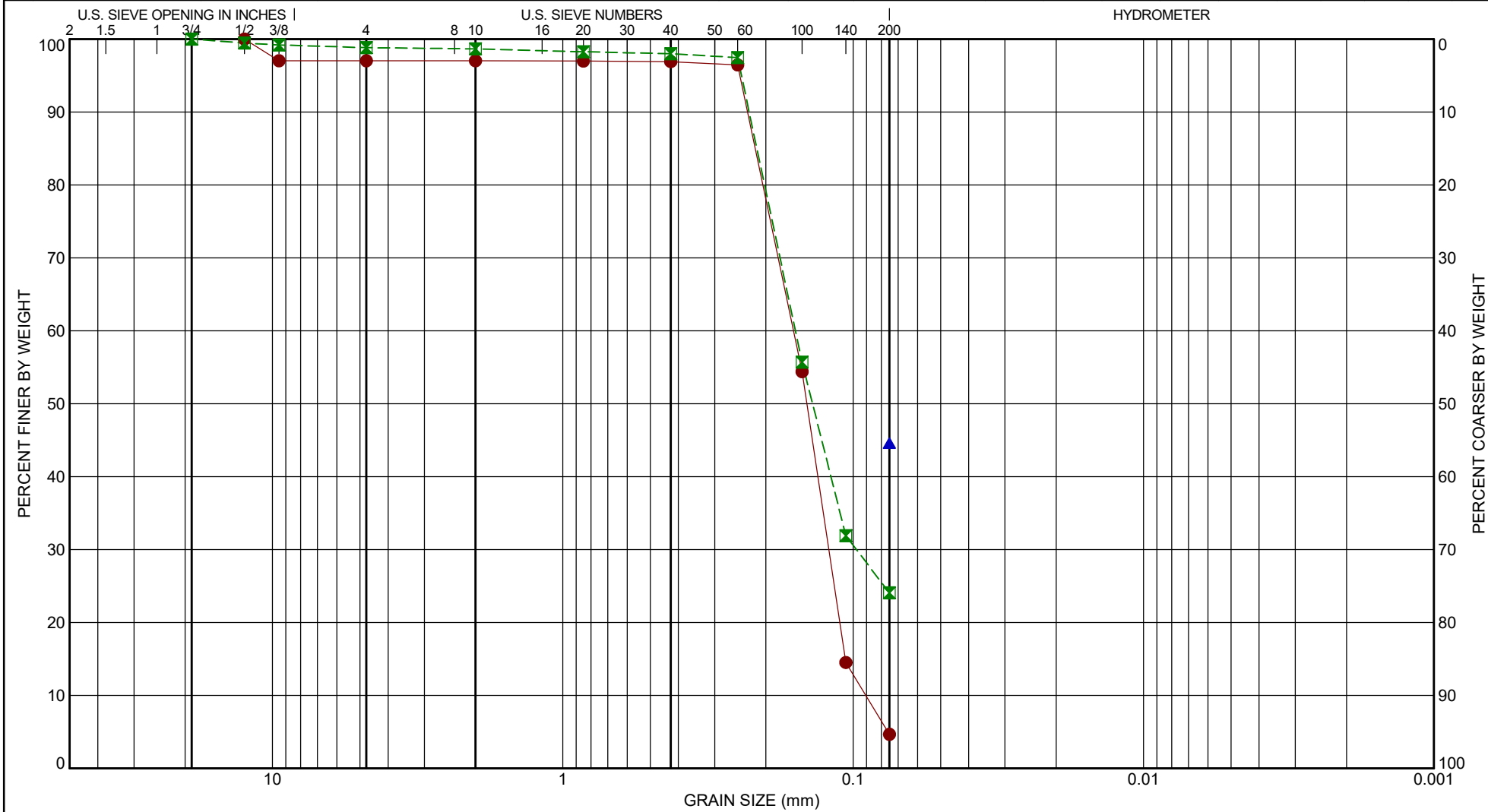


GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Donna Easterling	Date Tested: 8/30/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 8/30/2023		**Figure B-65a**

GEI - GRAIN SIZE - GEO TEMPLATE WITH LAB.GDT - 12/19/23 07:22 - P:\18\18274022\01\LAB\GINT LAB\18274-022-01 BTR LAB GINT.GPJ

Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-01	12.0 - 13.5	Gray poorly graded sand with traces of shell fragments (SP)	3.0	92.4	4.7		0.231	0.161	0.144	0.121	0.09	1.01	1.78			
⊠ CI-01	18.0 - 19.5	Gray silty sand with traces of shell fragments (SM)	1.2	74.8	24.1		0.228	0.158	0.138	0.097						
▲ CI-01	28.0 - 30.0	Gray silty sand (SM) transitioned to medium gray clay with sand layers (CH)			44.6									56	23	33

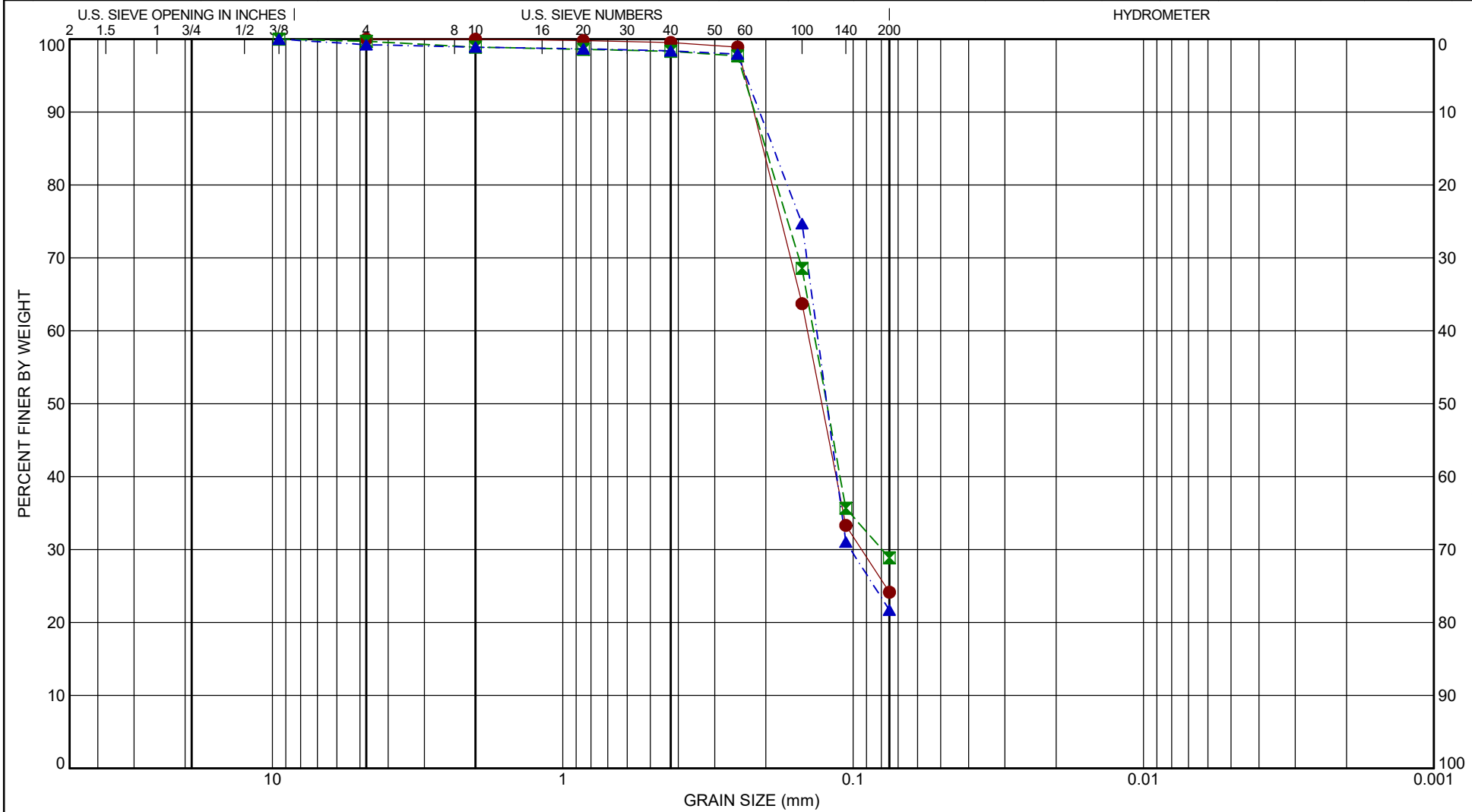


GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Donna Easterling	Date Tested: 8/30/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 8/30/2023		**Figure B-65b**

GEI - GRAIN SIZE - GEO TEMPLATE WITH LAB.GDT - 12/19/23 07:22 - P:\18\18274022\01\LAB\GINT LAB\18274-022-01 BTR LAB GINT.GPJ

Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
CI-02	0.0 - 1.5	Gray silty sand with shell fragments and organic matter (SM)	0.0	75.8	24.2		0.22	0.144	0.128	0.094						
CI-02	4.0 - 5.5	Gray silty sand with shell fragments (SM)	0.3	70.8	28.9		0.218	0.137	0.123	0.079						
CI-02	10.0 - 11.5	Gray silty sand with shell fragments (SM)	0.8	77.5	21.7		0.21	0.133	0.123	0.102						

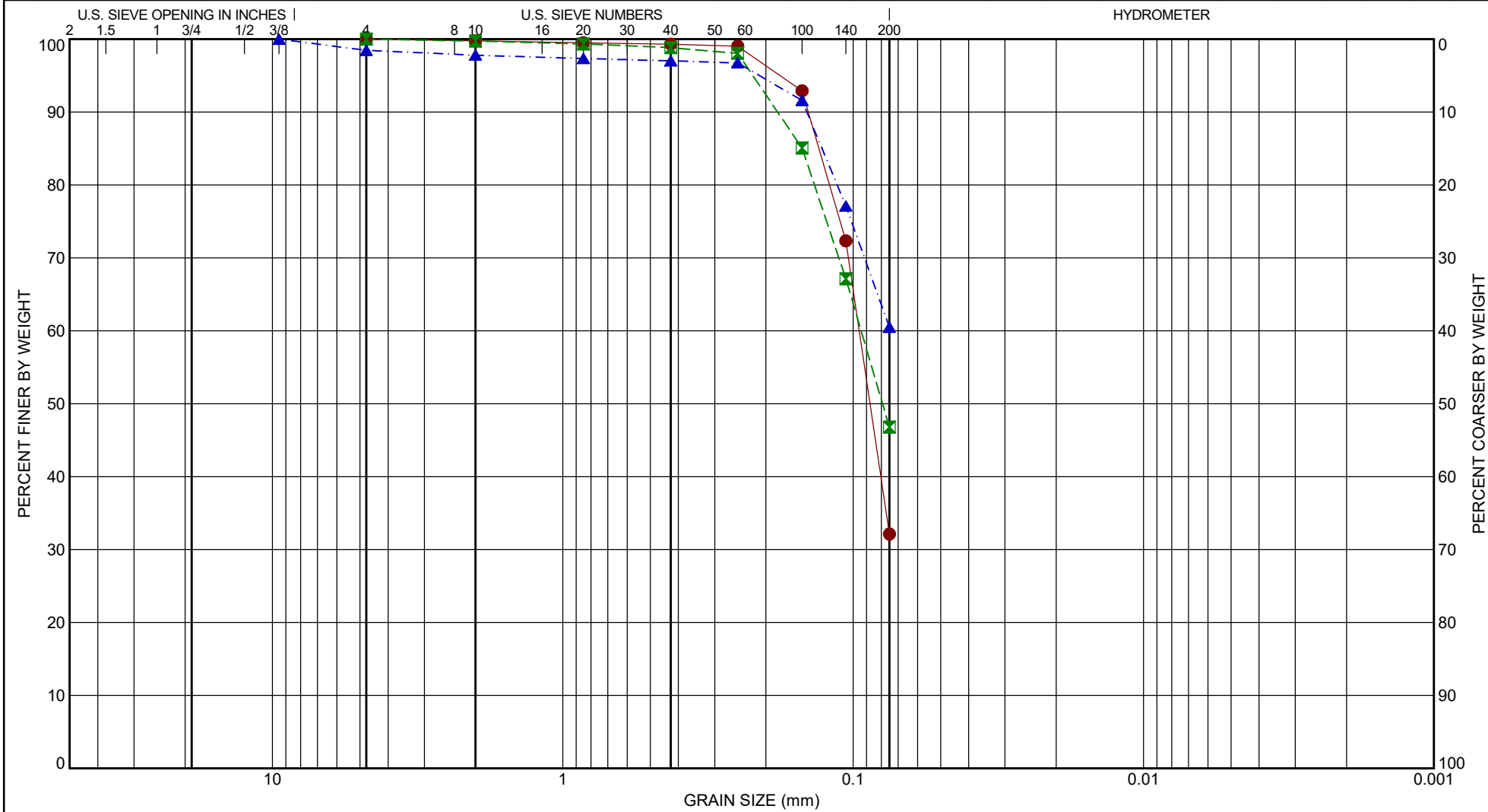


GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Donna Easterling	Date Tested: 8/30/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 8/30/2023		**Figure B-66a**

GEI - GRAIN SIZE - GEO TEMPLATE WITH LAB.GDT - 12/19/23 07:28 - P:\18\18274022\01\LAB\GINT LAB\18274-022-01 BTR LAB GINT.GPJ

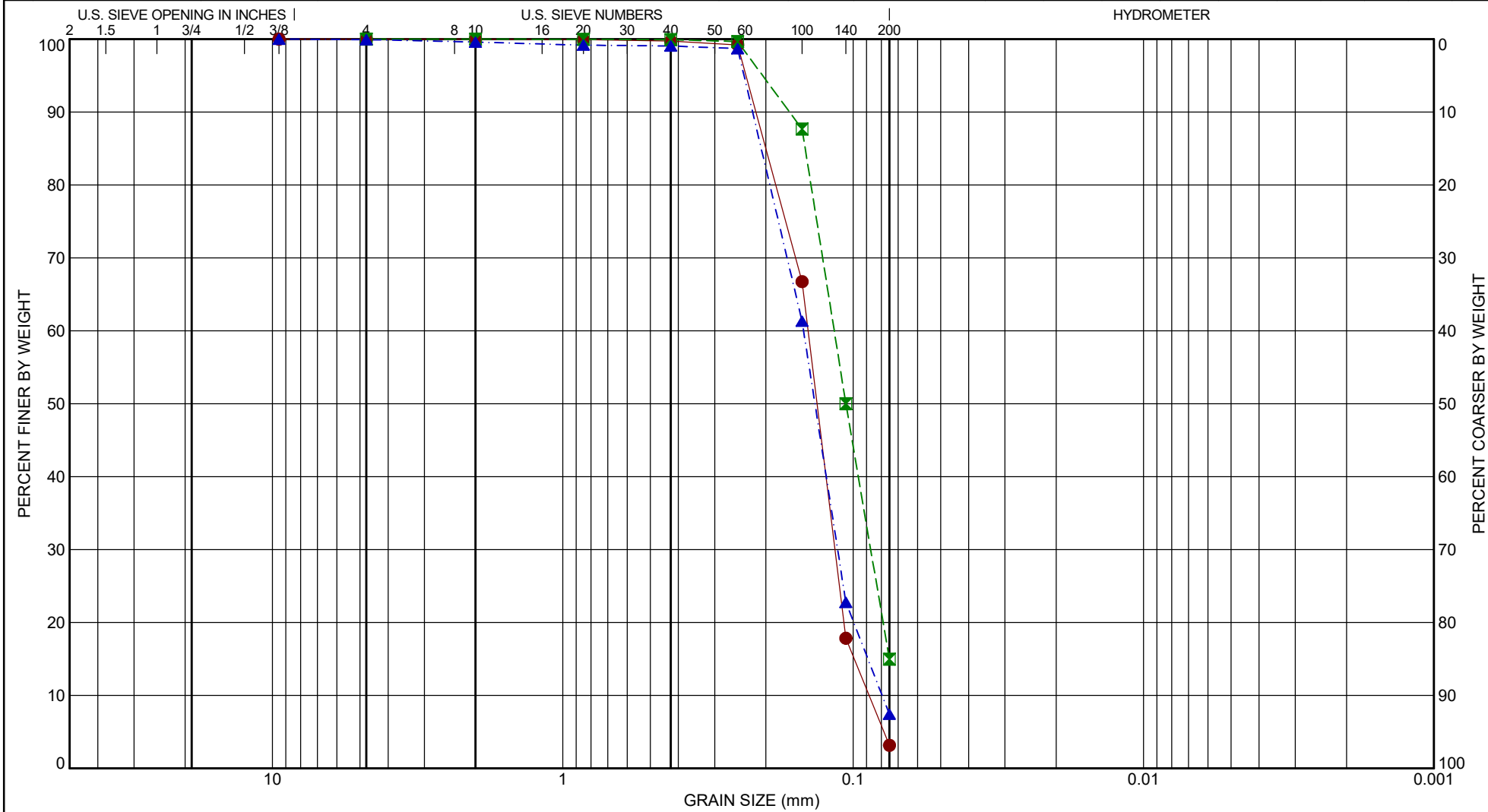
Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-02	16.0 - 17.5	Gray silty sand with shell fragments (SM)	0.0	67.9	32.1		0.143	0.095	0.087							
⊠ CI-02	23.0 - 24.5	Gray silty sand with shell fragments and traces of clay (SM)	0.0	53.2	46.8		0.182	0.094	0.079							
▲ CI-02	33.0 - 34.5	Gray sandy silt with shell fragments and traces of clay (ML)	1.5	38.0	60.5		0.144							NP	NP	NP



GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Donna Easterling	Date Tested: 8/30/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 8/30/2023		GeoEngineers — **Figure B-66b**

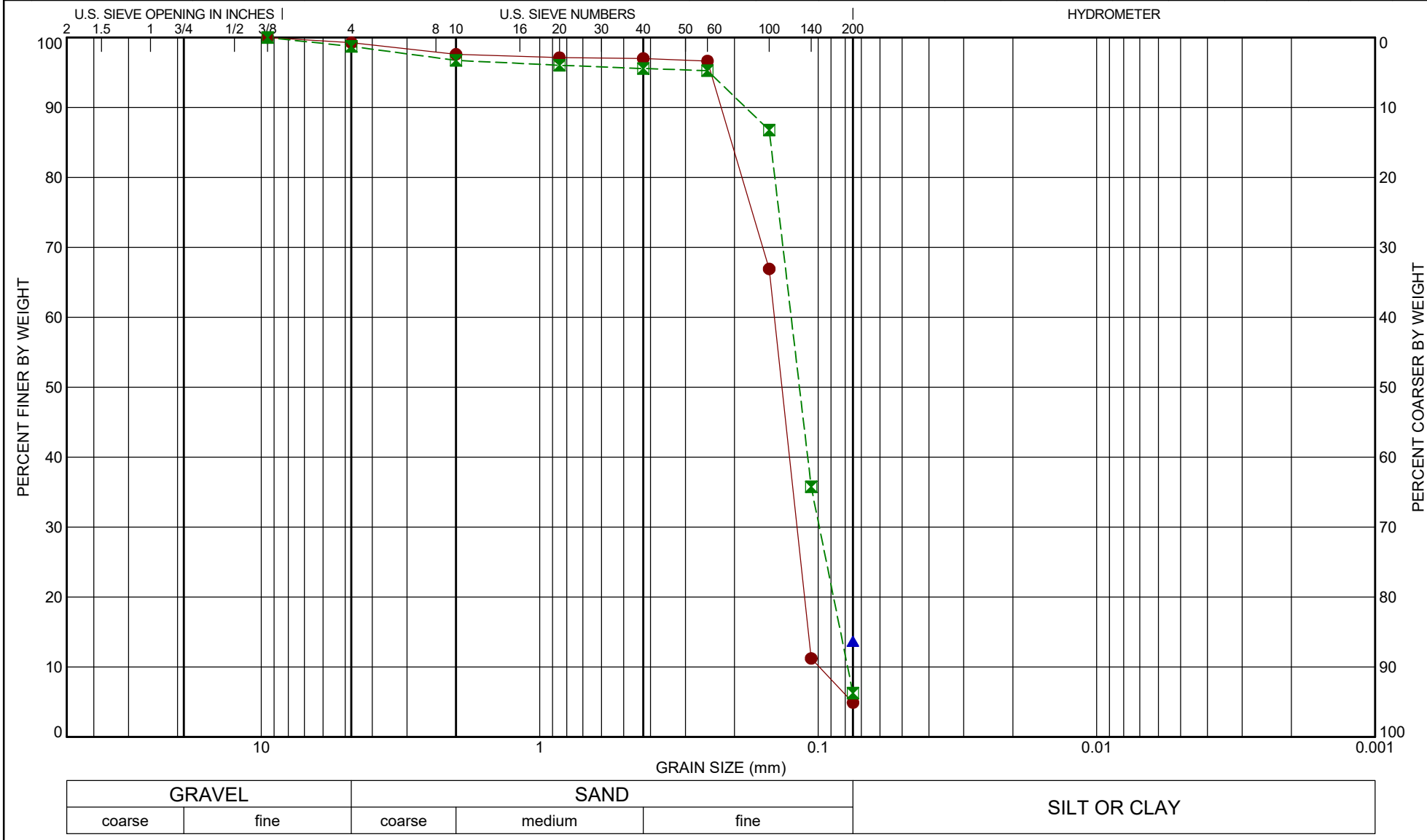
Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
CI-03	0.0 - 1.5	Dark gray poorly graded sand (SP)	0.0	96.8	3.2		0.216	0.143	0.133	0.116	0.088	1.06	1.62			
CI-03	4.0 - 5.5	Gray silty sand (SM)	0.0	85.0	15.0		0.166	0.116	0.106	0.087						
CI-03	8.0 - 9.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	0.1	92.5	7.4		0.222	0.148	0.135	0.113	0.079	1.09	1.86			



GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Donna Easterling	Date Tested: 9/1/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/1/2023	Note: This report may not be reproduced, except in full, without written approval of GeoEngineers, Inc. Test results are applicable only to the specific sample on which they were performed, and should not be interpreted as representative of any other samples obtained at other times, depths or locations, or generated by separate operations or processes.	GeoEngineers **Figure B-67a**

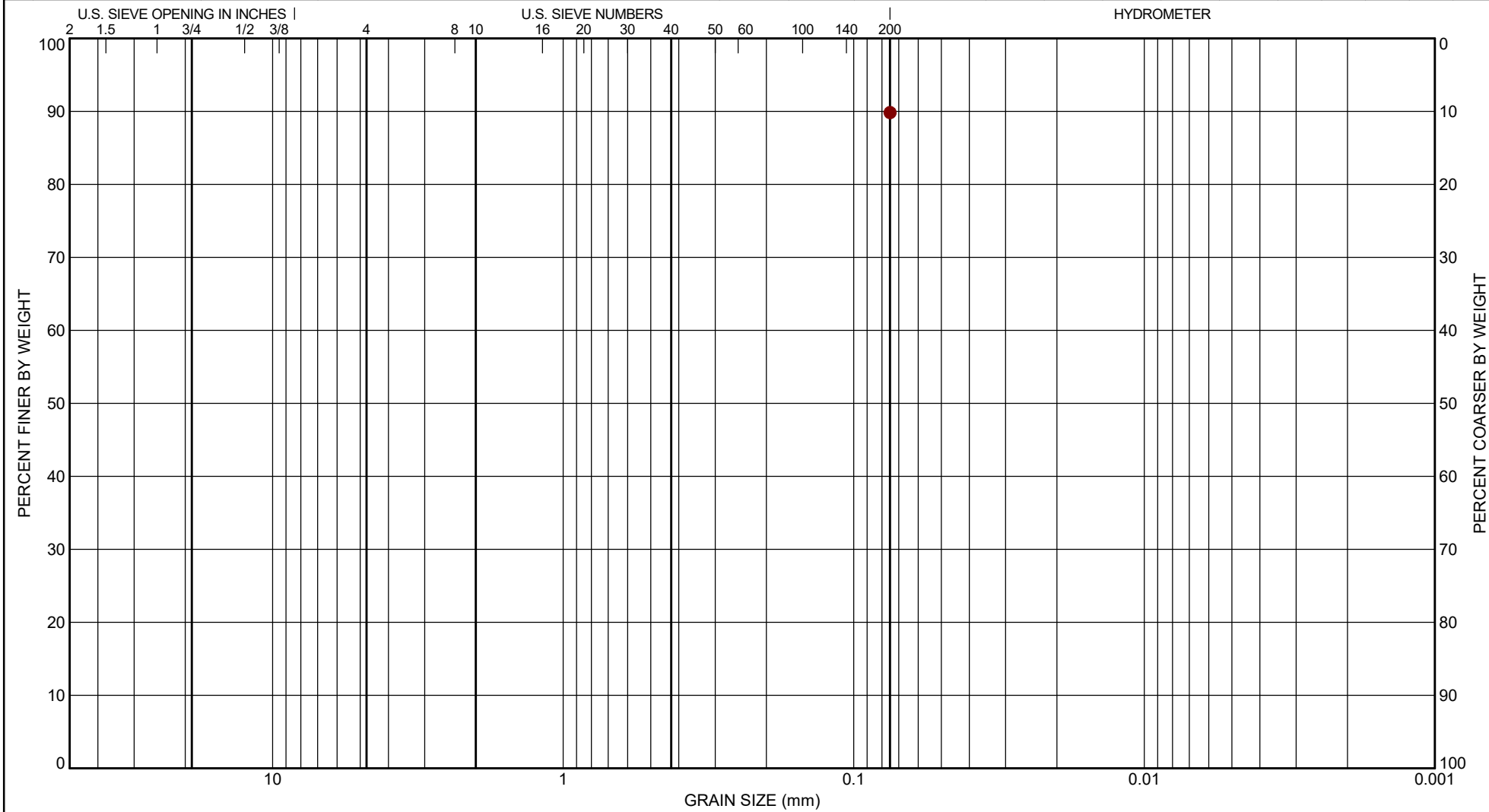
Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-03	12.0 - 13.5	Gray poorly graded sand with shell fragments (SP)	0.7	94.4	4.9		0.223	0.144	0.135	0.119	0.099	1.00	1.45			
⊠ CI-03	16.0 - 17.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	1.3	92.4	6.3		0.182	0.125	0.117	0.099	0.078	1.00	1.60			
▲ CI-03	23.0 - 24.5	Gray silty sand with shell fragments (SM)			13.7											



GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By:	Date Tested:	GRAIN SIZE DISTRIBUTION	Chandeleur Island, Louisiana
Donna Easterling	8/31/2023	ASTM D422/D1140/D6913/T88	
Reviewed By:	Date Reviewed:	Project No.: 18274-022-01	GeoEngineers
Dustin Blanchard	9/1/2023		Figure B-67b

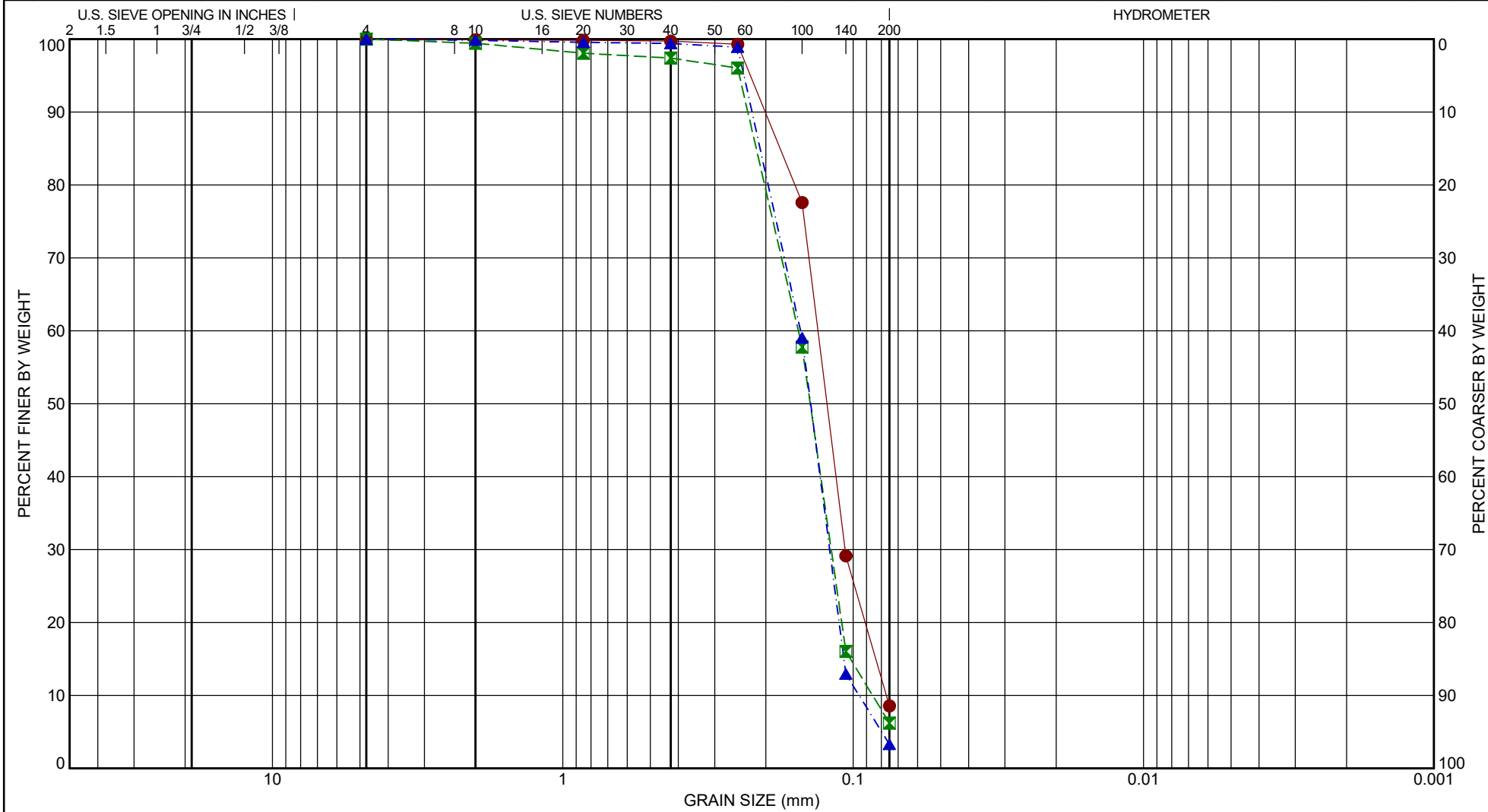
Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-03	33.0 - 35.0	Medium gray silty clay with and pockets (CL)			89.8											



GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By:	Date Tested:	GRAIN SIZE DISTRIBUTION	Chandeleur Island, Louisiana	
Raven Roberts	8/25/2023	ASTM D422/D1140/D6913/T88		
Reviewed By:	Date Reviewed:	Project No.: 18274-022-01	GeoEngineers	Figure B-67c
Dustin Blanchard	8/28/2023	

Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
CI-03B	0.0 - 1.5	Gray poorly graded sand with silt (SP-SM)	0.0	91.4	8.6		0.201	0.132	0.123	0.107	0.077	1.12	1.72			
CI-03B	4.0 - 5.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	0.0	93.8	6.2		0.231	0.155	0.141	0.119	0.086	1.07	1.80			
CI-03B	8.0 - 9.5	Gray poorly graded sand with traces of shell fragments (SP)	0.0	96.7	3.3		0.223	0.152	0.14	0.121	0.095	1.00	1.59			

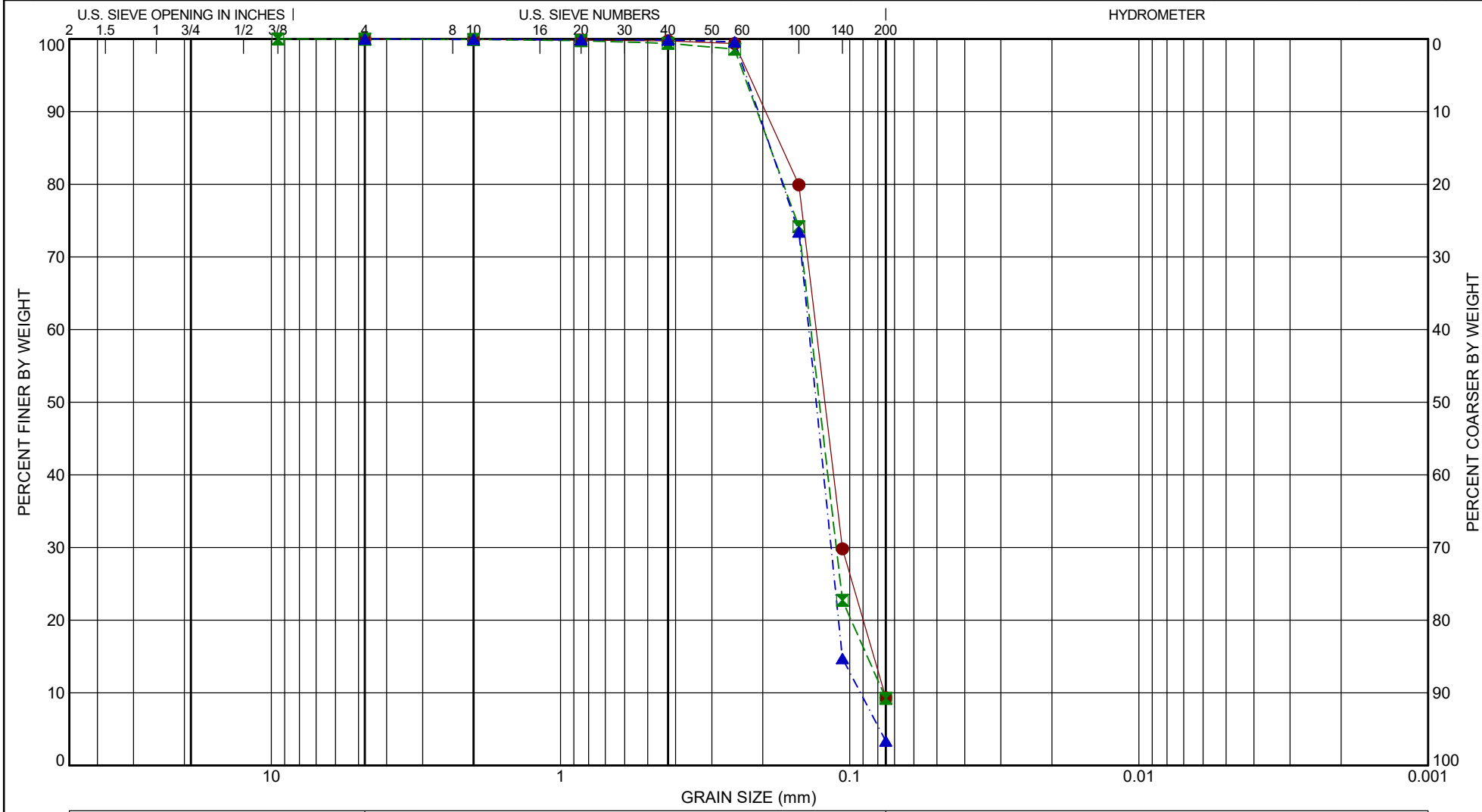


GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Donna Easterling	Date Tested: 9/20/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/20/2023		**Figure B-68a**

GEI - GRAIN SIZE - GEO TEMPLATE WITH LAB.GDT - 12/19/23 07:42 - P:\18\18274022\01\LAB\GINT LAB\18274-022-01 BTR LAB GINT.GPJ

Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
CI-03B	12.0 - 13.5	Gray poorly graded sand with silt (SP-SM)	0.0	90.7	9.3		0.195	0.131	0.122	0.106	0.076	1.14	1.72			
CI-03B	16.0 - 17.5	Gray poorly graded sand with silt (SP-SM)	0.0	90.7	9.2		0.209	0.136	0.127	0.111	0.077	1.19	1.78			
CI-03B	23.0 - 24.5	Gray poorly graded sand with shell fragments (SP)	0.0	96.6	3.4		0.207	0.139	0.131	0.116	0.092	1.06	1.51			

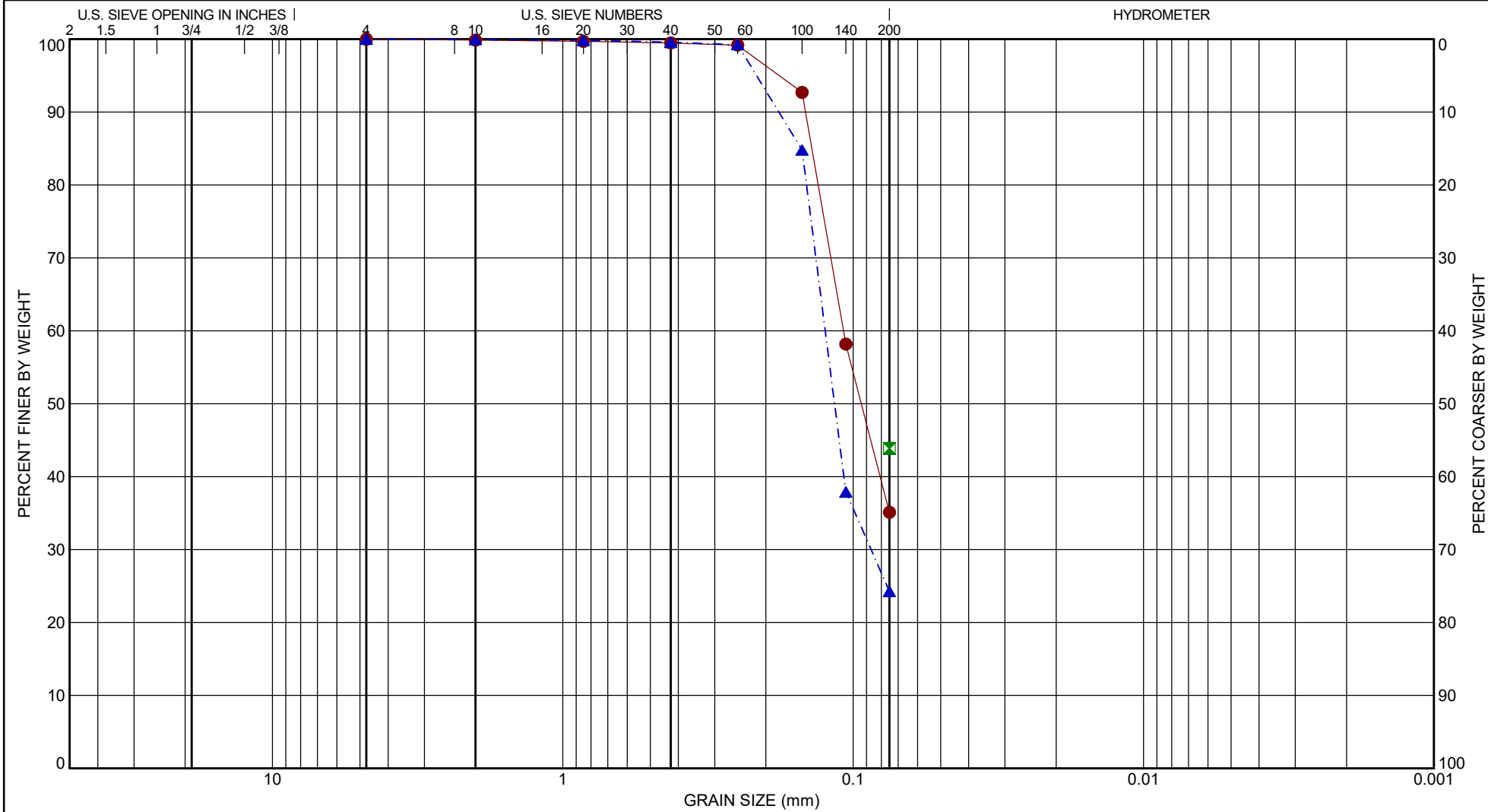


GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Donna Easterling	Date Tested: 9/20/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/20/2023		**Figure B-68b**

GEI - GRAIN SIZE - GEO TEMPLATE WITH LAB.GDT - 12/19/23 07:42 - P:\18\18274022\01\LAB\GINT LAB\18274-022-01 BTR LAB GINT.GPJ

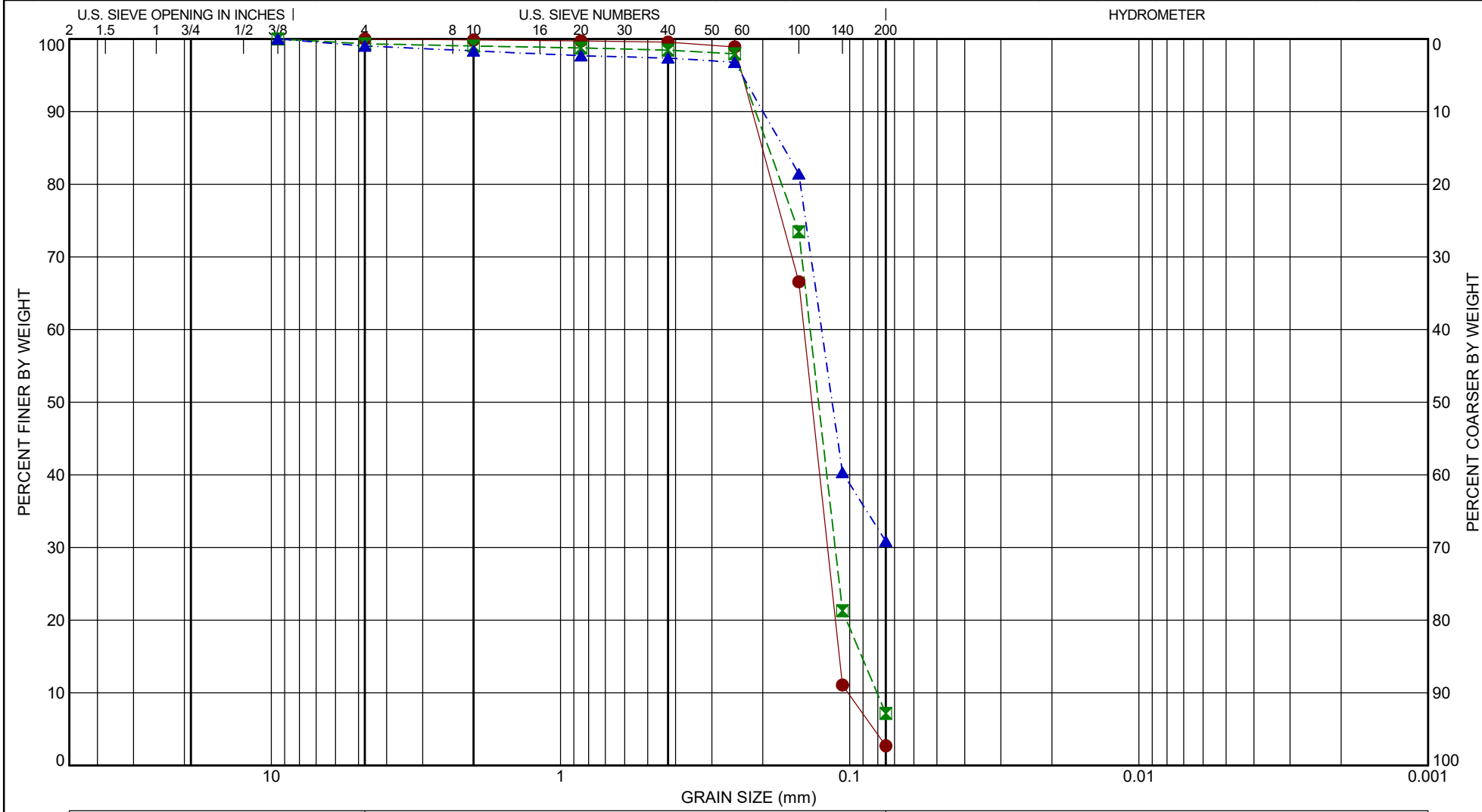
Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-04	0.0 - 1.5	Gray clayey sand with silt, organic matter, and shell fragments (SC)	0.0	64.9	35.1		0.146	0.108	0.094							
⊠ CI-04	4.0 - 5.5	Gray clayey sand with silt and shell fragments (SC)			43.9									31	22	9
▲ CI-04	8.0 - 9.5	Gray silty sand with traces of clay and shell fragments (SM)	0.0	75.7	24.3		0.18	0.125	0.116	0.087						



GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By:	Date Tested:	GRAIN SIZE DISTRIBUTION	Chandeleur Island, Louisiana
Donna Easterling	9/21/2023	ASTM D422/D1140/D6913/T88	
Reviewed By:	Date Reviewed:	Project No.: 18274-022-01	GeoEngineers
Dustin Blanchard	9/21/2023		Figure B-69

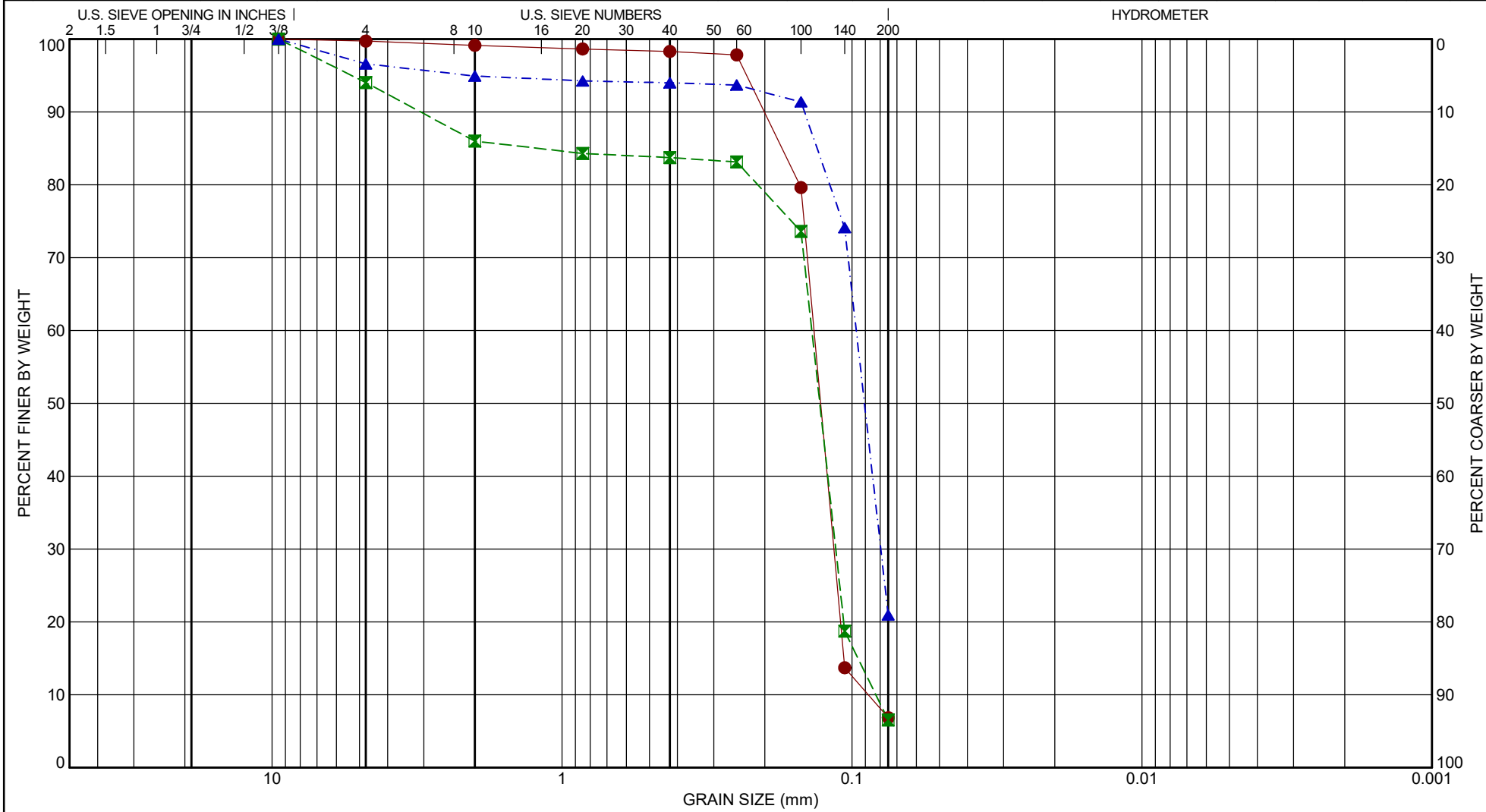
Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-05	0.0 - 1.5	Tan poorly graded sand with shell fragments (SP)	0.0	97.3	2.7		0.217	0.144	0.135	0.119	0.101	0.98	1.42			
⊠ CI-05	4.0 - 5.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	0.7	92.2	7.2		0.212	0.137	0.128	0.112	0.08	1.14	1.71			
▲ CI-05	8.0 - 9.5	Gray silty sand with shell fragments (SM)	1.0	68.2	30.9		0.199	0.125	0.115							



GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Donna Easterling	Date Tested: 9/21/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/21/2023	GeoEngineers	**Figure B-70a**

Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
CI-05	12.0 - 13.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	0.3	92.9	6.9		0.201	0.135	0.128	0.115	0.088	1.12	1.54			
CI-05	16.0 - 17.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	6.0	87.5	6.5		3.075	0.138	0.129	0.114	0.083	1.14	1.66			
CI-05	23.0 - 24.5	Gray silty sand with shell fragments (SM)	3.4	75.7	20.9		0.146	0.097	0.091	0.08						

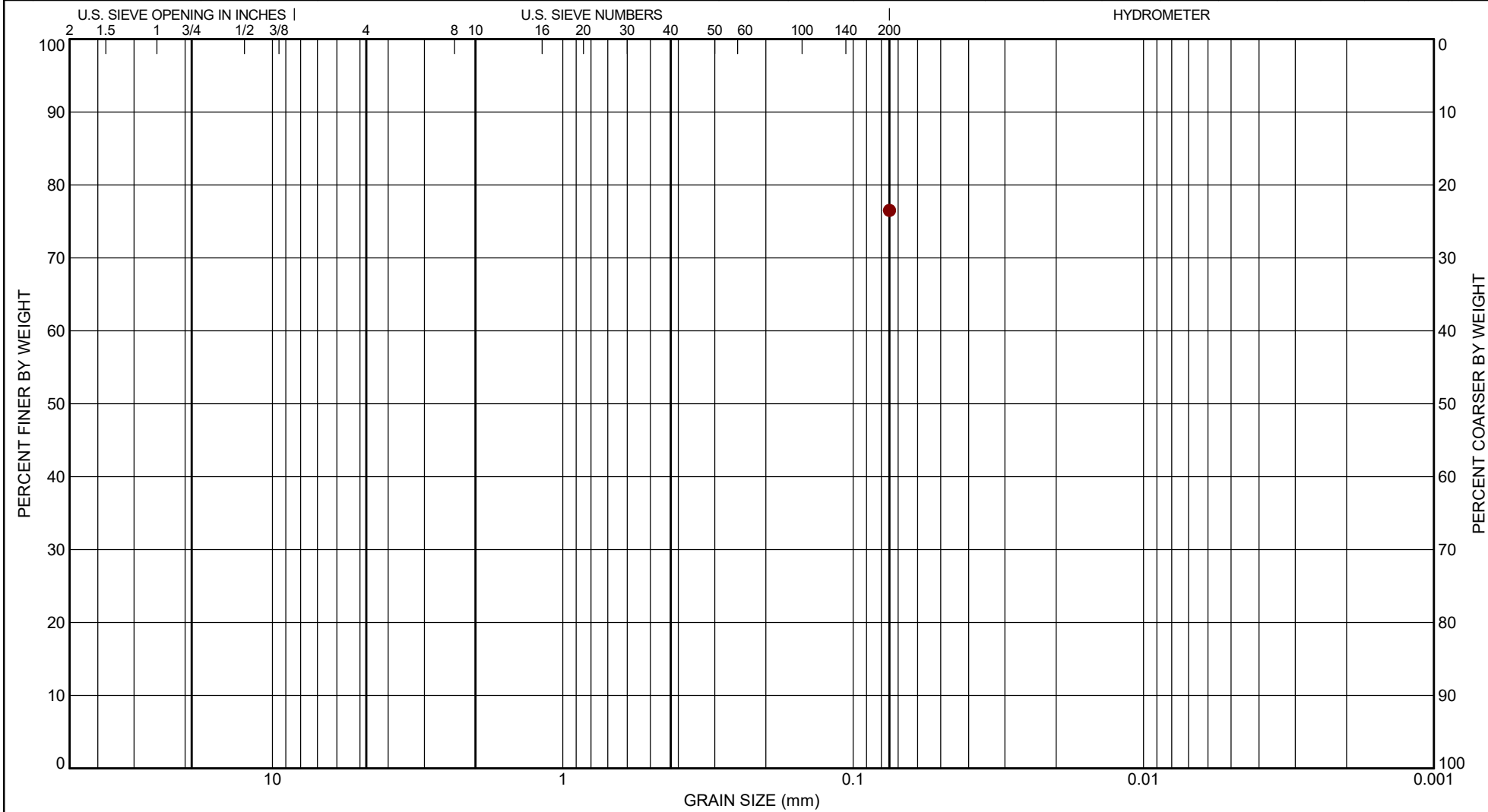


GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Donna Easterling	Date Tested: 9/21/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/21/2023		**Figure B-70b**

GEI - GRAIN SIZE - GEO TEMPLATE WITH LAB.GDT - 12/19/23 07:52 - P:\18\18274022\01\LAB\GINT LAB\18274-022-01 BTR LAB GINT.GPJ

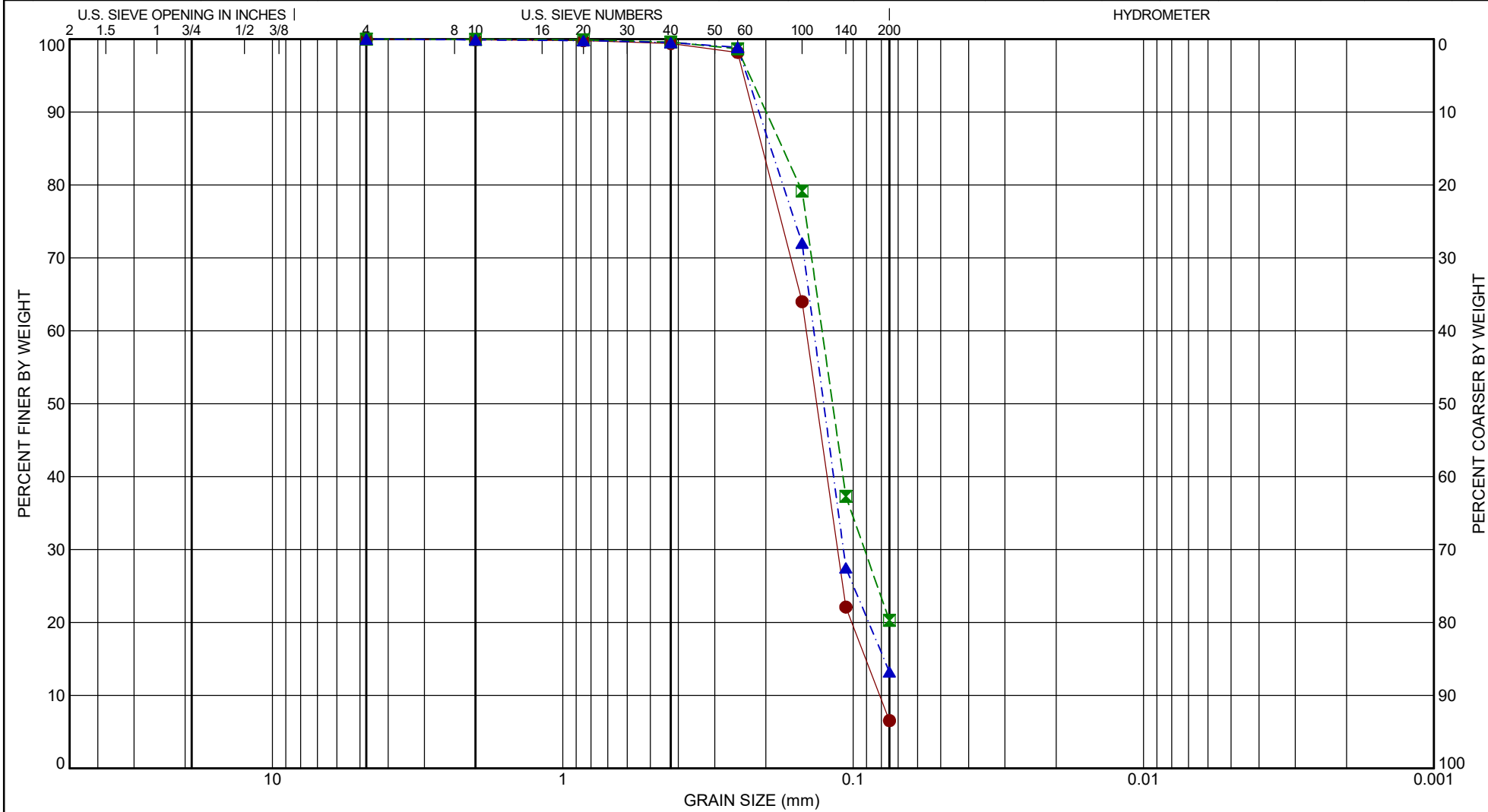
Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-05	33.0 - 35.0	Soft dark gray silty clay with sand and shell fragments (CL)			76.5									41	20	21



GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By:	Date Tested:	GRAIN SIZE DISTRIBUTION	Chandeleur Island, Louisiana
Donna Easterling	8/31/2023	ASTM D422/D1140/D6913/T88	
Reviewed By:	Date Reviewed:	Project No.: 18274-022-01	GeoEngineers
Dustin Blanchard	9/1/2023		Figure B-70c

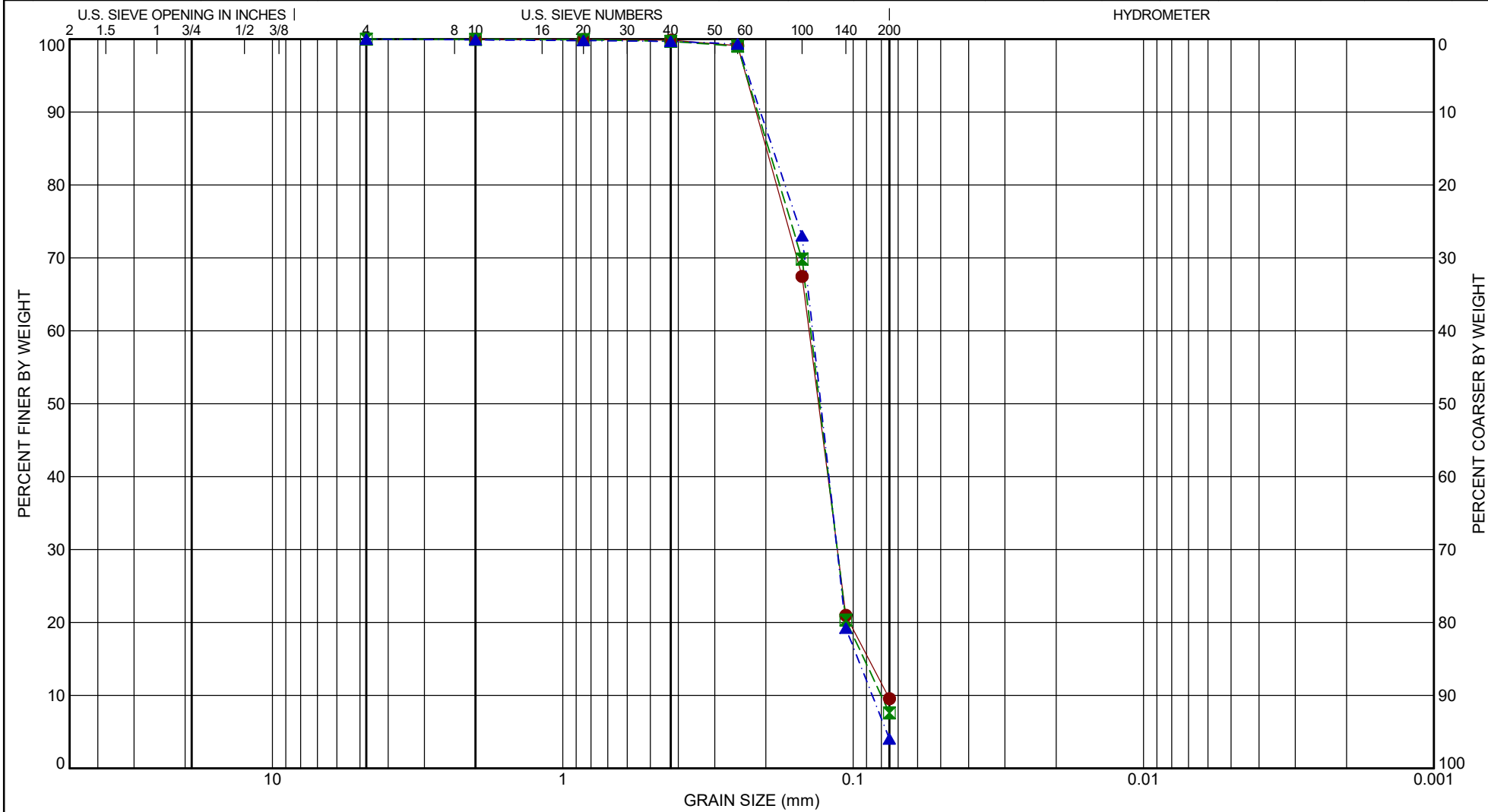
Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-06	0.0 - 1.5	Gray poorly graded sand with silt and traces of shells (SP-SM)	0.0	93.5	6.5		0.221	0.145	0.134	0.113	0.081	1.09	1.79			
⊠ CI-06	2.0 - 3.5	Gray silty sand with organic matter and shell fragments (SM)	0.0	79.7	20.3		0.199	0.128	0.118	0.091						
▲ CI-06	6.0 - 7.5	Gray silty sand with shell fragments (SM)	0.0	86.8	13.2		0.211	0.137	0.126	0.108						



GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Alex Fontenot	Date Tested: 12/14/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 12/14/2023		GeoEngineers — **Figure B-71a**

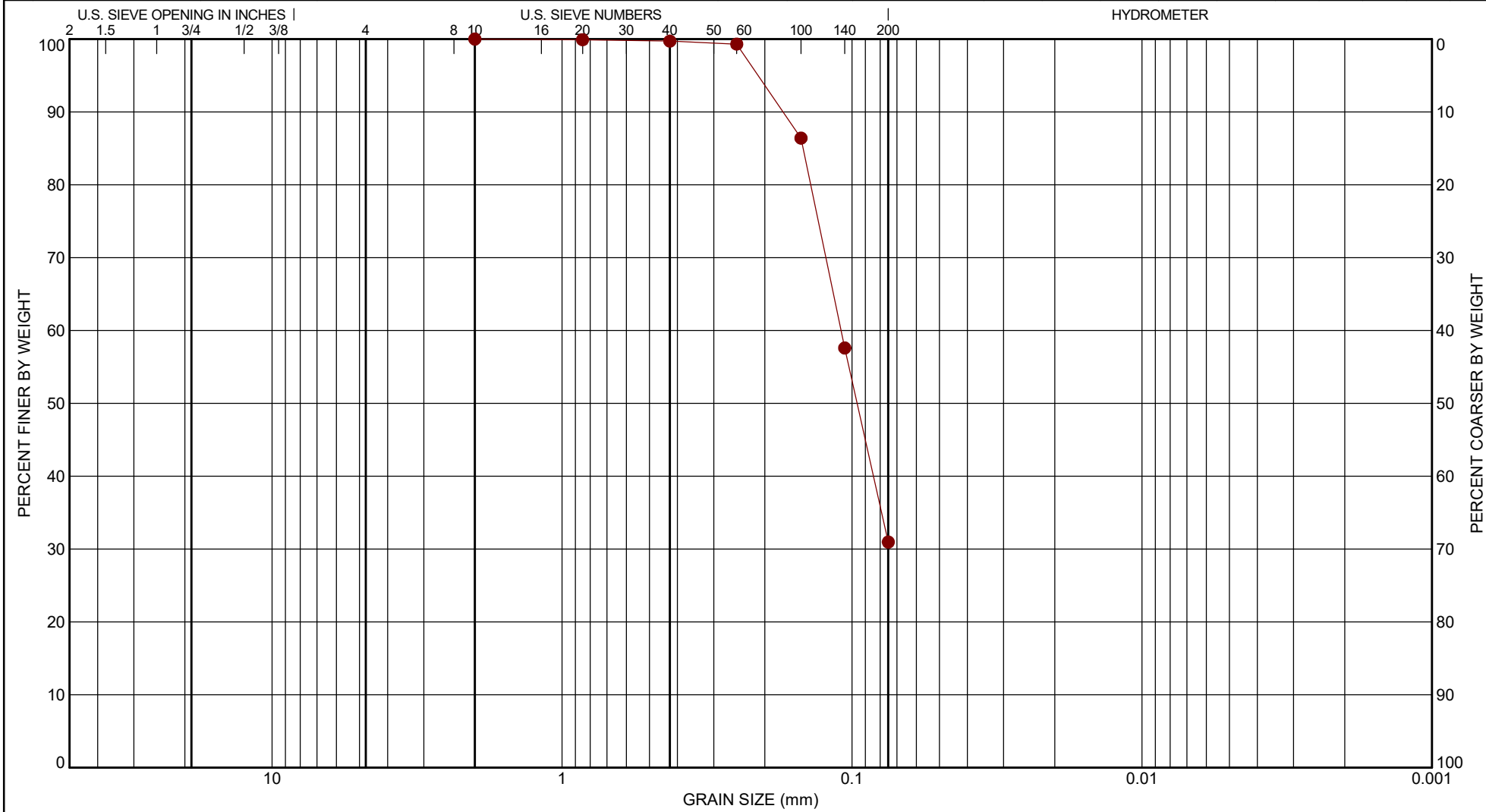
Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
CI-06	10.0 - 11.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	0.0	90.4	9.6		0.216	0.142	0.132	0.113	0.076	1.19	1.87			
CI-06	14.0 - 15.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	0.0	92.4	7.6		0.213	0.14	0.131	0.113	0.08	1.15	1.75			
CI-06	18.0 - 19.5	Gray poorly graded sand (SP)	0.0	96.0	4.0		0.209	0.138	0.129	0.114	0.086	1.09	1.61			



GEI - GRAIN SIZE - GEO TEMPLATE WITH LAB.GDT - 12/19/23 08:00 - P:\18\18274022\01\LAB\GINT LAB\18274-022-01 BTR LAB GINT.GPJ

Tested By:	Date Tested:	GRAIN SIZE DISTRIBUTION	Chandeleur Island, Louisiana	
Donna Easterling	9/26/2023	ASTM D422/D1140/D6913/T88		
Reviewed By:	Date Reviewed:	Project No.: 18274-022-01	GeoEngineers	Figure B-71b
Dustin Blanchard	9/26/2023			

Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
CI-06	28.0 - 29.5	Gray silty sand (SM)	0.0	69.0	31.0		0.173	0.109	0.096							

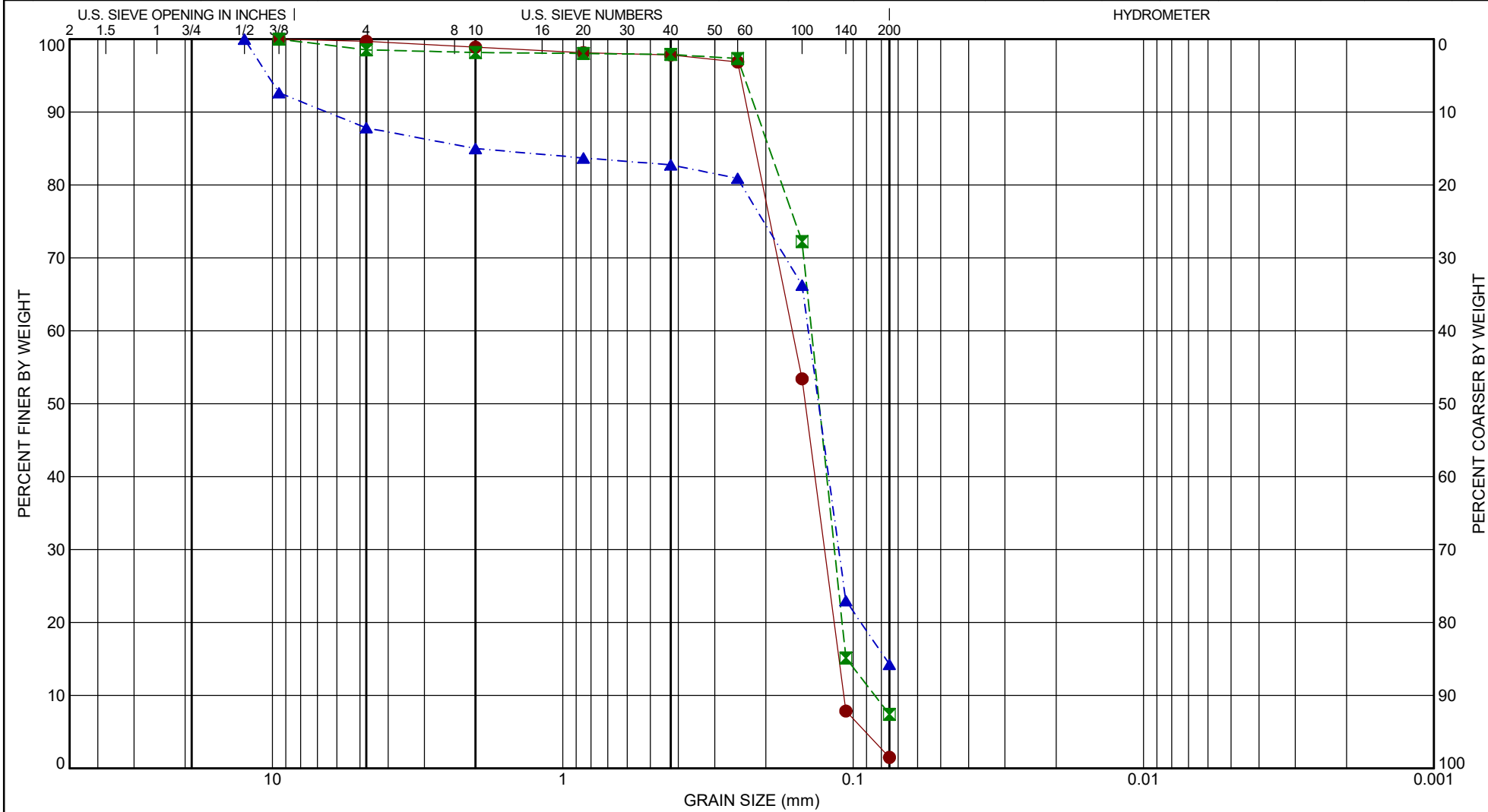


GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Donna Easterling	Date Tested: 9/26/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/26/2023		**Figure B-71c**

GEI - GRAIN SIZE - GEO TEMPLATE WITH LAB.GDT - 12/19/23 08:00 - P:\18\18274022\01\LAB\GINT LAB\18274-022-01 BTR LAB GINT.GPJ

Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-07	2.0 - 3.5	Gray poorly graded sand with shell fragments (SP)	0.3	98.2	1.5		0.231	0.162	0.146	0.125	0.108	0.90	1.50			
⊠ CI-07	6.0 - 7.5	Gray poorly graded sand with silt (SP-SM)	1.5	91.1	7.4		0.215	0.139	0.131	0.116	0.084	1.15	1.65			
▲ CI-07	10.0 - 11.5	Gray silty sand with traces of shell fragments (SM)	12.2	73.6	14.3		6.483	0.143	0.132	0.112						

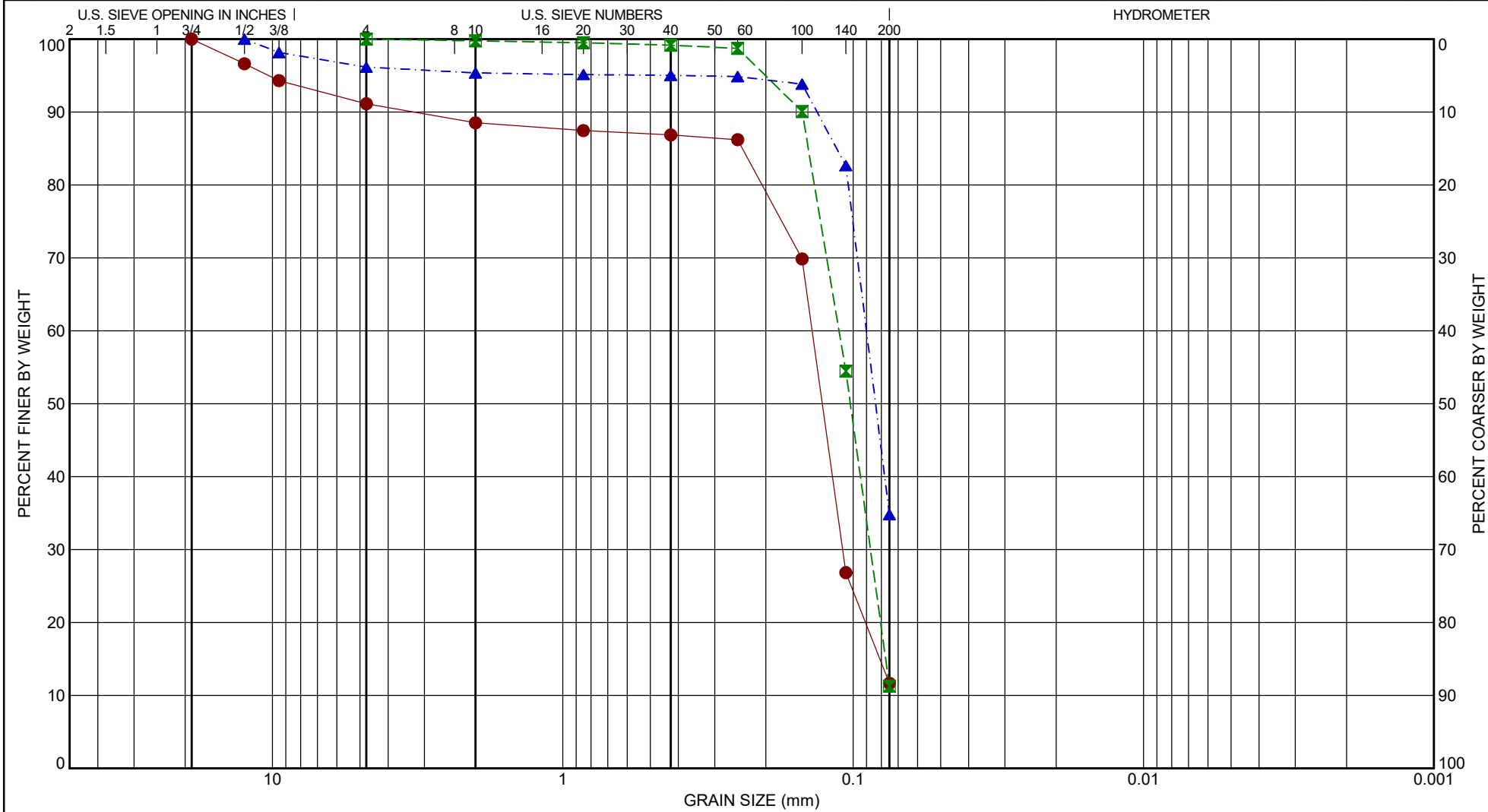


GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Donna Easterling	Date Tested: 9/26/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/26/2023		**Figure B-72a**

GEI - GRAIN SIZE - GEO TEMPLATE WITH LAB.GDT - 12/19/23 08:10 - P:\18\18274022\01\LAB\GINT LAB\18274-022-01 BTR LAB GINT.GPJ

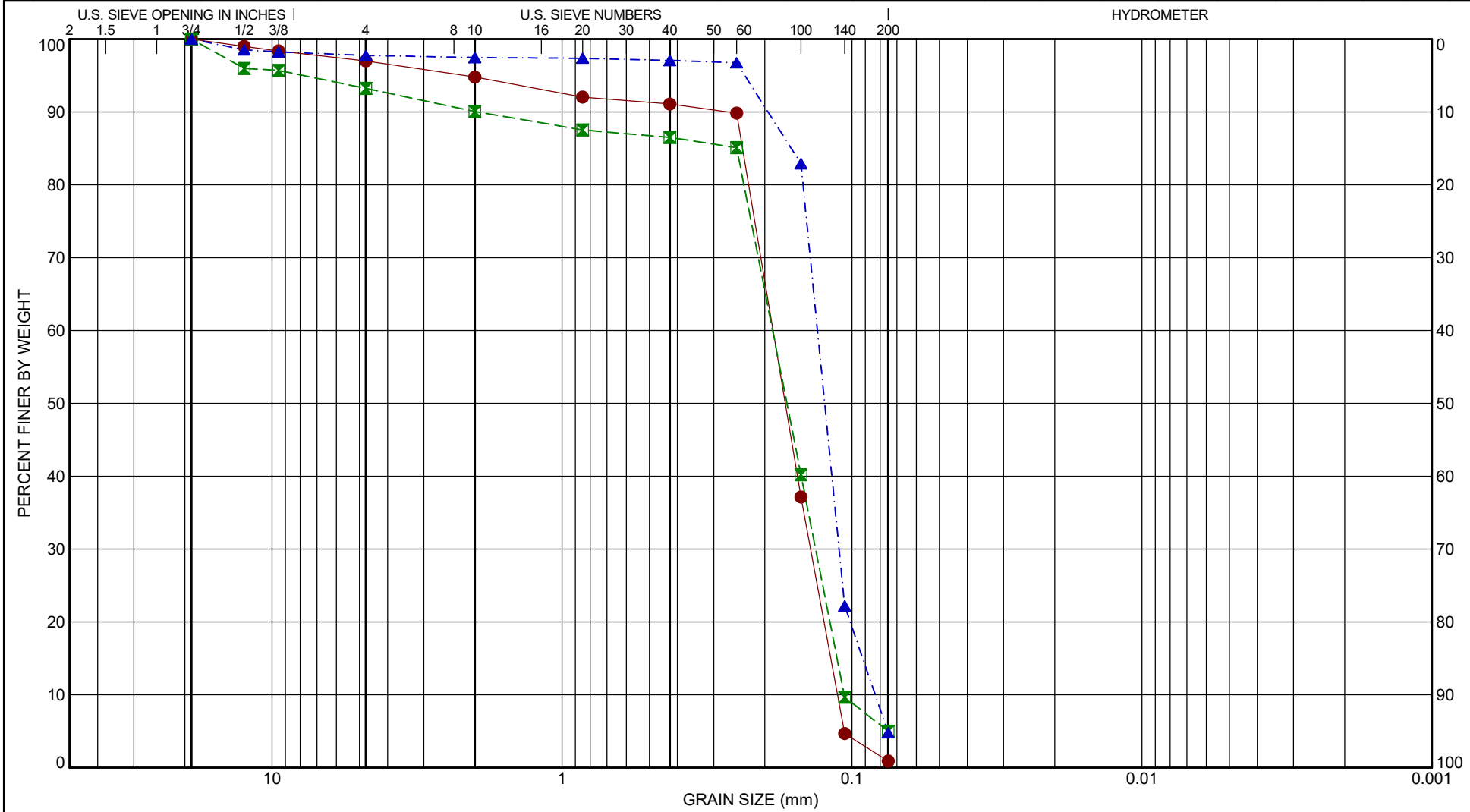
Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-07	14.0 - 15.5	Gray poorly graded sand with silt, shells, and shell fragments (SP-SM)	8.9	79.5	11.7		3.26	0.139	0.128	0.109		1.18	1.92			
⊠ CI-07	18.0 - 19.5	Gray poorly graded sand with silt, shells, and shell fragments (SP-SM)	0.0	88.7	11.3		0.15	0.112	0.102	0.087		0.91	1.51			
▲ CI-07	28.0 - 29.5	Gray silty sand with shell fragments (SM)	3.8	61.4	34.8		0.133	0.09	0.084							



GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Donna Easterling	Date Tested: 9/29/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/29/2023		GeoEngineers **Figure B-72b**

Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
CI-08	2.0 - 3.5	Light gray poorly graded sand with shell fragments (SP)	3.0	96.1	0.9		0.267	0.187	0.17	0.139	0.112	0.92	1.67			
CI-08	6.0 - 7.5	Gray poorly graded sand with silt and a layer of shell fragments (SP-SM)	6.8	88.2	5.0		1.954	0.188	0.168	0.134	0.106	0.89	1.77			
CI-08	10.0 - 11.5	Gray poorly graded sand with shell fragments (SP)	2.2	93.0	4.8		0.195	0.132	0.124	0.111	0.083	1.12	1.58			

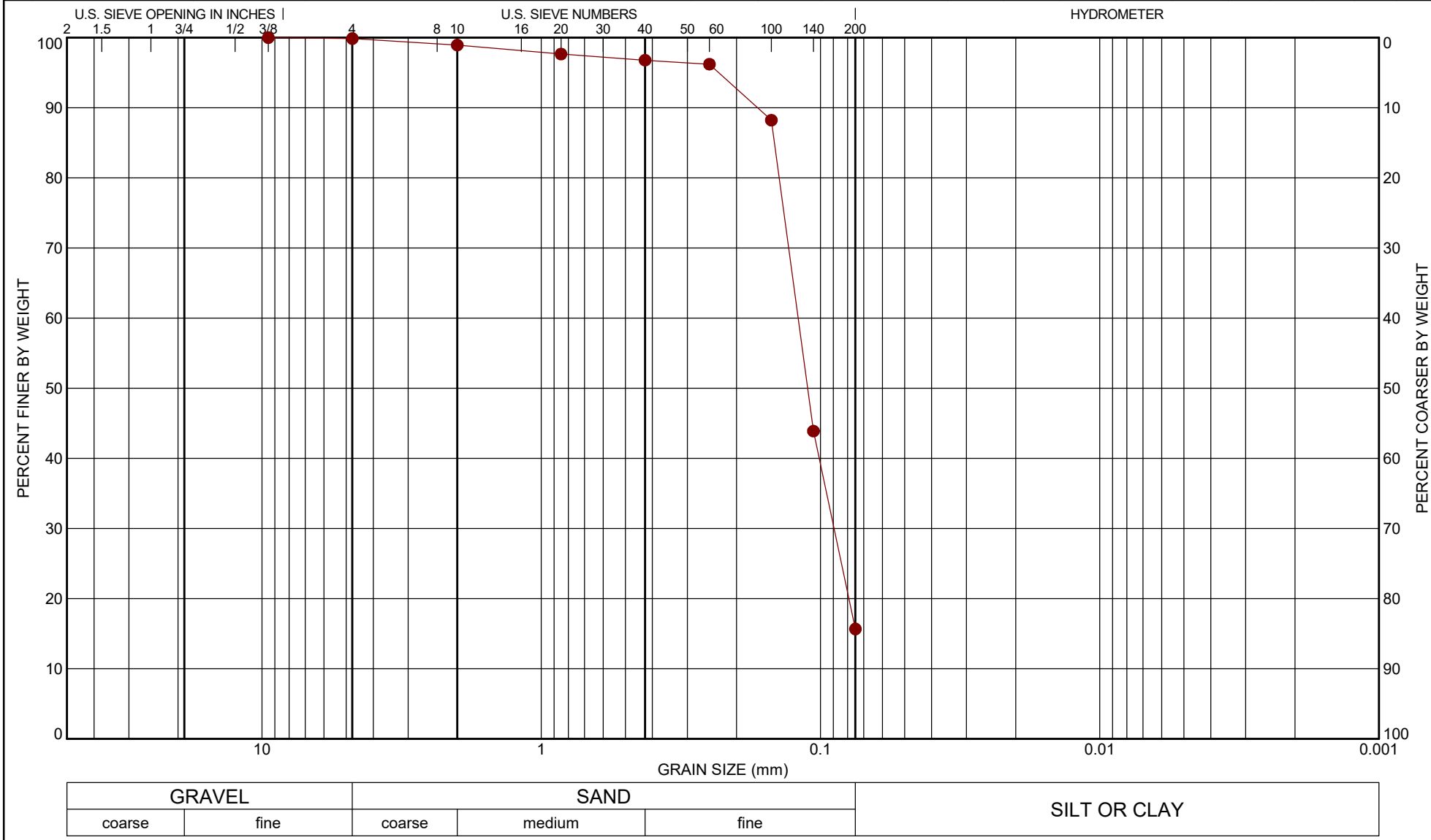


GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Donna Easterling	Date Tested: 9/29/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/2/2023		**Figure B-73a**

GEI - GRAIN SIZE - GEO TEMPLATE WITH LAB.GDT - 12/19/23 08:16 - P:\18\18274022\01\LAB\GINT LAB\18274-022-01 BTR LAB GINT.GPJ

Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-08	16.0 - 17.5	Gray silty sand with a layer of shell fragments (SM)	0.1	84.2	15.7		0.168	0.12	0.111	0.089						

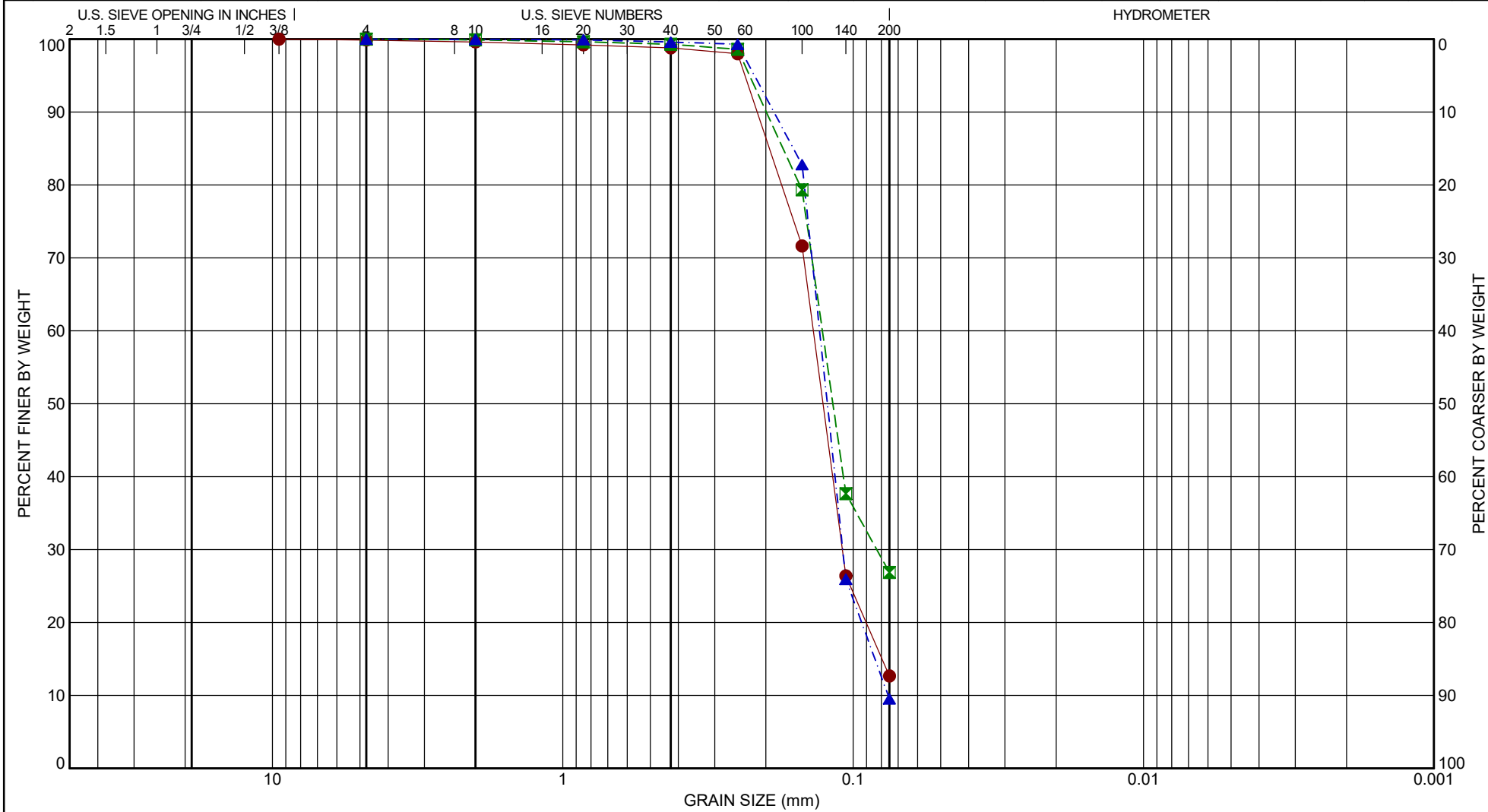


GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Donna Easterling	Date Tested: 10/2/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/2/2023		**Figure B-73b**

GEOENGINEERS

Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
CI-09	0.0 - 1.5	Gray silty sand with shell fragments and traces of organic matter (SM)	0.1	87.2	12.7		0.214	0.137	0.127	0.109						
CI-09	4.0 - 5.5	Gray silty sand with traces of clay and organic matter (SM)	0.0	73.1	26.9		0.199	0.128	0.117	0.083				32	25	7
CI-09	8.0 - 9.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	0.0	90.5	9.5		0.188	0.131	0.123	0.109	0.076	1.19	1.72			

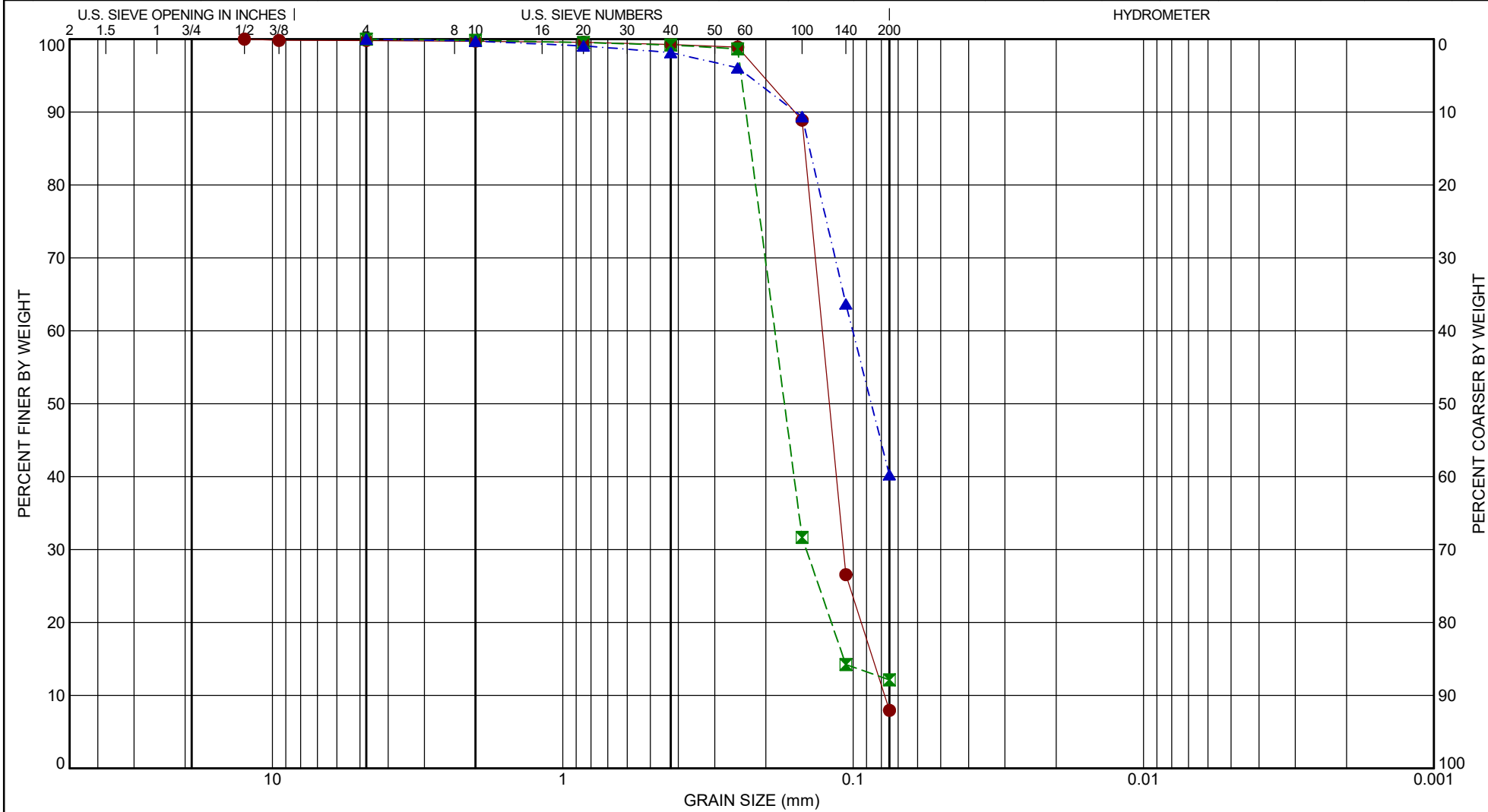


GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Donna Easterling	Date Tested: 10/2/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/2/2023		**Figure B-74a**

GEI - GRAIN SIZE - GEO TEMPLATE WITH LAB.GDT - 12/19/23 08:19 - P:\18\18274022\01\LAB\GINT LAB\18274-022-01 BTR LAB GINT.GPJ

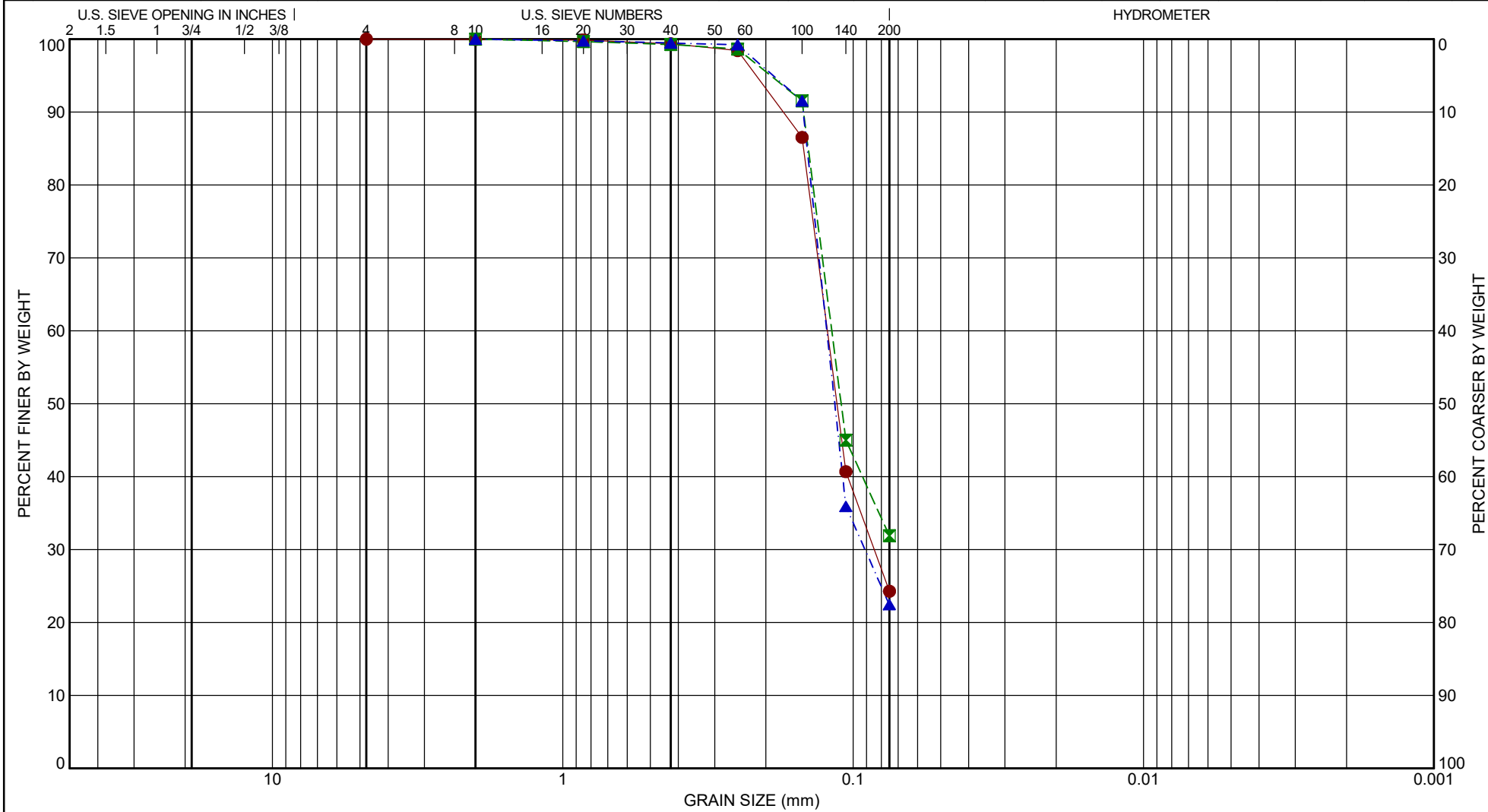
Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-09	12.0 - 13.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	0.2	91.9	8.0		0.159	0.128	0.121	0.108	0.078	1.17	1.64			
⊠ CI-09	16.0 - 17.5	Dark gray silty sand with shell fragments (SM)	0.0	87.9	12.1		0.234	0.186	0.173	0.145		2.15	3.54			
▲ CI-09	28.0 - 29.5	Gray silty sand with clay pockets and shell fragments (SM)	0.0	59.7	40.3		0.157	0.1	0.087							



GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Donna Easterling	Date Tested: 10/2/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/2/2023		GeoEngineers — **Figure B-74b**

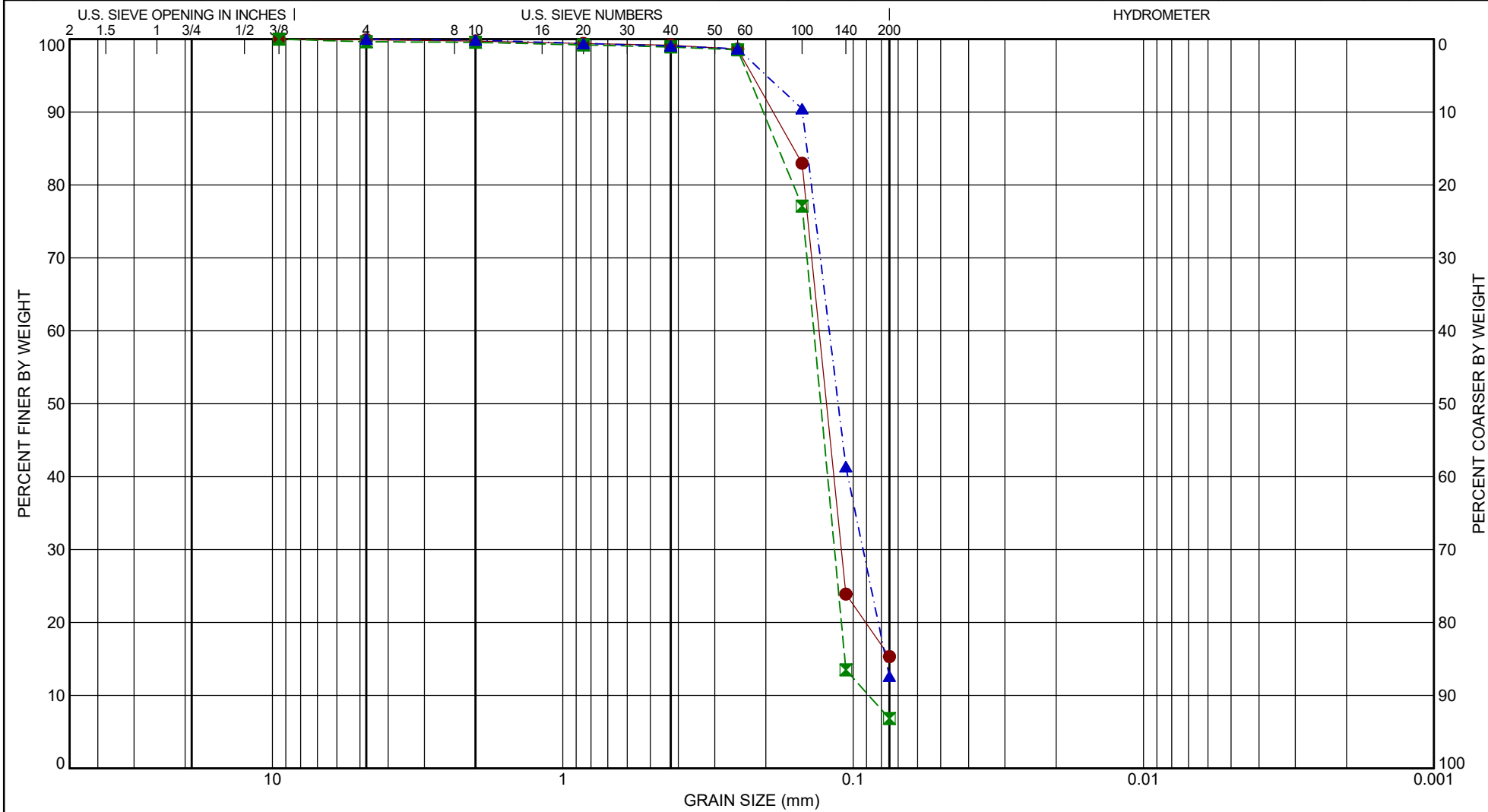
Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
CI-10	0.0 - 1.5	Gray silty sand with shell fragments and traces of clay (SM)	0.0	75.7	24.3		0.174	0.123	0.114	0.085						
CI-10	2.0 - 3.5	Gray silty sand with traces of organic matter (SM)	0.0	68.1	31.9		0.148	0.119	0.11					26	23	3
CI-10	6.0 - 7.5	Gray silty sand (SM)	0.0	77.6	22.4		0.149	0.123	0.116	0.091						



GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Alex Fontenot	Date Tested: 12/14/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 12/14/2023		GeoEngineers — **Figure B-75a**

Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-10	10.0 - 11.5	Gray silty sand with shell fragments (SM)	0.1	84.6	15.3		0.189	0.131	0.124	0.11						
⊠ CI-10	14.0 - 15.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	0.4	92.8	6.8		0.204	0.137	0.129	0.116	0.088	1.11	1.55			
▲ CI-10	18.0 - 19.5	Gray silty sand (SM)	0.0	87.4	12.6		0.15	0.121	0.113	0.092						

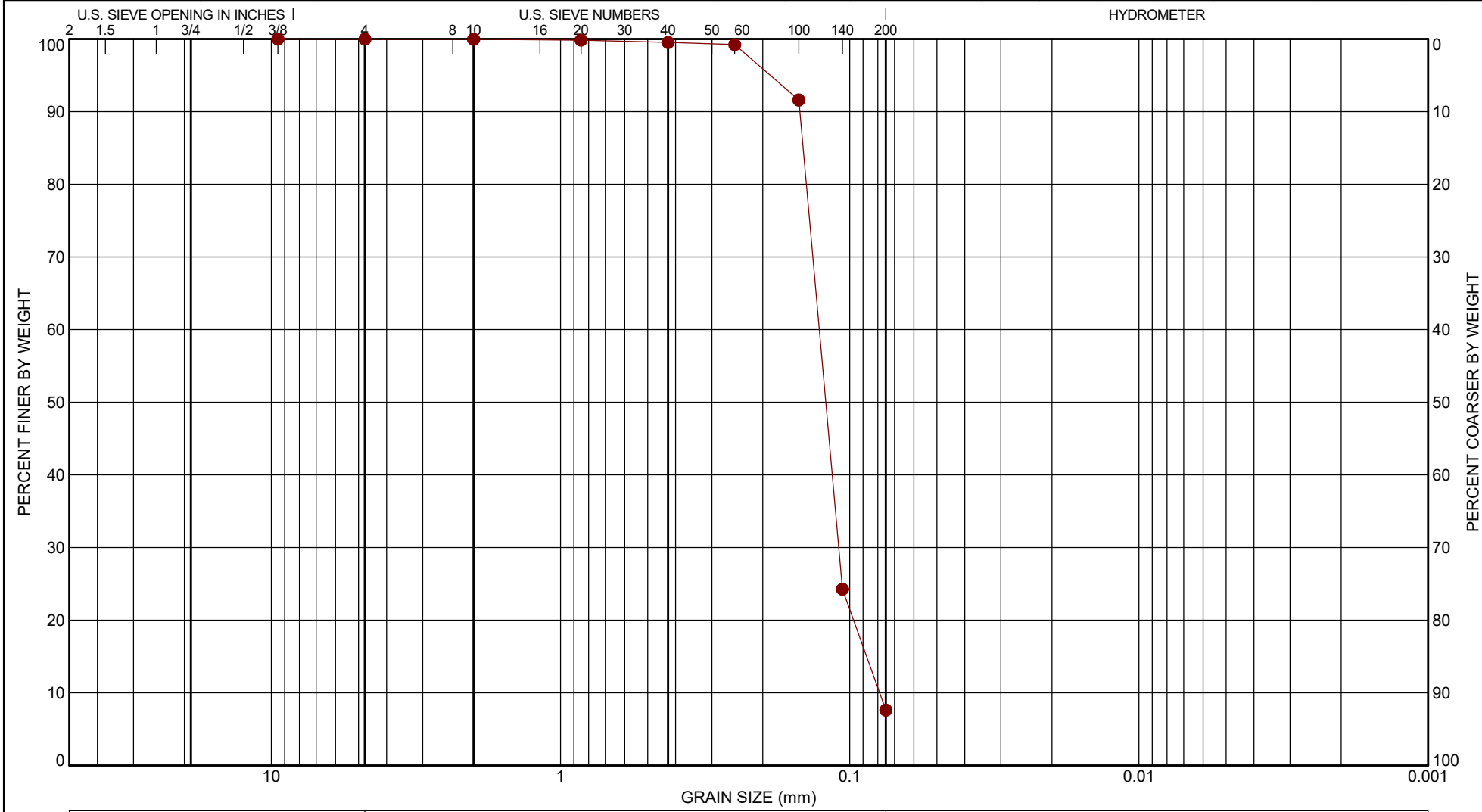


GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Donna Easterling	Date Tested: 10/3/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/4/2023		**Figure B-75b**

GEI - GRAIN SIZE - GEO TEMPLATE WITH LAB.GDT - 12/19/23 08:23 - P:\18\18274022\01\LAB\GINT LAB\18274-022-01 BTR LAB GINT.GPJ

Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
CI-10	28.0 - 29.5	Gray poorly graded sand with silt (SP-SM)	0.0	92.4	7.6		0.149	0.127	0.121	0.109	0.079	1.19	1.62			

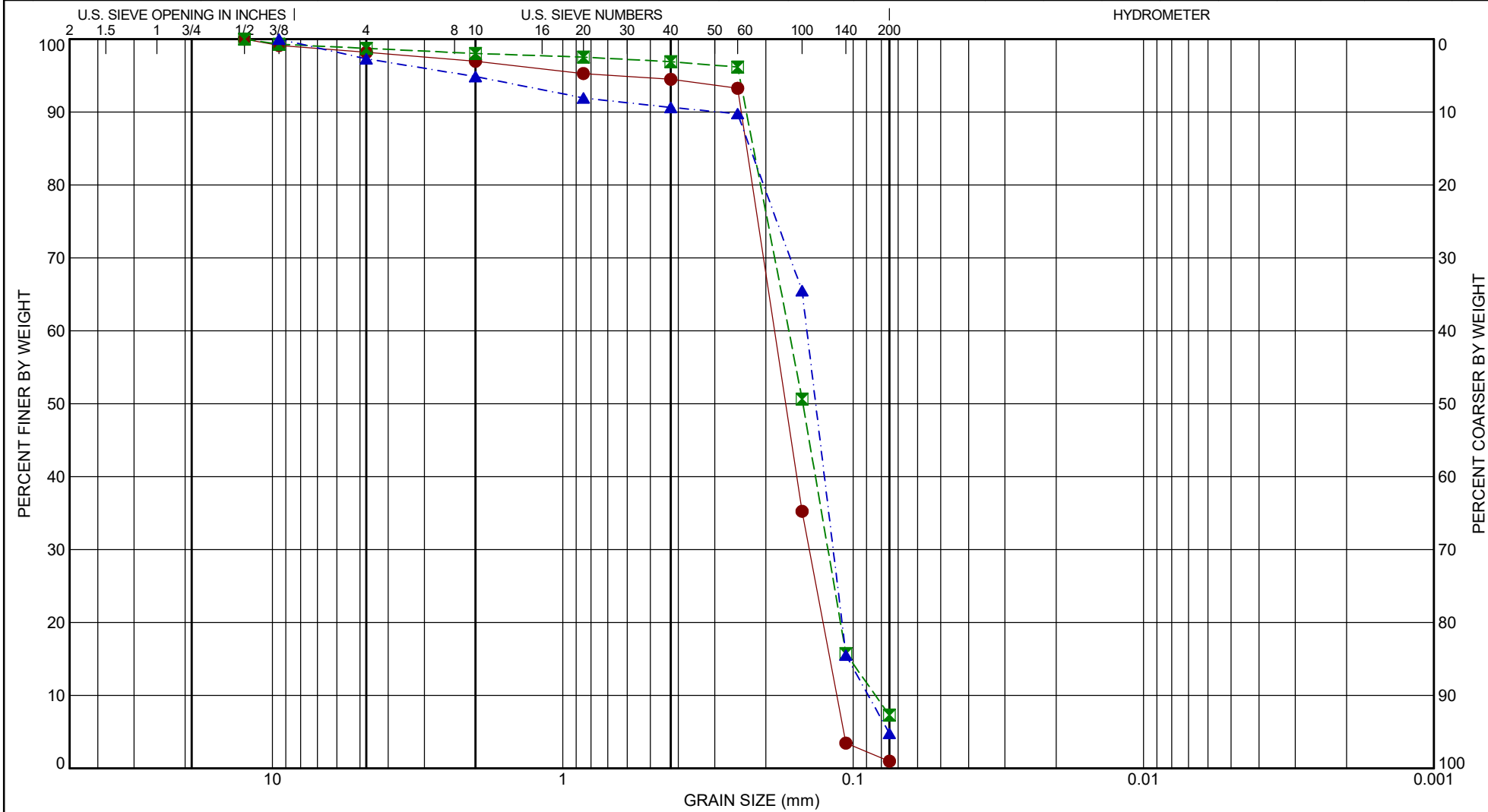


GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Donna Easterling	Date Tested: 10/3/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/4/2023		**Figure B-75c**

GEOENGINEERS

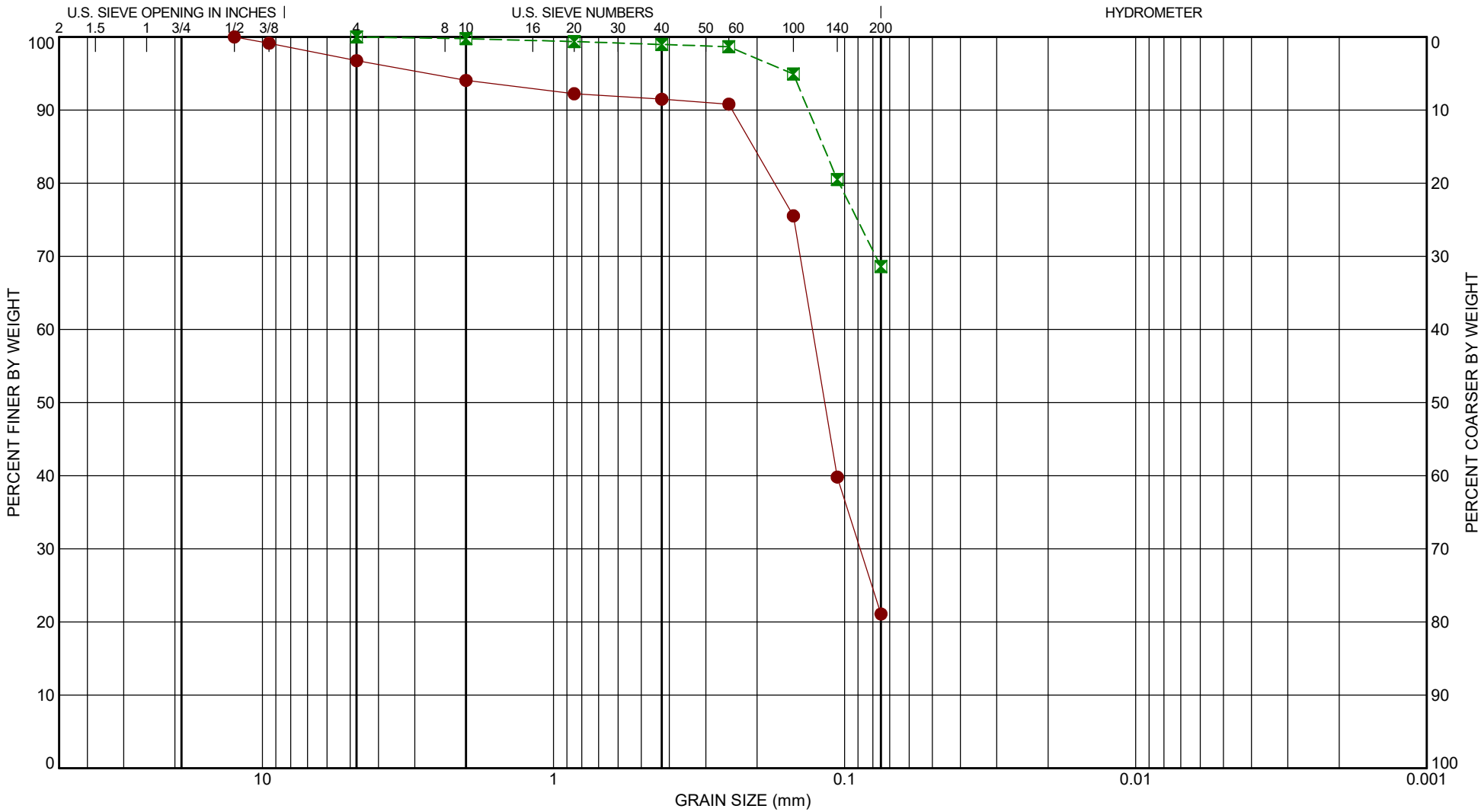
Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-11	0.0 - 1.5	Gray poorly graded sand with shell fragments (SP)	1.8	97.2	1.0		0.243	0.187	0.171	0.142	0.114	0.94	1.64			
⊠ CI-11	4.0 - 5.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	1.3	91.5	7.3		0.233	0.167	0.149	0.122	0.084	1.07	1.99			
▲ CI-11	8.0 - 9.5	Gray poorly graded sand with shell fragments (SP)	2.7	92.5	4.8		0.287	0.144	0.135	0.117	0.089	1.07	1.63			



GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Donna Easterling	Date Tested: 10/3/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/4/2023		GeoEngineers **Figure B-76a**

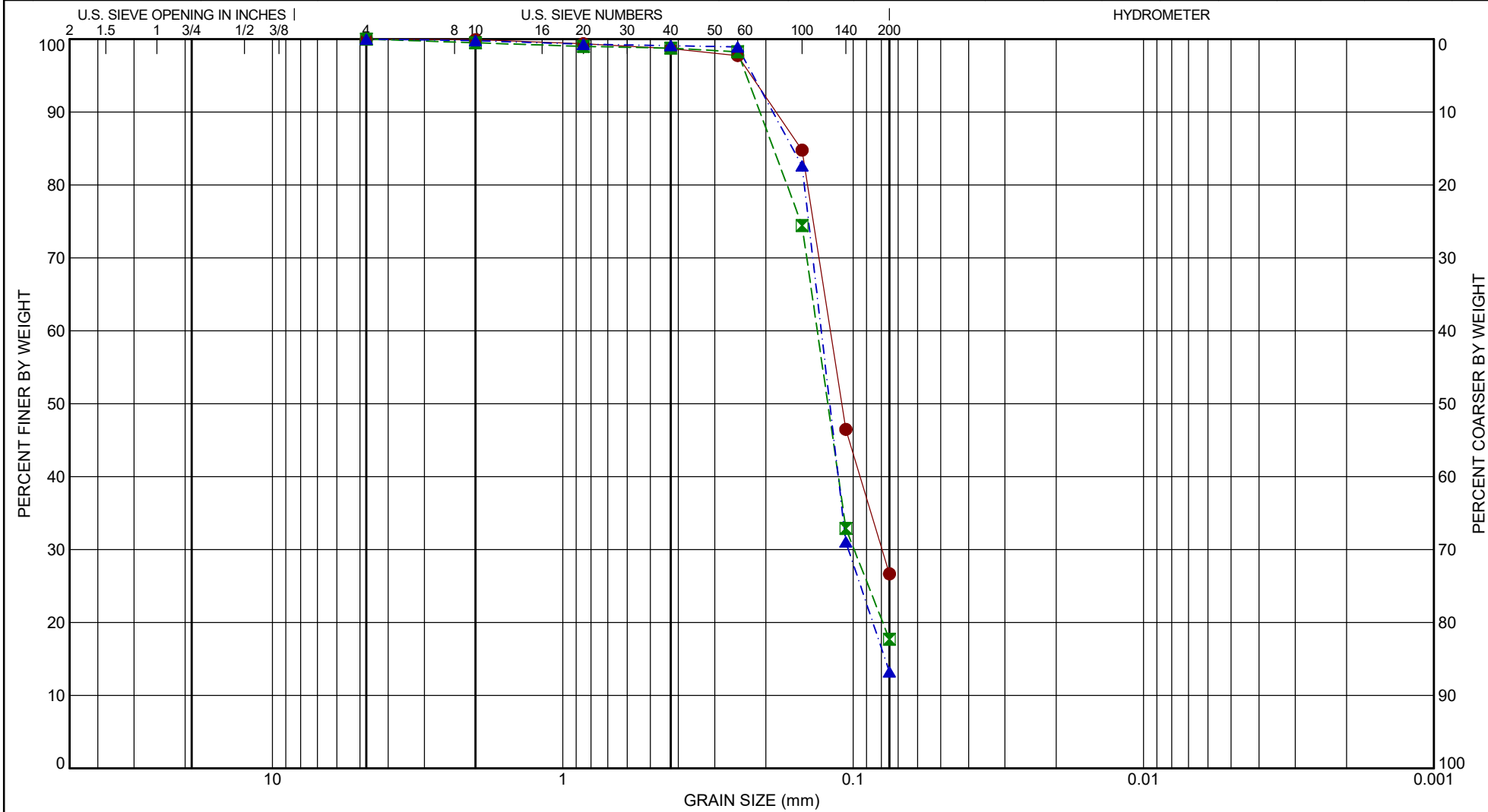
Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-11	12.0 - 13.5	Gray silty sand with a layer of shell fragments, and clay layers (SM)	3.2	75.7	21.1		0.243	0.129	0.117	0.088						
⊠ CI-11	38.0 - 39.5	Gray sandy clay with a layer of shell fragments (CL)	0.0	31.4	68.6		0.133									



GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By:	Date Tested:	GRAIN SIZE DISTRIBUTION	Chandeleur Island, Louisiana
Donna Easterling	10/3/2023	ASTM D422/D1140/D6913/T88	
Reviewed By:	Date Reviewed:	Project No.: 18274-022-01	GeoEngineers
Dustin Blanchard	10/4/2023		Figure B-76b

Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
CI-12	0.0 - 1.5	Dark gray silty sand with traces of organic matter (SM)	0.0	73.3	26.7		0.184	0.12	0.109	0.079						
CI-12	4.0 - 5.5	Gray silty sand with traces of organic matter and shell fragments (SM)	0.0	82.3	17.7		0.209	0.133	0.122	0.099						
CI-12	8.0 - 9.5	Gray silty sand with traces of organic matter and shell fragments (SM)	0.0	86.8	13.2		0.189	0.129	0.12	0.104						

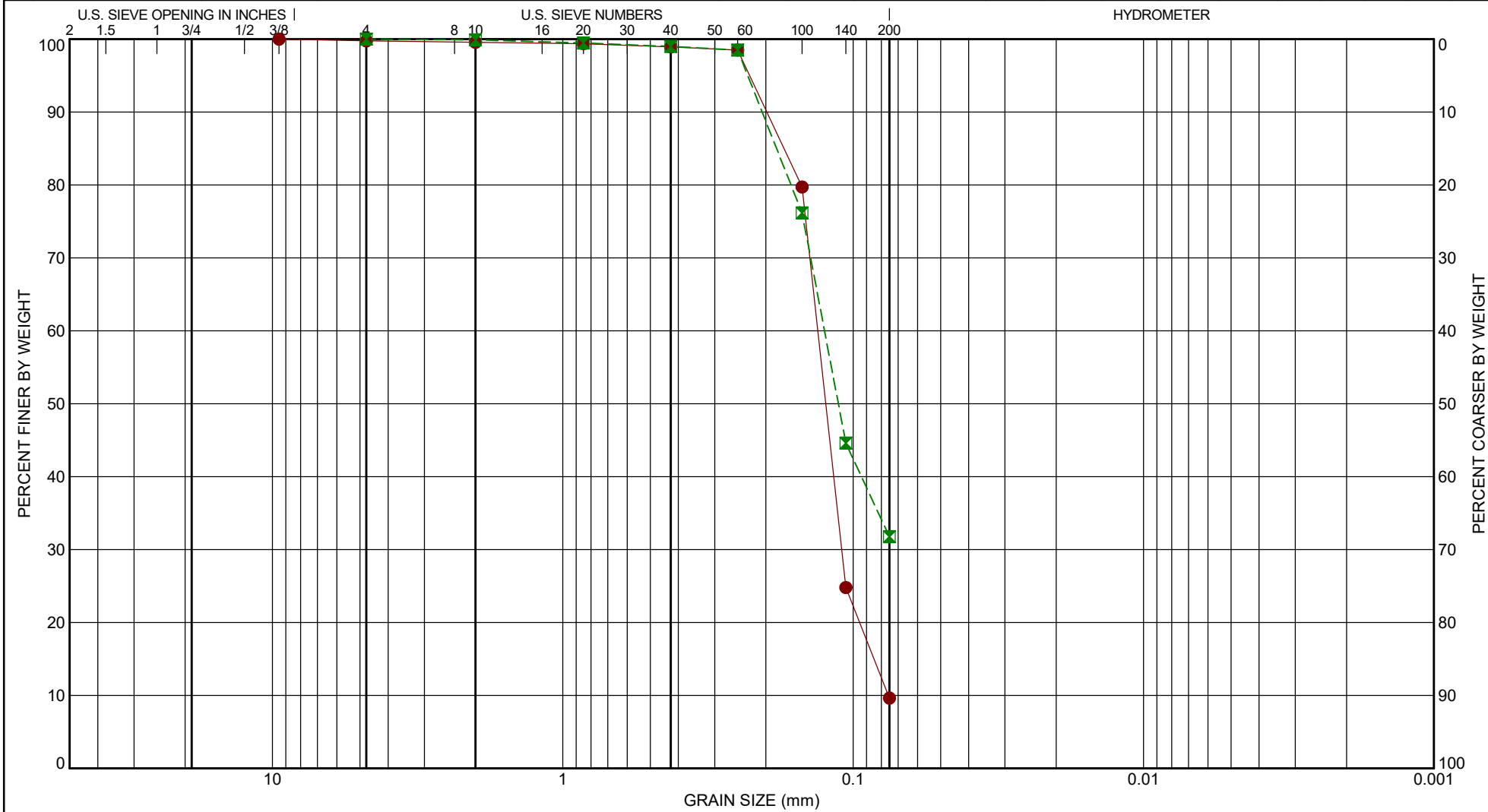


GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Donna Easterling	Date Tested: 10/4/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/5/2023		**Figure B-77a**

GeoEngineers

Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-12	14.0 - 15.5	Gray poorly graded sand with silt (SP-SM)	0.2	90.1	9.6		0.198	0.132	0.124	0.11	0.076	1.20	1.75			
⊠ CI-12	18.0 - 19.5	Gray silty sand with shell fragments (SM)	0.0	68.2	31.8		0.206	0.126	0.112					NP	NP	NP

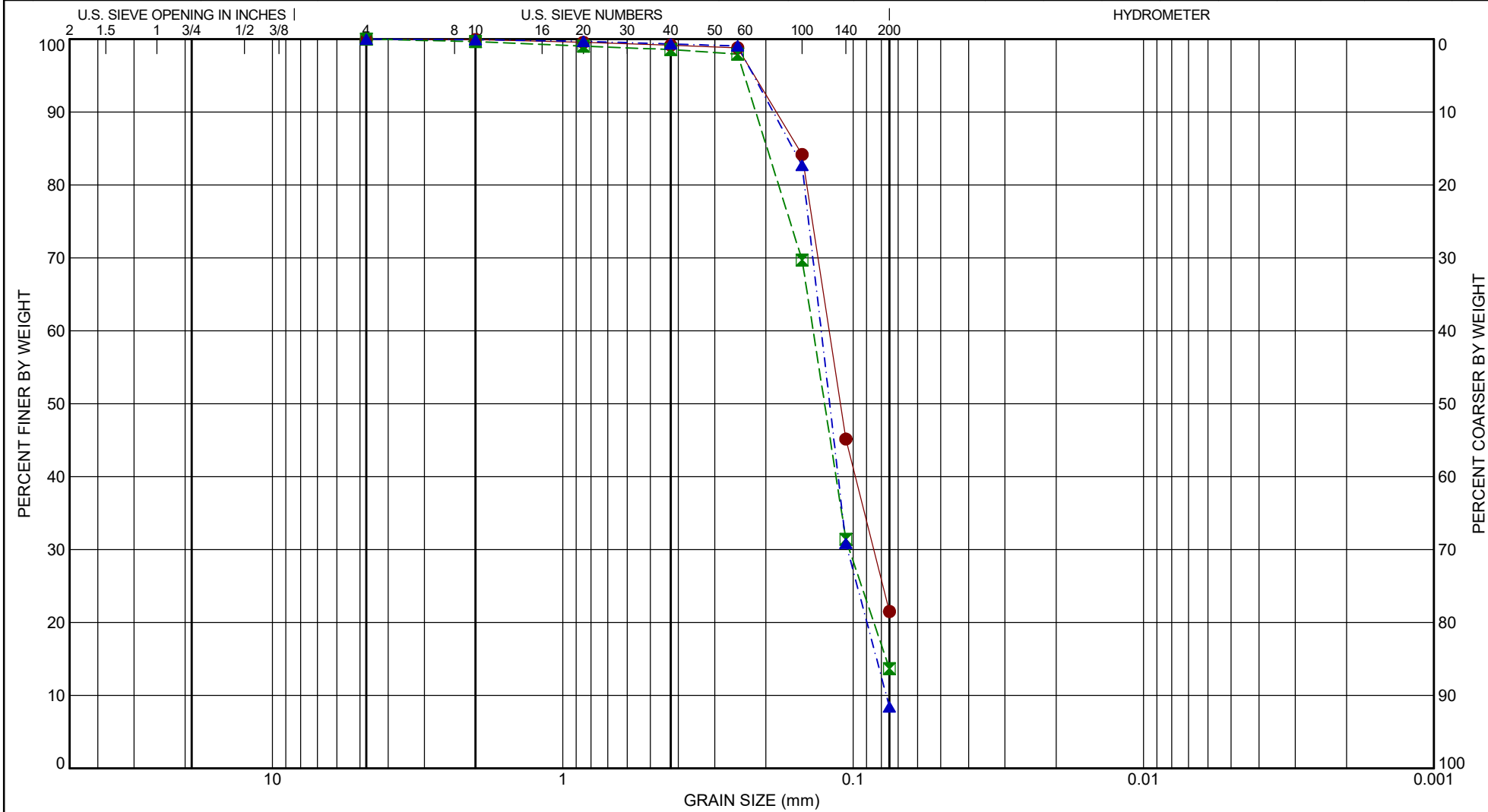


GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Donna Easterling	Date Tested: 10/4/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/5/2023		**Figure B-77b**

GEI - GRAIN SIZE - GEO TEMPLATE WITH LAB.GDT - 12/19/23 08:31 - P:\18\18274022\01\LAB\GINT LAB\18274-022-01 BTR LAB GINT.GPJ

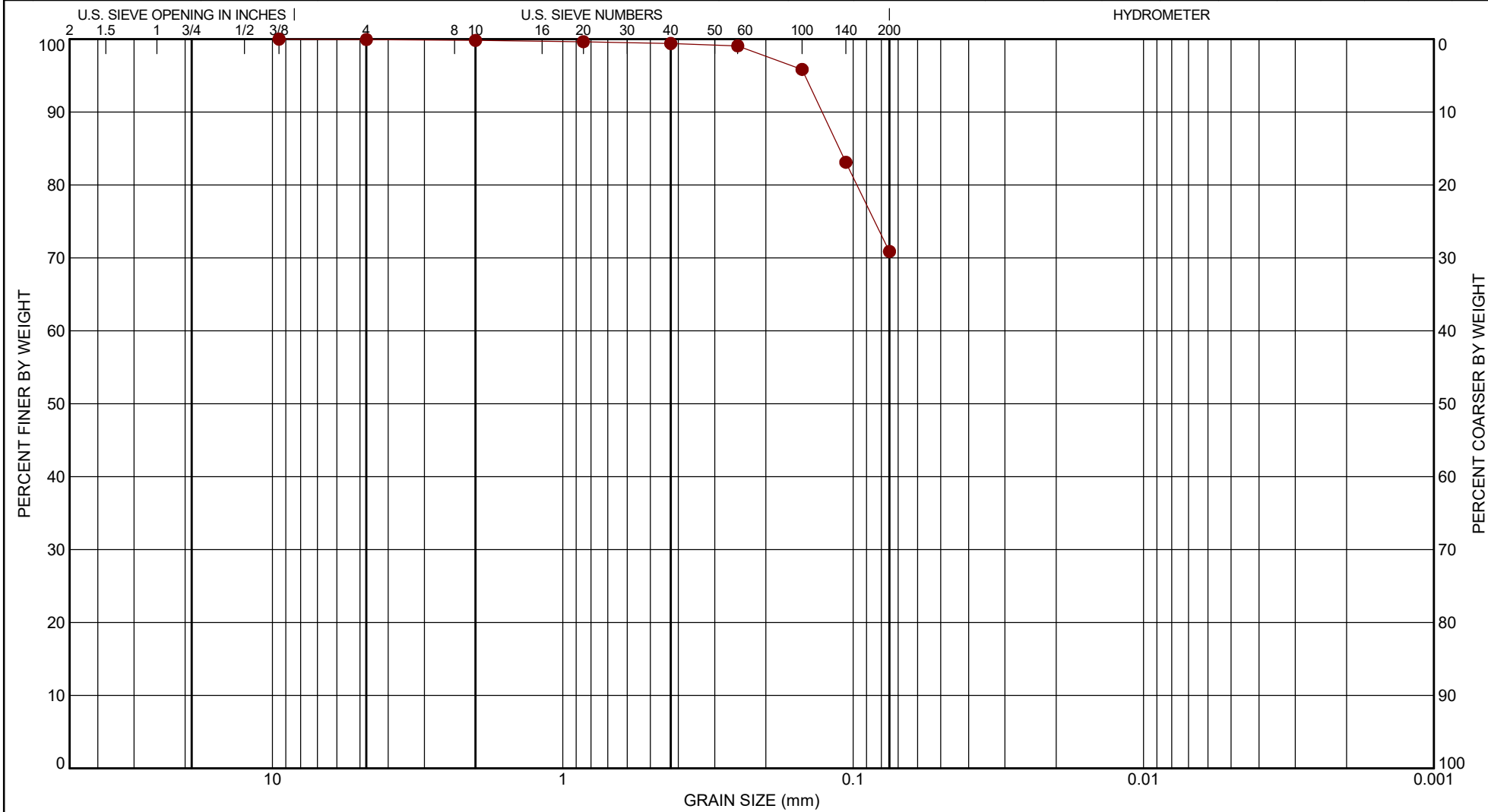
Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
CI-13	0.0 - 1.5	Gray silty sand with organic traces (SM)	0.0	78.5	21.5		0.184	0.121	0.111	0.085						
CI-13	4.0 - 5.5	Gray silty sand with shell fragments (SM)	0.0	86.3	13.7		0.217	0.137	0.125	0.103						
CI-13	8.0 - 9.5	Gray poorly graded sand with silt (SP-SM)	0.0	91.6	8.4		0.188	0.129	0.121	0.105	0.077	1.11	1.68			



GEI - GRAIN SIZE - GEO TEMPLATE WITH LAB.GDT - 12/20/23 08:32 - P:\18\18274022\01\LAB\GINT LAB\18274-022-01 BTR LAB GINT.GPJ

Tested By: Donna Easterling	Date Tested: 10/4/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/5/2023		GeoEngineers **Figure B-78a**

Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-13	12.0 - 13.5	Gray clay with sand and shell fragments (CL)	0.1	29.1	70.9		0.128									



GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Donna Easterling | Date Tested: 10/4/2023

Reviewed By: Dustin Blanchard | Date Reviewed: 10/5/2023

GRAIN SIZE DISTRIBUTION

ASTM D422/D1140/D6913/T88

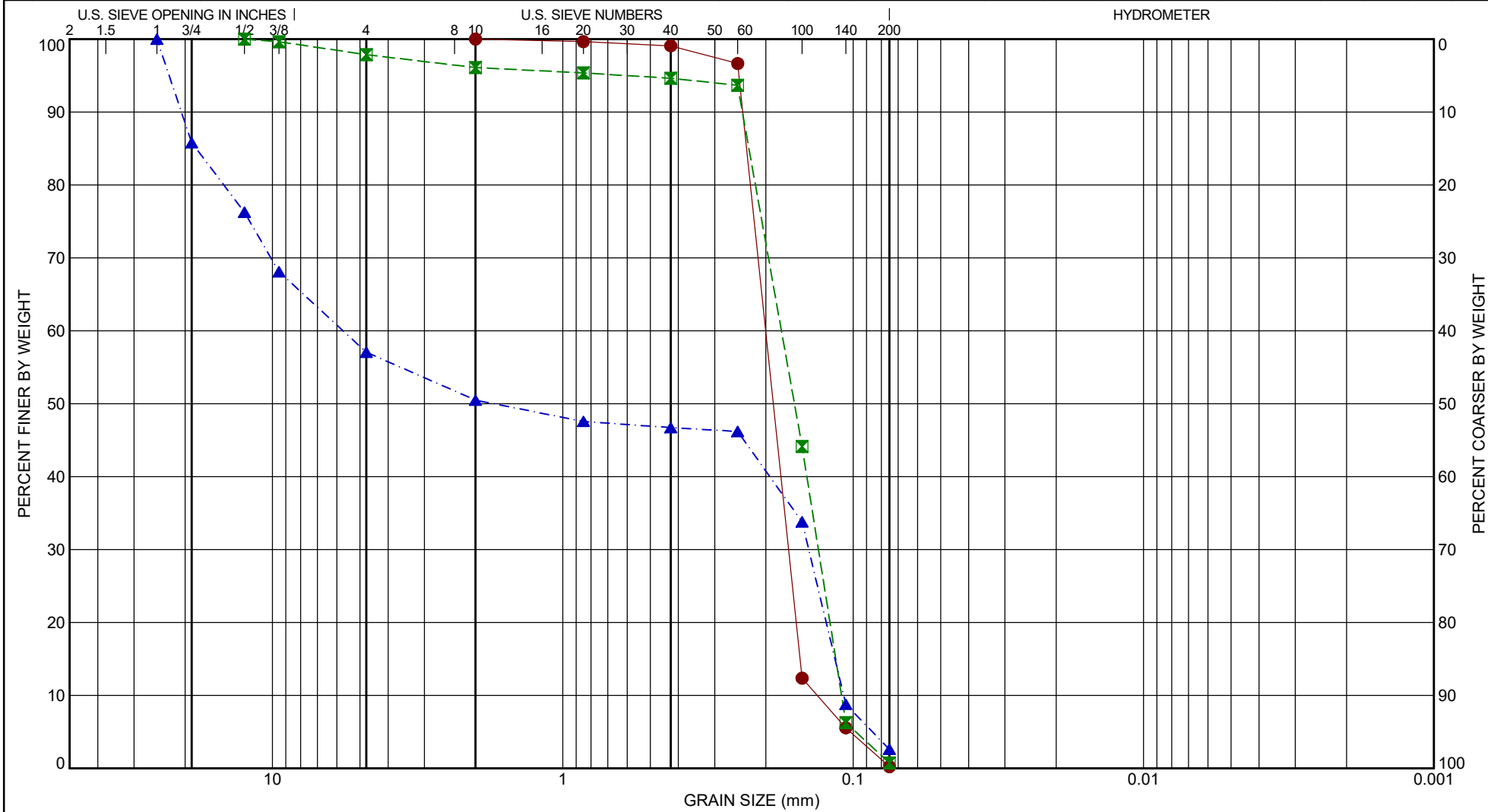
Project No.: 18274-022-01

Chandeleur Island, Louisiana

GeoEngineers

Figure B-78b

Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-14	0.0 - 1.5	Tan poorly graded sand (SP)	0.0	99.8	0.2		0.24	0.2	0.188	0.167	0.133	1.05	1.51			
⊠ CI-14	4.0 - 5.5	Light gray poorly graded sand with shell fragments (SP)	2.1	97.1	0.7		0.241	0.177	0.159	0.132	0.11	0.90	1.61			
▲ CI-14	8.0 - 9.5	Gray poorly graded sand with shell fragments (SP)	42.9	54.4	2.6		20.61	5.712	1.733	0.142	0.108	0.03	52.98			

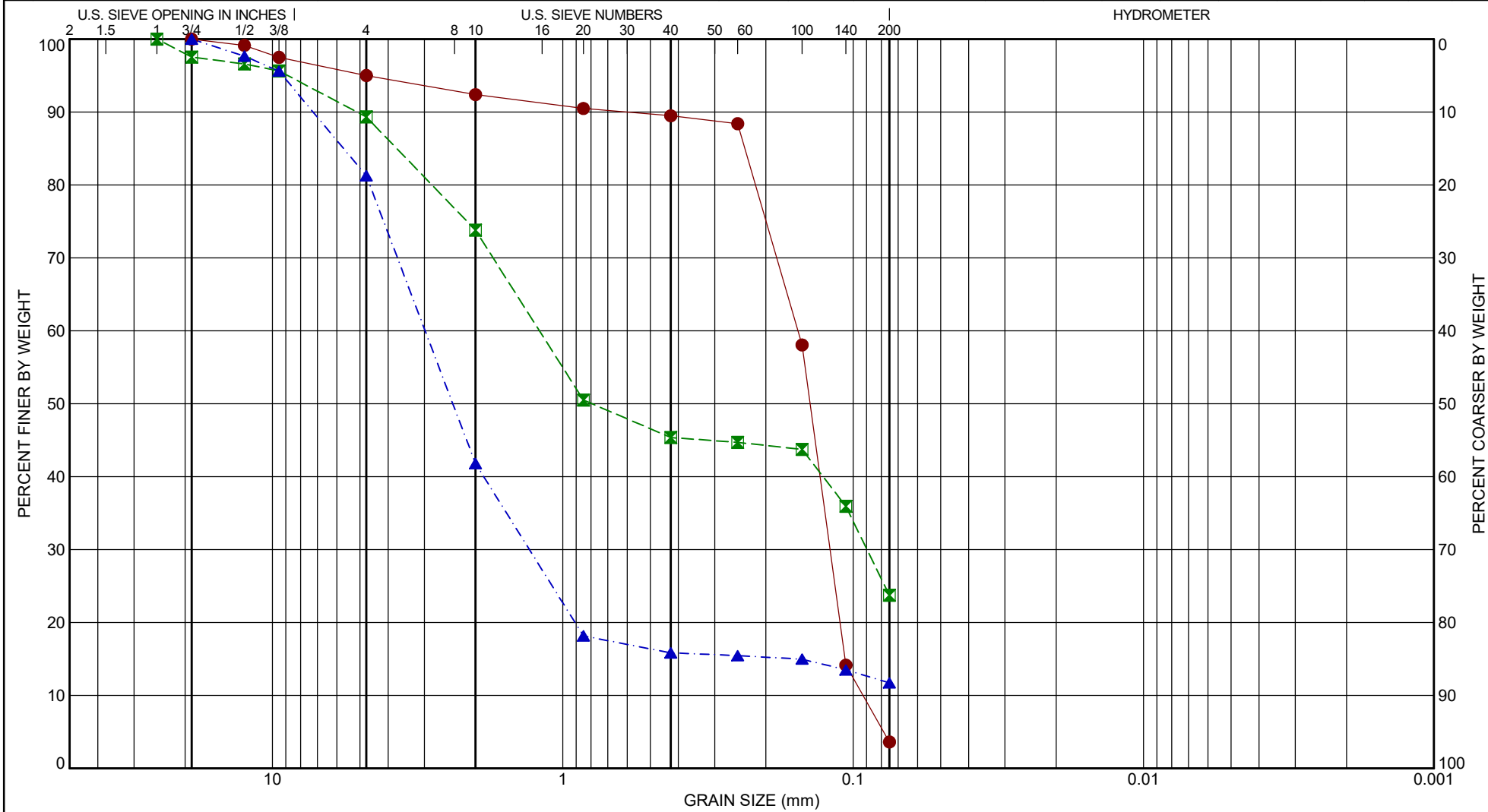


GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Donna Easterling	Date Tested: 10/4/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/9/2023		**Figure B-79a**

GEI - GRAIN SIZE - GEO TEMPLATE WITH LAB.GDT - 12/20/23 08:40 - P:\18\18274022\01\LAB\GINT LAB\18274-022-01 BTR LAB GINT.GPJ

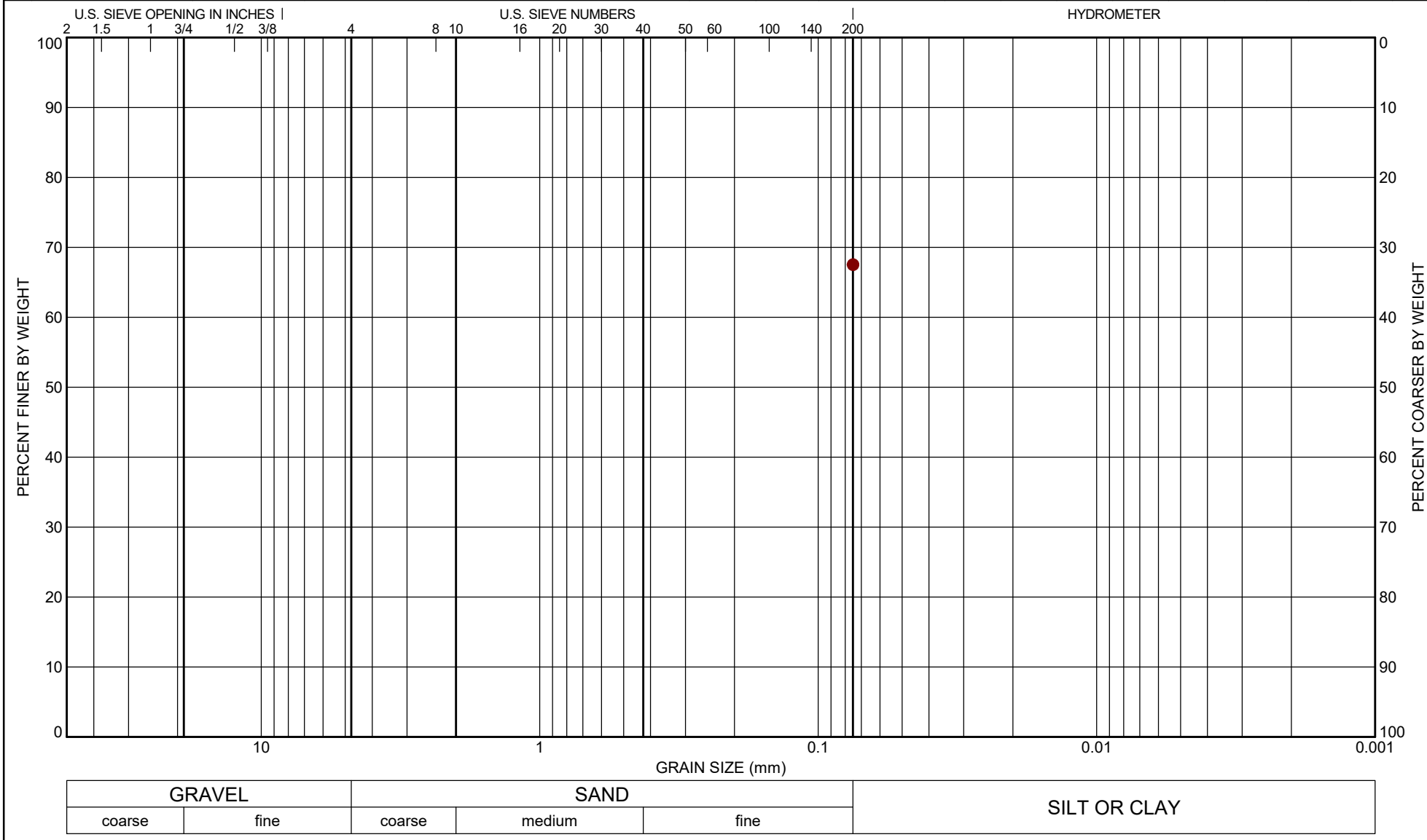
Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-14	12.0 - 13.5	Gray poorly graded sand with shell fragments (SP)	5.0	91.4	3.6		0.606	0.155	0.141	0.12	0.092	1.01	1.68			
⊠ CI-14	28.0 - 29.5	Gray shell fragments with silty, clayey sand (SHELLS)	10.7	65.6	23.7		5.115	1.205	0.794	0.09						
▲ CI-14	38.0 - 39.5	Gray shell fragments with poorly graded sand and silt (SHELLS)	18.7	69.5	11.7		7.245	2.981	2.394	1.304		10.67	55.72			



GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Donna Easterling	Date Tested: 10/4/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/9/2023	Note: This report may not be reproduced, except in full, without written approval of GeoEngineers, Inc. Test results are applicable only to the specific sample on which they were performed, and should not be interpreted as representative of any other samples obtained at other times, depths or locations, or generated by separate operations or processes.	GeoEngineers **Figure B-79b**

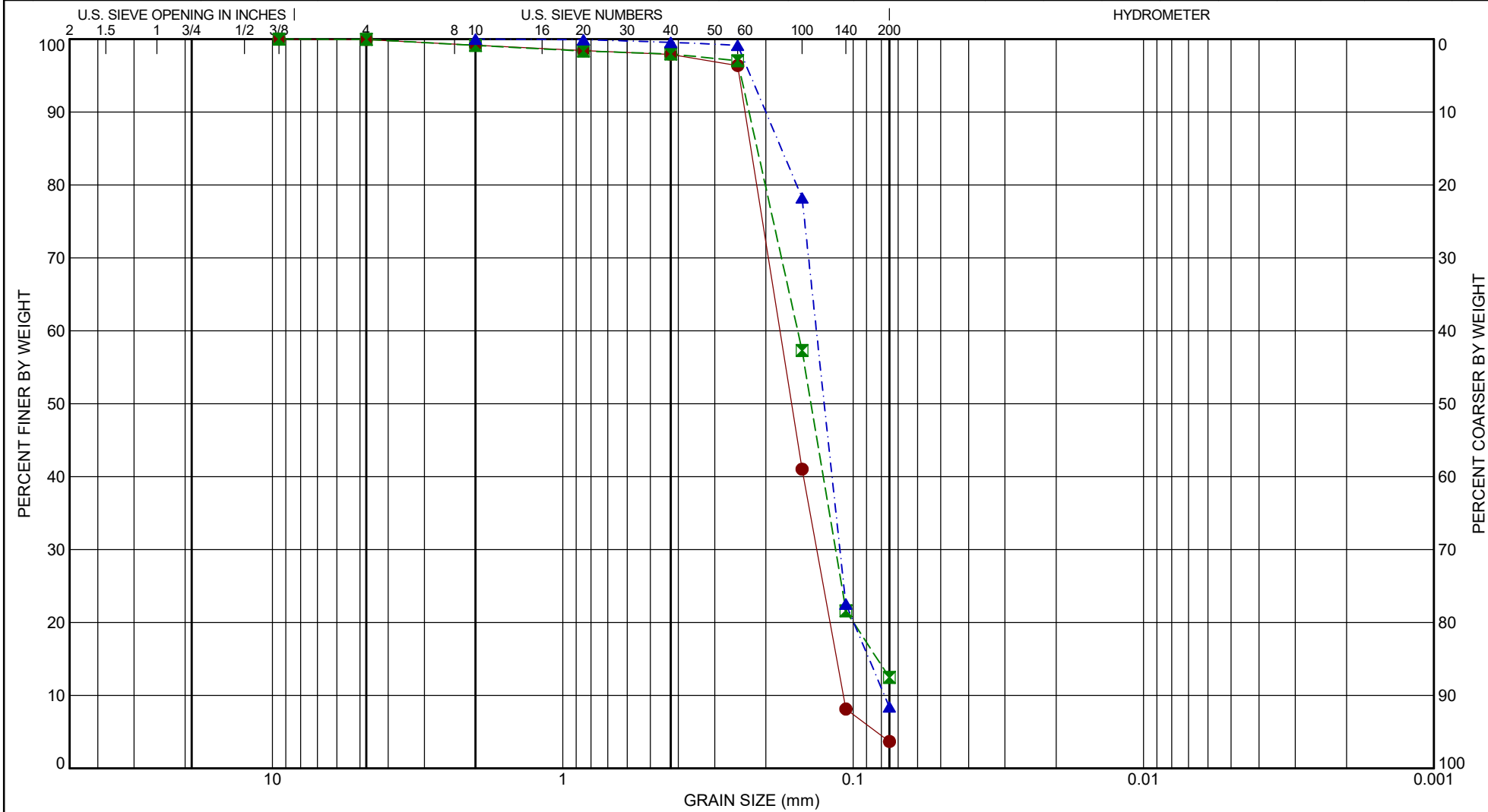
Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-14	48.0 - 49.5	Gray sandy silty clay (CL)			67.5									32	21	11



GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By:	Date Tested:	GRAIN SIZE DISTRIBUTION	Chandeleur Island, Louisiana	
Donna Easterling	9/21/2023	ASTM D422/D1140/D6913/T88		
Reviewed By:	Date Reviewed:	Project No.: 18274-022-01	GeoEngineers	Figure B-79c
Dustin Blanchard	9/26/2023	

Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-15	0.0 - 1.5	Gray poorly graded sand with shell fragments and traces of organic matter (SP)	3.1	96.3	3.7		0.236	0.179	0.163	0.134	0.108	0.92	1.65			
⊠ CI-15	4.0 - 5.5	Gray silty sand with shell fragments (SM)	0.0	87.5	12.5		0.228	0.155	0.14	0.115		1.25	2.27			
▲ CI-15	8.0 - 9.5	Gray poorly graded sand with silt (SP-SM)	0.0	91.6	8.4		0.2	0.134	0.126	0.111	0.078	1.18	1.72			

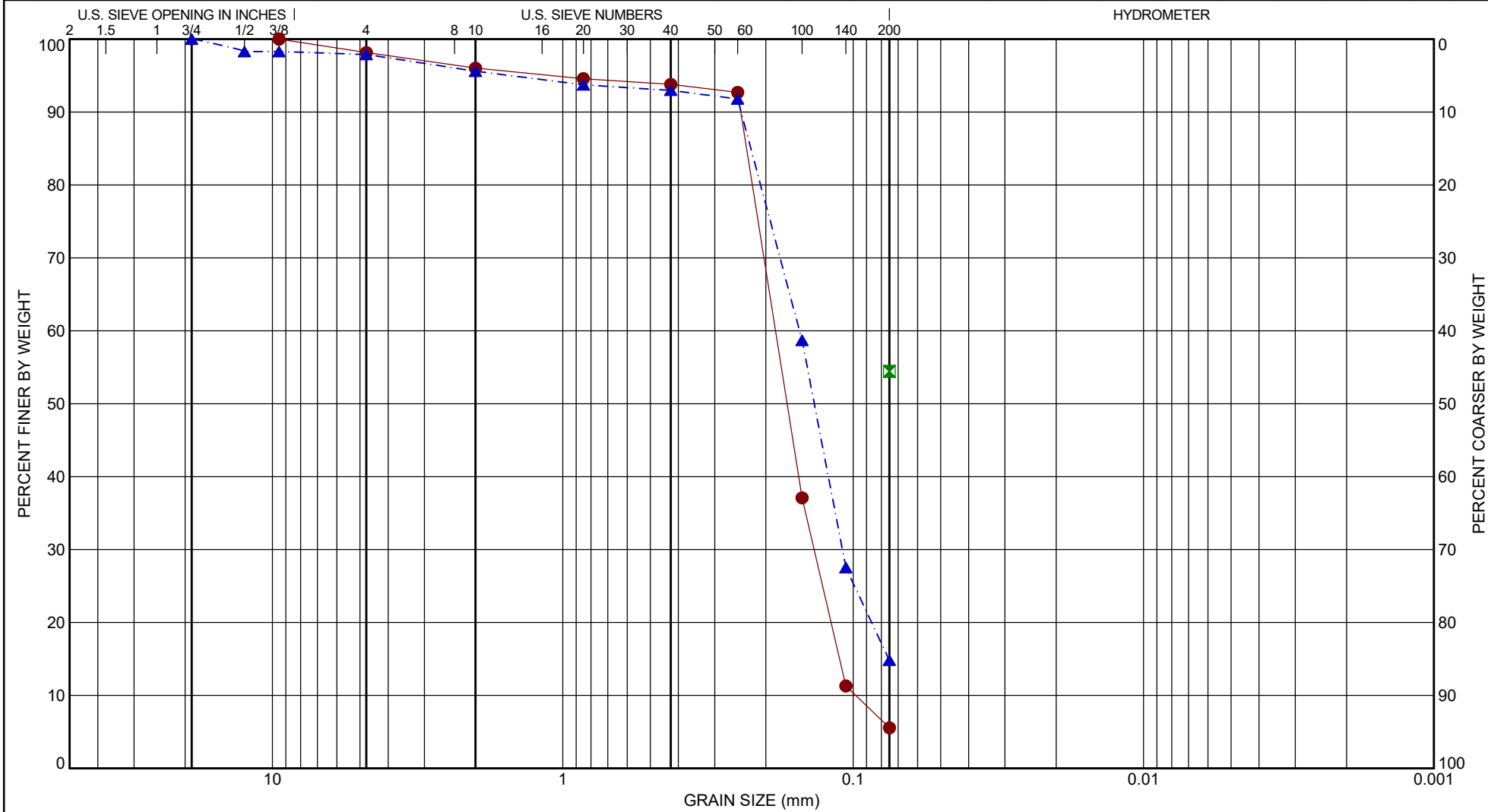


GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Donna Easterling	Date Tested: 10/5/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/6/2023		**Figure B-80a**

GEI - GRAIN SIZE - GEO TEMPLATE WITH LAB.GDT - 12/20/23 08:46 - P:\18\18274022\01\LAB\GINT LAB\18274-022-01 BTR LAB GINT.GPJ

Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
CI-15	12.0 - 13.5	Gray poorly graded sand with silt, shell fragments, and traces of organic matter (SP-SM)	1.8	92.6	5.6		0.244	0.185	0.169	0.136	0.098	1.02	1.89			
CI-15	18.0 - 19.5	Gray sandy, clayey silt with shell fragments (CL-ML)			54.4									29	22	7
CI-15	28.0 - 29.5	Gray silty sand with shell fragments and organic matter (SM)	2.1	83.1	14.8		0.243	0.153	0.136	0.109						

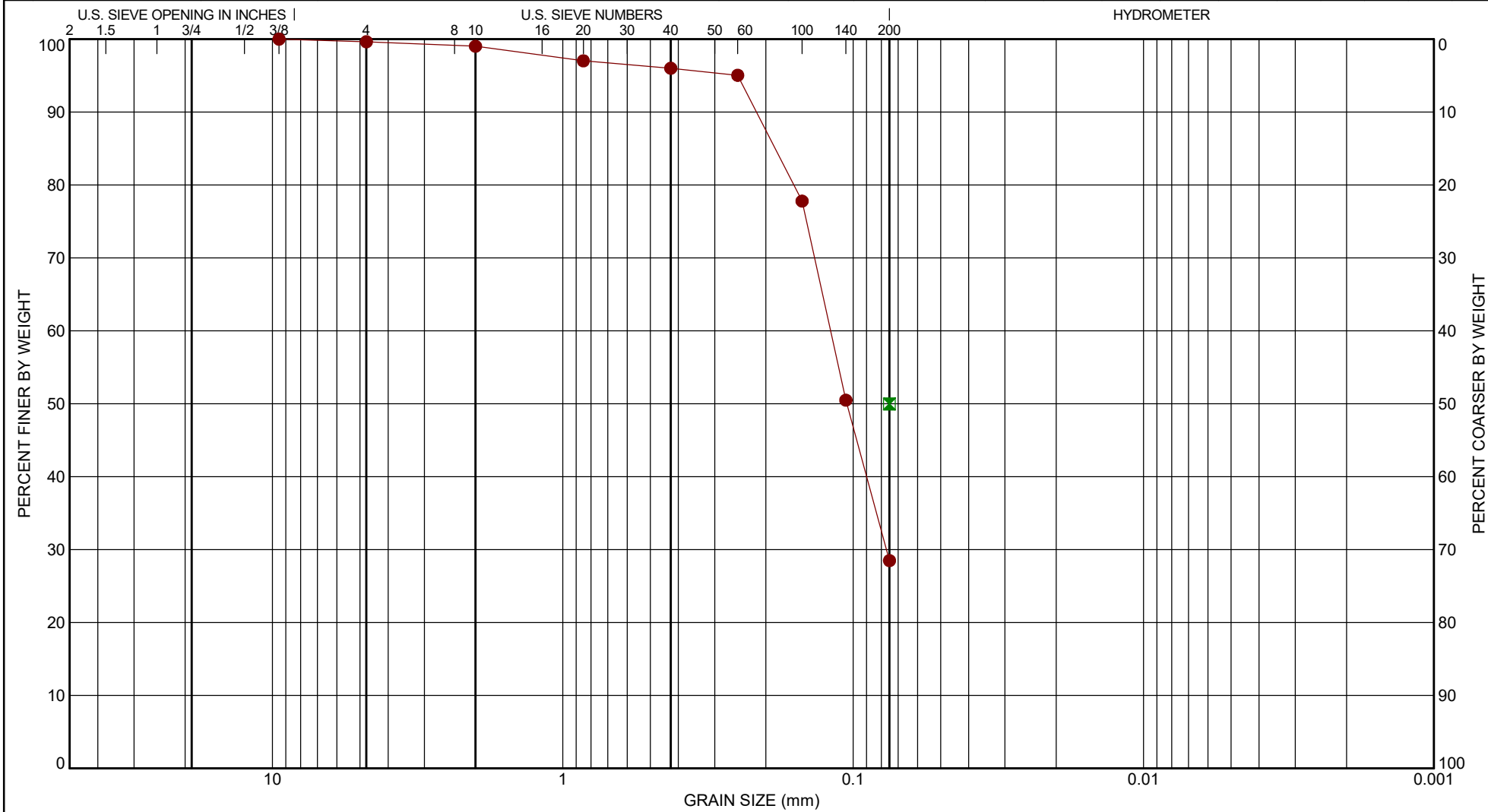


GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Donna Easterling	Date Tested: 10/5/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/6/2023		**Figure B-80b**

GEI - GRAIN SIZE - GEO TEMPLATE WITH LAB.GDT - 12/20/23 08:46 - P:\18\18274022\01\LAB\GINT LAB\18274-022-01 BTR LAB GINT.GPJ

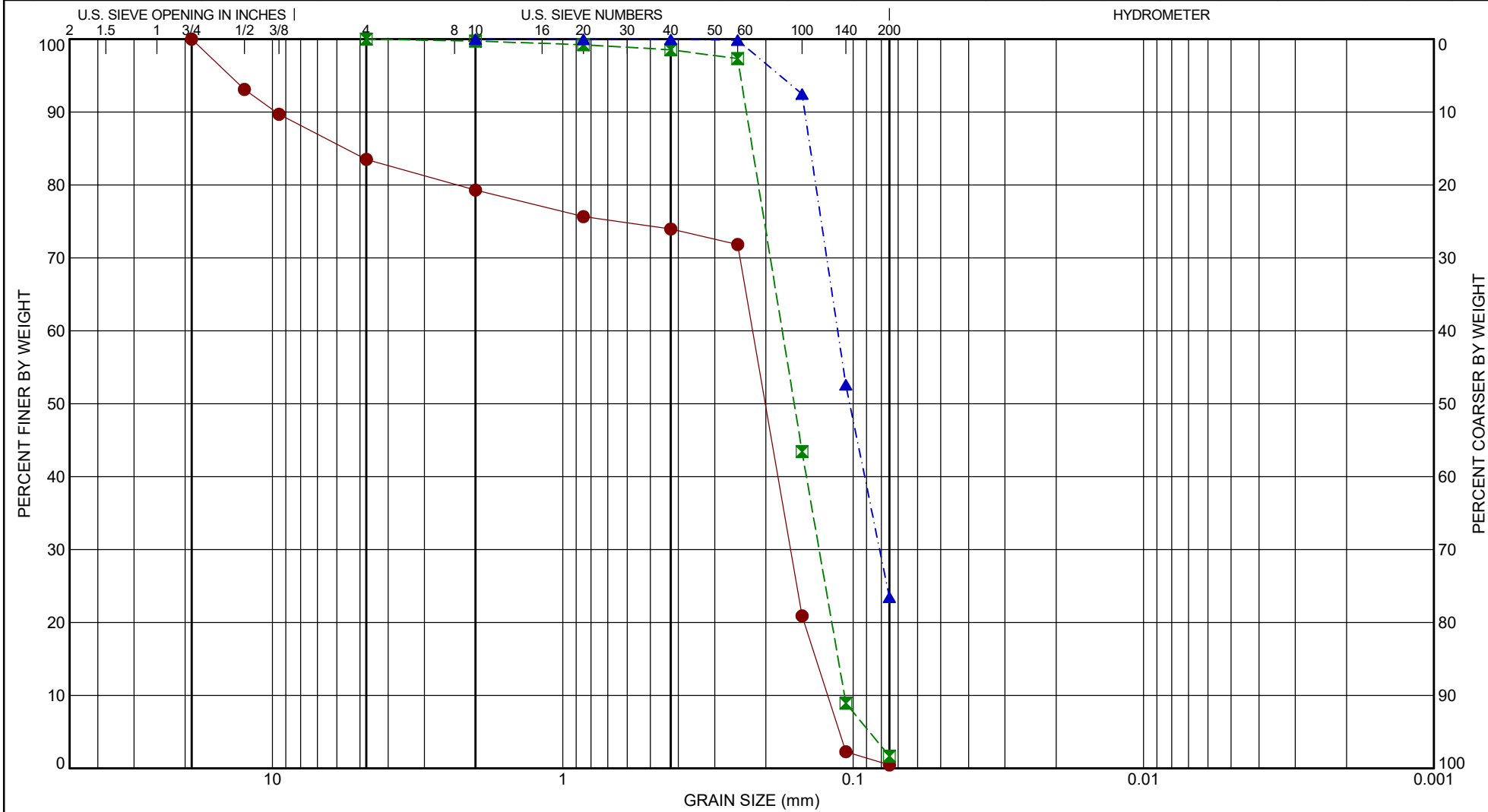
Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-15	38.0 - 39.5	Gray clayey sand with shell fragments (SC-SM)	0.4	71.1	28.5		0.215	0.12	0.105	0.077				34	15	19
⊠ CI-15	48.0 - 49.5	Gray silty sand with shell fragments (SM)			50.0									31	25	6



GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By:	Date Tested:	GRAIN SIZE DISTRIBUTION	Chandeleur Island, Louisiana
Preston Causey	10/6/2023	ASTM D422/D1140/D6913/T88	
Reviewed By:	Date Reviewed:	Project No.: 18274-022-01	GeoEngineers
Dustin Blanchard	10/6/2023		Figure B-80c

Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
CI-16	0.0 - 1.5	Tan poorly graded sand with shells and shell fragments (SP)	16.5	83.0	0.5		9.735	0.222	0.201	0.164	0.122	0.99	1.81			
CI-16	4.0 - 5.5	Light gray poorly graded sand with shell fragments (SP)	0.0	98.3	1.7		0.233	0.175	0.16	0.131	0.107	0.91	1.64			
CI-16	8.0 - 9.5	Gray silty sand (SM)	0.0	76.5	23.5		0.147	0.113	0.103	0.081						

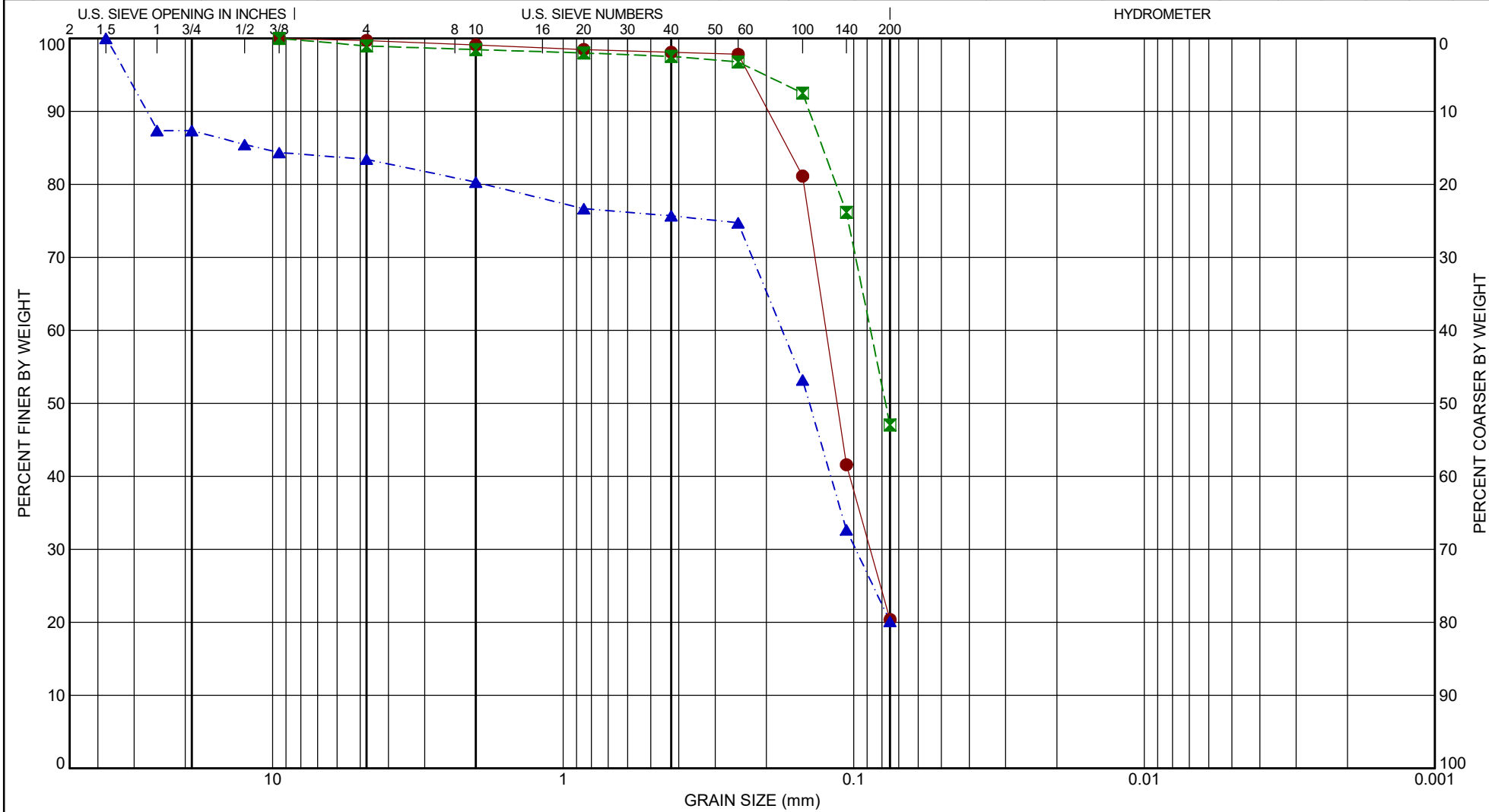


GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Donna Easterling	Date Tested: 10/5/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/6/2023		**Figure B-81a**

GEI - GRAIN SIZE - GEO TEMPLATE WITH LAB.GDT - 12/20/23 08:49 - P:\18\18274022\01\LAB\GINT LAB\18274-022-01 BTR LAB GINT.GPJ

Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-16	12.0 - 13.5	Gray silty sand with shell fragments (SM)	0.3	79.3	20.4		0.197	0.125	0.114	0.088						
⊠ CI-16	18.0 - 19.5	Gray clayey sand with a layer of shell fragments (SC)	1.0	51.9	47.0		0.142	0.087	0.078							
▲ CI-16	33.0 - 34.5	Gray silty sand with shell fragments and clay traces (SM)	16.6	63.3	20.1		27.206	0.176	0.142	0.098						



GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By:	Date Tested:
Preston Causey	10/5/2023
Reviewed By:	**Date Reviewed:**
Dustin Blanchard	10/6/2023

GRAIN SIZE DISTRIBUTION

ASTM D422/D1140/D6913/T88

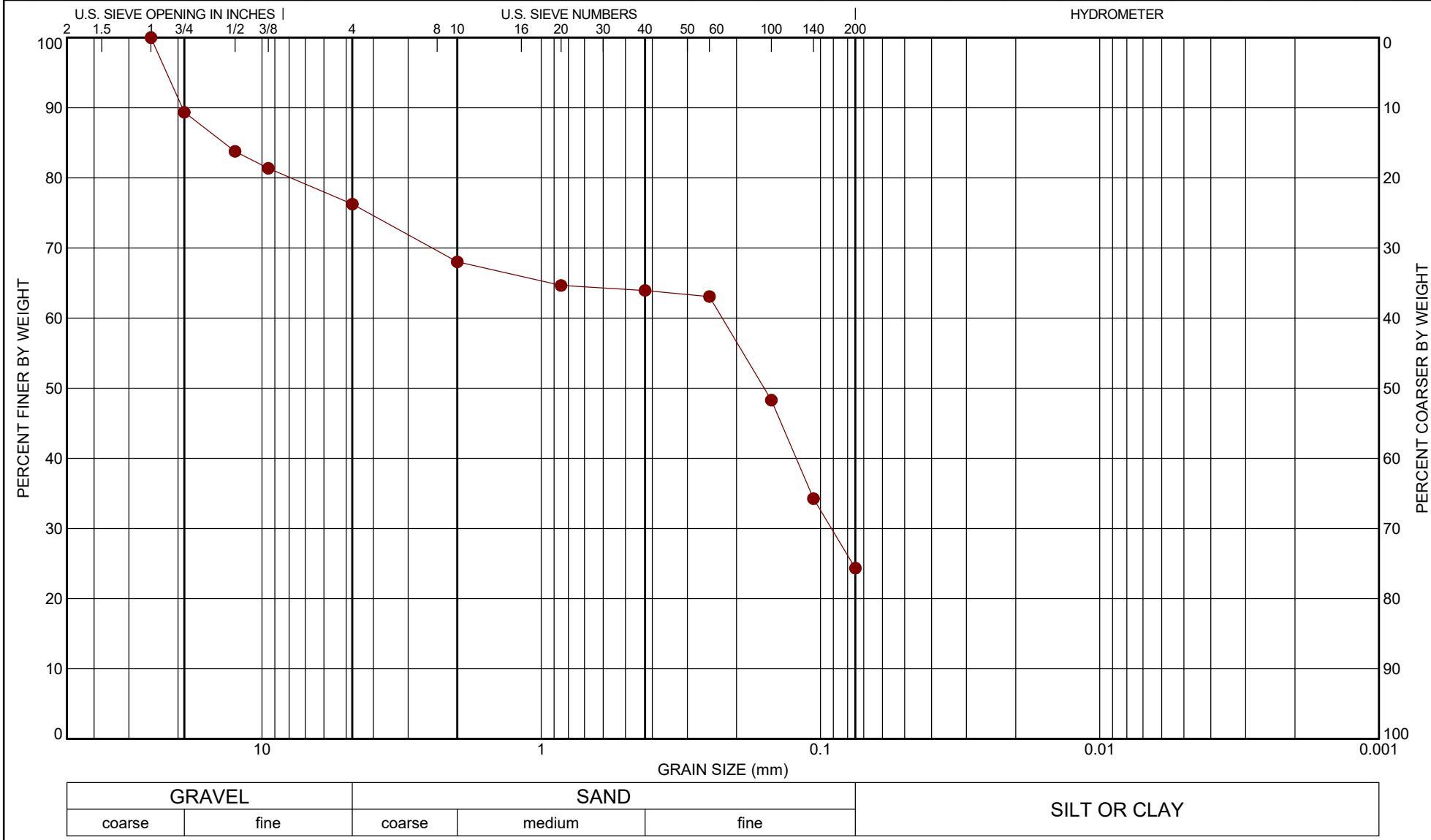
Project No.: 18274-022-01

Chandeleur Island, Louisiana

GeoEngineers

Figure B-81b

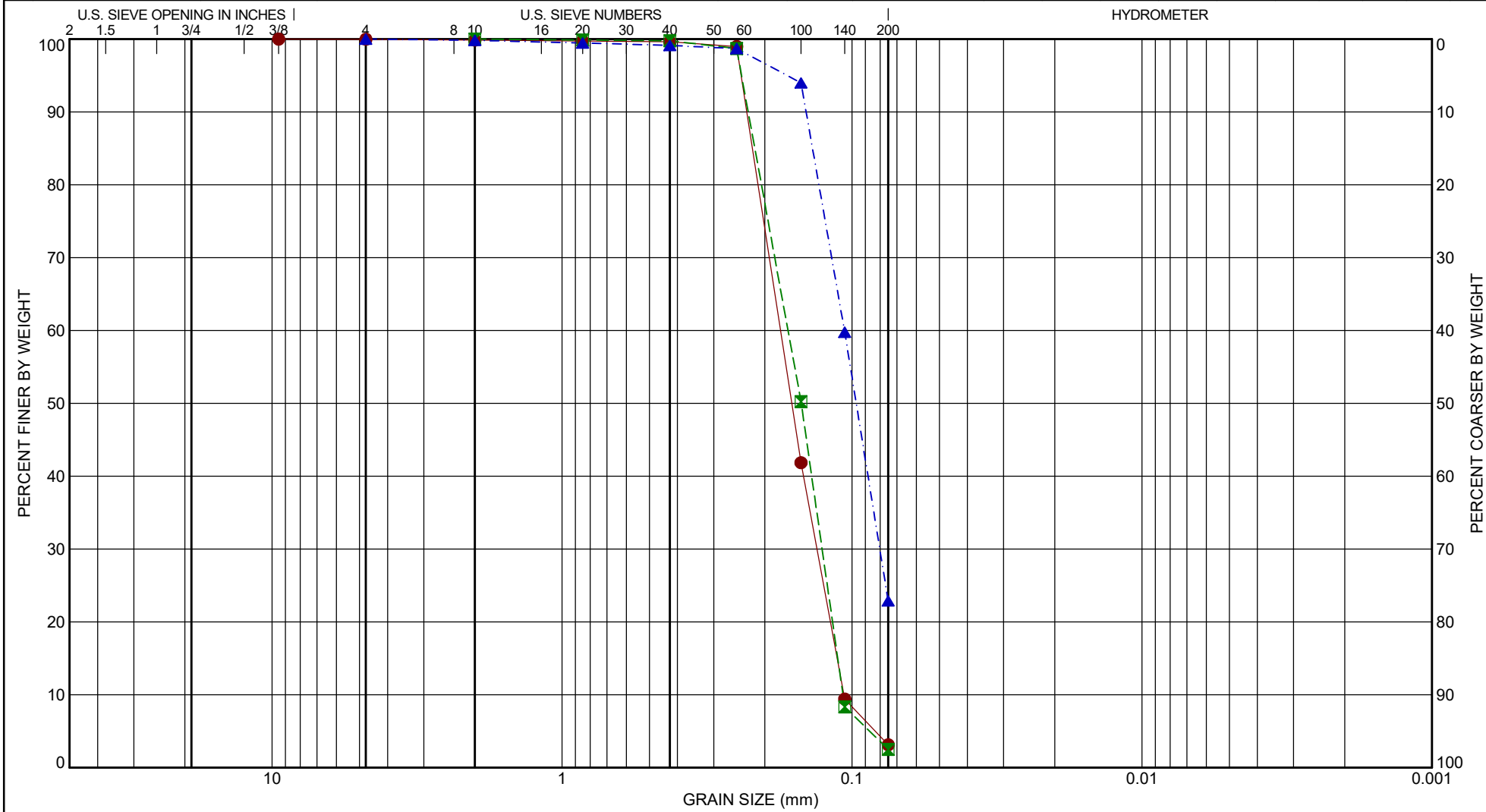
Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-16	43.0 - 44.5	Gray silty sand with shell fragments and clay traces (SM)	23.7	51.9	24.3		19.32	0.225	0.159	0.091						



GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Donna Easterling	Date Tested: 11/3/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 11/6/2023		GeoEngineers **Figure B-81c**

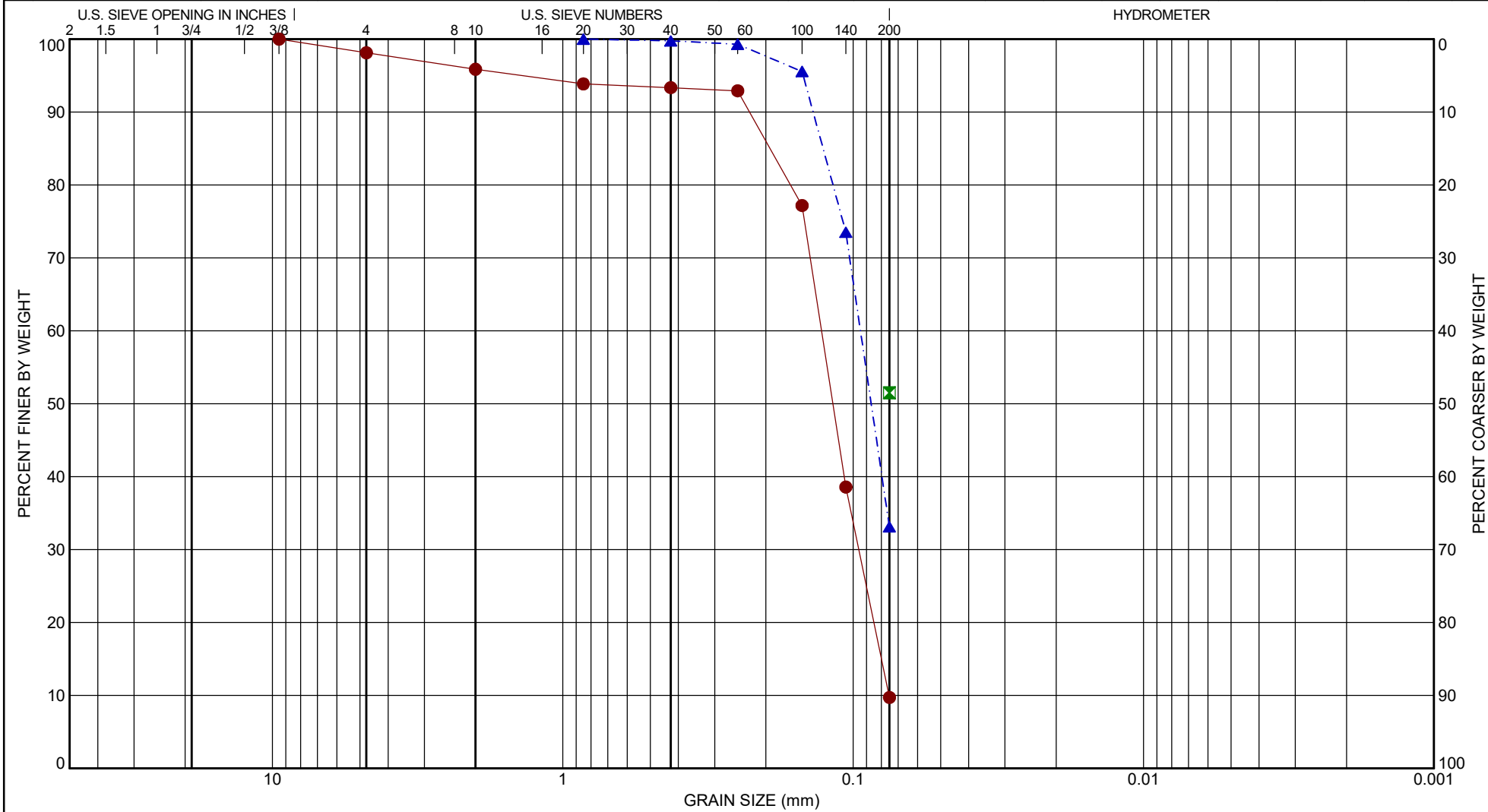
Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-17	0.0 - 1.5	Gray poorly graded sand with traces of organic matter and traces of shells (SP)	0.0	96.8	3.1		0.231	0.176	0.161	0.132	0.107	0.93	1.65			
⊠ CI-17	2.0 - 3.5	Gray poorly graded sand and traces of organic matter (SP)	0.0	97.5	2.5		0.228	0.166	0.15	0.127	0.107	0.90	1.55			
▲ CI-17	6.0 - 7.5	Gray silty sand with shell fragments and traces of organic matter (SM)	0.0	77.1	22.9		0.144	0.106	0.097	0.08						



GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Alex Fontenot	Date Tested: 12/14/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 12/14/2023		GeoEngineers — **Figure B-82a**

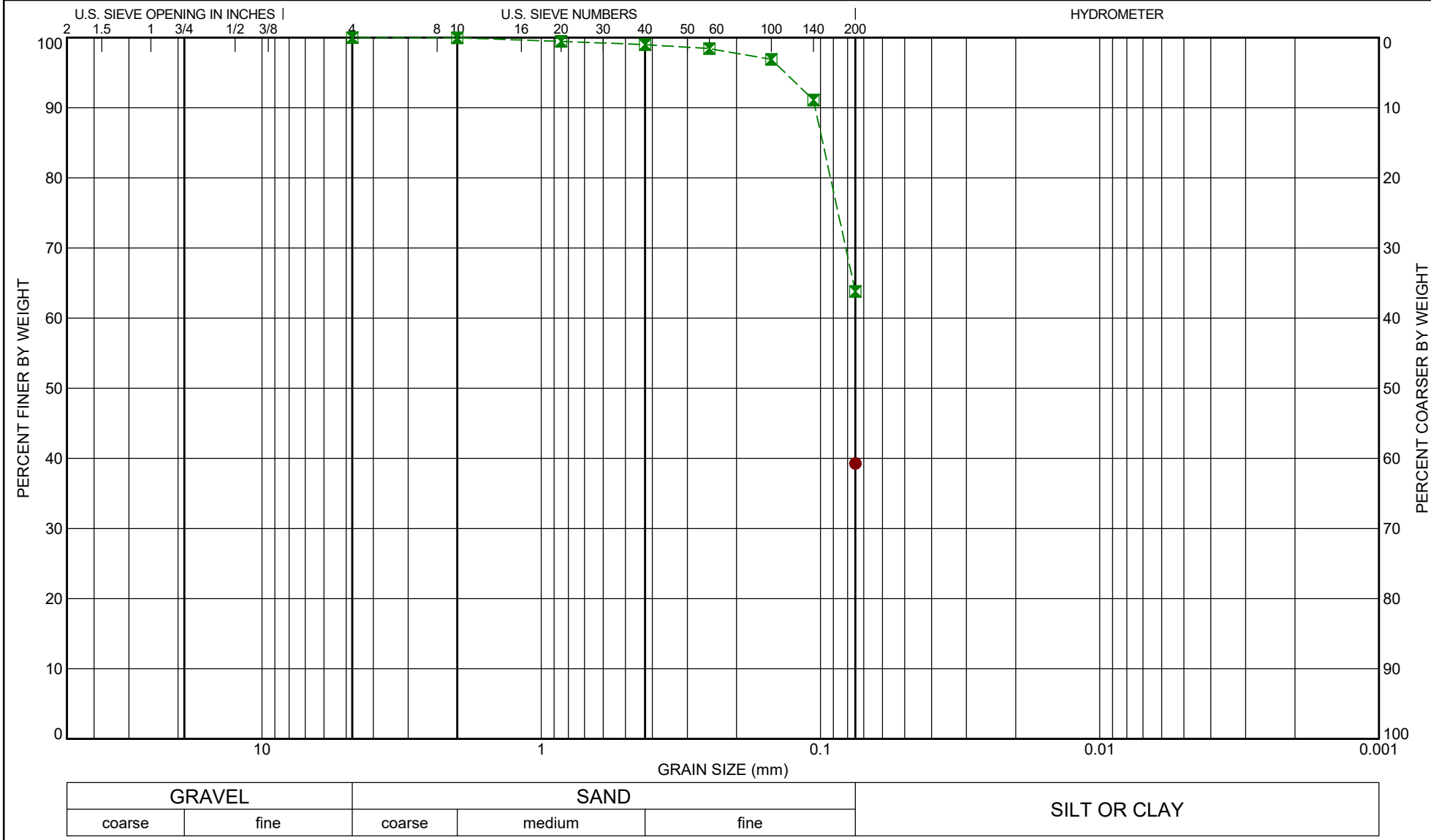
Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-17	10.0 - 11.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	1.9	88.4	9.7		0.227	0.129	0.117	0.096	0.075	0.95	1.71			
⊠ CI-17	14.0 - 16.0	Gray sandy clay with shell fragments (CL)			51.5									32	24	8
▲ CI-17	23.0 - 24.5	Gray silty sand (SM)	0.0	66.9	33.1		0.137	0.094	0.087							



GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By:	Date Tested:	GRAIN SIZE DISTRIBUTION	Chandeleur Island, Louisiana
Preston Causey	10/6/2023	ASTM D422/D1140/D6913/T88	
Reviewed By:	Date Reviewed:	Project No.: 18274-022-01	GeoEngineers
Dustin Blanchard	10/9/2023		Figure B-82b

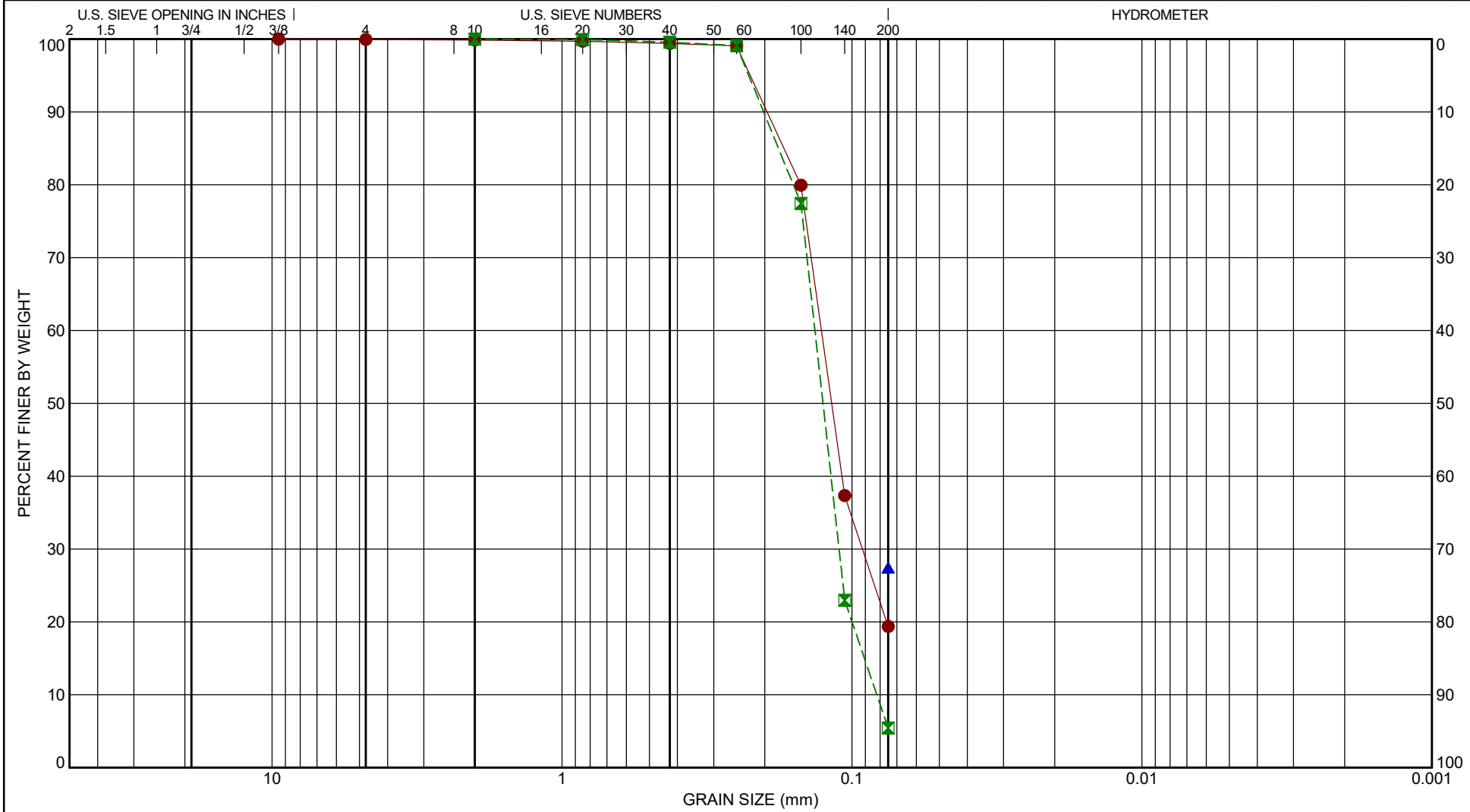
Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-17	28.0 - 29.5	Gray silty sand (SM)			39.3									NP	NP	NP
⊠ CI-17	43.0 - 44.5	Gray sandy silt with organic matter (ML)	0.0	36.2	63.8		0.105									



Tested By: Donna Easterling	Date Tested: 9/26/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/28/2023		**Figure B-82c**

GEI - GRAIN SIZE - GEO TEMPLATE WITH LAB.GDT - 12/20/23 08:58 - P:\18\18274022\01\LAB\GINT LAB\18274-022-01 BTR LAB GINT.GPJ

Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-18	0.0 - 1.5	gray silty sand with shell fragments (SM)	0.1	80.6	19.4		0.196	0.127	0.118	0.092						
⊠ CI-18	4.0 - 5.5	gray poorly graded sand with silt and shell fragments (SP-SM)	0.0	94.6	5.4		0.202	0.134	0.126	0.111	0.082	1.12	1.64			
▲ CI-18	8.0 - 9.5	gray silty clayey sand (SC-SM)			27.4									NP	NP	NP

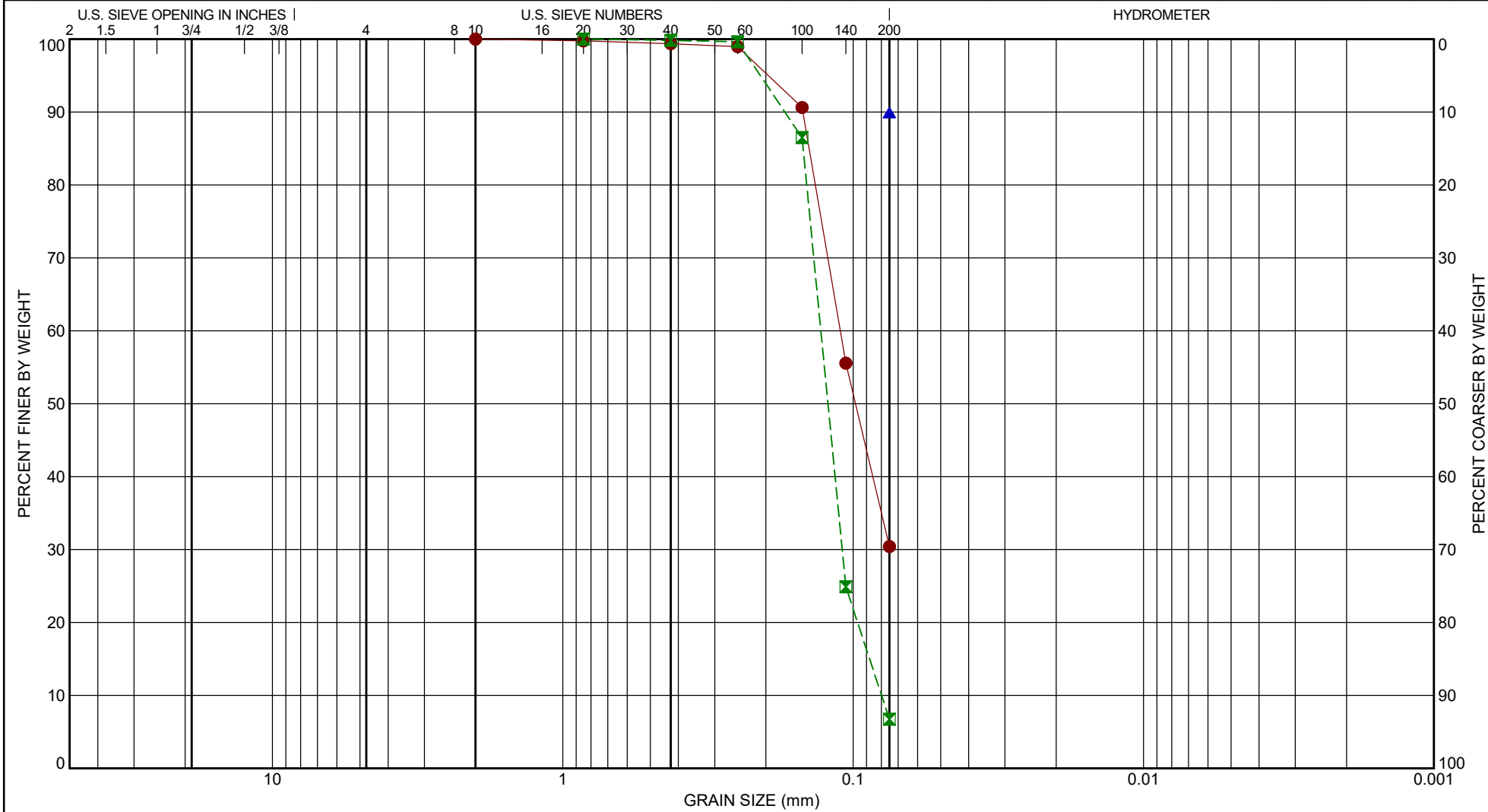


GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Preston Causey	Date Tested: 10/6/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/9/2023		**Figure B-83a**

GEI - GRAIN SIZE - GEO TEMPLATE WITH LAB.GDT - 12/20/23 09:01 - P:\18\18274022\01\LAB\GINT LAB\18274-022-01 BTR LAB GINT.GPJ

Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
CI-18	12.0 - 13.5	gray silty sand with organic matter and shell fragments (SM)	0.0	69.6	30.4		0.149	0.111	0.098							
CI-18	16.0 - 17.5	gray poorly graded sand with silt and organic matter (SP-SM)	0.0	93.3	6.7		0.172	0.129	0.122	0.109	0.08	1.15	1.62			
CI-18	28.0 - 30.0	Gray silty clay with sand lenses, and sand pockets (CL)			89.9											



GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By:	Date Tested:
Preston Causey	10/6/2023
Reviewed By:	Date Reviewed:
Dustin Blanchard	10/9/2023

GRAIN SIZE DISTRIBUTION

ASTM D422/D1140/D6913/T88

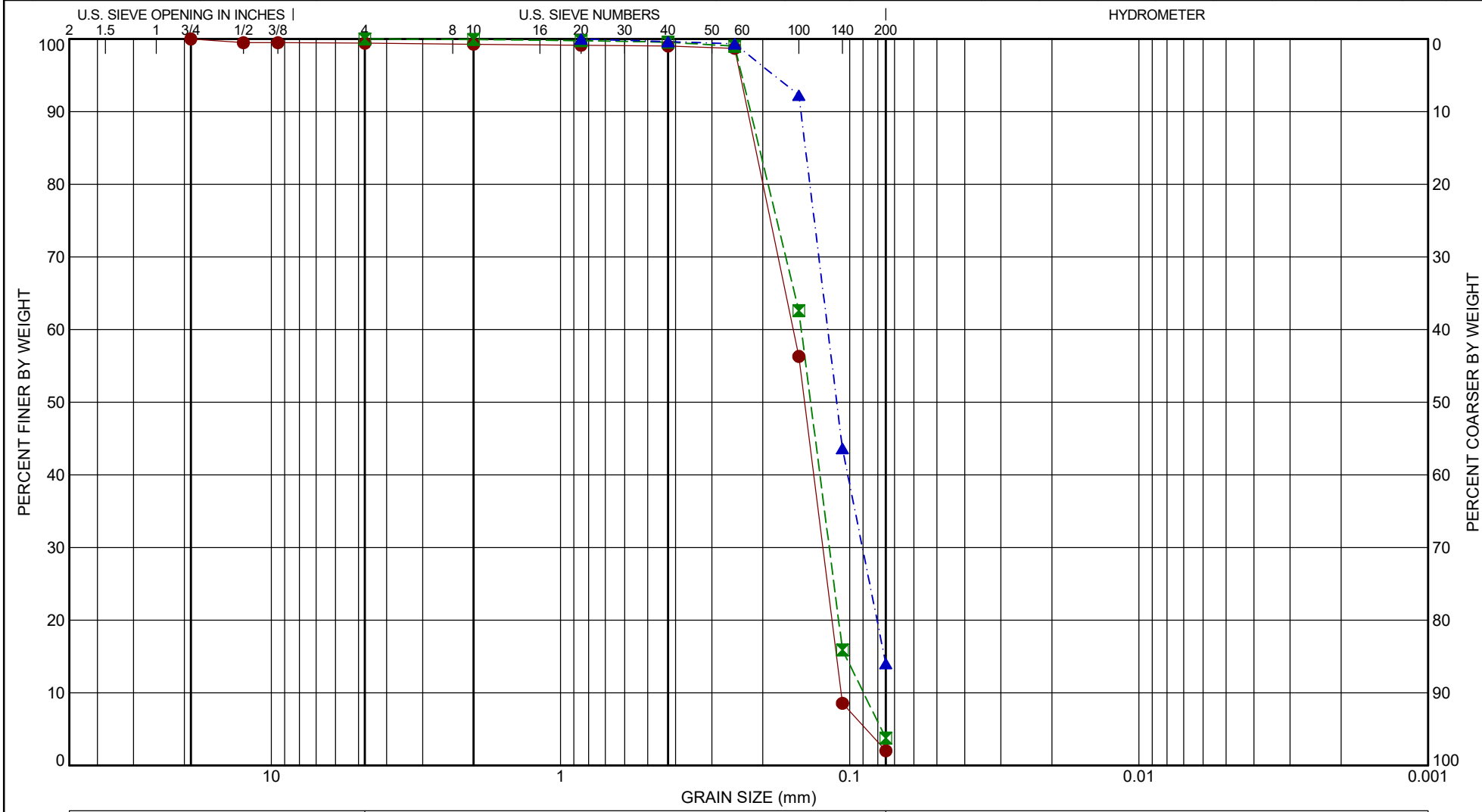
Project No.: 18274-022-01

Chandeleur Island, Louisiana

GeoEngineers

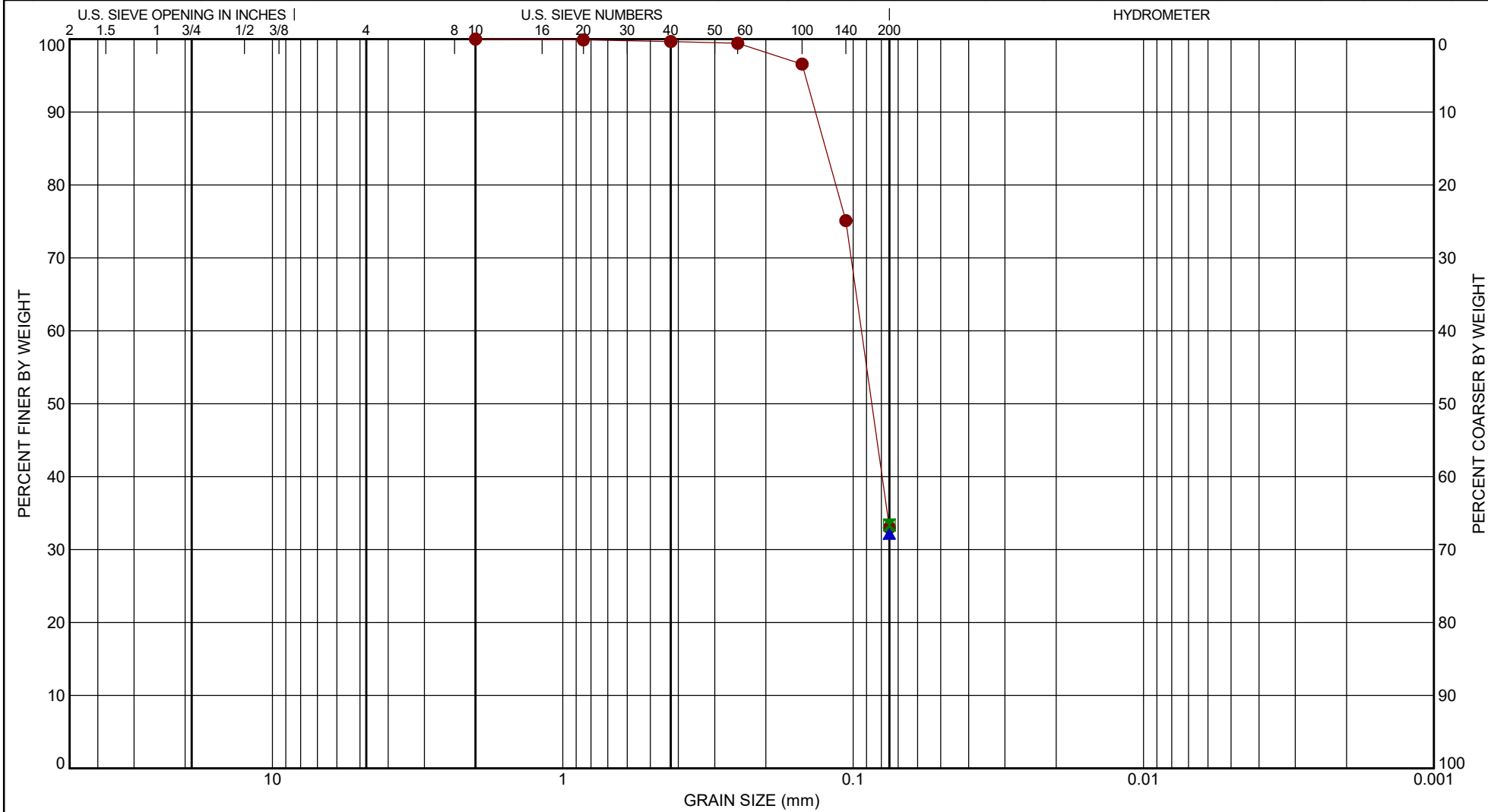
Figure B-83b

Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-19	0.0 - 1.5	Gray poorly graded sand with traces of shell fragments (SP)	0.6	97.4	2.0		0.225	0.157	0.143	0.124	0.107	0.91	1.46			
⊠ CI-19	2.0 - 3.5	Gray poorly graded sand (SP)	0.0	96.2	3.8		0.22	0.147	0.137	0.118	0.09	1.05	1.64			
▲ CI-19	6.0 - 7.5	Gray silty sand (SM)	0.0	86.0	14.0		0.148	0.119	0.111	0.09						



Tested By:	Date Tested:	GRAIN SIZE DISTRIBUTION	Chandeleur Island, Louisiana	
Alex Fontenot	12/14/2023	ASTM D422/D1140/D6913/T88		
Reviewed By:	Date Reviewed:	Project No.: 18274-022-01	GeoEngineers	Figure B-84a
Dustin Blanchard	12/14/2023			

Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-19	10.0 - 11.5	Gray silty sand (SM)	0.0	67.0	33.0		0.135	0.094	0.086							
⊠ CI-19	12.0 - 13.5	Gray silty sand (SM)			33.4									28	24	4
▲ CI-19	16.0 - 17.5	Gray clayey sand (SC)			32.1									48	22	26



GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Donna Easterling | Date Tested: 10/9/2023

Reviewed By: Dustin Blanchard | Date Reviewed: 10/11/2023

GRAIN SIZE DISTRIBUTION

ASTM D422/D1140/D6913/T88

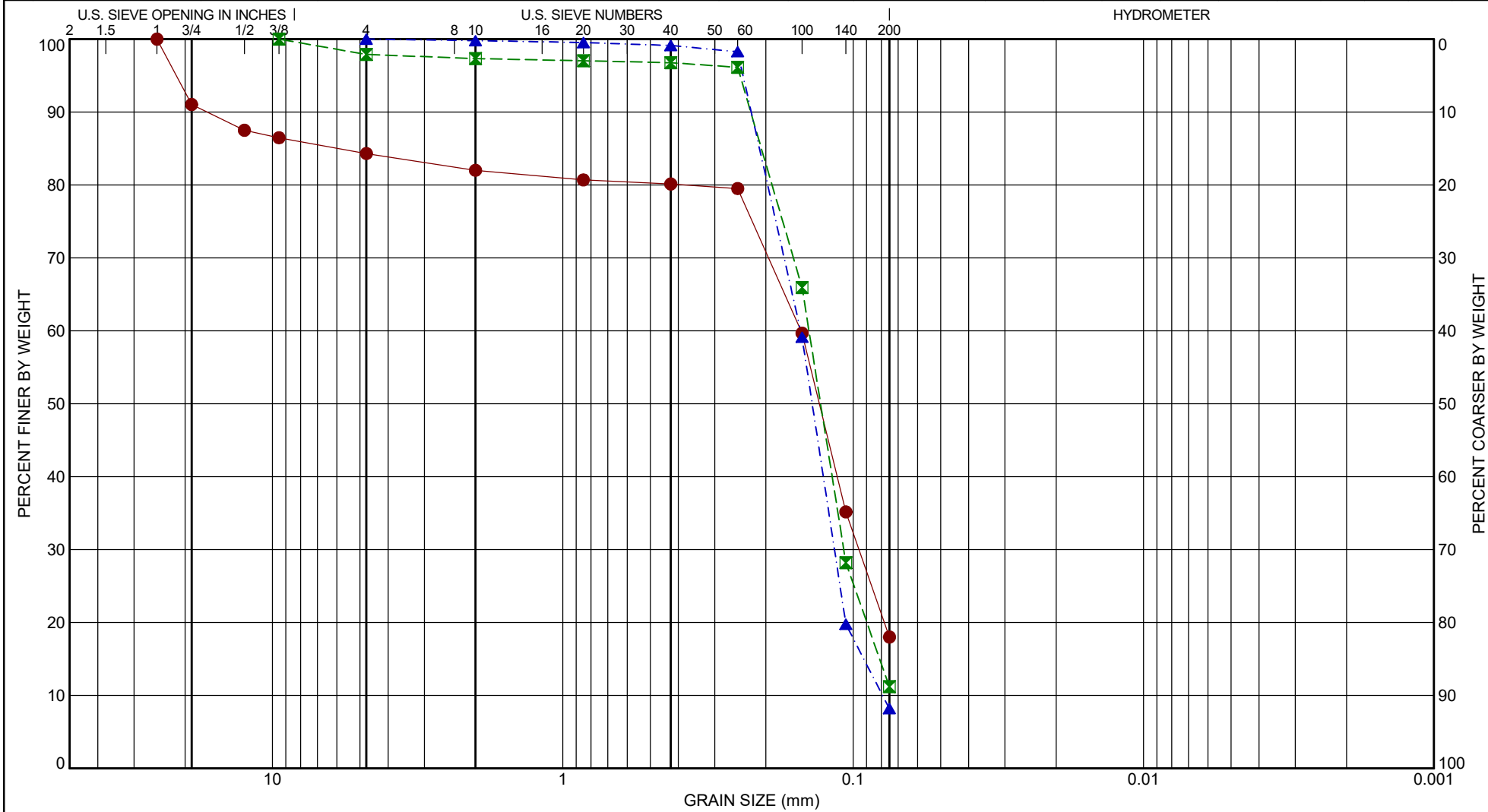
Project No.: 18274-022-01

Chandeleur Island, Louisiana

GeoEngineers

Figure B-84b

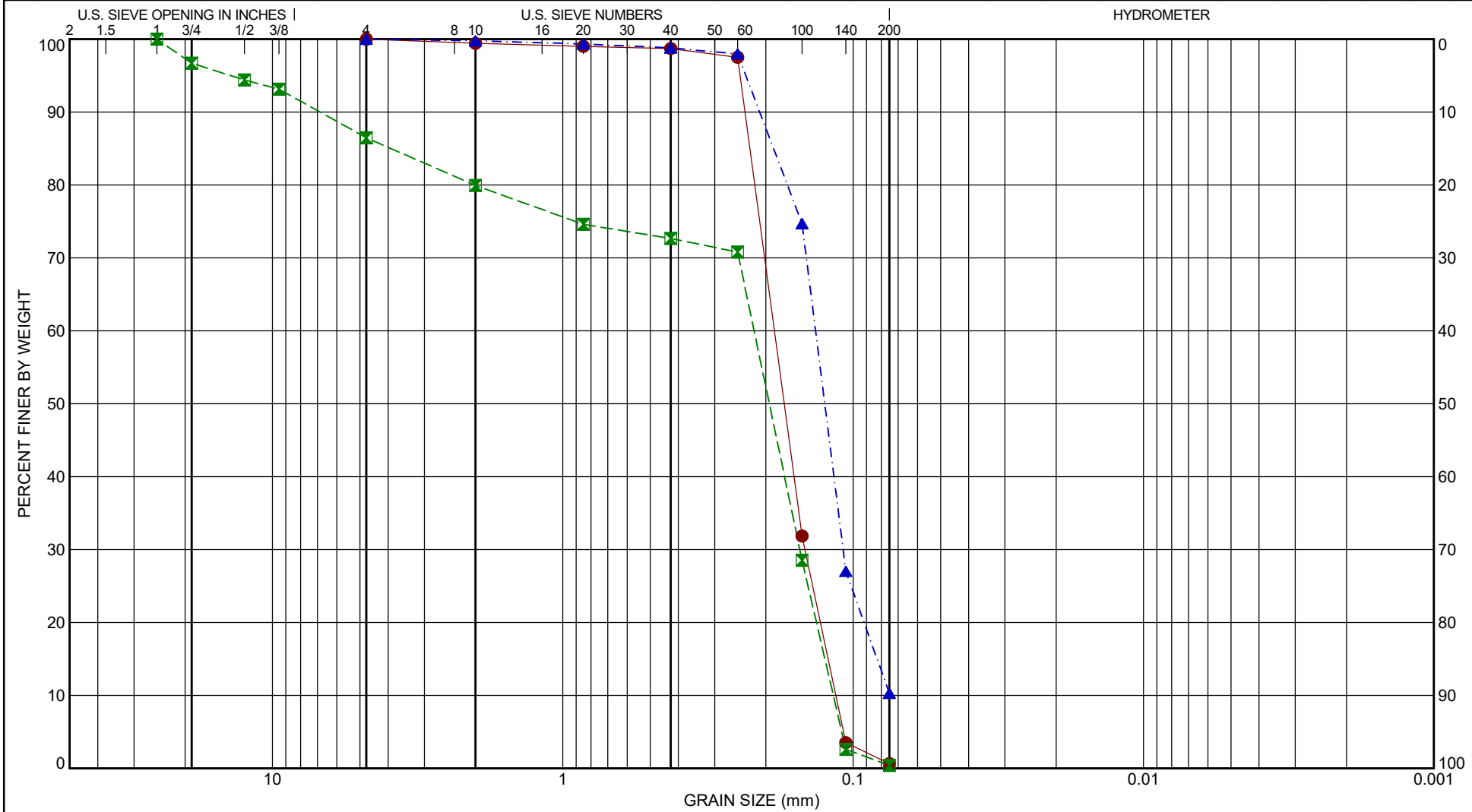
Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-19	23.0 - 214.5	Gray silty sand with shells and shell fragments (SM)	15.7	66.3	18.0		16.813	0.151	0.131	0.096						
⊠ CI-19	33.0 - 34.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	2.1	86.7	11.2		0.225	0.142	0.13	0.108		1.12	1.94			
▲ CI-19	43.0 - 44.5	Gray poorly graded sand with silt and shell fragments (SP-SM)	0.0	91.8	8.2		0.224	0.152	0.138	0.116	0.079	1.12	1.92			



GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Donna Easterling	Date Tested: 10/9/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/11/2023		GeoEngineers — **Figure B-84c**

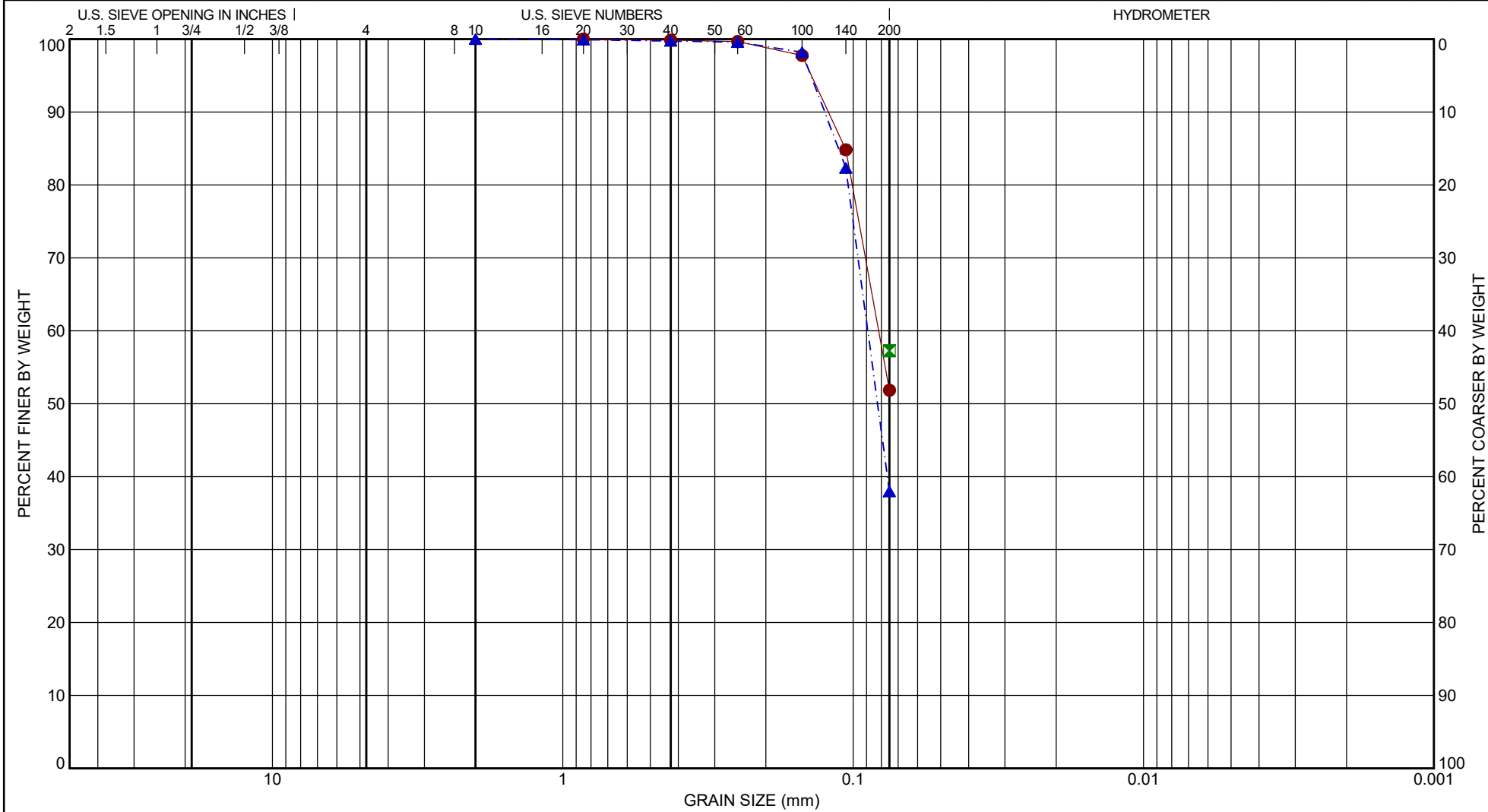
Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-20	0.0 - 1.5	Light gray poorly graded sand with shell fragments and traces of organic matter (SP)	0.0	99.4	0.6		0.236	0.187	0.173	0.147	0.115	1.00	1.63			
⊠ CI-20	4.0 - 5.5	Gray poorly graded sand with shells and shell fragments (SP)	13.5	86.0	0.4		6.866	0.219	0.194	0.153	0.117	0.91	1.87			
▲ CI-20	10.0 - 11.5	Dark gray poorly graded sand with silt and traces of organic matter (SP-SM)	0.0	89.7	10.3		0.21	0.135	0.125	0.108		1.17	1.81			



GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Donna Easterling	Date Tested: 10/9/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/11/2023		GeoEngineers — **Figure B-85a**

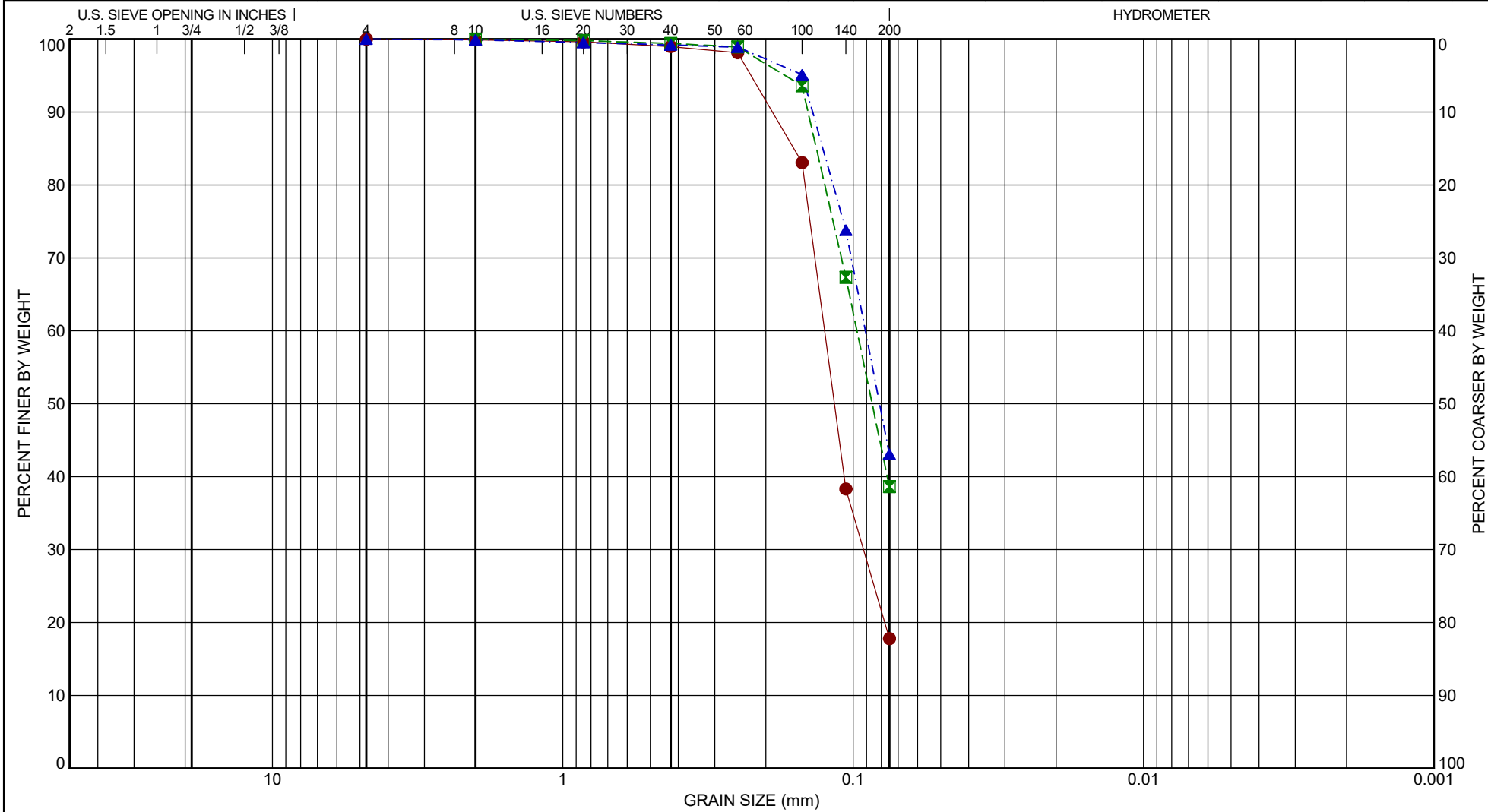
Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-20	14.0 - 15.5	Gray sandy silt (ML)	0.0	48.1	51.9		0.122	0.082								
⊠ CI-20	28.0 - 30.0	Gray sandy silt with traces of clay (ML)			57.3											
▲ CI-20	38.0 - 39.5	Gray silty sand (SM)	0.0	62.0	38.0		0.125	0.089	0.082							



GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By:	Date Tested:	GRAIN SIZE DISTRIBUTION	Chandeleur Island, Louisiana
Preston Causey	10/9/2023	ASTM D422/D1140/D6913/T88	
Reviewed By:	Date Reviewed:	Project No.: 18274-022-01	GeoEngineers
Dustin Blanchard	10/11/2023		Figure B-85b

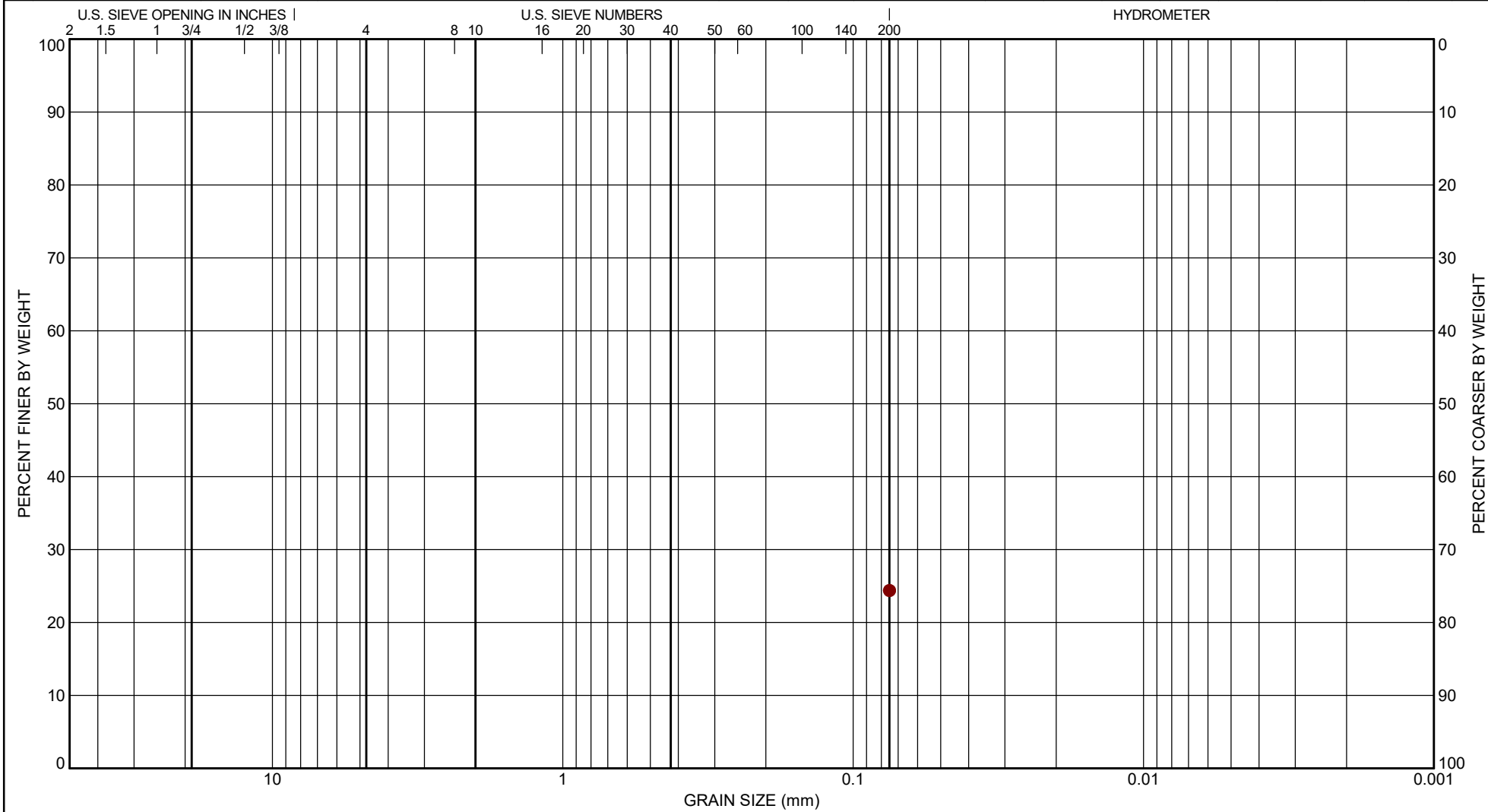
Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-21	0.0 - 1.5	Gray silty sand (SM)	0.0	82.2	17.8		0.19	0.125	0.116	0.092						
⊠ CI-21	4.0 - 5.5	Gray silty sand with traces of clay (SM)	0.0	61.4	38.6		0.143	0.097	0.086							
▲ CI-21	8.0 - 9.5	Gray clayey sand with a clay layer (SC)	0.0	56.9	43.1		0.138	0.091	0.081					34	18	16



GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Preston Causey	Date Tested: 10/9/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/11/2023		GeoEngineers — **Figure B-86a**

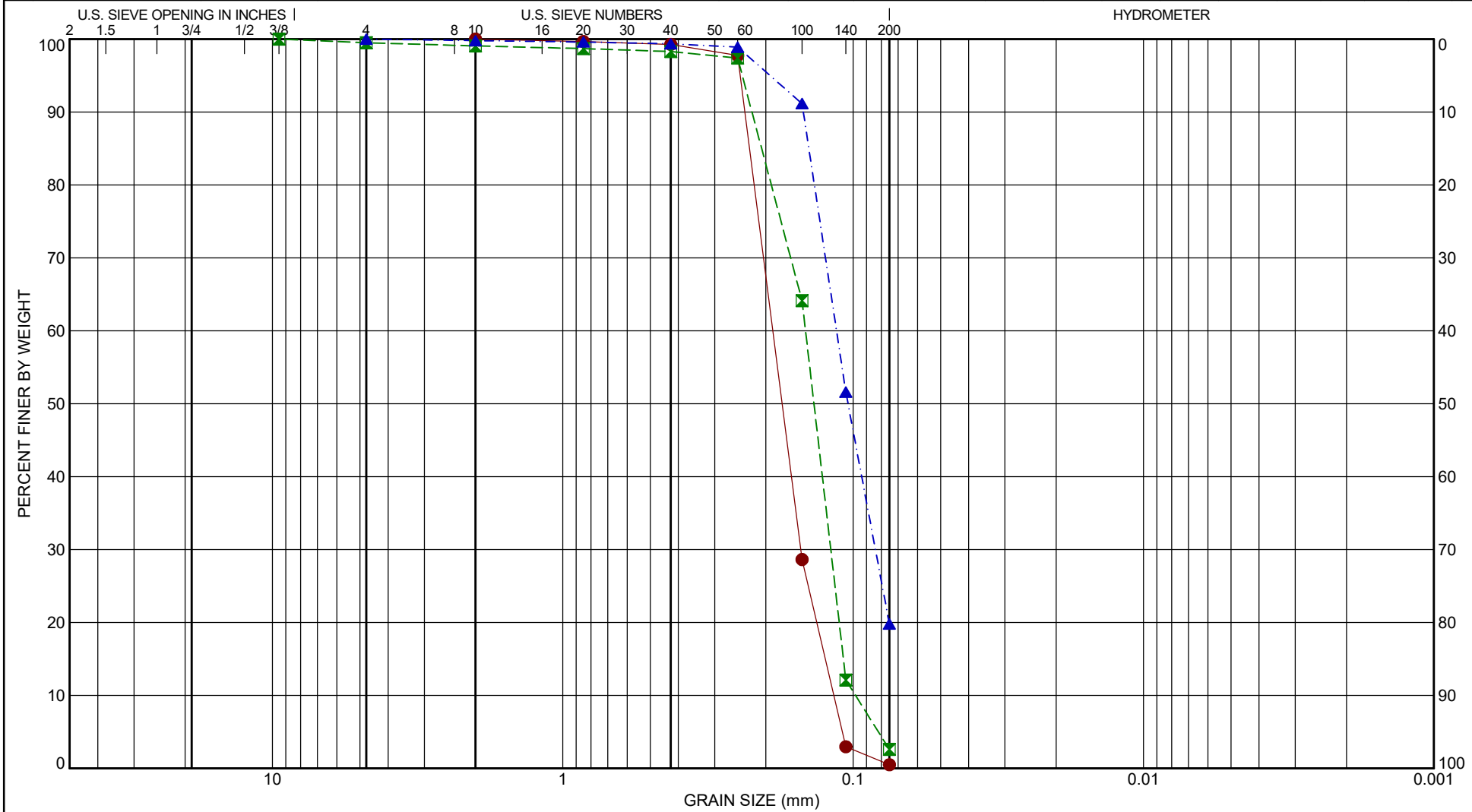
Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-21	12.0 - 14.0	Gray clayey sand with shell fragments and organic material (SC)			24.4											



GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By:	Date Tested:	GRAIN SIZE DISTRIBUTION	Chandeleur Island, Louisiana	
Preston Causey	10/6/2023	ASTM D422/D1140/D6913/T88		
Reviewed By:	Date Reviewed:	Project No.: 18274-022-01	GeoEngineers	Figure B-86b
Dustin Blanchard	10/9/2023			

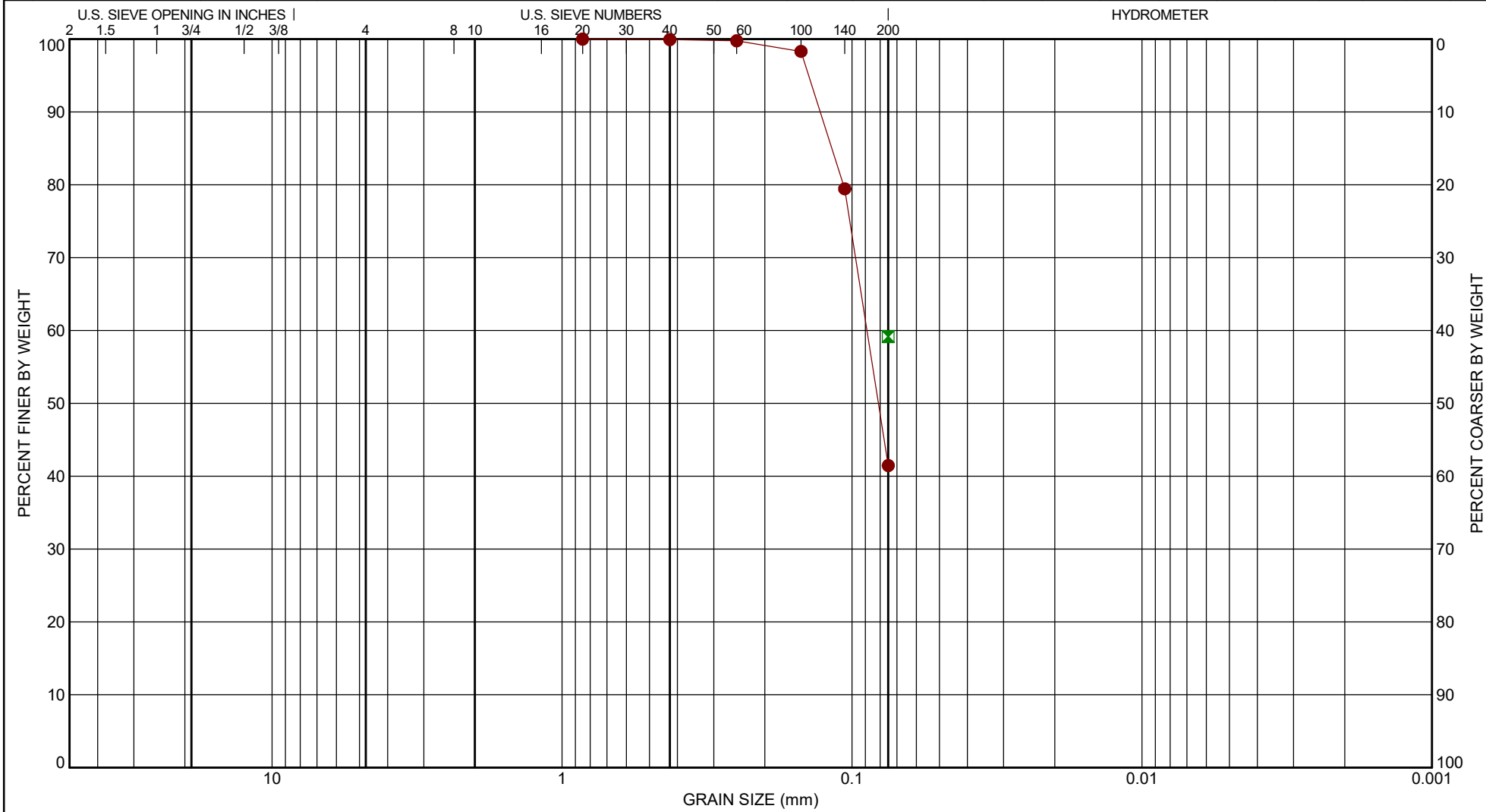
Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-22	0.0 - 1.5	Gray poorly graded sand with shell fragments (SP)	0.0	99.5	0.5		0.236	0.189	0.176	0.152	0.117	1.04	1.62			
⊠ CI-22	4.0 - 5.5	Gray poorly graded sand with shell fragments (SP)	0.5	96.9	2.6		0.223	0.146	0.136	0.119	0.098	1.00	1.49			
▲ CI-22	8.0 - 9.5	Gray silty sand with shell fragments (SM)	0.0	80.2	19.8		0.148	0.114	0.104	0.084						



GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Donna Easterling	Date Tested: 10/11/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/12/2023		GeoEngineers — **Figure B-87a**

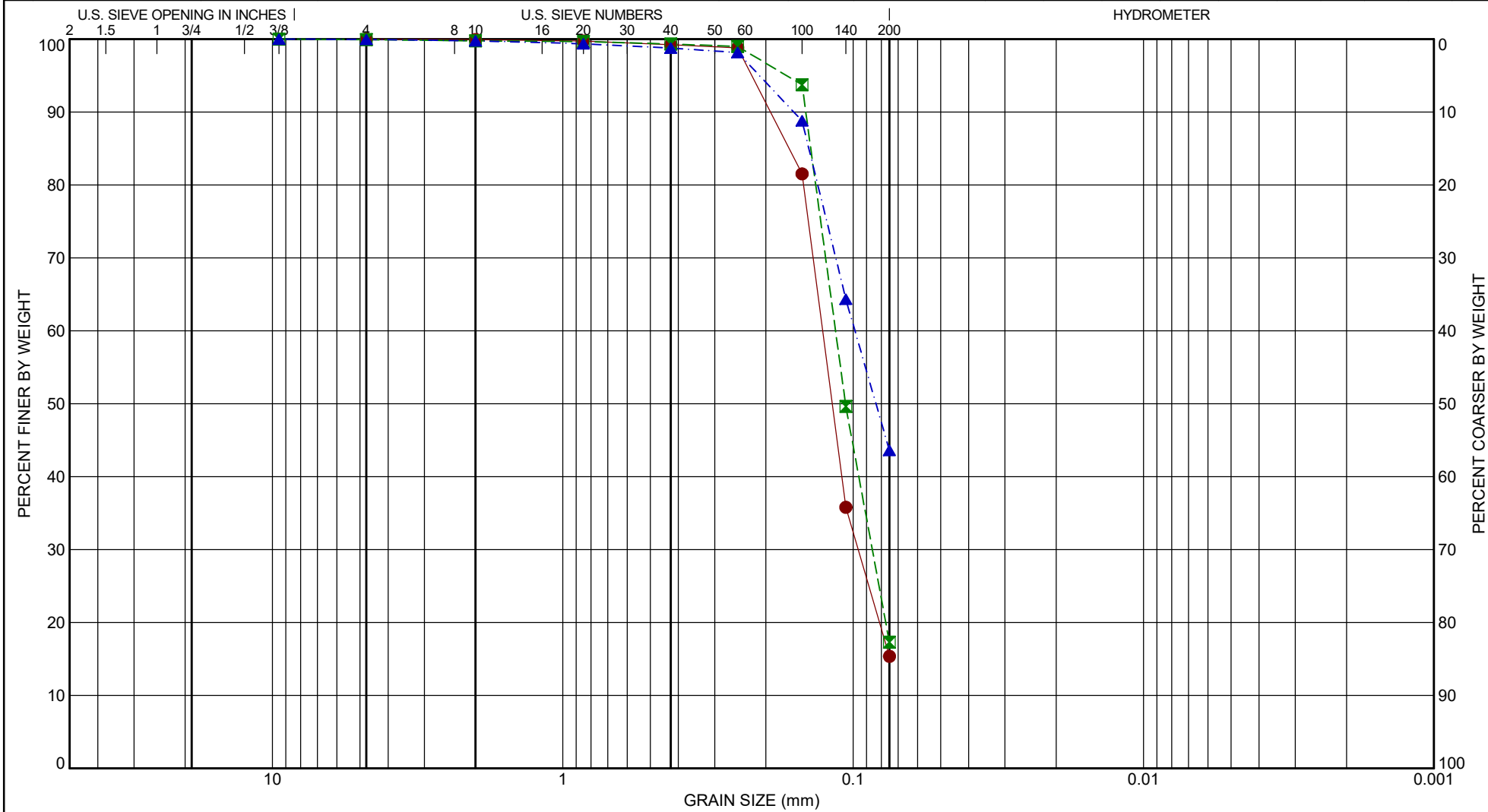
Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-22	12.0 - 13.5	Gray silty sand (SM)	0.0	58.5	41.5		0.129	0.089	0.081							
⊠ CI-22	23.0 - 24.5	Gray sandy silty clay (CL)			59.2									37	19	18



GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By:	Date Tested:	GRAIN SIZE DISTRIBUTION	Chandeleur Island, Louisiana
Donna Easterling	10/11/2023	ASTM D422/D1140/D6913/T88	
Reviewed By:	Date Reviewed:	Project No.: 18274-022-01	GeoEngineers
Dustin Blanchard	10/12/2023		Figure B-87b

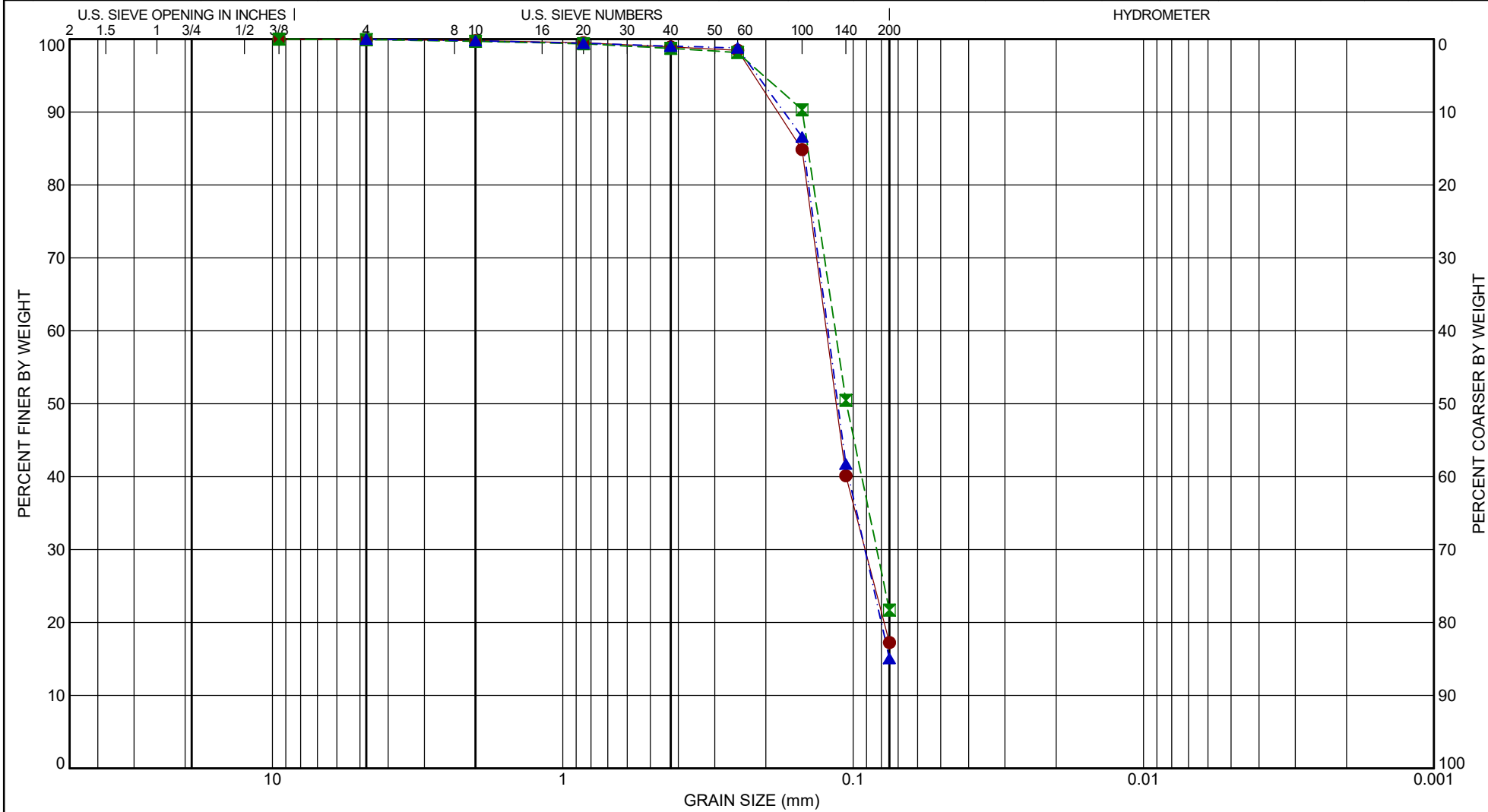
Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
CI-23	0.0 - 1.5	Gray silty sand with shell fragments and traces of organic matter (SM)	0.0	84.6	15.4		0.193	0.127	0.118	0.096						
CI-23	4.0 - 5.5	Gray silty sand with shell fragments (SM)	0.1	82.6	17.3		0.146	0.115	0.106	0.086						
CI-23	8.0 - 9.5	Gray silty clayey sand (SC-SM)	0.0	56.3	43.6		0.16	0.099	0.083							



GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Donna Easterling	Date Tested: 10/11/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/12/2023		GeoEngineers — **Figure B-88a**

Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
CI-23	12.0 - 13.5	Gray silty sand with shell fragments (SM)	0.1	82.7	17.2		0.182	0.124	0.114	0.091						
CI-23	16.0 - 17.5	Gray silty sand with shell fragments and organic matter (SM)	0.1	78.2	21.7		0.15	0.115	0.105	0.083						
CI-23	23.0 - 24.5	Gray silty sand (SM)	0.0	84.9	15.1		0.173	0.122	0.113	0.091						

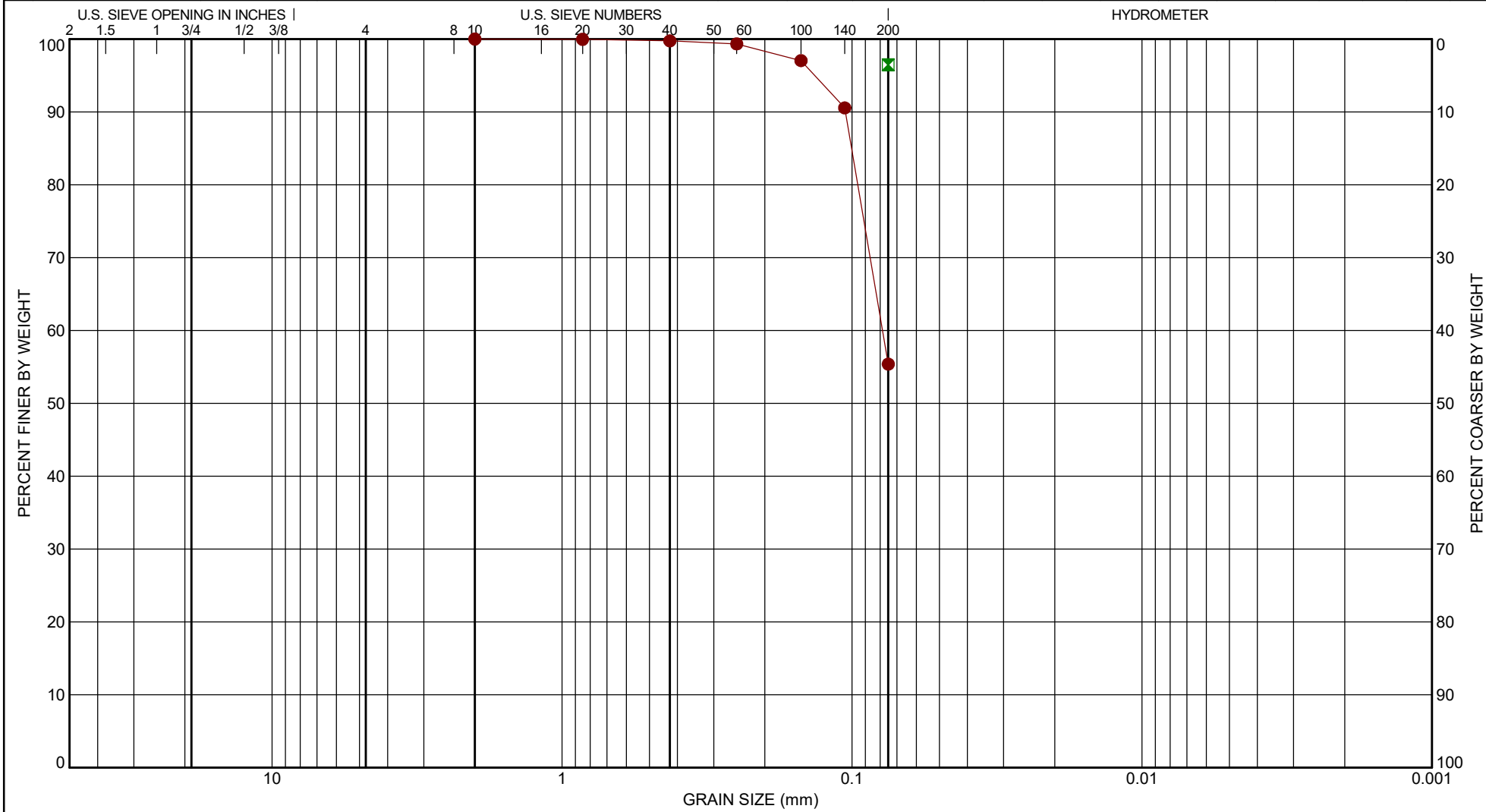


GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By: Donna Easterling	Date Tested: 10/11/2023	**GRAIN SIZE DISTRIBUTION** **ASTM D422/D1140/D6913/T88** **Project No.: 18274-022-01**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/12/2023		**Figure B-88b**

GEI - GRAIN SIZE - GEO TEMPLATE WITH LAB.GDT - 12/20/23 09:29 - P:\18\18274022\01\LAB\GINT LAB\18274-022-01 BTR LAB GINT.GPJ

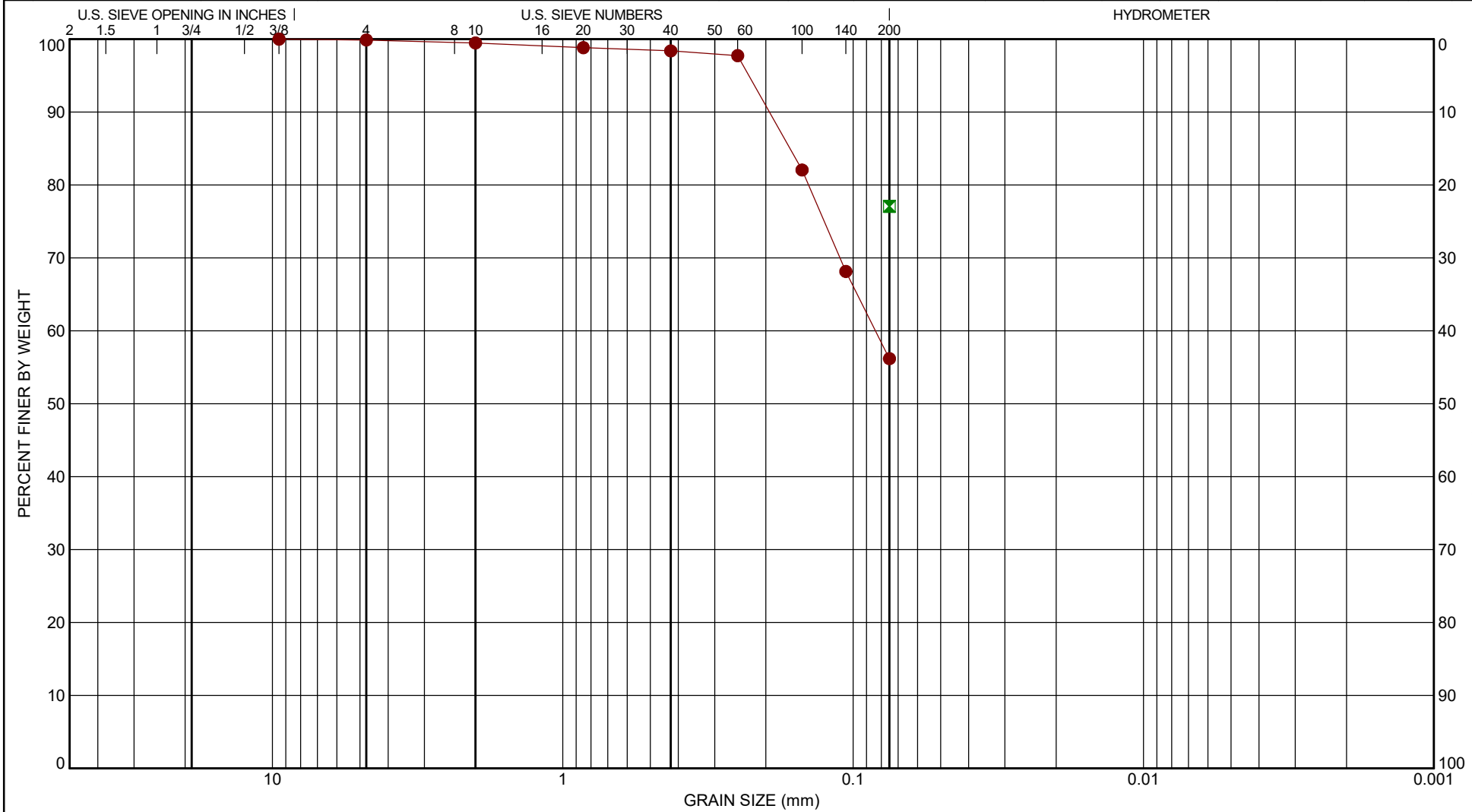
Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-24	0.0 - 2.0	Gray sandy silt with organic matter and traces of shells (ML)	0.0	44.6	55.4		0.105	0.078						32	28	4
⊠ CI-24	10.0 - 12.0	Gray clay with sand and silt (CL)			96.5											



GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By:	Date Tested:	GRAIN SIZE DISTRIBUTION	Chandeleur Island, Louisiana
Alex Fontenot	12/14/2023	ASTM D422/D1140/D6913/T88	
Reviewed By:	Date Reviewed:	Project No.: 18274-022-01	GeoEngineers
Dustin Blanchard	12/14/2023		Figure B-89

Soil Boring ID	Depth (ft)	Classification	%Gravel	%Sand	%Silt	%Clay	D90	D60	D50	D30	D10	Cc	Cu	LL	PL	PI
● CI-25	0.0 - 1.5	Gray sandy silt with traces of shells (ML)	0.1	43.7	56.2		0.194	0.084						33	26	7
⊠ CI-25	4.0 - 5.5	Gray sandy silt with clay and shell fragments (ML)			77.1									34	25	9



GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Tested By:	Date Tested:	GRAIN SIZE DISTRIBUTION	Chandeleur Island, Louisiana
Alex Fontenot	12/14/2023	ASTM D422/D1140/D6913/T88	
Reviewed By:	Date Reviewed:	Project No.: 18274-022-01	GeoEngineers
Dustin Blanchard	12/14/2023		Figure B-90

Furnace Temp
440 +/- 40 C

Boring No./ Sample	Depth	Tare Weight	Tare + Oven Dried	Tare + Furnace Dried	% Organic	
CI-02	0	20.92	51.47	51.25	0.7	

AASHTO ACCREDITED

Organic Matter Test
ASTM D2974
Method A

Project No.: 18274-022-01

Chandeleur Island, Louisiana

GeoEngineers

Figure B-91

Furnace Temp
440 +/- 40 C

Boring No./ Sample	Depth	Tare Weight	Tare + Oven Dried	Tare + Furnace Dried	% Organic	
CI-04	0	20.89	47.28	46.73	2.1	

AASHTO ACCREDITED

Organic Matter Test
ASTM D2974
Method A

Project No.: 18274-022-01

Chandeleur Island, Louisiana

GeoEngineers

Figure B-92

Furnace Temp
440 +/- 40 C

Boring No./ Sample	Depth	Tare Weight	Tare + Oven Dried	Tare + Furnace Dried	% Organic	
CI-09	0	21.72	54.23	53.8	1.3	

AASHTO ACCREDITED

Organic Matter Test
ASTM D2974
Method A

Project No.: 18274-022-01

Chandeleur Island, Louisiana

GeoEngineers

Figure B-93

Furnace Temp
440 +/- 40 C

Boring No./ Sample	Depth	Tare Weight	Tare + Oven Dried	Tare + Furnace Dried	% Organic	
CI-10	2	20.9	52.56	52.05	1.6	

AASHTO ACCREDITED

Organic Matter Test
ASTM D2974
Method A

Project No.: 18274-022-01

Chandeleur Island, Louisiana

GeoEngineers

Figure B-94

Furnace Temp
440 +/- 40 C

Boring No./ Sample	Depth	Tare Weight	Tare + Oven Dried	Tare + Furnace Dried	% Organic	
CI-12	0	21.72	51.12	50.59	1.8	

AASHTO ACCREDITED

Organic Matter Test
ASTM D2974
Method A

Project No.: 18274-022-01

Chandeleur Island, Louisiana

GeoEngineers

Figure B-95

Furnace Temp
440 +/- 40 C

Boring No./ Sample	Depth	Tare Weight	Tare + Oven Dried	Tare + Furnace Dried	% Organic	
CI-15	0	21.15	54.99	54.88	0.3	

AASHTO ACCREDITED

Organic Matter Test
ASTM D2974
Method A

Project No.: 18274-022-01

Chandeleur Island, Louisiana

GeoEngineers

Figure B-96

Furnace Temp
440 +/- 40 C

Boring No./ Sample	Depth	Tare Weight	Tare + Oven Dried	Tare + Furnace Dried	% Organic	
CI-17	2	21.73	53.4	53.25	0.5	

AASHTO ACCREDITED

Organic Matter Test
ASTM D2974
Method A

Project No.: 18274-022-01

Chandeleur Island, Louisiana

GeoEngineers

Figure B-97

Furnace Temp
440 +/- 40 C

Boring No./ Sample	Depth	Tare Weight	Tare + Oven Dried	Tare + Furnace Dried	% Organic	
CI-18	4	21.22	54.89	54.69	0.6	

AASHTO ACCREDITED

Organic Matter Test
ASTM D2974
Method A

Project No.: 18274-022-01

Chandeleur Island, Louisiana

GeoEngineers

Figure B-98

Furnace Temp
440 +/- 40 C

Boring No./ Sample	Depth	Tare Weight	Tare + Oven Dried	Tare + Furnace Dried	% Organic	
CI-20	6	20.92	52.07	51.57	1.6	

AASHTO ACCREDITED

Organic Matter Test
ASTM D2974
Method A

Project No.: 18274-022-01

Chandeleur Island, Louisiana

GeoEngineers

Figure B-99

Furnace Temp
440 +/- 40 C

Boring No./ Sample	Depth	Tare Weight	Tare + Oven Dried	Tare + Furnace Dried	% Organic	
CI-23	0	22.17	53.73	53.52	0.7	

AASHTO ACCREDITED

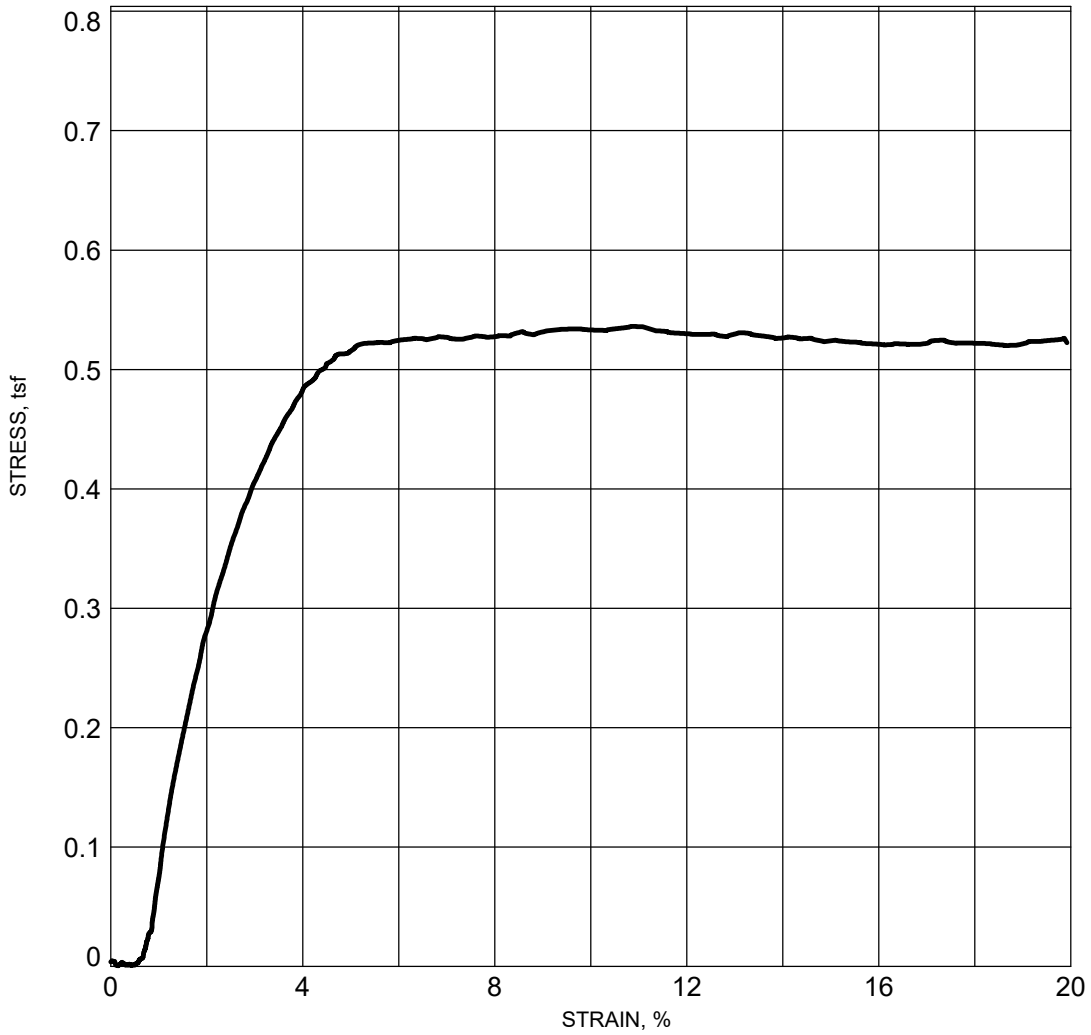
Organic Matter Test
ASTM D2974
Method A

Project No.: 18274-022-01

Chandeleur Island, Louisiana

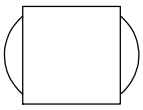
GeoEngineers

Figure B-100



Boring ID	CI-01
Depth (ft)	28-30
Water Content, %	41.5
Wet Density, pcf	115.5
Dry Density, pcf	81.6
Saturation, %	103.8
Void Ratio	1.09
Specimen Diameter	2.800
Specimen Height	5.760
Height/diameter ratio	2.06
Deviator Stress, tsf	0.536
Strain, %	10.8
Confining Pressure (psi)	7.6

Bulge



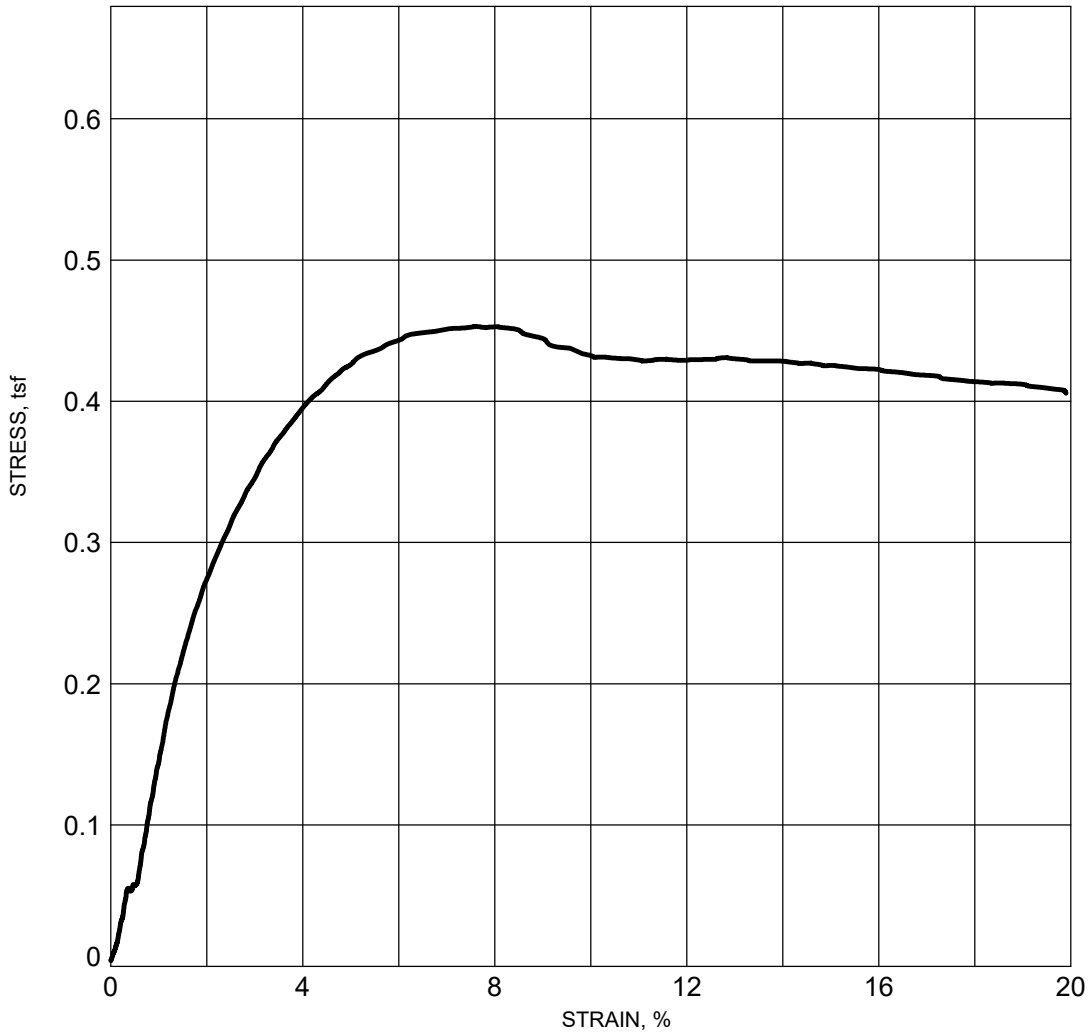
Failure Sketch

LL = 56 PL = 23 PI = 33

% 200=45 % Organic= Assumed Gs=2.74

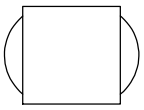
Description: Gray silty sand (SM) transitioned to medium gray clay with sand layers (CH)

Tested By: Donna Easterling	Date Tested: 8/18/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 8/22/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-101a**



Boring ID	CI-01
Depth (ft)	38-40
Water Content, %	51.6
Wet Density, pcf	109.8
Dry Density, pcf	72.4
Saturation, %	103.9
Void Ratio	1.36
Specimen Diameter	2.850
Specimen Height	5.985
Height/diameter ratio	2.10
Deviator Stress, tsf	0.453
Strain, %	7.6
Confining Pressure (psi)	10.2

Bulge



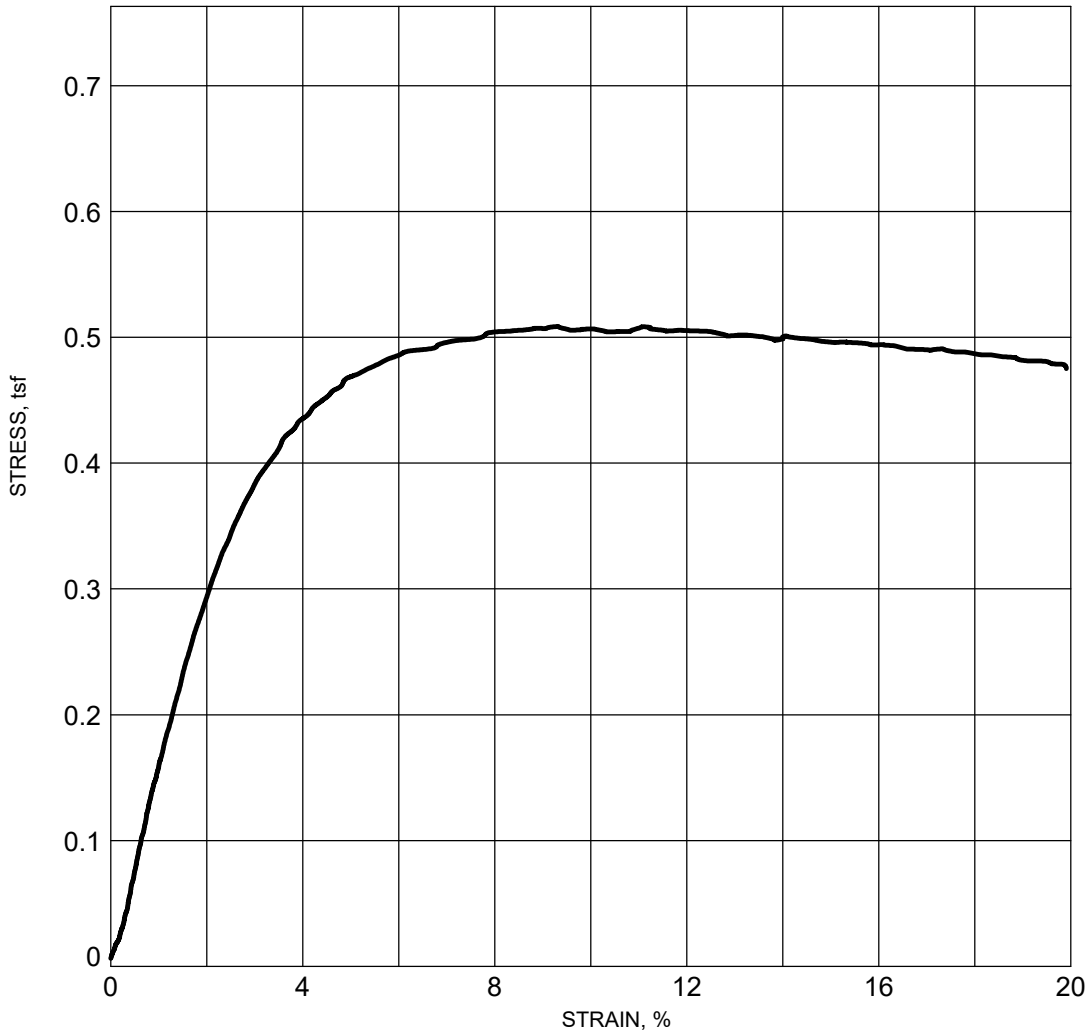
Failure Sketch

LL = 50 PL = 22 PI = 28

% 200= % Organic= Assumed Gs=2.74

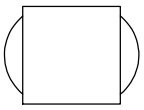
Description: Soft gray clay with silt pockets and sand pockets (CH)

Tested By: Donna Easterling	Date Tested: 8/18/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 8/22/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-101b**



Boring ID	CI-03
Depth (ft)	33-35
Water Content, %	37.1
Wet Density, pcf	116.8
Dry Density, pcf	85.2
Saturation, %	101.0
Void Ratio	1.01
Specimen Diameter	2.850
Specimen Height	5.989
Height/diameter ratio	2.10
Deviator Stress, tsf	0.509
Strain, %	9.3
Confining Pressure (psi)	8.9

Bulge



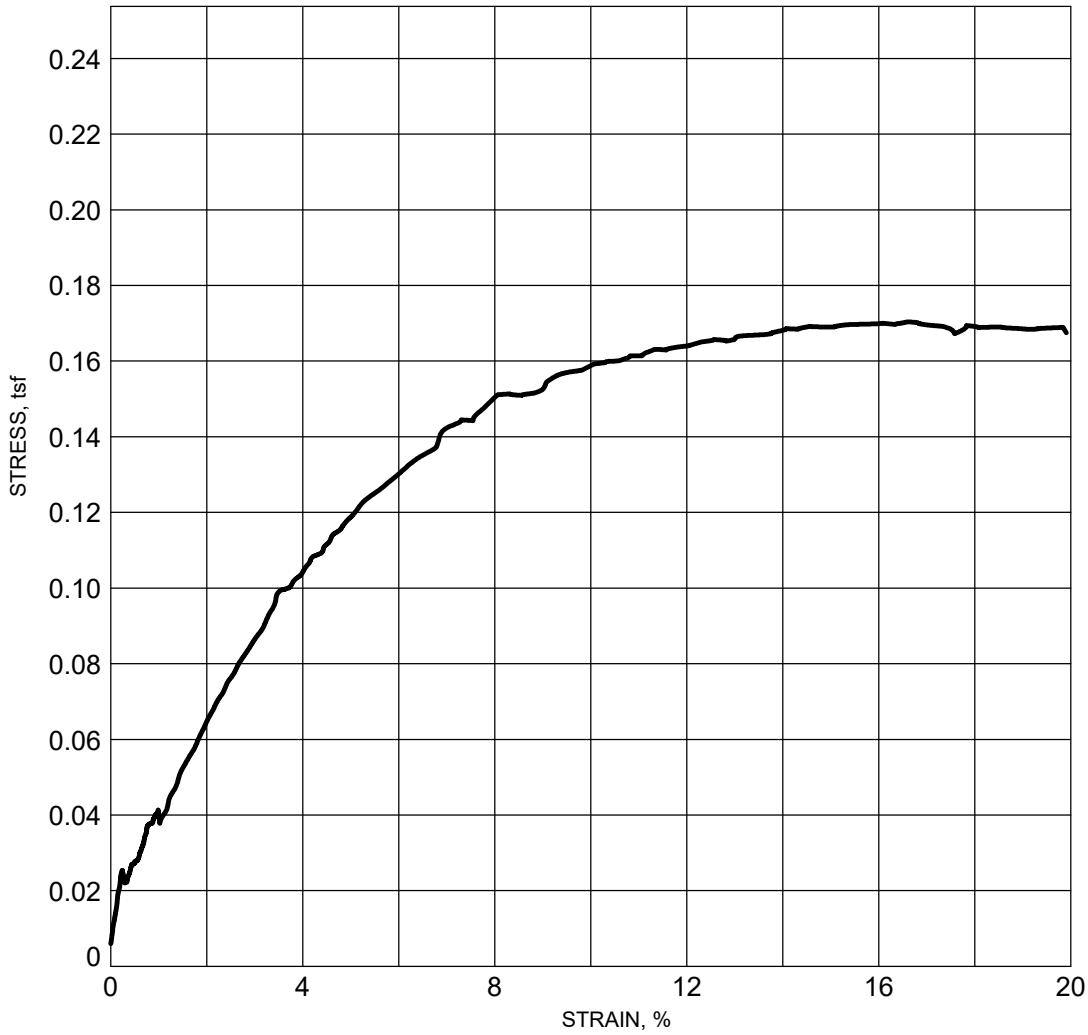
Failure Sketch

LL = PL = PI =

% 200=90 % Organic= Assumed Gs=2.74

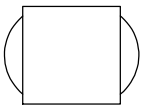
Description: Medium gray silty clay with and pockets (CL)

Tested By: Donna Easterling	Date Tested: 8/21/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 8/23/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-102a**



Boring ID	CI-03
Depth (ft)	43-45
Water Content, %	39.1
Wet Density, pcf	116.6
Dry Density, pcf	83.8
Saturation, %	103.1
Void Ratio	1.04
Specimen Diameter	2.800
Specimen Height	5.965
Height/diameter ratio	2.13
Deviator Stress, tsf	0.169
Strain, %	14.6
Confining Pressure (psi)	11.5

Bulge



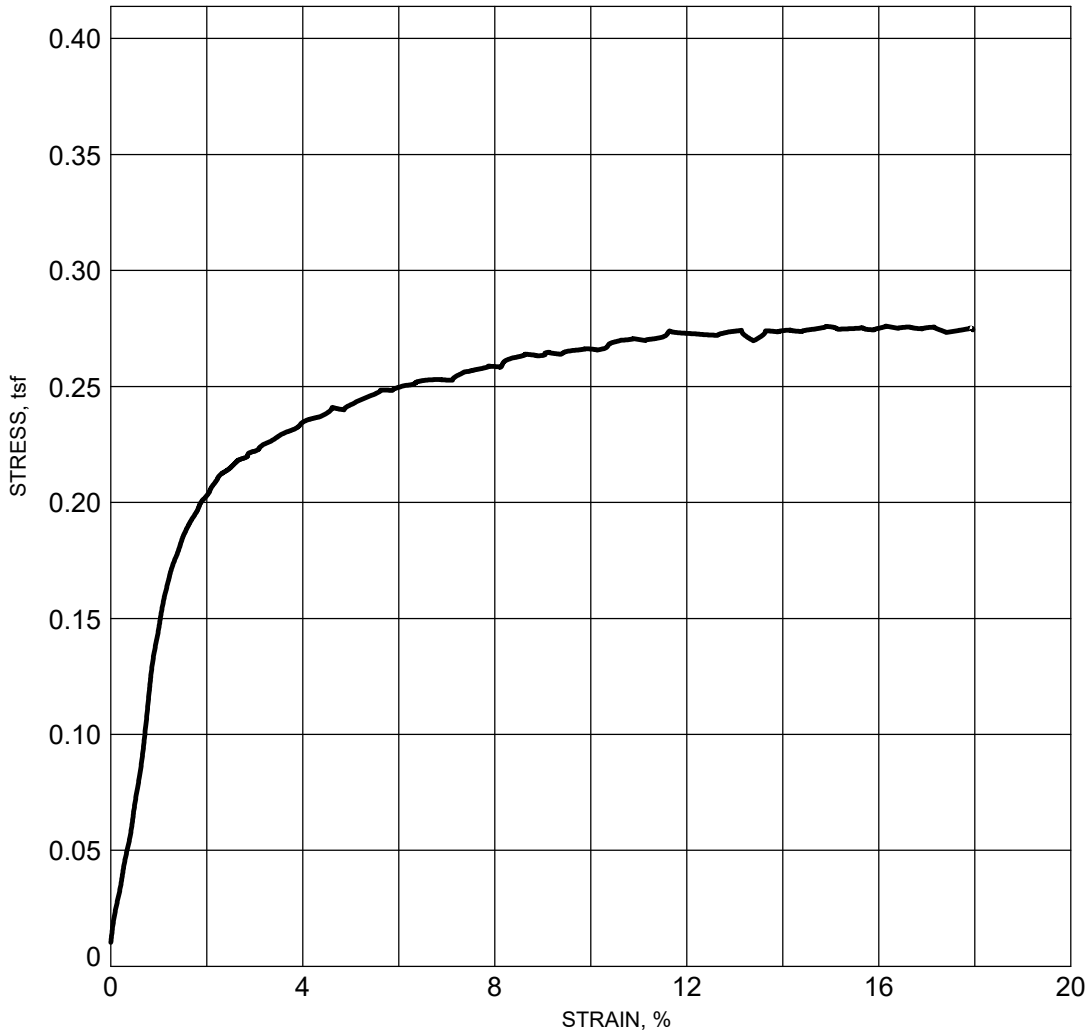
Failure Sketch

LL = 42 PL = 20 PI = 22

% 200= % Organic= Assumed Gs=2.74

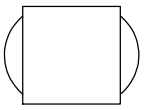
Description: Very Soft gray clay with silt and sand (CL)

Tested By: Donna Easterling	Date Tested: 8/21/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 8/23/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-102b**



Boring ID	CI-03
Depth (ft)	53-55
Water Content, %	59.5
Wet Density, pcf	105.4
Dry Density, pcf	66.1
Saturation, %	102.7
Void Ratio	1.59
Specimen Diameter	2.809
Specimen Height	5.978
Height/diameter ratio	2.13
Deviator Stress, tsf	0.276
Strain, %	14.9
Confining Pressure (psi)	14.1

Bulge



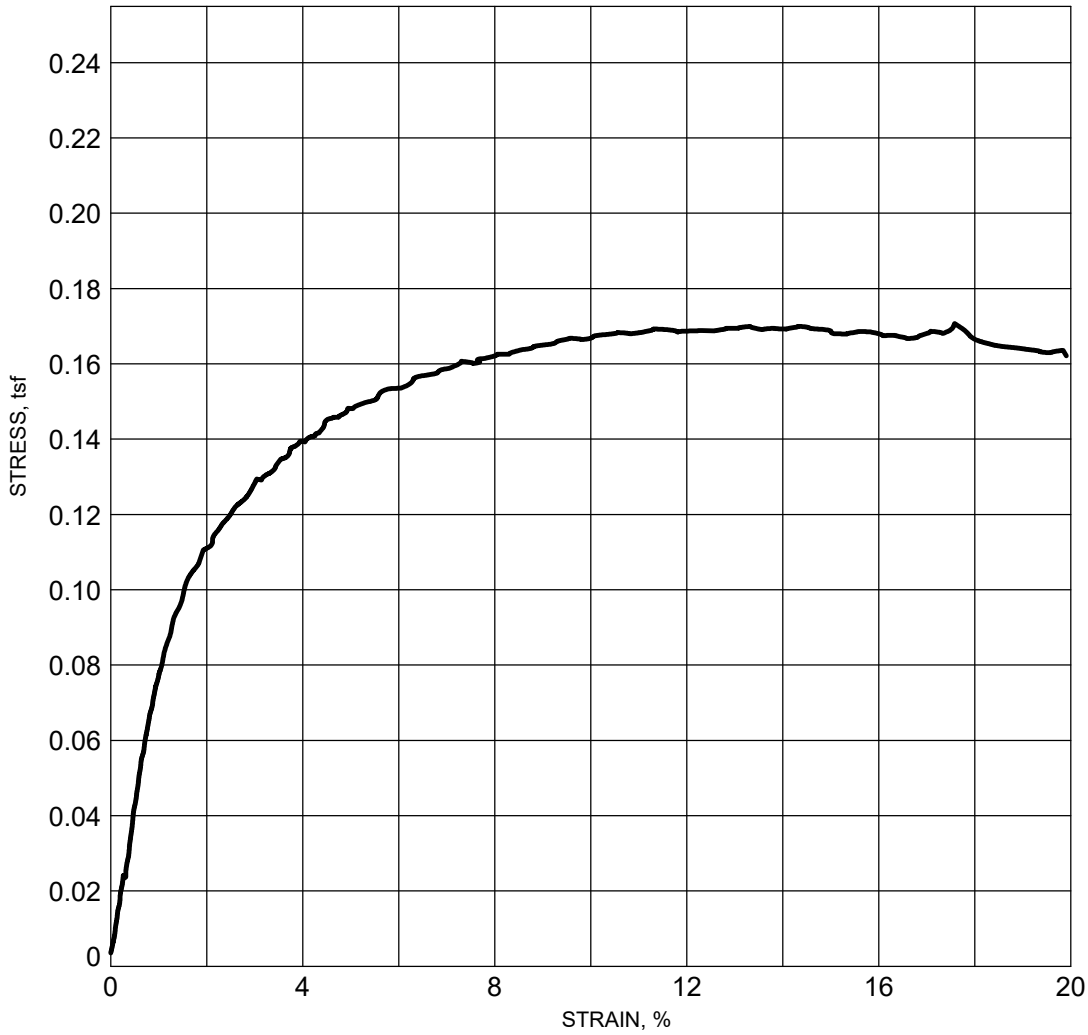
Failure Sketch

LL = 82 PL = 33 PI = 49

% 200= % Organic= Assumed Gs=2.74

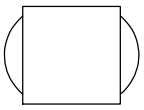
Description: Soft gray clay (CH)

Tested By: Donna Easterling	Date Tested: 8/21/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 8/23/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-102c**



Boring ID	CI-03
Depth (ft)	63-65
Water Content, %	65.1
Wet Density, pcf	102.9
Dry Density, pcf	62.3
Saturation, %	102.3
Void Ratio	1.74
Specimen Diameter	2.800
Specimen Height	6.081
Height/diameter ratio	2.17
Deviator Stress, tsf	0.170
Strain, %	14.3
Confining Pressure (psi)	16.7

Bulge



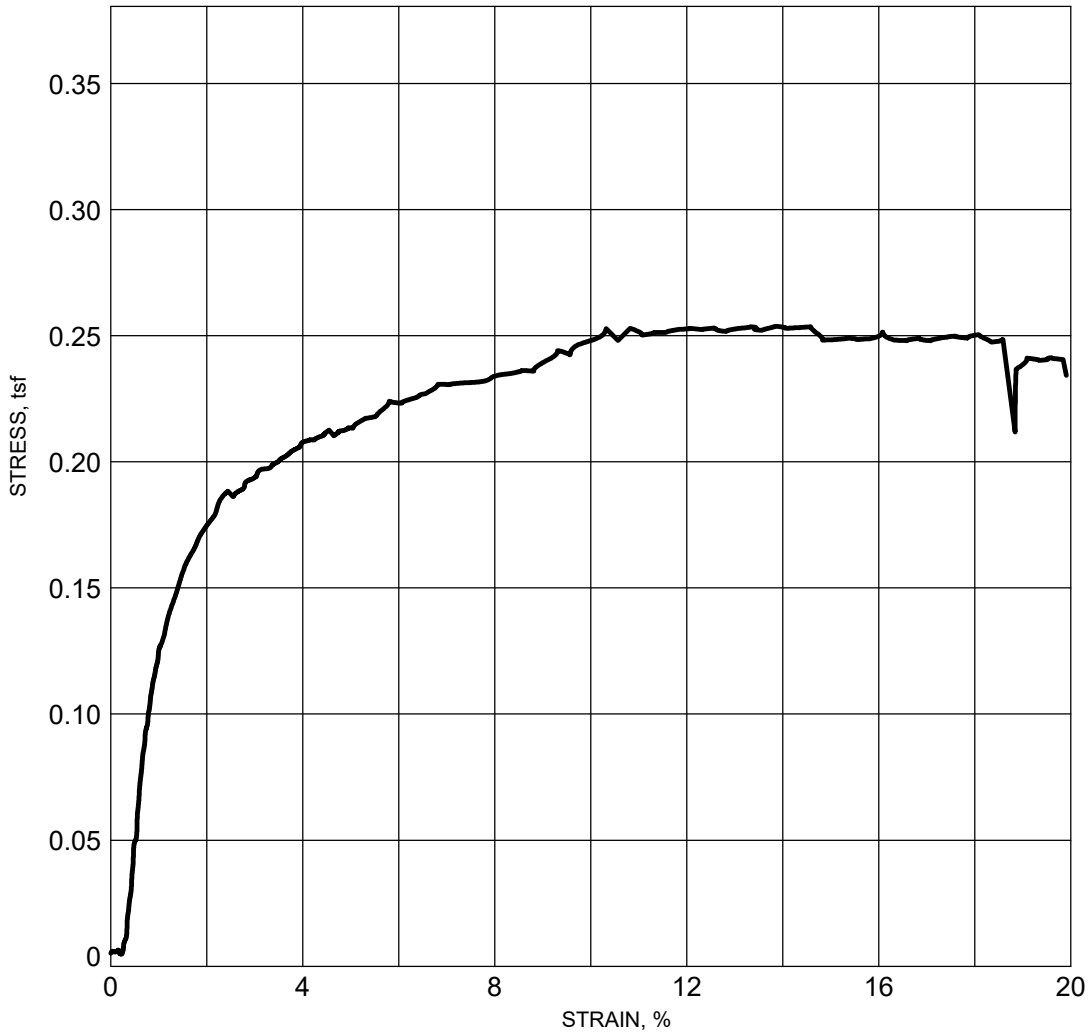
Failure Sketch

LL = PL = PI =

% 200= % Organic= Assumed Gs=2.74

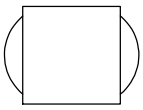
Description: Very soft gray clay with organic matter (CH)

Tested By: Donna Easterling	Date Tested: 8/21/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 8/23/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-102d**



Boring ID	CI-03
Depth (ft)	73-75
Water Content, %	65.1
Wet Density, pcf	104.1
Dry Density, pcf	63.0
Saturation, %	104.2
Void Ratio	1.71
Specimen Diameter	2.729
Specimen Height	6.017
Height/diameter ratio	2.20
Deviator Stress, tsf	0.254
Strain, %	13.8
Confining Pressure (psi)	19.3

Bulge



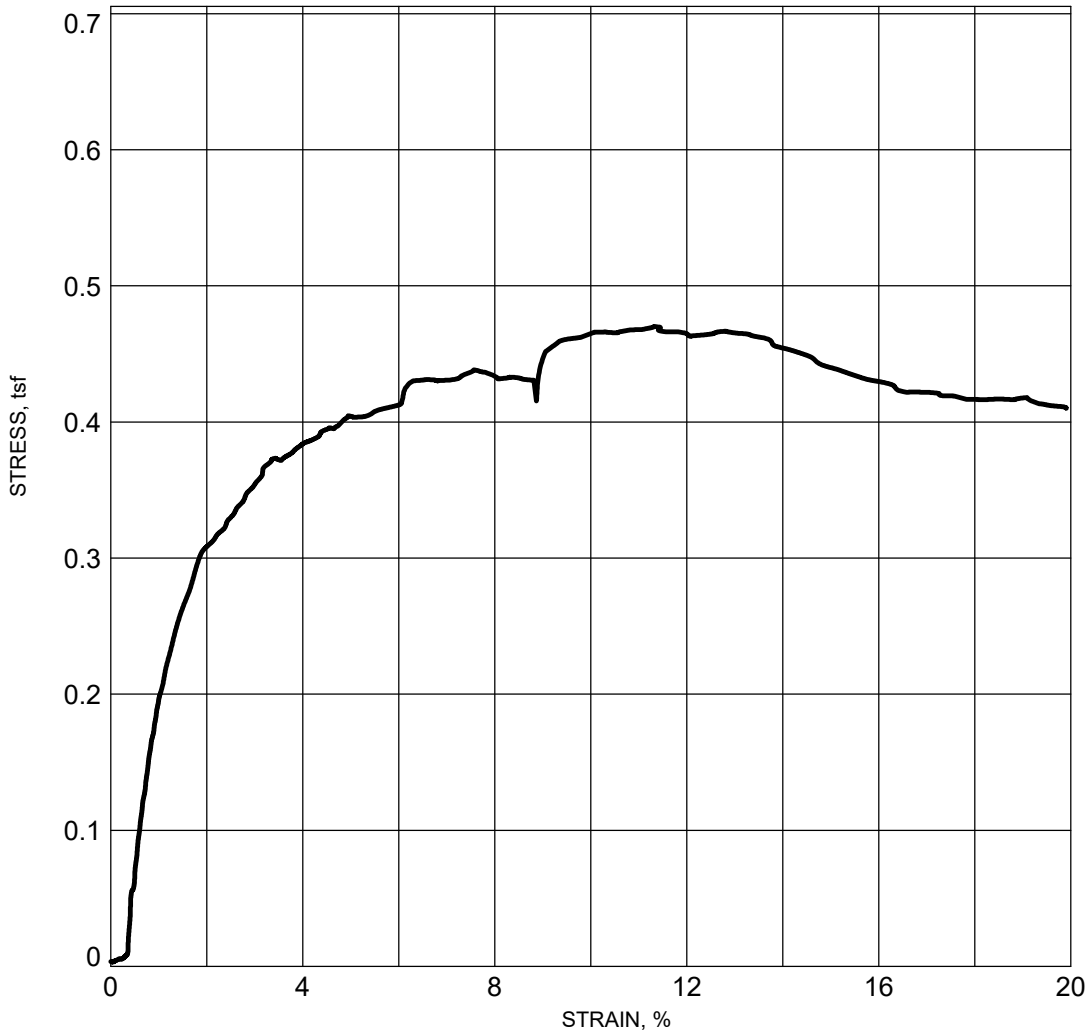
Failure Sketch

LL = PL = PI =

% 200= % Organic= Assumed Gs=2.74

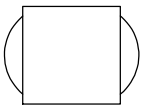
Description: Very soft gray clay (CH)

Tested By: Donna Easterling	Date Tested: 8/24/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 8/25/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-102e**



Boring ID	CI-03B
Depth (ft)	38-40
Water Content, %	62.8
Wet Density, pcf	105.5
Dry Density, pcf	64.8
Saturation, %	105.0
Void Ratio	1.64
Specimen Diameter	2.843
Specimen Height	5.999
Height/diameter ratio	2.11
Deviator Stress, tsf	0.470
Strain, %	11.3
Confining Pressure (psi)	10.2

Bulge



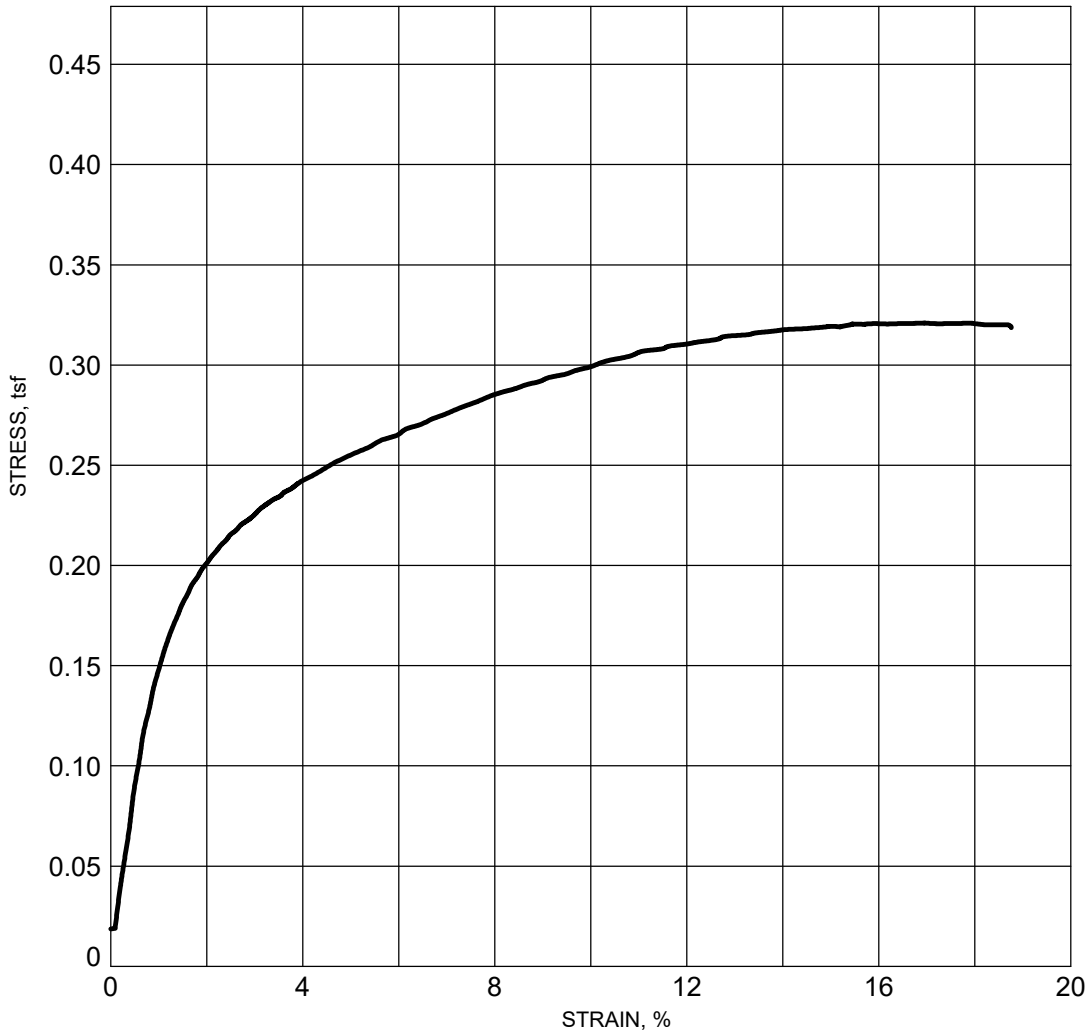
Failure Sketch

LL = 71 PL = 27 PI = 44

% 200= % Organic= Assumed Gs=2.74

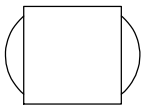
Description: Soft gray clay with sand lenses at top (CH)

Tested By: Donna Easterling	Date Tested: 8/24/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 8/25/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-103a**



Boring ID	CI-03B
Depth (ft)	43-45
Water Content, %	58.9
Wet Density, pcf	107.1
Dry Density, pcf	67.4
Saturation, %	105.0
Void Ratio	1.54
Specimen Diameter	2.818
Specimen Height	6.014
Height/diameter ratio	2.13
Deviator Stress, tsf	0.319
Strain, %	15.0
Confining Pressure (psi)	11.5

Bulge



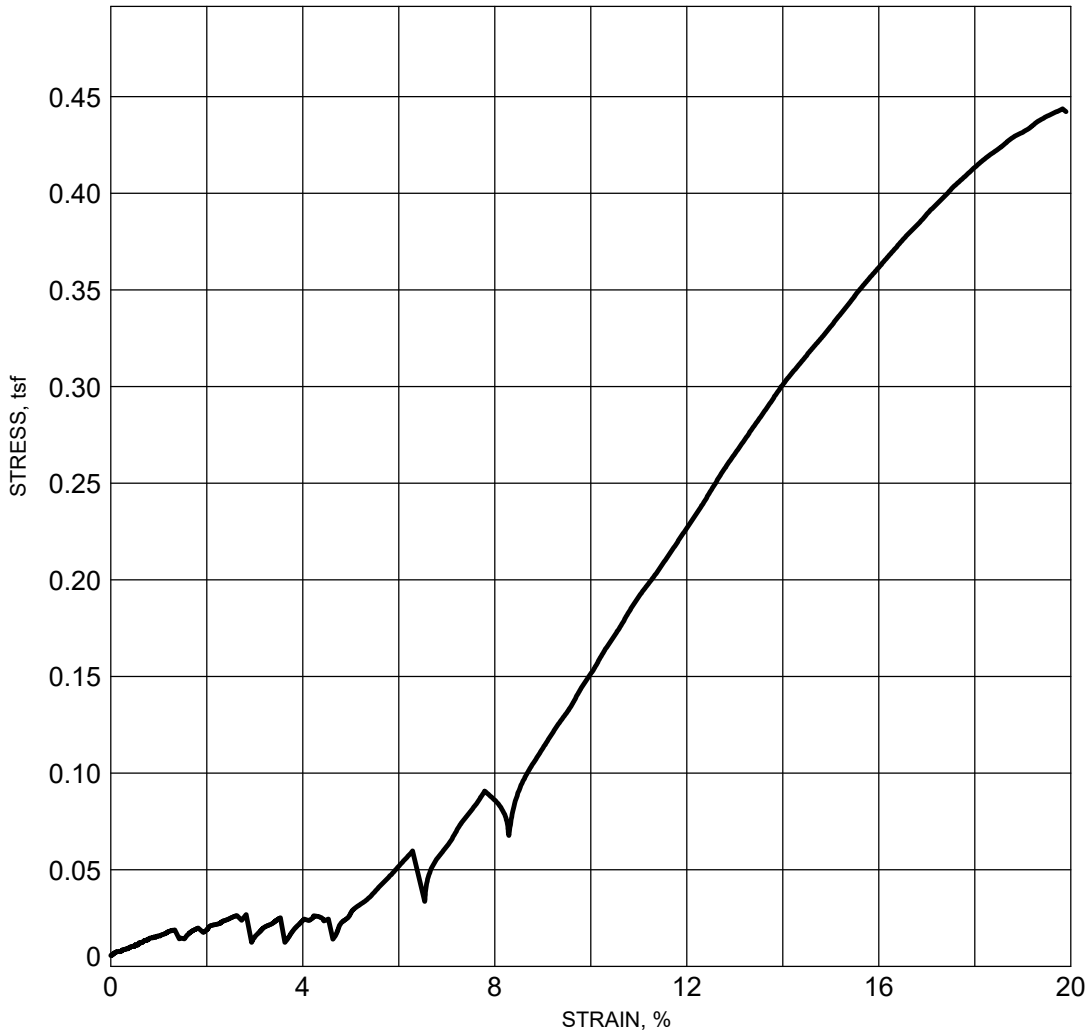
Failure Sketch

LL = 77 PL = 30 PI = 47

% 200= % Organic= Assumed Gs=2.74

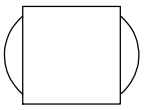
Description: Soft gray clay (CH)

Tested By: Donna Easterling	Date Tested: 8/24/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 8/25/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-103b**



Boring ID	CI-04
Depth (ft)	10-12
Water Content, %	32.1
Wet Density, pcf	122.2
Dry Density, pcf	92.5
Saturation, %	103.8
Void Ratio	0.85
Specimen Diameter	2.835
Specimen Height	5.899
Height/diameter ratio	2.08
Deviator Stress, tsf	0.331
Strain, %	15.0
Confining Pressure (psi)	5.0

Bulge



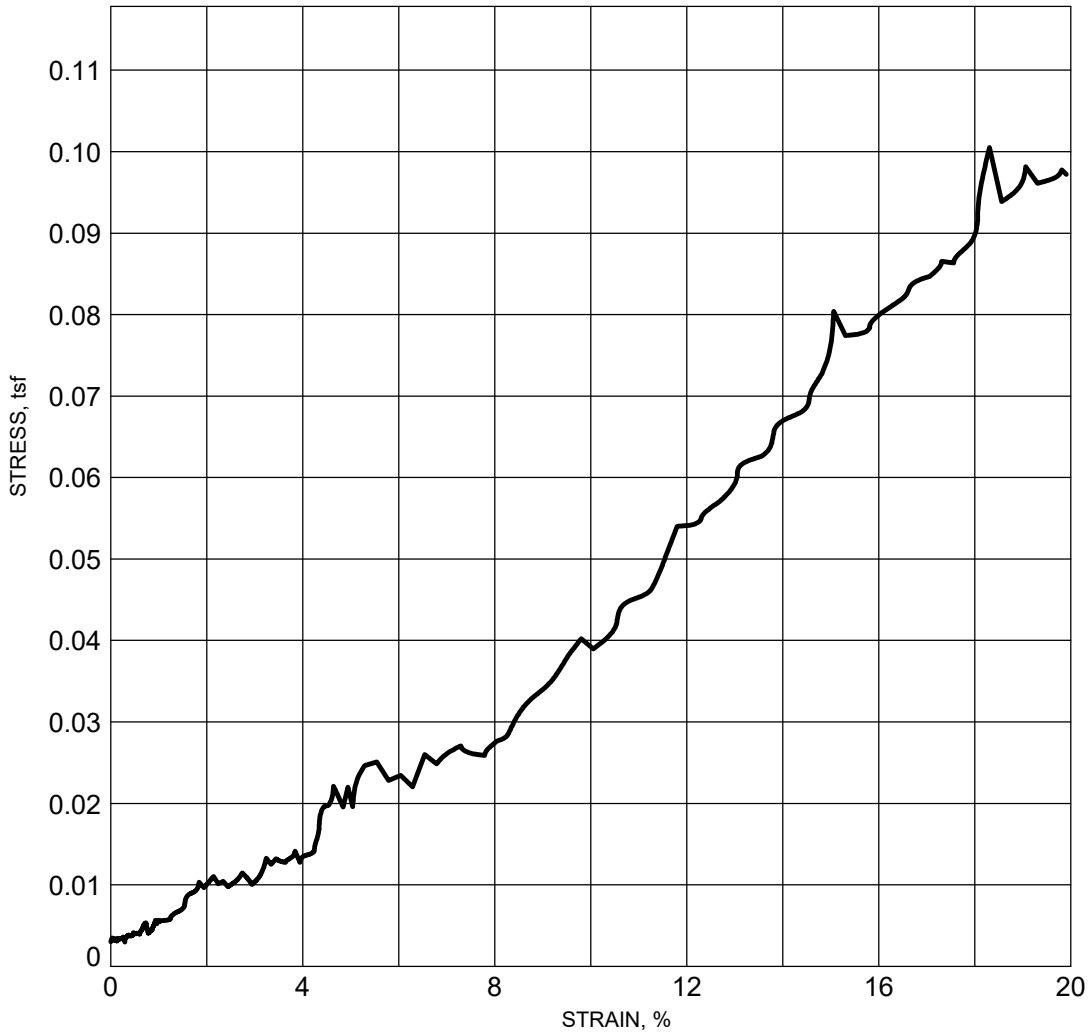
Failure Sketch

LL = 28 PL = 22 PI = 6

% 200= % Organic= Assumed Gs=2.74

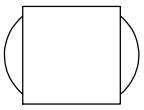
Description: Gray silty sand with clay layers and shell fragments (SM)

Tested By: Donna Easterling	Date Tested: 8/24/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 8/25/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-104a**



Boring ID	CI-04
Depth (ft)	14-16
Water Content, %	31.8
Wet Density, pcf	121.5
Dry Density, pcf	92.2
Saturation, %	102.0
Void Ratio	0.85
Specimen Diameter	2.832
Specimen Height	5.855
Height/diameter ratio	2.07
Deviator Stress, tsf	0.079
Strain, %	15.0
Confining Pressure (psi)	5.0

Bulge



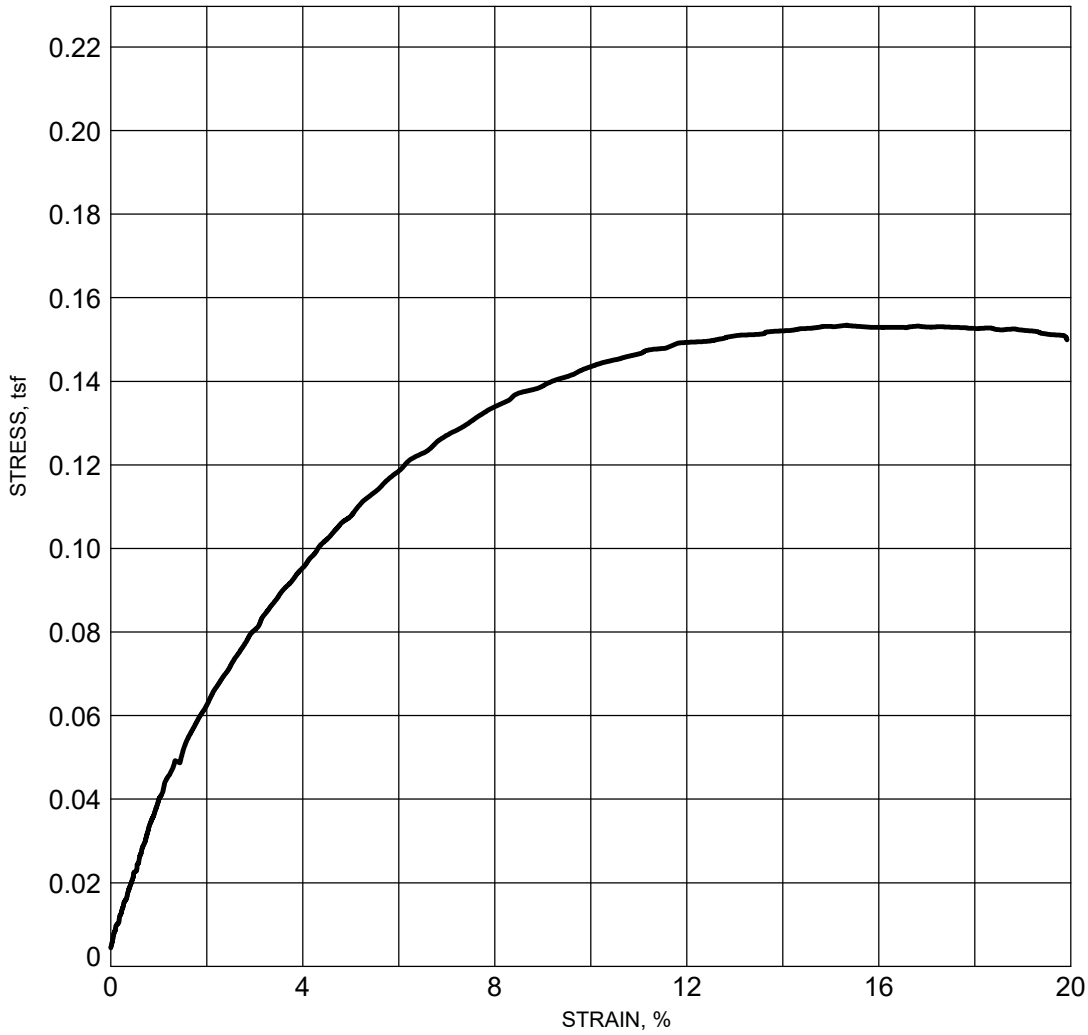
Failure Sketch

LL = PL = PI =

% 200= % Organic= Assumed Gs=2.74

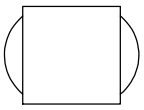
Description: Gray silty sand with traces of clay and shell fragments (SM)

Tested By: Donna Easterling	Date Tested: 8/24/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 8/25/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-104b**



Boring ID	CI-04
Depth (ft)	18-20
Water Content, %	45.5
Wet Density, pcf	113.3
Dry Density, pcf	77.9
Saturation, %	104.3
Void Ratio	1.20
Specimen Diameter	2.789
Specimen Height	5.961
Height/diameter ratio	2.14
Deviator Stress, tsf	0.153
Strain, %	14.8
Confining Pressure (psi)	5.0

Bulge



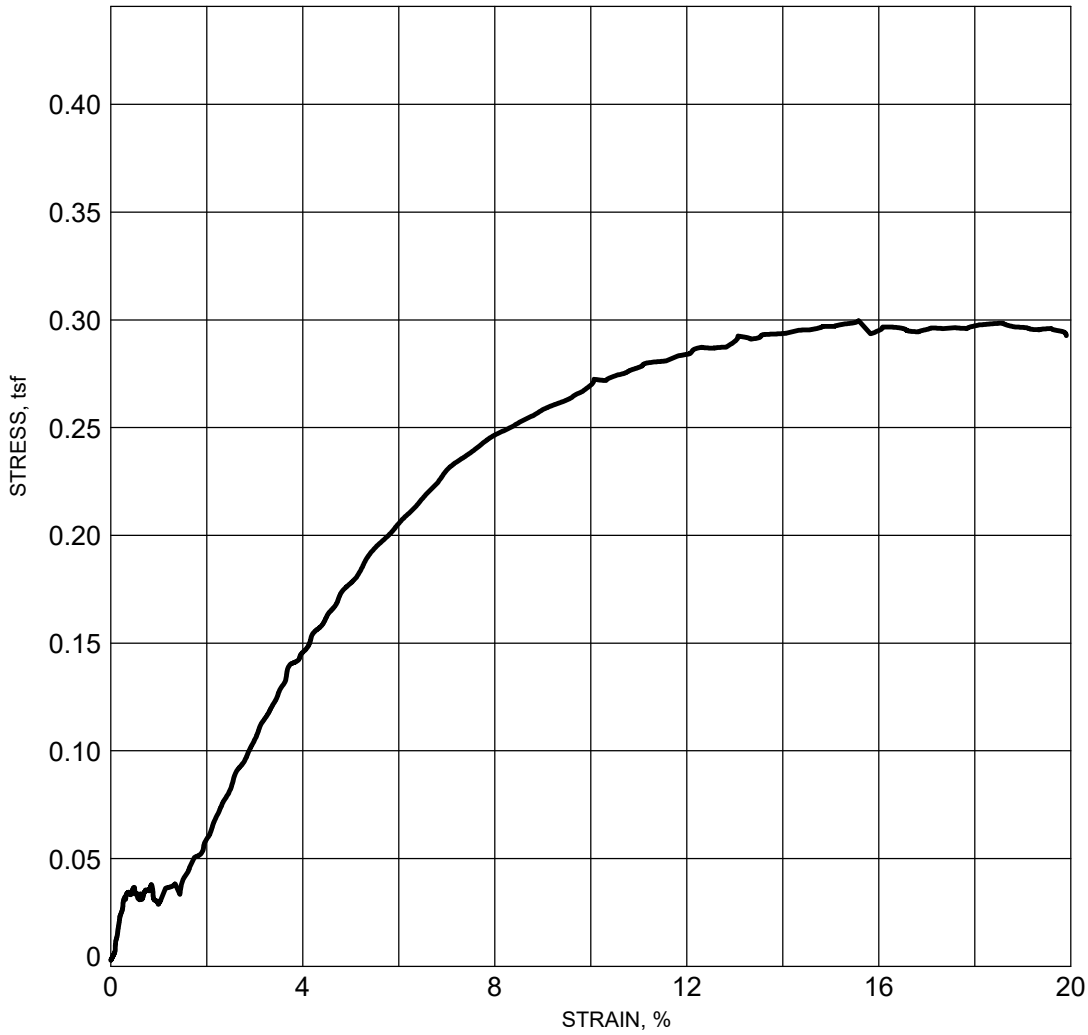
Failure Sketch

LL = PL = PI =

% 200= % Organic= Assumed Gs=2.74

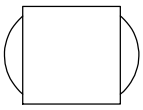
Description: Very soft gray silty clay with sand pockets (CL)

Tested By: Donna Easterling	Date Tested: 8/24/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 8/25/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-104c**



Boring ID	CI-04
Depth (ft)	33-35
Water Content, %	64.5
Wet Density, pcf	102.1
Dry Density, pcf	62.0
Saturation, %	100.7
Void Ratio	1.76
Specimen Diameter	2.216
Specimen Height	4.027
Height/diameter ratio	1.82
Deviator Stress, tsf	0.297
Strain, %	14.8
Confining Pressure (psi)	8.9

Bulge



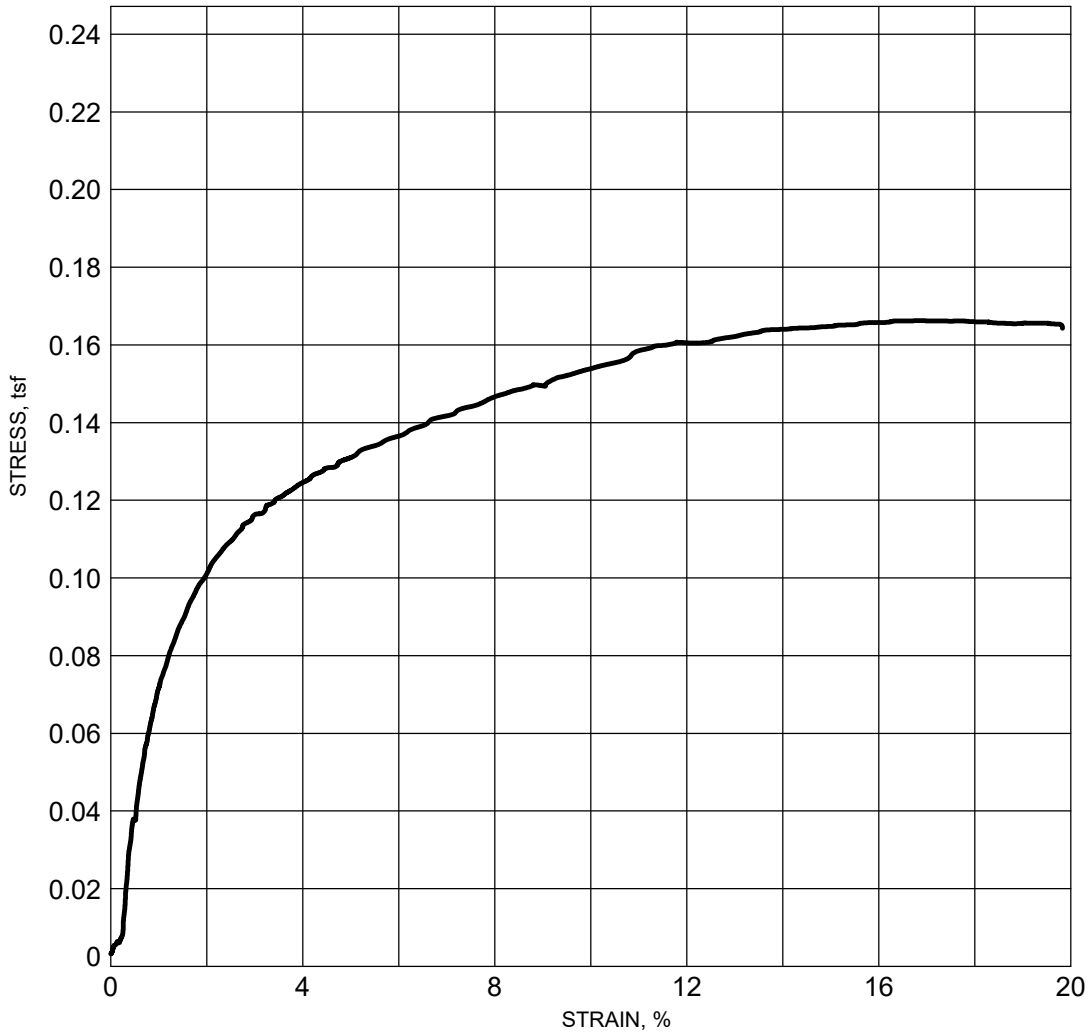
Failure Sketch

LL = PL = PI =

% 200= % Organic= Assumed Gs=2.74

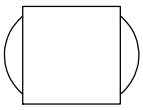
Description: Soft gray clay (CH)

Tested By: Donna Easterling	Date Tested: 8/25/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 8/28/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-104d**



Boring ID	CI-04
Depth (ft)	38-40
Water Content, %	78.5
Wet Density, pcf	100.1
Dry Density, pcf	56.1
Saturation, %	105.0
Void Ratio	2.05
Specimen Diameter	2.841
Specimen Height	5.992
Height/diameter ratio	2.11
Deviator Stress, tsf	0.165
Strain, %	15.0
Confining Pressure (psi)	10.2

Bulge



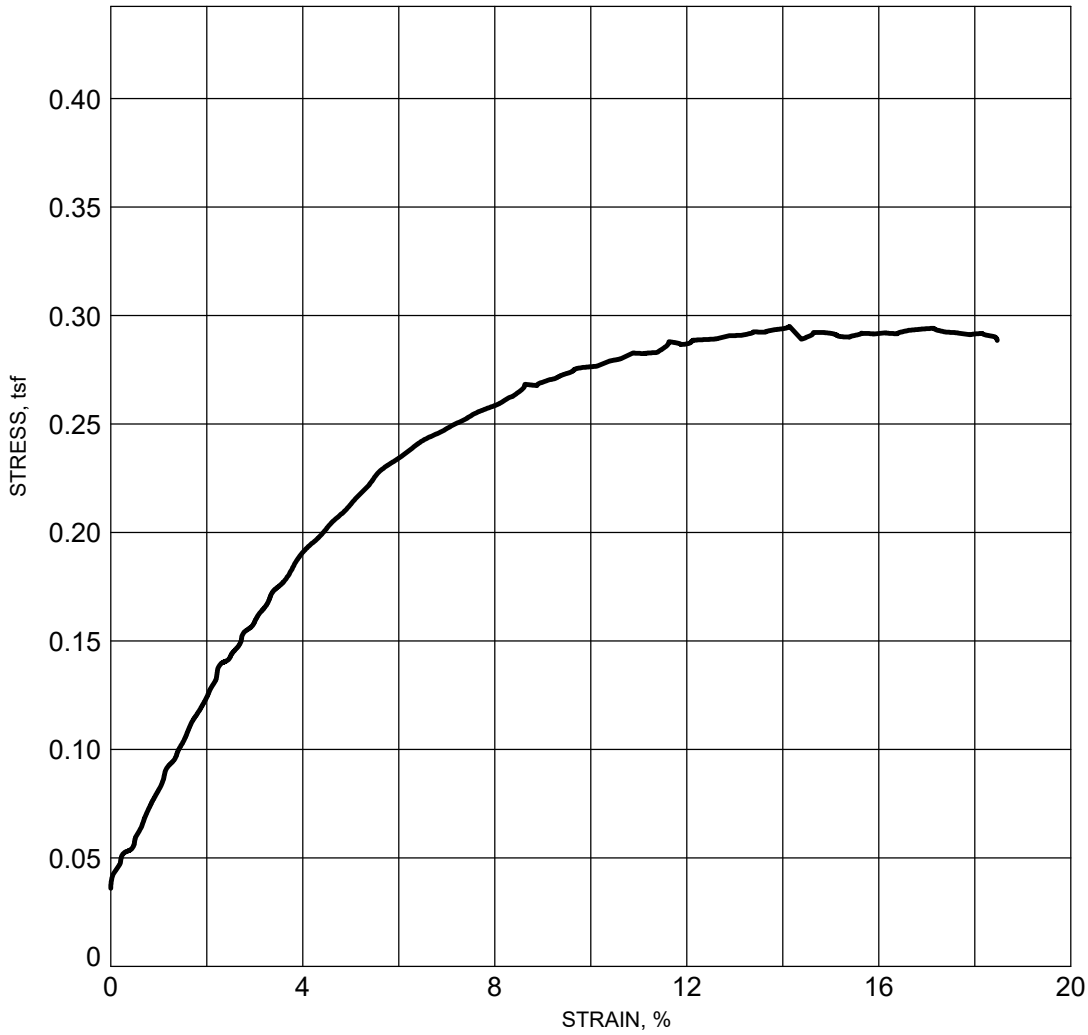
Failure Sketch

LL = PL = PI =

% 200= % Organic= Assumed Gs=2.74

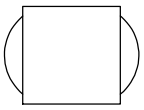
Description: Very soft gray clay (CH)

Tested By: Donna Easterling	Date Tested: 8/25/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 8/28/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-104e**



Boring ID	CI-05
Depth (ft)	33-35
Water Content, %	33.6
Wet Density, pcf	118.2
Dry Density, pcf	88.5
Saturation, %	98.7
Void Ratio	0.93
Specimen Diameter	2.820
Specimen Height	6.019
Height/diameter ratio	2.13
Deviator Stress, tsf	0.295
Strain, %	14.1
Confining Pressure (psi)	8.9

Bulge



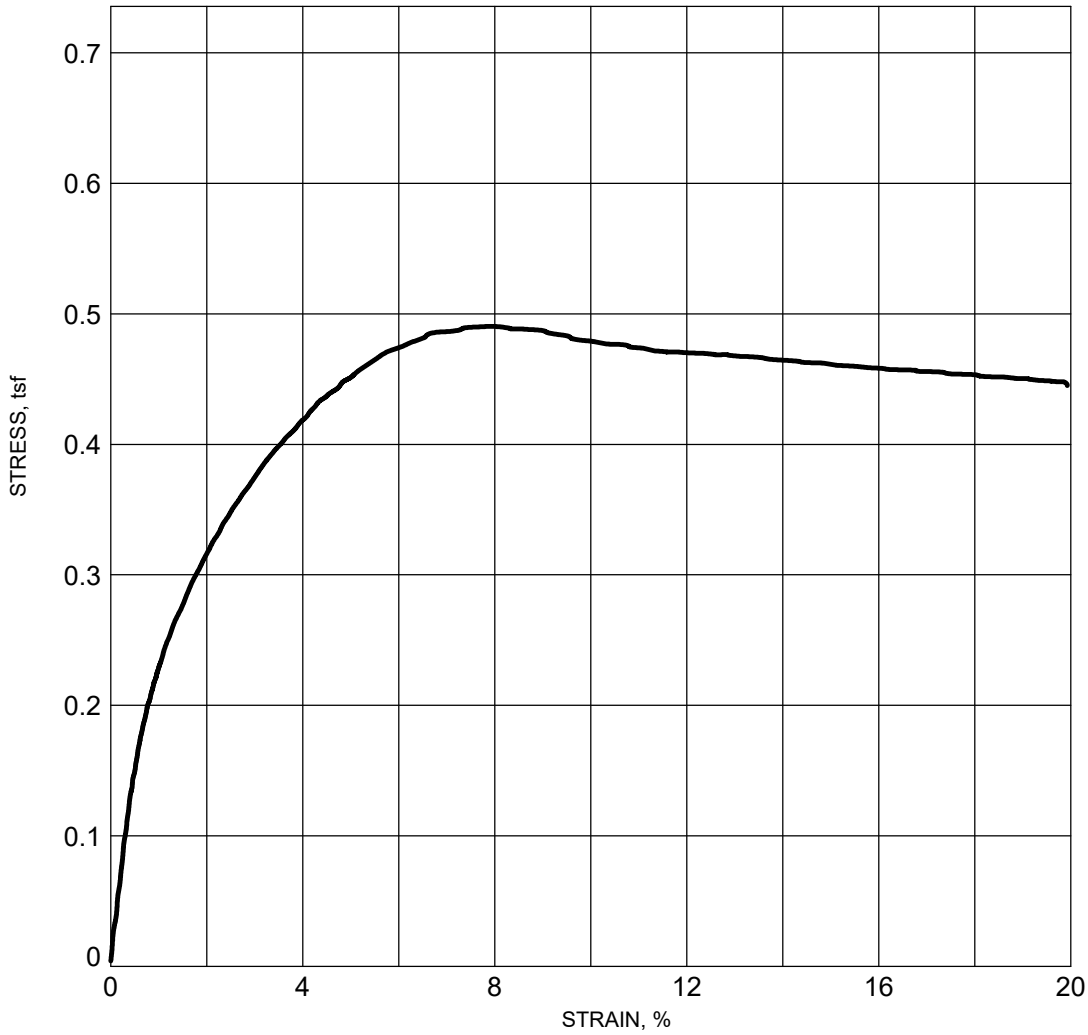
Failure Sketch

LL = 41 PL = 20 PI = 21

% 200=77 % Organic= Assumed Gs=2.74

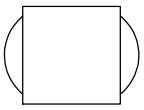
Description: Soft dark gray silty clay with sand and shell fragments (CL)

Tested By: Donna Easterling	Date Tested: 8/25/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 8/28/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-105a**



Boring ID	CI-05
Depth (ft)	43-45
Water Content, %	43.7
Wet Density, pcf	114.4
Dry Density, pcf	79.6
Saturation, %	104.4
Void Ratio	1.15
Specimen Diameter	2.795
Specimen Height	5.606
Height/diameter ratio	2.01
Deviator Stress, tsf	0.490
Strain, %	7.8
Confining Pressure (psi)	11.5

Bulge



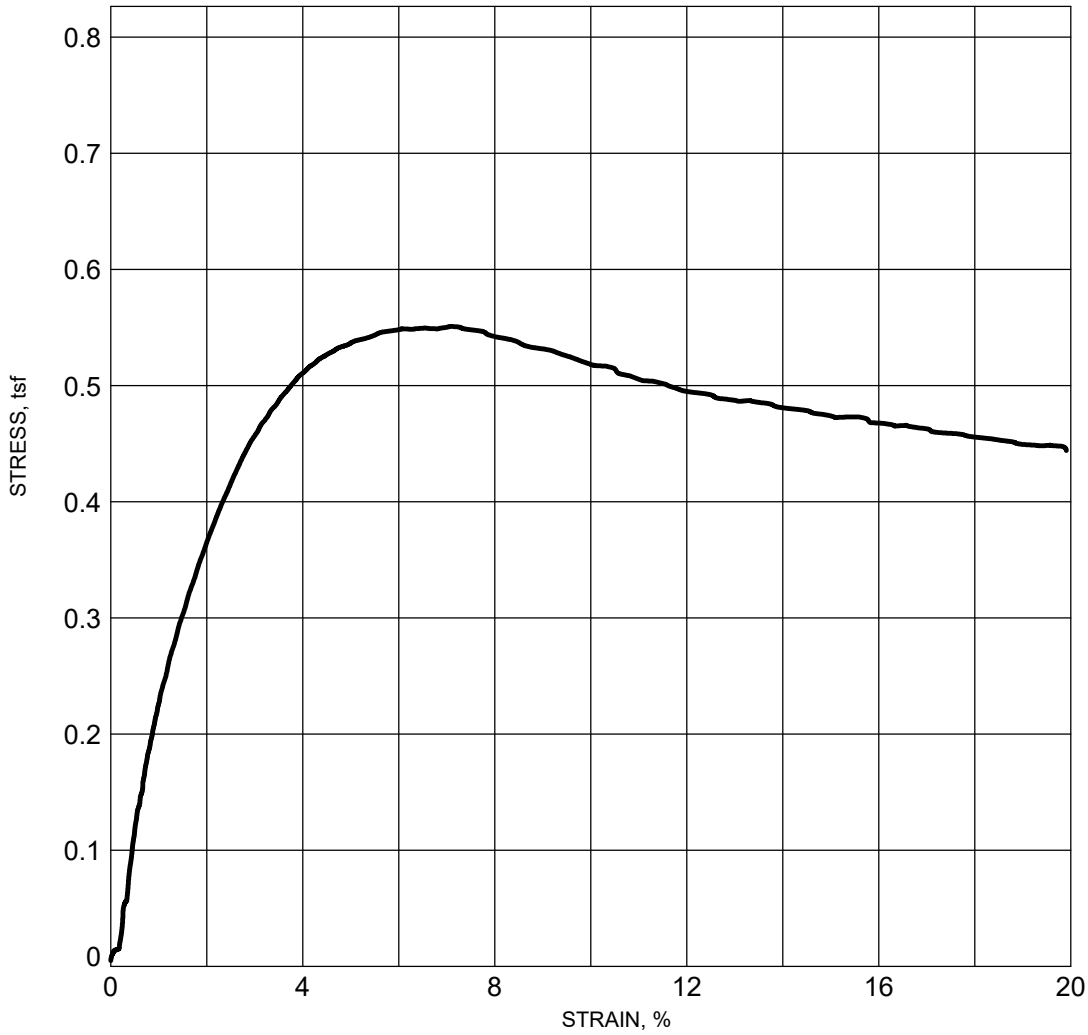
Failure Sketch

LL = 69 PL = 26 PI = 43

% 200= % Organic= Assumed Gs=2.74

Description: Soft dark gray clay with silty sand layers (CH)

Tested By: Donna Easterling	Date Tested: 8/25/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 8/28/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-105b**



Boring ID	CI-06
Depth (ft)	33-35
Water Content, %	42.5
Wet Density, pcf	114.1
Dry Density, pcf	80.1
Saturation, %	102.5
Void Ratio	1.14
Specimen Diameter	2.815
Specimen Height	6.010
Height/diameter ratio	2.13
Deviator Stress, tsf	0.551
Strain, %	7.1
Confining Pressure (psi)	8.9

Multiple Shear

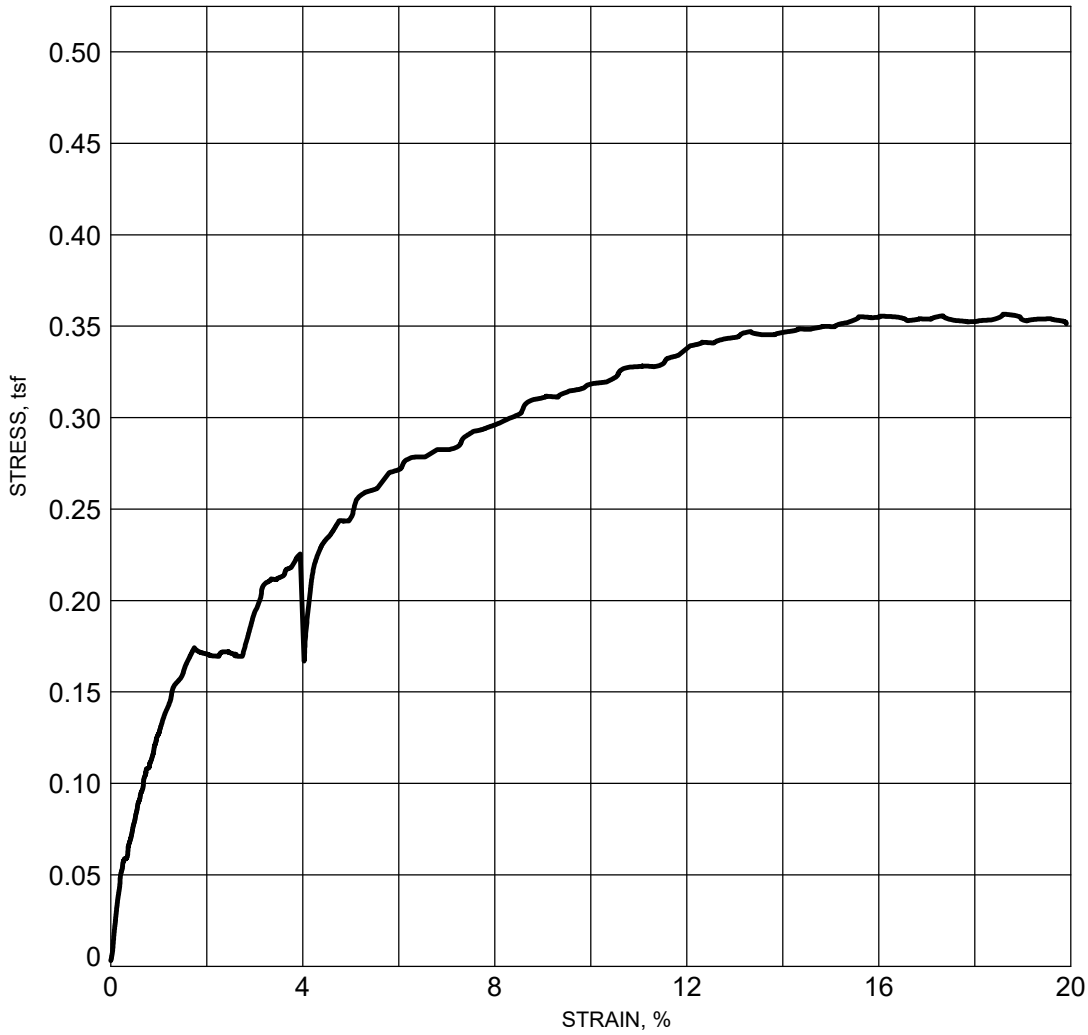
Failure Sketch

LL = 51 PL = 22 PI = 29

% 200= % Organic= Assumed Gs=2.74

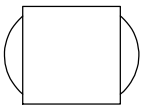
Description: Medium gray clay with sand layers sand pockets and shell fragments (CH)

Tested By: Donna Easterling	Date Tested: 8/28/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 8/29/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-106a**



Boring ID	CI-06
Depth (ft)	38-40
Water Content, %	50.3
Wet Density, pcf	108.7
Dry Density, pcf	72.3
Saturation, %	102.3
Void Ratio	1.32
Specimen Diameter	2.751
Specimen Height	5.545
Height/diameter ratio	2.02
Deviator Stress, tsf	0.350
Strain, %	14.8
Confining Pressure (psi)	10.2

Bulge



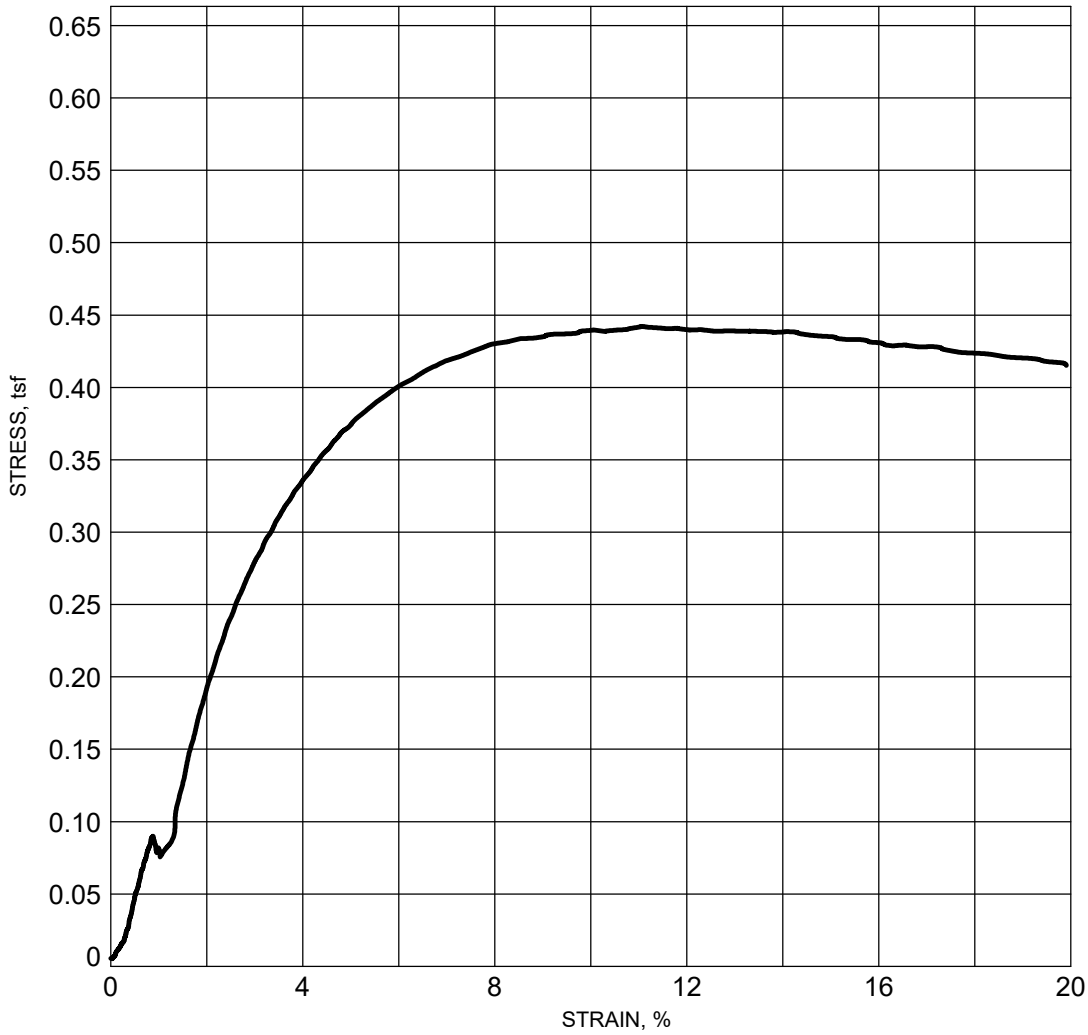
Failure Sketch

LL = 75 PL = 30 PI = 45

% 200= % Organic= Gs=2.693

Description: Soft gray clay with sand lenses (CH)

Tested By: Donna Easterling	Date Tested: 8/28/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 8/29/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-106b**



Boring ID	CI-07
Depth (ft)	38-40
Water Content, %	48.6
Wet Density, pcf	110.4
Dry Density, pcf	74.3
Saturation, %	102.4
Void Ratio	1.30
Specimen Diameter	2.856
Specimen Height	6.064
Height/diameter ratio	2.12
Deviator Stress, tsf	0.442
Strain, %	11.1
Confining Pressure (psi)	10.2

Multiple Shear

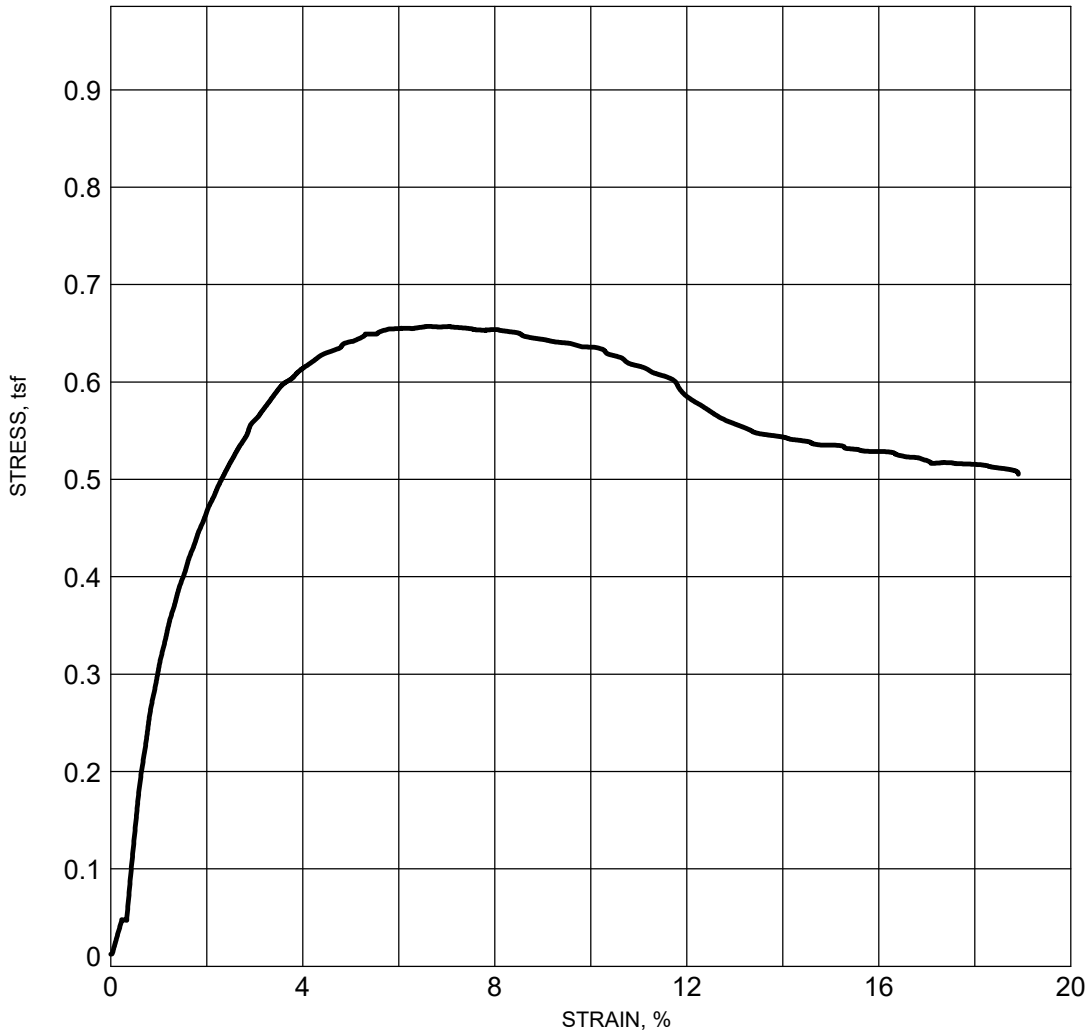
Failure Sketch

LL = 56 PL = 24 PI = 32

% 200= % Organic= Assumed Gs=2.74

Description: Soft gray clay with sand pockets (CH)

Tested By: Donna Easterling	Date Tested: 8/28/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 8/29/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-107a**



Boring ID	CI-07
Depth (ft)	48-50
Water Content, %	52.7
Wet Density, pcf	108.4
Dry Density, pcf	71.0
Saturation, %	102.5
Void Ratio	1.41
Specimen Diameter	2.829
Specimen Height	6.017
Height/diameter ratio	2.13
Deviator Stress, tsf	0.657
Strain, %	6.6
Confining Pressure (psi)	12.8

Multiple Shear

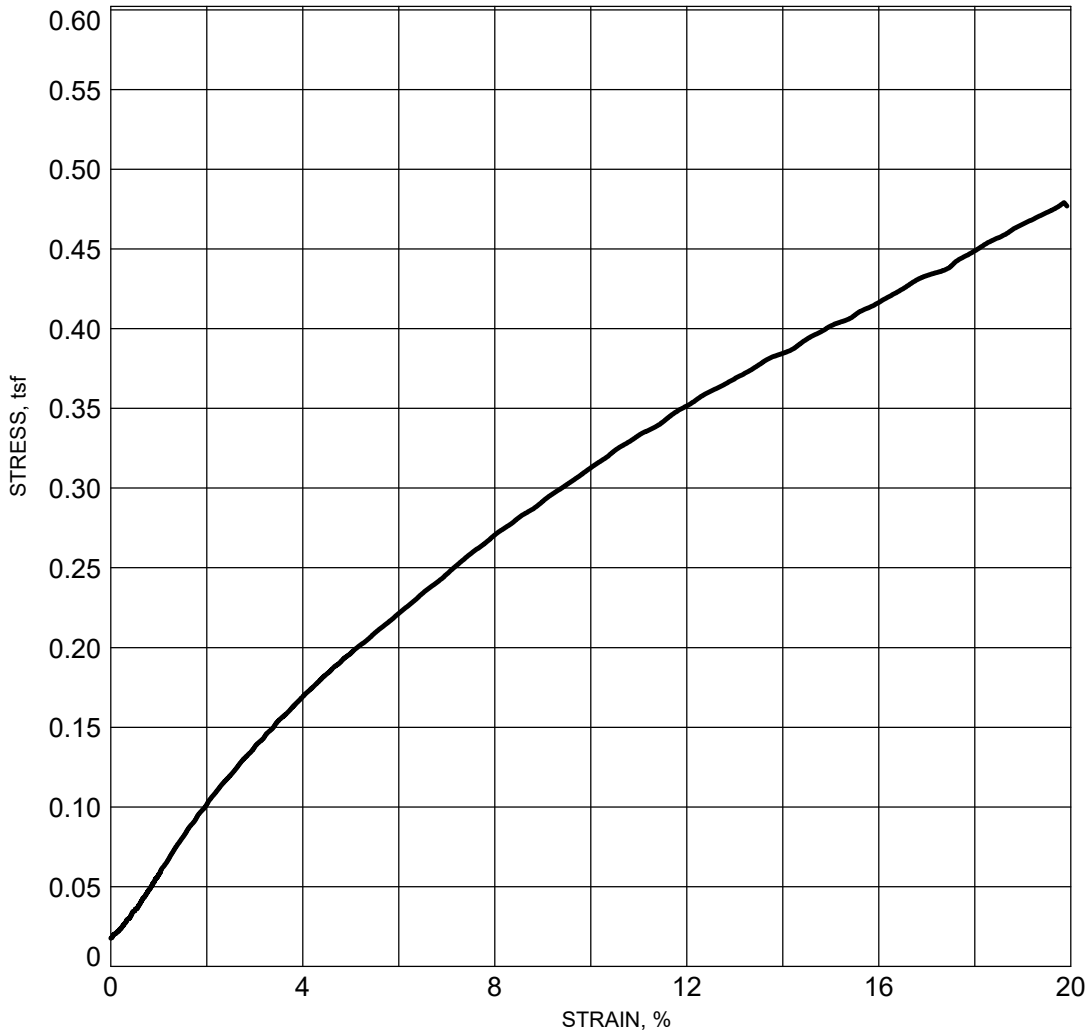
Failure Sketch

LL = 69 PL = 26 PI = 43

% 200= % Organic= Assumed Gs=2.74

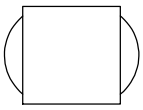
Description: Medium gray clay with sand lenses (CH)

Tested By: Donna Easterling	Date Tested: 8/28/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 8/29/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-107b**



Boring ID	CI-07
Depth (ft)	58-60
Water Content, %	30.4
Wet Density, pcf	117.8
Dry Density, pcf	90.3
Saturation, %	93.4
Void Ratio	0.89
Specimen Diameter	2.830
Specimen Height	5.948
Height/diameter ratio	2.10
Deviator Stress, tsf	0.401
Strain, %	15.0
Confining Pressure (psi)	15.4

Bulge



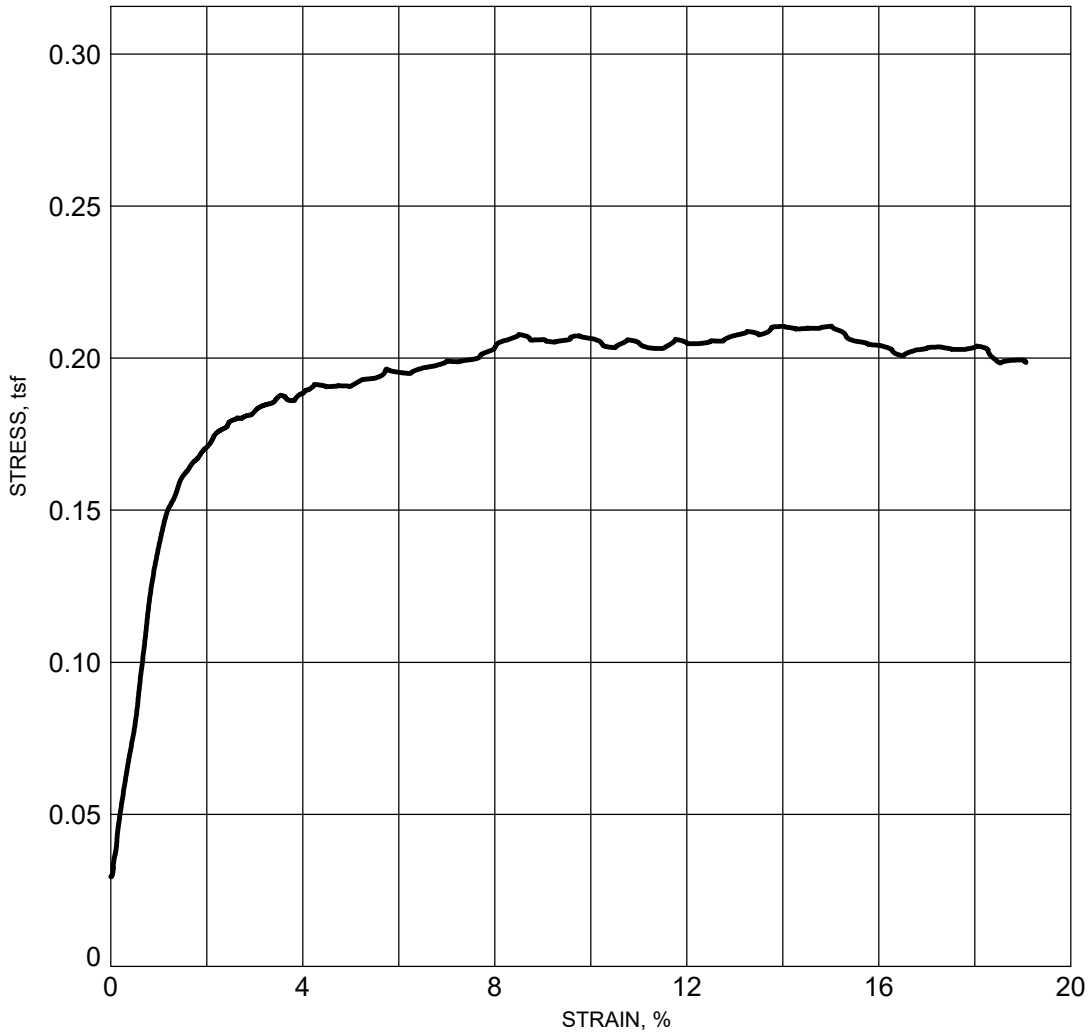
Failure Sketch

LL = 37 PL = 22 PI = 15

% 200= % Organic= Gs=2.741

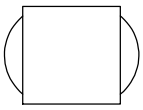
Description: Soft gray silty clay with sand pockets (CL)

Tested By: Donna Easterling	Date Tested: 9/18/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/19/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-107c**



Boring ID	CI-07
Depth (ft)	68-70
Water Content, %	53.4
Wet Density, pcf	104.0
Dry Density, pcf	67.8
Saturation, %	96.1
Void Ratio	1.52
Specimen Diameter	2.836
Specimen Height	5.940
Height/diameter ratio	2.09
Deviator Stress, tsf	0.210
Strain, %	15.0
Confining Pressure (psi)	18.0

Bulge



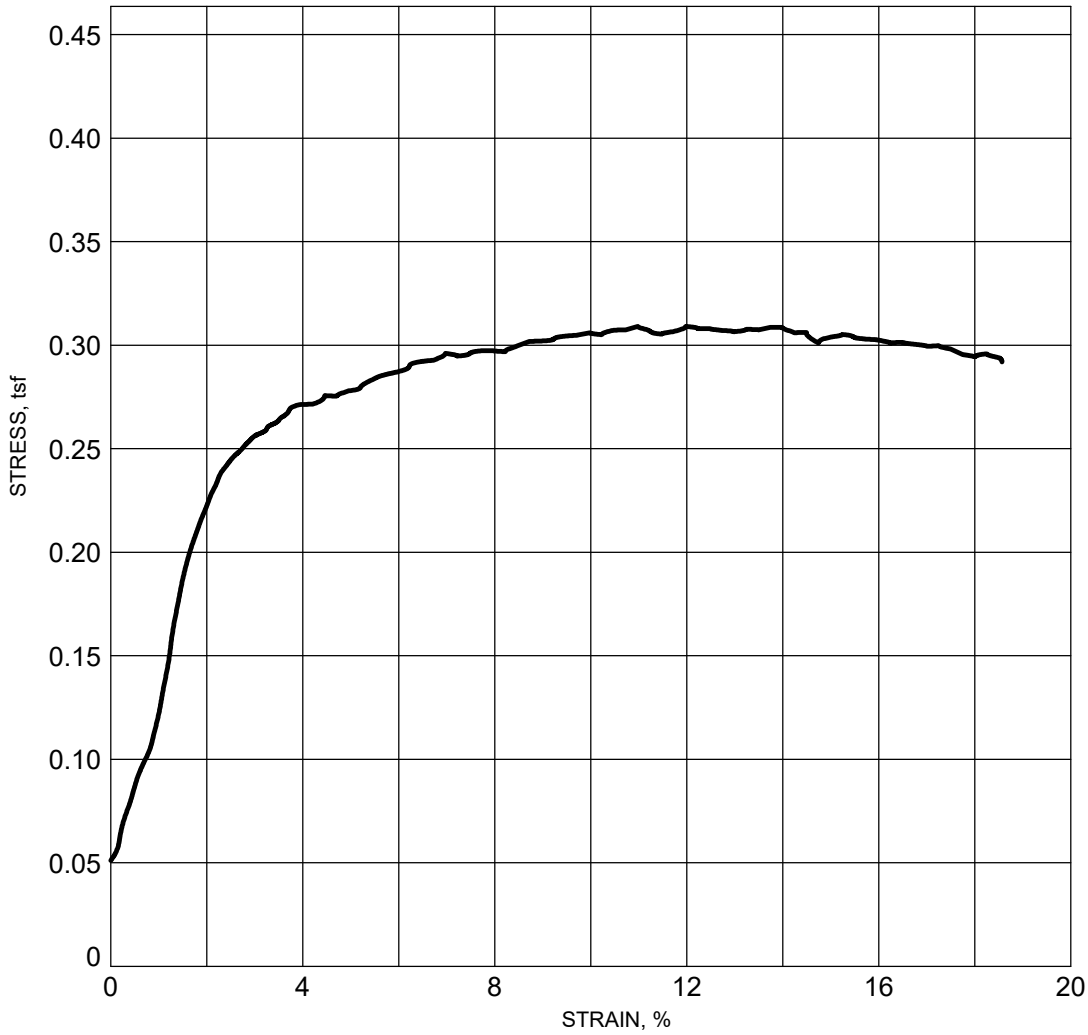
Failure Sketch

LL = 58 PL = 26 PI = 32

% 200= % Organic= Assumed Gs=2.74

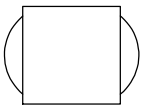
Description: Very soft gray clay with silty sand pockets (CH)

Tested By: Donna Easterling	Date Tested: 9/18/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/19/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-107d**



Boring ID	CI-07
Depth (ft)	78-80
Water Content, %	51.8
Wet Density, pcf	109.5
Dry Density, pcf	72.1
Saturation, %	103.6
Void Ratio	1.37
Specimen Diameter	2.794
Specimen Height	5.906
Height/diameter ratio	2.11
Deviator Stress, tsf	0.309
Strain, %	12.0
Confining Pressure (psi)	20.6

Bulge



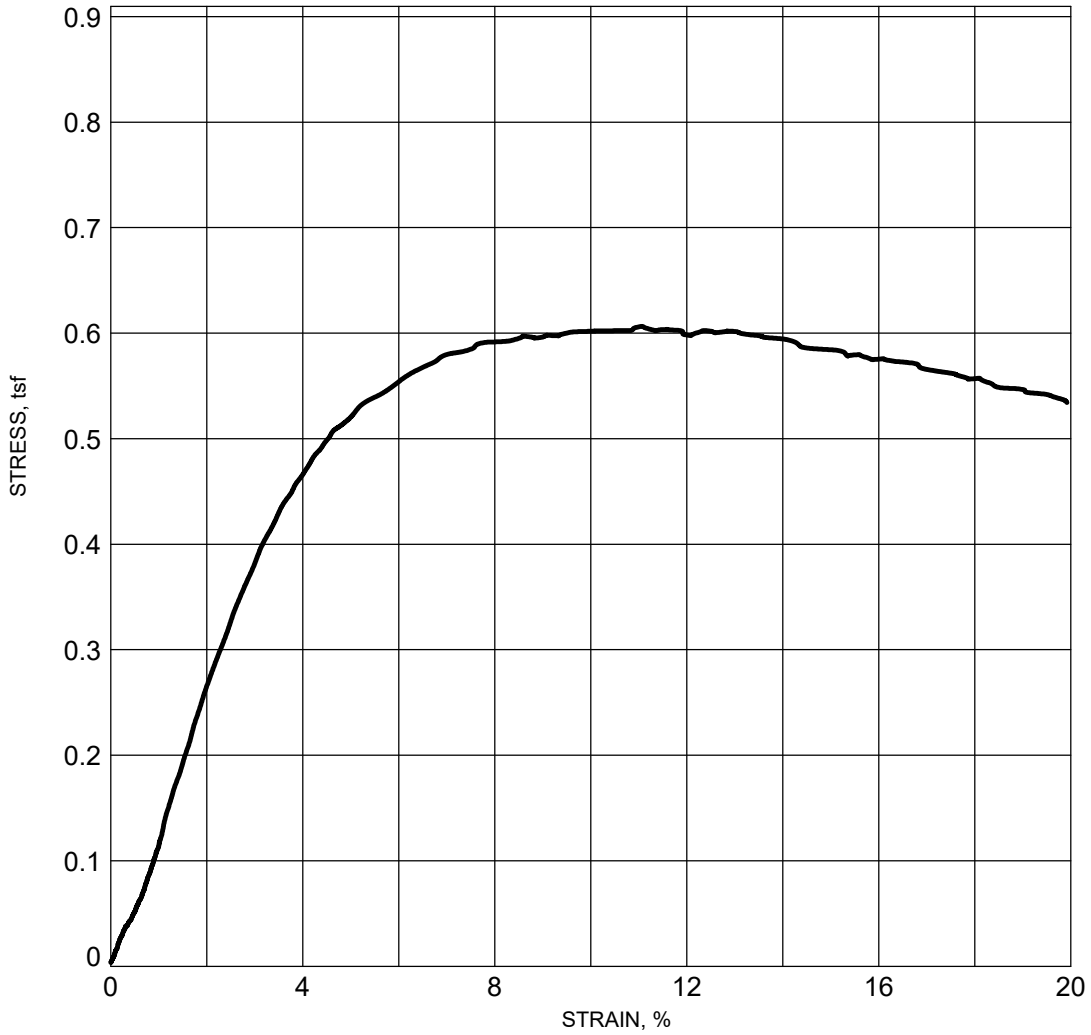
Failure Sketch

LL = 89 PL = 30 PI = 59

% 200= % Organic= Assumed Gs=2.74

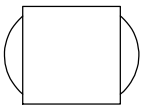
Description: Soft gray clay with silty sand pockets (CH)

Tested By: Donna Easterling	Date Tested: 9/18/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/19/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-107e**



Boring ID	CI-08
Depth (ft)	23-25
Water Content, %	35.0
Wet Density, pcf	115.4
Dry Density, pcf	85.5
Saturation, %	95.8
Void Ratio	1.00
Specimen Diameter	2.856
Specimen Height	5.828
Height/diameter ratio	2.04
Deviator Stress, tsf	0.606
Strain, %	11.1
Confining Pressure (psi)	6.3

Bulge



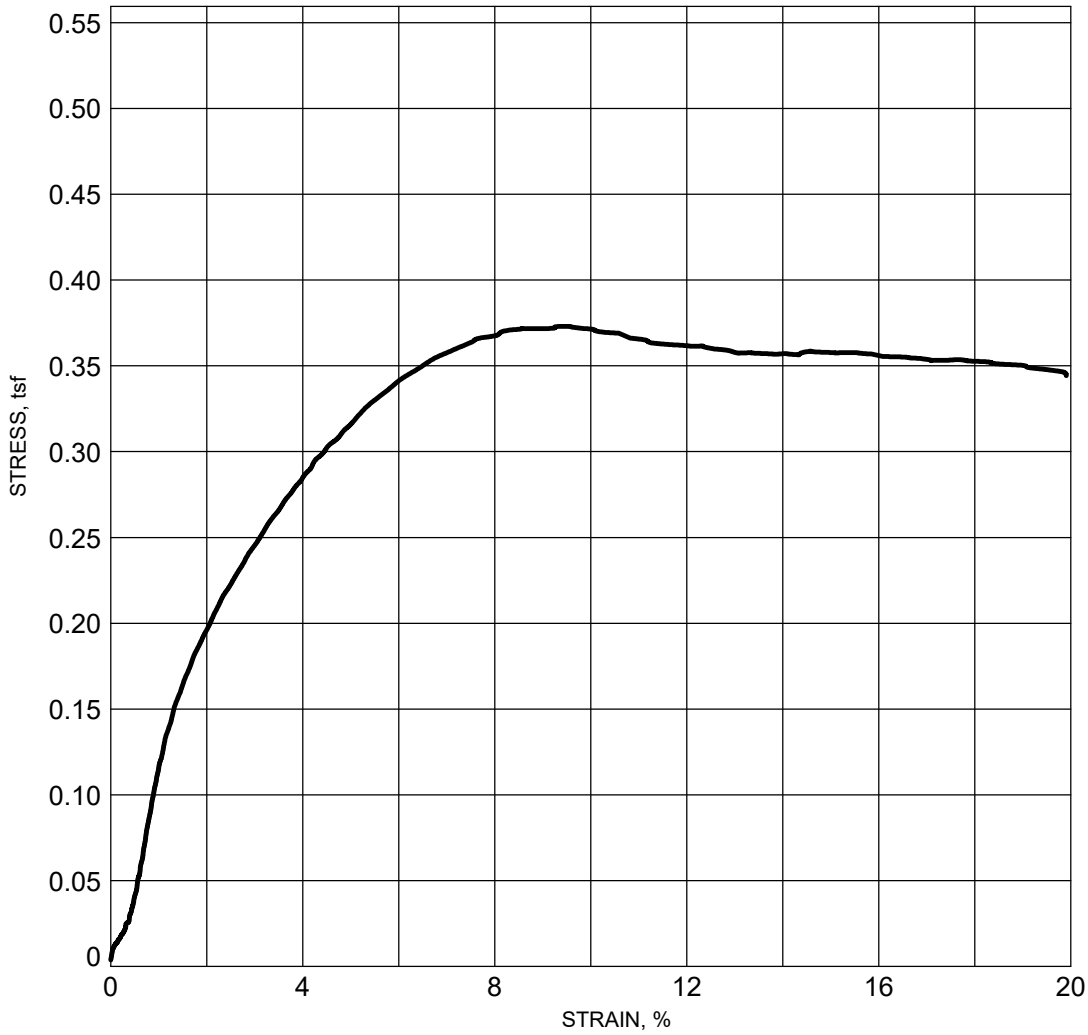
Failure Sketch

LL = 48 PL = 22 PI = 26

% 200= % Organic= Assumed Gs=2.74

Description: Medium dark gray sandy clay with silt and shell fragments (CL)

Tested By: Donna Easterling	Date Tested: 9/18/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/19/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-108a**



Boring ID	CI-08
Depth (ft)	28-30
Water Content, %	50.4
Wet Density, pcf	106.5
Dry Density, pcf	70.8
Saturation, %	97.7
Void Ratio	1.41
Specimen Diameter	2.854
Specimen Height	6.072
Height/diameter ratio	2.13
Deviator Stress, tsf	0.373
Strain, %	9.6
Confining Pressure (psi)	7.6

Multiple Shear

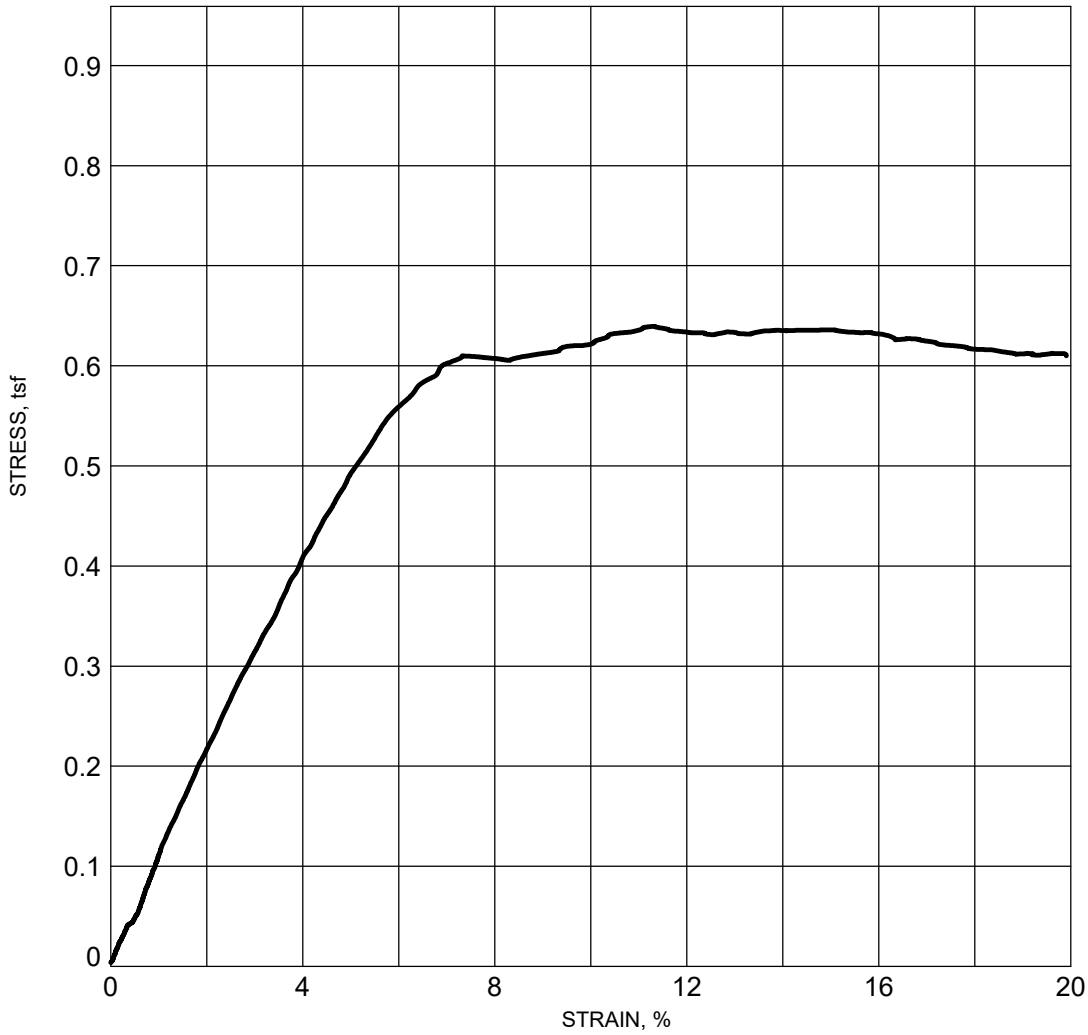
Failure Sketch

LL = PL = PI =

% 200= % Organic= Assumed Gs=2.74

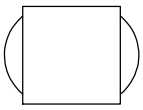
Description: Soft gray clay with sand pockets and shell fragments (CL)

Tested By: Donna Easterling	Date Tested: 9/18/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/19/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-108b**



Boring ID	CI-08
Depth (ft)	38-40
Water Content, %	40.3
Wet Density, pcf	115.3
Dry Density, pcf	82.2
Saturation, %	102.3
Void Ratio	1.08
Specimen Diameter	2.827
Specimen Height	5.973
Height/diameter ratio	2.11
Deviator Stress, tsf	0.639
Strain, %	11.3
Confining Pressure (psi)	10.2

Bulge



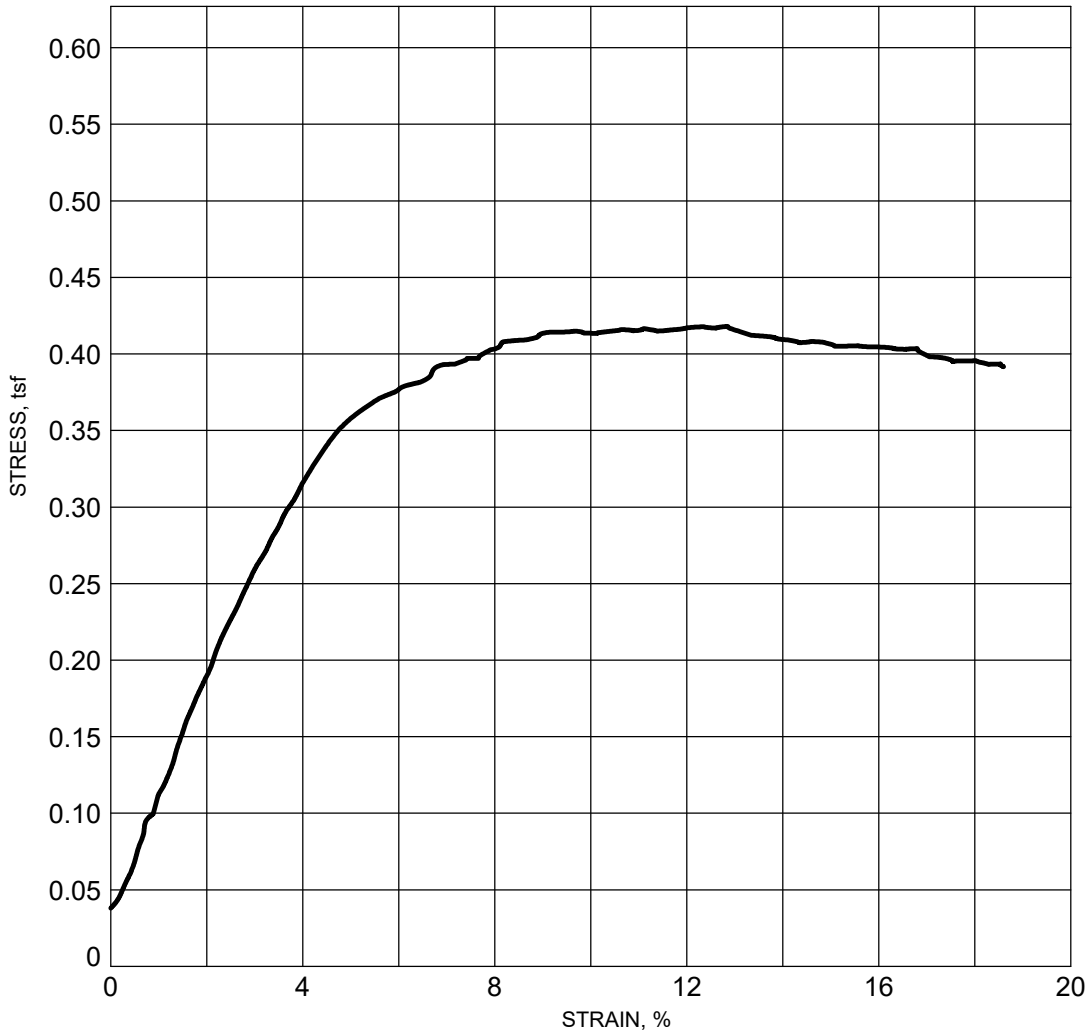
Failure Sketch

LL = PL = PI =

% 200= % Organic= Assumed Gs=2.74

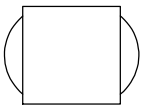
Description: Medium gray silty clay with sand (CL)

Tested By: Donna Easterling	Date Tested: 9/18/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/19/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-108c**



Boring ID	CI-08
Depth (ft)	48-50
Water Content, %	51.9
Wet Density, pcf	109.5
Dry Density, pcf	72.1
Saturation, %	103.6
Void Ratio	1.37
Specimen Diameter	2.512
Specimen Height	5.003
Height/diameter ratio	1.99
Deviator Stress, tsf	0.418
Strain, %	12.9
Confining Pressure (psi)	12.8

Bulge



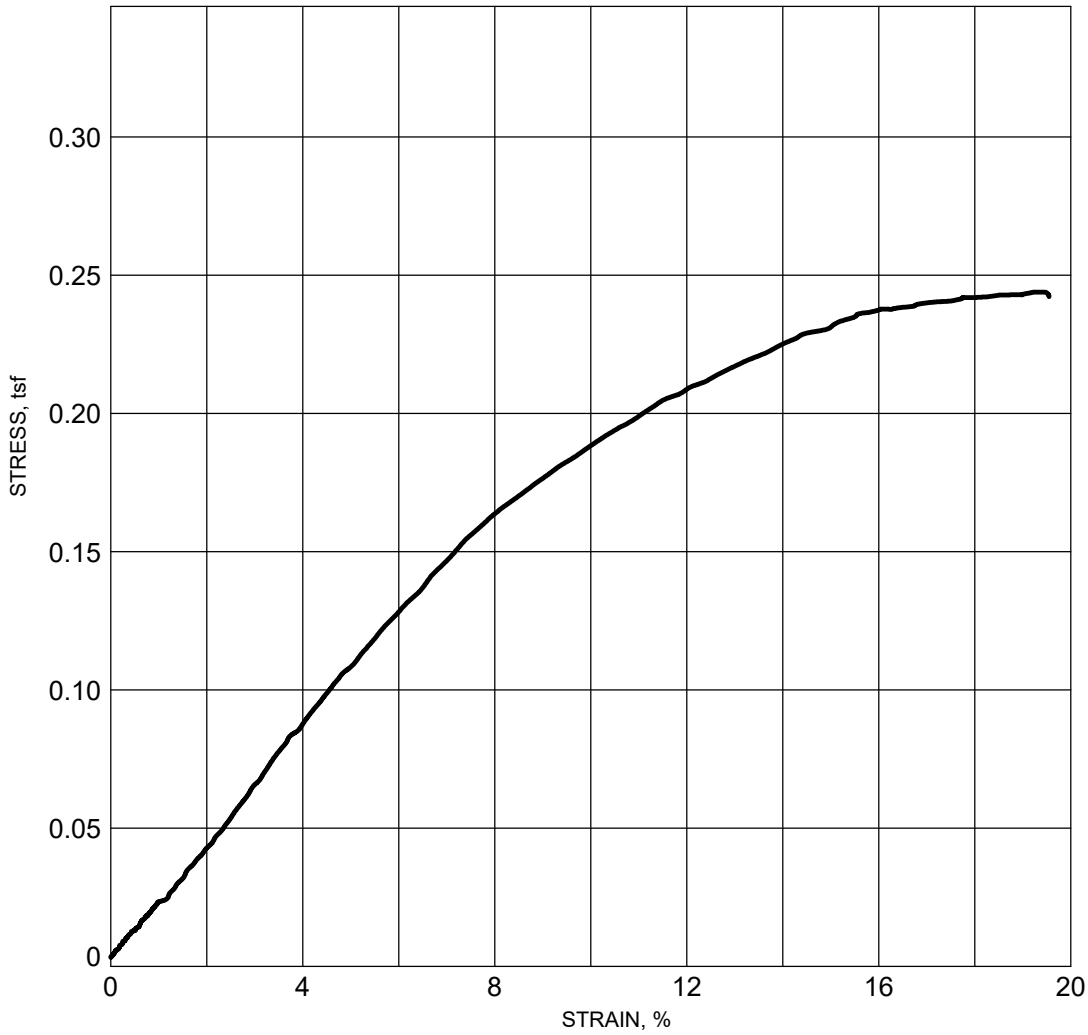
Failure Sketch

LL = PL = PI =

% 200= % Organic= Assumed Gs=2.74

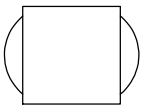
Description: Soft gray clay with silty sand layers (CH)

Tested By: Donna Easterling	Date Tested: 9/18/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/19/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-108d**



Boring ID	CI-09
Depth (ft)	33-35
Water Content, %	36.0
Wet Density, pcf	118.4
Dry Density, pcf	87.1
Saturation, %	105.0
Void Ratio	0.92
Specimen Diameter	2.770
Specimen Height	5.864
Height/diameter ratio	2.12
Deviator Stress, tsf	0.232
Strain, %	15.0
Confining Pressure (psi)	8.9

Bulge



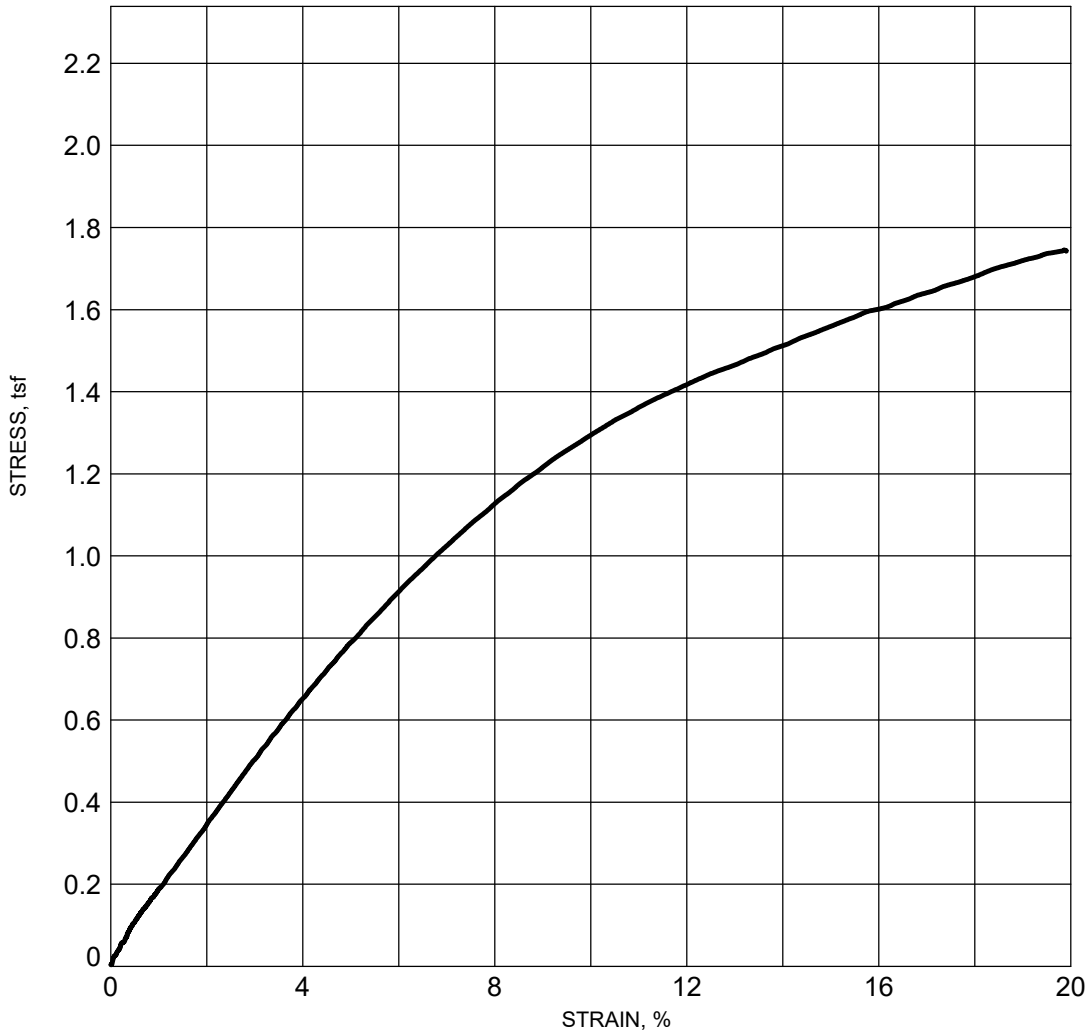
Failure Sketch

LL = NP PL = NP PI =NP

% 200= % Organic= Gs=2.678

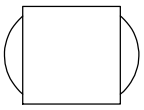
Description: Gray silt with sand, traces of clay, and organic matter (ML)

Tested By: Donna Easterling	Date Tested: 9/18/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/19/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-109a**



Boring ID	CI-09
Depth (ft)	43-45
Water Content, %	28.5
Wet Density, pcf	121.8
Dry Density, pcf	94.8
Saturation, %	97.1
Void Ratio	0.80
Specimen Diameter	2.795
Specimen Height	6.073
Height/diameter ratio	2.17
Deviator Stress, tsf	1.559
Strain, %	15.0
Confining Pressure (psi)	11.5

Bulge



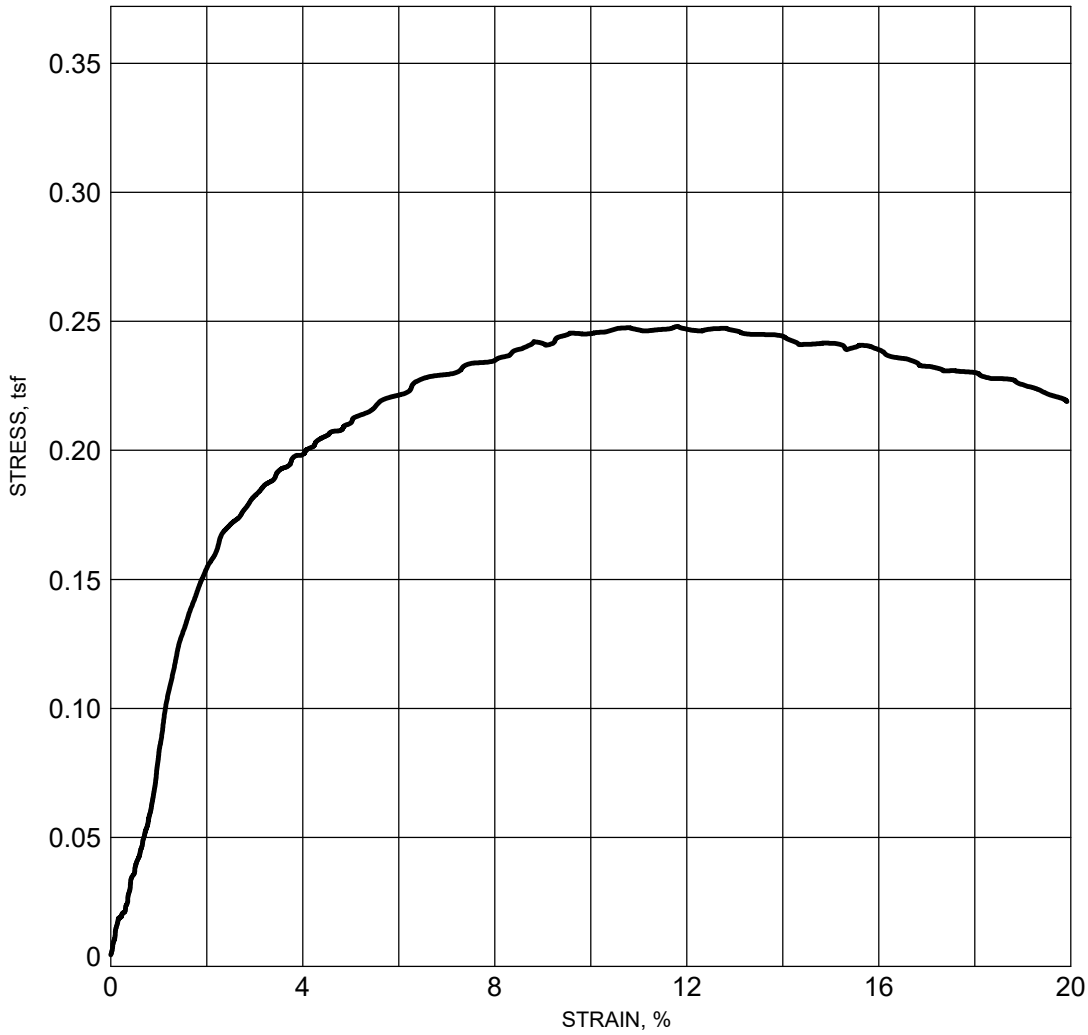
Failure Sketch

LL = 30 PL = 23 PI = 7

% 200= % Organic= Assumed Gs=2.74

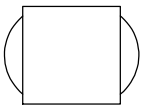
Description: Gray silt with clay, sand lenses, and sand pockets (ML)

Tested By: Donna Easterling	Date Tested: 9/19/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/19/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-109b**



Boring ID	CI-10
Depth (ft)	38-40
Water Content, %	47.5
Wet Density, pcf	112.0
Dry Density, pcf	76.0
Saturation, %	104.0
Void Ratio	1.25
Specimen Diameter	2.755
Specimen Height	5.968
Height/diameter ratio	2.17
Deviator Stress, tsf	0.248
Strain, %	11.8
Confining Pressure (psi)	10.2

Bulge



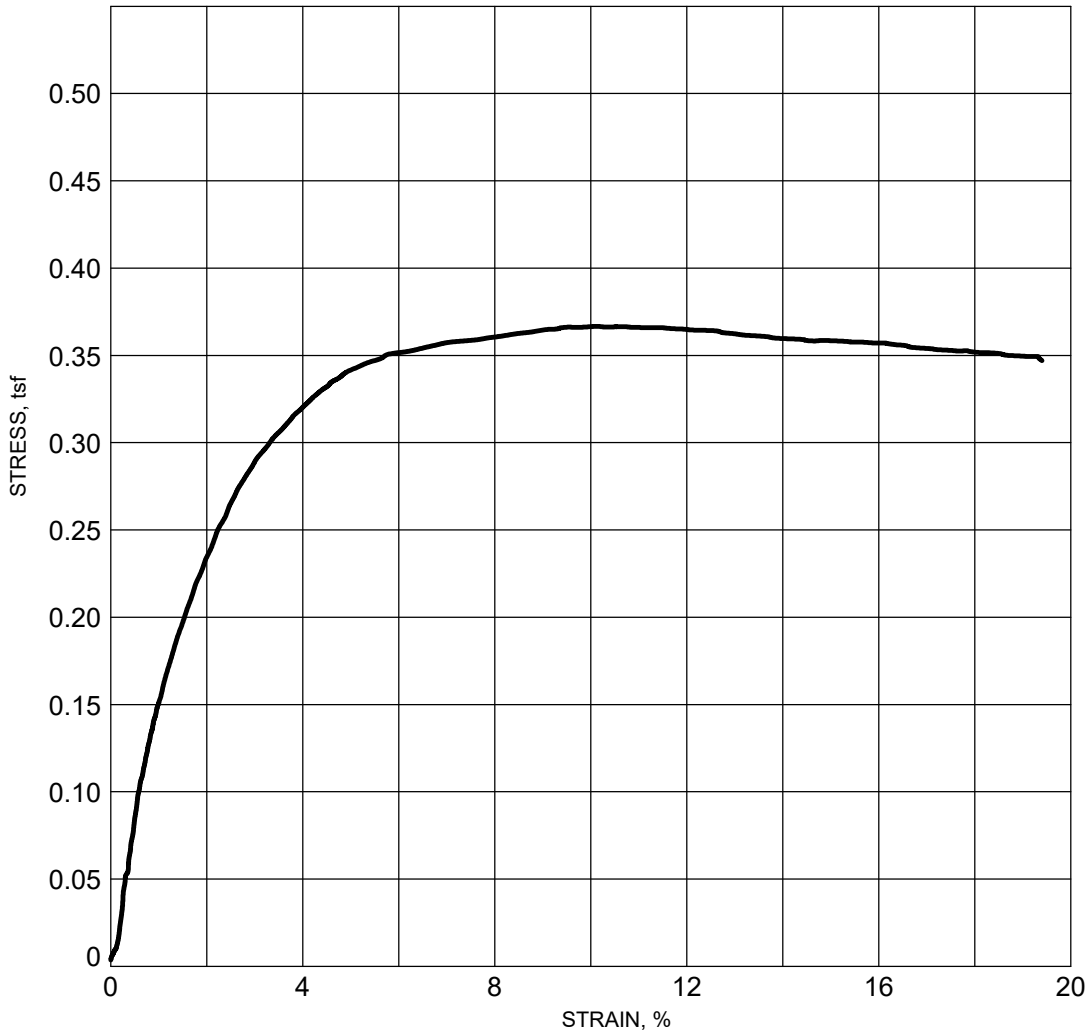
Failure Sketch

LL = 68 PL = 25 PI = 43

% 200= % Organic= Assumed Gs=2.74

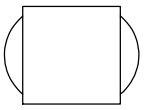
Description: Very soft dark gray clay with silt and sand pockets (CH)

Tested By: Donna Easterling	Date Tested: 9/18/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/20/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-110**



Boring ID	CI-11
Depth (ft)	14-16
Water Content, %	49.4
Wet Density, pcf	110.7
Dry Density, pcf	74.1
Saturation, %	103.5
Void Ratio	1.31
Specimen Diameter	2.855
Specimen Height	5.763
Height/diameter ratio	2.02
Deviator Stress, tsf	0.367
Strain, %	10.0
Confining Pressure (psi)	5.0

Bulge



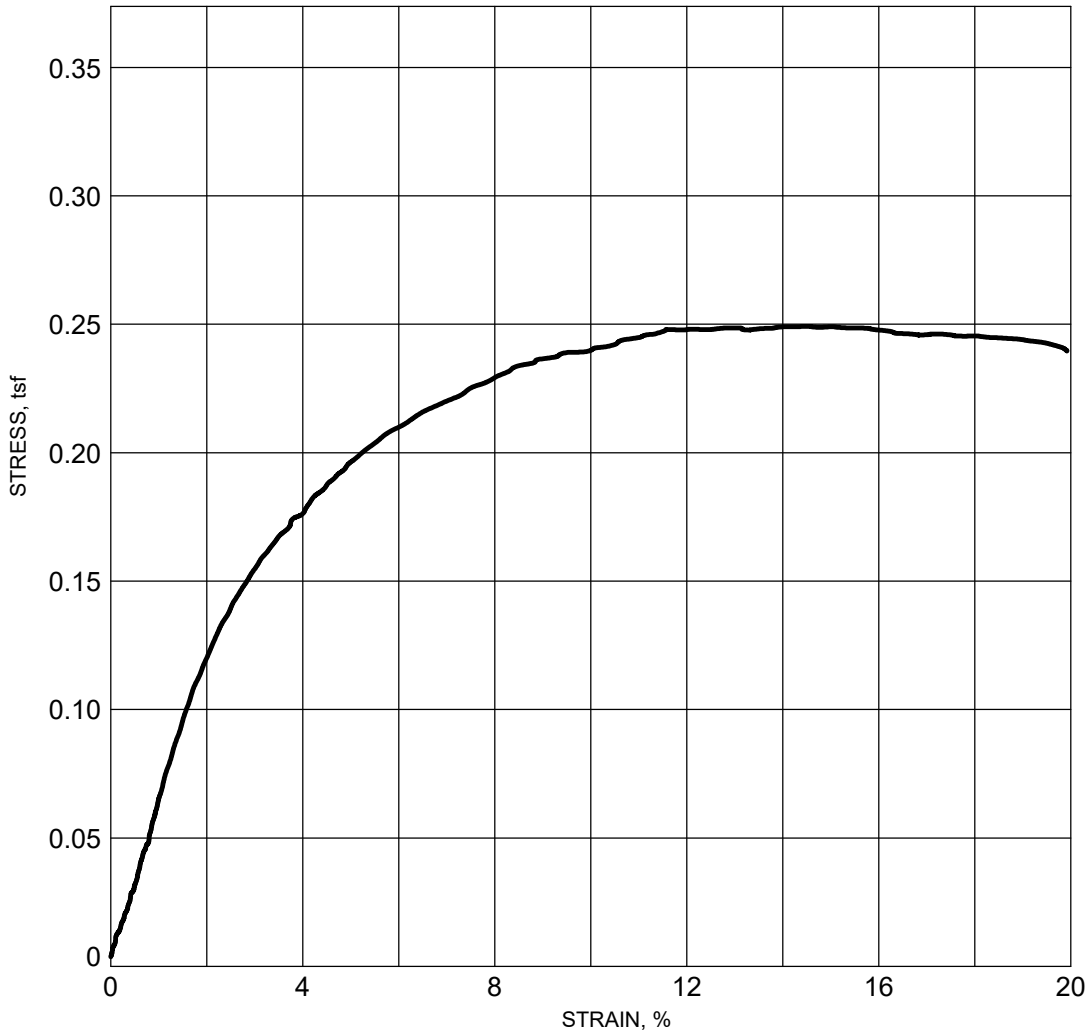
Failure Sketch

LL = 47 PL = 18 PI = 29

% 200= % Organic= Assumed Gs=2.74

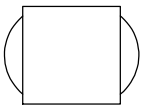
Description: Soft gray clay with silt, shell fragments, sand layers, and sand pockets (CL)

Tested By: Donna Easterling	Date Tested: 9/19/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/20/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-111a**



Boring ID	CI-11
Depth (ft)	18-20
Water Content, %	38.6
Wet Density, pcf	117.9
Dry Density, pcf	85.1
Saturation, %	105.0
Void Ratio	1.00
Specimen Diameter	2.818
Specimen Height	5.944
Height/diameter ratio	2.11
Deviator Stress, tsf	0.249
Strain, %	14.6
Confining Pressure (psi)	5.0

Bulge



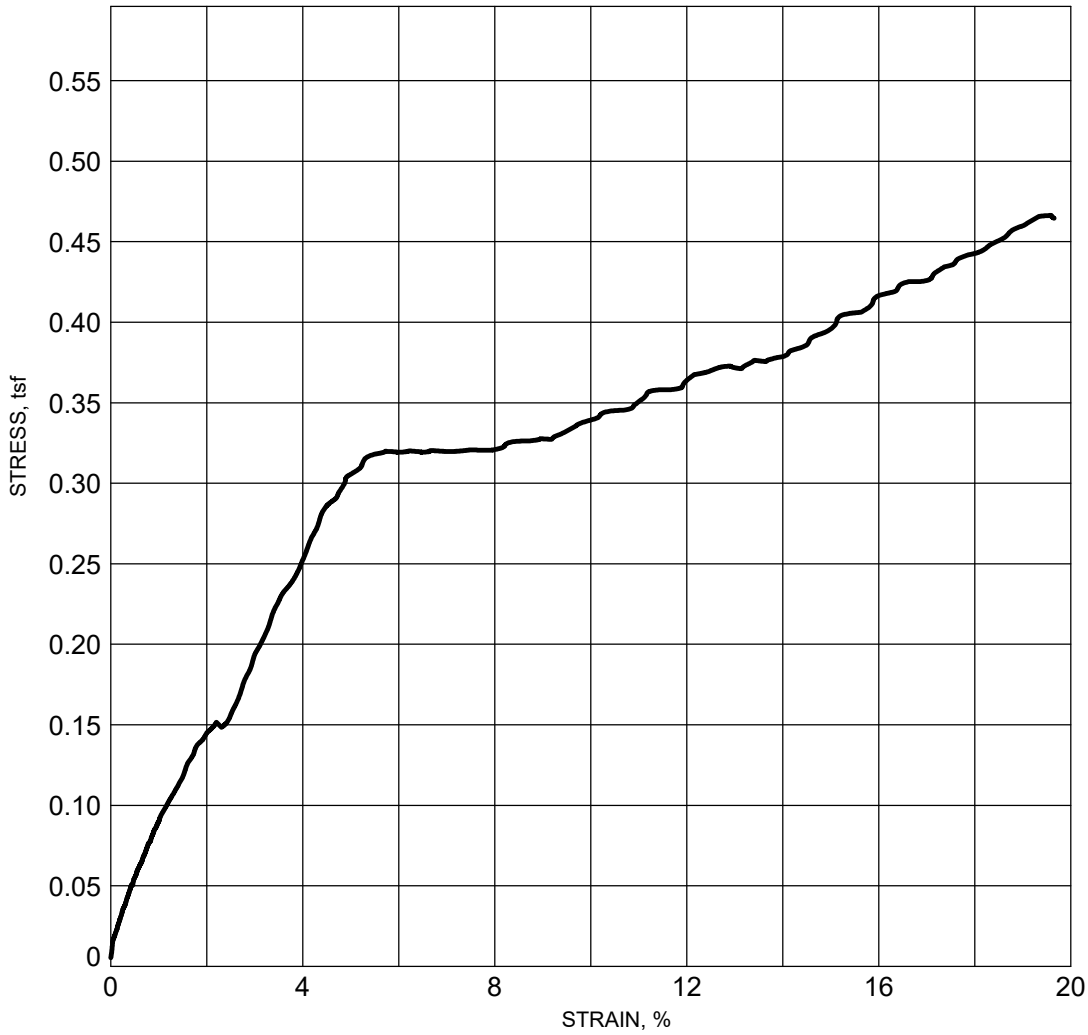
Failure Sketch

LL = 50 PL = 22 PI = 28

% 200= % Organic= Gs=2.731

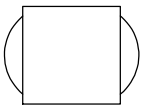
Description: Soft gray clay with sand, sand pockets, and silt pockets (CL)

Tested By: Donna Easterling	Date Tested: 9/19/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/20/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-111b**



Boring ID	CI-11
Depth (ft)	23-25
Water Content, %	30.6
Wet Density, pcf	107.1
Dry Density, pcf	82.0
Saturation, %	77.2
Void Ratio	1.08
Specimen Diameter	2.391
Specimen Height	4.783
Height/diameter ratio	2.00
Deviator Stress, tsf	0.397
Strain, %	15.0
Confining Pressure (psi)	6.3

Bulge



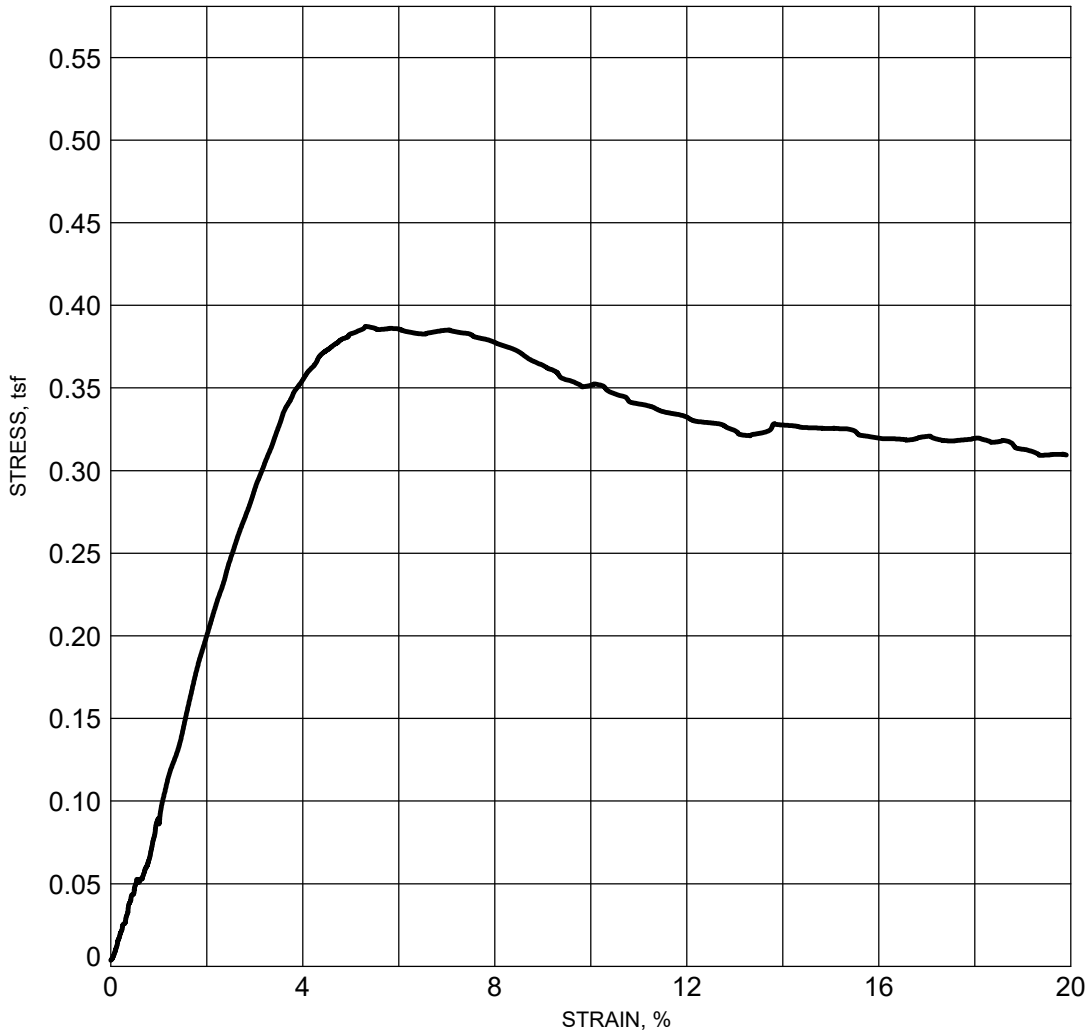
Failure Sketch

LL = 40 PL = 21 PI = 19

% 200= % Organic= Assumed Gs=2.74

Description: Soft gray sandy clay with silty sand layers (CL)

Tested By: Donna Easterling	Date Tested: 9/19/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/20/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-111c**



Boring ID	CI-12
Depth (ft)	28-30
Water Content, %	50.2
Wet Density, pcf	110.7
Dry Density, pcf	73.7
Saturation, %	104.2
Void Ratio	1.32
Specimen Diameter	2.796
Specimen Height	5.928
Height/diameter ratio	2.12
Deviator Stress, tsf	0.387
Strain, %	5.3
Confining Pressure (psi)	7.6

Multiple Shear

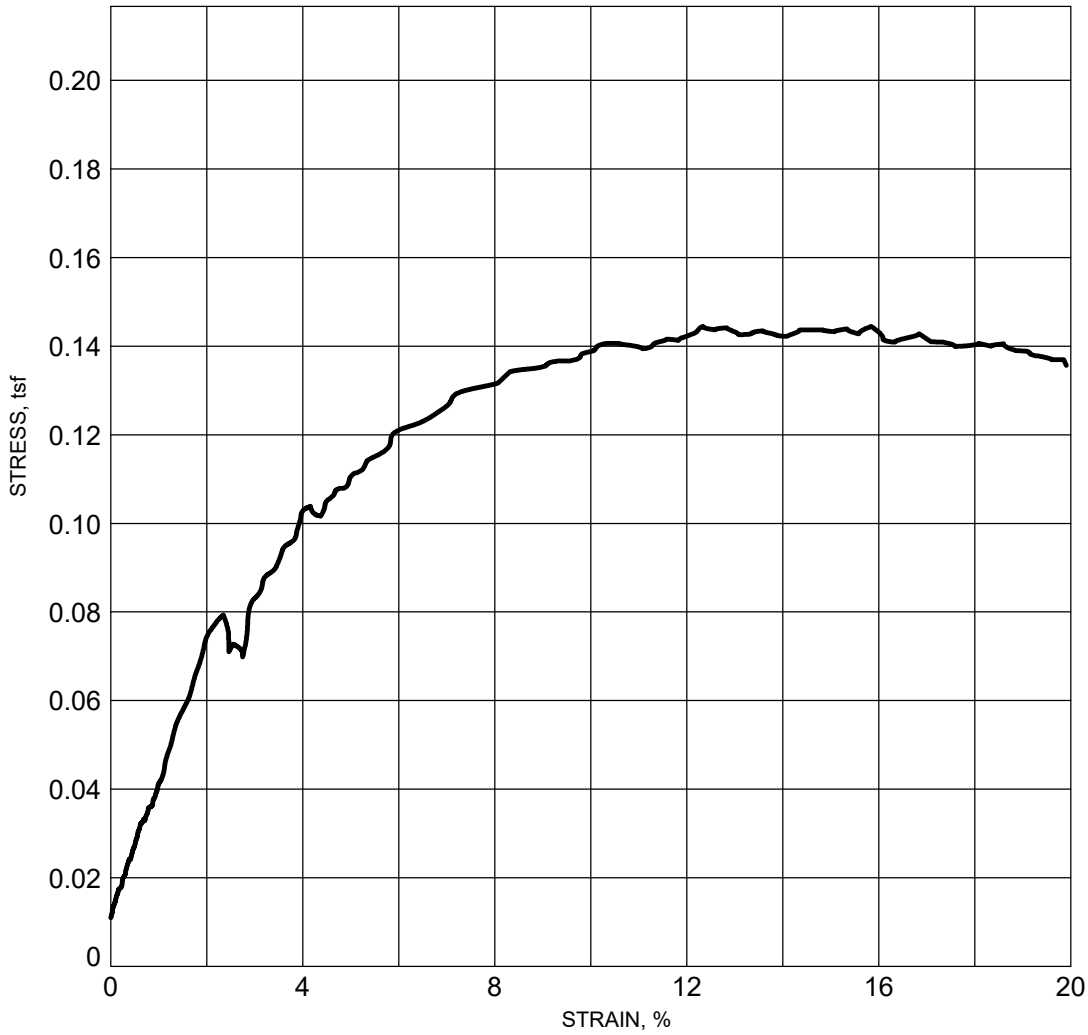
Failure Sketch

LL = 59 PL = 24 PI = 35

% 200= % Organic= Assumed Gs=2.74

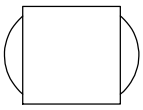
Description: Soft gray clay with sand pockets and shell fragments (CH)

Tested By: Donna Easterling	Date Tested: 9/19/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/20/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-112a**



Boring ID	CI-12
Depth (ft)	43-45
Water Content, %	41.8
Wet Density, pcf	112.2
Dry Density, pcf	79.2
Saturation, %	98.7
Void Ratio	1.16
Specimen Diameter	2.791
Specimen Height	5.944
Height/diameter ratio	2.13
Deviator Stress, tsf	0.144
Strain, %	12.3
Confining Pressure (psi)	11.5

Bulge



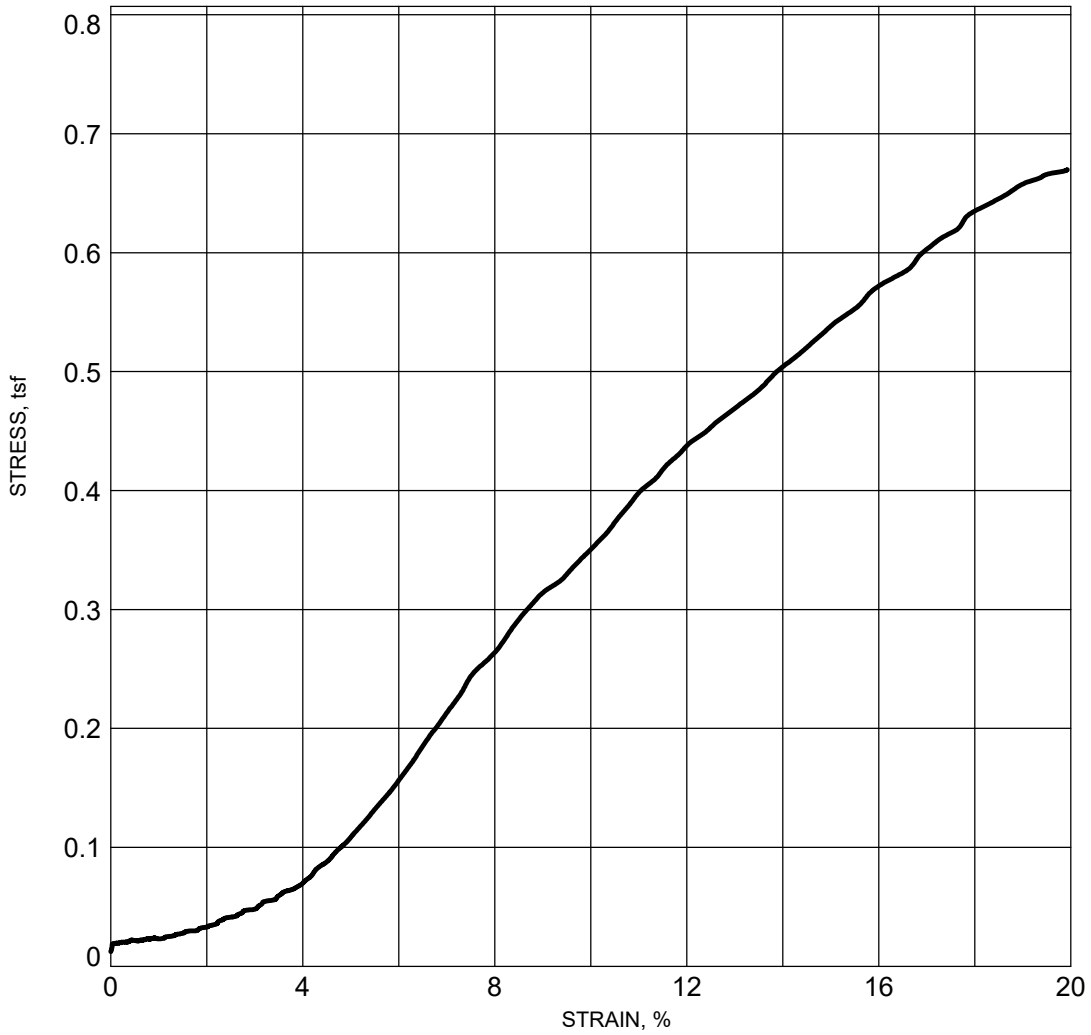
Failure Sketch

LL = PL = PI =

% 200= % Organic= Assumed Gs=2.74

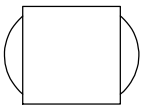
Description: Very soft gray clay with sandy silt layers (CL)

Tested By: Donna Easterling	Date Tested: 9/19/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/20/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-112b**



Boring ID	CI-12
Depth (ft)	48-50
Water Content, %	23.3
Wet Density, pcf	131.1
Dry Density, pcf	106.4
Saturation, %	105.0
Void Ratio	0.61
Specimen Diameter	2.815
Specimen Height	6.029
Height/diameter ratio	2.14
Deviator Stress, tsf	0.538
Strain, %	15.0
Confining Pressure (psi)	12.8

Bulge



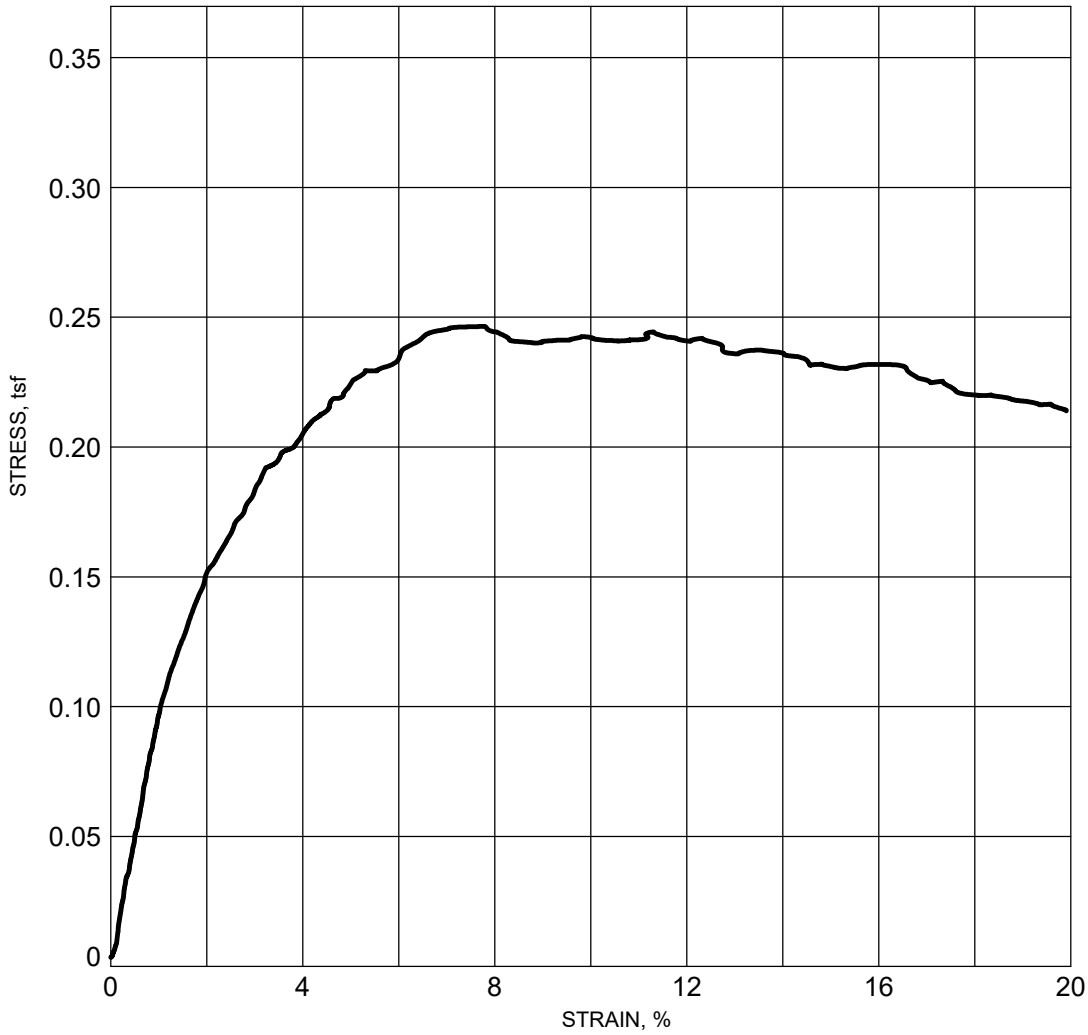
Failure Sketch

LL = PL = PI =

% 200= % Organic= Assumed Gs=2.74

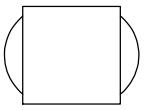
Description: Gray sandy silt with clay layers and shell fragments (ML)

Tested By: Donna Easterling	Date Tested: 9/19/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/20/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-112c**



Boring ID	CI-13
Depth (ft)	16-18
Water Content, %	44.7
Wet Density, pcf	114.2
Dry Density, pcf	78.9
Saturation, %	105.0
Void Ratio	1.17
Specimen Diameter	2.797
Specimen Height	5.989
Height/diameter ratio	2.14
Deviator Stress, tsf	0.246
Strain, %	7.8
Confining Pressure (psi)	5.0

Bulge



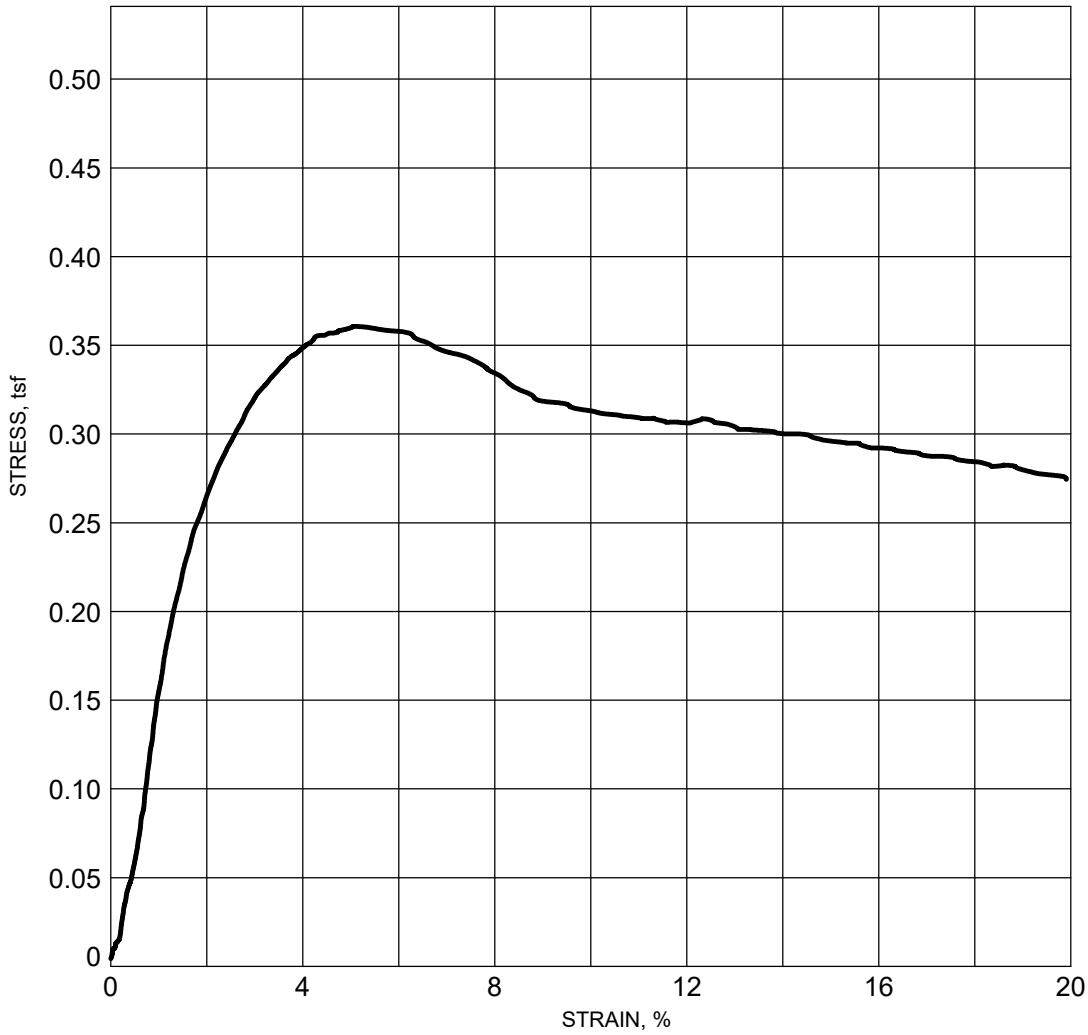
Failure Sketch

LL = 46 PL = 22 PI = 24

% 200= % Organic= Assumed Gs=2.74

Description: Very soft gray clay with silt and sand pockets (CL)

Tested By: Donna Easterling	Date Tested: 9/19/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/20/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-113a**



Boring ID	CI-13
Depth (ft)	23-25
Water Content, %	48.6
Wet Density, pcf	109.7
Dry Density, pcf	73.8
Saturation, %	101.1
Void Ratio	1.32
Specimen Diameter	2.814
Specimen Height	5.969
Height/diameter ratio	2.12
Deviator Stress, tsf	0.361
Strain, %	5.1
Confining Pressure (psi)	6.3

Multiple Shear

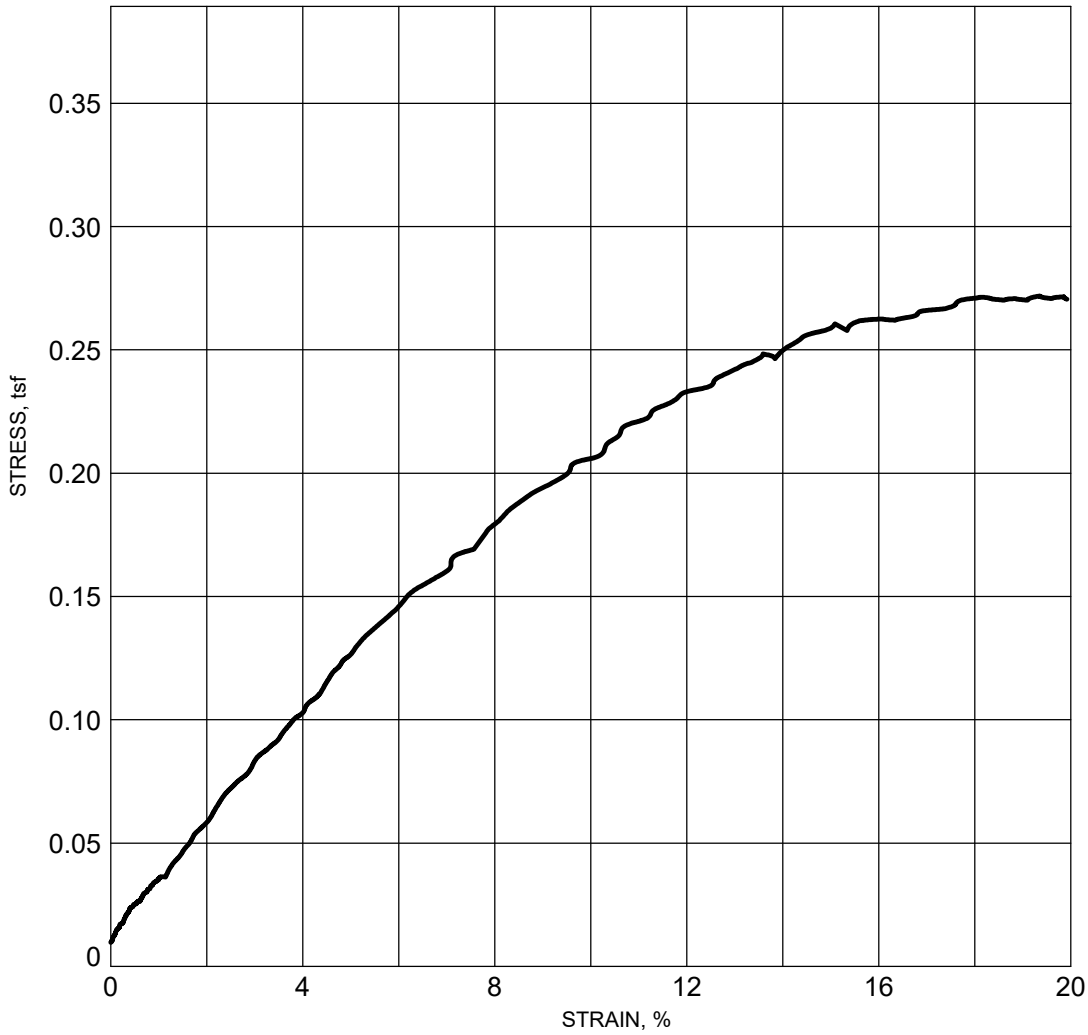
Failure Sketch

LL = PL = PI =

% 200= % Organic= Assumed Gs=2.74

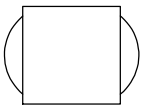
Description: Soft gray clay with silt and sand lenses and pockets (CL)

Tested By: Donna Easterling	Date Tested: 9/20/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/21/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-113b**



Boring ID	CI-13
Depth (ft)	33-35
Water Content, %	33.7
Wet Density, pcf	117.1
Dry Density, pcf	87.6
Saturation, %	97.1
Void Ratio	0.95
Specimen Diameter	2.849
Specimen Height	5.966
Height/diameter ratio	2.09
Deviator Stress, tsf	0.260
Strain, %	15.0
Confining Pressure (psi)	8.9

Bulge



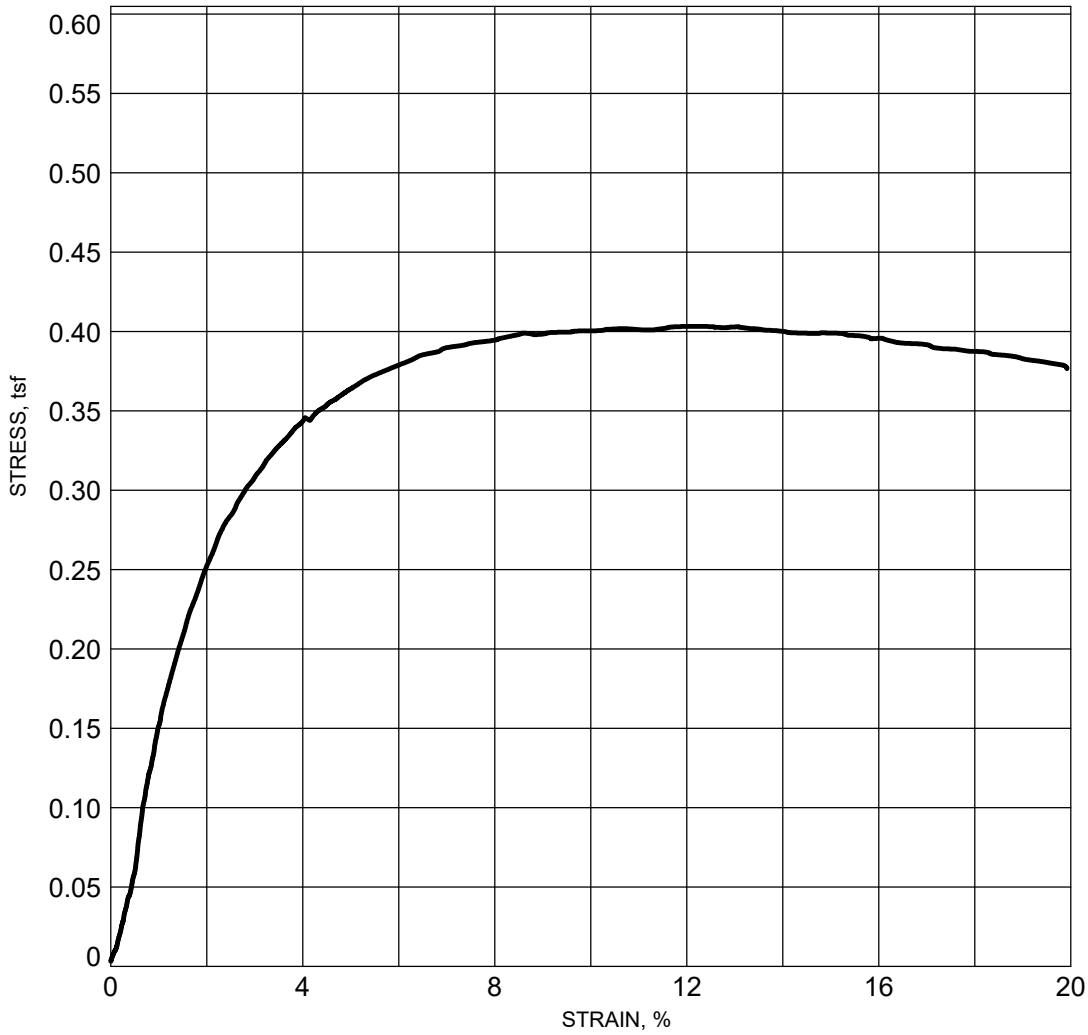
Failure Sketch

LL = 39 PL = 20 PI = 19

% 200= % Organic= Assumed Gs=2.74

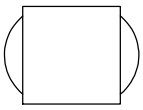
Description: Soft gray silty clay with sand pockets, sand layers, and shell fragments (CL)

Tested By: Donna Easterling	Date Tested: 9/20/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/21/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-113c**



Boring ID	CI-14
Depth (ft)	16-18
Water Content, %	35.0
Wet Density, pcf	120.6
Dry Density, pcf	89.4
Saturation, %	104.9
Void Ratio	0.91
Specimen Diameter	2.823
Specimen Height	5.992
Height/diameter ratio	2.12
Deviator Stress, tsf	0.403
Strain, %	12.1
Confining Pressure (psi)	5.0

Bulge



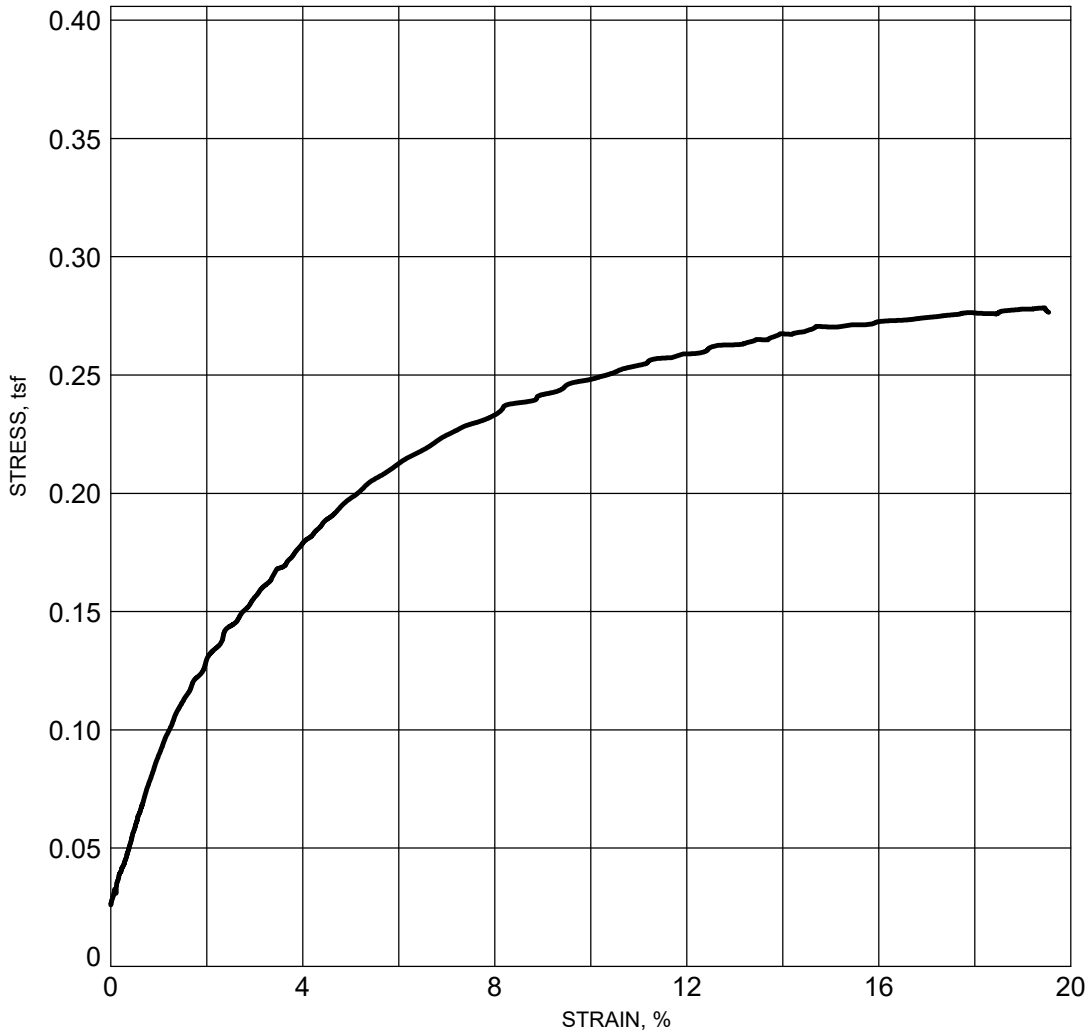
Failure Sketch

LL = 40 PL = 20 PI = 20

% 200= % Organic= Assumed Gs=2.74

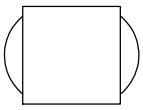
Description: Soft gray silty clay with sand and shell fragments (CL)

Tested By: Donna Easterling	Date Tested: 9/20/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/21/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-114**



Boring ID	CI-15
Depth (ft)	58-60
Water Content, %	37.0
Wet Density, pcf	119.3
Dry Density, pcf	87.0
Saturation, %	104.6
Void Ratio	0.98
Specimen Diameter	2.792
Specimen Height	5.998
Height/diameter ratio	2.15
Deviator Stress, tsf	0.271
Strain, %	14.7
Confining Pressure (psi)	15.4

Bulge



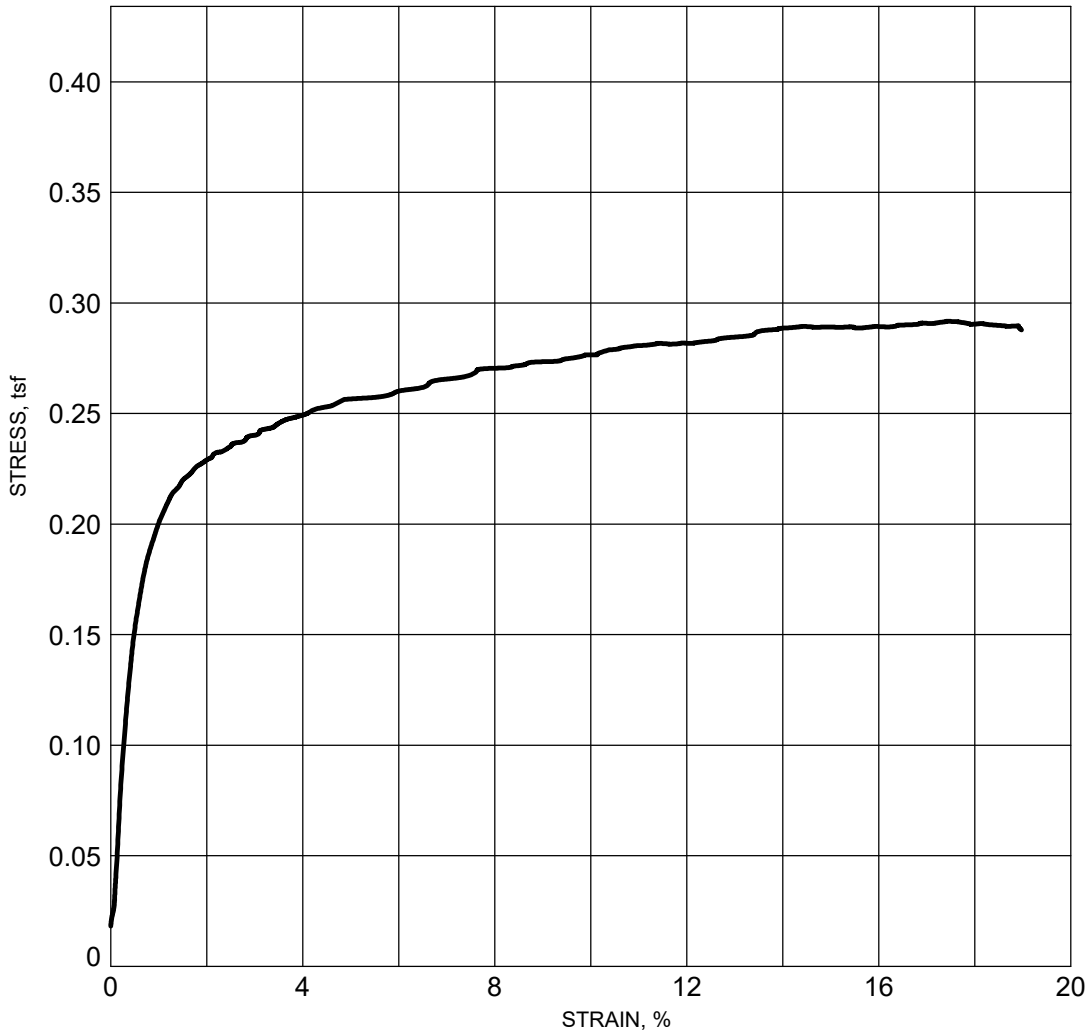
Failure Sketch

LL = 37 PL = 20 PI = 17

% 200= % Organic= Gs=2.756

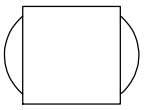
Description: Soft gray silty clay with sand lenses (CL)

Tested By: Donna Easterling	Date Tested: 9/20/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/21/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-115a**



Boring ID	CI-15
Depth (ft)	68-70
Water Content, %	40.2
Wet Density, pcf	114.7
Dry Density, pcf	81.8
Saturation, %	101.1
Void Ratio	1.09
Specimen Diameter	2.788
Specimen Height	5.973
Height/diameter ratio	2.14
Deviator Stress, tsf	0.289
Strain, %	14.4
Confining Pressure (psi)	18.0

Bulge



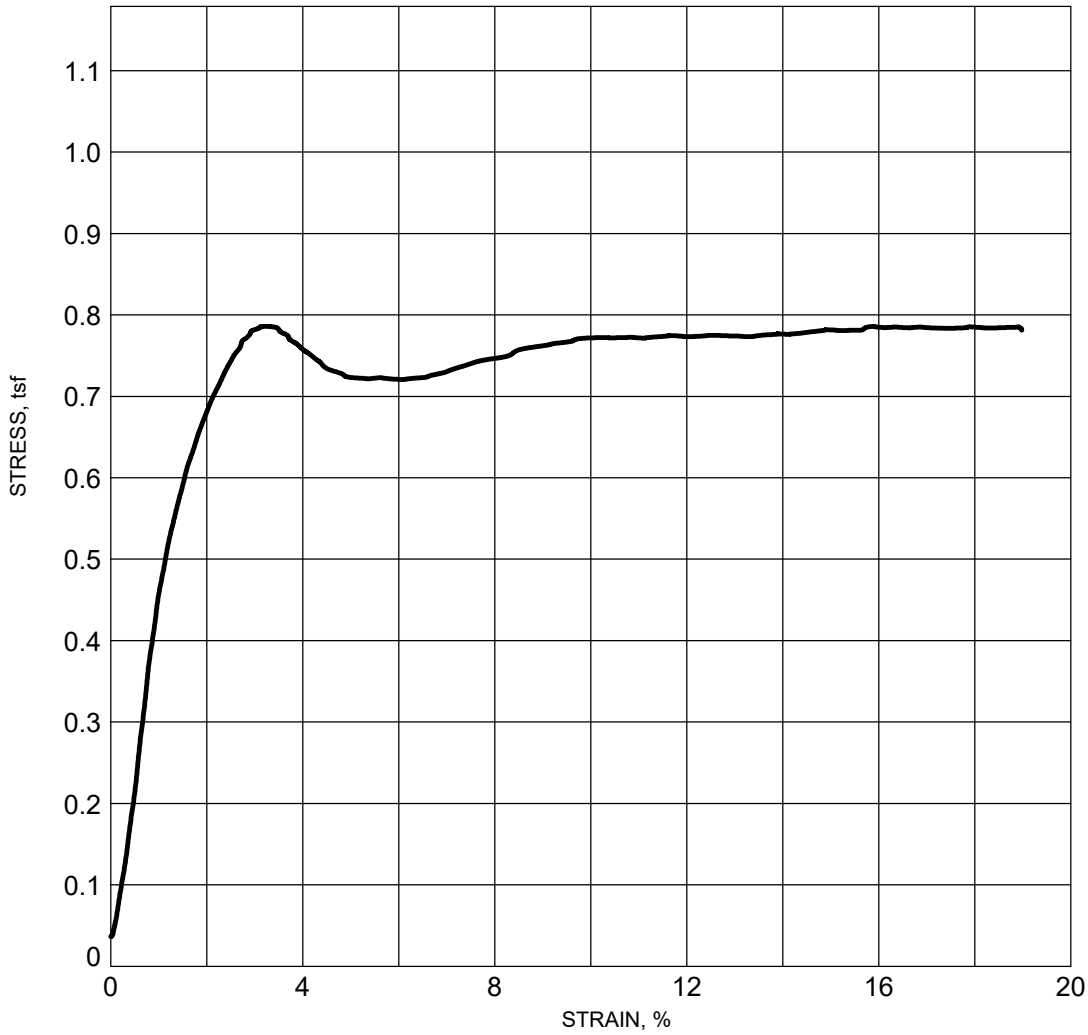
Failure Sketch

LL = 48 PL = 22 PI = 26

% 200= % Organic= Assumed Gs=2.74

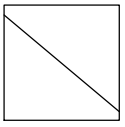
Description: Soft gray clay with silt, sand pockets, and shell fragments (CL)

Tested By: Donna Easterling	Date Tested: 9/20/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/21/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-115b**



Boring ID	CI-15
Depth (ft)	78-80
Water Content, %	44.2
Wet Density, pcf	112.7
Dry Density, pcf	78.1
Saturation, %	101.9
Void Ratio	1.19
Specimen Diameter	2.831
Specimen Height	6.009
Height/diameter ratio	2.12
Deviator Stress, tsf	0.786
Strain, %	3.3
Confining Pressure (psi)	20.6

Angle Shear 45º



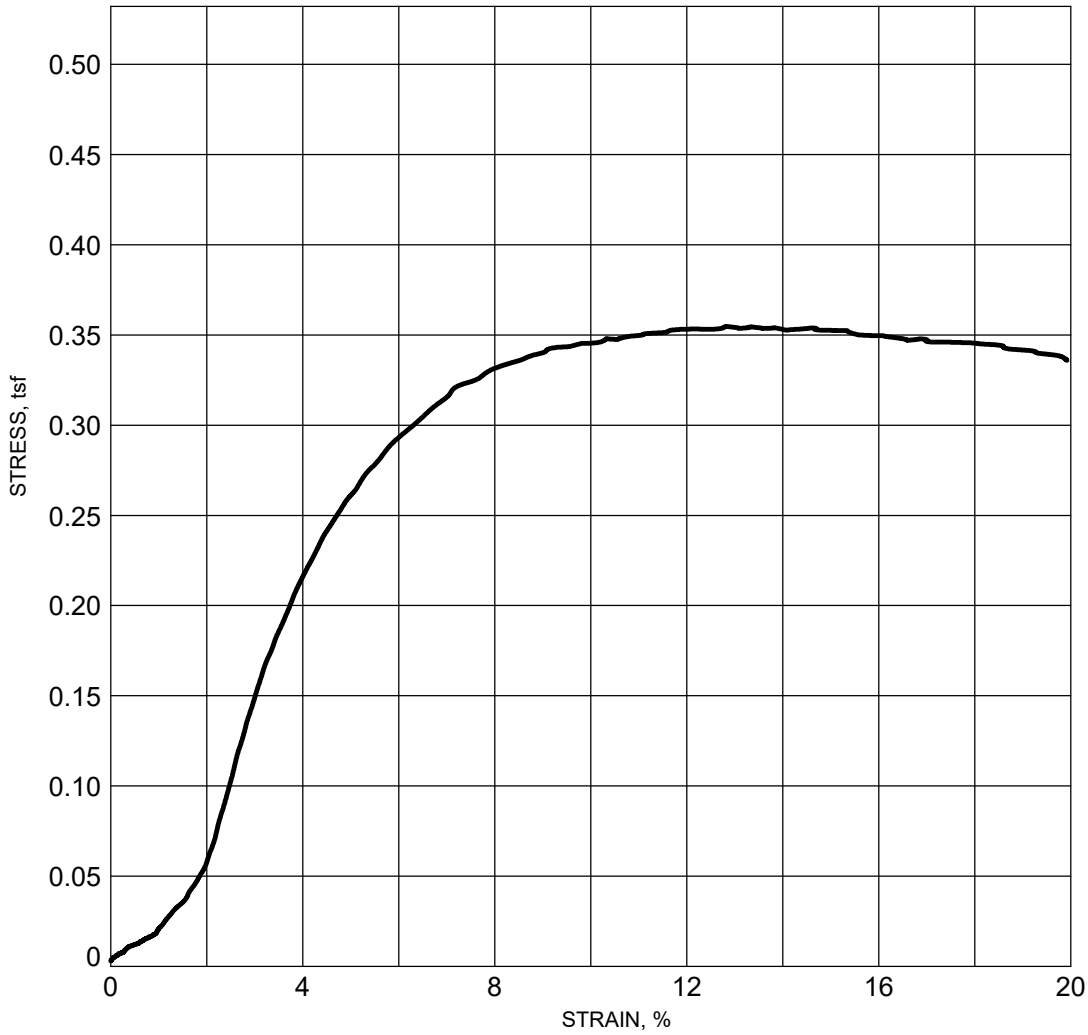
Failure Sketch

LL = PL = PI =

% 200= % Organic= Assumed Gs=2.74

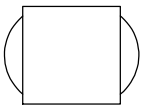
Description: Medium gray clay with silt (CL)

Tested By: Donna Easterling	Date Tested: 9/20/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/21/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-115c**



Boring ID	CI-16
Depth (ft)	23-25
Water Content, %	40.1
Wet Density, pcf	116.0
Dry Density, pcf	82.8
Saturation, %	103.9
Void Ratio	1.05
Specimen Diameter	2.850
Specimen Height	5.977
Height/diameter ratio	2.10
Deviator Stress, tsf	0.355
Strain, %	12.8
Confining Pressure (psi)	6.3

Bulge



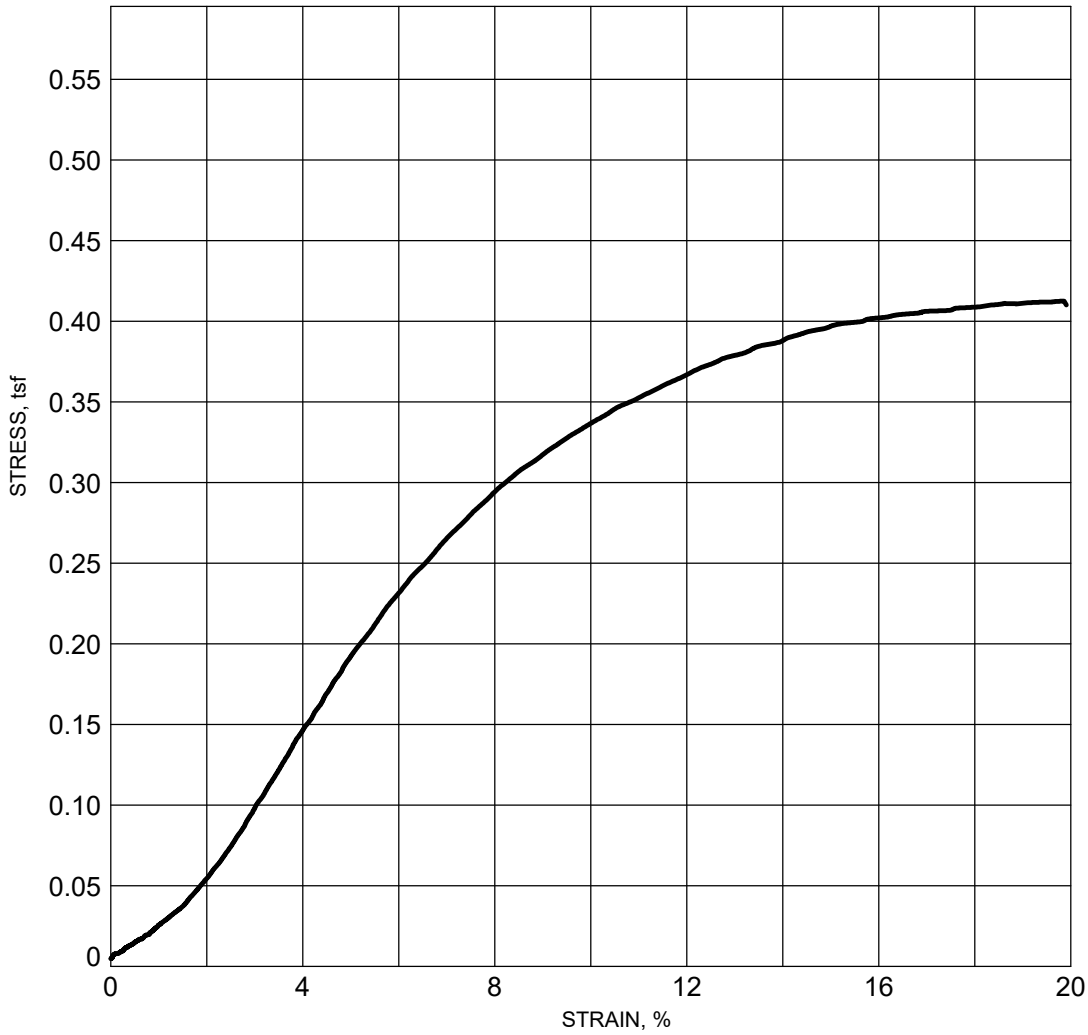
Failure Sketch

LL = 48 PL = 21 PI = 27

% 200= % Organic= Gs=2.719

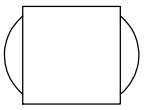
Description: Soft gray clay with silt, sand, and shell fragments (CL)

Tested By: Donna Easterling	Date Tested: 9/22/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/22/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-116**



Boring ID	CI-17
Depth (ft)	14-16
Water Content, %	29.4
Wet Density, pcf	124.2
Dry Density, pcf	96.0
Saturation, %	103.0
Void Ratio	0.78
Specimen Diameter	2.795
Specimen Height	5.970
Height/diameter ratio	2.14
Deviator Stress, tsf	0.397
Strain, %	15.0
Confining Pressure (psi)	5.0

Bulge



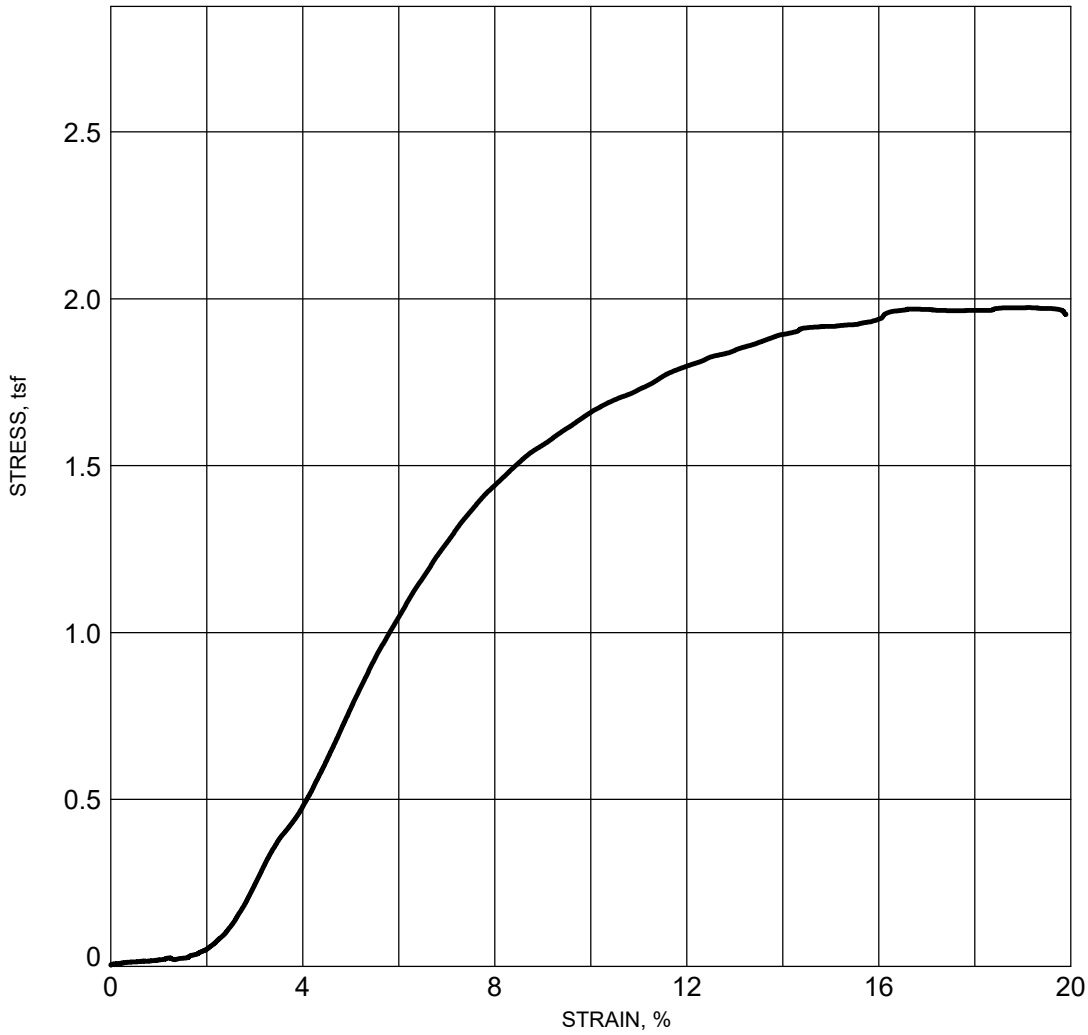
Failure Sketch

LL = 32 PL = 24 PI = 8

% 200=51 % Organic= Assumed Gs=2.74

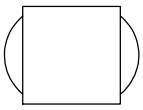
Description: Gray sandy clay with shell fragments (CL)

Tested By: Donna Easterling	Date Tested: 9/21/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/22/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-117a**



Boring ID	CI-17
Depth (ft)	16-18
Water Content, %	23.3
Wet Density, pcf	130.8
Dry Density, pcf	106.0
Saturation, %	104.3
Void Ratio	0.61
Specimen Diameter	2.830
Specimen Height	5.877
Height/diameter ratio	2.08
Deviator Stress, tsf	1.917
Strain, %	14.8
Confining Pressure (psi)	5.0

Bulge



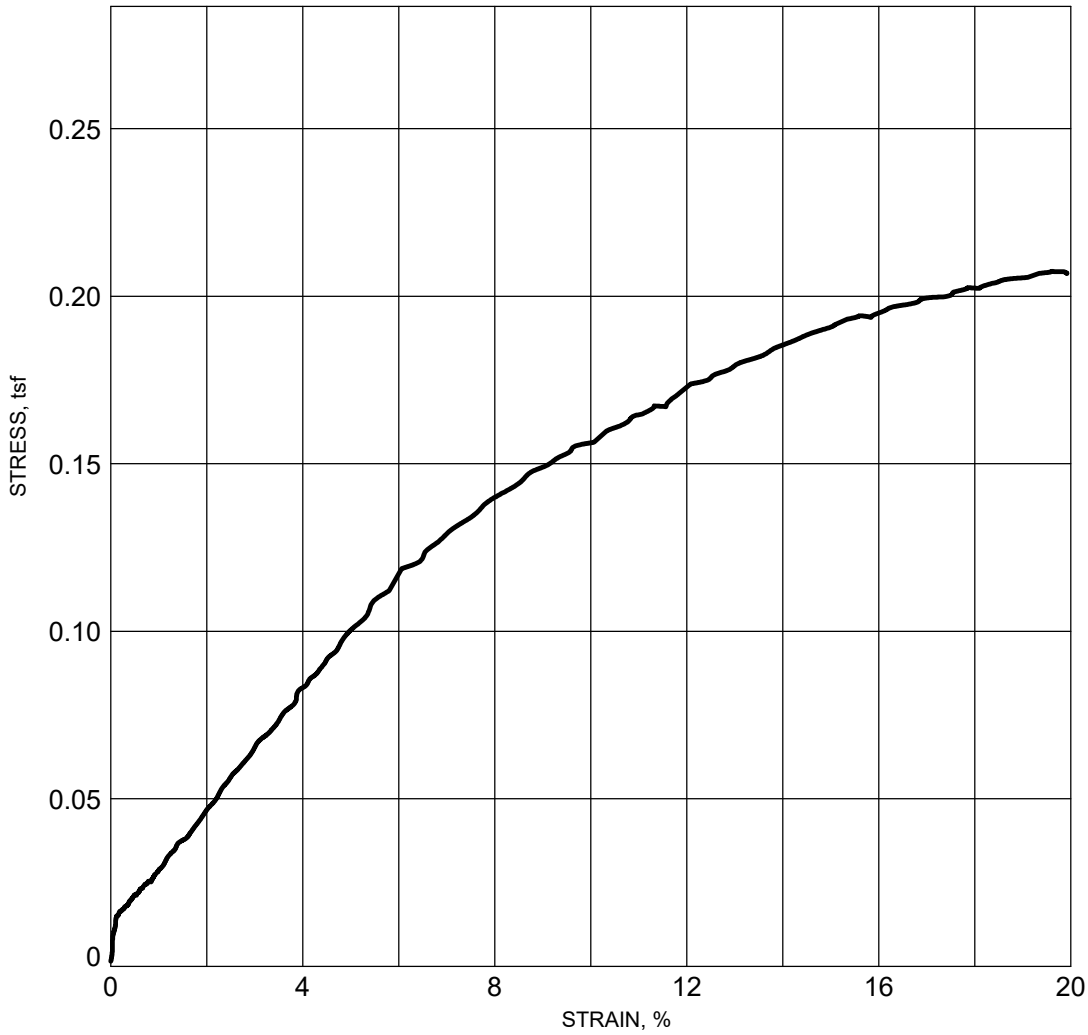
Failure Sketch

LL = PL = PI =

% 200= % Organic= Assumed Gs=2.74

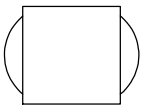
Description: Gray silty sand with traces of clay, and shell fragments (SM)

Tested By: Donna Easterling	Date Tested: 9/21/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/22/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-117b**



Boring ID	CI-18
Depth (ft)	23-25
Water Content, %	36.0
Wet Density, pcf	118.9
Dry Density, pcf	87.4
Saturation, %	103.2
Void Ratio	0.96
Specimen Diameter	2.846
Specimen Height	5.802
Height/diameter ratio	2.04
Deviator Stress, tsf	0.191
Strain, %	15.0
Confining Pressure (psi)	6.3

Bulge



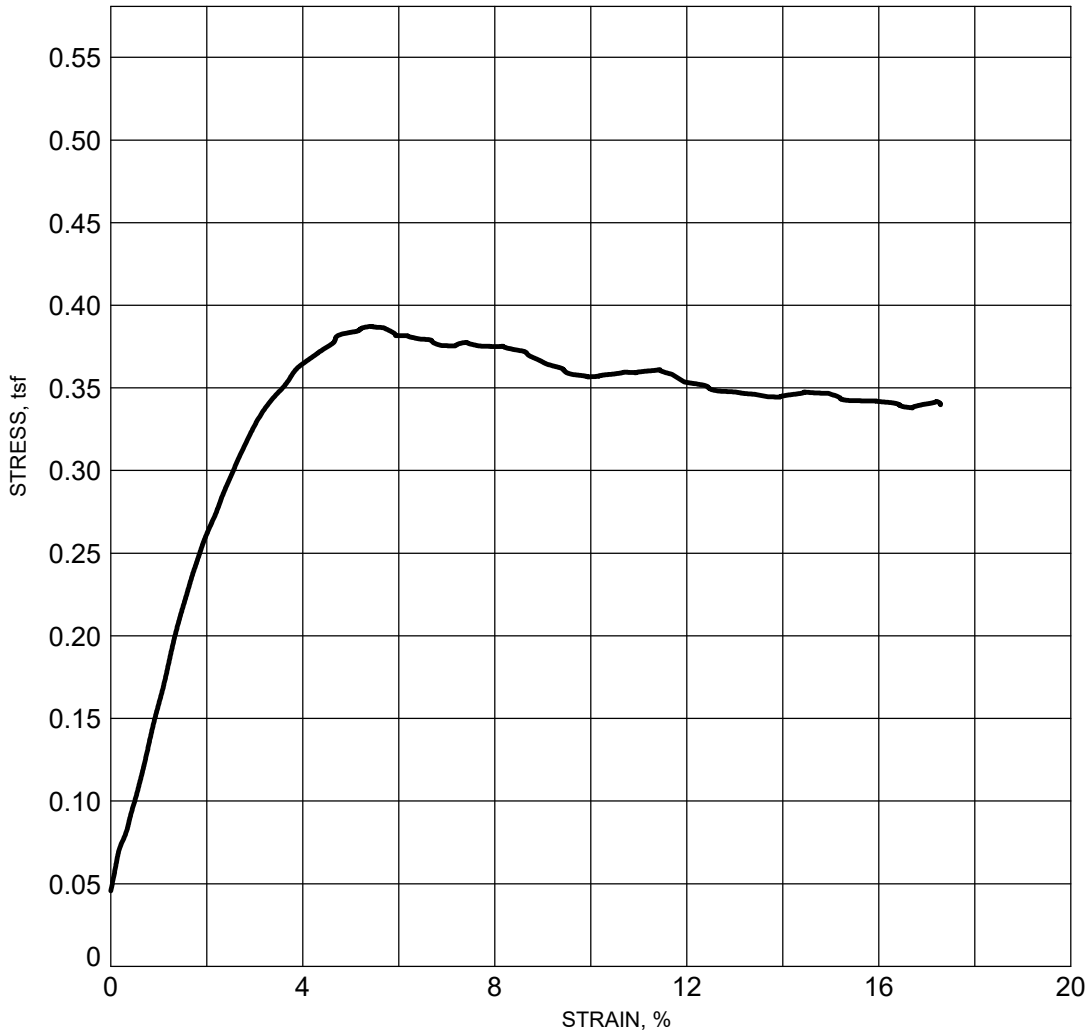
Failure Sketch

LL = 38 PL = 20 PI = 18

% 200= % Organic= Assumed Gs=2.74

Description: Very soft gray clay with shell fragments, sand layers, and silt lenses (CH)

Tested By: Donna Easterling	Date Tested: 9/25/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/26/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-118a**



Boring ID	CI-18
Depth (ft)	38-40
Water Content, %	47.9
Wet Density, pcf	110.8
Dry Density, pcf	75.0
Saturation, %	102.4
Void Ratio	1.28
Specimen Diameter	2.828
Specimen Height	5.982
Height/diameter ratio	2.12
Deviator Stress, tsf	0.387
Strain, %	5.4
Confining Pressure (psi)	10.2

Multiple Shear

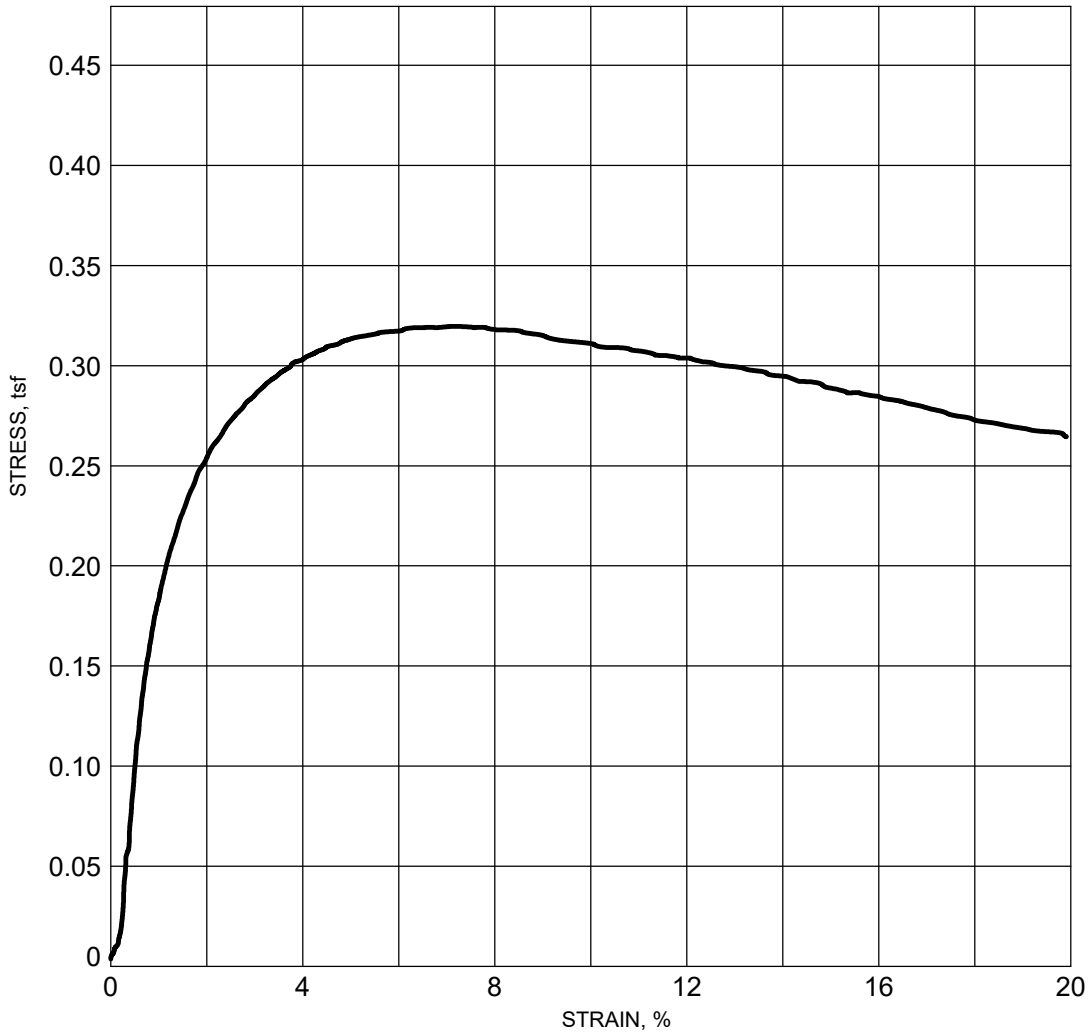
Failure Sketch

LL = 59 PL = 22 PI = 37

% 200= % Organic= Assumed Gs=2.74

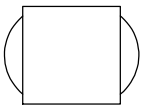
Description: Soft gray clay with sand layers, and sand pockets (CH)

Tested By: Donna Easterling	Date Tested: 9/25/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/26/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-118b**



Boring ID	CI-20
Depth (ft)	18-20
Water Content, %	51.0
Wet Density, pcf	110.5
Dry Density, pcf	73.2
Saturation, %	104.6
Void Ratio	1.34
Specimen Diameter	2.813
Specimen Height	5.961
Height/diameter ratio	2.12
Deviator Stress, tsf	0.320
Strain, %	7.1
Confining Pressure (psi)	5.0

Bulge



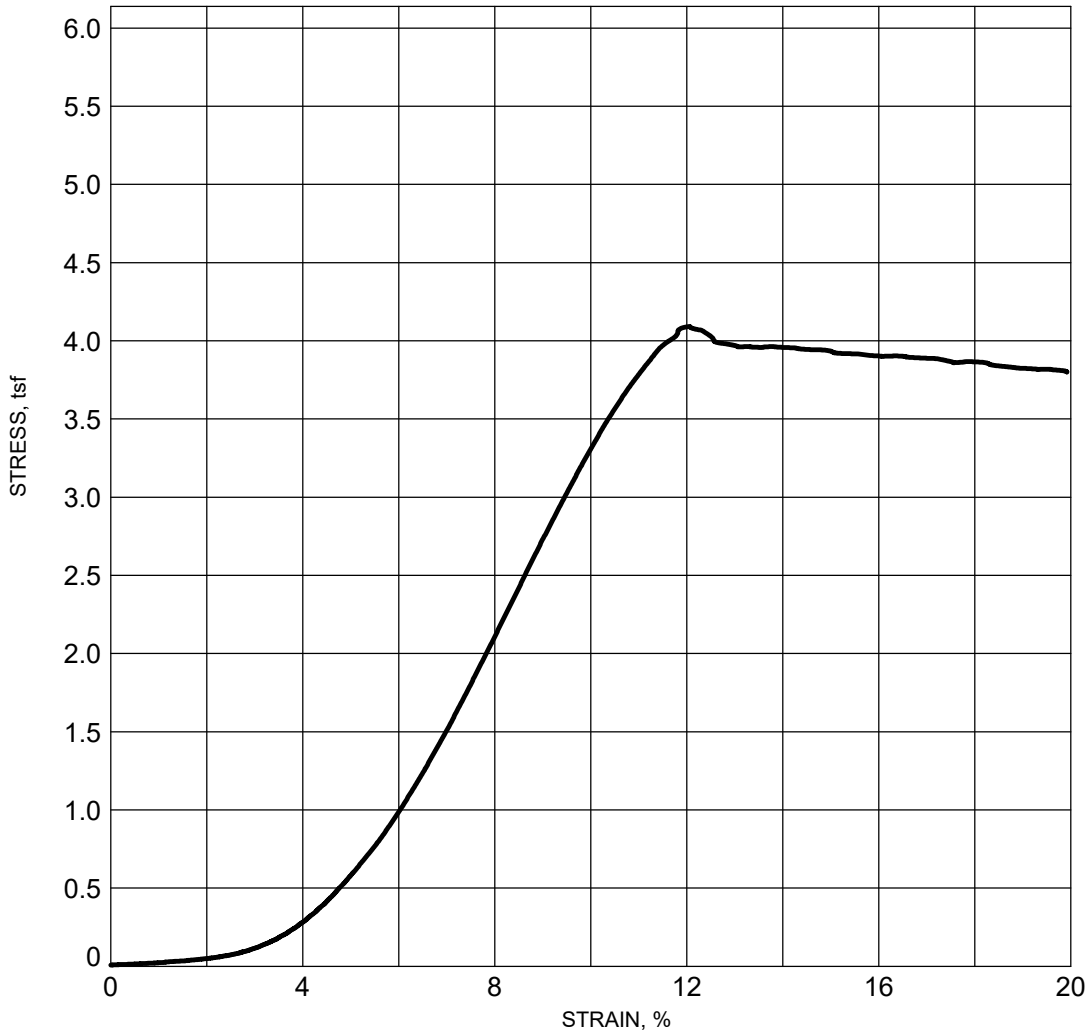
Failure Sketch

LL = 62 PL = 26 PI = 36

% 200= % Organic= Assumed Gs=2.74

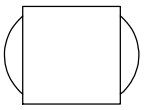
Description: Soft gray clay with sand pockets, and shell fragments (CH)

Tested By: Donna Easterling	Date Tested: 9/25/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/26/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-119a**



Boring ID	CI-20
Depth (ft)	28-30
Water Content, %	24.5
Wet Density, pcf	128.0
Dry Density, pcf	102.8
Saturation, %	101.3
Void Ratio	0.66
Specimen Diameter	2.850
Specimen Height	5.787
Height/diameter ratio	2.03
Deviator Stress, tsf	4.092
Strain, %	12.1
Confining Pressure (psi)	7.6

Bulge



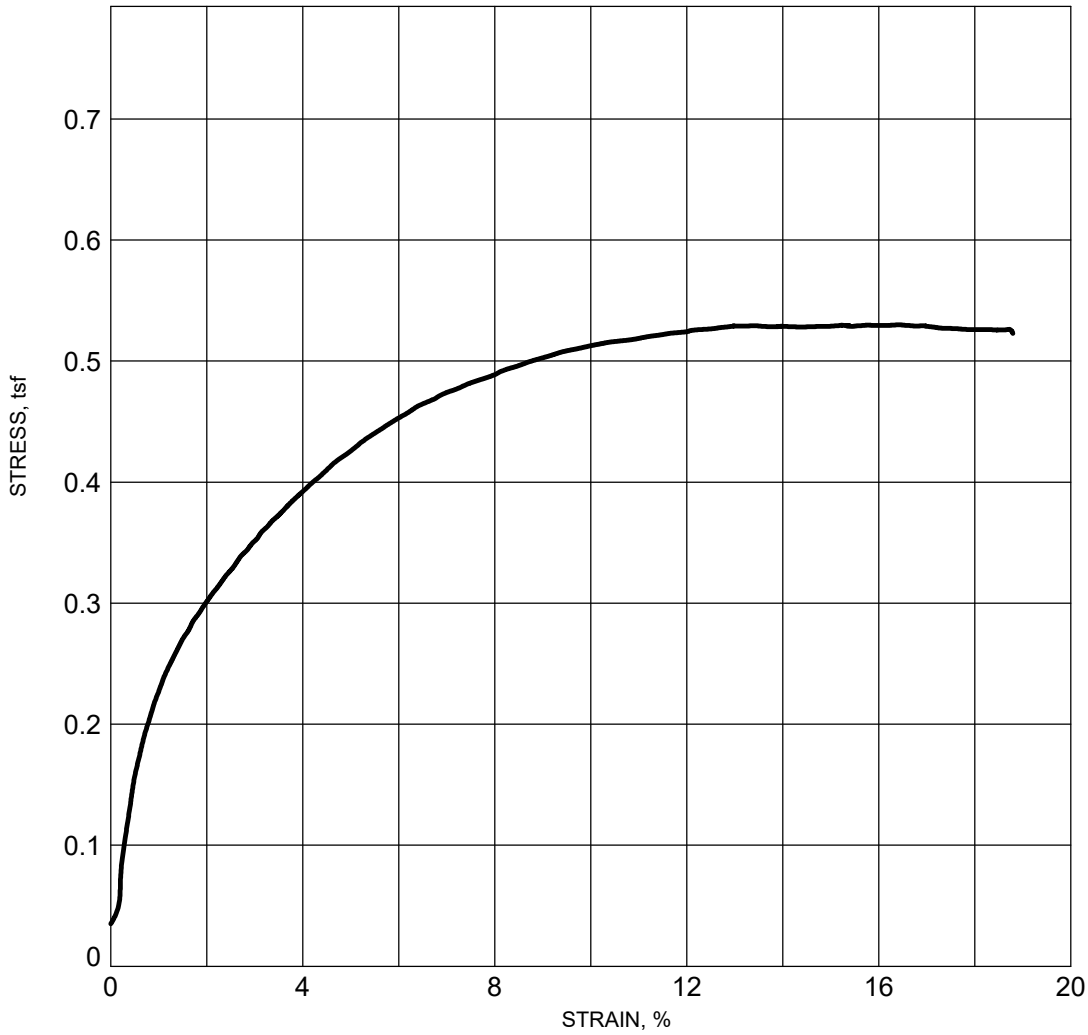
Failure Sketch

LL = PL = PI =

% 200=57 % Organic= Assumed Gs=2.74

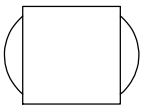
Description: Gray sandy silt with traces of clay (ML)

Tested By: Donna Easterling	Date Tested: 9/25/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/26/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-119b**



Boring ID	CI-20
Depth (ft)	48-50
Water Content, %	36.0
Wet Density, pcf	112.0
Dry Density, pcf	82.4
Saturation, %	91.6
Void Ratio	1.08
Specimen Diameter	2.830
Specimen Height	5.688
Height/diameter ratio	2.01
Deviator Stress, tsf	0.529
Strain, %	15.0
Confining Pressure (psi)	12.8

Bulge



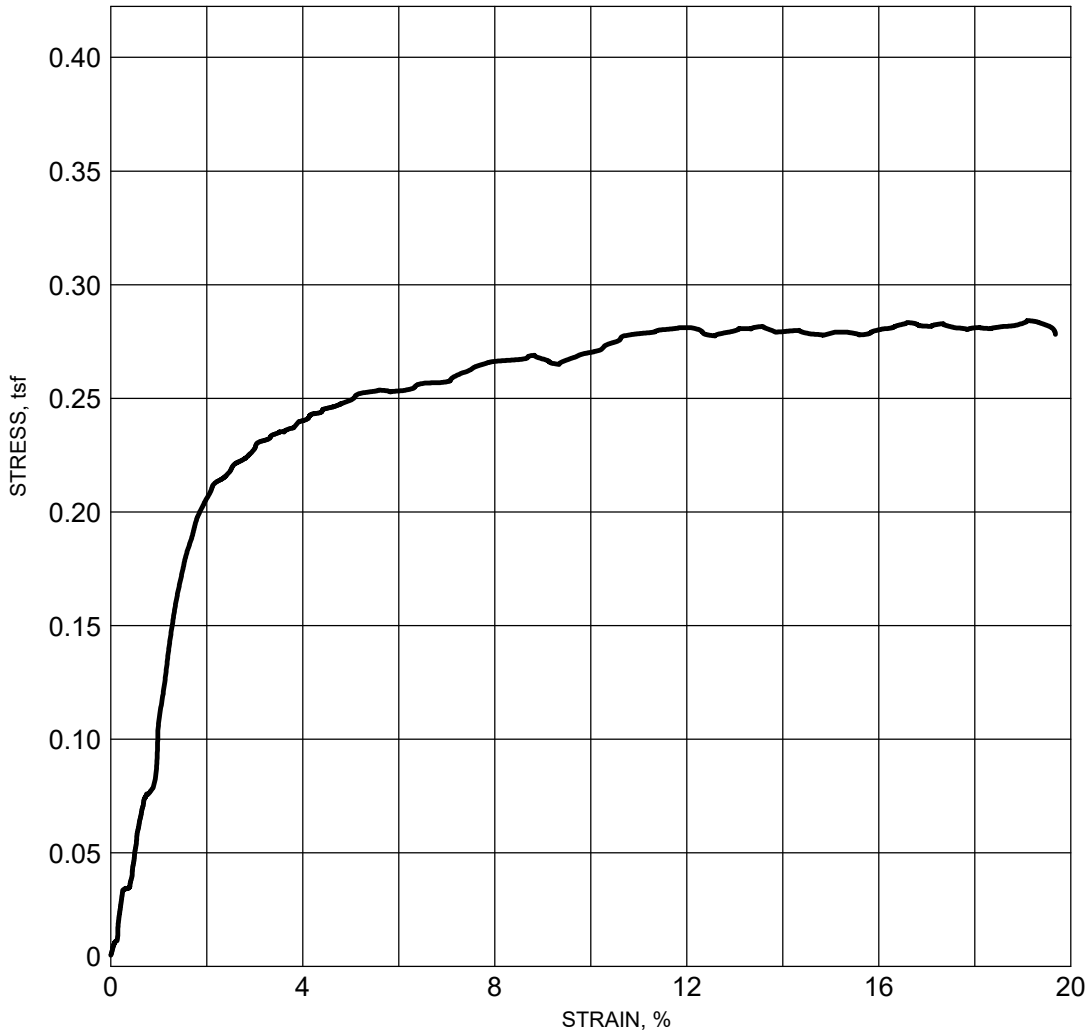
Failure Sketch

LL = PL = PI =

% 200= % Organic= Assumed Gs=2.74

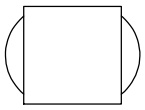
Description: Medium gray clay with organic matter (CH)

Tested By: Donna Easterling	Date Tested: 9/27/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/28/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-119c**



Boring ID	CI-20
Depth (ft)	58-60
Water Content, %	39.5
Wet Density, pcf	114.4
Dry Density, pcf	82.0
Saturation, %	99.7
Void Ratio	1.08
Specimen Diameter	2.778
Specimen Height	5.691
Height/diameter ratio	2.05
Deviator Stress, tsf	0.282
Strain, %	13.6
Confining Pressure (psi)	15.4

Bulge



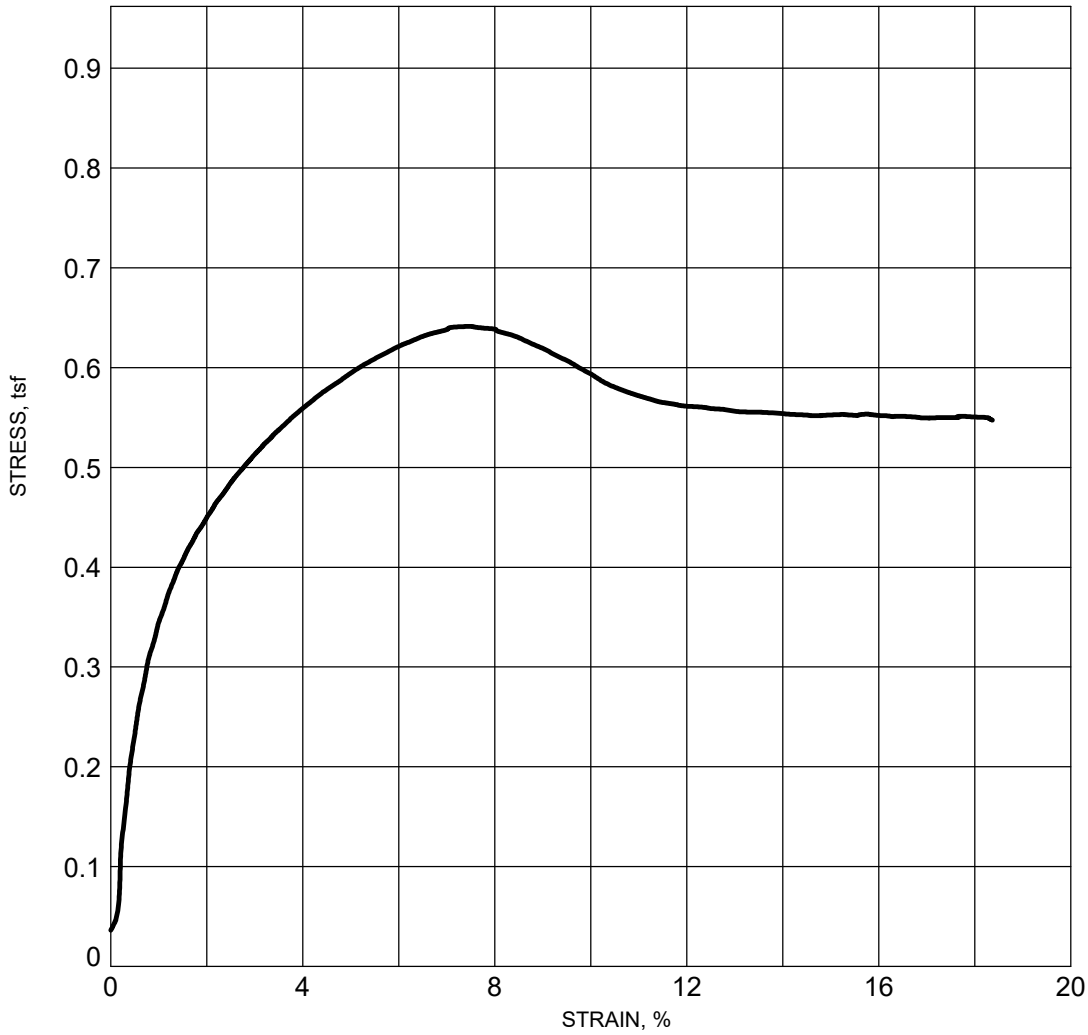
Failure Sketch

LL = 47 PL = 22 PI = 25

% 200= % Organic= Assumed Gs=2.74

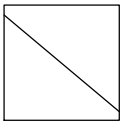
Description: Soft gray clay with silt (CL)

Tested By: Donna Easterling	Date Tested: 9/27/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/28/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-119d**



Boring ID	CI-20
Depth (ft)	73-75
Water Content, %	46.1
Wet Density, pcf	110.8
Dry Density, pcf	75.8
Saturation, %	101.1
Void Ratio	1.24
Specimen Diameter	2.802
Specimen Height	5.958
Height/diameter ratio	2.13
Deviator Stress, tsf	0.641
Strain, %	7.5
Confining Pressure (psi)	19.3

Angle Shear 55º



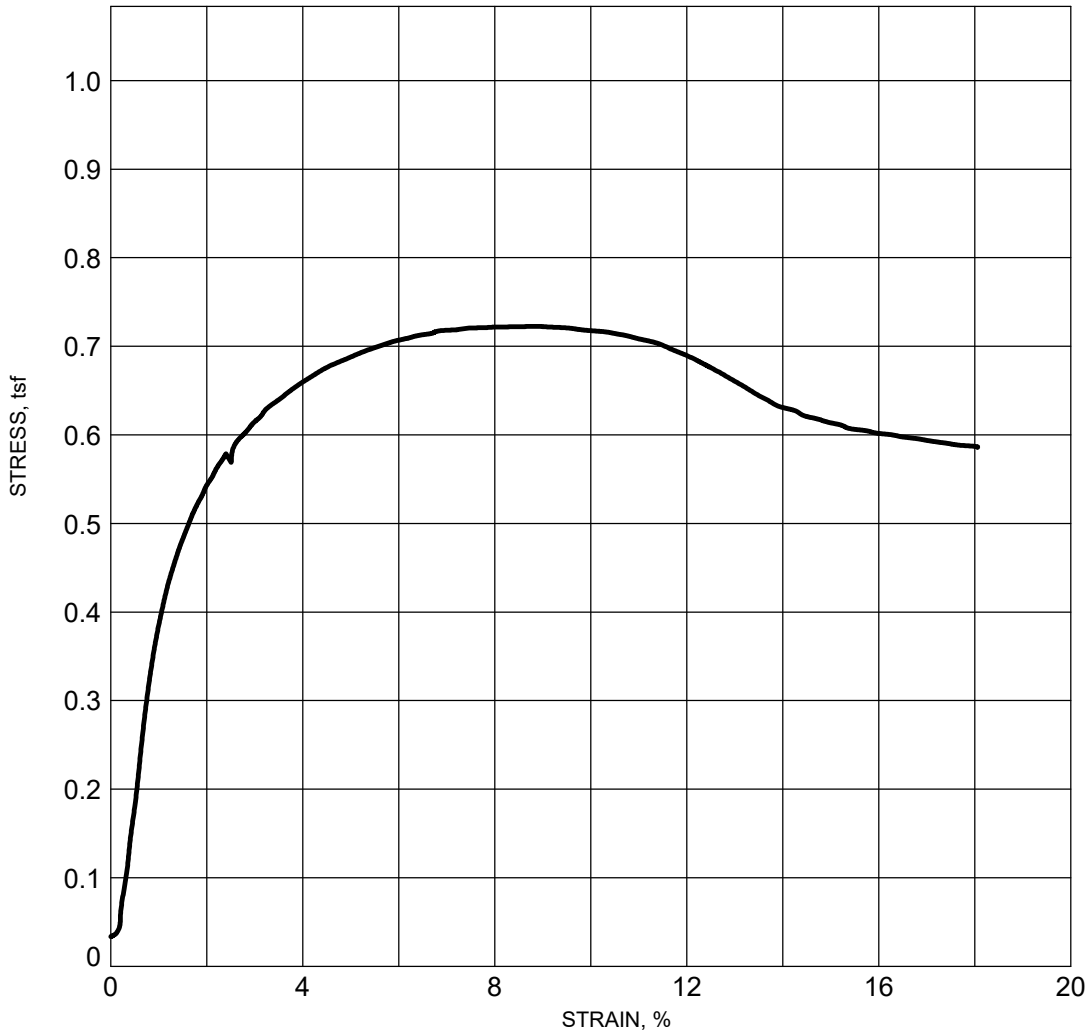
Failure Sketch

LL = 79 PL = 30 PI = 49

% 200= % Organic= Gs=2.723

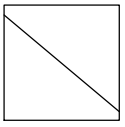
Description: Medium gray clay with silt pockets (CH)

Tested By: Donna Easterling	Date Tested: 9/28/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/16/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-119e**



Boring ID	CI-20
Depth (ft)	78-80
Water Content, %	56.4
Wet Density, pcf	104.4
Dry Density, pcf	66.8
Saturation, %	99.0
Void Ratio	1.56
Specimen Diameter	2.831
Specimen Height	6.039
Height/diameter ratio	2.13
Deviator Stress, tsf	0.723
Strain, %	9.0
Confining Pressure (psi)	20.6

Angle Shear 74º



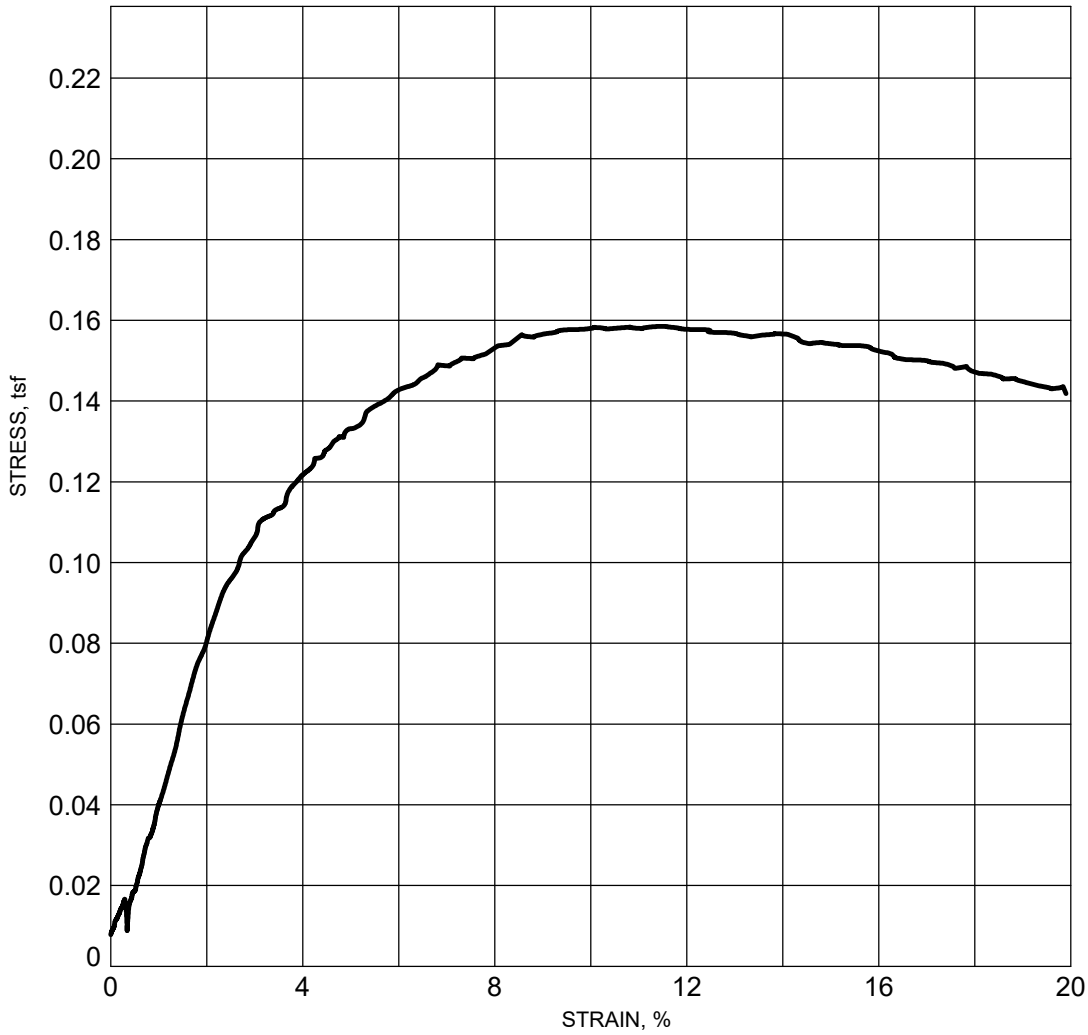
Failure Sketch

LL = PL = PI =

% 200= % Organic= Assumed Gs=2.74

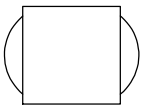
Description: Medium gray clay with silt pockets and silt lenses (CH)

Tested By: Donna Easterling	Date Tested: 9/28/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/2/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-119f**



Boring ID	CI-21
Depth (ft)	14-16
Water Content, %	45.3
Wet Density, pcf	109.9
Dry Density, pcf	75.6
Saturation, %	98.6
Void Ratio	1.26
Specimen Diameter	2.850
Specimen Height	5.960
Height/diameter ratio	2.09
Deviator Stress, tsf	0.159
Strain, %	11.6
Confining Pressure (psi)	5.0

Bulge



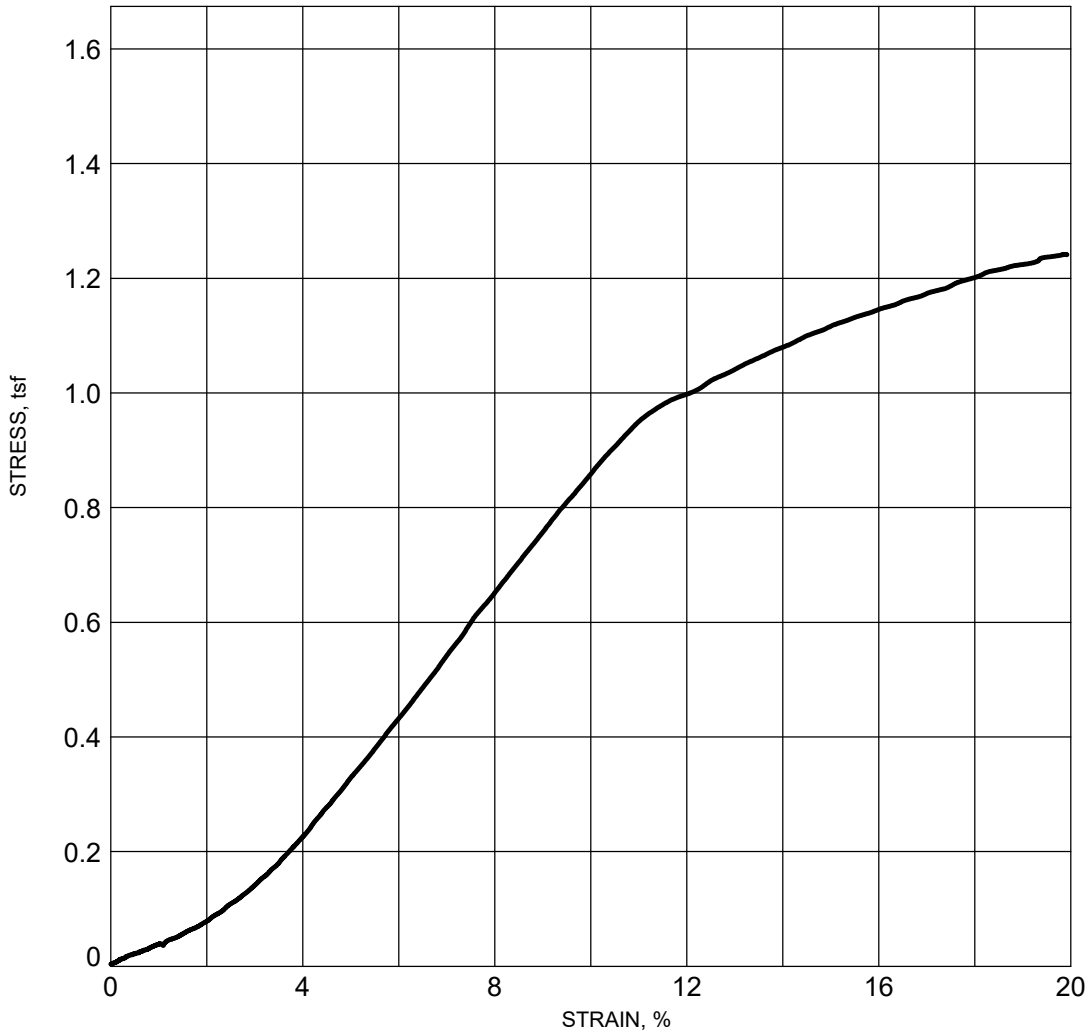
Failure Sketch

LL = 53 PL = 22 PI = 31

% 200= % Organic= Assumed Gs=2.74

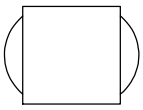
Description: Very soft gray clay with silty clay layers, sand, organic material, and shell fragments (CH)

Tested By: Donna Easterling	Date Tested: 9/28/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/2/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-120a**



Boring ID	CI-21
Depth (ft)	16-18
Water Content, %	33.4
Wet Density, pcf	121.9
Dry Density, pcf	91.3
Saturation, %	105.0
Void Ratio	0.87
Specimen Diameter	2.774
Specimen Height	5.737
Height/diameter ratio	2.07
Deviator Stress, tsf	1.116
Strain, %	15.0
Confining Pressure (psi)	5.0

Bulge



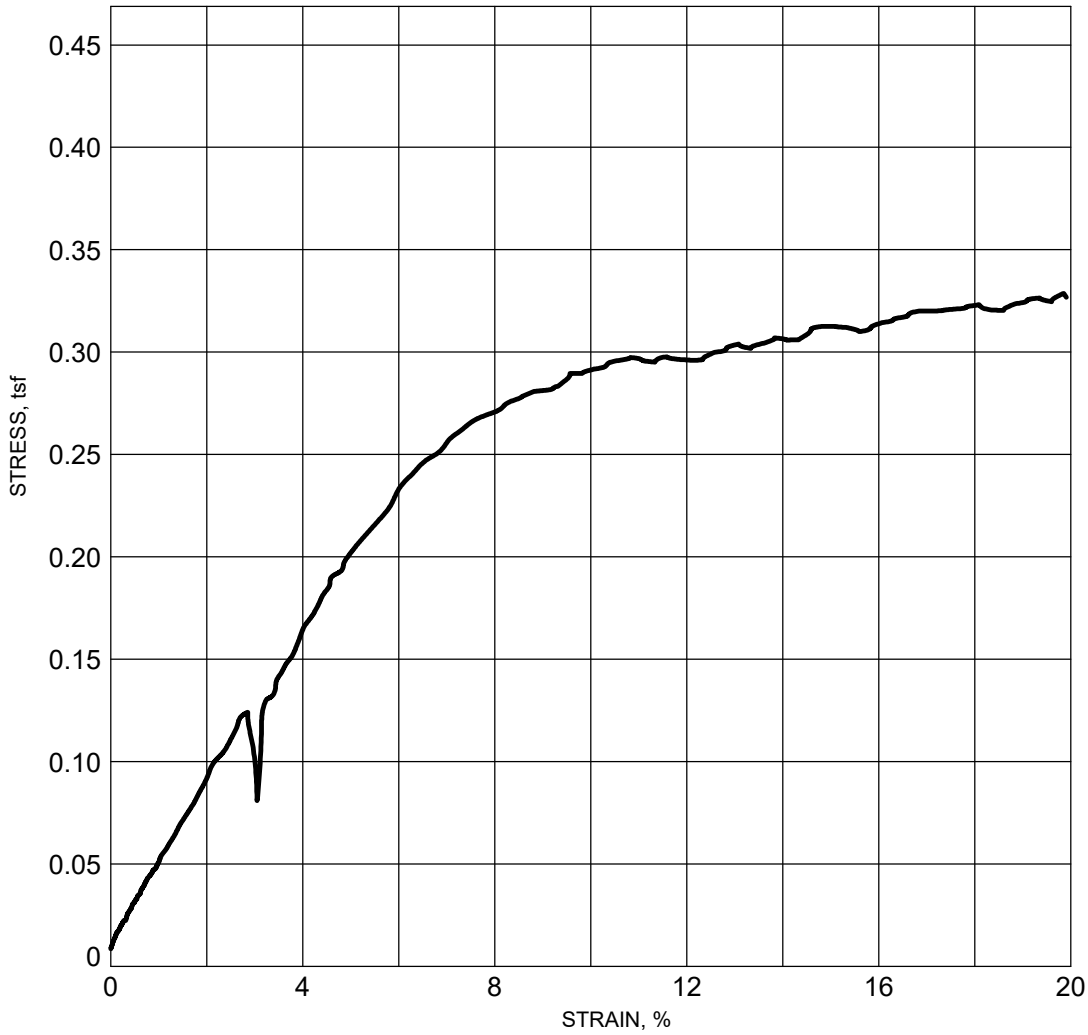
Failure Sketch

LL = PL = PI =

% 200= % Organic= Assumed Gs=2.74

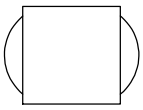
Description: Stiff gray silty clay with sand and organic material (CL)

Tested By: Donna Easterling	Date Tested: 9/28/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/29/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-120b**



Boring ID	CI-21
Depth (ft)	23-25
Water Content, %	32.2
Wet Density, pcf	122.3
Dry Density, pcf	92.6
Saturation, %	104.0
Void Ratio	0.85
Specimen Diameter	2.770
Specimen Height	5.922
Height/diameter ratio	2.14
Deviator Stress, tsf	0.313
Strain, %	15.0
Confining Pressure (psi)	6.3

Bulge



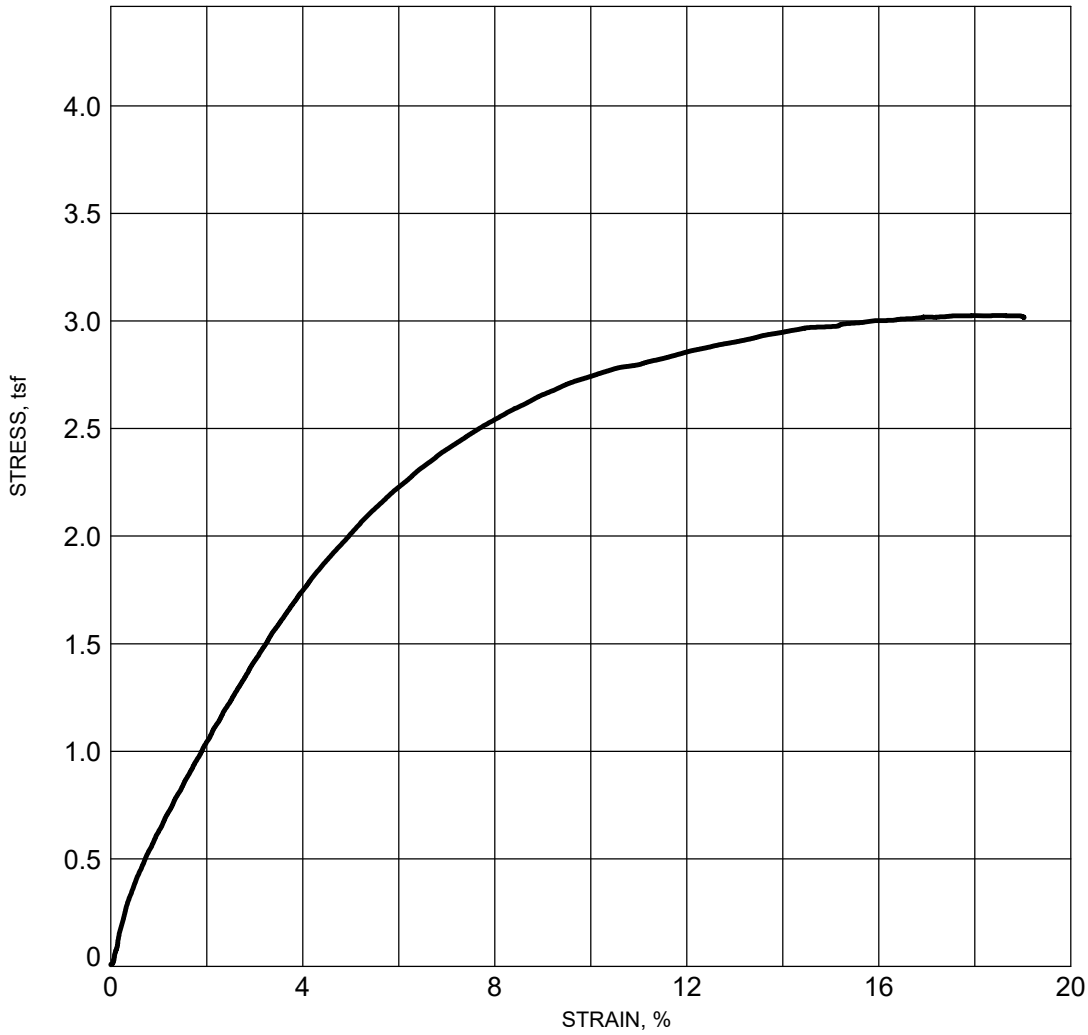
Failure Sketch

LL = PL = PI =

% 200= % Organic= Assumed Gs=2.74

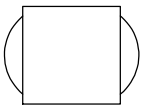
Description: Gray sandy clay with silt pockets (CL)

Tested By: Donna Easterling	Date Tested: 9/28/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/29/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-120c**



Boring ID	CI-21
Depth (ft)	33-35
Water Content, %	20.6
Wet Density, pcf	129.7
Dry Density, pcf	107.5
Saturation, %	95.7
Void Ratio	0.59
Specimen Diameter	2.762
Specimen Height	5.872
Height/diameter ratio	2.13
Deviator Stress, tsf	2.975
Strain, %	15.0
Confining Pressure (psi)	8.9

Bulge



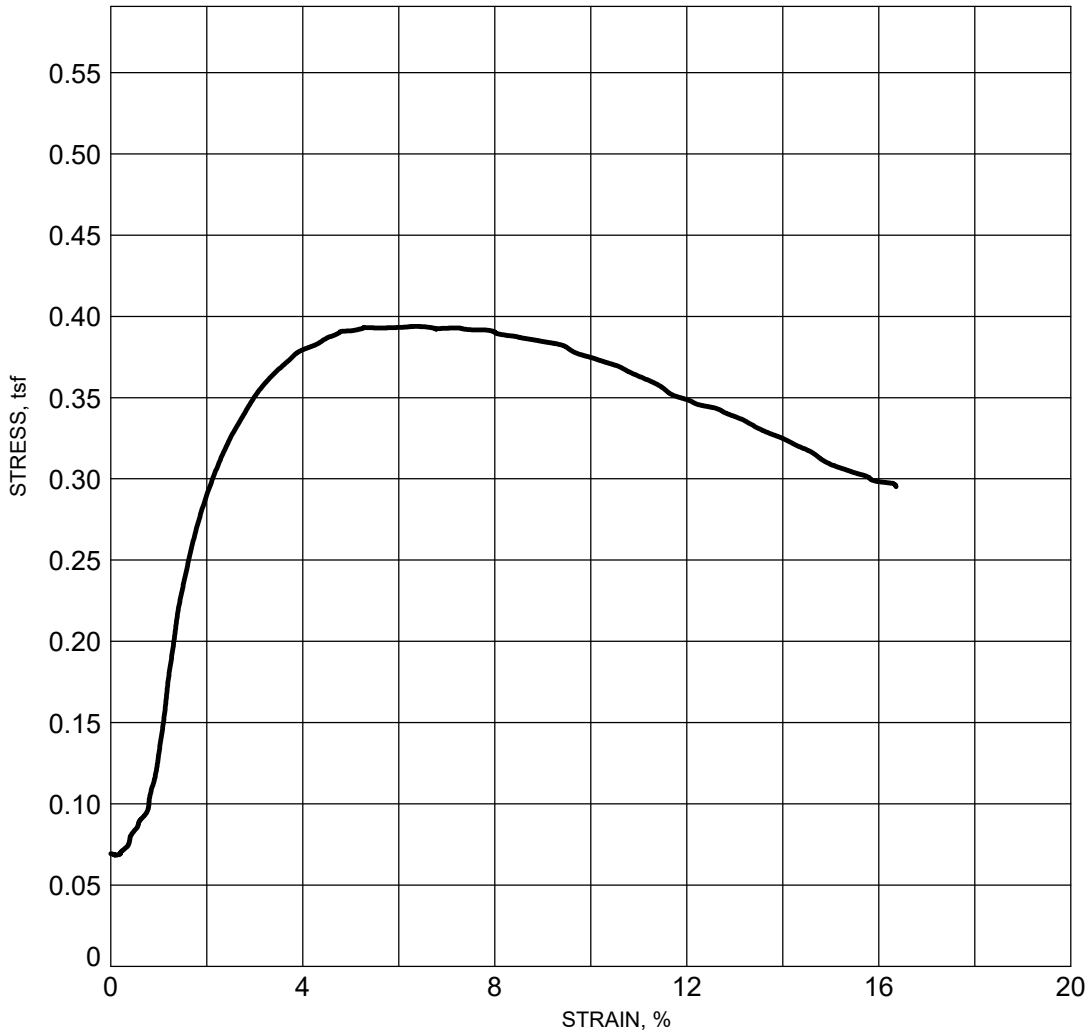
Failure Sketch

LL = PL = PI =

% 200= % Organic= Assumed Gs=2.74

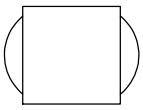
Description: Very stiff gray sandy clay with sand layers and shell fragments (CL)

Tested By: Donna Easterling	Date Tested: 9/28/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/29/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-120d**



Boring ID	CI-22
Depth (ft)	16-18
Water Content, %	57.7
Wet Density, pcf	105.0
Dry Density, pcf	66.6
Saturation, %	100.8
Void Ratio	1.57
Specimen Diameter	2.850
Specimen Height	5.984
Height/diameter ratio	2.10
Deviator Stress, tsf	0.394
Strain, %	6.3
Confining Pressure (psi)	5.0

Bulge



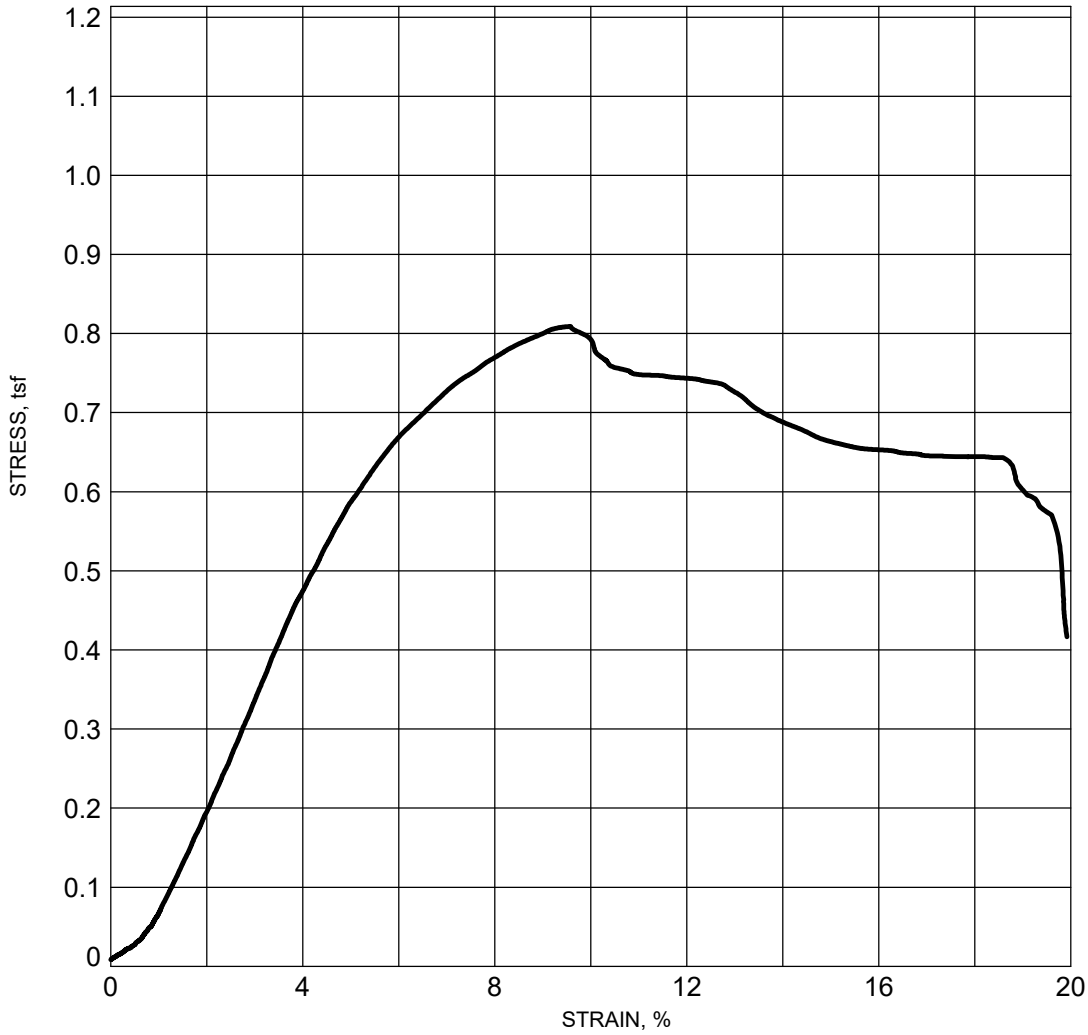
Failure Sketch

LL = 64 PL = 25 PI = 39

% 200= % Organic= Assumed Gs=2.74

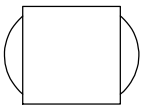
Description: Soft gray clay with sand pockets (CH)

Tested By: Donna Easterling	Date Tested: 9/28/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/29/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-121a**



Boring ID	CI-22
Depth (ft)	38-40
Water Content, %	28.6
Wet Density, pcf	123.4
Dry Density, pcf	96.0
Saturation, %	100.1
Void Ratio	0.78
Specimen Diameter	2.797
Specimen Height	5.998
Height/diameter ratio	2.14
Deviator Stress, tsf	0.809
Strain, %	9.6
Confining Pressure (psi)	10.2

Bulge



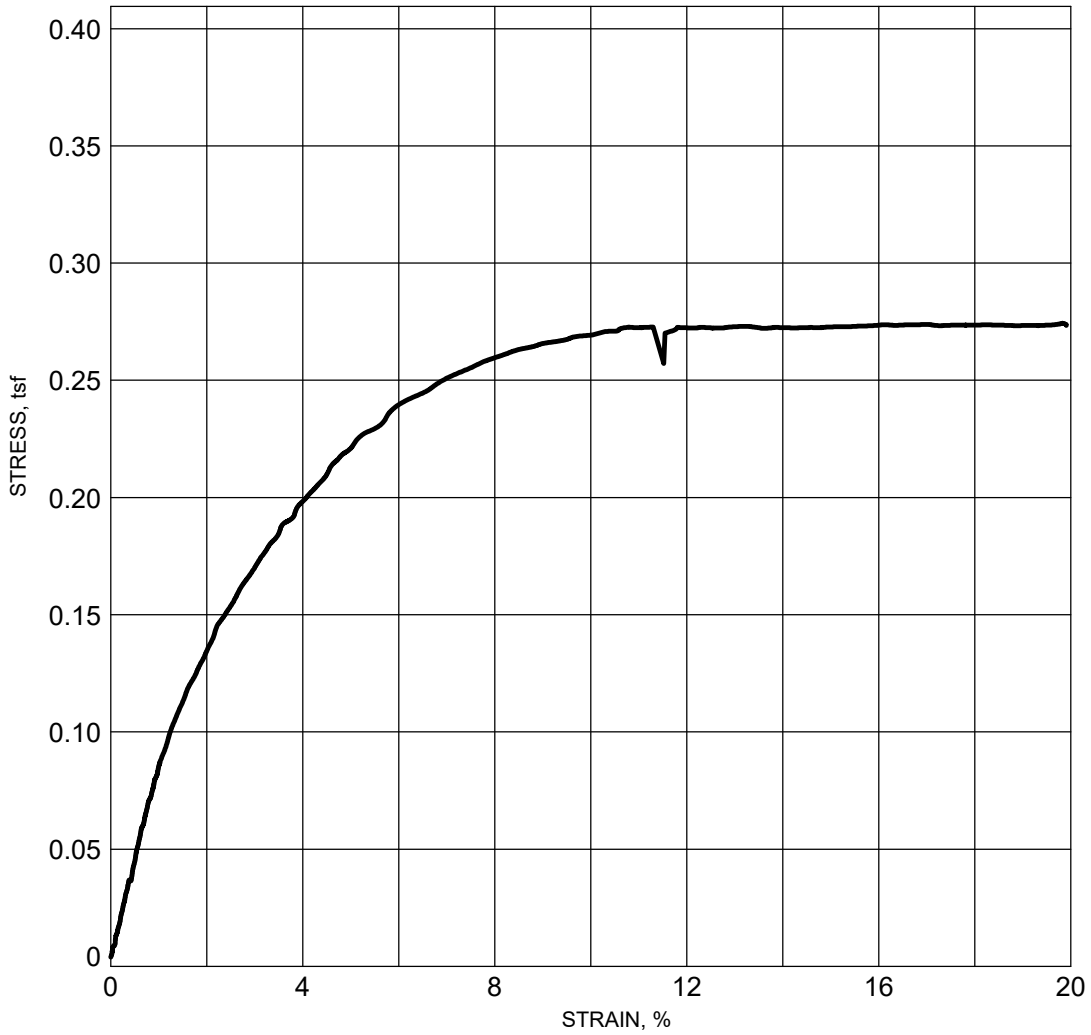
Failure Sketch

LL = PL = PI =

% 200= % Organic= Assumed Gs=2.74

Description: Gray sandy silt with clay pockets (ML)

Tested By: Donna Easterling	Date Tested: 9/28/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 9/29/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-121b**



Boring ID	CI-23
Depth (ft)	33-35
Water Content, %	43.5
Wet Density, pcf	106.7
Dry Density, pcf	74.3
Saturation, %	92.5
Void Ratio	1.27
Specimen Diameter	2.540
Specimen Height	5.149
Height/diameter ratio	2.03
Deviator Stress, tsf	0.273
Strain, %	13.3
Confining Pressure (psi)	8.9

Multiple Shear

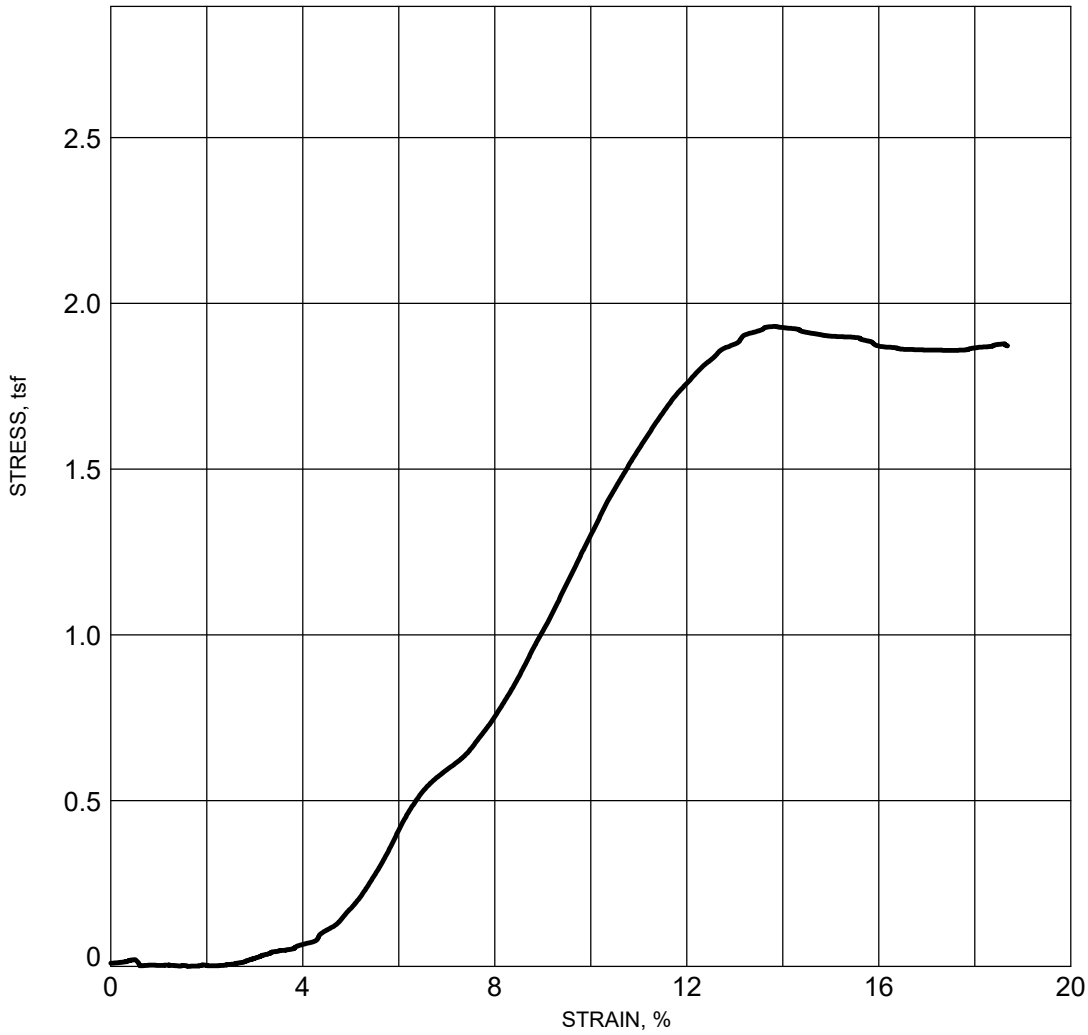
Failure Sketch

LL = 60 PL = 24 PI = 36

% 200= % Organic= Gs=2.710

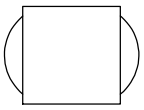
Description: Soft gray clay with sand layers and organic matter. (CH)

Tested By: Donna Easterling	Date Tested: 9/28/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/2/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-122**



Boring ID	CI-24
Depth (ft)	0-2
Water Content, %	30.6
Wet Density, pcf	119.7
Dry Density, pcf	91.6
Saturation, %	96.8
Void Ratio	0.87
Specimen Diameter	2.850
Specimen Height	5.870
Height/diameter ratio	2.06
Deviator Stress, tsf	1.931
Strain, %	13.9
Confining Pressure (psi)	5.0

Bulge



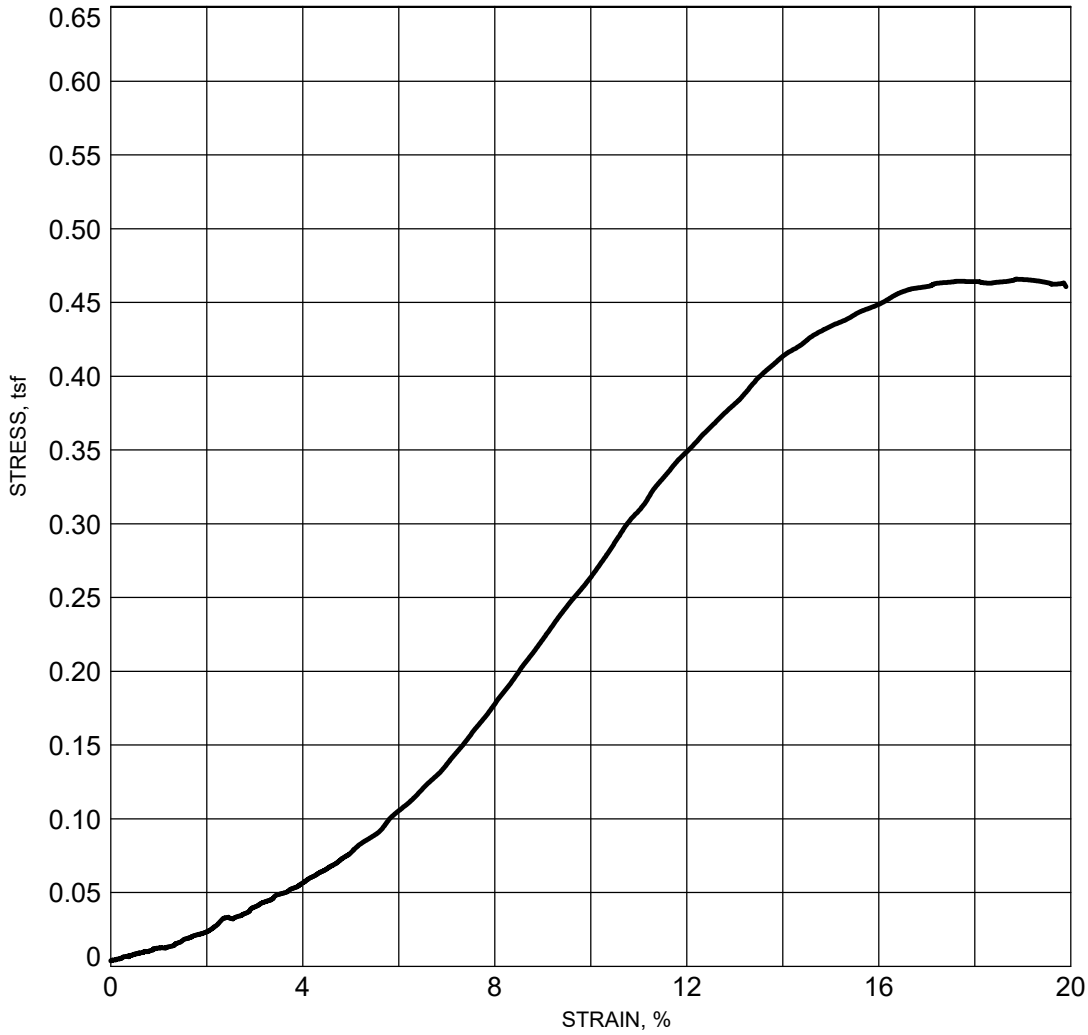
Failure Sketch

LL = 32 PL = 28 PI = 4

% 200=55 % Organic= Assumed Gs=2.74

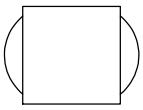
Description: Gray sandy silt with organic matter and traces of shells (ML)

Tested By: Donna Easterling	Date Tested: 9/28/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/2/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-123a**



Boring ID	CI-24
Depth (ft)	4-6
Water Content, %	29.9
Wet Density, pcf	124.3
Dry Density, pcf	95.6
Saturation, %	104.1
Void Ratio	0.79
Specimen Diameter	2.850
Specimen Height	5.862
Height/diameter ratio	2.06
Deviator Stress, tsf	0.434
Strain, %	15.0
Confining Pressure (psi)	5.0

Bulge



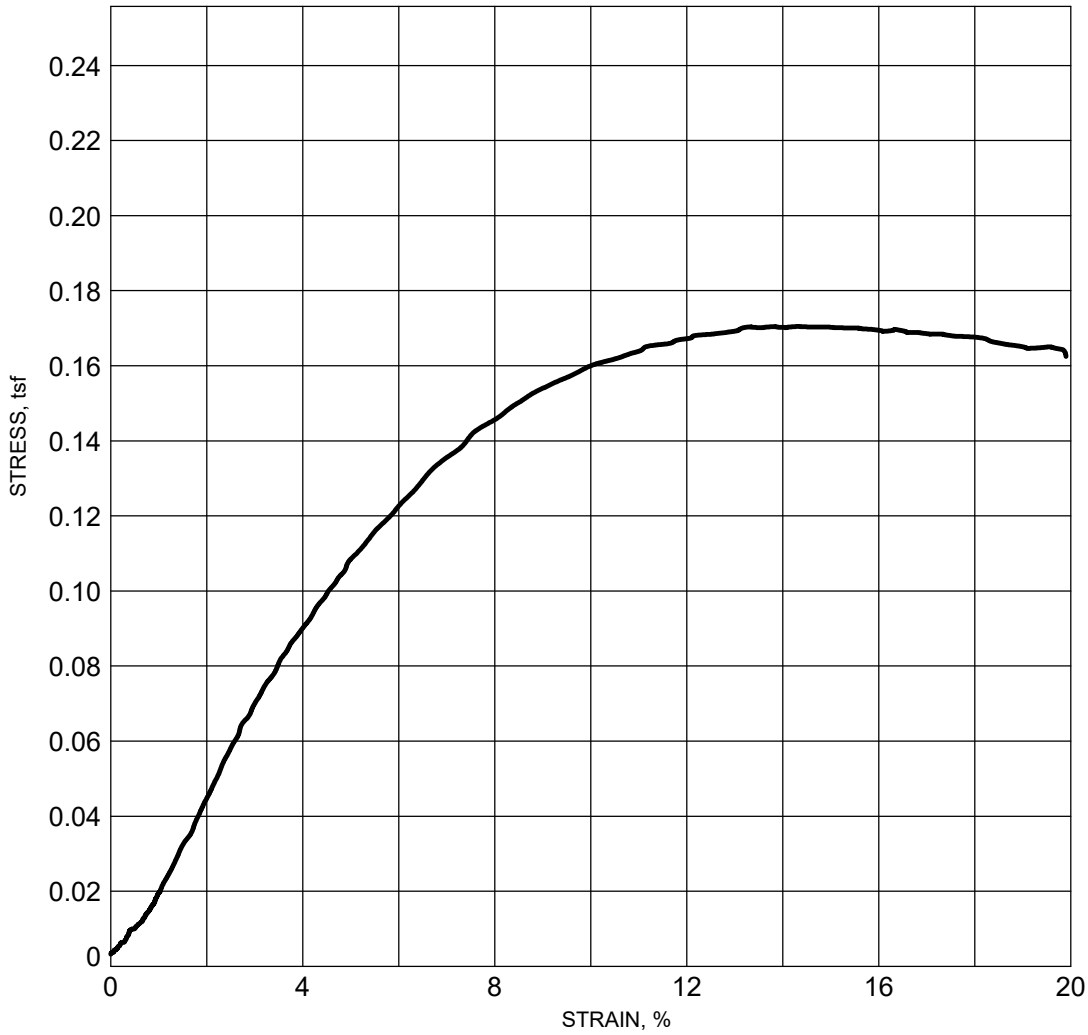
Failure Sketch

LL = PL = PI =

% 200= % Organic= Assumed Gs=2.74

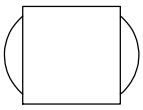
Description: Soft gray sandy silty clay (CL)

Tested By: Donna Easterling	Date Tested: 9/28/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/2/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-123b**



Boring ID	CI-24
Depth (ft)	8-10
Water Content, %	35.9
Wet Density, pcf	116.1
Dry Density, pcf	85.4
Saturation, %	100.7
Void Ratio	0.96
Specimen Diameter	2.850
Specimen Height	5.932
Height/diameter ratio	2.08
Deviator Stress, tsf	0.171
Strain, %	14.3
Confining Pressure (psi)	5.0

Bulge



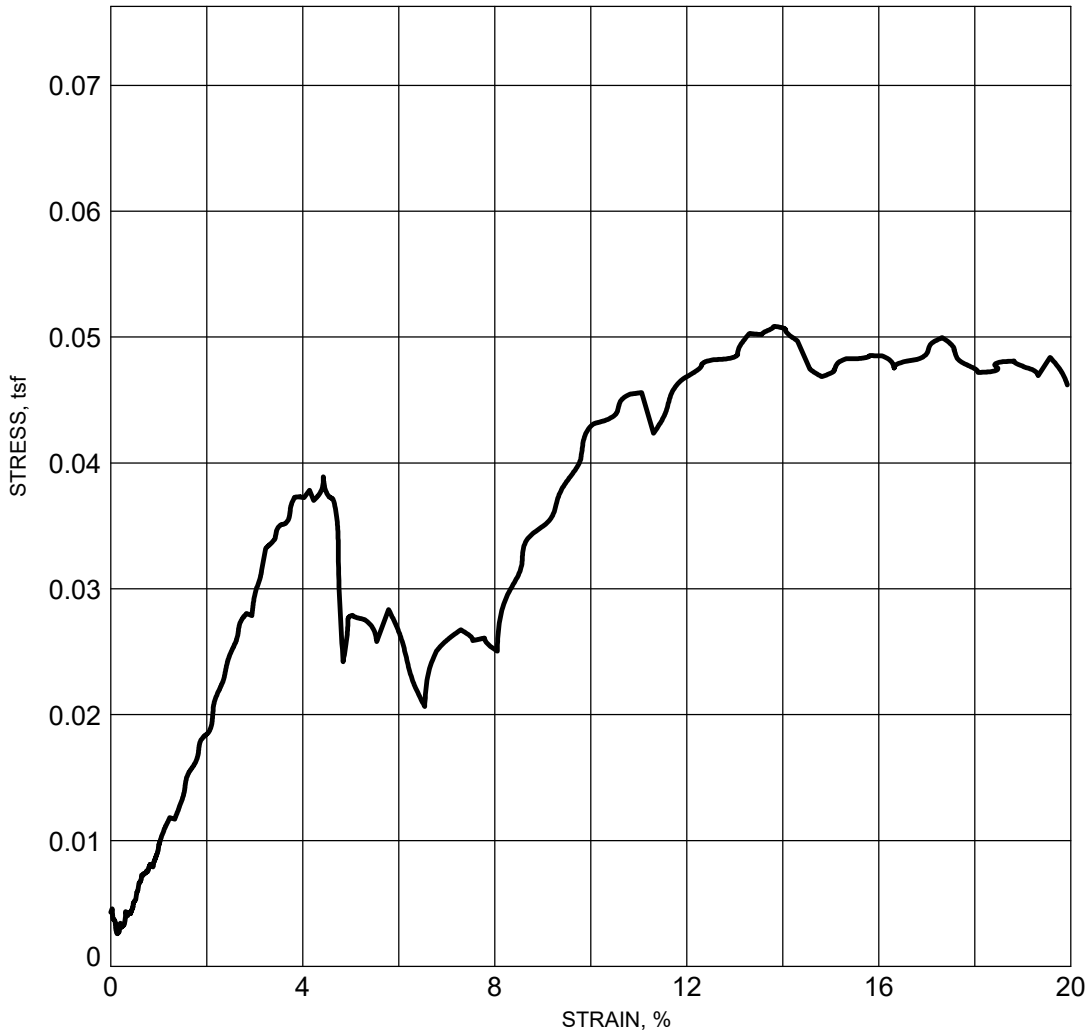
Failure Sketch

LL = 39 PL = 25 PI = 14

% 200= % Organic= Gs=2.677

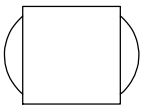
Description: Very soft gray silty clay with sand and shell fragments (CL)

Tested By: Donna Easterling	Date Tested: 9/28/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/2/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-123c**



Boring ID	CI-24
Depth (ft)	12-14
Water Content, %	46.1
Wet Density, pcf	111.0
Dry Density, pcf	76.0
Saturation, %	100.9
Void Ratio	1.25
Specimen Diameter	2.850
Specimen Height	5.923
Height/diameter ratio	2.08
Deviator Stress, tsf	0.051
Strain, %	13.8
Confining Pressure (psi)	5.0

Bulge



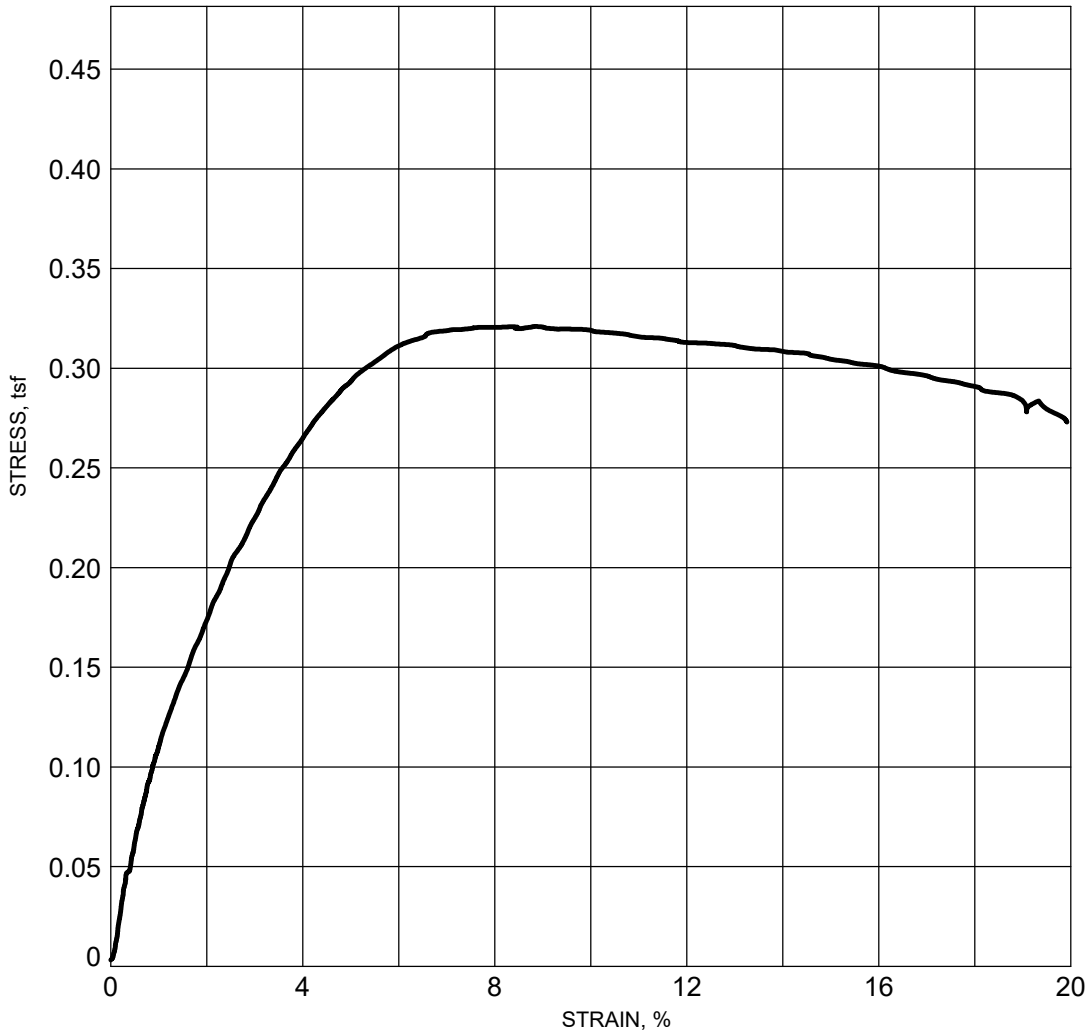
Failure Sketch

LL = 48 PL = 21 PI = 27

% 200= % Organic= Assumed Gs=2.74

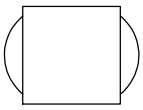
Description: Very soft gray clay with silt and shell fragments (CL)

Tested By: Donna Easterling	Date Tested: 9/28/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/2/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-123d**



Boring ID	CI-24
Depth (ft)	18-20
Water Content, %	52.2
Wet Density, pcf	107.1
Dry Density, pcf	70.3
Saturation, %	100.0
Void Ratio	1.43
Specimen Diameter	2.850
Specimen Height	6.023
Height/diameter ratio	2.11
Deviator Stress, tsf	0.321
Strain, %	8.8
Confining Pressure (psi)	5.0

Bulge



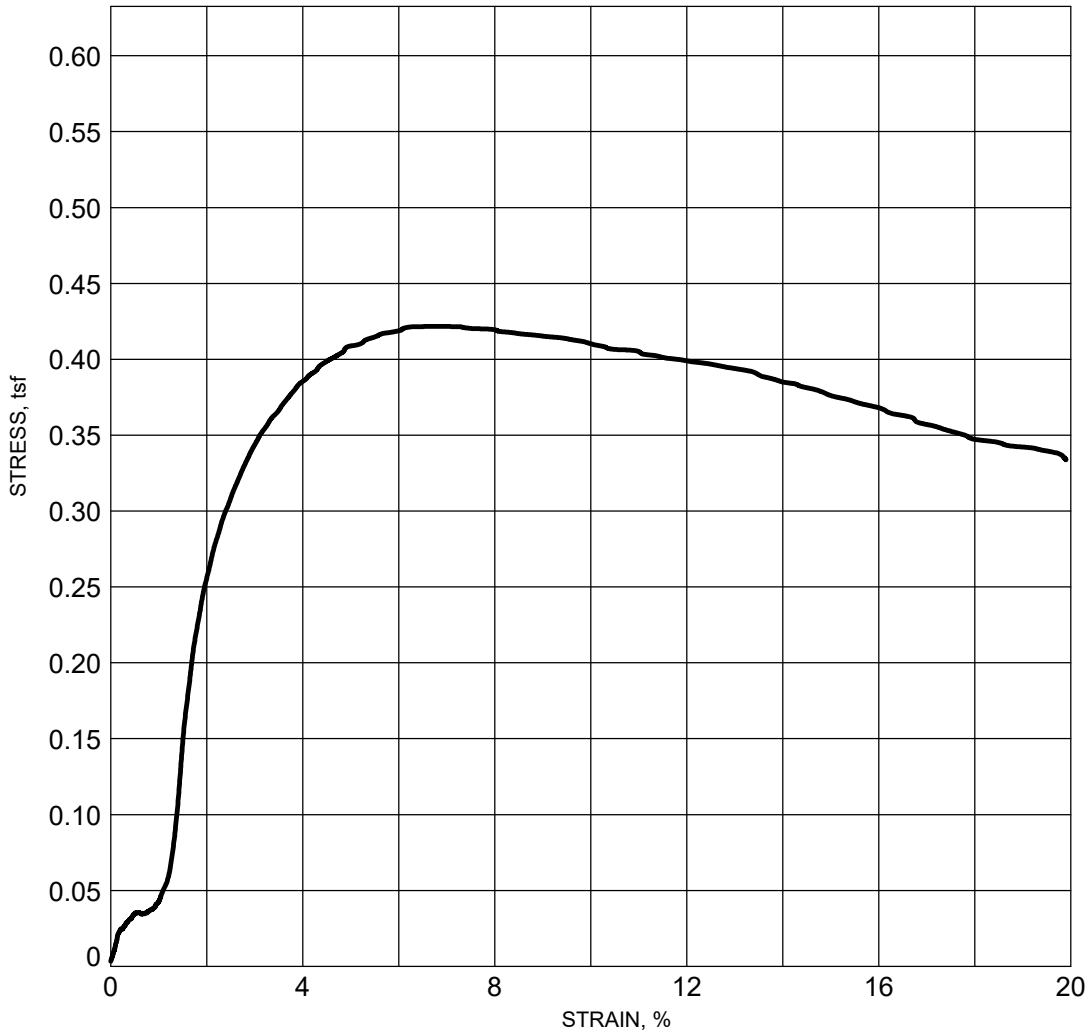
Failure Sketch

LL = PL = PI =

% 200= % Organic= Assumed Gs=2.74

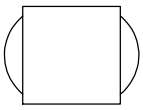
Description: Soft gray clay with sand layers, silt, and organic matter (CL)

Tested By: Donna Easterling	Date Tested: 9/28/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/2/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-123e**



Boring ID	CI-24
Depth (ft)	28-30
Water Content, %	52.8
Wet Density, pcf	106.2
Dry Density, pcf	69.5
Saturation, %	99.0
Void Ratio	1.46
Specimen Diameter	2.822
Specimen Height	6.015
Height/diameter ratio	2.13
Deviator Stress, tsf	0.422
Strain, %	6.8
Confining Pressure (psi)	7.6

Bulge



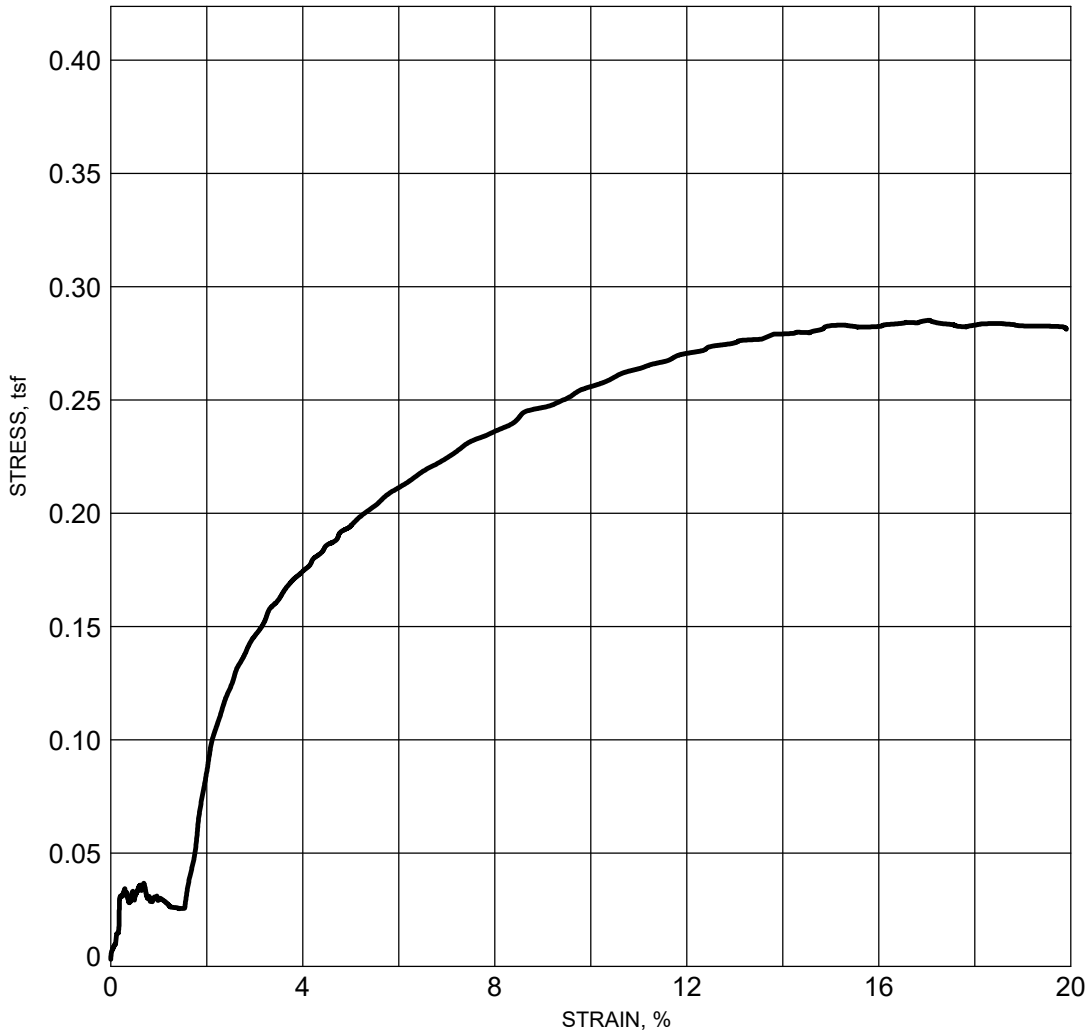
Failure Sketch

LL = PL = PI =

% 200= % Organic= Assumed Gs=2.74

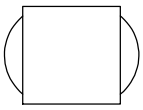
Description: Soft gray clay (CH)

Tested By: Donna Easterling	Date Tested: 9/28/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Donna Easterling	Date Reviewed: 11/3/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-123f**



Boring ID	CI-24
Depth (ft)	38-40
Water Content, %	46.2
Wet Density, pcf	112.6
Dry Density, pcf	77.0
Saturation, %	103.8
Void Ratio	1.22
Specimen Diameter	2.787
Specimen Height	5.886
Height/diameter ratio	2.11
Deviator Stress, tsf	0.282
Strain, %	15.0
Confining Pressure (psi)	10.2

Bulge



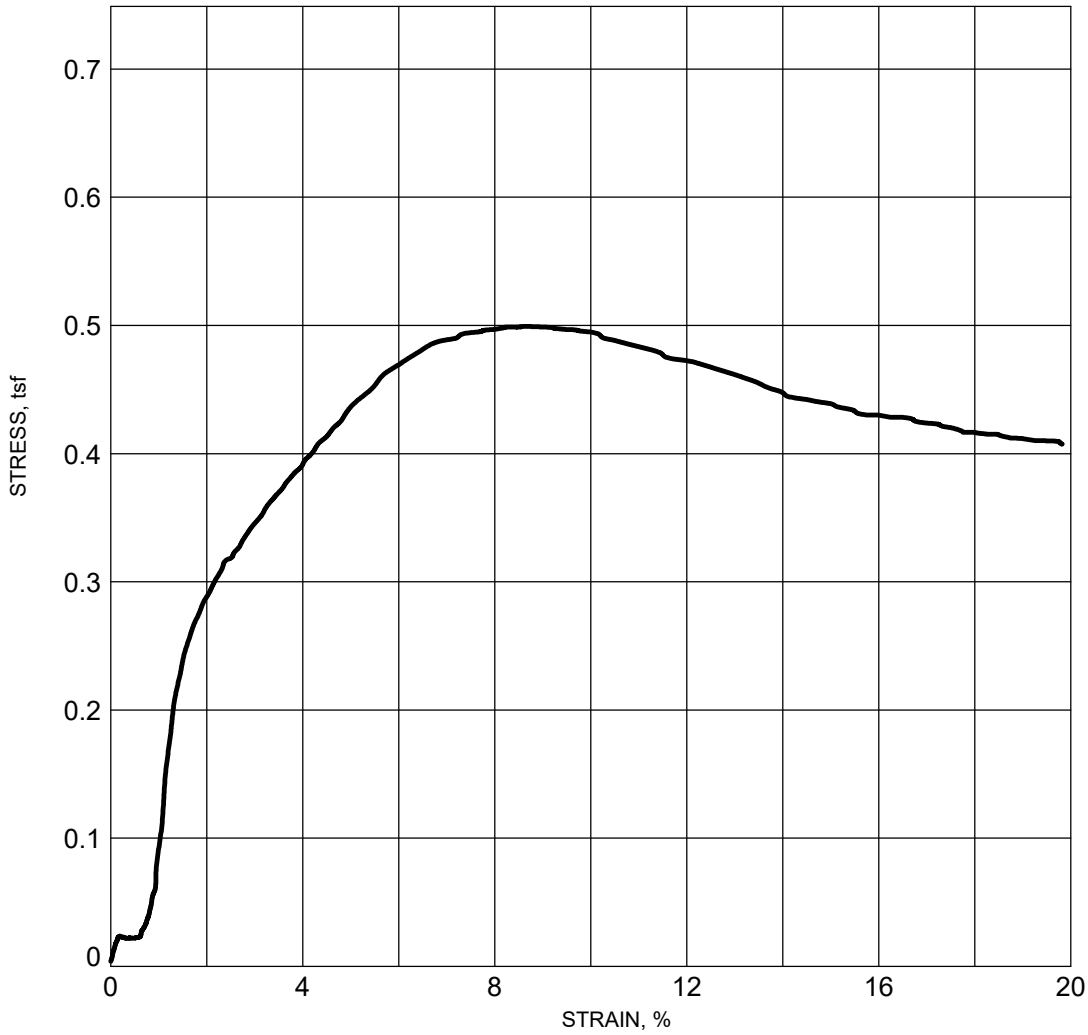
Failure Sketch

LL = PL = PI =

% 200= % Organic= Assumed Gs=2.74

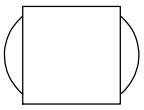
Description: Soft gray clay with silt lenses and sand pockets (CH)

Tested By: Donna Easterling	Date Tested: 9/29/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/2/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-123g**



Boring ID	CI-24
Depth (ft)	43-45
Water Content, %	54.1
Wet Density, pcf	107.7
Dry Density, pcf	69.9
Saturation, %	102.5
Void Ratio	1.45
Specimen Diameter	2.801
Specimen Height	5.988
Height/diameter ratio	2.14
Deviator Stress, tsf	0.499
Strain, %	8.7
Confining Pressure (psi)	11.5

Bulge



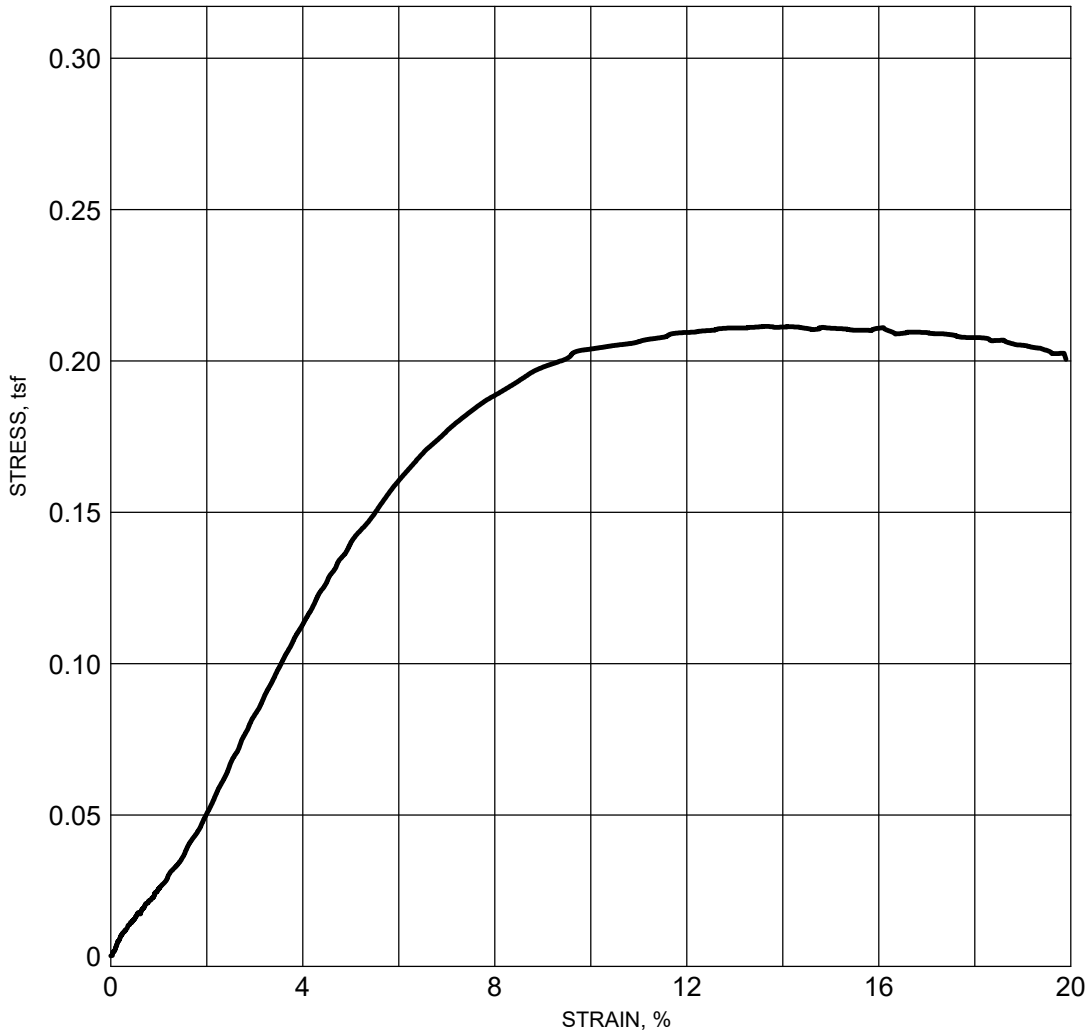
Failure Sketch

LL = PL = PI =

% 200= % Organic= Assumed Gs=2.74

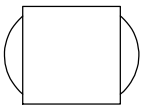
Description: Medium gray clay with silt lenses and sand pockets (CH)

Tested By: Donna Easterling	Date Tested: 9/29/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/2/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-123h**



Boring ID	CI-25
Depth (ft)	8-10
Water Content, %	41.7
Wet Density, pcf	114.4
Dry Density, pcf	80.7
Saturation, %	102.1
Void Ratio	1.12
Specimen Diameter	2.773
Specimen Height	5.937
Height/diameter ratio	2.14
Deviator Stress, tsf	0.211
Strain, %	13.6
Confining Pressure (psi)	5.0

Bulge



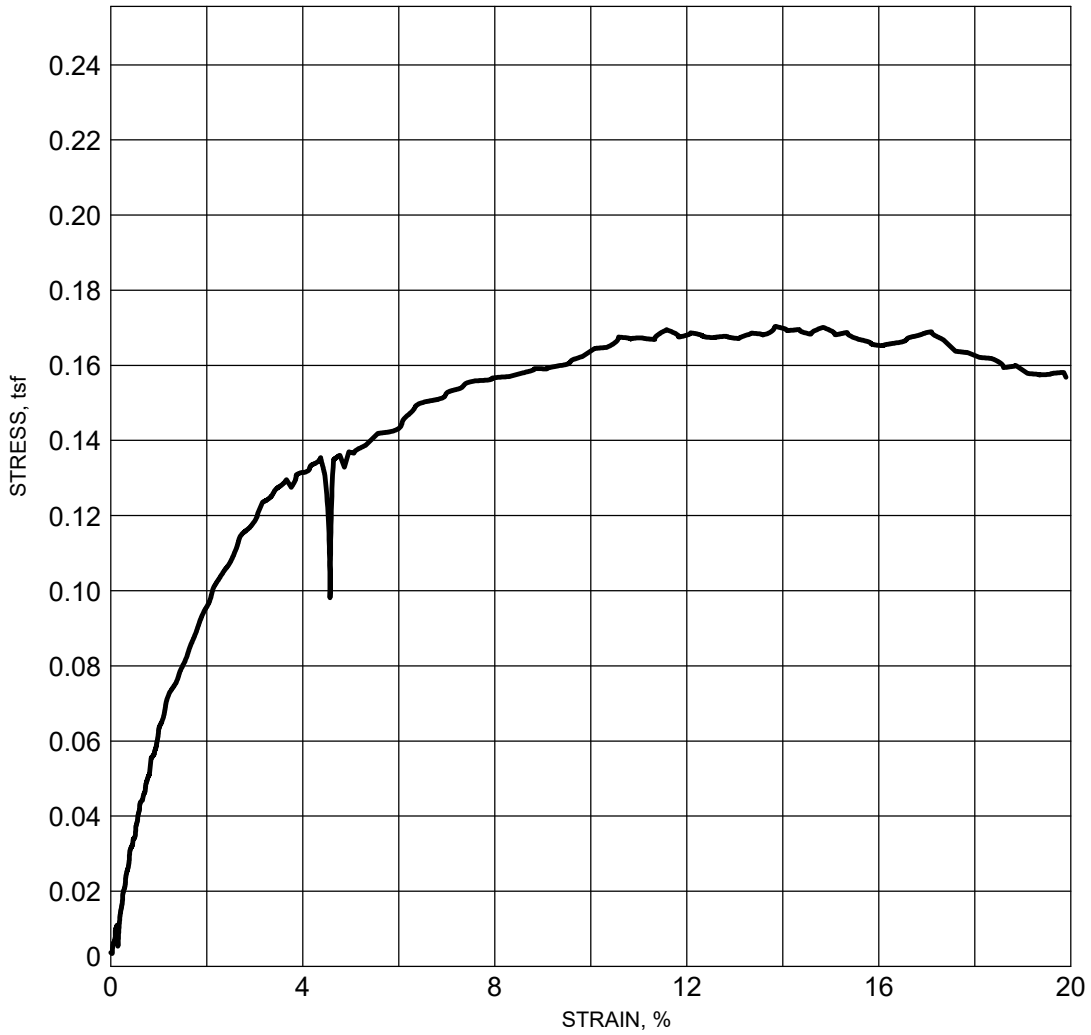
Failure Sketch

LL = PL = PI =

% 200= % Organic= Assumed Gs=2.74

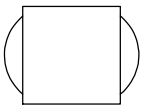
Description: Very soft gray silty clay with sand pockets (CL)

Tested By: Donna Easterling	Date Tested: 9/29/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/2/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-124a**



Boring ID	CI-25
Depth (ft)	12-14
Water Content, %	44.3
Wet Density, pcf	114.2
Dry Density, pcf	79.1
Saturation, %	104.6
Void Ratio	1.16
Specimen Diameter	2.782
Specimen Height	5.972
Height/diameter ratio	2.15
Deviator Stress, tsf	0.170
Strain, %	13.8
Confining Pressure (psi)	5.0

Bulge



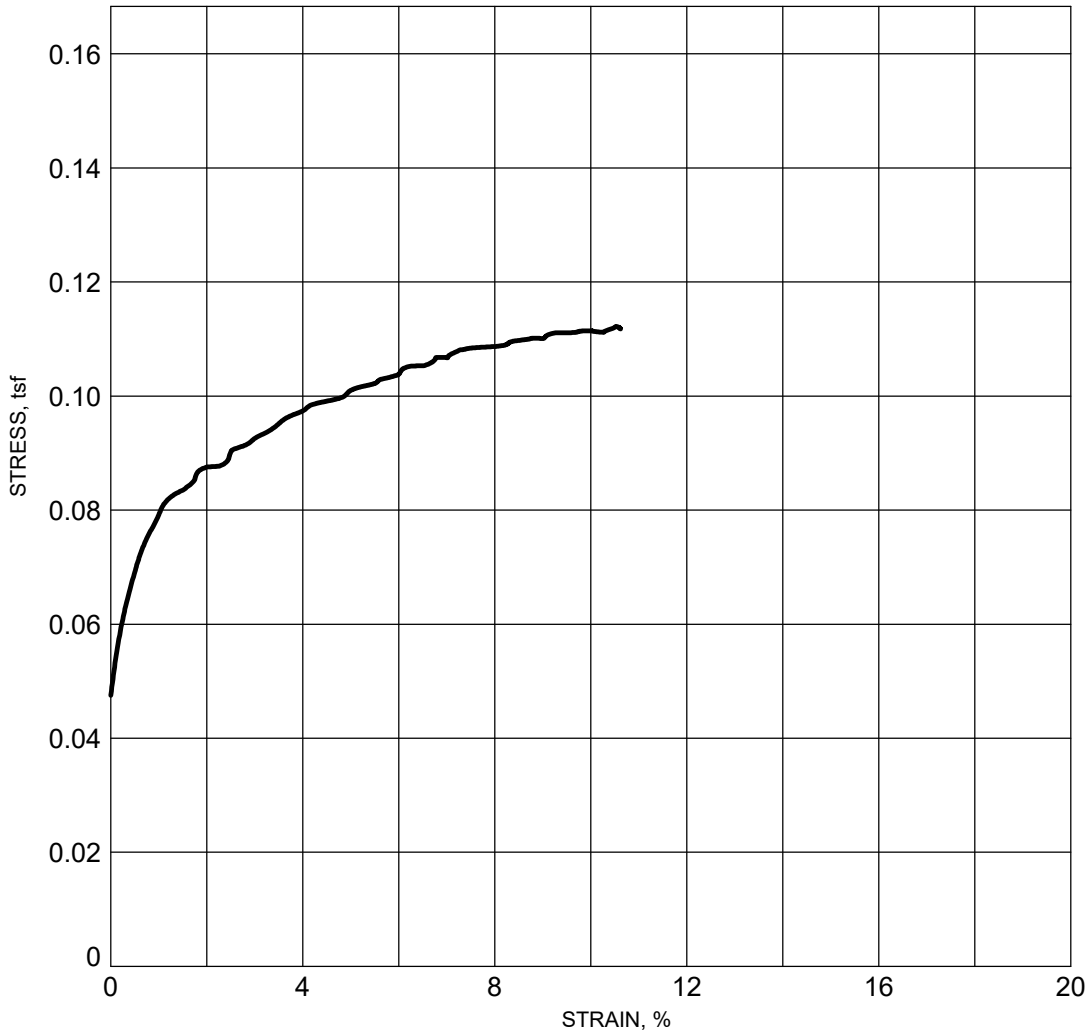
Failure Sketch

LL = 51 PL = 19 PI = 32

% 200= % Organic= Assumed Gs=2.74

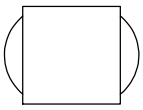
Description: Very soft gray clay with silt lenses (CH)

Tested By: Donna Easterling	Date Tested: 9/29/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/2/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-124b**



Boring ID	CI-25
Depth (ft)	18-20
Water Content, %	48.0
Wet Density, pcf	104.1
Dry Density, pcf	70.3
Saturation, %	91.9
Void Ratio	1.43
Specimen Diameter	2.850
Specimen Height	6.026
Height/diameter ratio	2.11
Deviator Stress, tsf	0.112
Strain, %	10.5
Confining Pressure (psi)	5.0

Bulge



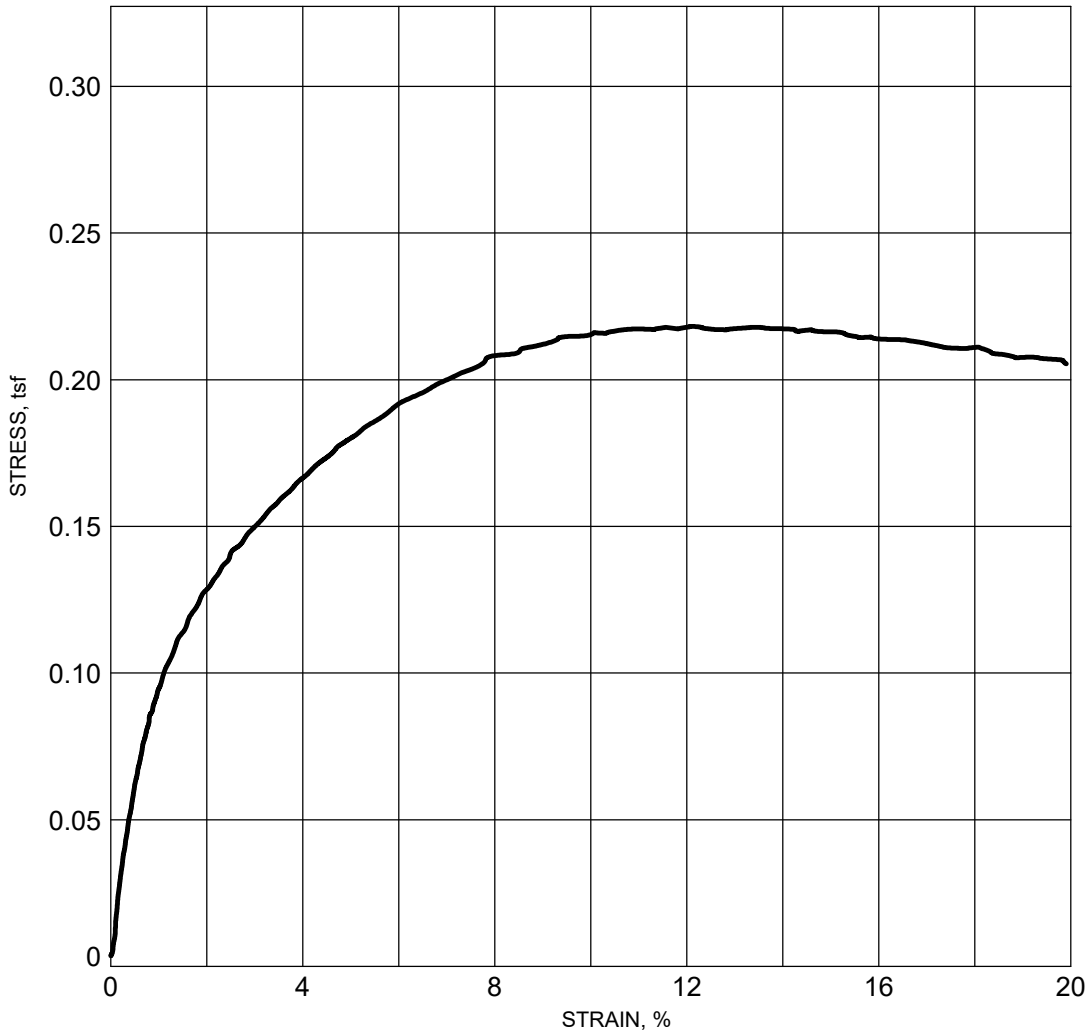
Failure Sketch

LL = PL = PI =

% 200= % Organic= Assumed Gs=2.74

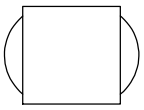
Description: Very soft gray clay with silt layers (CH)

Tested By: Donna Easterling	Date Tested: 9/29/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/2/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-124c**



Boring ID	CI-25
Depth (ft)	28-30
Water Content, %	45.9
Wet Density, pcf	110.9
Dry Density, pcf	76.0
Saturation, %	100.6
Void Ratio	1.25
Specimen Diameter	2.799
Specimen Height	6.027
Height/diameter ratio	2.15
Deviator Stress, tsf	0.218
Strain, %	12.1
Confining Pressure (psi)	7.6

Bulge



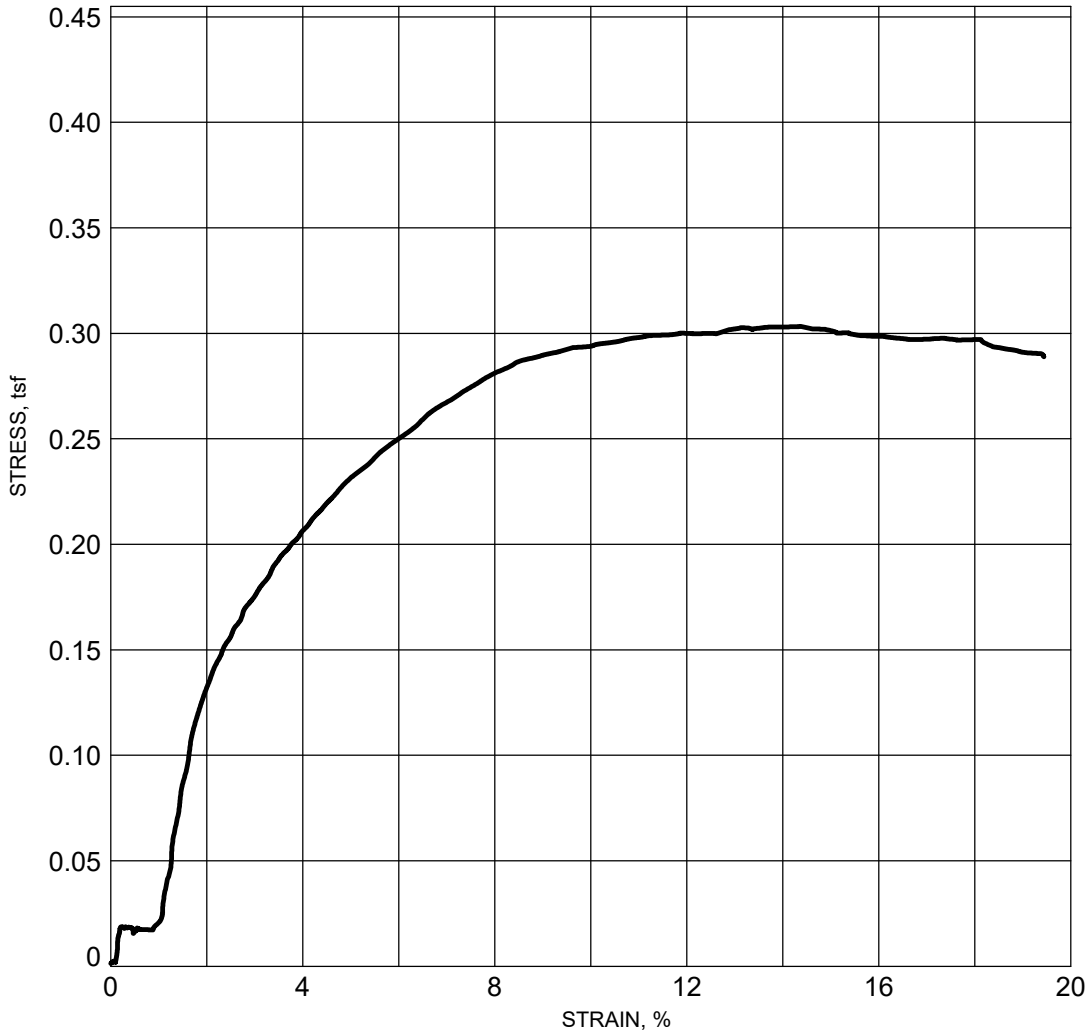
Failure Sketch

LL = PL = PI =

% 200= % Organic= Assumed Gs=2.74

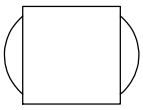
Description: Very soft gray clay with silt (CH)

Tested By: Donna Easterling	Date Tested: 9/29/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/2/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-124d**



Boring ID	CI-25
Depth (ft)	38-40
Water Content, %	44.9
Wet Density, pcf	113.7
Dry Density, pcf	78.4
Saturation, %	104.3
Void Ratio	1.18
Specimen Diameter	2.764
Specimen Height	5.983
Height/diameter ratio	2.16
Deviator Stress, tsf	0.303
Strain, %	14.4
Confining Pressure (psi)	10.2

Bulge



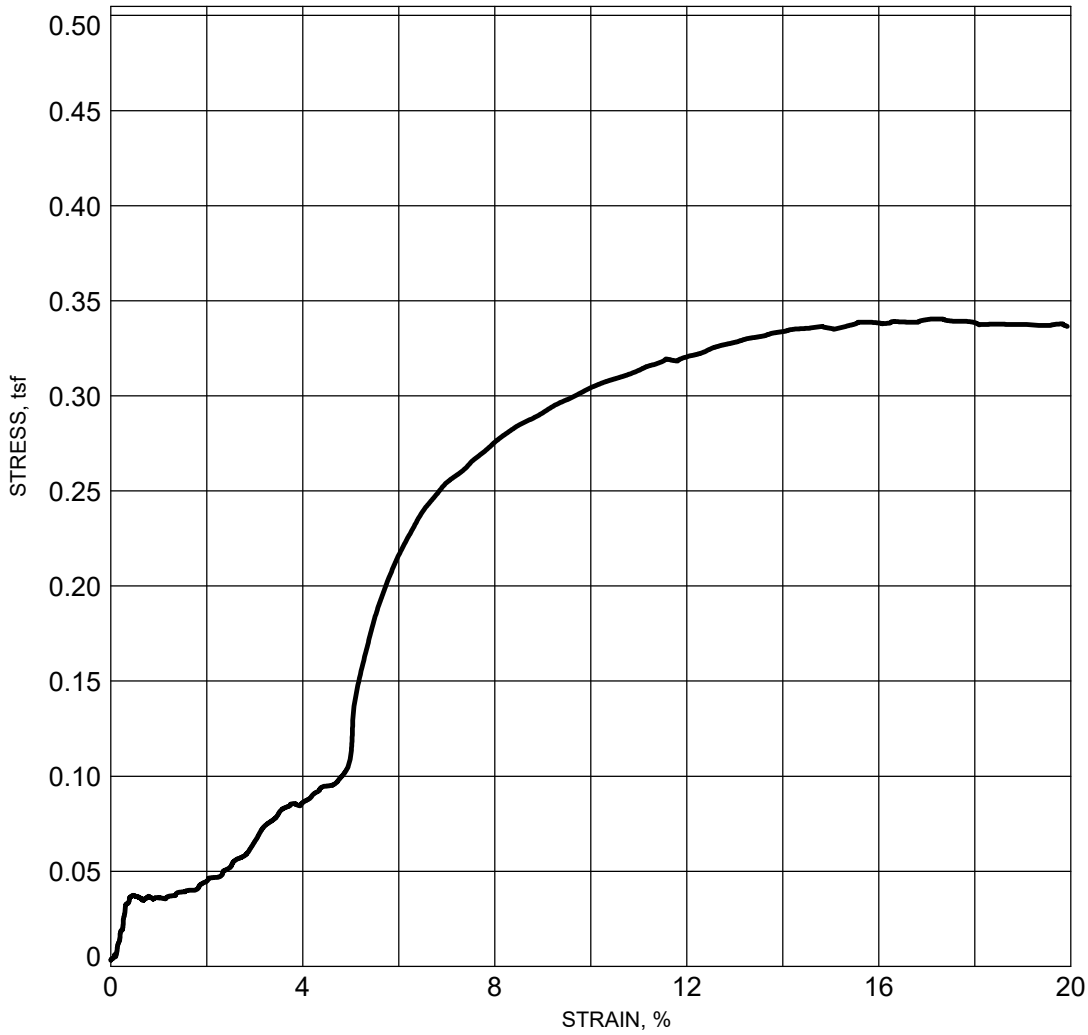
Failure Sketch

LL = PL = PI =

% 200= % Organic= Assumed Gs=2.74

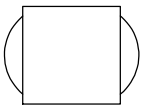
Description: Soft gray clay with silt lenses (CH)

Tested By: Donna Easterling	Date Tested: 9/29/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/2/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-124e**



Boring ID	CI-25
Depth (ft)	48-50
Water Content, %	42.8
Wet Density, pcf	114.2
Dry Density, pcf	80.0
Saturation, %	103.1
Void Ratio	1.14
Specimen Diameter	2.770
Specimen Height	6.002
Height/diameter ratio	2.17
Deviator Stress, tsf	0.337
Strain, %	14.8
Confining Pressure (psi)	0.3

Bulge



Failure Sketch

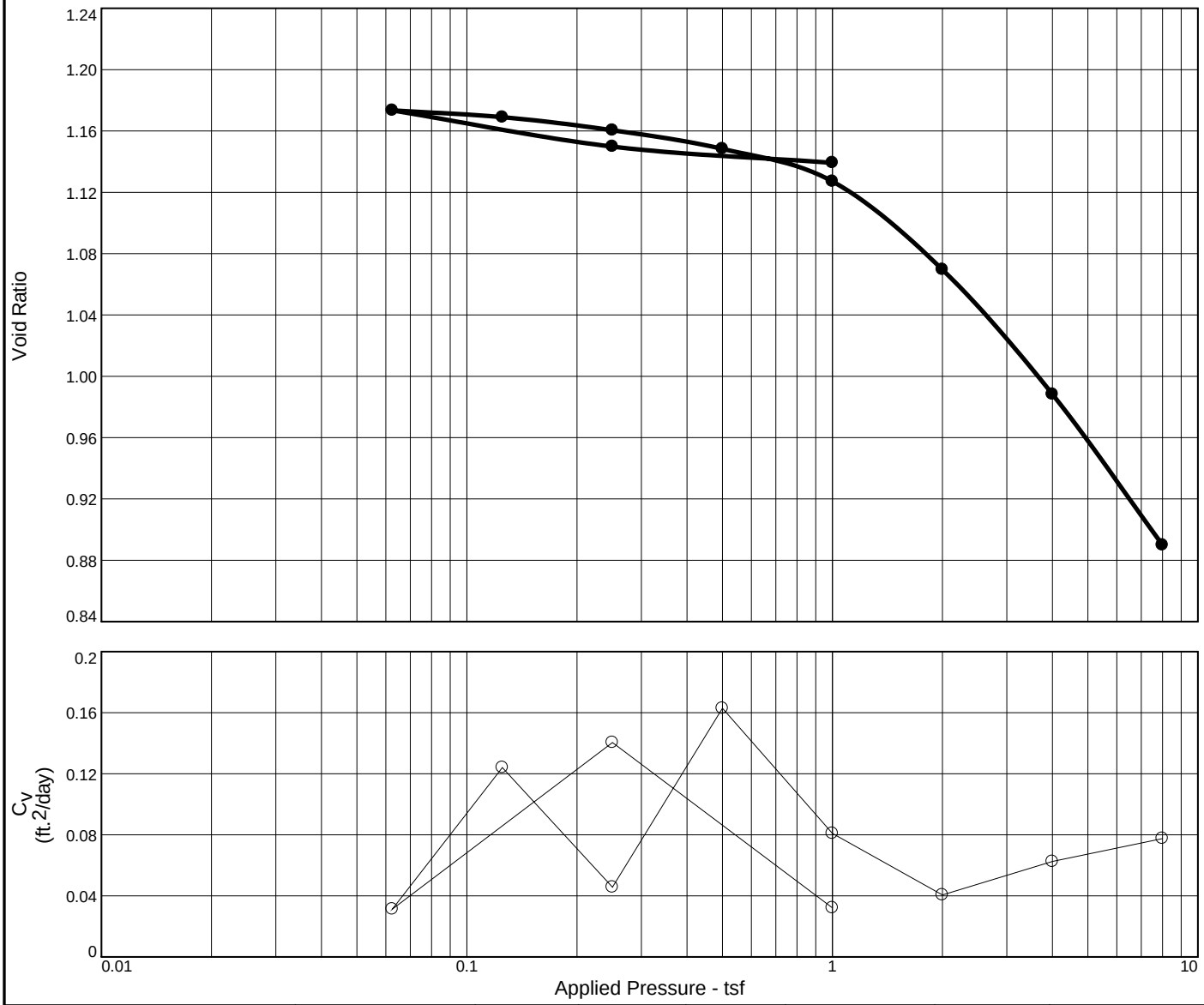
LL = PL = PI =

% 200= % Organic= Assumed Gs=2.74

Description: Soft gray clay with sand pockets (CH)

Tested By: Donna Easterling	Date Tested: 9/29/2023	**UNCONSOLIDATED UNDRAINED COMPRESSION TEST ASTM D2850**	**Chandeleur Island, Louisiana**
Reviewed By: Dustin Blanchard	Date Reviewed: 10/2/2023	**Project No.: 18274-022-01**	GeoEngineers **Figure B-124f**

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	P_c (tsf)	C_c	Initial Void Ratio
Saturation	Moisture							
96.0 %	42.1 %	76.7	43	21	2.669	N/A	0.33	1.172

MATERIAL DESCRIPTION	USCS	AASHTO
Very soft gray clay with silt	(CL)	

Project No. 18274-022-01 **Client:** CEC

Project: Chandeleur Island Restoration Project (PO-0199)

Location: CI-O1 **Depth:** 33-35

GeoEngineers

Remarks:

Specific gravity measured. *The computer did not record the readings for the beginning loading stages of the test. Therefore, Pc could not be determined.

Figure B-125a

Tested By: Dustin Blanchard **Checked By:** J. Aguettant

CONSOLIDATION TEST DATA

12/22/2023

Client: CEC
Project: Chandeleur Island Restoration Project (PO-0199)
Project Number: 18274-022-01
Location: CI-O1
Depth: 33-35
Material Description: Very soft gray clay with silt
Liquid Limit: 43 **Plasticity Index:** 21
USCS: (CL)
Testing Remarks: Specific gravity measured. *The computer did not record the readings for the beginning loading stages of the test. Therefore, Pc could not be determined.
Tested by: Dustin Blanchard **Checked by:** J. Aguettant

Test Specimen Data

NATURAL MOISTURE		VOID RATIO		AFTER TEST	
Wet w+t =	142.10 g.	Spec. Gr. =	2.669	Wet w+t =	165.64 g.
Dry w+t =	105.46 g.	Est. Ht. Solids =	0.461 in.	Dry w+t =	134.23 g.
Tare Wt. =	18.53 g.	Init. V.R. =	1.172	Tare Wt. =	36.80 g.
Moisture =	42.1 %	Init. Sat. =	96.0 %	Moisture =	32.2 %
UNIT WEIGHT		**TEST START**		Dry Wt. =	97.43 g.
Height =	1.000 in.	Height =	1.000 in.		
Diameter =	2.500 in.	Diameter =	2.500 in.		
Weight =	140.54 g.				
Dry Dens. =	76.7 pcf				

End-Of-Load Summary

Pressure (psf)	Final Dial (in.)	Deformation (in.)	C_v (ft.^{2}/day)	C_α	Void Ratio	% Strain
start	2.10632	0.00000			1.172	
2000.00	2.12118	0.01486	0.032	0.001	1.139	1.5 Comprs.
500.00	2.11631	0.00999	0.140		1.150	1.0 Comprs.
125.00	2.10544	-0.00088	0.031		1.173	0.1 Swell
250.00	2.10747	0.00115	0.124	0.000	1.169	0.1 Comprs.
500.00	2.11140	0.00508	0.046	0.001	1.160	0.5 Comprs.
1000.00	2.11700	0.01068	0.163	0.001	1.148	1.1 Comprs.
2000.00	2.12676	0.02044	0.081	0.003	1.127	2.0 Comprs.
4000.00	2.15327	0.04695	0.041	0.006	1.070	4.7 Comprs.
8000.00	2.19071	0.08439	0.063	0.008	0.988	8.4 Comprs.
16000.00	2.23600	0.12968	0.078	0.007	0.890	13.0 Comprs.

Compression index (C_c), tsf = 0.33 **Preconsolidation pressure (P_p), tsf =** 1.5 **Void ratio at P_p (e_m) =** 1.101
Recompression index (C_r) = 0.07

Figure B-125b

Pressure: 2000.00 psf	TEST READINGS	Load No. 1

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	2.10632	41	2780.8833	2.12085
2	0.1000	2.10755	42	2780.9167	2.12098
3	0.2000	2.10785	43	2780.9500	2.12099
4	0.2167	2.10798	44	2781.0000	2.12101
5	0.2500	2.10807	45	2781.0500	2.12102
6	0.3000	2.10818	46	2781.1167	2.12105
7	0.3500	2.10827	47	2781.2000	2.12105
8	0.4167	2.10838	48	2781.3000	2.12108
9	0.5000	2.10852	49	2781.4333	2.12109
10	0.6167	2.10866	50	2781.6000	2.12108
11	0.7333	2.10872	51	2781.8167	2.12112
12	0.9000	2.10880	52	2782.0667	2.12109
13	1.1167	2.10891	53	2782.4000	2.12112
14	1.3667	2.10912	54	2782.8167	2.12114
15	1.7000	2.10931	55	2783.3333	2.12116
16	2.1167	2.10977	56	2783.9833	2.12116
17	2.6333	2.11010	57	2784.8000	2.12116
18	3.2833	2.11039	58	2785.8333	2.12116
19	4.1000	2.11065	59	2787.1333	2.12118
20	5.1333	2.11115	60	2788.7667	2.12116
21	6.4333	2.11166	61	2790.8333	2.12123
22	8.0833	2.11226	62	2793.4167	2.12121
23	10.1333	2.11282	63	2796.6833	2.12128
24	12.7333	2.11331	64	2800.7833	2.12127
25	15.9833	2.11380	65	2805.9500	2.12132
26	20.1000	2.11432	66	2812.4500	2.12133
27	25.2667	2.11520	67	2820.6500	2.12134
28	31.7833	2.11574	68	2830.9500	2.12136
29	39.9667	2.11610	69	2843.9333	2.12136
30	50.2667	2.11672	70	2860.2667	2.12142
31	63.2500	2.11703	71	2880.8500	2.12143
32	79.5833	2.11751	72	2906.7333	2.12143
33	100.1500	2.11811	73	2939.3333	2.12143
34	126.0500	2.11849	74	2980.3833	2.12148
35	158.6500	2.11883	75	3032.0500	2.12149
36	199.6833	2.11936	76	3097.0833	2.12155
37	251.3500	2.11975	77	3178.9667	2.12159
38	316.4000	2.12032	78	3282.0500	2.12152
39	398.2833	2.12085	79	3411.8167	2.12147
40	2780.8667	2.12086	80	3575.2000	2.12147

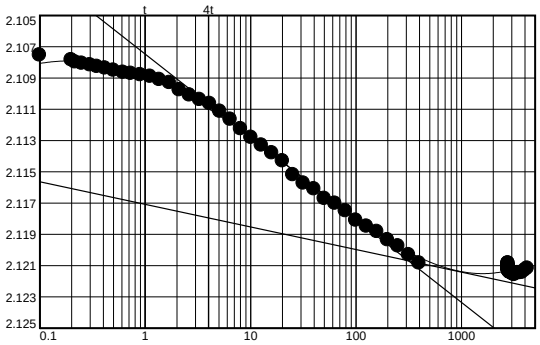


Figure B-125c

Pressure: 2000.00 psf | **TEST READINGS (continued)** | **Load No. 1**

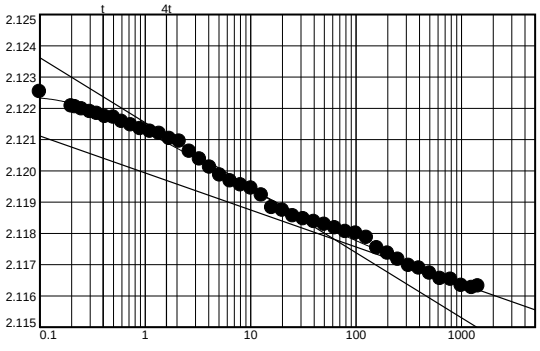
No.	Elapsed Time	Dial Reading
81	3780.8667	2.12145
82	4039.8000	2.12129
83	4221.0500	2.12118

Void Ratio = 1.139 **Compression =** 1.5%

D_0 = 2.1068 **D_{50} =** 2.1137 **D_{100} =** 2.1207 **C_v at 15.09 min. =** 0.032 ft.^{2}/day **C_α =** 0.001

Pressure: 500.00 psf | **TEST READINGS** | **Load No. 2**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	2.12402	24	12.7167	2.11922
2	0.1000	2.12253	25	15.9833	2.11882
3	0.2000	2.12207	26	20.0833	2.11873
4	0.2167	2.12204	27	25.2500	2.11855
5	0.2500	2.12197	28	31.7667	2.11846
6	0.3000	2.12189	29	39.9500	2.11837
7	0.3500	2.12183	30	50.2500	2.11828
8	0.4167	2.12173	31	63.2333	2.11817
9	0.5000	2.12171	32	79.5833	2.11805
10	0.6000	2.12157	33	100.1500	2.11800
11	0.7333	2.12146	34	126.0500	2.11786
12	0.9000	2.12134	35	158.6333	2.11753
13	1.1167	2.12126	36	199.6833	2.11736
14	1.3667	2.12119	37	251.3500	2.11716
15	1.7000	2.12103	38	316.3833	2.11697
16	2.1167	2.12094	39	398.2667	2.11688
17	2.6333	2.12062	40	501.3500	2.11672
18	3.2833	2.12037	41	631.1333	2.11655
19	4.1000	2.12011	42	794.5000	2.11652
20	5.1333	2.11986	43	1000.1833	2.11633
21	6.4333	2.11967	44	1259.1167	2.11626
22	8.0667	2.11954	45	1440.1333	2.11631
23	10.1333	2.11944			



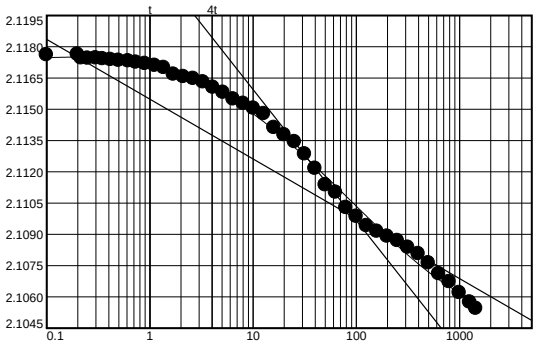
Void Ratio = 1.150 **Compression =** 1.0%

D_0 = 2.1228 **D_{50} =** 2.1203 **D_{100} =** 2.1178 **C_v at 3.41 min. =** 0.140 ft.^{2}/day

Figure B-125d

Pressure: 125.00 psf	TEST READINGS	Load No. 3

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	2.11834	24	12.7167	2.11478
2	0.1000	2.11761	25	15.9833	2.11411
3	0.2000	2.11763	26	20.0833	2.11377
4	0.2167	2.11745	27	25.2500	2.11344
5	0.2500	2.11744	28	31.7500	2.11285
6	0.3000	2.11745	29	39.9500	2.11215
7	0.3500	2.11741	30	50.2500	2.11136
8	0.4167	2.11738	31	63.2333	2.11101
9	0.5000	2.11734	32	79.5833	2.11027
10	0.6167	2.11731	33	100.1500	2.10985
11	0.7333	2.11725	34	126.0500	2.10941
12	0.9000	2.11718	35	158.6500	2.10914
13	1.1167	2.11709	36	199.6833	2.10890
14	1.3667	2.11699	37	251.3500	2.10869
15	1.7000	2.11667	38	316.3833	2.10837
16	2.1167	2.11656	39	398.2667	2.10806
17	2.6333	2.11647	40	501.3500	2.10762
18	3.2833	2.11630	41	631.1167	2.10710
19	4.1000	2.11605	42	794.5000	2.10672
20	5.1333	2.11580	43	1000.1667	2.10619
21	6.4333	2.11548	44	1259.1000	2.10574
22	8.0667	2.11527	45	1440.4333	2.10544
23	10.1333	2.11504			



Void Ratio = 1.173 **Swell =** 0.1%

D_0 = 2.1183 **D_{50} =** 2.1141 **D_{100} =** 2.1098 **C_V at 15.55 min. =** 0.031 ft.^{2}/day

Pressure: 250.00 psf	TEST READINGS	Load No. 4

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	2.10475	12	0.9167	2.10558
2	0.1000	2.10525	13	1.1167	2.10568
3	0.2000	2.10534	14	1.3833	2.10571
4	0.2333	2.10534	15	1.7000	2.10574
5	0.2667	2.10538	16	2.1167	2.10582
6	0.3000	2.10542	17	2.6333	2.10592
7	0.3500	2.10544	18	3.2833	2.10602
8	0.4167	2.10545	19	4.1000	2.10613
9	0.5000	2.10548	20	5.1333	2.10620
10	0.6167	2.10551	21	6.4333	2.10628
11	0.7500	2.10554	22	8.0667	2.10642

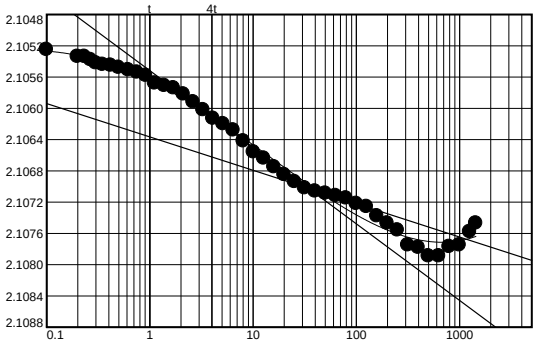


Figure B-125e

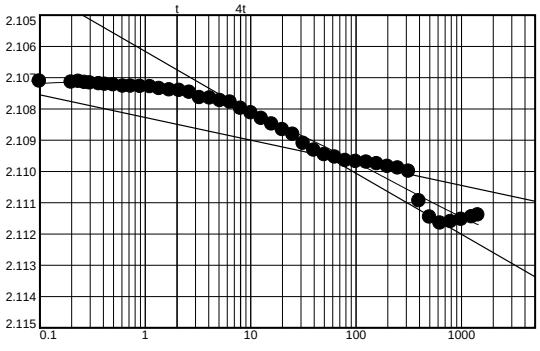
Pressure: 250.00 psf	TEST READINGS (continued)	Load No. 4

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	2.10656	33	100.1333	2.10722	43	1000.1667	2.10775
24	12.7167	2.10664	34	126.0333	2.10726	44	1259.1000	2.10758
25	15.9833	2.10675	35	158.6333	2.10738	45	1440.1667	2.10747
26	20.0833	2.10685	36	199.6667	2.10747			
27	25.2500	2.10694	37	251.3333	2.10756			
28	31.7500	2.10702	38	316.3833	2.10775			
29	39.9500	2.10706	39	398.2500	2.10778			
30	50.2500	2.10709	40	501.3333	2.10789			
31	63.2333	2.10712	41	631.1167	2.10789			
32	79.5667	2.10715	42	794.4833	2.10777			

Void Ratio = 1.169 **Compression =** 0.1%
D_0 = 2.1052 **D_{50} =** 2.1061 **D_{100} =** 2.1070 **C_v at 3.97 min. =** 0.124 ft.^{2}/day **C_α =** 0.000

Pressure: 500.00 psf	TEST READINGS	Load No. 5

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	2.10660	24	12.7333	2.10831
2	0.1000	2.10712	25	15.9833	2.10849
3	0.2000	2.10715	26	20.1000	2.10867
4	0.2333	2.10713	27	25.2667	2.10882
5	0.2667	2.10716	28	31.7667	2.10911
6	0.3000	2.10718	29	39.9500	2.10933
7	0.3667	2.10720	30	50.2667	2.10947
8	0.4167	2.10722	31	63.2500	2.10955
9	0.5000	2.10724	32	79.5833	2.10966
10	0.6167	2.10728	33	100.1500	2.10969
11	0.7333	2.10728	34	126.0500	2.10971
12	0.9000	2.10729	35	158.6500	2.10976
13	1.1167	2.10730	36	199.6833	2.10985
14	1.3667	2.10736	37	251.3500	2.10990
15	1.7000	2.10740	38	316.4000	2.11000
16	2.1167	2.10742	39	398.2833	2.11095
17	2.6333	2.10748	40	501.3667	2.11147
18	3.2833	2.10765	41	631.1333	2.11166
19	4.1167	2.10766	42	794.5167	2.11161
20	5.1500	2.10774	43	1000.1833	2.11154
21	6.4333	2.10779	44	1259.1333	2.11146
22	8.0833	2.10799	45	1440.1167	2.11140
23	10.1333	2.10813			

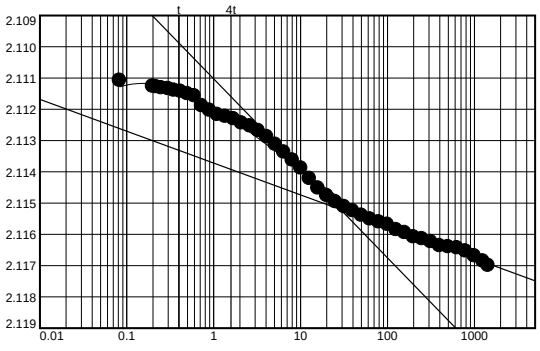


Void Ratio = 1.160 **Compression =** 0.5%
D_0 = 2.1069 **D_{50} =** 2.1082 **D_{100} =** 2.1095 **C_v at 10.71 min. =** 0.046 ft.^{2}/day **C_α =** 0.001

Figure B-125f

Pressure: 1000.00 psf	TEST READINGS	Load No. 6

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	2.11025	24	12.7167	2.11422
2	0.0833	2.11108	25	15.9667	2.11453
3	0.2000	2.11127	26	20.0833	2.11477
4	0.2167	2.11129	27	25.2500	2.11496
5	0.2500	2.11132	28	31.7500	2.11512
6	0.3000	2.11135	29	39.9500	2.11525
7	0.3500	2.11140	30	50.2500	2.11540
8	0.4167	2.11143	31	63.2333	2.11552
9	0.5000	2.11151	32	79.5667	2.11561
10	0.6000	2.11158	33	100.1333	2.11569
11	0.7333	2.11189	34	126.0333	2.11586
12	0.9000	2.11204	35	158.6333	2.11595
13	1.1000	2.11217	36	199.6667	2.11609
14	1.3667	2.11223	37	251.3333	2.11615
15	1.7000	2.11231	38	316.3833	2.11624
16	2.1000	2.11245	39	398.2667	2.11637
17	2.6333	2.11254	40	501.3500	2.11640
18	3.2833	2.11269	41	631.1167	2.11644
19	4.1000	2.11288	42	794.4833	2.11654
20	5.1333	2.11313	43	1000.1667	2.11669
21	6.4333	2.11338	44	1259.1000	2.11686
22	8.0667	2.11363	45	1440.4500	2.11700
23	10.1167	2.11389			



Void Ratio = 1.148 **Compression =** 1.1%

D_0 = 2.1105 **D_{50} =** 2.1129 **D_{100} =** 2.1152 **C_V at 2.98 min. =** 0.163 ft.^{2}/day **C_α =** 0.001

Pressure: 2000.00 psf	TEST READINGS	Load No. 7

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	2.11462	12	0.9000	2.11684
2	0.1000	2.11583	13	1.1167	2.11697
3	0.2000	2.11623	14	1.3833	2.11717
4	0.2167	2.11629	15	1.7000	2.11737
5	0.2500	2.11636	16	2.1167	2.11767
6	0.3000	2.11640	17	2.6333	2.11797
7	0.3500	2.11644	18	3.2833	2.11818
8	0.4167	2.11652	19	4.1000	2.11843
9	0.5000	2.11659	20	5.1333	2.11891
10	0.6167	2.11666	21	6.4333	2.11922
11	0.7333	2.11675	22	8.0667	2.11976

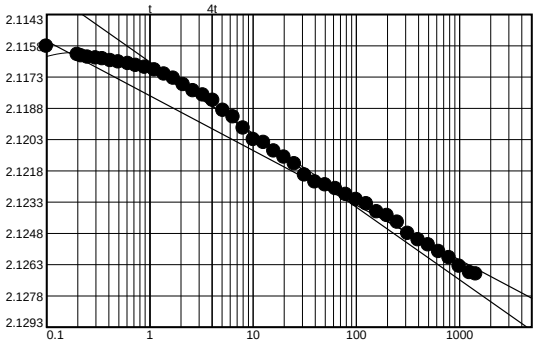


Figure B-125g

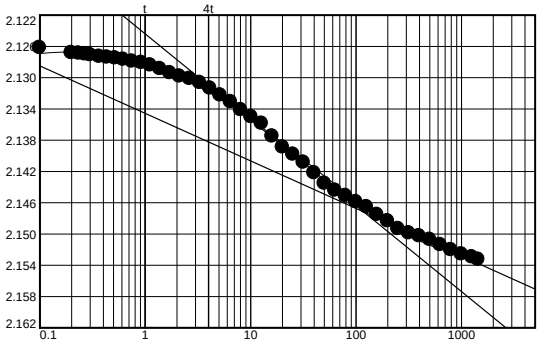
Pressure: 2000.00 psf	TEST READINGS (continued)	Load No. 7

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	2.12031	33	100.1500	2.12319	43	1000.1833	2.12639
24	12.7167	2.12045	34	126.0333	2.12339	44	1259.1167	2.12669
25	15.9833	2.12086	35	158.6333	2.12378	45	1440.1167	2.12676
26	20.0833	2.12116	36	199.6833	2.12396			
27	25.2500	2.12147	37	251.3500	2.12428			
28	31.7667	2.12201	38	316.3833	2.12481			
29	39.9500	2.12235	39	398.2667	2.12512			
30	50.2500	2.12249	40	501.3500	2.12536			
31	63.2333	2.12266	41	631.1167	2.12568			
32	79.5833	2.12295	42	794.5000	2.12598			

Void Ratio = 1.127 **Compression =** 2.0%
D_0 = 2.1153 **D_{50} =** 2.1192 **D_{100} =** 2.1231 **C_v at 5.92 min. =** 0.081 ft.^{2}/day **C_α =** 0.003

Pressure: 4000.00 psf	TEST READINGS	Load No. 8

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	2.12400	24	12.7333	2.13585
2	0.1000	2.12616	25	16.0000	2.13751
3	0.2000	2.12681	26	20.1000	2.13890
4	0.2333	2.12688	27	25.2667	2.13981
5	0.2667	2.12699	28	31.7833	2.14084
6	0.3000	2.12711	29	39.9667	2.14219
7	0.3667	2.12731	30	50.2667	2.14355
8	0.4333	2.12740	31	63.2500	2.14444
9	0.5167	2.12749	32	79.5833	2.14511
10	0.6167	2.12769	33	100.1667	2.14590
11	0.7500	2.12792	34	126.0500	2.14655
12	0.9167	2.12810	35	158.6500	2.14754
13	1.1167	2.12841	36	199.7000	2.14836
14	1.3833	2.12886	37	251.3667	2.14934
15	1.7167	2.12940	38	316.4000	2.14987
16	2.1167	2.12981	39	398.2833	2.15025
17	2.6333	2.13012	40	501.3667	2.15072
18	3.2833	2.13065	41	631.1333	2.15138
19	4.1167	2.13137	42	794.5167	2.15204
20	5.1500	2.13226	43	1000.1833	2.15257
21	6.4500	2.13311	44	1259.1167	2.15295
22	8.0833	2.13411	45	1440.1333	2.15327
23	10.1500	2.13502			

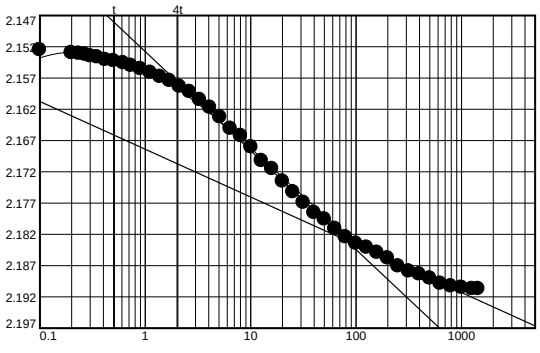


Void Ratio = 1.070 **Compression =** 4.7%
D_0 = 2.1246 **D_{50} =** 2.1359 **D_{100} =** 2.1472 **C_v at 11.36 min. =** 0.041 ft.^{2}/day **C_α =** 0.006

Figure B-125h

Pressure: 8000.00 psf	TEST READINGS	Load No. 9

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	2.14942	24	12.7333	2.17023
2	0.1000	2.15252	25	15.9833	2.17153
3	0.2000	2.15296	26	20.0833	2.17354
4	0.2333	2.15308	27	25.2500	2.17522
5	0.2667	2.15324	28	31.7667	2.17692
6	0.3000	2.15349	29	39.9500	2.17854
7	0.3500	2.15367	30	50.2667	2.17958
8	0.4167	2.15410	31	63.2333	2.18110
9	0.5000	2.15426	32	79.5833	2.18244
10	0.6167	2.15461	33	100.1500	2.18345
11	0.7333	2.15503	34	126.0500	2.18411
12	0.9000	2.15554	35	158.6500	2.18493
13	1.1167	2.15615	36	199.6833	2.18581
14	1.3833	2.15679	37	251.3500	2.18708
15	1.7000	2.15743	38	316.4000	2.18790
16	2.1167	2.15834	39	398.2833	2.18838
17	2.6333	2.15920	40	501.3500	2.18903
18	3.2833	2.16047	41	631.1333	2.18986
19	4.1000	2.16170	42	794.5000	2.19029
20	5.1333	2.16326	43	1000.1833	2.19049
21	6.4333	2.16507	44	1259.1167	2.19070
22	8.0833	2.16624	45	1440.0667	2.19071
23	10.1333	2.16805			



Void Ratio = 0.988 **Compression =** 8.4%

D_0 = 2.1487 **D_{50} =** 2.1658 **D_{100} =** 2.1829 **C_V at 6.90 min. =** 0.063 ft.^{2}/day **C_α =** 0.008

Pressure: 16000.00 psf	TEST READINGS	Load No. 10

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	2.18784	12	0.9000	2.19671
2	0.0833	2.19207	13	1.1167	2.19743
3	0.2000	2.19272	14	1.3667	2.19830
4	0.2167	2.19298	15	1.7000	2.19948
5	0.2500	2.19334	16	2.1000	2.20011
6	0.3000	2.19357	17	2.6333	2.20186
7	0.3500	2.19401	18	3.2833	2.20270
8	0.4167	2.19465	19	4.1000	2.20441
9	0.5000	2.19519	20	5.1333	2.20602
10	0.6000	2.19550	21	6.4333	2.20824
11	0.7333	2.19605	22	8.0667	2.21018

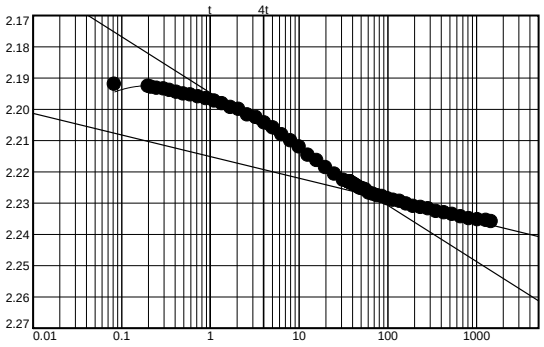


Figure B-125i

Pressure: 16000.00 psf	TEST READINGS (continued)	Load No. 10

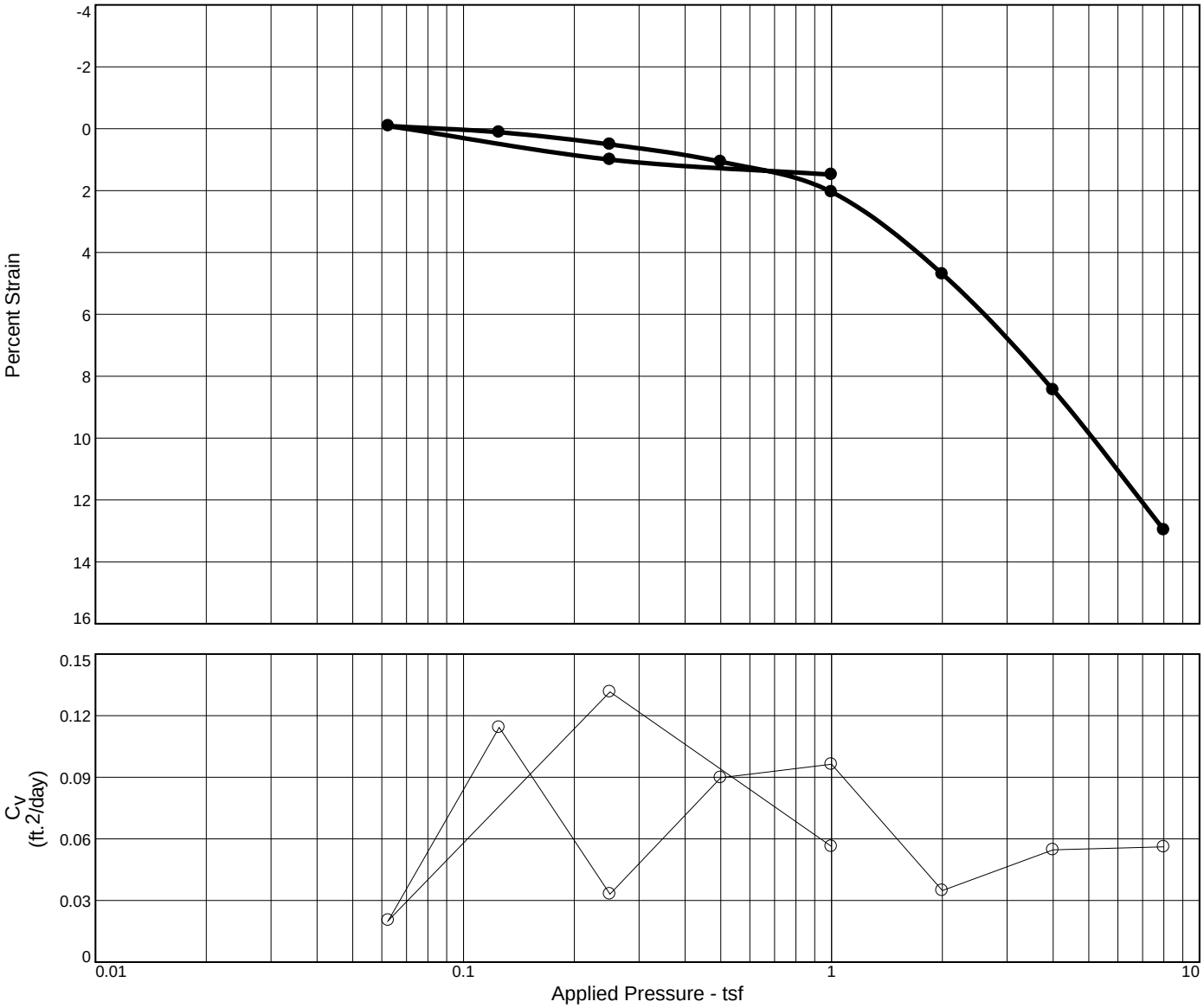
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1167	2.21209	40	37.7667	2.22337	57	86.9167	2.22797
24	12.7167	2.21479	41	38.0333	2.22340	58	99.9000	2.22863
25	15.9667	2.21644	42	38.3667	2.22344	59	116.2333	2.22915
26	20.0833	2.21873	43	38.7667	2.22359	60	136.8000	2.22955
27	25.2500	2.22085	44	39.3000	2.22369	61	162.7000	2.23040
28	31.7500	2.22279	45	39.9500	2.22380	62	195.3000	2.23116
29	36.8333	2.22331	46	40.7667	2.22386	63	236.3333	2.23147
30	36.8667	2.22332	47	41.8000	2.22404	64	288.0000	2.23190
31	36.8833	2.22332	48	43.1000	2.22428	65	353.0500	2.23274
32	36.9167	2.22332	49	44.7333	2.22459	66	434.9333	2.23317
33	36.9667	2.22333	50	46.8000	2.22495	67	538.0167	2.23366
34	37.0167	2.22330	51	49.3833	2.22532	68	667.7833	2.23450
35	37.0833	2.22332	52	52.6500	2.22552	69	831.1667	2.23503
36	37.1667	2.22334	53	56.7500	2.22587	70	1036.8333	2.23538
37	37.2667	2.22333	54	61.9167	2.22686	71	1295.7667	2.23562
38	37.4000	2.22334	55	68.4333	2.22723	72	1477.0000	2.23600
39	37.5667	2.22334	56	76.6167	2.22771			

Void Ratio = 0.890 **Compression =** 13.0%

D_0 = 2.1879 **D_{50} =** 2.2079 **D_{100} =** 2.2278 **C_v at 5.08 min. =** 0.078 ft.^{2}/day **C_α =** 0.007

Figure B-125j

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	P_c (tsf)	C_c	Initial Void Ratio
Saturation	Moisture							
96.0 %	42.1 %	76.7	43	21	2.669	1.5	0.33	1.172

MATERIAL DESCRIPTION	USCS	AASHTO
Very soft gray clay with silt	(CL)	

Project No. 18274-022-01 **Client:** CEC

Project: Chandeleur Island Restoration Project (PO-0199)

Location: CI-O1 _sqrt **Depth:** 33-35

GeoEngineers

Remarks:

Specific gravity measured. *The computer did not record the readings for the beginning loading stages of the test. Therefore, Pc could not be determined.

Figure B-126a

Tested By: Dustin Blanchard **Checked By:** J. Aguettant

CONSOLIDATION TEST DATA

12/22/2023

Client: CEC
Project: Chandeleur Island Restoration Project (PO-0199)
Project Number: 18274-022-01
Location: CI-O1 _sqrt
Depth: 33-35
Material Description: Very soft gray clay with silt
Liquid Limit: 43 **Plasticity Index:** 21
USCS: (CL)
Testing Remarks: Specific gravity measured. *The computer did not record the readings for the beginning loading stages of the test. Therefore, Pc could not be determined.
Tested by: Dustin Blanchard **Checked by:** J. Aguettant

Test Specimen Data

NATURAL MOISTURE		VOID RATIO		AFTER TEST	
Wet w+t =	142.10 g.	Spec. Gr. =	2.669	Wet w+t =	165.64 g.
Dry w+t =	105.46 g.	Est. Ht. Solids =	0.461 in.	Dry w+t =	134.23 g.
Tare Wt. =	18.53 g.	Init. V.R. =	1.172	Tare Wt. =	36.80 g.
Moisture =	42.1 %	Init. Sat. =	96.0 %	Moisture =	32.2 %
UNIT WEIGHT		**TEST START**		Dry Wt. =	97.43 g.
Height =	1.000 in.	Height =	1.000 in.		
Diameter =	2.500 in.	Diameter =	2.500 in.		
Weight =	140.54 g.				
Dry Dens. =	76.7 pcf				

End-Of-Load Summary

Pressure (psf)	Final Dial (in.)	Deformation (in.)	C_v (ft.^{2}/day)	C_α	Void Ratio	% Strain
start	2.10632	0.00000			1.172	
2000.00	2.12118	0.01486	0.056		1.139	1.5 Comprs.
500.00	2.11631	0.00999	0.132		1.150	1.0 Comprs.
125.00	2.10544	-0.00088	0.020		1.173	0.1 Swell
250.00	2.10747	0.00115	0.114		1.169	0.1 Comprs.
500.00	2.11140	0.00508	0.033		1.160	0.5 Comprs.
1000.00	2.11700	0.01068	0.090		1.148	1.1 Comprs.
2000.00	2.12676	0.02044	0.096		1.127	2.0 Comprs.
4000.00	2.15327	0.04695	0.035		1.070	4.7 Comprs.
8000.00	2.19071	0.08439	0.055		0.988	8.4 Comprs.
16000.00	2.23600	0.12968	0.056		0.890	13.0 Comprs.

Compression index (C_c), tsf = 0.33 **Preconsolidation pressure (P_p), tsf =** 1.5 **Void ratio at P_p (e_m) =** 1.103
Recompression index (C_r) = 0.07

Figure B-126b

Pressure: 2000.00 psf	TEST READINGS	Load No. 1

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	2.10632	41	2780.8833	2.12085
2	0.1000	2.10755	42	2780.9167	2.12098
3	0.2000	2.10785	43	2780.9500	2.12099
4	0.2167	2.10798	44	2781.0000	2.12101
5	0.2500	2.10807	45	2781.0500	2.12102
6	0.3000	2.10818	46	2781.1167	2.12105
7	0.3500	2.10827	47	2781.2000	2.12105
8	0.4167	2.10838	48	2781.3000	2.12108
9	0.5000	2.10852	49	2781.4333	2.12109
10	0.6167	2.10866	50	2781.6000	2.12108
11	0.7333	2.10872	51	2781.8167	2.12112
12	0.9000	2.10880	52	2782.0667	2.12109
13	1.1167	2.10891	53	2782.4000	2.12112
14	1.3667	2.10912	54	2782.8167	2.12114
15	1.7000	2.10931	55	2783.3333	2.12116
16	2.1167	2.10977	56	2783.9833	2.12116
17	2.6333	2.11010	57	2784.8000	2.12116
18	3.2833	2.11039	58	2785.8333	2.12116
19	4.1000	2.11065	59	2787.1333	2.12118
20	5.1333	2.11115	60	2788.7667	2.12116
21	6.4333	2.11166	61	2790.8333	2.12123
22	8.0833	2.11226	62	2793.4167	2.12121
23	10.1333	2.11282	63	2796.6833	2.12128
24	12.7333	2.11331	64	2800.7833	2.12127
25	15.9833	2.11380	65	2805.9500	2.12132
26	20.1000	2.11432	66	2812.4500	2.12133
27	25.2667	2.11520	67	2820.6500	2.12134
28	31.7833	2.11574	68	2830.9500	2.12136
29	39.9667	2.11610	69	2843.9333	2.12136
30	50.2667	2.11672	70	2860.2667	2.12142
31	63.2500	2.11703	71	2880.8500	2.12143
32	79.5833	2.11751	72	2906.7333	2.12143
33	100.1500	2.11811	73	2939.3333	2.12143
34	126.0500	2.11849	74	2980.3833	2.12148
35	158.6500	2.11883	75	3032.0500	2.12149
36	199.6833	2.11936	76	3097.0833	2.12155
37	251.3500	2.11975	77	3178.9667	2.12159
38	316.4000	2.12032	78	3282.0500	2.12152
39	398.2833	2.12085	79	3411.8167	2.12147
40	2780.8667	2.12086	80	3575.2000	2.12147

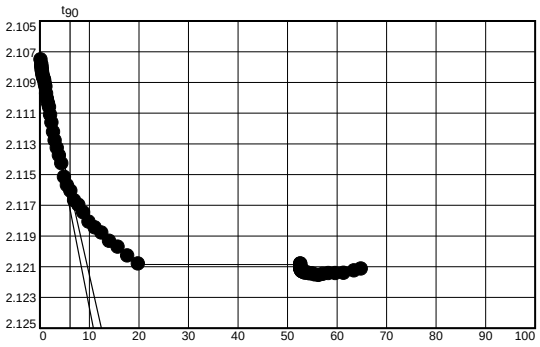


Figure B-126c

Pressure: 2000.00 psf	TEST READINGS (continued)	Load No. 1

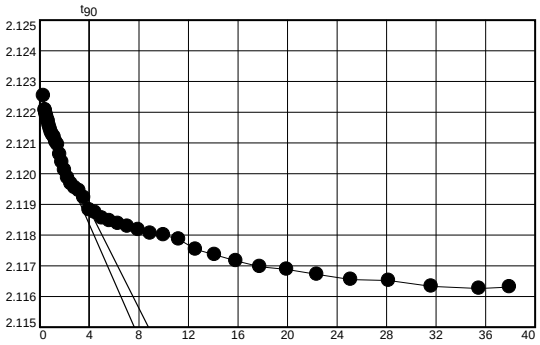
No.	Elapsed Time	Dial Reading
81	3780.8667	2.12145
82	4039.8000	2.12129
83	4221.0500	2.12118

Void Ratio = 1.139 **Compression =** 1.5%

D_0 = 2.1073 **D_{90} =** 2.1160 **D_{100} =** 2.1169 **C_V at 37.08 min. =** 0.056 ft.^{2}/day

Pressure: 500.00 psf	TEST READINGS	Load No. 2

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	2.12402	24	12.7167	2.11922
2	0.1000	2.12253	25	15.9833	2.11882
3	0.2000	2.12207	26	20.0833	2.11873
4	0.2167	2.12204	27	25.2500	2.11855
5	0.2500	2.12197	28	31.7667	2.11846
6	0.3000	2.12189	29	39.9500	2.11837
7	0.3500	2.12183	30	50.2500	2.11828
8	0.4167	2.12173	31	63.2333	2.11817
9	0.5000	2.12171	32	79.5833	2.11805
10	0.6000	2.12157	33	100.1500	2.11800
11	0.7333	2.12146	34	126.0500	2.11786
12	0.9000	2.12134	35	158.6333	2.11753
13	1.1167	2.12126	36	199.6833	2.11736
14	1.3667	2.12119	37	251.3500	2.11716
15	1.7000	2.12103	38	316.3833	2.11697
16	2.1167	2.12094	39	398.2667	2.11688
17	2.6333	2.12062	40	501.3500	2.11672
18	3.2833	2.12037	41	631.1333	2.11655
19	4.1000	2.12011	42	794.5000	2.11652
20	5.1333	2.11986	43	1000.1833	2.11633
21	6.4333	2.11967	44	1259.1167	2.11626
22	8.0667	2.11954	45	1440.1333	2.11631
23	10.1333	2.11944			



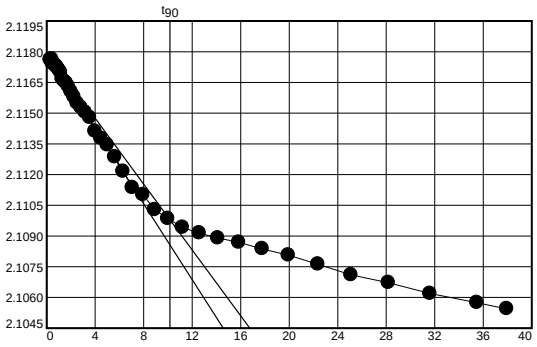
Void Ratio = 1.150 **Compression =** 1.0%

D_0 = 2.1220 **D_{90} =** 2.1189 **D_{100} =** 2.1185 **C_V at 15.67 min. =** 0.132 ft.^{2}/day

Figure B-126d

Pressure: 125.00 psf | **TEST READINGS** | **Load No. 3**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	2.11834	24	12.7167	2.11478
2	0.1000	2.11761	25	15.9833	2.11411
3	0.2000	2.11763	26	20.0833	2.11377
4	0.2167	2.11745	27	25.2500	2.11344
5	0.2500	2.11744	28	31.7500	2.11285
6	0.3000	2.11745	29	39.9500	2.11215
7	0.3500	2.11741	30	50.2500	2.11136
8	0.4167	2.11738	31	63.2333	2.11101
9	0.5000	2.11734	32	79.5833	2.11027
10	0.6167	2.11731	33	100.1500	2.10985
11	0.7333	2.11725	34	126.0500	2.10941
12	0.9000	2.11718	35	158.6500	2.10914
13	1.1167	2.11709	36	199.6833	2.10890
14	1.3667	2.11699	37	251.3500	2.10869
15	1.7000	2.11667	38	316.3833	2.10837
16	2.1167	2.11656	39	398.2667	2.10806
17	2.6333	2.11647	40	501.3500	2.10762
18	3.2833	2.11630	41	631.1167	2.10710
19	4.1000	2.11605	42	794.5000	2.10672
20	5.1333	2.11580	43	1000.1667	2.10619
21	6.4333	2.11548	44	1259.1000	2.10574
22	8.0667	2.11527	45	1440.4333	2.10544
23	10.1333	2.11504			



Void Ratio = 1.173 **Swell =** 0.1%

D_0 = 2.1180 **D_{90} =** 2.1098 **D_{100} =** 2.1089 **C_V at 103.26 min. =** 0.020 ft.^{2}/day

Pressure: 250.00 psf | **TEST READINGS** | **Load No. 4**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	2.10475	12	0.9167	2.10558
2	0.1000	2.10525	13	1.1167	2.10568
3	0.2000	2.10534	14	1.3833	2.10571
4	0.2333	2.10534	15	1.7000	2.10574
5	0.2667	2.10538	16	2.1167	2.10582
6	0.3000	2.10542	17	2.6333	2.10592
7	0.3500	2.10544	18	3.2833	2.10602
8	0.4167	2.10545	19	4.1000	2.10613
9	0.5000	2.10548	20	5.1333	2.10620
10	0.6167	2.10551	21	6.4333	2.10628
11	0.7500	2.10554	22	8.0667	2.10642

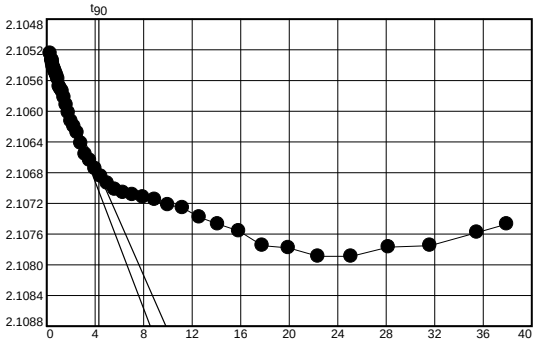


Figure B-126e

Pressure: 250.00 psf	TEST READINGS (continued)	Load No. 4

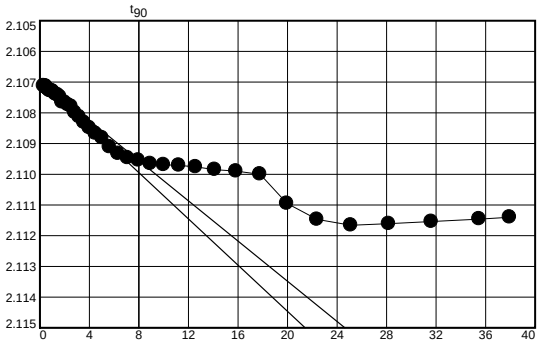
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	2.10656	33	100.1333	2.10722	43	1000.1667	2.10775
24	12.7167	2.10664	34	126.0333	2.10726	44	1259.1000	2.10758
25	15.9833	2.10675	35	158.6333	2.10738	45	1440.1667	2.10747
26	20.0833	2.10685	36	199.6667	2.10747			
27	25.2500	2.10694	37	251.3333	2.10756			
28	31.7500	2.10702	38	316.3833	2.10775			
29	39.9500	2.10706	39	398.2500	2.10778			
30	50.2500	2.10709	40	501.3333	2.10789			
31	63.2333	2.10712	41	631.1167	2.10789			
32	79.5667	2.10715	42	794.4833	2.10777			

Void Ratio = 1.169 **Compression =** 0.1%

D_0 = 2.1053 **D_{90} =** 2.1068 **D_{100} =** 2.1070 **C_V at 18.56 min. =** 0.114 ft.^{2}/day

Pressure: 500.00 psf	TEST READINGS	Load No. 5

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	2.10660	24	12.7333	2.10831
2	0.1000	2.10712	25	15.9833	2.10849
3	0.2000	2.10715	26	20.1000	2.10867
4	0.2333	2.10713	27	25.2667	2.10882
5	0.2667	2.10716	28	31.7667	2.10911
6	0.3000	2.10718	29	39.9500	2.10933
7	0.3667	2.10720	30	50.2667	2.10947
8	0.4167	2.10722	31	63.2500	2.10955
9	0.5000	2.10724	32	79.5833	2.10966
10	0.6167	2.10728	33	100.1500	2.10969
11	0.7333	2.10728	34	126.0500	2.10971
12	0.9000	2.10729	35	158.6500	2.10976
13	1.1167	2.10730	36	199.6833	2.10985
14	1.3667	2.10736	37	251.3500	2.10990
15	1.7000	2.10740	38	316.4000	2.11000
16	2.1167	2.10742	39	398.2833	2.11095
17	2.6333	2.10748	40	501.3667	2.11147
18	3.2833	2.10765	41	631.1333	2.11166
19	4.1167	2.10766	42	794.5167	2.11161
20	5.1500	2.10774	43	1000.1833	2.11154
21	6.4333	2.10779	44	1259.1333	2.11146
22	8.0833	2.10799	45	1440.1167	2.11140
23	10.1333	2.10813			



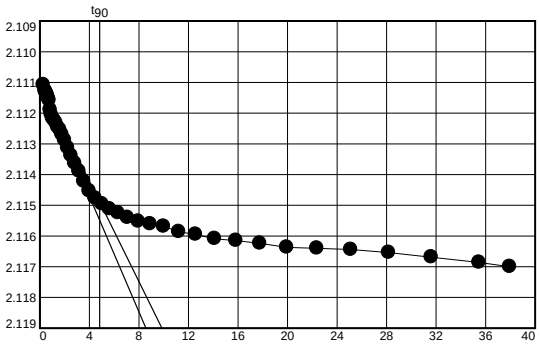
Void Ratio = 1.160 **Compression =** 0.5%

D_0 = 2.1069 **D_{90} =** 2.1096 **D_{100} =** 2.1098 **C_V at 63.66 min. =** 0.033 ft.^{2}/day

Figure B-126f

Pressure: 1000.00 psf	TEST READINGS	Load No. 6

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	2.11025	24	12.7167	2.11422
2	0.0833	2.11108	25	15.9667	2.11453
3	0.2000	2.11127	26	20.0833	2.11477
4	0.2167	2.11129	27	25.2500	2.11496
5	0.2500	2.11132	28	31.7500	2.11512
6	0.3000	2.11135	29	39.9500	2.11525
7	0.3500	2.11140	30	50.2500	2.11540
8	0.4167	2.11143	31	63.2333	2.11552
9	0.5000	2.11151	32	79.5667	2.11561
10	0.6000	2.11158	33	100.1333	2.11569
11	0.7333	2.11189	34	126.0333	2.11586
12	0.9000	2.11204	35	158.6333	2.11595
13	1.1000	2.11217	36	199.6667	2.11609
14	1.3667	2.11223	37	251.3333	2.11615
15	1.7000	2.11231	38	316.3833	2.11624
16	2.1000	2.11245	39	398.2667	2.11637
17	2.6333	2.11254	40	501.3500	2.11640
18	3.2833	2.11269	41	631.1167	2.11644
19	4.1000	2.11288	42	794.4833	2.11654
20	5.1333	2.11313	43	1000.1667	2.11669
21	6.4333	2.11338	44	1259.1000	2.11686
22	8.0667	2.11363	45	1440.4500	2.11700
23	10.1167	2.11389			



Void Ratio = 1.148 **Compression =** 1.1%

D_0 = 2.1109 **D_{90} =** 2.1149 **D_{100} =** 2.1153 **C_V at 23.26 min. =** 0.090 ft.^{2}/day

Pressure: 2000.00 psf	TEST READINGS	Load No. 7

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	2.11462	12	0.9000	2.11684
2	0.1000	2.11583	13	1.1167	2.11697
3	0.2000	2.11623	14	1.3833	2.11717
4	0.2167	2.11629	15	1.7000	2.11737
5	0.2500	2.11636	16	2.1167	2.11767
6	0.3000	2.11640	17	2.6333	2.11797
7	0.3500	2.11644	18	3.2833	2.11818
8	0.4167	2.11652	19	4.1000	2.11843
9	0.5000	2.11659	20	5.1333	2.11891
10	0.6167	2.11666	21	6.4333	2.11922
11	0.7333	2.11675	22	8.0667	2.11976

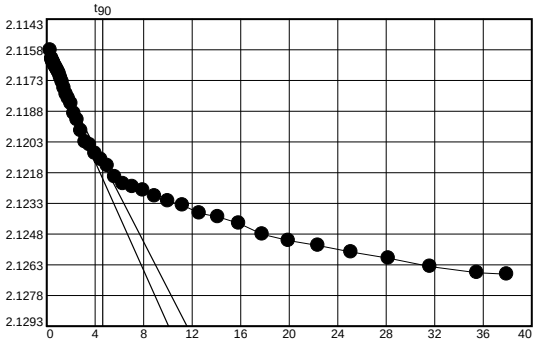


Figure B-126g

Pressure: 2000.00 psf	TEST READINGS (continued)	Load No. 7

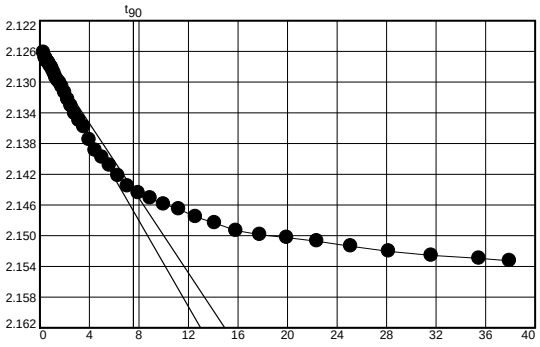
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	2.12031	33	100.1500	2.12319	43	1000.1833	2.12639
24	12.7167	2.12045	34	126.0333	2.12339	44	1259.1167	2.12669
25	15.9833	2.12086	35	158.6333	2.12378	45	1440.1167	2.12676
26	20.0833	2.12116	36	199.6833	2.12396			
27	25.2500	2.12147	37	251.3500	2.12428			
28	31.7667	2.12201	38	316.3833	2.12481			
29	39.9500	2.12235	39	398.2667	2.12512			
30	50.2500	2.12249	40	501.3500	2.12536			
31	63.2333	2.12266	41	631.1167	2.12568			
32	79.5833	2.12295	42	794.5000	2.12598			

Void Ratio = 1.127 **Compression =** 2.0%

D_0 = 2.1160 **D_{90} =** 2.1212 **D_{100} =** 2.1218 **C_V at 21.38 min. =** 0.096 ft.^{2}/day

Pressure: 4000.00 psf	TEST READINGS	Load No. 8

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	2.12400	24	12.7333	2.13585
2	0.1000	2.12616	25	16.0000	2.13751
3	0.2000	2.12681	26	20.1000	2.13890
4	0.2333	2.12688	27	25.2667	2.13981
5	0.2667	2.12699	28	31.7833	2.14084
6	0.3000	2.12711	29	39.9667	2.14219
7	0.3667	2.12731	30	50.2667	2.14355
8	0.4333	2.12740	31	63.2500	2.14444
9	0.5167	2.12749	32	79.5833	2.14511
10	0.6167	2.12769	33	100.1667	2.14590
11	0.7500	2.12792	34	126.0500	2.14655
12	0.9167	2.12810	35	158.6500	2.14754
13	1.1167	2.12841	36	199.7000	2.14836
14	1.3833	2.12886	37	251.3667	2.14934
15	1.7167	2.12940	38	316.4000	2.14987
16	2.1167	2.12981	39	398.2833	2.15025
17	2.6333	2.13012	40	501.3667	2.15072
18	3.2833	2.13065	41	631.1333	2.15138
19	4.1167	2.13137	42	794.5167	2.15204
20	5.1500	2.13226	43	1000.1833	2.15257
21	6.4500	2.13311	44	1259.1167	2.15295
22	8.0833	2.13411	45	1440.1333	2.15327
23	10.1500	2.13502			



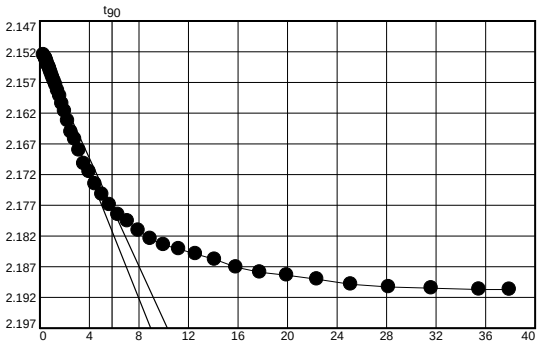
Void Ratio = 1.070 **Compression =** 4.7%

D_0 = 2.1256 **D_{90} =** 2.1440 **D_{100} =** 2.1461 **C_V at 57.00 min. =** 0.035 ft.^{2}/day

Figure B-126h

Pressure: 8000.00 psf	TEST READINGS	Load No. 9

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	2.14942	24	12.7333	2.17023
2	0.1000	2.15252	25	15.9833	2.17153
3	0.2000	2.15296	26	20.0833	2.17354
4	0.2333	2.15308	27	25.2500	2.17522
5	0.2667	2.15324	28	31.7667	2.17692
6	0.3000	2.15349	29	39.9500	2.17854
7	0.3500	2.15367	30	50.2667	2.17958
8	0.4167	2.15410	31	63.2333	2.18110
9	0.5000	2.15426	32	79.5833	2.18244
10	0.6167	2.15461	33	100.1500	2.18345
11	0.7333	2.15503	34	126.0500	2.18411
12	0.9000	2.15554	35	158.6500	2.18493
13	1.1167	2.15615	36	199.6833	2.18581
14	1.3833	2.15679	37	251.3500	2.18708
15	1.7000	2.15743	38	316.4000	2.18790
16	2.1167	2.15834	39	398.2833	2.18838
17	2.6333	2.15920	40	501.3500	2.18903
18	3.2833	2.16047	41	631.1333	2.18986
19	4.1000	2.16170	42	794.5000	2.19029
20	5.1333	2.16326	43	1000.1833	2.19049
21	6.4333	2.16507	44	1259.1167	2.19070
22	8.0833	2.16624	45	1440.0667	2.19071
23	10.1333	2.16805			



Void Ratio = 0.988 **Compression =** 8.4%

D_0 = 2.1518 **D_{90} =** 2.1774 **D_{100} =** 2.1802 **C_V at 33.99 min. =** 0.055 ft.^{2}/day

Pressure: 16000.00 psf	TEST READINGS	Load No. 10

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	2.18784	12	0.9000	2.19671
2	0.0833	2.19207	13	1.1167	2.19743
3	0.2000	2.19272	14	1.3667	2.19830
4	0.2167	2.19298	15	1.7000	2.19948
5	0.2500	2.19334	16	2.1000	2.20011
6	0.3000	2.19357	17	2.6333	2.20186
7	0.3500	2.19401	18	3.2833	2.20270
8	0.4167	2.19465	19	4.1000	2.20441
9	0.5000	2.19519	20	5.1333	2.20602
10	0.6000	2.19550	21	6.4333	2.20824
11	0.7333	2.19605	22	8.0667	2.21018

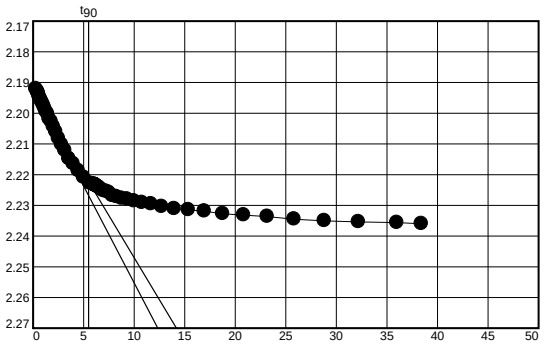


Figure B-126i

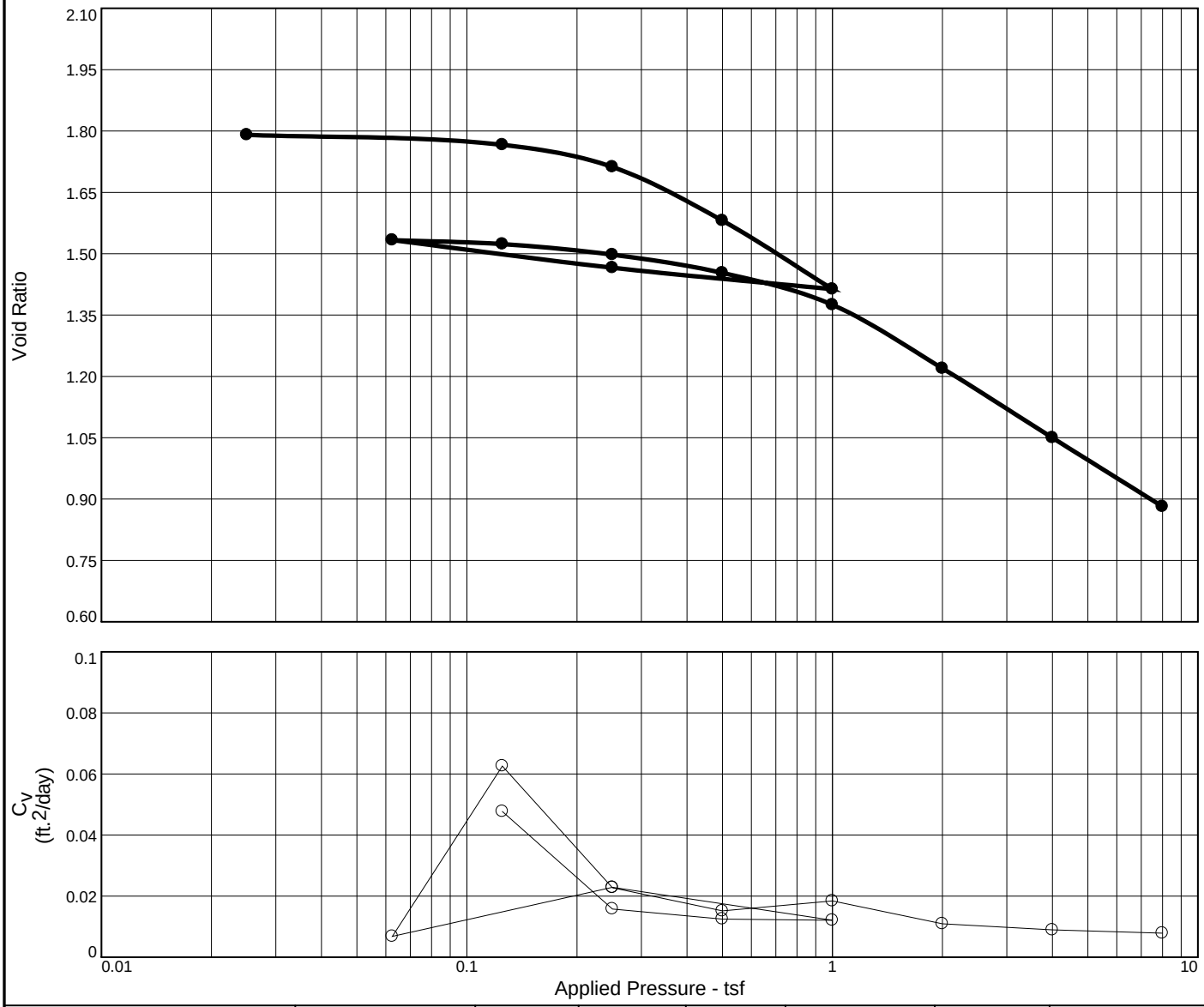
Pressure: 16000.00 psf	TEST READINGS (continued)	Load No. 10

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1167	2.21209	40	37.7667	2.22337	57	86.9167	2.22797
24	12.7167	2.21479	41	38.0333	2.22340	58	99.9000	2.22863
25	15.9667	2.21644	42	38.3667	2.22344	59	116.2333	2.22915
26	20.0833	2.21873	43	38.7667	2.22359	60	136.8000	2.22955
27	25.2500	2.22085	44	39.3000	2.22369	61	162.7000	2.23040
28	31.7500	2.22279	45	39.9500	2.22380	62	195.3000	2.23116
29	36.8333	2.22331	46	40.7667	2.22386	63	236.3333	2.23147
30	36.8667	2.22332	47	41.8000	2.22404	64	288.0000	2.23190
31	36.8833	2.22332	48	43.1000	2.22428	65	353.0500	2.23274
32	36.9167	2.22332	49	44.7333	2.22459	66	434.9333	2.23317
33	36.9667	2.22333	50	46.8000	2.22495	67	538.0167	2.23366
34	37.0167	2.22330	51	49.3833	2.22532	68	667.7833	2.23450
35	37.0833	2.22332	52	52.6500	2.22552	69	831.1667	2.23503
36	37.1667	2.22334	53	56.7500	2.22587	70	1036.8333	2.23538
37	37.2667	2.22333	54	61.9167	2.22686	71	1295.7667	2.23562
38	37.4000	2.22334	55	68.4333	2.22723	72	1477.0000	2.23600
39	37.5667	2.22334	56	76.6167	2.22771			

Void Ratio = 0.890 **Compression =** 13.0%
D_0 = 2.1922 **D_{90} =** 2.2224 **D_{100} =** 2.2257 **C_V at 30.23 min. =** 0.056 ft.^{2}/day

Figure B-126j

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	P_c (tsf)	C_c	Initial Void Ratio
Saturation	Moisture							
102.3 %	68.2 %	60.1	78	48	2.689	0.3	0.58	1.794

MATERIAL DESCRIPTION	USCS	AASHTO
Very soft gray clay	(CH)	

Project No. 18274-022-01 **Client:** CEC

Project: Chandeleur Island Restoration Project (PO-0199)

Location: CI-03 **Depth:** 68-70

Remarks:
Specific gravity measured

GeoEngineers

Figure B-127a

Tested By: Dustin Blanchard **Checked By:** J. Aguettant

CONSOLIDATION TEST DATA

12/22/2023

Client: CEC
Project: Chandeleur Island Restoration Project (PO-0199)
Project Number: 18274-022-01
Location: CI-03
Depth: 68-70
Material Description: Very soft gray clay
Liquid Limit: 78 **Plasticity Index:** 48
USCS: (CH)
Testing Remarks: Specific gravity measured
Tested by: Dustin Blanchard **Checked by:** J. Aguettant

Test Specimen Data

NATURAL MOISTURE		VOID RATIO		AFTER TEST	
Wet w+t =	144.21 g.	Spec. Gr. =	2.689	Wet w+t =	142.08 g.
Dry w+t =	93.26 g.	Est. Ht. Solids =	0.358 in.	Dry w+t =	114.42 g.
Tare Wt. =	18.58 g.	Init. V.R. =	1.794	Tare Wt. =	36.84 g.
Moisture =	68.2 %	Init. Sat. =	102.3 %	Moisture =	35.7 %

UNIT WEIGHT		TEST START			
Height =	1.000 in.	Height =	1.000 in.	Dry Wt. =	77.58 g.
Diameter =	2.500 in.	Diameter =	2.500 in.		
Weight =	130.25 g.				
Dry Dens. =	60.1 pcf				

End-Of-Load Summary

Pressure (psf)	Final Dial (in.)	Deformation (in.)	C_v (ft.^{2}/day)	C_α	Void Ratio	% Strain
start	1.03128	0.00000			1.794	
50.00	1.03240	0.00112			1.791	0.1 Comprs.
250.00	1.04110	0.00982	0.048	0.001	1.766	1.0 Comprs.
500.00	1.06047	0.02919	0.016	0.003	1.712	2.9 Comprs.
1000.00	1.10743	0.07615	0.012	0.007	1.581	7.6 Comprs.
2000.00	1.16744	0.13616	0.012	0.010	1.413	13.6 Comprs.
500.00	1.14868	0.11740	0.023		1.466	11.7 Comprs.
125.00	1.12452	0.09324	0.007		1.533	9.3 Comprs.
250.00	1.12799	0.09671	0.063	0.000	1.523	9.7 Comprs.
500.00	1.13723	0.10595	0.023	0.001	1.498	10.6 Comprs.
1000.00	1.15323	0.12195	0.015	0.001	1.453	12.2 Comprs.
2000.00	1.18112	0.14984	0.018	0.004	1.375	15.0 Comprs.
4000.00	1.23678	0.20550	0.011	0.011	1.220	20.6 Comprs.
8000.00	1.29755	0.26627	0.009	0.008	1.050	26.6 Comprs.
16000.00	1.35769	0.32641	0.008	0.006	0.882	32.6 Comprs.

Compression index (C_c), tsf = 0.58 **Preconsolidation pressure (P_p), tsf =** 0.3 **Void ratio at P_p (e_m) =** 1.657
Recompression index (C_r) = 0.21

Figure B-127b

Pressure: 50.00 psf	TEST READINGS	Load No. 1

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.03128	16	2.4667	1.03128	31	79.4167	1.03216
2	0.0333	1.03128	17	3.1167	1.03129	32	99.9833	1.03233
3	0.0667	1.03127	18	3.9500	1.03127	33	125.8833	1.03253
4	0.1000	1.03125	19	4.9833	1.03132	34	158.4833	1.03262
5	0.1333	1.03127	20	6.2667	1.03129	35	199.5167	1.03269
6	0.1833	1.03125	21	7.9167	1.03124	36	251.1833	1.03263
7	0.2500	1.03128	22	9.9667	1.03129	37	316.2333	1.03267
8	0.3333	1.03127	23	12.5500	1.03127	38	398.1167	1.03269
9	0.4500	1.03130	24	15.8167	1.03128	39	501.2000	1.03272
10	0.5667	1.03134	25	19.9167	1.03136	40	630.9667	1.03269
11	0.7333	1.03129	26	25.0833	1.03176	41	794.3500	1.03266
12	0.9500	1.03129	27	31.6000	1.03177	42	1000.0333	1.03253
13	1.2000	1.03130	28	39.7833	1.03183	43	1258.9667	1.03185
14	1.5333	1.03129	29	50.1000	1.03204	44	1440.1000	1.03240
15	1.9500	1.03129	30	63.0833	1.03205			

Void Ratio = 1.791 **Compression =** 0.1%

Pressure: 250.00 psf	TEST READINGS	Load No. 2

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.03059	21	6.4333	1.03483
2	0.1000	1.03102	22	8.0667	1.03496
3	0.2000	1.03144	23	10.1333	1.03515
4	0.2167	1.03150	24	12.7167	1.03539
5	0.2500	1.03148	25	15.9833	1.03586
6	0.3000	1.03159	26	20.0833	1.03626
7	0.3500	1.03166	27	25.2500	1.03656
8	0.4167	1.03169	28	31.7667	1.03671
9	0.5000	1.03177	29	39.9500	1.03700
10	0.6000	1.03180	30	50.2500	1.03746
11	0.7333	1.03193	31	63.2333	1.03789
12	0.9000	1.03203	32	79.5833	1.03829
13	1.1167	1.03223	33	100.1500	1.03868
14	1.3833	1.03234	34	126.0333	1.03902
15	1.7000	1.03252	35	158.6333	1.03931
16	2.1167	1.03262	36	199.6833	1.03954
17	2.6333	1.03294	37	251.3500	1.03974
18	3.2833	1.03339	38	316.3833	1.04003
19	4.1000	1.03398	39	398.2667	1.04013
20	5.1333	1.03443	40	501.3500	1.04012

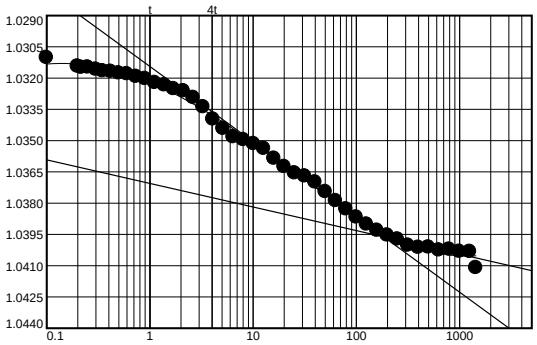


Figure B-127c

Pressure: 250.00 psf | **TEST READINGS (continued)** | **Load No. 2**

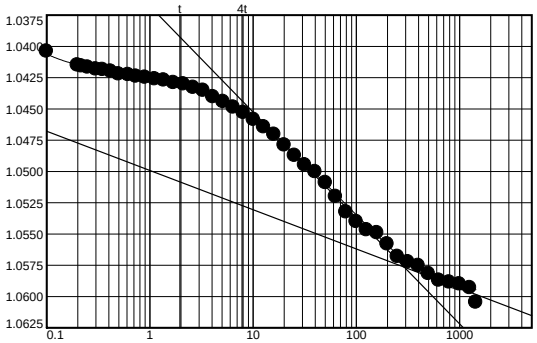
No.	Elapsed Time	Dial Reading
41	631.1333	1.04026
42	794.5000	1.04022
43	1000.1833	1.04032
44	1259.1167	1.04033
45	1440.3667	1.04110

Void Ratio = 1.766 **Compression =** 1.0%

D_0 = 1.0306 **D_{50} =** 1.0351 **D_{100} =** 1.0396 **C_v at 10.23 min. =** 0.048 ft.^{2}/day **C_α =** 0.001

Pressure: 500.00 psf | **TEST READINGS** | **Load No. 3**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.04026	24	12.7167	1.04646
2	0.1000	1.04039	25	15.9833	1.04705
3	0.2000	1.04150	26	20.1000	1.04790
4	0.2167	1.04158	27	25.2667	1.04873
5	0.2500	1.04168	28	31.7667	1.04949
6	0.3000	1.04183	29	39.9500	1.05004
7	0.3500	1.04186	30	50.2667	1.05090
8	0.4167	1.04199	31	63.2500	1.05202
9	0.5000	1.04222	32	79.5833	1.05325
10	0.6167	1.04228	33	100.1500	1.05403
11	0.7333	1.04241	34	126.0500	1.05468
12	0.9000	1.04249	35	158.6500	1.05492
13	1.1167	1.04262	36	199.6833	1.05582
14	1.3667	1.04271	37	251.3500	1.05682
15	1.7000	1.04291	38	316.4000	1.05725
16	2.1167	1.04302	39	398.2833	1.05753
17	2.6333	1.04330	40	501.3667	1.05817
18	3.2833	1.04354	41	631.1333	1.05871
19	4.1000	1.04405	42	794.5167	1.05886
20	5.1333	1.04442	43	1000.1833	1.05901
21	6.4333	1.04488	44	1259.1167	1.05931
22	8.0667	1.04531	45	1440.3333	1.06047
23	10.1333	1.04586			



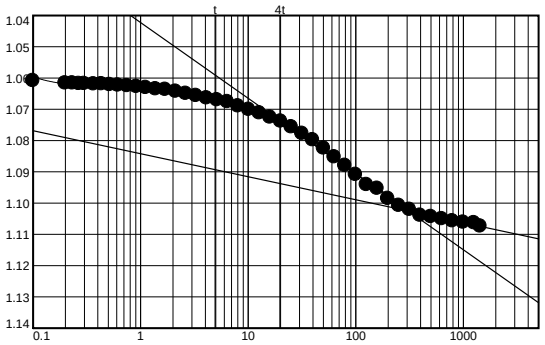
Void Ratio = 1.712 **Compression =** 2.9%

D_0 = 1.0408 **D_{50} =** 1.0492 **D_{100} =** 1.0577 **C_v at 30.02 min. =** 0.016 ft.^{2}/day **C_α =** 0.003

Figure B-127d

Pressure: 1000.00 psf	TEST READINGS	Load No. 4

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.05918	24	12.7333	1.07126
2	0.1000	1.06094	25	15.9833	1.07258
3	0.2000	1.06165	26	20.1000	1.07389
4	0.2333	1.06170	27	25.2667	1.07570
5	0.2667	1.06182	28	31.7667	1.07783
6	0.3000	1.06187	29	39.9667	1.07982
7	0.3667	1.06197	30	50.2667	1.08252
8	0.4333	1.06193	31	63.2500	1.08528
9	0.5167	1.06215	32	79.5833	1.08804
10	0.6167	1.06235	33	100.1500	1.09090
11	0.7500	1.06250	34	126.0500	1.09417
12	0.9167	1.06278	35	158.6500	1.09534
13	1.1167	1.06311	36	199.7000	1.09862
14	1.3833	1.06353	37	251.3667	1.10080
15	1.7000	1.06371	38	316.4000	1.10208
16	2.1167	1.06435	39	398.2833	1.10395
17	2.6333	1.06497	40	501.3667	1.10439
18	3.2833	1.06570	41	631.1500	1.10509
19	4.1167	1.06646	42	794.5167	1.10579
20	5.1500	1.06704	43	1000.2000	1.10618
21	6.4333	1.06761	44	1259.1333	1.10640
22	8.0833	1.06901	45	1440.4667	1.10743
23	10.1333	1.07011			



Void Ratio = 1.581 **Compression =** 7.6%

D_0 = 1.0575 **D_{50} =** 1.0800 **D_{100} =** 1.1025 **C_V at 35.42 min. =** 0.012 ft.^{2}/day **C_α =** 0.007

Pressure: 2000.00 psf	TEST READINGS	Load No. 5

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.10575	12	0.9000	1.11052
2	0.1000	1.10632	13	1.1167	1.11087
3	0.2000	1.10826	14	1.3667	1.11135
4	0.2167	1.10845	15	1.7000	1.11179
5	0.2500	1.10878	16	2.1167	1.11286
6	0.3000	1.10896	17	2.6333	1.11355
7	0.3500	1.10911	18	3.2833	1.11428
8	0.4167	1.10944	19	4.1000	1.11525
9	0.5000	1.10966	20	5.1333	1.11617
10	0.6167	1.10998	21	6.4333	1.11741
11	0.7333	1.11027	22	8.0667	1.11897

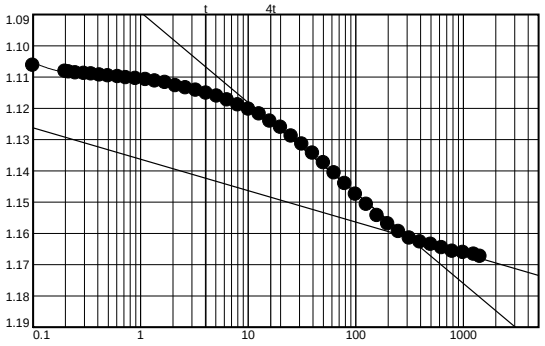


Figure B-127e

Pressure: 2000.00 psf	TEST READINGS (continued)	Load No. 5

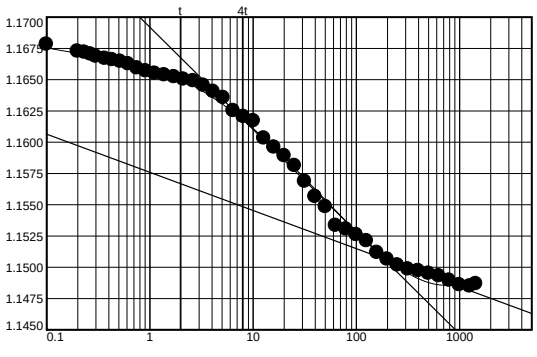
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	1.12037	33	100.1500	1.14758	43	1000.2000	1.16619
24	12.7167	1.12188	34	126.0500	1.15080	44	1259.1333	1.16678
25	15.9833	1.12421	35	158.6500	1.15437	45	1440.3000	1.16744
26	20.0833	1.12615	36	199.6833	1.15703			
27	25.2500	1.12895	37	251.3500	1.15953			
28	31.7667	1.13156	38	316.3833	1.16159			
29	39.9500	1.13443	39	398.2667	1.16280			
30	50.2667	1.13748	40	501.3500	1.16359			
31	63.2333	1.14073	41	631.1333	1.16466			
32	79.5833	1.14411	42	794.5167	1.16582			

Void Ratio = 1.413 **Compression =** 13.6%

D_0 = 1.1041 **D_{50} =** 1.1327 **D_{100} =** 1.1613 **C_v at 32.57 min. =** 0.012 ft.^{2}/day **C_α =** 0.010

Pressure: 500.00 psf	TEST READINGS	Load No. 6

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.16959	24	12.7333	1.16031
2	0.1000	1.16781	25	15.9833	1.15958
3	0.2000	1.16726	26	20.1000	1.15890
4	0.2333	1.16718	27	25.2667	1.15811
5	0.2667	1.16702	28	31.7667	1.15686
6	0.3000	1.16686	29	39.9500	1.15565
7	0.3667	1.16668	30	50.2667	1.15483
8	0.4333	1.16658	31	63.2500	1.15333
9	0.5167	1.16645	32	79.5833	1.15305
10	0.6167	1.16625	33	100.1500	1.15260
11	0.7500	1.16592	34	126.0500	1.15211
12	0.9167	1.16569	35	158.6500	1.15116
13	1.1167	1.16549	36	199.6833	1.15064
14	1.3833	1.16537	37	251.3500	1.15017
15	1.7167	1.16521	38	316.3833	1.14985
16	2.1167	1.16503	39	398.2667	1.14971
17	2.6333	1.16489	40	501.3500	1.14950
18	3.3000	1.16453	41	631.1167	1.14930
19	4.1167	1.16405	42	794.5000	1.14894
20	5.1500	1.16356	43	1000.1667	1.14859
21	6.4500	1.16251	44	1259.1000	1.14848
22	8.0833	1.16204	45	1440.3500	1.14868
23	10.1333	1.16170			



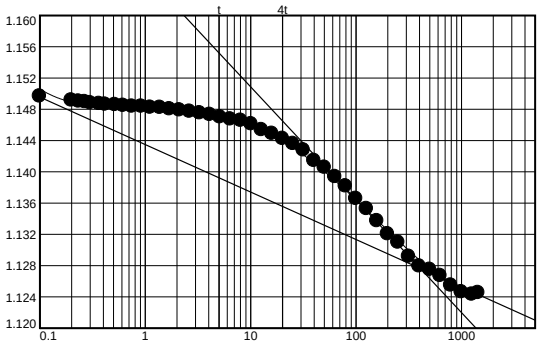
Void Ratio = 1.466 **Compression =** 11.7%

D_0 = 1.1683 **D_{50} =** 1.1595 **D_{100} =** 1.1507 **C_v at 16.38 min. =** 0.023 ft.^{2}/day

Figure B-127f

Pressure: 125.00 psf	TEST READINGS	Load No. 7

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.15005	24	12.7167	1.14536
2	0.1000	1.14967	25	15.9833	1.14489
3	0.2000	1.14916	26	20.0833	1.14424
4	0.2333	1.14900	27	25.2500	1.14359
5	0.2667	1.14893	28	31.7667	1.14277
6	0.3000	1.14880	29	39.9500	1.14142
7	0.3667	1.14871	30	50.2667	1.14054
8	0.4167	1.14862	31	63.2500	1.13937
9	0.5167	1.14856	32	79.5833	1.13815
10	0.6167	1.14847	33	100.1500	1.13657
11	0.7500	1.14835	34	126.0500	1.13526
12	0.9167	1.14835	35	158.6500	1.13371
13	1.1167	1.14824	36	199.6833	1.13204
14	1.3833	1.14821	37	251.3500	1.13096
15	1.7000	1.14802	38	316.3833	1.12916
16	2.1167	1.14789	39	398.2667	1.12792
17	2.6333	1.14773	40	501.3500	1.12749
18	3.2833	1.14750	41	631.1333	1.12669
19	4.1000	1.14731	42	794.5000	1.12546
20	5.1333	1.14700	43	1000.1833	1.12461
21	6.4333	1.14672	44	1259.1167	1.12431
22	8.0667	1.14655	45	1440.4667	1.12452
23	10.1333	1.14611			



Void Ratio = 1.533 **Compression =** 9.3%

D_0 = 1.1510 **D_{50} =** 1.1393 **D_{100} =** 1.1276 **C_V at 57.67 min. =** 0.007 ft.^{2}/day

Pressure: 250.00 psf	TEST READINGS	Load No. 8

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.12434	12	0.9000	1.12486
2	0.0833	1.12431	13	1.1000	1.12490
3	0.2000	1.12453	14	1.3667	1.12492
4	0.2167	1.12455	15	1.7000	1.12506
5	0.2500	1.12460	16	2.1000	1.12511
6	0.3000	1.12464	17	2.6333	1.12515
7	0.3500	1.12466	18	3.2833	1.12526
8	0.4167	1.12466	19	4.1000	1.12544
9	0.5000	1.12472	20	5.1333	1.12549
10	0.6000	1.12480	21	6.4167	1.12555
11	0.7333	1.12481	22	8.0667	1.12571

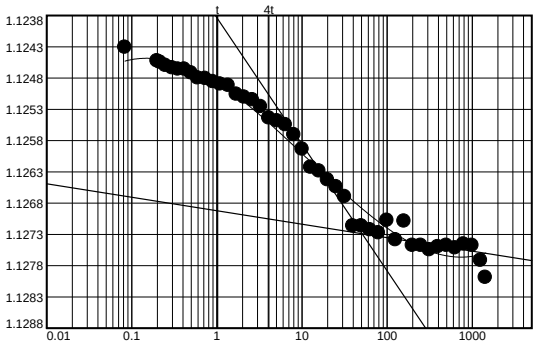


Figure B-127g

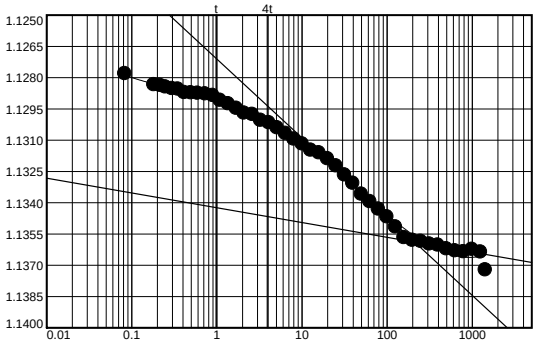
Pressure: 250.00 psf	TEST READINGS (continued)	Load No. 8

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1167	1.12594	33	100.1333	1.12708	43	1000.1833	1.12748
24	12.7167	1.12623	34	126.0333	1.12739	44	1259.1167	1.12772
25	15.9667	1.12629	35	158.6333	1.12709	45	1440.3833	1.12799
26	20.0833	1.12643	36	199.6833	1.12748			
27	25.2500	1.12654	37	251.3500	1.12748			
28	31.7500	1.12670	38	316.3833	1.12755			
29	39.9333	1.12717	39	398.2667	1.12750			
30	50.2500	1.12717	40	501.3500	1.12748			
31	63.2333	1.12723	41	631.1333	1.12752			
32	79.5667	1.12728	42	794.5167	1.12746			

Void Ratio = 1.523 **Compression =** 9.7%
D_0 = 1.1242 **D_{50} =** 1.1258 **D_{100} =** 1.1273 **C_v at 6.45 min. =** 0.063 ft.^{2}/day **C_α =** 0.000

Pressure: 500.00 psf	TEST READINGS	Load No. 9

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.12740	24	12.7167	1.13149
2	0.0833	1.12782	25	15.9833	1.13162
3	0.1833	1.12835	26	20.0833	1.13190
4	0.2167	1.12838	27	25.2500	1.13224
5	0.2500	1.12846	28	31.7667	1.13268
6	0.3000	1.12854	29	39.9500	1.13308
7	0.3500	1.12856	30	50.2667	1.13360
8	0.4167	1.12873	31	63.2333	1.13396
9	0.5000	1.12874	32	79.5833	1.13432
10	0.6000	1.12876	33	100.1500	1.13469
11	0.7333	1.12879	34	126.0333	1.13518
12	0.9000	1.12887	35	158.6333	1.13569
13	1.1000	1.12910	36	199.6833	1.13581
14	1.3667	1.12926	37	251.3500	1.13587
15	1.7000	1.12948	38	316.4000	1.13599
16	2.1000	1.12971	39	398.2667	1.13604
17	2.6167	1.12978	40	501.3667	1.13622
18	3.2833	1.13006	41	631.1333	1.13632
19	4.1000	1.13017	42	794.5000	1.13636
20	5.1333	1.13042	43	1000.1833	1.13625
21	6.4333	1.13069	44	1259.1167	1.13638
22	8.0667	1.13096	45	1440.1167	1.13723
23	10.1333	1.13119			

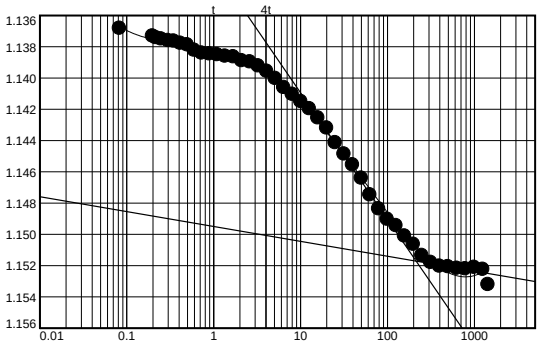


Void Ratio = 1.498 **Compression =** 10.6%
D_0 = 1.1280 **D_{50} =** 1.1319 **D_{100} =** 1.1359 **C_v at 17.49 min. =** 0.023 ft.^{2}/day **C_α =** 0.001

Figure B-127h

Pressure: 1000.00 psf	TEST READINGS	Load No. 10

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.13610	24	12.7167	1.14198
2	0.0833	1.13684	25	15.9667	1.14257
3	0.2000	1.13734	26	20.0833	1.14322
4	0.2167	1.13743	27	25.2500	1.14415
5	0.2500	1.13752	28	31.7500	1.14488
6	0.3000	1.13762	29	39.9333	1.14557
7	0.3500	1.13766	30	50.2500	1.14642
8	0.4167	1.13779	31	63.2333	1.14749
9	0.5000	1.13790	32	79.5667	1.14838
10	0.6000	1.13823	33	100.1333	1.14905
11	0.7333	1.13842	34	126.0333	1.14946
12	0.9000	1.13847	35	158.6333	1.15012
13	1.1000	1.13852	36	199.6667	1.15065
14	1.3667	1.13862	37	251.3333	1.15137
15	1.7000	1.13867	38	316.3667	1.15181
16	2.1167	1.13891	39	398.2500	1.15205
17	2.6333	1.13898	40	501.3500	1.15209
18	3.2833	1.13925	41	631.1167	1.15219
19	4.1000	1.13958	42	794.5000	1.15223
20	5.1333	1.14005	43	1000.1667	1.15213
21	6.4333	1.14062	44	1259.1000	1.15225
22	8.0667	1.14106	45	1440.4000	1.15323
23	10.1167	1.14152			



Void Ratio = 1.453 **Compression =** 12.2%

D_0 = 1.1367 **D_{50} =** 1.1442 **D_{100} =** 1.1517 **C_V at 25.53 min. =** 0.015 ft.^{2}/day **C_α =** 0.001

Pressure: 2000.00 psf	TEST READINGS	Load No. 11

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.15186	12	0.9000	1.15574
2	0.0833	1.15370	13	1.1000	1.15604
3	0.2000	1.15408	14	1.3667	1.15633
4	0.2167	1.15416	15	1.7000	1.15664
5	0.2500	1.15430	16	2.1000	1.15699
6	0.3000	1.15455	17	2.6167	1.15730
7	0.3500	1.15480	18	3.2833	1.15760
8	0.4167	1.15487	19	4.1000	1.15825
9	0.5000	1.15502	20	5.1333	1.15894
10	0.6000	1.15526	21	6.4333	1.15988
11	0.7333	1.15546	22	8.0667	1.16037

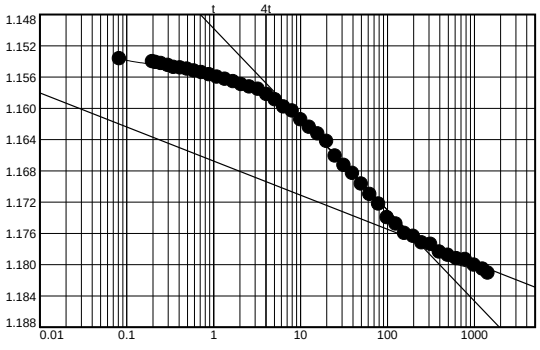


Figure B-127i

Pressure: 2000.00 psf	TEST READINGS (continued)	Load No. 11

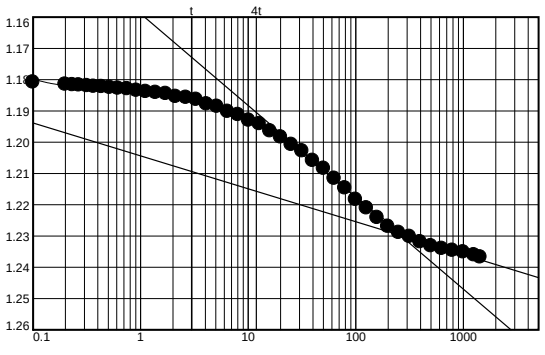
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	1.16150	33	100.1500	1.17404	43	1000.1833	1.18010
24	12.7167	1.16247	34	126.0500	1.17483	44	1259.1167	1.18060
25	15.9833	1.16331	35	158.6500	1.17604	45	1440.2667	1.18112
26	20.0833	1.16427	36	199.6833	1.17640			
27	25.2500	1.16613	37	251.3500	1.17725			
28	31.7667	1.16733	38	316.4000	1.17744			
29	39.9500	1.16837	39	398.2833	1.17842			
30	50.2667	1.16974	40	501.3667	1.17883			
31	63.2500	1.17105	41	631.1333	1.17928			
32	79.5833	1.17228	42	794.5167	1.17939			

Void Ratio = 1.375 **Compression =** 15.0%

D_0 = 1.1527 **D_{50} =** 1.1648 **D_{100} =** 1.1769 **C_v at 19.99 min. =** 0.018 ft.^{2}/day **C_α =** 0.004

Pressure: 4000.00 psf	TEST READINGS	Load No. 12

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.17866	24	12.7333	1.19418
2	0.1000	1.18081	25	16.0000	1.19646
3	0.2000	1.18153	26	20.1000	1.19844
4	0.2333	1.18167	27	25.2667	1.20081
5	0.2667	1.18177	28	31.7667	1.20288
6	0.3167	1.18199	29	39.9500	1.20595
7	0.3667	1.18219	30	50.2667	1.20843
8	0.4333	1.18230	31	63.2500	1.21166
9	0.5167	1.18251	32	79.5833	1.21473
10	0.6167	1.18277	33	100.1500	1.21836
11	0.7500	1.18299	34	126.0500	1.22106
12	0.9167	1.18349	35	158.6500	1.22413
13	1.1167	1.18387	36	199.6833	1.22698
14	1.3833	1.18415	37	251.3500	1.22895
15	1.7167	1.18451	38	316.4000	1.23023
16	2.1167	1.18548	39	398.2833	1.23193
17	2.6500	1.18575	40	501.3667	1.23317
18	3.3000	1.18635	41	631.1333	1.23409
19	4.1167	1.18786	42	794.5000	1.23467
20	5.1500	1.18864	43	1000.1833	1.23520
21	6.4500	1.19021	44	1259.1167	1.23614
22	8.0833	1.19125	45	1440.3333	1.23678
23	10.1500	1.19300			



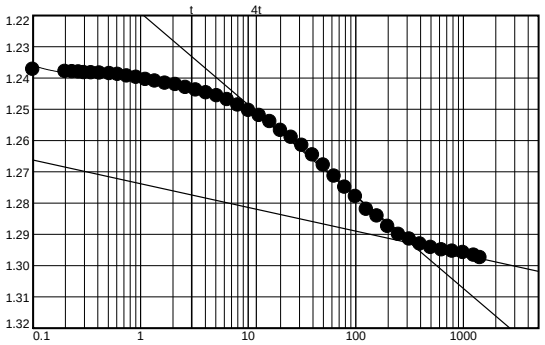
Void Ratio = 1.220 **Compression =** 20.6%

D_0 = 1.1773 **D_{50} =** 1.2035 **D_{100} =** 1.2298 **C_v at 30.53 min. =** 0.011 ft.^{2}/day **C_α =** 0.011

Figure B-127j

Pressure: 8000.00 psf	TEST READINGS	Load No. 13

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.23413	24	12.7167	1.25208
2	0.1000	1.23731	25	15.9833	1.25405
3	0.2000	1.23799	26	20.0833	1.25684
4	0.2333	1.23810	27	25.2500	1.25909
5	0.2667	1.23816	28	31.7500	1.26166
6	0.3000	1.23839	29	39.9500	1.26473
7	0.3500	1.23842	30	50.2500	1.26796
8	0.4167	1.23850	31	63.2333	1.27148
9	0.5167	1.23866	32	79.5667	1.27499
10	0.6167	1.23891	33	100.1500	1.27798
11	0.7500	1.23944	34	126.0333	1.28208
12	0.9167	1.23990	35	158.6333	1.28422
13	1.1167	1.24059	36	199.6667	1.28752
14	1.3667	1.24109	37	251.3333	1.29010
15	1.7000	1.24174	38	316.3833	1.29161
16	2.1167	1.24222	39	398.2667	1.29317
17	2.6333	1.24315	40	501.3500	1.29432
18	3.2833	1.24393	41	631.1167	1.29506
19	4.1000	1.24480	42	794.5000	1.29547
20	5.1333	1.24577	43	1000.1833	1.29588
21	6.4333	1.24700	44	1259.1167	1.29674
22	8.0667	1.24873	45	1440.4000	1.29755
23	10.1333	1.25042			



Void Ratio = 1.050 **Compression =** 26.6%

D_0 = 1.2332 **D_{50} =** 1.2630 **D_{100} =** 1.2928 **C_V at 32.26 min. =** 0.009 ft.^{2}/day **C_α =** 0.008

Pressure: 16000.00 psf	TEST READINGS	Load No. 14

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.29434	12	0.9000	1.30084
2	0.0833	1.29791	13	1.1000	1.30145
3	0.1833	1.29874	14	1.3667	1.30193
4	0.2167	1.29901	15	1.7000	1.30239
5	0.2500	1.29917	16	2.1000	1.30297
6	0.3000	1.29940	17	2.6333	1.30355
7	0.3500	1.29955	18	3.2833	1.30419
8	0.4167	1.29975	19	4.1000	1.30515
9	0.5000	1.29991	20	5.1333	1.30659
10	0.6000	1.30032	21	6.4333	1.30792
11	0.7333	1.30052	22	8.0667	1.30905

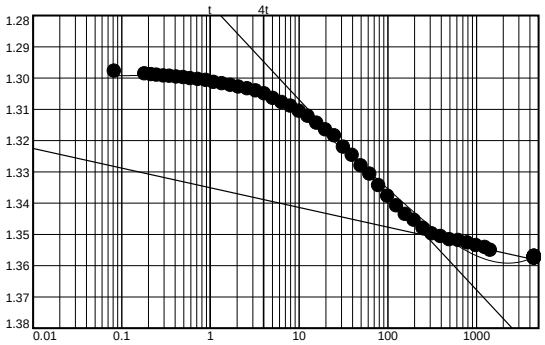


Figure B-127k

Pressure: 16000.00 psf	TEST READINGS (continued)	Load No. 14

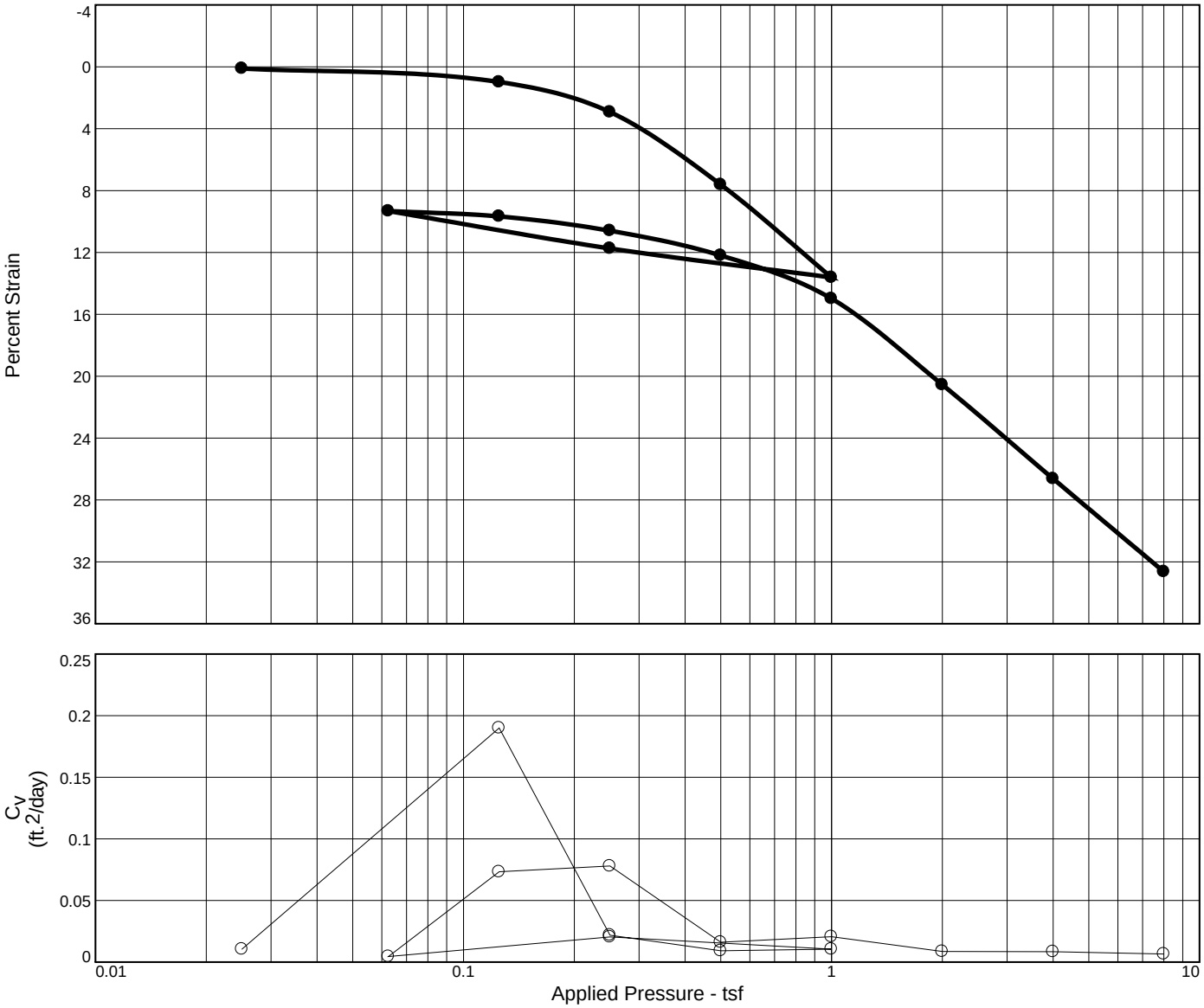
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1167	1.31073	36	199.6833	1.34557	49	4529.1333	1.35722
24	12.7167	1.31233	37	251.3500	1.34810	50	4529.1667	1.35722
25	15.9667	1.31452	38	316.3833	1.34996	51	4529.2167	1.35722
26	20.0833	1.31666	39	398.2667	1.35075	52	4529.2833	1.35725
27	25.2500	1.31858	40	501.3500	1.35177	53	4529.3833	1.35721
28	31.7500	1.32223	41	631.1167	1.35209	54	4529.4833	1.35722
29	39.9500	1.32481	42	794.5000	1.35283	55	4529.6167	1.35726
30	50.2500	1.32819	43	1000.1833	1.35371	56	4529.7833	1.35760
31	63.2333	1.33085	44	1259.1167	1.35425	57	4529.9833	1.35762
32	79.5667	1.33446	45	1440.1167	1.35517	58	4530.2500	1.35766
33	100.1500	1.33787	46	4529.0333	1.35712	59	4530.5667	1.35762
34	126.0333	1.34093	47	4529.0667	1.35713	60	4530.9833	1.35769
35	158.6333	1.34372	48	4529.1000	1.35720	61	4531.5000	1.35769

Void Ratio = 0.882 **Compression =** 32.6%

D_0 = 1.2950 **D_{50} =** 1.3227 **D_{100} =** 1.3503 **C_v at 31.11 min. =** 0.008 $ft.^2/day$ **C_α =** 0.006

Figure B-127l

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	P_c (tsf)	C_c	Initial Void Ratio
Saturation	Moisture							
102.3 %	68.2 %	60.1	78	48	2.689	0.3	0.59	1.794

MATERIAL DESCRIPTION	USCS	AASHTO
Very soft gray clay	(CH)	

Project No. 18274-022-01 **Client:** CEC

Project: Chandeleur Island Restoration Project (PO-0199)

Location: CI-03 sqrt **Depth:** 68-70

Remarks:
Specific gravity measured

GeoEngineers

Figure B-128a

Tested By: Dustin Blanchard **Checked By:** J. Aguettant

CONSOLIDATION TEST DATA

12/22/2023

Client: CEC
Project: Chandeleur Island Restoration Project (PO-0199)
Project Number: 18274-022-01
Location: CI-03 sqrt
Depth: 68-70
Material Description: Very soft gray clay
Liquid Limit: 78 **Plasticity Index:** 48
USCS: (CH)
Testing Remarks: Specific gravity measured
Tested by: Dustin Blanchard **Checked by:** J. Aguettant

Test Specimen Data

NATURAL MOISTURE		VOID RATIO		AFTER TEST	
Wet w+t =	144.21 g.	Spec. Gr. =	2.689	Wet w+t =	142.08 g.
Dry w+t =	93.26 g.	Est. Ht. Solids =	0.358 in.	Dry w+t =	114.42 g.
Tare Wt. =	18.58 g.	Init. V.R. =	1.794	Tare Wt. =	36.84 g.
Moisture =	68.2 %	Init. Sat. =	102.3 %	Moisture =	35.7 %

UNIT WEIGHT		TEST START			
Height =	1.000 in.	Height =	1.000 in.	Dry Wt. =	77.58 g.
Diameter =	2.500 in.	Diameter =	2.500 in.		
Weight =	130.25 g.				
Dry Dens. =	60.1 pcf				

End-Of-Load Summary

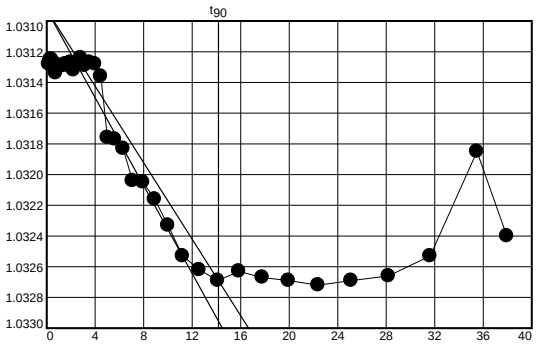
Pressure (psf)	Final Dial (in.)	Deformation (in.)	C_v (ft.^{2}/day)	C_α	Void Ratio	% Strain
start	1.03128	0.00000			1.794	
50.00	1.03240	0.00112	0.011		1.791	0.1 Comprs.
250.00	1.04110	0.00982	0.190		1.766	1.0 Comprs.
500.00	1.06047	0.02919	0.022		1.712	2.9 Comprs.
1000.00	1.10743	0.07615	0.009		1.581	7.6 Comprs.
2000.00	1.16744	0.13616	0.010		1.413	13.6 Comprs.
500.00	1.14868	0.11740	0.020		1.466	11.7 Comprs.
125.00	1.12452	0.09324	0.004		1.533	9.3 Comprs.
250.00	1.12799	0.09671	0.073		1.523	9.7 Comprs.
500.00	1.13723	0.10595	0.078		1.498	10.6 Comprs.
1000.00	1.15323	0.12195	0.016		1.453	12.2 Comprs.
2000.00	1.18112	0.14984	0.021		1.375	15.0 Comprs.
4000.00	1.23678	0.20550	0.009		1.220	20.6 Comprs.
8000.00	1.29755	0.26627	0.008		1.050	26.6 Comprs.
16000.00	1.35769	0.32641	0.007		0.882	32.6 Comprs.

Compression index (C_c), tsf = 0.59 **Preconsolidation pressure (P_p), tsf =** 0.3 **Void ratio at P_p (e_m) =** 1.659
Recompression index (C_r) = 0.21

Figure B-128b

Pressure: 50.00 psf	TEST READINGS	Load No. 1

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.03128	23	12.5500	1.03127
2	0.0333	1.03128	24	15.8167	1.03128
3	0.0667	1.03127	25	19.9167	1.03136
4	0.1000	1.03125	26	25.0833	1.03176
5	0.1333	1.03127	27	31.6000	1.03177
6	0.1833	1.03125	28	39.7833	1.03183
7	0.2500	1.03128	29	50.1000	1.03204
8	0.3333	1.03127	30	63.0833	1.03205
9	0.4500	1.03130	31	79.4167	1.03216
10	0.5667	1.03134	32	99.9833	1.03233
11	0.7333	1.03129	33	125.8833	1.03253
12	0.9500	1.03129	34	158.4833	1.03262
13	1.2000	1.03130	35	199.5167	1.03269
14	1.5333	1.03129	36	251.1833	1.03263
15	1.9500	1.03129	37	316.2333	1.03267
16	2.4667	1.03128	38	398.1167	1.03269
17	3.1167	1.03129	39	501.2000	1.03272
18	3.9500	1.03127	40	630.9667	1.03269
19	4.9833	1.03132	41	794.3500	1.03266
20	6.2667	1.03129	42	1000.0333	1.03253
21	7.9167	1.03124	43	1258.9667	1.03185
22	9.9667	1.03129	44	1440.1000	1.03240



Void Ratio = 1.791 **Compression =** 0.1%

D_0 = 1.0309 **D_{90} =** 1.0327 **D_{100} =** 1.0329 **C_v at 200.52 min. =** 0.011 ft.^{2}/day

Pressure: 250.00 psf	TEST READINGS	Load No. 2

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.03059	13	1.1167	1.03223
2	0.1000	1.03102	14	1.3833	1.03234
3	0.2000	1.03144	15	1.7000	1.03252
4	0.2167	1.03150	16	2.1167	1.03262
5	0.2500	1.03148	17	2.6333	1.03294
6	0.3000	1.03159	18	3.2833	1.03339
7	0.3500	1.03166	19	4.1000	1.03398
8	0.4167	1.03169	20	5.1333	1.03443
9	0.5000	1.03177	21	6.4333	1.03483
10	0.6000	1.03180	22	8.0667	1.03496
11	0.7333	1.03193	23	10.1333	1.03515
12	0.9000	1.03203	24	12.7167	1.03539

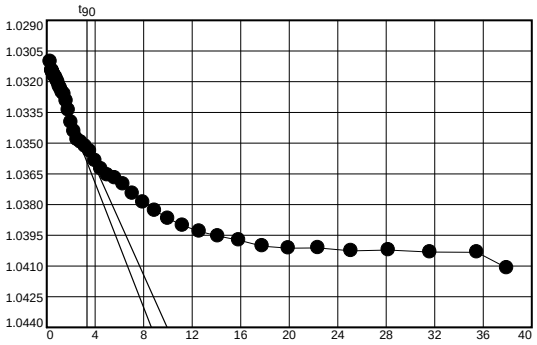


Figure B-128c

Pressure: 250.00 psf	TEST READINGS (continued)	Load No. 2

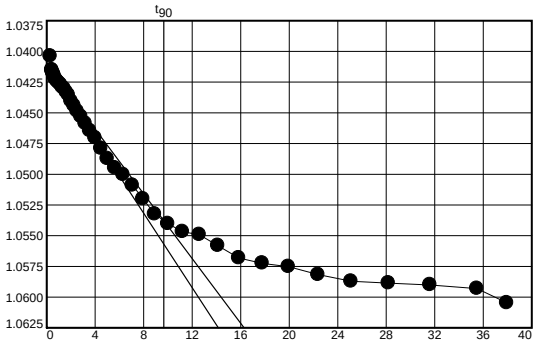
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
25	15.9833	1.03586	35	158.6333	1.03931	45	1440.3667	1.04110
26	20.0833	1.03626	36	199.6833	1.03954			
27	25.2500	1.03656	37	251.3500	1.03974			
28	31.7667	1.03671	38	316.3833	1.04003			
29	39.9500	1.03700	39	398.2667	1.04013			
30	50.2500	1.03746	40	501.3500	1.04012			
31	63.2333	1.03789	41	631.1333	1.04026			
32	79.5833	1.03829	42	794.5000	1.04022			
33	100.1500	1.03868	43	1000.1833	1.04032			
34	126.0333	1.03902	44	1259.1167	1.04033			

Void Ratio = 1.766 **Compression =** 1.0%

D_0 = 1.0309 **D_{90} =** 1.0352 **D_{100} =** 1.0357 **C_V at 11.06 min. =** 0.190 ft.^{2}/day

Pressure: 500.00 psf	TEST READINGS	Load No. 3

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.04026	24	12.7167	1.04646
2	0.1000	1.04039	25	15.9833	1.04705
3	0.2000	1.04150	26	20.1000	1.04790
4	0.2167	1.04158	27	25.2667	1.04873
5	0.2500	1.04168	28	31.7667	1.04949
6	0.3000	1.04183	29	39.9500	1.05004
7	0.3500	1.04186	30	50.2667	1.05090
8	0.4167	1.04199	31	63.2500	1.05202
9	0.5000	1.04222	32	79.5833	1.05325
10	0.6167	1.04228	33	100.1500	1.05403
11	0.7333	1.04241	34	126.0500	1.05468
12	0.9000	1.04249	35	158.6500	1.05492
13	1.1167	1.04262	36	199.6833	1.05582
14	1.3667	1.04271	37	251.3500	1.05682
15	1.7000	1.04291	38	316.4000	1.05725
16	2.1167	1.04302	39	398.2833	1.05753
17	2.6333	1.04330	40	501.3667	1.05817
18	3.2833	1.04354	41	631.1333	1.05871
19	4.1000	1.04405	42	794.5167	1.05886
20	5.1333	1.04442	43	1000.1833	1.05901
21	6.4333	1.04488	44	1259.1167	1.05931
22	8.0667	1.04531	45	1440.3333	1.06047
23	10.1333	1.04586			



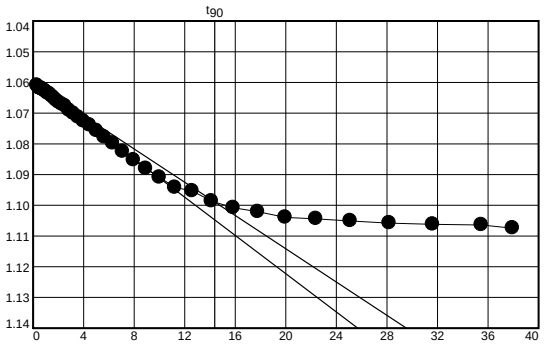
Void Ratio = 1.712 **Compression =** 2.9%

D_0 = 1.0411 **D_{90} =** 1.0538 **D_{100} =** 1.0552 **C_V at 93.31 min. =** 0.022 ft.^{2}/day

Figure B-128d

Pressure: 1000.00 psf | **TEST READINGS** | **Load No. 4**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.05918	24	12.7333	1.07126
2	0.1000	1.06094	25	15.9833	1.07258
3	0.2000	1.06165	26	20.1000	1.07389
4	0.2333	1.06170	27	25.2667	1.07570
5	0.2667	1.06182	28	31.7667	1.07783
6	0.3000	1.06187	29	39.9667	1.07982
7	0.3667	1.06197	30	50.2667	1.08252
8	0.4333	1.06193	31	63.2500	1.08528
9	0.5167	1.06215	32	79.5833	1.08804
10	0.6167	1.06235	33	100.1500	1.09090
11	0.7500	1.06250	34	126.0500	1.09417
12	0.9167	1.06278	35	158.6500	1.09534
13	1.1167	1.06311	36	199.7000	1.09862
14	1.3833	1.06353	37	251.3667	1.10080
15	1.7000	1.06371	38	316.4000	1.10208
16	2.1167	1.06435	39	398.2833	1.10395
17	2.6333	1.06497	40	501.3667	1.10439
18	3.2833	1.06570	41	631.1500	1.10509
19	4.1167	1.06646	42	794.5167	1.10579
20	5.1500	1.06704	43	1000.2000	1.10618
21	6.4333	1.06761	44	1259.1333	1.10640
22	8.0833	1.06901	45	1440.4667	1.10743
23	10.1333	1.07011			



Void Ratio = 1.581 **Compression =** 7.6%

D_0 = 1.0600 **D_{90} =** 1.0989 **D_{100} =** 1.1033 **C_V at 206.64 min. =** 0.009 ft.^{2}/day

Pressure: 2000.00 psf | **TEST READINGS** | **Load No. 5**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.10575	12	0.9000	1.11052
2	0.1000	1.10632	13	1.1167	1.11087
3	0.2000	1.10826	14	1.3667	1.11135
4	0.2167	1.10845	15	1.7000	1.11179
5	0.2500	1.10878	16	2.1167	1.11286
6	0.3000	1.10896	17	2.6333	1.11355
7	0.3500	1.10911	18	3.2833	1.11428
8	0.4167	1.10944	19	4.1000	1.11525
9	0.5000	1.10966	20	5.1333	1.11617
10	0.6167	1.10998	21	6.4333	1.11741
11	0.7333	1.11027	22	8.0667	1.11897

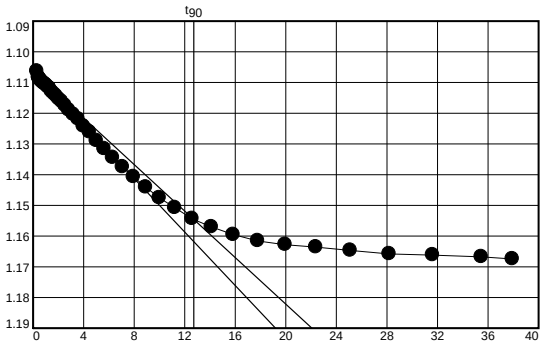


Figure B-128e

Pressure: 2000.00 psf	TEST READINGS (continued)	Load No. 5

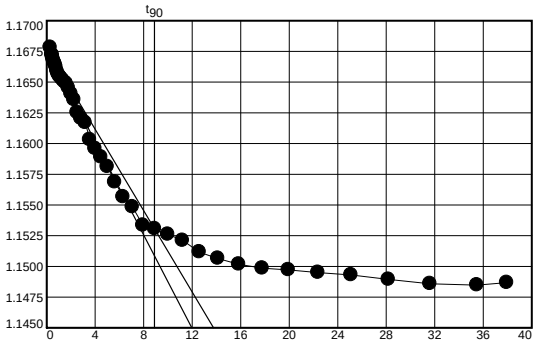
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	1.12037	33	100.1500	1.14758	43	1000.2000	1.16619
24	12.7167	1.12188	34	126.0500	1.15080	44	1259.1333	1.16678
25	15.9833	1.12421	35	158.6500	1.15437	45	1440.3000	1.16744
26	20.0833	1.12615	36	199.6833	1.15703			
27	25.2500	1.12895	37	251.3500	1.15953			
28	31.7667	1.13156	38	316.3833	1.16159			
29	39.9500	1.13443	39	398.2667	1.16280			
30	50.2667	1.13748	40	501.3500	1.16359			
31	63.2333	1.14073	41	631.1333	1.16466			
32	79.5833	1.14411	42	794.5167	1.16582			

Void Ratio = 1.413 **Compression =** 13.6%

D_0 = 1.1064 **D_{90} =** 1.1546 **D_{100} =** 1.1599 **C_V at 161.62 min. =** 0.010 ft.^{2}/day

Pressure: 500.00 psf	TEST READINGS	Load No. 6

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.16959	24	12.7333	1.16031
2	0.1000	1.16781	25	15.9833	1.15958
3	0.2000	1.16726	26	20.1000	1.15890
4	0.2333	1.16718	27	25.2667	1.15811
5	0.2667	1.16702	28	31.7667	1.15686
6	0.3000	1.16686	29	39.9500	1.15565
7	0.3667	1.16668	30	50.2667	1.15483
8	0.4333	1.16658	31	63.2500	1.15333
9	0.5167	1.16645	32	79.5833	1.15305
10	0.6167	1.16625	33	100.1500	1.15260
11	0.7500	1.16592	34	126.0500	1.15211
12	0.9167	1.16569	35	158.6500	1.15116
13	1.1167	1.16549	36	199.6833	1.15064
14	1.3833	1.16537	37	251.3500	1.15017
15	1.7167	1.16521	38	316.3833	1.14985
16	2.1167	1.16503	39	398.2667	1.14971
17	2.6333	1.16489	40	501.3500	1.14950
18	3.3000	1.16453	41	631.1167	1.14930
19	4.1167	1.16405	42	794.5000	1.14894
20	5.1500	1.16356	43	1000.1667	1.14859
21	6.4500	1.16251	44	1259.1000	1.14848
22	8.0833	1.16204	45	1440.3500	1.14868
23	10.1333	1.16170			



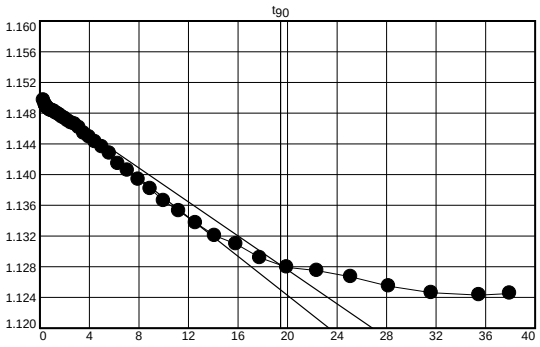
Void Ratio = 1.466 **Compression =** 11.7%

D_0 = 1.1678 **D_{90} =** 1.1531 **D_{100} =** 1.1514 **C_V at 79.07 min. =** 0.020 ft.^{2}/day

Figure B-128f

Pressure: 125.00 psf	TEST READINGS	Load No. 7

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.15005	24	12.7167	1.14536
2	0.1000	1.14967	25	15.9833	1.14489
3	0.2000	1.14916	26	20.0833	1.14424
4	0.2333	1.14900	27	25.2500	1.14359
5	0.2667	1.14893	28	31.7667	1.14277
6	0.3000	1.14880	29	39.9500	1.14142
7	0.3667	1.14871	30	50.2667	1.14054
8	0.4167	1.14862	31	63.2500	1.13937
9	0.5167	1.14856	32	79.5833	1.13815
10	0.6167	1.14847	33	100.1500	1.13657
11	0.7500	1.14835	34	126.0500	1.13526
12	0.9167	1.14835	35	158.6500	1.13371
13	1.1167	1.14824	36	199.6833	1.13204
14	1.3833	1.14821	37	251.3500	1.13096
15	1.7000	1.14802	38	316.3833	1.12916
16	2.1167	1.14789	39	398.2667	1.12792
17	2.6333	1.14773	40	501.3500	1.12749
18	3.2833	1.14750	41	631.1333	1.12669
19	4.1000	1.14731	42	794.5000	1.12546
20	5.1333	1.14700	43	1000.1833	1.12461
21	6.4333	1.14672	44	1259.1167	1.12431
22	8.0667	1.14655	45	1440.4667	1.12452
23	10.1333	1.14611			



Void Ratio = 1.533 **Compression =** 9.3%

D_0 = 1.1497 **D_{90} =** 1.1282 **D_{100} =** 1.1258 **C_V at 377.85 min. =** 0.004 ft.^{2}/day

Pressure: 250.00 psf	TEST READINGS	Load No. 8

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.12434	12	0.9000	1.12486
2	0.0833	1.12431	13	1.1000	1.12490
3	0.2000	1.12453	14	1.3667	1.12492
4	0.2167	1.12455	15	1.7000	1.12506
5	0.2500	1.12460	16	2.1000	1.12511
6	0.3000	1.12464	17	2.6333	1.12515
7	0.3500	1.12466	18	3.2833	1.12526
8	0.4167	1.12466	19	4.1000	1.12544
9	0.5000	1.12472	20	5.1333	1.12549
10	0.6000	1.12480	21	6.4167	1.12555
11	0.7333	1.12481	22	8.0667	1.12571

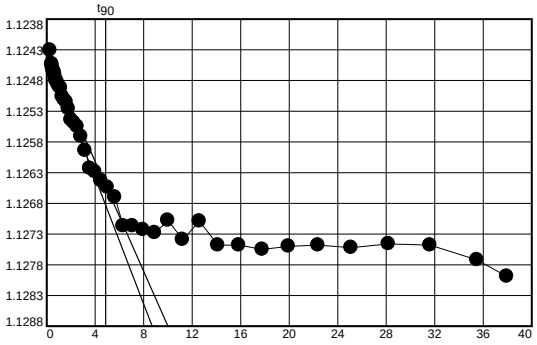


Figure B-128g

Pressure: 250.00 psf	TEST READINGS (continued)	Load No. 8

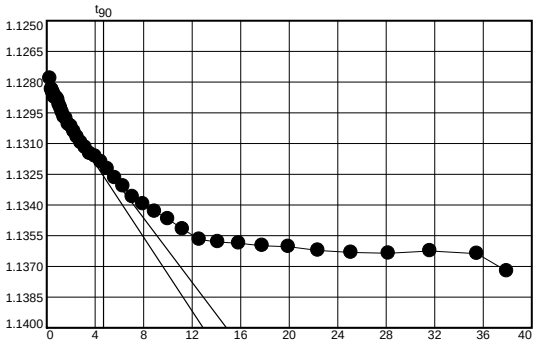
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1167	1.12594	33	100.1333	1.12708	43	1000.1833	1.12748
24	12.7167	1.12623	34	126.0333	1.12739	44	1259.1167	1.12772
25	15.9667	1.12629	35	158.6333	1.12709	45	1440.3833	1.12799
26	20.0833	1.12643	36	199.6833	1.12748			
27	25.2500	1.12654	37	251.3500	1.12748			
28	31.7500	1.12670	38	316.3833	1.12755			
29	39.9333	1.12717	39	398.2667	1.12750			
30	50.2500	1.12717	40	501.3500	1.12748			
31	63.2333	1.12723	41	631.1333	1.12752			
32	79.5667	1.12728	42	794.5167	1.12746			

Void Ratio = 1.523 **Compression =** 9.7%

D_0 = 1.1243 **D_{90} =** 1.1265 **D_{100} =** 1.1267 **C_V at 23.69 min. =** 0.073 ft.^{2}/day

Pressure: 500.00 psf	TEST READINGS	Load No. 9

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.12740	24	12.7167	1.13149
2	0.0833	1.12782	25	15.9833	1.13162
3	0.1833	1.12835	26	20.0833	1.13190
4	0.2167	1.12838	27	25.2500	1.13224
5	0.2500	1.12846	28	31.7667	1.13268
6	0.3000	1.12854	29	39.9500	1.13308
7	0.3500	1.12856	30	50.2667	1.13360
8	0.4167	1.12873	31	63.2333	1.13396
9	0.5000	1.12874	32	79.5833	1.13432
10	0.6000	1.12876	33	100.1500	1.13469
11	0.7333	1.12879	34	126.0333	1.13518
12	0.9000	1.12887	35	158.6333	1.13569
13	1.1000	1.12910	36	199.6833	1.13581
14	1.3667	1.12926	37	251.3500	1.13587
15	1.7000	1.12948	38	316.4000	1.13599
16	2.1000	1.12971	39	398.2667	1.13604
17	2.6167	1.12978	40	501.3667	1.13622
18	3.2833	1.13006	41	631.1333	1.13632
19	4.1000	1.13017	42	794.5000	1.13636
20	5.1333	1.13042	43	1000.1833	1.13625
21	6.4333	1.13069	44	1259.1167	1.13638
22	8.0667	1.13096	45	1440.1167	1.13723
23	10.1333	1.13119			



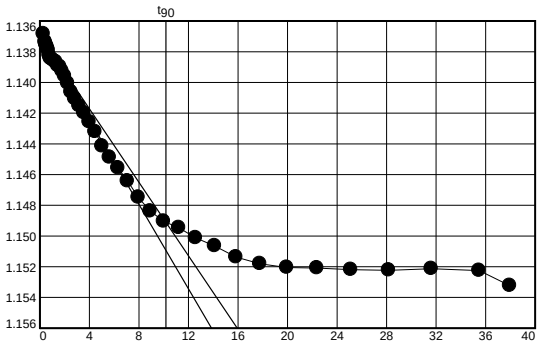
Void Ratio = 1.498 **Compression =** 10.6%

D_0 = 1.1284 **D_{90} =** 1.1320 **D_{100} =** 1.1324 **C_V at 21.97 min. =** 0.078 ft.^{2}/day

Figure B-128h

Pressure: 1000.00 psf	TEST READINGS	Load No. 10

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.13610	24	12.7167	1.14198
2	0.0833	1.13684	25	15.9667	1.14257
3	0.2000	1.13734	26	20.0833	1.14322
4	0.2167	1.13743	27	25.2500	1.14415
5	0.2500	1.13752	28	31.7500	1.14488
6	0.3000	1.13762	29	39.9333	1.14557
7	0.3500	1.13766	30	50.2500	1.14642
8	0.4167	1.13779	31	63.2333	1.14749
9	0.5000	1.13790	32	79.5667	1.14838
10	0.6000	1.13823	33	100.1333	1.14905
11	0.7333	1.13842	34	126.0333	1.14946
12	0.9000	1.13847	35	158.6333	1.15012
13	1.1000	1.13852	36	199.6667	1.15065
14	1.3667	1.13862	37	251.3333	1.15137
15	1.7000	1.13867	38	316.3667	1.15181
16	2.1167	1.13891	39	398.2500	1.15205
17	2.6333	1.13898	40	501.3500	1.15209
18	3.2833	1.13925	41	631.1167	1.15219
19	4.1000	1.13958	42	794.5000	1.15223
20	5.1333	1.14005	43	1000.1667	1.15213
21	6.4333	1.14062	44	1259.1000	1.15225
22	8.0667	1.14106	45	1440.4000	1.15323
23	10.1167	1.14152			



Void Ratio = 1.453 **Compression =** 12.2%

D_0 = 1.1369 **D_{90} =** 1.1491 **D_{100} =** 1.1505 **C_V at 103.58 min. =** 0.016 ft.^{2}/day

Pressure: 2000.00 psf	TEST READINGS	Load No. 11

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.15186	12	0.9000	1.15574
2	0.0833	1.15370	13	1.1000	1.15604
3	0.2000	1.15408	14	1.3667	1.15633
4	0.2167	1.15416	15	1.7000	1.15664
5	0.2500	1.15430	16	2.1000	1.15699
6	0.3000	1.15455	17	2.6167	1.15730
7	0.3500	1.15480	18	3.2833	1.15760
8	0.4167	1.15487	19	4.1000	1.15825
9	0.5000	1.15502	20	5.1333	1.15894
10	0.6000	1.15526	21	6.4333	1.15988
11	0.7333	1.15546	22	8.0667	1.16037

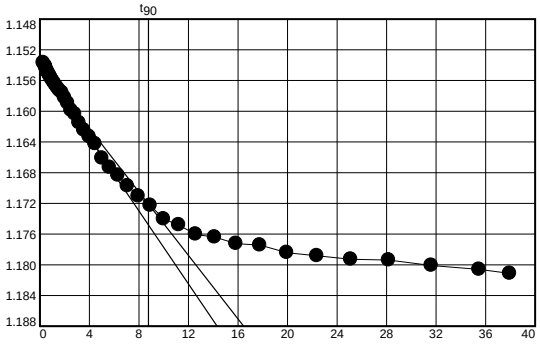


Figure B-128i

Pressure: 2000.00 psf	TEST READINGS (continued)	Load No. 11

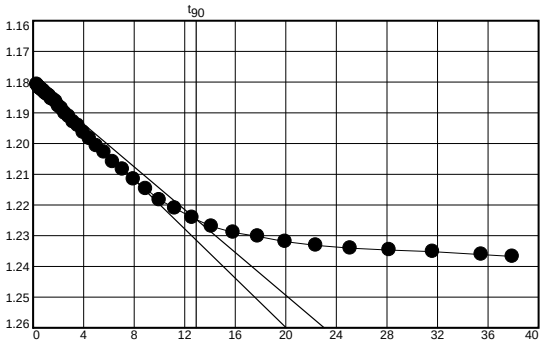
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	1.16150	33	100.1500	1.17404	43	1000.1833	1.18010
24	12.7167	1.16247	34	126.0500	1.17483	44	1259.1167	1.18060
25	15.9833	1.16331	35	158.6500	1.17604	45	1440.2667	1.18112
26	20.0833	1.16427	36	199.6833	1.17640			
27	25.2500	1.16613	37	251.3500	1.17725			
28	31.7667	1.16733	38	316.4000	1.17744			
29	39.9500	1.16837	39	398.2833	1.17842			
30	50.2667	1.16974	40	501.3667	1.17883			
31	63.2500	1.17105	41	631.1333	1.17928			
32	79.5833	1.17228	42	794.5167	1.17939			

Void Ratio = 1.375 **Compression =** 15.0%

D_0 = 1.1540 **D_{90} =** 1.1721 **D_{100} =** 1.1741 **C_V at 76.96 min. =** 0.021 ft.^{2}/day

Pressure: 4000.00 psf	TEST READINGS	Load No. 12

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.17866	24	12.7333	1.19418
2	0.1000	1.18081	25	16.0000	1.19646
3	0.2000	1.18153	26	20.1000	1.19844
4	0.2333	1.18167	27	25.2667	1.20081
5	0.2667	1.18177	28	31.7667	1.20288
6	0.3167	1.18199	29	39.9500	1.20595
7	0.3667	1.18219	30	50.2667	1.20843
8	0.4333	1.18230	31	63.2500	1.21166
9	0.5167	1.18251	32	79.5833	1.21473
10	0.6167	1.18277	33	100.1500	1.21836
11	0.7500	1.18299	34	126.0500	1.22106
12	0.9167	1.18349	35	158.6500	1.22413
13	1.1167	1.18387	36	199.6833	1.22698
14	1.3833	1.18415	37	251.3500	1.22895
15	1.7167	1.18451	38	316.4000	1.23023
16	2.1167	1.18548	39	398.2833	1.23193
17	2.6500	1.18575	40	501.3667	1.23317
18	3.3000	1.18635	41	631.1333	1.23409
19	4.1167	1.18786	42	794.5000	1.23467
20	5.1500	1.18864	43	1000.1833	1.23520
21	6.4500	1.19021	44	1259.1167	1.23614
22	8.0833	1.19125	45	1440.3333	1.23678
23	10.1500	1.19300			



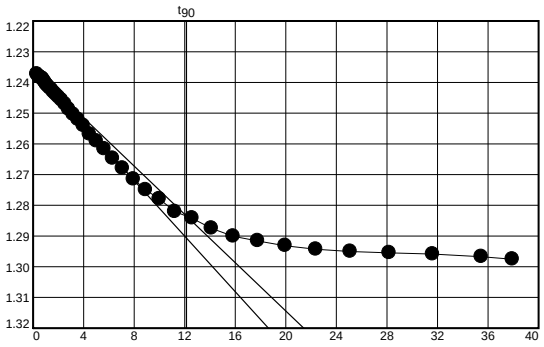
Void Ratio = 1.220 **Compression =** 20.6%

D_0 = 1.1797 **D_{90} =** 1.2247 **D_{100} =** 1.2297 **C_V at 166.70 min. =** 0.009 ft.^{2}/day

Figure B-128j

Pressure: 8000.00 psf	TEST READINGS	Load No. 13

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.23413	24	12.7167	1.25208
2	0.1000	1.23731	25	15.9833	1.25405
3	0.2000	1.23799	26	20.0833	1.25684
4	0.2333	1.23810	27	25.2500	1.25909
5	0.2667	1.23816	28	31.7500	1.26166
6	0.3000	1.23839	29	39.9500	1.26473
7	0.3500	1.23842	30	50.2500	1.26796
8	0.4167	1.23850	31	63.2333	1.27148
9	0.5167	1.23866	32	79.5667	1.27499
10	0.6167	1.23891	33	100.1500	1.27798
11	0.7500	1.23944	34	126.0333	1.28208
12	0.9167	1.23990	35	158.6333	1.28422
13	1.1167	1.24059	36	199.6667	1.28752
14	1.3667	1.24109	37	251.3333	1.29010
15	1.7000	1.24174	38	316.3833	1.29161
16	2.1167	1.24222	39	398.2667	1.29317
17	2.6333	1.24315	40	501.3500	1.29432
18	3.2833	1.24393	41	631.1167	1.29506
19	4.1000	1.24480	42	794.5000	1.29547
20	5.1333	1.24577	43	1000.1833	1.29588
21	6.4333	1.24700	44	1259.1167	1.29674
22	8.0667	1.24873	45	1440.4000	1.29755
23	10.1333	1.25042			



Void Ratio = 1.050 **Compression =** 26.6%

D_0 = 1.2358 **D_{90} =** 1.2835 **D_{100} =** 1.2888 **C_V at 147.40 min. =** 0.008 ft.^{2}/day

Pressure: 16000.00 psf	TEST READINGS	Load No. 14

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.29434	12	0.9000	1.30084
2	0.0833	1.29791	13	1.1000	1.30145
3	0.1833	1.29874	14	1.3667	1.30193
4	0.2167	1.29901	15	1.7000	1.30239
5	0.2500	1.29917	16	2.1000	1.30297
6	0.3000	1.29940	17	2.6333	1.30355
7	0.3500	1.29955	18	3.2833	1.30419
8	0.4167	1.29975	19	4.1000	1.30515
9	0.5000	1.29991	20	5.1333	1.30659
10	0.6000	1.30032	21	6.4333	1.30792
11	0.7333	1.30052	22	8.0667	1.30905

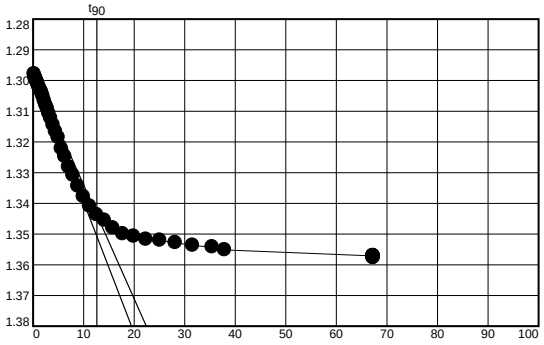


Figure B-128k

Pressure: 16000.00 psf	TEST READINGS (continued)	Load No. 14

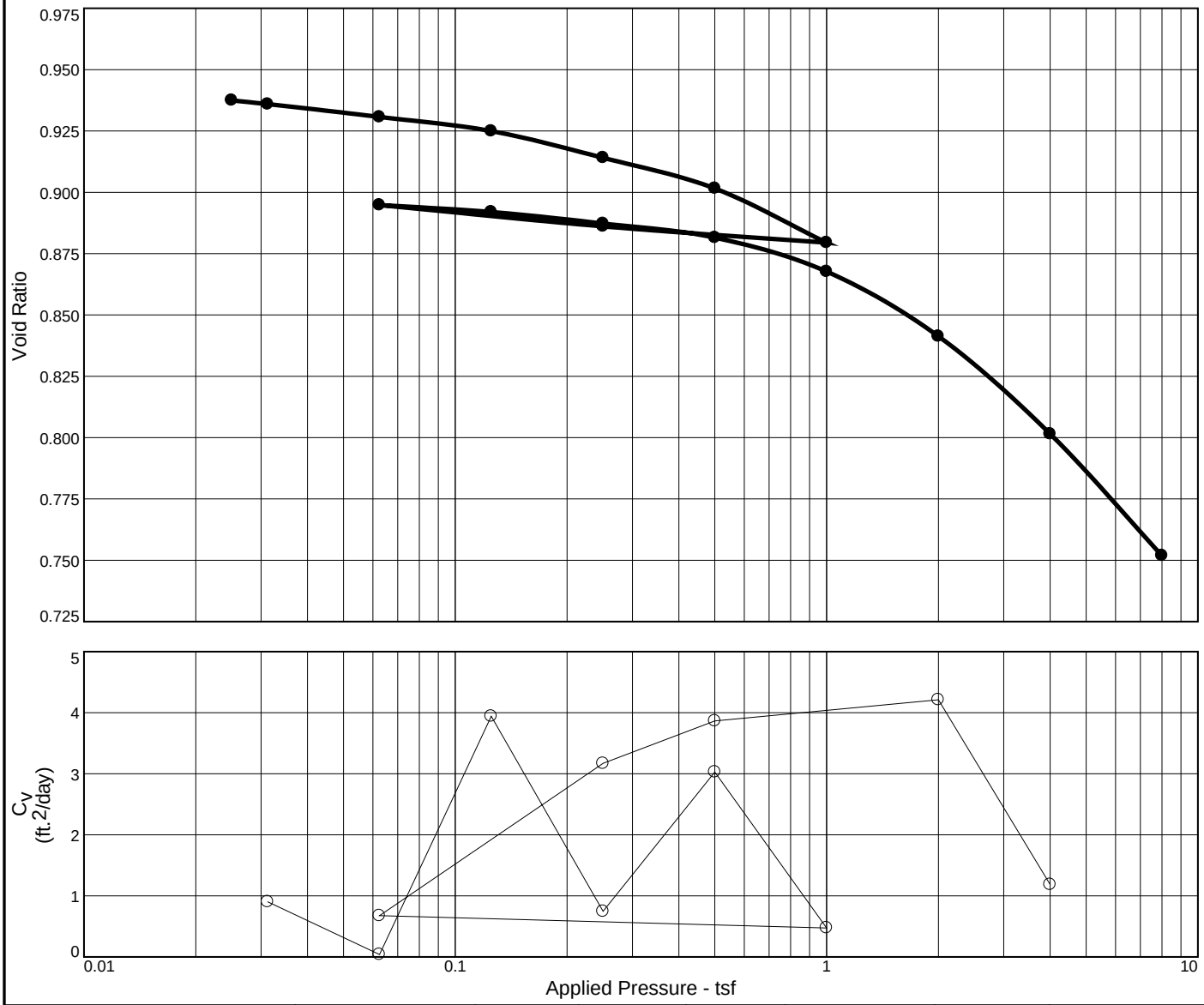
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1167	1.31073	36	199.6833	1.34557	49	4529.1333	1.35722
24	12.7167	1.31233	37	251.3500	1.34810	50	4529.1667	1.35722
25	15.9667	1.31452	38	316.3833	1.34996	51	4529.2167	1.35722
26	20.0833	1.31666	39	398.2667	1.35075	52	4529.2833	1.35725
27	25.2500	1.31858	40	501.3500	1.35177	53	4529.3833	1.35721
28	31.7500	1.32223	41	631.1167	1.35209	54	4529.4833	1.35722
29	39.9500	1.32481	42	794.5000	1.35283	55	4529.6167	1.35726
30	50.2500	1.32819	43	1000.1833	1.35371	56	4529.7833	1.35760
31	63.2333	1.33085	44	1259.1167	1.35425	57	4529.9833	1.35762
32	79.5667	1.33446	45	1440.1167	1.35517	58	4530.2500	1.35766
33	100.1500	1.33787	46	4529.0333	1.35712	59	4530.5667	1.35762
34	126.0333	1.34093	47	4529.0667	1.35713	60	4530.9833	1.35769
35	158.6333	1.34372	48	4529.1000	1.35720	61	4531.5000	1.35769

Void Ratio = 0.882 **Compression =** 32.6%

D_0 = 1.2970 **D_{90} =** 1.3437 **D_{100} =** 1.3489 **C_V at 159.23 min. =** 0.007 ft.^{2}/day

Figure B-128l

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	P_c (tsf)	C_c	Initial Void Ratio
Saturation	Moisture							
100.3 %	34.7 %	87.2	83	53	2.707	0.8	0.13	0.937

MATERIAL DESCRIPTION	USCS	AASHTO
Clay with silt pockets and silty sand layer	(CH)	

Project No. 18274-022-01 **Client:** CEC

Project: Chandeleur Island Restoration Project (PO-0199)

Location: CI-03B **Depth:** 33-35

Remarks:
Specific gravity was measured.

GeoEngineers

Figure B-129a

Tested By: Dustin Blanchard **Checked By:** J. Aguettant

CONSOLIDATION TEST DATA

12/22/2023

Client: CEC
Project: Chandeleur Island Restoration Project (PO-0199)
Project Number: 18274-022-01
Location: CI-03B
Depth: 33-35
Material Description: Clay with silt pockets and silty sand layer
Liquid Limit: 83 **Plasticity Index:** 53
USCS: (CH)
Testing Remarks: Specific gravity was measured.
Tested by: Dustin Blanchard **Checked by:** J. Aguettant

Test Specimen Data

NATURAL MOISTURE		VOID RATIO		AFTER TEST	
Wet w+t =	131.27 g.	Spec. Gr. =	2.707	Wet w+t =	184.88 g.
Dry w+t =	102.04 g.	Est. Ht. Solids =	0.517 in.	Dry w+t =	150.96 g.
Tare Wt. =	17.87 g.	Init. V.R. =	0.937	Tare Wt. =	36.87 g.
Moisture =	34.7 %	Init. Sat. =	100.3 %	Moisture =	29.7 %

UNIT WEIGHT		TEST START			
Height =	1.001 in.	Height =	1.001 in.		
Diameter =	2.500 in.	Diameter =	2.500 in.		
Weight =	151.61 g.			Dry Wt. =	114.09 g.
Dry Dens. =	87.2 pcf				

End-Of-Load Summary

Pressure (psf)	Final Dial (in.)	Deformation (in.)	C_v ($ft.^2$/day)	C_α	Void Ratio	% Strain
start	0.98864	0.00000			0.937	
50.00	0.98837	-0.00027		0.001	0.937	0.0 Swell
62.50	0.98916	0.00052	1.683	0.000	0.936	0.1 Comprs.
125.00	0.99186	0.00322	0.048	0.000	0.931	0.3 Comprs.
250.00	0.99484	0.00620	3.607	0.000	0.925	0.6 Comprs.
500.00	1.00047	0.01183	2.106	0.001	0.914	1.2 Comprs.
1000.00	1.00693	0.01829	2.761	0.000	0.902	1.8 Comprs.
2000.00	1.01835	0.02971	0.192	0.000	0.879	3.0 Comprs.
500.00	1.01492	0.02628			0.886	2.6 Comprs.
125.00	1.01042	0.02178	1.535		0.895	2.2 Comprs.
250.00	1.01189	0.02325		0.009	0.892	2.3 Comprs.
500.00	1.01432	0.02568	1.757	0.000	0.887	2.6 Comprs.
1000.00	1.01729	0.02865	3.865	0.000	0.882	2.9 Comprs.
2000.00	1.02443	0.03579		0.000	0.868	3.6 Comprs.
4000.00	1.03807	0.04943	4.211	0.000	0.841	4.9 Comprs.
8000.00	1.05864	0.07000	3.732	0.003	0.802	7.0 Comprs.
16000.00	1.08428	0.09564		0.003	0.752	9.6 Comprs.

Compression index (C_c), tsf = 0.13 **Preconsolidation pressure (P_p), tsf =** 0.8 **Void ratio at P_p (e_m) =** 0.891
Recompression index (C_r) = 0.04

Figure B-129b

Pressure: 50.00 psf	TEST READINGS	Load No. 1

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.98864	16	2.4833	0.98858	31	79.4333	0.98877
2	0.0333	0.98864	17	3.1333	0.98857	32	100.0000	0.98883
3	0.0500	0.98862	18	3.9500	0.98859	33	125.9000	0.98890
4	0.0833	0.98863	19	4.9833	0.98858	34	158.5000	0.98896
5	0.1333	0.98863	20	6.2833	0.98861	35	199.5333	0.98897
6	0.1833	0.98860	21	7.9167	0.98860	36	251.2000	0.98907
7	0.2667	0.98863	22	9.9833	0.98866	37	316.2500	0.98911
8	0.3500	0.98862	23	12.5667	0.98862	38	398.1333	0.98904
9	0.4500	0.98865	24	15.8333	0.98865	39	501.2167	0.98882
10	0.5833	0.98862	25	19.9500	0.98862	40	630.9833	0.98847
11	0.7500	0.98858	26	25.1167	0.98863	41	794.3500	0.98835
12	0.9500	0.98864	27	31.6167	0.98862	42	1000.0333	0.98833
13	1.2167	0.98859	28	39.8000	0.98867	43	1258.9667	0.98829
14	1.5500	0.98859	29	50.1167	0.98869	44	1440.0500	0.98837
15	1.9667	0.98856	30	63.1000	0.98869			

Void Ratio = 0.937 **Swell =** 0.0%

Pressure: 62.50 psf	TEST READINGS	Load No. 2

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.98842	21	6.4500	0.98941
2	0.1000	0.98849	22	8.0833	0.98937
3	0.2000	0.98846	23	10.1333	0.98937
4	0.2333	0.98848	24	12.7333	0.98937
5	0.2667	0.98840	25	15.9833	0.98939
6	0.3000	0.98856	26	20.1000	0.98937
7	0.3500	0.98859	27	25.2667	0.98943
8	0.4167	0.98859	28	31.7667	0.98948
9	0.5167	0.98874	29	39.9667	0.98950
10	0.6167	0.98872	30	50.2667	0.98955
11	0.7500	0.98880	31	63.2500	0.98949
12	0.9167	0.98894	32	79.5833	0.98959
13	1.1167	0.98907	33	100.1500	0.98962
14	1.3833	0.98916	34	126.0500	0.98961
15	1.7000	0.98921	35	158.6500	0.98963
16	2.1167	0.98923	36	199.6833	0.98970
17	2.6333	0.98929	37	251.3500	0.98969
18	3.3000	0.98930	38	316.4000	0.98978
19	4.1167	0.98931	39	398.2833	0.98980
20	5.1500	0.98932	40	501.3667	0.98962

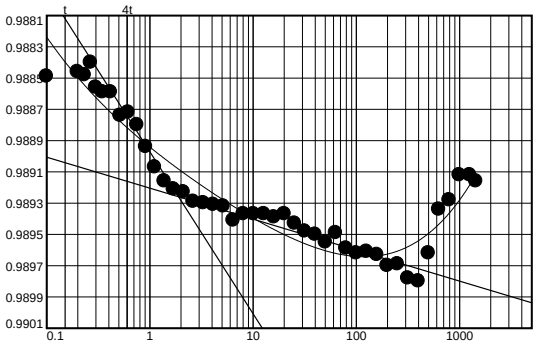


Figure B-129c

Pressure: 62.50 psf	TEST READINGS (continued)	Load No. 2

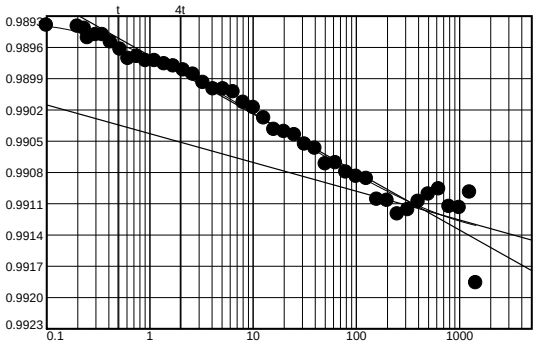
No.	Elapsed Time	Dial Reading
41	631.1500	0.98934
42	794.5167	0.98928
43	1000.2000	0.98912
44	1259.1167	0.98912
45	1440.3833	0.98916

Void Ratio = 0.936 **Compression =** 0.1%

D_0 = 0.9880 **D_{50} =** 0.9886 **D_{100} =** 0.9893 **C_v at 0.29 min. =** 1.683 ft.^{2}/day **C_α =** 0.000

Pressure: 125.00 psf	TEST READINGS	Load No. 3

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.98853	24	12.7333	0.99028
2	0.1000	0.98939	25	15.9833	0.99039
3	0.2000	0.98940	26	20.0833	0.99041
4	0.2333	0.98942	27	25.2667	0.99044
5	0.2500	0.98951	28	31.7667	0.99053
6	0.3000	0.98948	29	39.9500	0.99057
7	0.3500	0.98948	30	50.2667	0.99072
8	0.4167	0.98955	31	63.2500	0.99071
9	0.5167	0.98962	32	79.5833	0.99080
10	0.6167	0.98971	33	100.1500	0.99084
11	0.7500	0.98969	34	126.0500	0.99086
12	0.9167	0.98973	35	158.6500	0.99106
13	1.1167	0.98973	36	199.6833	0.99107
14	1.3833	0.98976	37	251.3500	0.99120
15	1.7000	0.98978	38	316.4000	0.99116
16	2.1167	0.98982	39	398.2833	0.99108
17	2.6333	0.98986	40	501.3667	0.99101
18	3.2833	0.98994	41	631.1333	0.99096
19	4.1167	0.99000	42	794.5167	0.99113
20	5.1500	0.99000	43	1000.1833	0.99114
21	6.4500	0.99003	44	1259.1167	0.99099
22	8.0833	0.99013	45	1440.4333	0.99186
23	10.1333	0.99018			



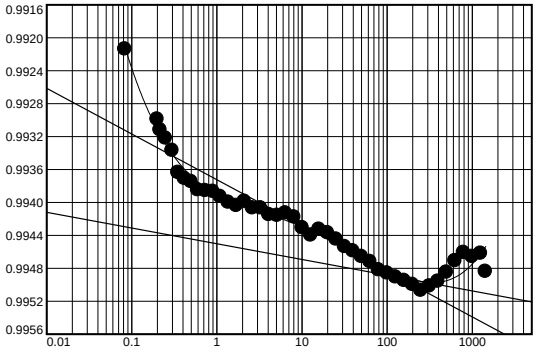
Void Ratio = 0.931 **Compression =** 0.3%

D_0 = 0.9893 **D_{50} =** 0.9902 **D_{100} =** 0.9912 **C_v at 10.15 min. =** 0.048 ft.^{2}/day **C_α =** 0.000

Figure B-129d

Pressure: 250.00 psf	TEST READINGS	Load No. 4

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.99057	24	12.7167	0.99440
2	0.0833	0.99214	25	15.9833	0.99433
3	0.2000	0.99299	26	20.0833	0.99437
4	0.2167	0.99312	27	25.2500	0.99445
5	0.2500	0.99322	28	31.7667	0.99454
6	0.3000	0.99337	29	39.9500	0.99459
7	0.3500	0.99364	30	50.2667	0.99466
8	0.4167	0.99371	31	63.2333	0.99472
9	0.5000	0.99375	32	79.5833	0.99482
10	0.6000	0.99385	33	100.1500	0.99486
11	0.7333	0.99386	34	126.0333	0.99491
12	0.9000	0.99387	35	158.6333	0.99495
13	1.1000	0.99393	36	199.6833	0.99500
14	1.3667	0.99400	37	251.3333	0.99507
15	1.7000	0.99404	38	316.3833	0.99502
16	2.1167	0.99399	39	398.2667	0.99496
17	2.6333	0.99407	40	501.3500	0.99485
18	3.2833	0.99407	41	631.1333	0.99471
19	4.1000	0.99415	42	794.5000	0.99461
20	5.1333	0.99416	43	1000.1833	0.99466
21	6.4333	0.99413	44	1259.1167	0.99462
22	8.0667	0.99418	45	1440.3667	0.99484
23	10.1333	0.99431			



Void Ratio = 0.925 **Compression =** 0.6%

D_0 = 0.9906 **D_{50} =** 0.9927 **D_{100} =** 0.9949 **C_V at 0.14 min. =** 3.607 ft.^{2}/day **C_α =** 0.000

Pressure: 500.00 psf	TEST READINGS	Load No. 5

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.99398	12	0.9167	0.99779
2	0.1000	0.99630	13	1.1167	0.99790
3	0.2000	0.99670	14	1.3833	0.99809
4	0.2333	0.99690	15	1.7000	0.99831
5	0.2667	0.99715	16	2.1167	0.99853
6	0.3000	0.99732	17	2.6333	0.99861
7	0.3667	0.99729	18	3.3000	0.99867
8	0.4167	0.99738	19	4.1167	0.99871
9	0.5167	0.99745	20	5.1500	0.99885
10	0.6167	0.99757	21	6.4500	0.99895
11	0.7500	0.99769	22	8.0833	0.99905

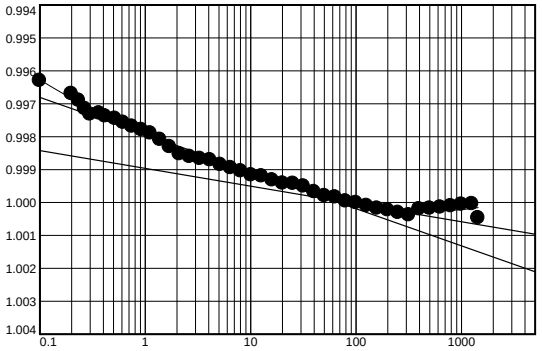


Figure B-129e

Pressure: 500.00 psf	TEST READINGS (continued)	Load No. 5

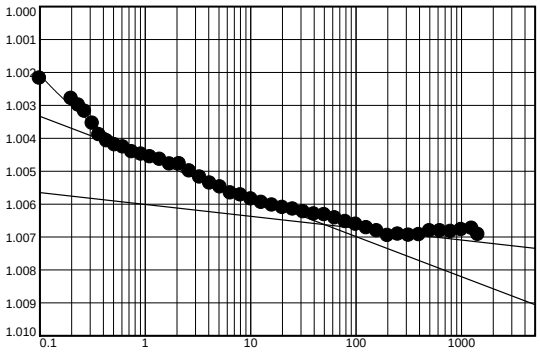
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1500	0.99917	33	100.1667	1.00001	43	1000.2000	1.00006
24	12.7333	0.99920	34	126.0667	1.00010	44	1259.1333	1.00004
25	16.0000	0.99932	35	158.6667	1.00018	45	1440.0833	1.00047
26	20.1000	0.99942	36	199.7000	1.00023			
27	25.2833	0.99943	37	251.3667	1.00031			
28	31.7833	0.99951	38	316.4000	1.00038			
29	39.9667	0.99968	39	398.2833	1.00020			
30	50.2833	0.99980	40	501.3667	1.00018			
31	63.2500	0.99984	41	631.1500	1.00015			
32	79.6000	0.99996	42	794.5333	1.00011			

Void Ratio = 0.914 **Compression =** 1.2%

D_0 = 0.9940 **D_{50} =** 0.9969 **D_{100} =** 0.9999 **C_v at 0.23 min. =** 2.106 ft.^{2}/day **C_α =** 0.001

Pressure: 1000.00 psf	TEST READINGS	Load No. 6

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.99908	24	12.7333	1.00596
2	0.1000	1.00218	25	16.0000	1.00604
3	0.2000	1.00280	26	20.1000	1.00611
4	0.2333	1.00300	27	25.2667	1.00616
5	0.2667	1.00319	28	31.7667	1.00624
6	0.3167	1.00355	29	39.9667	1.00631
7	0.3667	1.00390	30	50.2667	1.00633
8	0.4333	1.00409	31	63.2500	1.00643
9	0.5167	1.00421	32	79.5833	1.00654
10	0.6167	1.00427	33	100.1500	1.00662
11	0.7500	1.00442	34	126.0500	1.00673
12	0.9167	1.00449	35	158.6500	1.00682
13	1.1167	1.00457	36	199.6833	1.00696
14	1.3833	1.00465	37	251.3500	1.00692
15	1.7167	1.00479	38	316.4000	1.00695
16	2.1167	1.00478	39	398.2833	1.00694
17	2.6333	1.00500	40	501.3667	1.00682
18	3.3000	1.00519	41	631.1500	1.00682
19	4.1167	1.00537	42	794.5167	1.00684
20	5.1500	1.00549	43	1000.2000	1.00678
21	6.4500	1.00567	44	1259.1167	1.00674
22	8.0833	1.00573	45	1440.0167	1.00693
23	10.1500	1.00585			



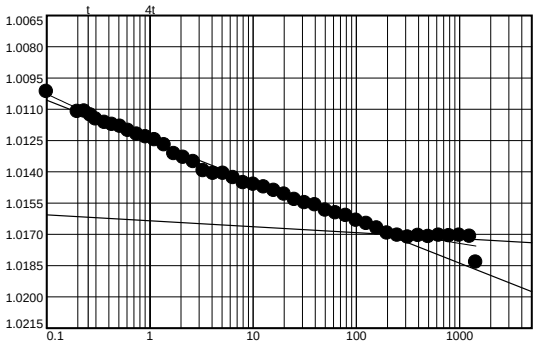
Void Ratio = 0.902 **Compression =** 1.8%

D_0 = 0.9991 **D_{50} =** 1.0029 **D_{100} =** 1.0066 **C_v at 0.17 min. =** 2.761 ft.^{2}/day **C_α =** 0.000

Figure B-129f

Pressure: 2000.00 psf	TEST READINGS	Load No. 7

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.00523	24	12.7333	1.01474
2	0.1000	1.01016	25	16.0000	1.01491
3	0.2000	1.01112	26	20.1000	1.01509
4	0.2333	1.01110	27	25.2667	1.01534
5	0.2667	1.01129	28	31.7667	1.01550
6	0.3000	1.01148	29	39.9667	1.01560
7	0.3667	1.01164	30	50.2667	1.01585
8	0.4333	1.01174	31	63.2500	1.01598
9	0.5167	1.01183	32	79.5833	1.01611
10	0.6167	1.01203	33	100.1500	1.01634
11	0.7500	1.01221	34	126.0500	1.01649
12	0.9167	1.01233	35	158.6500	1.01671
13	1.1167	1.01248	36	199.6833	1.01695
14	1.3833	1.01272	37	251.3500	1.01706
15	1.7167	1.01314	38	316.4000	1.01714
16	2.1167	1.01332	39	398.2833	1.01707
17	2.6500	1.01353	40	501.3667	1.01712
18	3.3000	1.01396	41	631.1500	1.01706
19	4.1167	1.01409	42	794.5167	1.01708
20	5.1500	1.01409	43	1000.1833	1.01706
21	6.4500	1.01429	44	1259.1167	1.01711
22	8.0833	1.01454	45	1440.4500	1.01835
23	10.1333	1.01461			



Void Ratio = 0.879 **Compression =** 3.0%

D_0 = 1.0098 **D_{50} =** 1.0134 **D_{100} =** 1.0170 **C_V at 2.46 min. =** 0.192 ft.^{2}/day **C_α =** 0.000

Pressure: 500.00 psf	TEST READINGS	Load No. 8

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.02049	12	0.9167	1.01647	23	10.1333	1.01625
2	0.1000	1.01662	13	1.1167	1.01642	24	12.7167	1.01627
3	0.2000	1.01664	14	1.3833	1.01641	25	15.9833	1.01620
4	0.2333	1.01665	15	1.7000	1.01641	26	20.0833	1.01621
5	0.2667	1.01666	16	2.1167	1.01636	27	25.2500	1.01618
6	0.3000	1.01662	17	2.6333	1.01639	28	31.7667	1.01625
7	0.3500	1.01654	18	3.2833	1.01636	29	39.9500	1.01622
8	0.4167	1.01650	19	4.1000	1.01630	30	50.2667	1.01626
9	0.5167	1.01650	20	5.1333	1.01626	31	63.2333	1.01624
10	0.6167	1.01649	21	6.4333	1.01629	32	79.5833	1.01625
11	0.7500	1.01645	22	8.0667	1.01625	33	100.1500	1.01625

Figure B-129g

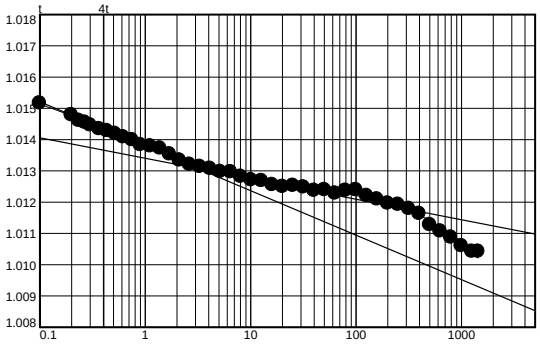
Pressure: 500.00 psf	TEST READINGS (continued)	Load No. 8

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
34	126.0500	1.01622	44	1259.1167	1.01460
35	158.6500	1.01622	45	1440.4333	1.01492
36	199.6833	1.01622			
37	251.3500	1.01627			
38	316.3833	1.01627			
39	398.2667	1.01621			
40	501.3500	1.01584			
41	631.1333	1.01557			
42	794.5000	1.01524			
43	1000.1833	1.01476			

Void Ratio = 0.886 **Compression =** 2.6%

Pressure: 125.00 psf	TEST READINGS	Load No. 9

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.01630	24	12.7333	1.01268
2	0.1000	1.01516	25	16.0000	1.01255
3	0.2000	1.01479	26	20.1000	1.01249
4	0.2333	1.01461	27	25.2667	1.01253
5	0.2667	1.01455	28	31.7833	1.01248
6	0.3000	1.01446	29	39.9667	1.01237
7	0.3667	1.01434	30	50.2833	1.01239
8	0.4333	1.01428	31	63.2500	1.01228
9	0.5167	1.01419	32	79.6000	1.01237
10	0.6167	1.01408	33	100.1667	1.01239
11	0.7500	1.01399	34	126.0667	1.01220
12	0.9000	1.01383	35	158.6667	1.01209
13	1.1167	1.01379	36	199.7000	1.01196
14	1.3833	1.01372	37	251.3667	1.01192
15	1.7000	1.01353	38	316.4167	1.01179
16	2.1167	1.01334	39	398.3000	1.01163
17	2.6333	1.01320	40	501.3833	1.01127
18	3.3000	1.01313	41	631.1500	1.01107
19	4.1167	1.01307	42	794.5333	1.01087
20	5.1500	1.01297	43	1000.2000	1.01060
21	6.4500	1.01296	44	1259.1333	1.01042
22	8.0833	1.01282	45	1440.1167	1.01042
23	10.1333	1.01271			



Void Ratio = 0.895 **Compression =** 2.2%

D_0 = 1.0159 **D_{50} =** 1.0145 **D_{100} =** 1.0131 **C_V at 0.31 min. =** 1.535 ft.^{2}/day

Figure B-129h

Pressure: 250.00 psf	TEST READINGS	Load No. 10

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.01027	16	2.1167	1.01124	31	63.2333	1.01157
2	0.1000	1.01130	17	2.6333	1.01120	32	79.5833	1.01163
3	0.2000	1.01121	18	3.2833	1.01126	33	100.1500	1.01161
4	0.2167	1.01121	19	4.1000	1.01128	34	126.0500	1.01179
5	0.2500	1.01116	20	5.1333	1.01126	35	158.6500	1.01197
6	0.3000	1.01119	21	6.4333	1.01127	36	199.6833	1.01200
7	0.3500	1.01121	22	8.0667	1.01134	37	251.3500	1.01216
8	0.4167	1.01119	23	10.1333	1.01133	38	316.3833	1.01209
9	0.5000	1.01116	24	12.7167	1.01137	39	398.2667	1.01210
10	0.6167	1.01120	25	15.9833	1.01136	40	501.3500	1.01198
11	0.7333	1.01118	26	20.0833	1.01132	41	631.1333	1.01178
12	0.9000	1.01117	27	25.2500	1.01135	42	794.5167	1.01164
13	1.1167	1.01120	28	31.7667	1.01139	43	1000.1833	1.01136
14	1.3667	1.01119	29	39.9500	1.01136	44	1259.1167	1.01135
15	1.7000	1.01123	30	50.2500	1.01134	45	1440.4667	1.01189

Void Ratio = 0.892 **Compression =** 2.3%

Pressure: 500.00 psf	TEST READINGS	Load No. 11

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.01129	21	6.4333	1.01330
2	0.0833	1.01237	22	8.0667	1.01335
3	0.2000	1.01252	23	10.1333	1.01336
4	0.2167	1.01257	24	12.7167	1.01344
5	0.2500	1.01268	25	15.9833	1.01351
6	0.3000	1.01279	26	20.0833	1.01356
7	0.3500	1.01296	27	25.2500	1.01360
8	0.4167	1.01303	28	31.7500	1.01364
9	0.5000	1.01303	29	39.9500	1.01373
10	0.6000	1.01310	30	50.2667	1.01382
11	0.7333	1.01308	31	63.2333	1.01392
12	0.9000	1.01313	32	79.5833	1.01399
13	1.1000	1.01309	33	100.1500	1.01414
14	1.3667	1.01312	34	126.0333	1.01429
15	1.7000	1.01315	35	158.6333	1.01434
16	2.1167	1.01317	36	199.6833	1.01441
17	2.6333	1.01324	37	251.3500	1.01438
18	3.2833	1.01324	38	316.3833	1.01452
19	4.1000	1.01325	39	398.2667	1.01449
20	5.1333	1.01328	40	501.3500	1.01439

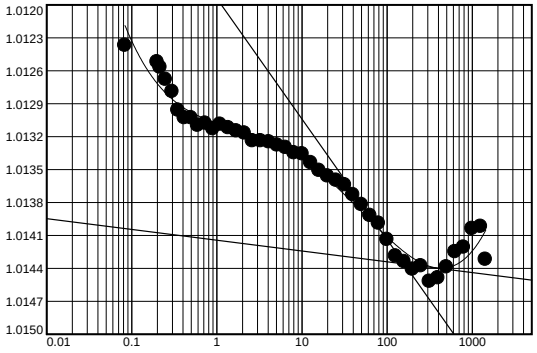


Figure B-129i

Pressure: 500.00 psf	TEST READINGS (continued)	Load No. 11

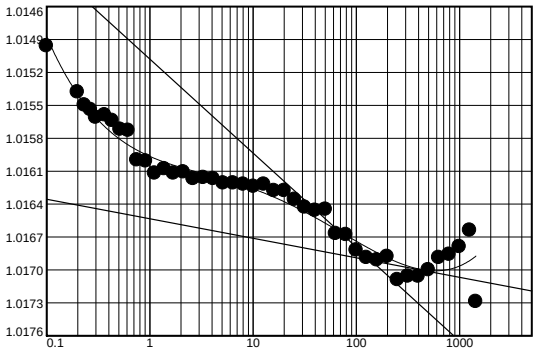
No.	Elapsed Time	Dial Reading
41	631.1167	1.01425
42	794.5000	1.01421
43	1000.1833	1.01404
44	1259.1000	1.01402
45	1440.0167	1.01432

Void Ratio = 0.887 **Compression =** 2.6%

D_0 = 1.0113 **D_{50} =** 1.0128 **D_{100} =** 1.0144 **C_v at 0.27 min. =** 1.757 ft.^{2}/day **C_α =** 0.000

Pressure: 1000.00 psf	TEST READINGS	Load No. 12

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.01317	24	12.7333	1.01622
2	0.1000	1.01496	25	16.0000	1.01628
3	0.2000	1.01538	26	20.1000	1.01628
4	0.2333	1.01550	27	25.2667	1.01636
5	0.2667	1.01554	28	31.7667	1.01643
6	0.3000	1.01561	29	39.9667	1.01646
7	0.3667	1.01559	30	50.2667	1.01645
8	0.4333	1.01564	31	63.2500	1.01667
9	0.5167	1.01572	32	79.5833	1.01668
10	0.6167	1.01573	33	100.1667	1.01682
11	0.7500	1.01600	34	126.0500	1.01689
12	0.9167	1.01601	35	158.6500	1.01691
13	1.1167	1.01612	36	199.7000	1.01688
14	1.3833	1.01608	37	251.3667	1.01709
15	1.7000	1.01612	38	316.4000	1.01706
16	2.1167	1.01611	39	398.2833	1.01706
17	2.6333	1.01617	40	501.3667	1.01700
18	3.3000	1.01616	41	631.1500	1.01689
19	4.1167	1.01617	42	794.5167	1.01686
20	5.1500	1.01621	43	1000.2000	1.01679
21	6.4500	1.01621	44	1259.1333	1.01664
22	8.0833	1.01622	45	1440.4667	1.01729
23	10.1333	1.01624			



Void Ratio = 0.882 **Compression =** 2.9%

D_0 = 1.0132 **D_{50} =** 1.0150 **D_{100} =** 1.0169 **C_v at 0.12 min. =** 3.865 ft.^{2}/day **C_α =** 0.000

Figure B-129j

Pressure: 2000.00 psf	TEST READINGS	Load No. 13

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.01592	16	2.1167	1.02287	31	63.2500	1.02341
2	0.1000	1.02269	17	2.6333	1.02289	32	79.5833	1.02360
3	0.2000	1.02249	18	3.3000	1.02290	33	100.1500	1.02367
4	0.2333	1.02251	19	4.1167	1.02293	34	126.0500	1.02376
5	0.2667	1.02270	20	5.1500	1.02298	35	158.6500	1.02378
6	0.3000	1.02271	21	6.4500	1.02298	36	199.6833	1.02391
7	0.3667	1.02281	22	8.0833	1.02300	37	251.3500	1.02395
8	0.4333	1.02283	23	10.1333	1.02304	38	316.4000	1.02397
9	0.5167	1.02285	24	12.7333	1.02307	39	398.2833	1.02404
10	0.6167	1.02283	25	15.9833	1.02310	40	501.3667	1.02404
11	0.7500	1.02282	26	20.1000	1.02317	41	631.1333	1.02388
12	0.9167	1.02281	27	25.2667	1.02308	42	794.5167	1.02398
13	1.1167	1.02288	28	31.7667	1.02317	43	1000.2000	1.02380
14	1.3833	1.02294	29	39.9667	1.02324	44	1259.1333	1.02393
15	1.7167	1.02290	30	50.2667	1.02342	45	1440.4333	1.02443

Void Ratio = 0.868 **Compression =** 3.6%

Pressure: 4000.00 psf	TEST READINGS	Load No. 14

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.02203	21	6.4500	1.03237
2	0.1000	1.02989	22	8.0833	1.03243
3	0.2000	1.03012	23	10.1500	1.03242
4	0.2333	1.03017	24	12.7333	1.03254
5	0.2667	1.03024	25	16.0000	1.03266
6	0.3167	1.03037	26	20.1000	1.03298
7	0.3667	1.03053	27	25.2667	1.03334
8	0.4333	1.03077	28	31.7667	1.03364
9	0.5167	1.03089	29	39.9667	1.03375
10	0.6167	1.03105	30	50.2667	1.03401
11	0.7500	1.03125	31	63.2500	1.03442
12	0.9167	1.03148	32	79.5833	1.03470
13	1.1333	1.03173	33	100.1500	1.03507
14	1.3833	1.03186	34	126.0500	1.03530
15	1.7167	1.03202	35	158.6500	1.03588
16	2.1333	1.03207	36	199.6833	1.03618
17	2.6500	1.03220	37	251.3500	1.03652
18	3.3000	1.03216	38	316.4000	1.03679
19	4.1167	1.03224	39	398.2833	1.03679
20	5.1500	1.03232	40	501.3667	1.03692

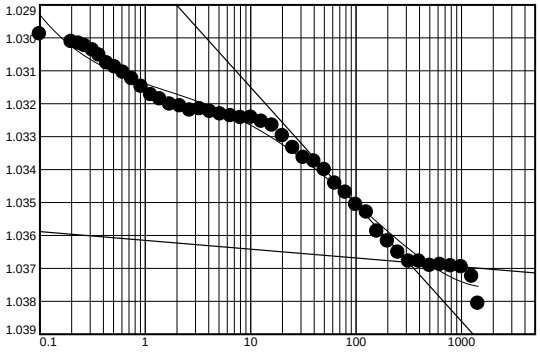


Figure B-129k

Pressure: 4000.00 psf	TEST READINGS (continued)	Load No. 14

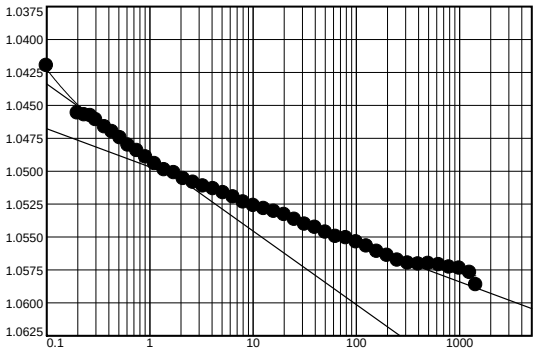
No.	Elapsed Time	Dial Reading
41	631.1333	1.03689
42	794.5167	1.03693
43	1000.2000	1.03696
44	1259.1167	1.03725
45	1440.4833	1.03807

Void Ratio = 0.841 **Compression =** 4.9%

D_0 = 1.0220 **D_{50} =** 1.0294 **D_{100} =** 1.0368 **C_v at 0.11 min. =** 4.211 ft.^{2}/day **C_α =** 0.000

Pressure: 8000.00 psf	TEST READINGS	Load No. 15

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.03543	24	12.7333	1.05286
2	0.1000	1.04200	25	15.9833	1.05307
3	0.2000	1.04561	26	20.1000	1.05332
4	0.2333	1.04575	27	25.2667	1.05368
5	0.2667	1.04581	28	31.7667	1.05405
6	0.3000	1.04610	29	39.9500	1.05428
7	0.3667	1.04666	30	50.2667	1.05466
8	0.4333	1.04702	31	63.2500	1.05497
9	0.5167	1.04749	32	79.5833	1.05508
10	0.6167	1.04804	33	100.1500	1.05539
11	0.7500	1.04846	34	126.0500	1.05570
12	0.9167	1.04895	35	158.6500	1.05610
13	1.1167	1.04945	36	199.6833	1.05642
14	1.3833	1.04992	37	251.3500	1.05677
15	1.7167	1.05014	38	316.4000	1.05700
16	2.1167	1.05059	39	398.2667	1.05707
17	2.6333	1.05087	40	501.3667	1.05703
18	3.2833	1.05115	41	631.1333	1.05713
19	4.1167	1.05135	42	794.5000	1.05731
20	5.1500	1.05165	43	1000.1833	1.05739
21	6.4500	1.05197	44	1259.1167	1.05770
22	8.0833	1.05236	45	1440.4167	1.05864
23	10.1333	1.05263			



Void Ratio = 0.802 **Compression =** 7.0%

D_0 = 1.0354 **D_{50} =** 1.0429 **D_{100} =** 1.0505 **C_v at 0.12 min. =** 3.732 ft.^{2}/day **C_α =** 0.003

Figure B-129I

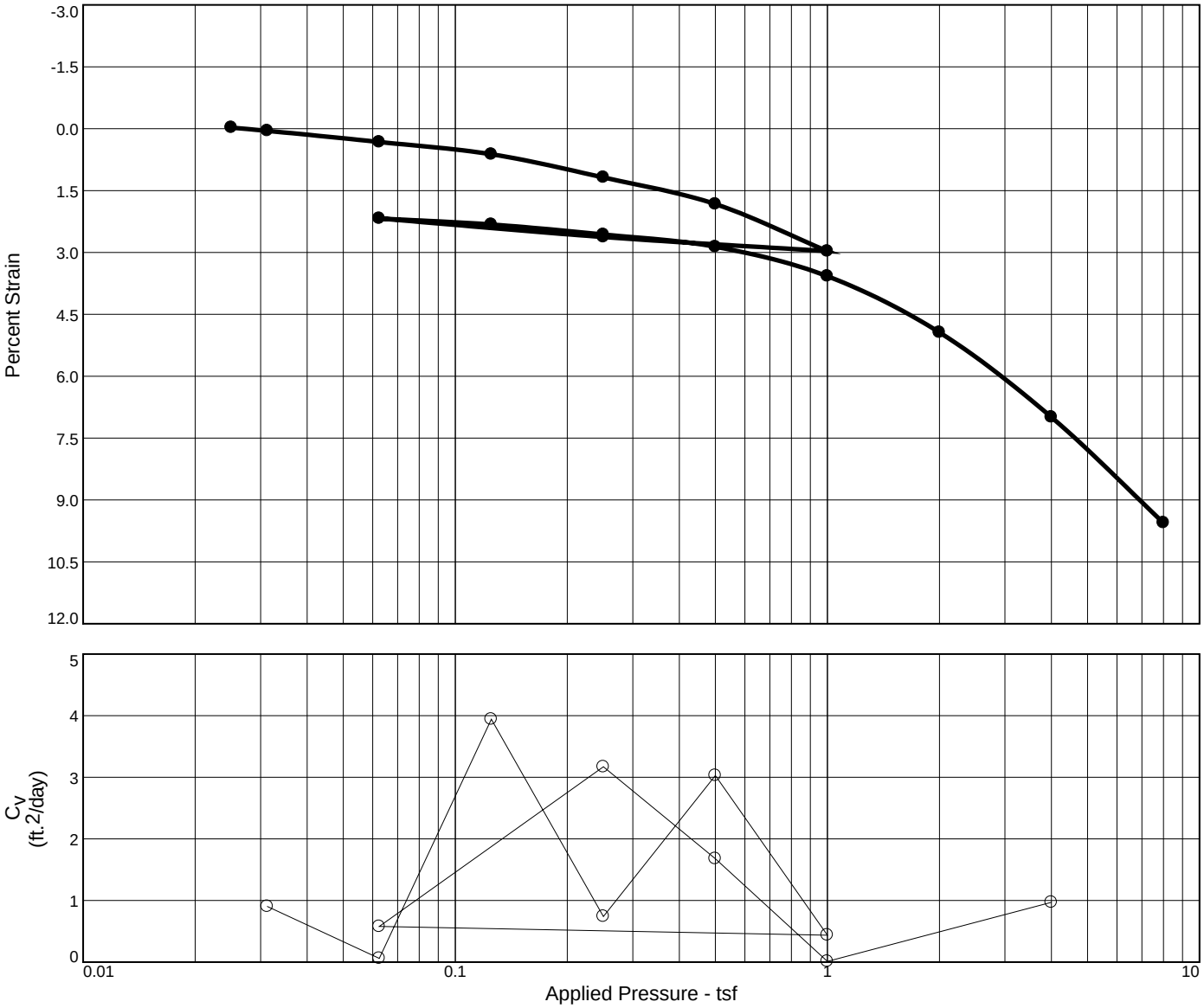
Pressure: 16000.00 psf	TEST READINGS	Load No. 16

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.05541	16	2.1167	1.07585	31	63.2500	1.08074
2	0.1000	1.06736	17	2.6333	1.07599	32	79.5833	1.08117
3	0.2000	1.07046	18	3.2833	1.07637	33	100.1500	1.08146
4	0.2333	1.07067	19	4.1000	1.07683	34	126.0500	1.08165
5	0.2667	1.07125	20	5.1333	1.07726	35	158.6500	1.08188
6	0.3000	1.07169	21	6.4333	1.07788	36	199.6833	1.08213
7	0.3500	1.07249	22	8.0667	1.07846	37	251.3500	1.08245
8	0.4167	1.07328	23	10.1333	1.07879	38	316.4000	1.08280
9	0.5167	1.07395	24	12.7167	1.07891	39	398.2833	1.08290
10	0.6167	1.07435	25	15.9833	1.07912	40	501.3667	1.08302
11	0.7333	1.07479	26	20.0833	1.07922	41	631.1333	1.08316
12	0.9000	1.07516	27	25.2667	1.07952	42	794.5167	1.08323
13	1.1167	1.07562	28	31.7667	1.07967	43	1000.1833	1.08351
14	1.3667	1.07570	29	39.9667	1.07990	44	1259.1333	1.08381
15	1.7000	1.07573	30	50.2667	1.08041	45	1440.4333	1.08428

Void Ratio = 0.752 **Compression =** 9.6%

Figure B-129m

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	P_c (tsf)	C_c	Initial Void Ratio
Saturation	Moisture							
100.3 %	34.7 %	87.2	83	53	2.707	0.8	0.14	0.937

MATERIAL DESCRIPTION	USCS	AASHTO
Clay with silt pockets and silty sand layer	(CH)	

Project No. 18274-022-01 **Client:** CEC

Project: Chandeleur Island Restoration Project (PO-0199)

Location: CI-03B sqrt **Depth:** 33-35

Remarks:
Specific gravity was measured.

GeoEngineers

Figure B-130a

Tested By: Dustin Blanchard **Checked By:** J. Aguettant

CONSOLIDATION TEST DATA

12/22/2023

Client: CEC
Project: Chandeleur Island Restoration Project (PO-0199)
Project Number: 18274-022-01
Location: CI-03B sqrt
Depth: 33-35
Material Description: Clay with silt pockets and silty sand layer
Liquid Limit: 83 **Plasticity Index:** 53
USCS: (CH)
Testing Remarks: Specific gravity was measured.
Tested by: Dustin Blanchard **Checked by:** J. Aguettant

Test Specimen Data

NATURAL MOISTURE		VOID RATIO		AFTER TEST	
Wet w+t =	131.27 g.	Spec. Gr. =	2.707	Wet w+t =	184.88 g.
Dry w+t =	102.04 g.	Est. Ht. Solids =	0.517 in.	Dry w+t =	150.96 g.
Tare Wt. =	17.87 g.	Init. V.R. =	0.937	Tare Wt. =	36.87 g.
Moisture =	34.7 %	Init. Sat. =	100.3 %	Moisture =	29.7 %

UNIT WEIGHT		TEST START			
Height =	1.001 in.	Height =	1.001 in.		
Diameter =	2.500 in.	Diameter =	2.500 in.		
Weight =	151.61 g.			Dry Wt. =	114.09 g.
Dry Dens. =	87.2 pcf				

End-Of-Load Summary

Pressure (psf)	Final Dial (in.)	Deformation (in.)	C_v (ft.^{2}/day)	C_α	Void Ratio	% Strain
start	0.98864	0.00000			0.937	
50.00	0.98837	-0.00027			0.937	0.0 Swell
62.50	0.98916	0.00052	0.903		0.936	0.1 Comprs.
125.00	0.99186	0.00322	0.061		0.931	0.3 Comprs.
250.00	0.99484	0.00620	3.942		0.925	0.6 Comprs.
500.00	1.00047	0.01183	0.741		0.914	1.2 Comprs.
1000.00	1.00693	0.01829	3.028		0.902	1.8 Comprs.
2000.00	1.01835	0.02971	0.437		0.879	3.0 Comprs.
500.00	1.01492	0.02628			0.886	2.6 Comprs.
125.00	1.01042	0.02178	0.579		0.895	2.2 Comprs.
250.00	1.01189	0.02325			0.892	2.3 Comprs.
500.00	1.01432	0.02568	3.170		0.887	2.6 Comprs.
1000.00	1.01729	0.02865	1.679		0.882	2.9 Comprs.
2000.00	1.02443	0.03579	0.012		0.868	3.6 Comprs.
4000.00	1.03807	0.04943			0.841	4.9 Comprs.
8000.00	1.05864	0.07000	0.970		0.802	7.0 Comprs.
16000.00	1.08428	0.09564			0.752	9.6 Comprs.

Compression index (C_c), tsf = 0.14 **Preconsolidation pressure (P_p), tsf =** 0.8 **Void ratio at P_p (e_m) =** 0.890
Recompression index (C_r) = 0.04

Figure B-130b

Pressure: 50.00 psf	TEST READINGS	Load No. 1

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.98864	16	2.4833	0.98858	31	79.4333	0.98877
2	0.0333	0.98864	17	3.1333	0.98857	32	100.0000	0.98883
3	0.0500	0.98862	18	3.9500	0.98859	33	125.9000	0.98890
4	0.0833	0.98863	19	4.9833	0.98858	34	158.5000	0.98896
5	0.1333	0.98863	20	6.2833	0.98861	35	199.5333	0.98897
6	0.1833	0.98860	21	7.9167	0.98860	36	251.2000	0.98907
7	0.2667	0.98863	22	9.9833	0.98866	37	316.2500	0.98911
8	0.3500	0.98862	23	12.5667	0.98862	38	398.1333	0.98904
9	0.4500	0.98865	24	15.8333	0.98865	39	501.2167	0.98882
10	0.5833	0.98862	25	19.9500	0.98862	40	630.9833	0.98847
11	0.7500	0.98858	26	25.1167	0.98863	41	794.3500	0.98835
12	0.9500	0.98864	27	31.6167	0.98862	42	1000.0333	0.98833
13	1.2167	0.98859	28	39.8000	0.98867	43	1258.9667	0.98829
14	1.5500	0.98859	29	50.1167	0.98869	44	1440.0500	0.98837
15	1.9667	0.98856	30	63.1000	0.98869			

Void Ratio = 0.937 **Swell =** 0.0%

Pressure: 62.50 psf	TEST READINGS	Load No. 2

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.98842	21	6.4500	0.98941
2	0.1000	0.98849	22	8.0833	0.98937
3	0.2000	0.98846	23	10.1333	0.98937
4	0.2333	0.98848	24	12.7333	0.98937
5	0.2667	0.98840	25	15.9833	0.98939
6	0.3000	0.98856	26	20.1000	0.98937
7	0.3500	0.98859	27	25.2667	0.98943
8	0.4167	0.98859	28	31.7667	0.98948
9	0.5167	0.98874	29	39.9667	0.98950
10	0.6167	0.98872	30	50.2667	0.98955
11	0.7500	0.98880	31	63.2500	0.98949
12	0.9167	0.98894	32	79.5833	0.98959
13	1.1167	0.98907	33	100.1500	0.98962
14	1.3833	0.98916	34	126.0500	0.98961
15	1.7000	0.98921	35	158.6500	0.98963
16	2.1167	0.98923	36	199.6833	0.98970
17	2.6333	0.98929	37	251.3500	0.98969
18	3.3000	0.98930	38	316.4000	0.98978
19	4.1167	0.98931	39	398.2833	0.98980
20	5.1500	0.98932	40	501.3667	0.98962

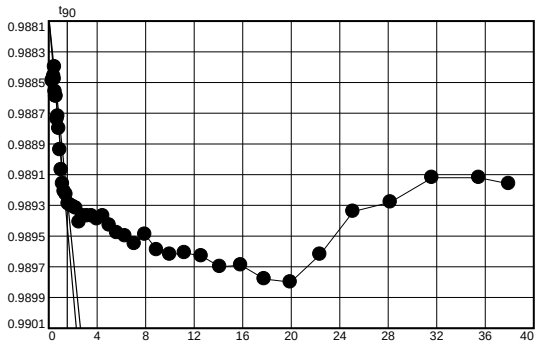


Figure B-130c

Pressure: 62.50 psf	TEST READINGS (continued)	Load No. 2

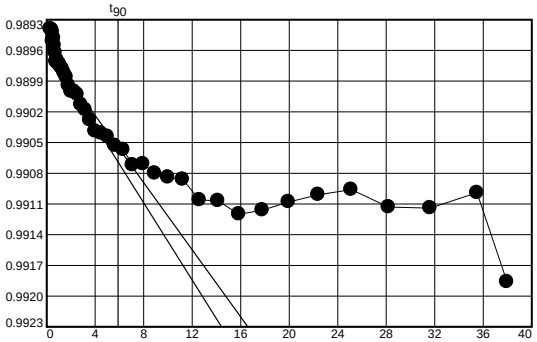
No.	Elapsed Time	Dial Reading
41	631.1500	0.98934
42	794.5167	0.98928
43	1000.2000	0.98912
44	1259.1167	0.98912
45	1440.3833	0.98916

Void Ratio = 0.936 **Compression =** 0.1%

D_0 = 0.9881 **D_{90} =** 0.9893 **D_{100} =** 0.9894 **C_v at 2.35 min. =** 0.903 ft.^{2}/day

Pressure: 125.00 psf	TEST READINGS	Load No. 3

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.98853	24	12.7333	0.99028
2	0.1000	0.98939	25	15.9833	0.99039
3	0.2000	0.98940	26	20.0833	0.99041
4	0.2333	0.98942	27	25.2667	0.99044
5	0.2500	0.98951	28	31.7667	0.99053
6	0.3000	0.98948	29	39.9500	0.99057
7	0.3500	0.98948	30	50.2667	0.99072
8	0.4167	0.98955	31	63.2500	0.99071
9	0.5167	0.98962	32	79.5833	0.99080
10	0.6167	0.98971	33	100.1500	0.99084
11	0.7500	0.98969	34	126.0500	0.99086
12	0.9167	0.98973	35	158.6500	0.99106
13	1.1167	0.98973	36	199.6833	0.99107
14	1.3833	0.98976	37	251.3500	0.99120
15	1.7000	0.98978	38	316.4000	0.99116
16	2.1167	0.98982	39	398.2833	0.99108
17	2.6333	0.98986	40	501.3667	0.99101
18	3.2833	0.98994	41	631.1333	0.99096
19	4.1167	0.99000	42	794.5167	0.99113
20	5.1500	0.99000	43	1000.1833	0.99114
21	6.4500	0.99003	44	1259.1167	0.99099
22	8.0833	0.99013	45	1440.4333	0.99186
23	10.1333	0.99018			



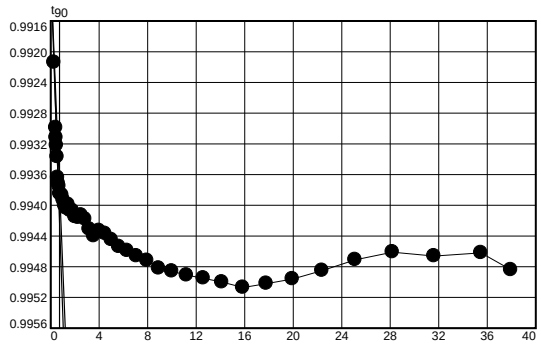
Void Ratio = 0.931 **Compression =** 0.3%

D_0 = 0.9896 **D_{90} =** 0.9905 **D_{100} =** 0.9907 **C_v at 34.70 min. =** 0.061 ft.^{2}/day

Figure B-130d

Pressure: 250.00 psf	TEST READINGS	Load No. 4

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.99057	24	12.7167	0.99440
2	0.0833	0.99214	25	15.9833	0.99433
3	0.2000	0.99299	26	20.0833	0.99437
4	0.2167	0.99312	27	25.2500	0.99445
5	0.2500	0.99322	28	31.7667	0.99454
6	0.3000	0.99337	29	39.9500	0.99459
7	0.3500	0.99364	30	50.2667	0.99466
8	0.4167	0.99371	31	63.2333	0.99472
9	0.5000	0.99375	32	79.5833	0.99482
10	0.6000	0.99385	33	100.1500	0.99486
11	0.7333	0.99386	34	126.0333	0.99491
12	0.9000	0.99387	35	158.6333	0.99495
13	1.1000	0.99393	36	199.6833	0.99500
14	1.3667	0.99400	37	251.3333	0.99507
15	1.7000	0.99404	38	316.3833	0.99502
16	2.1167	0.99399	39	398.2667	0.99496
17	2.6333	0.99407	40	501.3500	0.99485
18	3.2833	0.99407	41	631.1333	0.99471
19	4.1000	0.99415	42	794.5000	0.99461
20	5.1333	0.99416	43	1000.1833	0.99466
21	6.4333	0.99413	44	1259.1167	0.99462
22	8.0667	0.99418	45	1440.3667	0.99484
23	10.1333	0.99431			



Void Ratio = 0.925 **Compression =** 0.6%

D_0 = 0.9909 **D_{90} =** 0.9938 **D_{100} =** 0.9941 **C_V at 0.53 min. =** 3.942 ft.^{2}/day

Pressure: 500.00 psf	TEST READINGS	Load No. 5

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.99398	12	0.9167	0.99779
2	0.1000	0.99630	13	1.1167	0.99790
3	0.2000	0.99670	14	1.3833	0.99809
4	0.2333	0.99690	15	1.7000	0.99831
5	0.2667	0.99715	16	2.1167	0.99853
6	0.3000	0.99732	17	2.6333	0.99861
7	0.3667	0.99729	18	3.3000	0.99867
8	0.4167	0.99738	19	4.1167	0.99871
9	0.5167	0.99745	20	5.1500	0.99885
10	0.6167	0.99757	21	6.4500	0.99895
11	0.7500	0.99769	22	8.0833	0.99905

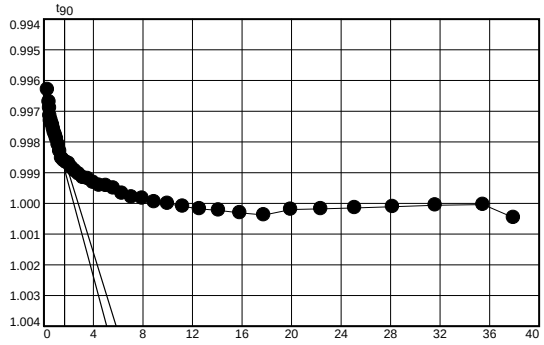


Figure B-130e

Pressure: 500.00 psf	TEST READINGS (continued)	Load No. 5

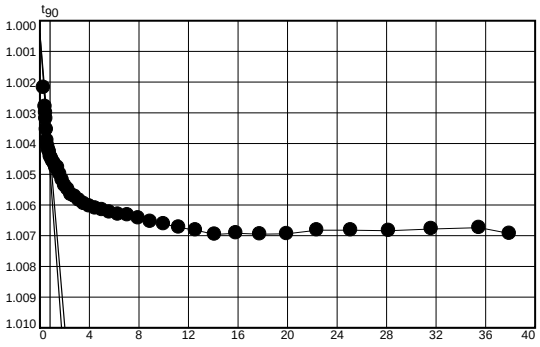
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1500	0.99917	33	100.1667	1.00001	43	1000.2000	1.00006
24	12.7333	0.99920	34	126.0667	1.00010	44	1259.1333	1.00004
25	16.0000	0.99932	35	158.6667	1.00018	45	1440.0833	1.00047
26	20.1000	0.99942	36	199.7000	1.00023			
27	25.2833	0.99943	37	251.3667	1.00031			
28	31.7833	0.99951	38	316.4000	1.00038			
29	39.9667	0.99968	39	398.2833	1.00020			
30	50.2833	0.99980	40	501.3667	1.00018			
31	63.2500	0.99984	41	631.1500	1.00015			
32	79.6000	0.99996	42	794.5333	1.00011			

Void Ratio = 0.914 **Compression =** 1.2%

D_0 = 0.9964 **D_{90} =** 0.9986 **D_{100} =** 0.9989 **C_V at 2.82 min. =** 0.741 ft.^{2}/day

Pressure: 1000.00 psf	TEST READINGS	Load No. 6

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.99908	24	12.7333	1.00596
2	0.1000	1.00218	25	16.0000	1.00604
3	0.2000	1.00280	26	20.1000	1.00611
4	0.2333	1.00300	27	25.2667	1.00616
5	0.2667	1.00319	28	31.7667	1.00624
6	0.3167	1.00355	29	39.9667	1.00631
7	0.3667	1.00390	30	50.2667	1.00633
8	0.4333	1.00409	31	63.2500	1.00643
9	0.5167	1.00421	32	79.5833	1.00654
10	0.6167	1.00427	33	100.1500	1.00662
11	0.7500	1.00442	34	126.0500	1.00673
12	0.9167	1.00449	35	158.6500	1.00682
13	1.1167	1.00457	36	199.6833	1.00696
14	1.3833	1.00465	37	251.3500	1.00692
15	1.7167	1.00479	38	316.4000	1.00695
16	2.1167	1.00478	39	398.2833	1.00694
17	2.6333	1.00500	40	501.3667	1.00682
18	3.3000	1.00519	41	631.1500	1.00682
19	4.1167	1.00537	42	794.5167	1.00684
20	5.1500	1.00549	43	1000.2000	1.00678
21	6.4500	1.00567	44	1259.1167	1.00674
22	8.0833	1.00573	45	1440.0167	1.00693
23	10.1500	1.00585			



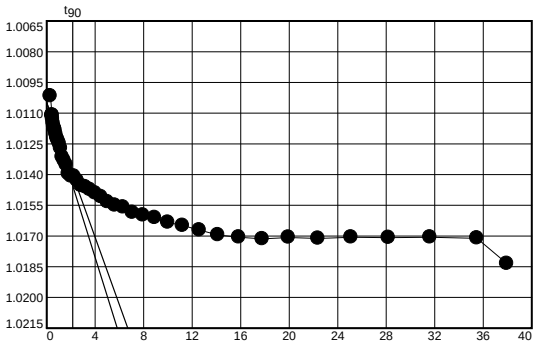
Void Ratio = 0.902 **Compression =** 1.8%

D_0 = 1.0004 **D_{90} =** 1.0043 **D_{100} =** 1.0048 **C_V at 0.68 min. =** 3.028 ft.^{2}/day

Figure B-130f

Pressure: 2000.00 psf	TEST READINGS	Load No. 7

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.00523	24	12.7333	1.01474
2	0.1000	1.01016	25	16.0000	1.01491
3	0.2000	1.01112	26	20.1000	1.01509
4	0.2333	1.01110	27	25.2667	1.01534
5	0.2667	1.01129	28	31.7667	1.01550
6	0.3000	1.01148	29	39.9667	1.01560
7	0.3667	1.01164	30	50.2667	1.01585
8	0.4333	1.01174	31	63.2500	1.01598
9	0.5167	1.01183	32	79.5833	1.01611
10	0.6167	1.01203	33	100.1500	1.01634
11	0.7500	1.01221	34	126.0500	1.01649
12	0.9167	1.01233	35	158.6500	1.01671
13	1.1167	1.01248	36	199.6833	1.01695
14	1.3833	1.01272	37	251.3500	1.01706
15	1.7167	1.01314	38	316.4000	1.01714
16	2.1167	1.01332	39	398.2833	1.01707
17	2.6500	1.01353	40	501.3667	1.01712
18	3.3000	1.01396	41	631.1500	1.01706
19	4.1167	1.01409	42	794.5167	1.01708
20	5.1500	1.01409	43	1000.1833	1.01706
21	6.4500	1.01429	44	1259.1167	1.01711
22	8.0833	1.01454	45	1440.4500	1.01835
23	10.1333	1.01461			



Void Ratio = 0.879 **Compression =** 3.0%

D_0 = 1.0105 **D_{90} =** 1.0141 **D_{100} =** 1.0145 **C_V at 4.64 min. =** 0.437 ft.^{2}/day

Pressure: 500.00 psf	TEST READINGS	Load No. 8

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.02049	12	0.9167	1.01647	23	10.1333	1.01625
2	0.1000	1.01662	13	1.1167	1.01642	24	12.7167	1.01627
3	0.2000	1.01664	14	1.3833	1.01641	25	15.9833	1.01620
4	0.2333	1.01665	15	1.7000	1.01641	26	20.0833	1.01621
5	0.2667	1.01666	16	2.1167	1.01636	27	25.2500	1.01618
6	0.3000	1.01662	17	2.6333	1.01639	28	31.7667	1.01625
7	0.3500	1.01654	18	3.2833	1.01636	29	39.9500	1.01622
8	0.4167	1.01650	19	4.1000	1.01630	30	50.2667	1.01626
9	0.5167	1.01650	20	5.1333	1.01626	31	63.2333	1.01624
10	0.6167	1.01649	21	6.4333	1.01629	32	79.5833	1.01625
11	0.7500	1.01645	22	8.0667	1.01625	33	100.1500	1.01625

Figure B-130g

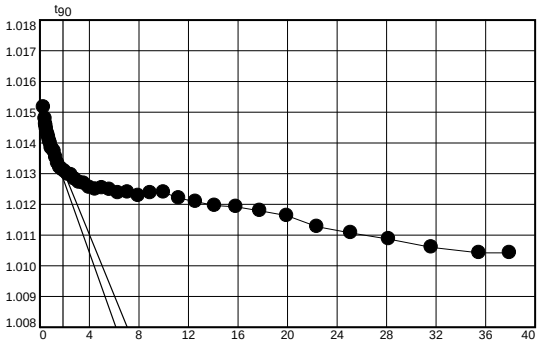
Pressure: 500.00 psf	TEST READINGS (continued)	Load No. 8

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
34	126.0500	1.01622	44	1259.1167	1.01460
35	158.6500	1.01622	45	1440.4333	1.01492
36	199.6833	1.01622			
37	251.3500	1.01627			
38	316.3833	1.01627			
39	398.2667	1.01621			
40	501.3500	1.01584			
41	631.1333	1.01557			
42	794.5000	1.01524			
43	1000.1833	1.01476			

Void Ratio = 0.886 **Compression =** 2.6%

Pressure: 125.00 psf	TEST READINGS	Load No. 9

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.01630	24	12.7333	1.01268
2	0.1000	1.01516	25	16.0000	1.01255
3	0.2000	1.01479	26	20.1000	1.01249
4	0.2333	1.01461	27	25.2667	1.01253
5	0.2667	1.01455	28	31.7833	1.01248
6	0.3000	1.01446	29	39.9667	1.01237
7	0.3667	1.01434	30	50.2833	1.01239
8	0.4333	1.01428	31	63.2500	1.01228
9	0.5167	1.01419	32	79.6000	1.01237
10	0.6167	1.01408	33	100.1667	1.01239
11	0.7500	1.01399	34	126.0667	1.01220
12	0.9000	1.01383	35	158.6667	1.01209
13	1.1167	1.01379	36	199.7000	1.01196
14	1.3833	1.01372	37	251.3667	1.01192
15	1.7000	1.01353	38	316.4167	1.01179
16	2.1167	1.01334	39	398.3000	1.01163
17	2.6333	1.01320	40	501.3833	1.01127
18	3.3000	1.01313	41	631.1500	1.01107
19	4.1167	1.01307	42	794.5333	1.01087
20	5.1500	1.01297	43	1000.2000	1.01060
21	6.4500	1.01296	44	1259.1333	1.01042
22	8.0833	1.01282	45	1440.1167	1.01042
23	10.1333	1.01271			



Void Ratio = 0.895 **Compression =** 2.2%

D_0 = 1.0150 **D_{90} =** 1.0131 **D_{100} =** 1.0129 **C_v at 3.49 min. =** 0.579 ft.^{2}/day

Figure B-130h

Pressure: 250.00 psf	TEST READINGS	Load No. 10

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.01027	16	2.1167	1.01124	31	63.2333	1.01157
2	0.1000	1.01130	17	2.6333	1.01120	32	79.5833	1.01163
3	0.2000	1.01121	18	3.2833	1.01126	33	100.1500	1.01161
4	0.2167	1.01121	19	4.1000	1.01128	34	126.0500	1.01179
5	0.2500	1.01116	20	5.1333	1.01126	35	158.6500	1.01197
6	0.3000	1.01119	21	6.4333	1.01127	36	199.6833	1.01200
7	0.3500	1.01121	22	8.0667	1.01134	37	251.3500	1.01216
8	0.4167	1.01119	23	10.1333	1.01133	38	316.3833	1.01209
9	0.5000	1.01116	24	12.7167	1.01137	39	398.2667	1.01210
10	0.6167	1.01120	25	15.9833	1.01136	40	501.3500	1.01198
11	0.7333	1.01118	26	20.0833	1.01132	41	631.1333	1.01178
12	0.9000	1.01117	27	25.2500	1.01135	42	794.5167	1.01164
13	1.1167	1.01120	28	31.7667	1.01139	43	1000.1833	1.01136
14	1.3667	1.01119	29	39.9500	1.01136	44	1259.1167	1.01135
15	1.7000	1.01123	30	50.2500	1.01134	45	1440.4667	1.01189

Void Ratio = 0.892 **Compression =** 2.3%

Pressure: 500.00 psf	TEST READINGS	Load No. 11

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.01129	21	6.4333	1.01330
2	0.0833	1.01237	22	8.0667	1.01335
3	0.2000	1.01252	23	10.1333	1.01336
4	0.2167	1.01257	24	12.7167	1.01344
5	0.2500	1.01268	25	15.9833	1.01351
6	0.3000	1.01279	26	20.0833	1.01356
7	0.3500	1.01296	27	25.2500	1.01360
8	0.4167	1.01303	28	31.7500	1.01364
9	0.5000	1.01303	29	39.9500	1.01373
10	0.6000	1.01310	30	50.2667	1.01382
11	0.7333	1.01308	31	63.2333	1.01392
12	0.9000	1.01313	32	79.5833	1.01399
13	1.1000	1.01309	33	100.1500	1.01414
14	1.3667	1.01312	34	126.0333	1.01429
15	1.7000	1.01315	35	158.6333	1.01434
16	2.1167	1.01317	36	199.6833	1.01441
17	2.6333	1.01324	37	251.3500	1.01438
18	3.2833	1.01324	38	316.3833	1.01452
19	4.1000	1.01325	39	398.2667	1.01449
20	5.1333	1.01328	40	501.3500	1.01439

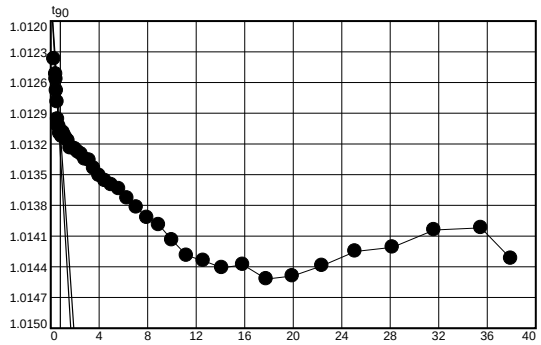


Figure B-130i

Pressure: 500.00 psf	TEST READINGS (continued)	Load No. 11

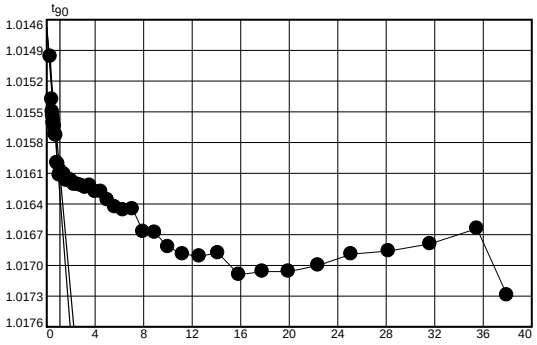
No.	Elapsed Time	Dial Reading
41	631.1167	1.01425
42	794.5000	1.01421
43	1000.1833	1.01404
44	1259.1000	1.01402
45	1440.0167	1.01432

Void Ratio = 0.887 **Compression =** 2.6%

D_0 = 1.0117 **D_{90} =** 1.0131 **D_{100} =** 1.0132 **C_V at 0.64 min. =** 3.170 ft.^{2}/day

Pressure: 1000.00 psf	TEST READINGS	Load No. 12

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.01317	24	12.7333	1.01622
2	0.1000	1.01496	25	16.0000	1.01628
3	0.2000	1.01538	26	20.1000	1.01628
4	0.2333	1.01550	27	25.2667	1.01636
5	0.2667	1.01554	28	31.7667	1.01643
6	0.3000	1.01561	29	39.9667	1.01646
7	0.3667	1.01559	30	50.2667	1.01645
8	0.4333	1.01564	31	63.2500	1.01667
9	0.5167	1.01572	32	79.5833	1.01668
10	0.6167	1.01573	33	100.1667	1.01682
11	0.7500	1.01600	34	126.0500	1.01689
12	0.9167	1.01601	35	158.6500	1.01691
13	1.1167	1.01612	36	199.7000	1.01688
14	1.3833	1.01608	37	251.3667	1.01709
15	1.7000	1.01612	38	316.4000	1.01706
16	2.1167	1.01611	39	398.2833	1.01706
17	2.6333	1.01617	40	501.3667	1.01700
18	3.3000	1.01616	41	631.1500	1.01689
19	4.1167	1.01617	42	794.5167	1.01686
20	5.1500	1.01621	43	1000.2000	1.01679
21	6.4500	1.01621	44	1259.1333	1.01664
22	8.0833	1.01622	45	1440.4667	1.01729
23	10.1333	1.01624			



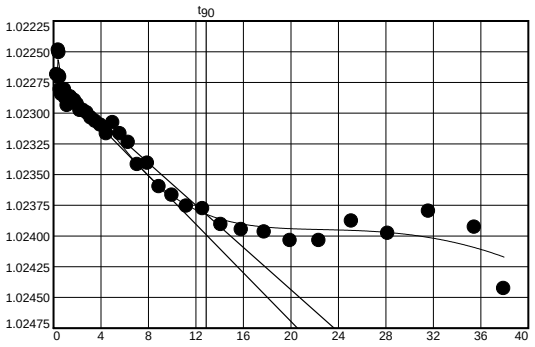
Void Ratio = 0.882 **Compression =** 2.9%

D_0 = 1.0147 **D_{90} =** 1.0161 **D_{100} =** 1.0163 **C_V at 1.20 min. =** 1.679 ft.^{2}/day

Figure B-130j

Pressure: 2000.00 psf	TEST READINGS	Load No. 13

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.01592	24	12.7333	1.02307
2	0.1000	1.02269	25	15.9833	1.02310
3	0.2000	1.02249	26	20.1000	1.02317
4	0.2333	1.02251	27	25.2667	1.02308
5	0.2667	1.02270	28	31.7667	1.02317
6	0.3000	1.02271	29	39.9667	1.02324
7	0.3667	1.02281	30	50.2667	1.02342
8	0.4333	1.02283	31	63.2500	1.02341
9	0.5167	1.02285	32	79.5833	1.02360
10	0.6167	1.02283	33	100.1500	1.02367
11	0.7500	1.02282	34	126.0500	1.02376
12	0.9167	1.02281	35	158.6500	1.02378
13	1.1167	1.02288	36	199.6833	1.02391
14	1.3833	1.02294	37	251.3500	1.02395
15	1.7167	1.02290	38	316.4000	1.02397
16	2.1167	1.02287	39	398.2833	1.02404
17	2.6333	1.02289	40	501.3667	1.02404
18	3.3000	1.02290	41	631.1333	1.02388
19	4.1167	1.02293	42	794.5167	1.02398
20	5.1500	1.02298	43	1000.2000	1.02380
21	6.4500	1.02298	44	1259.1333	1.02393
22	8.0833	1.02300	45	1440.4333	1.02443
23	10.1333	1.02304			



Void Ratio = 0.868 **Compression =** 3.6%

D_0 = 1.0227 **D_{90} =** 1.0238 **D_{100} =** 1.0239 **C_V at 165.34 min. =** 0.012 ft.^{2}/day

Pressure: 4000.00 psf	TEST READINGS	Load No. 14

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.02203	12	0.9167	1.03148	23	10.1500	1.03242
2	0.1000	1.02989	13	1.1333	1.03173	24	12.7333	1.03254
3	0.2000	1.03012	14	1.3833	1.03186	25	16.0000	1.03266
4	0.2333	1.03017	15	1.7167	1.03202	26	20.1000	1.03298
5	0.2667	1.03024	16	2.1333	1.03207	27	25.2667	1.03334
6	0.3167	1.03037	17	2.6500	1.03220	28	31.7667	1.03364
7	0.3667	1.03053	18	3.3000	1.03216	29	39.9667	1.03375
8	0.4333	1.03077	19	4.1167	1.03224	30	50.2667	1.03401
9	0.5167	1.03089	20	5.1500	1.03232	31	63.2500	1.03442
10	0.6167	1.03105	21	6.4500	1.03237	32	79.5833	1.03470
11	0.7500	1.03125	22	8.0833	1.03243	33	100.1500	1.03507

Figure B-130k

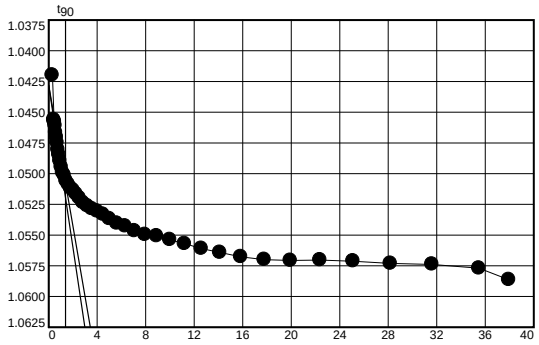
Pressure: 4000.00 psf	TEST READINGS (continued)	Load No. 14

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
34	126.0500	1.03530	44	1259.1167	1.03725
35	158.6500	1.03588	45	1440.4833	1.03807
36	199.6833	1.03618			
37	251.3500	1.03652			
38	316.4000	1.03679			
39	398.2833	1.03679			
40	501.3667	1.03692			
41	631.1333	1.03689			
42	794.5167	1.03693			
43	1000.2000	1.03696			

Void Ratio = 0.841 **Compression =** 4.9%

Pressure: 8000.00 psf	TEST READINGS	Load No. 15

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.03543	24	12.7333	1.05286
2	0.1000	1.04200	25	15.9833	1.05307
3	0.2000	1.04561	26	20.1000	1.05332
4	0.2333	1.04575	27	25.2667	1.05368
5	0.2667	1.04581	28	31.7667	1.05405
6	0.3000	1.04610	29	39.9500	1.05428
7	0.3667	1.04666	30	50.2667	1.05466
8	0.4333	1.04702	31	63.2500	1.05497
9	0.5167	1.04749	32	79.5833	1.05508
10	0.6167	1.04804	33	100.1500	1.05539
11	0.7500	1.04846	34	126.0500	1.05570
12	0.9167	1.04895	35	158.6500	1.05610
13	1.1167	1.04945	36	199.6833	1.05642
14	1.3833	1.04992	37	251.3500	1.05677
15	1.7167	1.05014	38	316.4000	1.05700
16	2.1167	1.05059	39	398.2667	1.05707
17	2.6333	1.05087	40	501.3667	1.05703
18	3.2833	1.05115	41	631.1333	1.05713
19	4.1167	1.05135	42	794.5000	1.05731
20	5.1500	1.05165	43	1000.1833	1.05739
21	6.4500	1.05197	44	1259.1167	1.05770
22	8.0833	1.05236	45	1440.4167	1.05864
23	10.1333	1.05263			



Void Ratio = 0.802 **Compression =** 7.0%

D_0 = 1.0428 **D_{90} =** 1.0504 **D_{100} =** 1.0512 **C_v at 1.94 min. =** 0.970 ft.^{2}/day

Figure B-130l

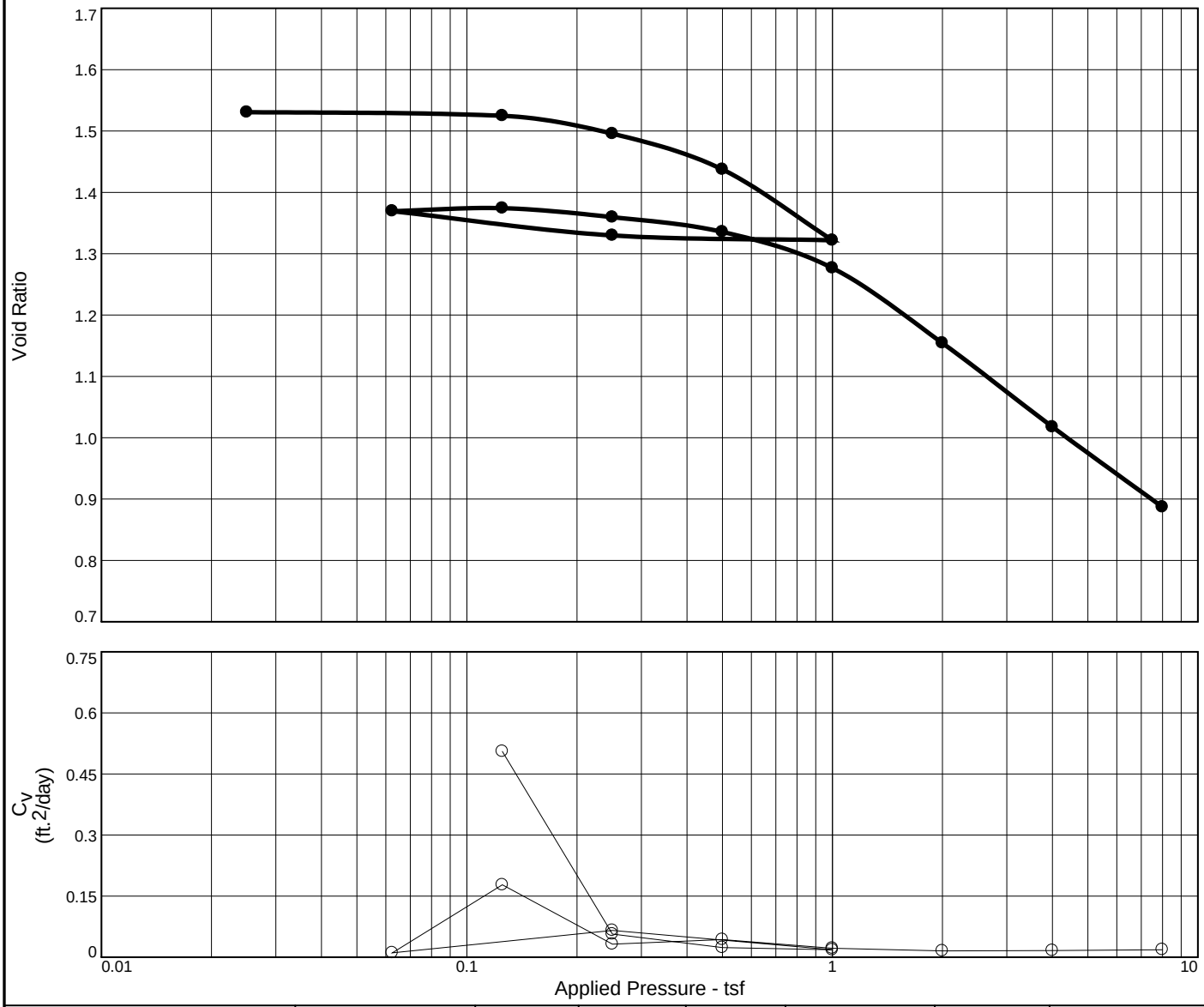
Pressure: 16000.00 psf	TEST READINGS	Load No. 16

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.05541	16	2.1167	1.07585	31	63.2500	1.08074
2	0.1000	1.06736	17	2.6333	1.07599	32	79.5833	1.08117
3	0.2000	1.07046	18	3.2833	1.07637	33	100.1500	1.08146
4	0.2333	1.07067	19	4.1000	1.07683	34	126.0500	1.08165
5	0.2667	1.07125	20	5.1333	1.07726	35	158.6500	1.08188
6	0.3000	1.07169	21	6.4333	1.07788	36	199.6833	1.08213
7	0.3500	1.07249	22	8.0667	1.07846	37	251.3500	1.08245
8	0.4167	1.07328	23	10.1333	1.07879	38	316.4000	1.08280
9	0.5167	1.07395	24	12.7167	1.07891	39	398.2833	1.08290
10	0.6167	1.07435	25	15.9833	1.07912	40	501.3667	1.08302
11	0.7333	1.07479	26	20.0833	1.07922	41	631.1333	1.08316
12	0.9000	1.07516	27	25.2667	1.07952	42	794.5167	1.08323
13	1.1167	1.07562	28	31.7667	1.07967	43	1000.1833	1.08351
14	1.3667	1.07570	29	39.9667	1.07990	44	1259.1333	1.08381
15	1.7000	1.07573	30	50.2667	1.08041	45	1440.4333	1.08428

Void Ratio = 0.752 **Compression =** 9.6%

Figure B-130m

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	P_c (tsf)	C_c	Initial Void Ratio
Saturation	Moisture							
101.6 %	57.8 %	66.4	75	45	2.693	0.6	0.50	1.533

MATERIAL DESCRIPTION	USCS	AASHTO
Soft gray clay with sand lenses	(CH)	

Project No. 18274-022-01 **Client:** CEC

Project: Chandeleur Island Restoration Project (PO-0199)

Location: CI-06 **Depth:** 38-40

Remarks:
Specific gravity measured.

GeoEngineers

Figure B-131a

Tested By: Dustin Blanchard **Checked By:** J. Aguettant

CONSOLIDATION TEST DATA

12/22/2023

Client: CEC
Project: Chandeleur Island Restoration Project (PO-0199)
Project Number: 18274-022-01
Location: CI-06
Depth: 38-40
Material Description: Soft gray clay with sand lenses
Liquid Limit: 75 **Plasticity Index:** 45
USCS: (CH)
Testing Remarks: Specific gravity measured.
Tested by: Dustin Blanchard **Checked by:** J. Aguettant

Test Specimen Data

NATURAL MOISTURE		VOID RATIO		AFTER TEST	
Wet w+t =	127.89 g.	Spec. Gr. =	2.693	Wet w+t =	160.80 g.
Dry w+t =	87.59 g.	Est. Ht. Solids =	0.395 in.	Dry w+t =	123.40 g.
Tare Wt. =	17.86 g.	Init. V.R. =	1.533	Tare Wt. =	37.08 g.
Moisture =	57.8 %	Init. Sat. =	101.6 %	Moisture =	43.3 %

UNIT WEIGHT		TEST START			
Height =	1.000 in.	Height =	1.000 in.	Dry Wt. =	86.32 g.
Diameter =	2.500 in.	Diameter =	2.500 in.		
Weight =	134.97 g.				
Dry Dens. =	66.4 pcf				

End-Of-Load Summary

Pressure (psf)	Final Dial (in.)	Deformation (in.)	C_v (ft.^{2}/day)	C_α	Void Ratio	% Strain
start	1.11661	0.00000			1.533	
50.00	1.11785	0.00091*		0.012	1.530	0.1 Comprs.
250.00	1.12300	0.00593*	0.033	0.000	1.518	0.6 Comprs.
500.00	1.13544	0.01737*	0.038	0.001	1.489	1.7 Comprs.
1000.00	1.15643	0.03769*	0.030	0.001	1.437	3.8 Comprs.
2000.00	1.20596	0.08358*	0.022	0.006	1.321	8.4 Comprs.
500.00	1.19329	0.07991*	0.097		1.330	8.0 Comprs.
125.00	1.17767	0.06096*	0.008		1.378	6.1 Comprs.
250.00	1.18003	0.06262*	0.229	0.000	1.374	6.3 Comprs.
500.00	1.18619	0.06776*	0.061	0.001	1.361	6.8 Comprs.
1000.00	1.19783	0.07884*	0.045	0.001	1.333	7.9 Comprs.
2000.00	1.22120	0.10157*	0.026	0.003	1.275	10.2 Comprs.
4000.00	1.27213	0.15050*	0.019	0.006	1.151	15.1 Comprs.
8000.00	1.32834	0.20635*	0.018	0.007	1.010	20.6 Comprs.
16000.00	1.38229	0.26058*	0.017	0.005	0.873	26.1 Comprs.

***CALCULATED USING D_{100} INSTEAD OF FINAL READING**

Compression index (C_c), tsf = 0.50 **Preconsolidation pressure (P_p), tsf =** 0.6 **Void ratio at P_p (e_m) =** 1.411
Recompression index (C_r) = 0.15

Figure B-131b

Pressure: 50.00 psf	TEST READINGS	Load No. 1

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.11661	16	2.4667	1.11663	31	79.4000	1.11728
2	0.0333	1.11661	17	3.1167	1.11663	32	99.9667	1.11728
3	0.0667	1.11662	18	3.9333	1.11661	33	125.8667	1.11730
4	0.1000	1.11660	19	4.9667	1.11672	34	158.4667	1.11734
5	0.1333	1.11661	20	6.2667	1.11680	35	199.5000	1.11742
6	0.1833	1.11661	21	7.9000	1.11690	36	251.1667	1.11732
7	0.2500	1.11663	22	9.9667	1.11688	37	316.2167	1.11716
8	0.3333	1.11662	23	12.5500	1.11691	38	398.1000	1.11687
9	0.4500	1.11662	24	15.8167	1.11693	39	501.1667	1.11701
10	0.5667	1.11661	25	19.9167	1.11697	40	630.9500	1.11697
11	0.7333	1.11661	26	25.0833	1.11700	41	794.3167	1.11692
12	0.9500	1.11663	27	31.5833	1.11703	42	1000.0000	1.11705
13	1.2000	1.11662	28	39.7833	1.11705	43	1258.9333	1.11717
14	1.5333	1.11662	29	50.0833	1.11712	44	1440.3000	1.11785
15	1.9500	1.11660	30	63.0667	1.11721			

Void Ratio = 1.530 **Compression =** 0.1%

Pressure: 250.00 psf	TEST READINGS	Load No. 2

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.11721	21	6.4333	1.11964
2	0.1000	1.11738	22	8.0667	1.11981
3	0.2000	1.11791	23	10.1333	1.11991
4	0.2167	1.11802	24	12.7167	1.12005
5	0.2500	1.11807	25	15.9833	1.12022
6	0.3000	1.11818	26	20.0833	1.12040
7	0.3500	1.11823	27	25.2500	1.12069
8	0.4167	1.11831	28	31.7667	1.12096
9	0.5000	1.11839	29	39.9500	1.12118
10	0.6000	1.11846	30	50.2667	1.12128
11	0.7333	1.11859	31	63.2333	1.12157
12	0.9000	1.11868	32	79.5833	1.12175
13	1.1167	1.11880	33	100.1500	1.12207
14	1.3667	1.11887	34	126.0333	1.12231
15	1.7000	1.11893	35	158.6333	1.12247
16	2.1167	1.11902	36	199.6833	1.12261
17	2.6333	1.11917	37	251.3500	1.12259
18	3.2833	1.11932	38	316.3833	1.12264
19	4.1000	1.11944	39	398.2667	1.12268
20	5.1333	1.11950	40	501.3500	1.12263

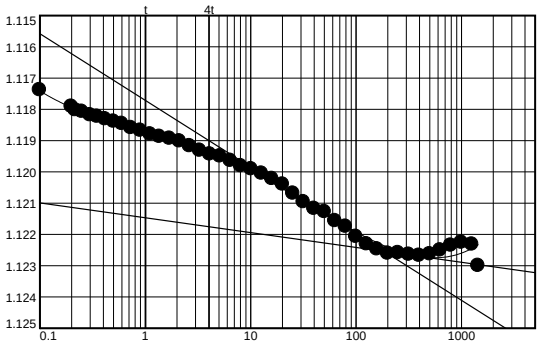


Figure B-131c

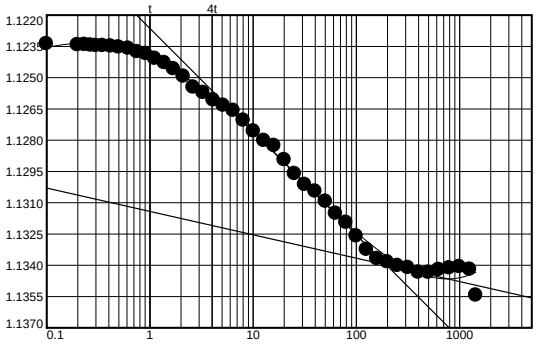
Pressure: 250.00 psf	TEST READINGS (continued)	Load No. 2

No.	Elapsed Time	Dial Reading
41	631.1167	1.12251
42	794.4833	1.12235
43	1000.1667	1.12226
44	1259.1000	1.12232
45	1440.2667	1.12300

Void Ratio = 1.518 **Compression =** 0.6% >>> CALCULATED USING D_{100}
D_0 = 1.1180 **D_{50} =** 1.1203 **D_{100} =** 1.1225 **C_v at 14.63 min. =** 0.033 ft.^{2}/day **C_α =** 0.000

Pressure: 500.00 psf	TEST READINGS	Load No. 3

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.12211	24	12.7333	1.12802
2	0.1000	1.12338	25	15.9833	1.12827
3	0.2000	1.12343	26	20.1000	1.12895
4	0.2333	1.12342	27	25.2667	1.12961
5	0.2667	1.12345	28	31.7667	1.13013
6	0.3000	1.12347	29	39.9500	1.13045
7	0.3500	1.12347	30	50.2667	1.13094
8	0.4167	1.12349	31	63.2500	1.13152
9	0.5000	1.12354	32	79.5833	1.13195
10	0.6167	1.12360	33	100.1500	1.13260
11	0.7500	1.12376	34	126.0500	1.13325
12	0.9167	1.12385	35	158.6500	1.13369
13	1.1167	1.12408	36	199.6833	1.13384
14	1.3833	1.12429	37	251.3500	1.13402
15	1.7000	1.12458	38	316.4000	1.13412
16	2.1167	1.12494	39	398.2833	1.13434
17	2.6333	1.12546	40	501.3667	1.13435
18	3.2833	1.12572	41	631.1333	1.13422
19	4.1167	1.12608	42	794.5000	1.13414
20	5.1500	1.12633	43	1000.1833	1.13407
21	6.4500	1.12658	44	1259.1167	1.13420
22	8.0833	1.12705	45	1440.2167	1.13544
23	10.1333	1.12757			

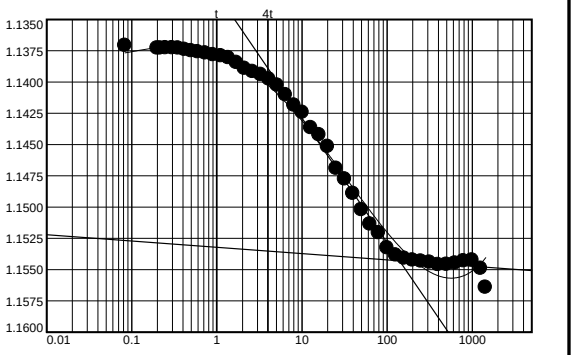


Void Ratio = 1.489 **Compression =** 1.7% >>> CALCULATED USING D_{100}
D_0 = 1.1222 **D_{50} =** 1.1281 **D_{100} =** 1.1340 **C_v at 12.68 min. =** 0.038 ft.^{2}/day **C_α =** 0.001

Figure B-131d

Pressure: 1000.00 psf | **TEST READINGS** | **Load No. 4**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.13311	24	12.7167	1.14367
2	0.0833	1.13709	25	15.9833	1.14424
3	0.2000	1.13730	26	20.0833	1.14517
4	0.2167	1.13730	27	25.2500	1.14692
5	0.2500	1.13729	28	31.7667	1.14778
6	0.3000	1.13728	29	39.9500	1.14892
7	0.3500	1.13730	30	50.2667	1.15023
8	0.4167	1.13741	31	63.2500	1.15138
9	0.5000	1.13752	32	79.5833	1.15207
10	0.6000	1.13761	33	100.1500	1.15328
11	0.7333	1.13770	34	126.0500	1.15386
12	0.9000	1.13784	35	158.6500	1.15410
13	1.1167	1.13793	36	199.6833	1.15425
14	1.3667	1.13808	37	251.3500	1.15435
15	1.7000	1.13846	38	316.4000	1.15443
16	2.1167	1.13892	39	398.2667	1.15462
17	2.6333	1.13918	40	501.3500	1.15460
18	3.2833	1.13941	41	631.1333	1.15450
19	4.1000	1.13978	42	794.5000	1.15432
20	5.1333	1.14027	43	1000.1833	1.15426
21	6.4333	1.14103	44	1259.1000	1.15492
22	8.0667	1.14187	45	1440.2500	1.15643
23	10.1333	1.14245			



Void Ratio = 1.437 **Compression =** 3.8% >>> CALCULATED USING D_{100}

D_0 = 1.1351 **D_{50} =** 1.1447 **D_{100} =** 1.1543 **C_V at 15.52 min. =** 0.030 $ft.^2/day$ **C_α =** 0.001

Pressure: 2000.00 psf | **TEST READINGS** | **Load No. 5**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.15542	12	0.9167	1.16042
2	0.1000	1.15761	13	1.1333	1.16104
3	0.2000	1.15868	14	1.3833	1.16161
4	0.2333	1.15872	15	1.7167	1.16194
5	0.2667	1.15888	16	2.1167	1.16238
6	0.3000	1.15890	17	2.6333	1.16349
7	0.3667	1.15920	18	3.3000	1.16443
8	0.4333	1.15933	19	4.1167	1.16522
9	0.5167	1.15944	20	5.1500	1.16664
10	0.6167	1.15973	21	6.4500	1.16785
11	0.7500	1.16005	22	8.0833	1.16911

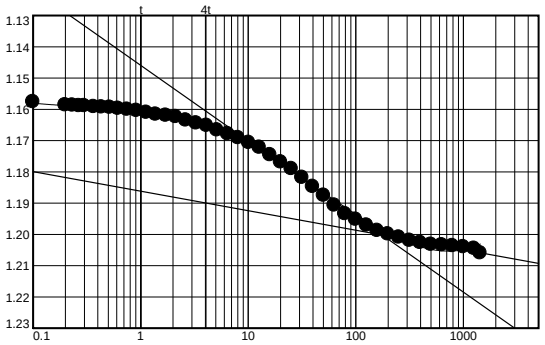


Figure B-131e

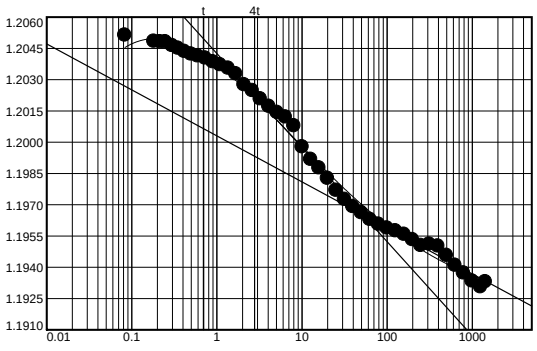
Pressure: 2000.00 psf | **TEST READINGS (continued)** | **Load No. 5**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1500	1.17064	33	100.1667	1.19526	43	1000.1833	1.20401
24	12.7333	1.17220	34	126.0667	1.19708	44	1259.1167	1.20455
25	16.0000	1.17459	35	158.6500	1.19881	45	1440.1833	1.20596
26	20.1000	1.17686	36	199.7000	1.19995			
27	25.2667	1.17900	37	251.3667	1.20095			
28	31.7833	1.18188	38	316.4000	1.20196			
29	39.9667	1.18473	39	398.2833	1.20266			
30	50.2833	1.18753	40	501.3667	1.20327			
31	63.2500	1.19070	41	631.1333	1.20339			
32	79.5833	1.19347	42	794.5167	1.20369			

Void Ratio = 1.321 **Compression =** 8.4% >>> CALCULATED USING D_{100}
D_0 = 1.1552 **D_{50} =** 1.1777 **D_{100} =** 1.2002 **C_v at 20.19 min. =** 0.022 ft.^{2}/day **C_α =** 0.006

Pressure: 500.00 psf | **TEST READINGS** | **Load No. 6**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.20758	24	12.7167	1.19916
2	0.0833	1.20512	25	15.9833	1.19876
3	0.1833	1.20483	26	20.0833	1.19825
4	0.2167	1.20481	27	25.2500	1.19768
5	0.2500	1.20481	28	31.7500	1.19724
6	0.3000	1.20463	29	39.9500	1.19690
7	0.3500	1.20450	30	50.2500	1.19661
8	0.4167	1.20434	31	63.2333	1.19628
9	0.5000	1.20422	32	79.5667	1.19605
10	0.6000	1.20413	33	100.1333	1.19587
11	0.7333	1.20402	34	126.0333	1.19574
12	0.9000	1.20385	35	158.6333	1.19557
13	1.1000	1.20370	36	199.6667	1.19531
14	1.3667	1.20354	37	251.3333	1.19503
15	1.6833	1.20327	38	316.3667	1.19509
16	2.1000	1.20275	39	398.2500	1.19501
17	2.6167	1.20246	40	501.3333	1.19456
18	3.2667	1.20207	41	631.1167	1.19409
19	4.1000	1.20171	42	794.4833	1.19371
20	5.1333	1.20142	43	1000.1500	1.19333
21	6.4333	1.20120	44	1259.0833	1.19305
22	8.0667	1.20077	45	1440.1500	1.19329
23	10.1167	1.19976			

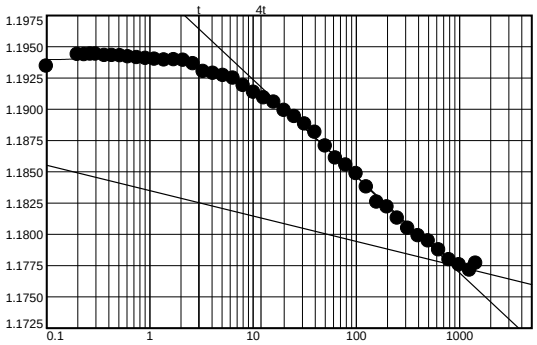


Void Ratio = 1.330 **Compression =** 8.0% >>> CALCULATED USING D_{100}
D_0 = 1.2062 **D_{50} =** 1.2014 **D_{100} =** 1.1965 **C_v at 4.24 min. =** 0.097 ft.^{2}/day

Figure B-131f

Pressure: 125.00 psf | **TEST READINGS** | **Load No. 7**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.19583	24	12.7333	1.19088
2	0.1000	1.19342	25	16.0000	1.19055
3	0.2000	1.19436	26	20.1000	1.18989
4	0.2333	1.19434	27	25.2667	1.18940
5	0.2667	1.19438	28	31.7833	1.18880
6	0.3000	1.19438	29	39.9667	1.18814
7	0.3667	1.19428	30	50.2667	1.18704
8	0.4333	1.19428	31	63.2500	1.18608
9	0.5167	1.19425	32	79.5833	1.18552
10	0.6167	1.19417	33	100.1667	1.18484
11	0.7500	1.19411	34	126.0500	1.18376
12	0.9167	1.19405	35	158.6500	1.18256
13	1.1167	1.19398	36	199.6833	1.18217
14	1.3833	1.19391	37	251.3500	1.18128
15	1.7167	1.19394	38	316.4000	1.18047
16	2.1167	1.19389	39	398.2667	1.17986
17	2.6333	1.19362	40	501.3500	1.17945
18	3.3000	1.19300	41	631.1333	1.17873
19	4.1167	1.19284	42	794.5000	1.17794
20	5.1500	1.19268	43	1000.1833	1.17755
21	6.4500	1.19247	44	1259.1167	1.17712
22	8.0833	1.19188	45	1440.1667	1.17767
23	10.1500	1.19134			



Void Ratio = 1.378 **Compression =** 6.1% >>> CALCULATED USING D_{100}

D_0 = 1.1959 **D_{50} =** 1.1867 **D_{100} =** 1.1776 **C_V at 54.27 min. =** 0.008 $ft.^2/day$

Pressure: 250.00 psf | **TEST READINGS** | **Load No. 8**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.17733	12	0.9000	1.17806
2	0.0833	1.17768	13	1.1167	1.17816
3	0.2000	1.17778	14	1.3667	1.17820
4	0.2167	1.17779	15	1.7000	1.17831
5	0.2500	1.17778	16	2.1167	1.17840
6	0.3000	1.17779	17	2.6333	1.17846
7	0.3500	1.17785	18	3.2833	1.17853
8	0.4167	1.17789	19	4.1000	1.17863
9	0.5000	1.17792	20	5.1333	1.17870
10	0.6000	1.17794	21	6.4333	1.17878
11	0.7333	1.17802	22	8.0667	1.17889

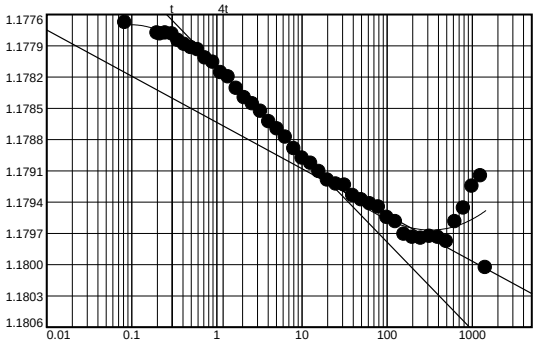


Figure B-131g

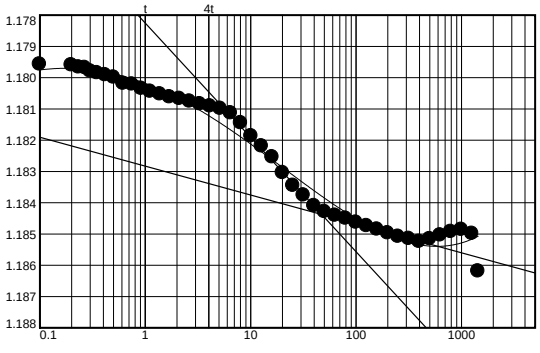
Pressure: 250.00 psf	TEST READINGS (continued)	Load No. 8

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	1.17898	33	100.1500	1.17955	43	1000.1833	1.17925
24	12.7167	1.17903	34	126.0500	1.17959	44	1259.1167	1.17915
25	15.9833	1.17911	35	158.6333	1.17971	45	1440.1667	1.18003
26	20.0833	1.17919	36	199.6833	1.17974			
27	25.2500	1.17923	37	251.3500	1.17975			
28	31.7667	1.17924	38	316.3833	1.17973			
29	39.9500	1.17934	39	398.2667	1.17974			
30	50.2500	1.17938	40	501.3667	1.17978			
31	63.2333	1.17942	41	631.1333	1.17959			
32	79.5833	1.17945	42	794.5167	1.17946			

Void Ratio = 1.374 **Compression =** 6.3% >>> CALCULATED USING D_{100}
D_0 = 1.1774 **D_{50} =** 1.1783 **D_{100} =** 1.1792 **C_v at 1.89 min. =** 0.229 ft.^{2}/day **C_α =** 0.000

Pressure: 500.00 psf	TEST READINGS	Load No. 9

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.17877	24	12.7333	1.18219
2	0.1000	1.17957	25	16.0000	1.18254
3	0.2000	1.17960	26	20.1000	1.18304
4	0.2333	1.17967	27	25.2667	1.18345
5	0.2667	1.17968	28	31.7667	1.18376
6	0.3000	1.17979	29	39.9667	1.18410
7	0.3500	1.17985	30	50.2667	1.18429
8	0.4167	1.17991	31	63.2500	1.18441
9	0.5000	1.17999	32	79.5833	1.18450
10	0.6167	1.18019	33	100.1500	1.18463
11	0.7500	1.18021	34	126.0500	1.18474
12	0.9167	1.18035	35	158.6500	1.18485
13	1.1167	1.18044	36	199.6833	1.18497
14	1.3833	1.18053	37	251.3500	1.18508
15	1.7000	1.18062	38	316.4000	1.18515
16	2.1167	1.18067	39	398.2667	1.18524
17	2.6333	1.18076	40	501.3500	1.18516
18	3.3000	1.18084	41	631.1333	1.18504
19	4.1167	1.18091	42	794.5000	1.18493
20	5.1500	1.18099	43	1000.1833	1.18486
21	6.4500	1.18113	44	1259.1167	1.18499
22	8.0833	1.18145	45	1440.3500	1.18619
23	10.1333	1.18187			

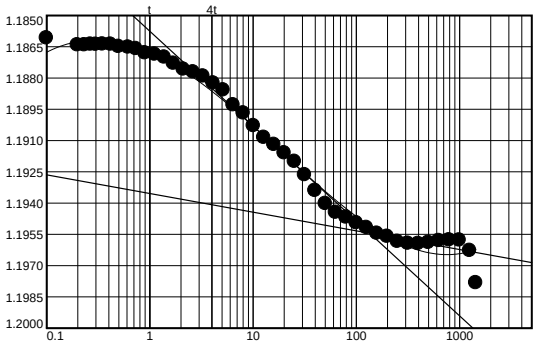


Void Ratio = 1.361 **Compression =** 6.8% >>> CALCULATED USING D_{100}
D_0 = 1.1792 **D_{50} =** 1.1818 **D_{100} =** 1.1844 **C_v at 7.07 min. =** 0.061 ft.^{2}/day **C_α =** 0.001

Figure B-131h

Pressure: 1000.00 psf | **TEST READINGS** | **Load No. 10**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.18438	24	12.7333	1.19086
2	0.1000	1.18609	25	15.9833	1.19120
3	0.2000	1.18642	26	20.1000	1.19160
4	0.2333	1.18642	27	25.2667	1.19201
5	0.2667	1.18639	28	31.7667	1.19265
6	0.3000	1.18640	29	39.9500	1.19341
7	0.3500	1.18638	30	50.2667	1.19403
8	0.4167	1.18639	31	63.2500	1.19446
9	0.5000	1.18650	32	79.5833	1.19468
10	0.6167	1.18653	33	100.1500	1.19496
11	0.7333	1.18660	34	126.0500	1.19519
12	0.9000	1.18680	35	158.6500	1.19546
13	1.1167	1.18687	36	199.6833	1.19561
14	1.3833	1.18701	37	251.3500	1.19585
15	1.7000	1.18731	38	316.3833	1.19594
16	2.1167	1.18758	39	398.2667	1.19595
17	2.6333	1.18772	40	501.3500	1.19590
18	3.2833	1.18792	41	631.1167	1.19581
19	4.1167	1.18825	42	794.5000	1.19578
20	5.1500	1.18858	43	1000.1667	1.19579
21	6.4500	1.18930	44	1259.1000	1.19628
22	8.0833	1.18969	45	1440.1000	1.19783
23	10.1333	1.19030			



Void Ratio = 1.333 **Compression =** 7.9% >>> CALCULATED USING D_{100}

D_0 = 1.1849 **D_{50} =** 1.1902 **D_{100} =** 1.1954 **C_V at 9.33 min. =** 0.045 ft.^{2}/day **C_α =** 0.001

Pressure: 2000.00 psf | **TEST READINGS** | **Load No. 11**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.19707	12	0.9167	1.20308
2	0.1000	1.20231	13	1.1167	1.20337
3	0.2000	1.20246	14	1.3833	1.20341
4	0.2333	1.20246	15	1.7000	1.20354
5	0.2667	1.20245	16	2.1167	1.20389
6	0.3000	1.20246	17	2.6333	1.20417
7	0.3667	1.20247	18	3.2833	1.20469
8	0.4167	1.20246	19	4.1167	1.20502
9	0.5167	1.20269	20	5.1500	1.20548
10	0.6167	1.20272	21	6.4500	1.20657
11	0.7500	1.20292	22	8.0833	1.20702

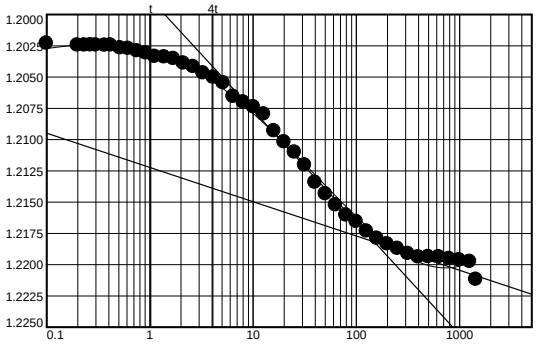


Figure B-131i

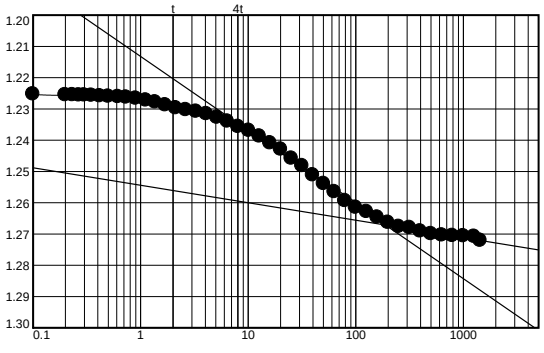
Pressure: 2000.00 psf | **TEST READINGS (continued)** | **Load No. 11**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	1.20739	33	100.1500	1.21656	43	1000.1667	1.21963
24	12.7167	1.20797	34	126.0500	1.21733	44	1259.1000	1.21976
25	15.9833	1.20932	35	158.6333	1.21791	45	1440.1500	1.22120
26	20.0833	1.21020	36	199.6833	1.21836			
27	25.2500	1.21102	37	251.3333	1.21871			
28	31.7667	1.21204	38	316.3833	1.21912			
29	39.9500	1.21343	39	398.2667	1.21940			
30	50.2667	1.21434	40	501.3500	1.21938			
31	63.2333	1.21525	41	631.1167	1.21939			
32	79.5833	1.21605	42	794.5000	1.21953			

Void Ratio = 1.275 **Compression =** 10.2% >>> CALCULATED USING D_{100}
D_0 = 1.2005 **D_{50} =** 1.2094 **D_{100} =** 1.2182 **C_v at 15.45 min. =** 0.026 ft.^{2}/day **C_α =** 0.003

Pressure: 4000.00 psf | **TEST READINGS** | **Load No. 12**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.21991	24	12.7333	1.23877
2	0.1000	1.22529	25	15.9833	1.24093
3	0.2000	1.22551	26	20.1000	1.24290
4	0.2333	1.22552	27	25.2667	1.24580
5	0.2667	1.22558	28	31.7667	1.24825
6	0.3000	1.22563	29	39.9500	1.25116
7	0.3500	1.22574	30	50.2667	1.25393
8	0.4167	1.22586	31	63.2500	1.25653
9	0.5000	1.22600	32	79.5833	1.25936
10	0.6167	1.22610	33	100.1500	1.26150
11	0.7333	1.22631	34	126.0500	1.26290
12	0.9000	1.22662	35	158.6500	1.26468
13	1.1167	1.22725	36	199.6833	1.26634
14	1.3667	1.22784	37	251.3500	1.26766
15	1.7000	1.22874	38	316.3833	1.26798
16	2.1167	1.22969	39	398.2667	1.26910
17	2.6333	1.23028	40	501.3500	1.26993
18	3.2833	1.23081	41	631.1333	1.27041
19	4.1000	1.23162	42	794.5000	1.27053
20	5.1333	1.23274	43	1000.1833	1.27061
21	6.4333	1.23399	44	1259.1000	1.27083
22	8.0667	1.23566	45	1440.3000	1.27213
23	10.1333	1.23692			

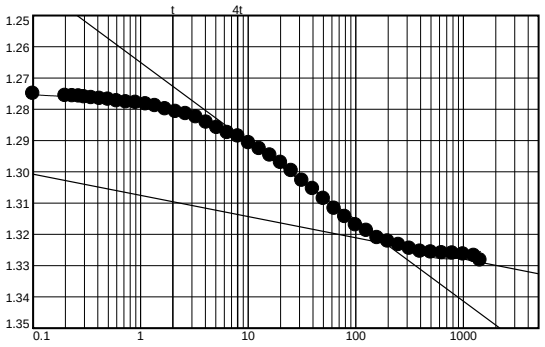


Void Ratio = 1.151 **Compression =** 15.1% >>> CALCULATED USING D_{100}
D_0 = 1.2210 **D_{50} =** 1.2440 **D_{100} =** 1.2671 **C_v at 20.24 min. =** 0.019 ft.^{2}/day **C_α =** 0.006

Figure B-131j

Pressure: 8000.00 psf	TEST READINGS	Load No. 13

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.26974	24	12.7167	1.29266
2	0.1000	1.27502	25	15.9667	1.29474
3	0.2000	1.27566	26	20.0833	1.29706
4	0.2333	1.27575	27	25.2500	1.29969
5	0.2667	1.27588	28	31.7500	1.30283
6	0.3000	1.27611	29	39.9500	1.30544
7	0.3500	1.27633	30	50.2500	1.30862
8	0.4167	1.27663	31	63.2333	1.31178
9	0.5000	1.27686	32	79.5833	1.31439
10	0.6000	1.27738	33	100.1500	1.31701
11	0.7333	1.27769	34	126.0333	1.31880
12	0.9000	1.27787	35	158.6333	1.32111
13	1.1167	1.27837	36	199.6833	1.32224
14	1.3667	1.27892	37	251.3500	1.32332
15	1.7000	1.27993	38	316.3833	1.32458
16	2.1167	1.28077	39	398.2667	1.32551
17	2.6333	1.28150	40	501.3500	1.32575
18	3.2833	1.28252	41	631.1167	1.32599
19	4.1000	1.28421	42	794.5000	1.32610
20	5.1333	1.28588	43	1000.1833	1.32638
21	6.4333	1.28757	44	1259.1000	1.32685
22	8.0667	1.28865	45	1440.2833	1.32834
23	10.1167	1.29075			



Void Ratio = 1.010 **Compression =** 20.6% >>> CALCULATED USING D_{100}

D_0 = 1.2714 **D_{50} =** 1.2972 **D_{100} =** 1.3230 **C_V at 18.50 min. =** 0.018 $ft.^2/day$ **C_α =** 0.007

Pressure: 16000.00 psf	TEST READINGS	Load No. 14

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.32513	12	0.9167	1.33297
2	0.1000	1.32909	13	1.1167	1.33327
3	0.2000	1.32967	14	1.3833	1.33384
4	0.2333	1.32997	15	1.7167	1.33464
5	0.2667	1.33049	16	2.1167	1.33586
6	0.3000	1.33073	17	2.6500	1.33658
7	0.3667	1.33110	18	3.3000	1.33826
8	0.4333	1.33148	19	4.1167	1.33953
9	0.5167	1.33173	20	5.1500	1.34042
10	0.6167	1.33212	21	6.4500	1.34203
11	0.7500	1.33260	22	8.0833	1.34414

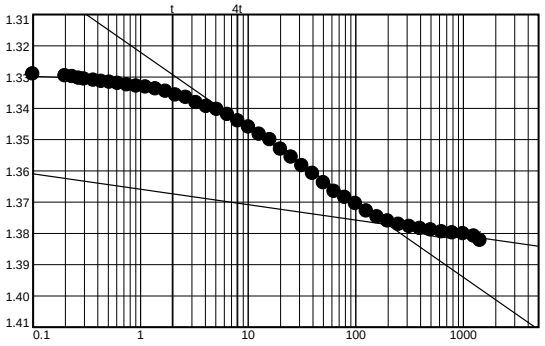


Figure B-131k

Pressure: 16000.00 psf	TEST READINGS (continued)	Load No. 14

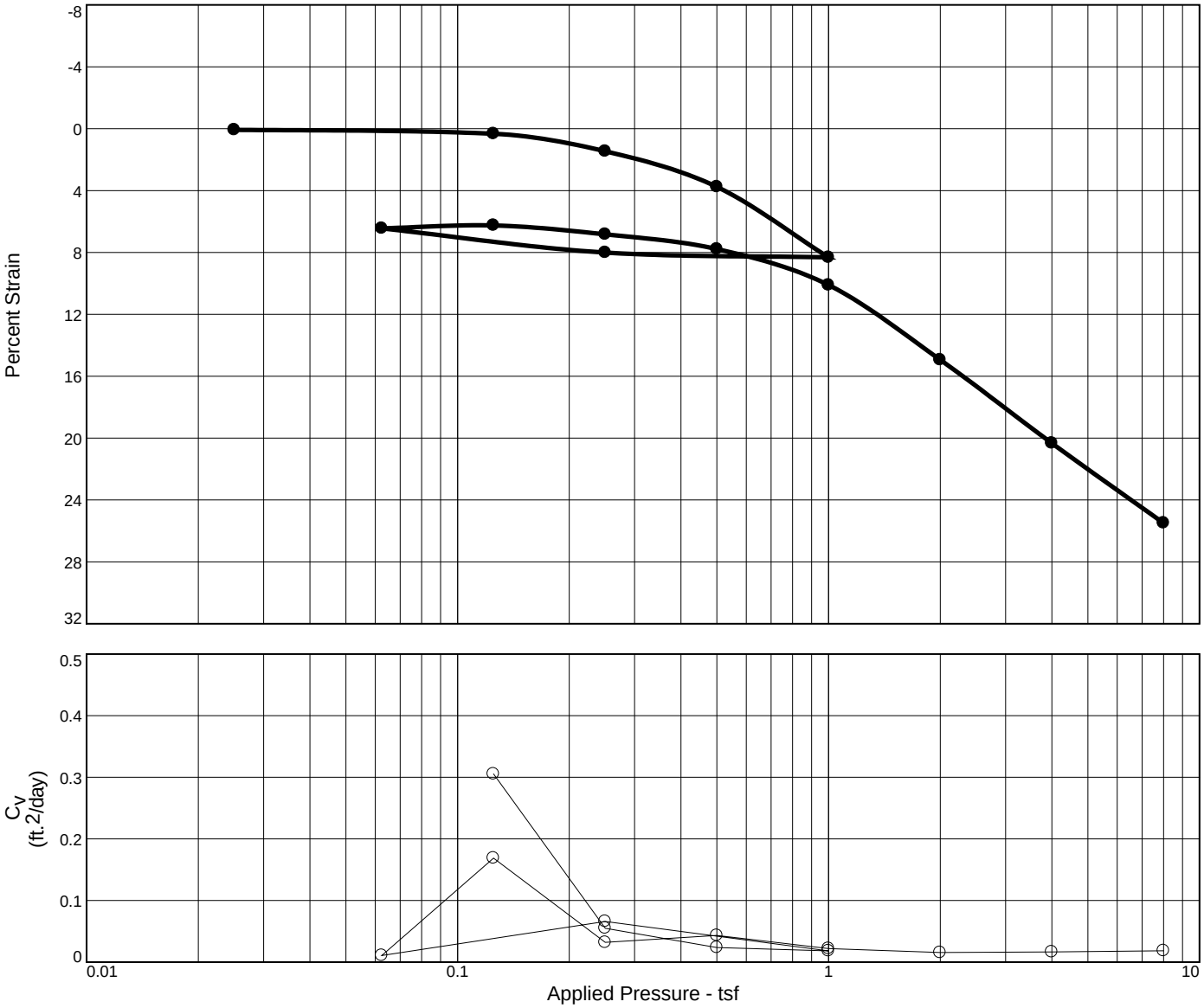
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	1.34607	33	100.1500	1.37053	43	1000.1833	1.38019
24	12.7333	1.34833	34	126.0500	1.37295	44	1259.1167	1.38095
25	15.9833	1.35012	35	158.6500	1.37479	45	1440.3333	1.38229
26	20.1000	1.35312	36	199.6833	1.37613			
27	25.2667	1.35569	37	251.3500	1.37717			
28	31.7667	1.35840	38	316.4000	1.37790			
29	39.9500	1.36092	39	398.2833	1.37852			
30	50.2667	1.36389	40	501.3667	1.37901			
31	63.2500	1.36666	41	631.1333	1.37956			
32	79.5833	1.36857	42	794.5167	1.37991			

Void Ratio = 0.873 **Compression =** 26.1% >>> CALCULATED USING D_{100}

D_0 = 1.3263 **D_{50} =** 1.3517 **D_{100} =** 1.3772 **C_v at 17.15 min. =** 0.017 $ft.^2/day$ **C_α =** 0.005

Figure B-131I

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	P_c (tsf)	C_c	Initial Void Ratio
Saturation	Moisture							
101.6 %	57.8 %	66.4	75	45	2.693	0.6	0.48	1.533

MATERIAL DESCRIPTION	USCS	AASHTO
Soft gray clay with sand lenses	(CH)	

Project No. 18274-022-01 **Client:** CEC

Project: Chandeleur Island Restoration Project (PO-0199)

Location: CI-06 sqrt **Depth:** 38-40

Remarks:
Specific gravity measured.

GeoEngineers

Figure B-132a

Tested By: Dustin Blanchard **Checked By:** J. Aguettant

CONSOLIDATION TEST DATA

12/22/2023

Client: CEC
Project: Chandeleur Island Restoration Project (PO-0199)
Project Number: 18274-022-01
Location: CI-06 sqrt
Depth: 38-40
Material Description: Soft gray clay with sand lenses
Liquid Limit: 75 **Plasticity Index:** 45
USCS: (CH)
Testing Remarks: Specific gravity measured.
Tested by: Dustin Blanchard **Checked by:** J. Aguettant

Test Specimen Data

NATURAL MOISTURE		VOID RATIO		AFTER TEST	
Wet w+t =	127.89 g.	Spec. Gr. =	2.693	Wet w+t =	160.80 g.
Dry w+t =	87.59 g.	Est. Ht. Solids =	0.395 in.	Dry w+t =	123.40 g.
Tare Wt. =	17.86 g.	Init. V.R. =	1.533	Tare Wt. =	37.08 g.
Moisture =	57.8 %	Init. Sat. =	101.6 %	Moisture =	43.3 %

UNIT WEIGHT		TEST START			
Height =	1.000 in.	Height =	1.000 in.	Dry Wt. =	86.32 g.
Diameter =	2.500 in.	Diameter =	2.500 in.		
Weight =	134.97 g.				
Dry Dens. =	66.4 pcf				

End-Of-Load Summary

Pressure (psf)	Final Dial (in.)	Deformation (in.)	C_v (ft.^{2}/day)	C_α	Void Ratio	% Strain
start	1.11661	0.00000			1.533	
50.00	1.11785	0.00074*			1.531	0.1 Comprs.
250.00	1.12300	0.00328*	0.305		1.525	0.3 Comprs.
500.00	1.13544	0.01457*	0.055		1.496	1.5 Comprs.
1000.00	1.15643	0.03760*	0.024		1.437	3.8 Comprs.
2000.00	1.20596	0.08316*	0.018		1.322	8.3 Comprs.
500.00	1.19329	0.08006*	0.066		1.330	8.0 Comprs.
125.00	1.17767	0.06444*	0.011		1.369	6.4 Comprs.
250.00	1.18003	0.06253*	0.169		1.374	6.3 Comprs.
500.00	1.18619	0.06829*	0.032		1.360	6.8 Comprs.
1000.00	1.19783	0.07782*	0.043		1.335	7.8 Comprs.
2000.00	1.22120	0.10106*	0.022		1.277	10.1 Comprs.
4000.00	1.27213	0.14938*	0.016		1.154	14.9 Comprs.
8000.00	1.32834	0.20334*	0.016		1.018	20.3 Comprs.
16000.00	1.38229	0.25495*	0.018		0.887	25.5 Comprs.

***CALCULATED USING D_{100} INSTEAD OF FINAL READING**

Compression index (C_c), tsf = 0.48 **Preconsolidation pressure (P_p), tsf =** 0.6 **Void ratio at P_p (e_m) =** 1.423
Recompression index (C_r) = 0.15

Figure B-132b

Pressure: 50.00 psf	TEST READINGS	Load No. 1

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.11661	16	2.4667	1.11663	31	79.4000	1.11728
2	0.0333	1.11661	17	3.1167	1.11663	32	99.9667	1.11728
3	0.0667	1.11662	18	3.9333	1.11661	33	125.8667	1.11730
4	0.1000	1.11660	19	4.9667	1.11672	34	158.4667	1.11734
5	0.1333	1.11661	20	6.2667	1.11680	35	199.5000	1.11742
6	0.1833	1.11661	21	7.9000	1.11690	36	251.1667	1.11732
7	0.2500	1.11663	22	9.9667	1.11688	37	316.2167	1.11716
8	0.3333	1.11662	23	12.5500	1.11691	38	398.1000	1.11687
9	0.4500	1.11662	24	15.8167	1.11693	39	501.1667	1.11701
10	0.5667	1.11661	25	19.9167	1.11697	40	630.9500	1.11697
11	0.7333	1.11661	26	25.0833	1.11700	41	794.3167	1.11692
12	0.9500	1.11663	27	31.5833	1.11703	42	1000.0000	1.11705
13	1.2000	1.11662	28	39.7833	1.11705	43	1258.9333	1.11717
14	1.5333	1.11662	29	50.0833	1.11712	44	1440.3000	1.11785
15	1.9500	1.11660	30	63.0667	1.11721			

Void Ratio = 1.531 **Compression =** 0.1%

Pressure: 250.00 psf	TEST READINGS	Load No. 2

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.11721	21	6.4333	1.11964
2	0.1000	1.11738	22	8.0667	1.11981
3	0.2000	1.11791	23	10.1333	1.11991
4	0.2167	1.11802	24	12.7167	1.12005
5	0.2500	1.11807	25	15.9833	1.12022
6	0.3000	1.11818	26	20.0833	1.12040
7	0.3500	1.11823	27	25.2500	1.12069
8	0.4167	1.11831	28	31.7667	1.12096
9	0.5000	1.11839	29	39.9500	1.12118
10	0.6000	1.11846	30	50.2667	1.12128
11	0.7333	1.11859	31	63.2333	1.12157
12	0.9000	1.11868	32	79.5833	1.12175
13	1.1167	1.11880	33	100.1500	1.12207
14	1.3667	1.11887	34	126.0333	1.12231
15	1.7000	1.11893	35	158.6333	1.12247
16	2.1167	1.11902	36	199.6833	1.12261
17	2.6333	1.11917	37	251.3500	1.12259
18	3.2833	1.11932	38	316.3833	1.12264
19	4.1000	1.11944	39	398.2667	1.12268
20	5.1333	1.11950	40	501.3500	1.12263

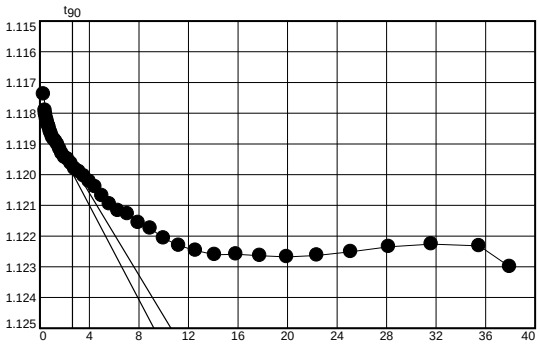


Figure B-132c

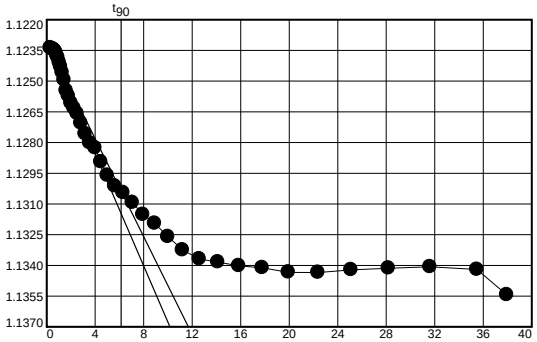
Pressure: 250.00 psf	TEST READINGS (continued)	Load No. 2

No.	Elapsed Time	Dial Reading
41	631.1167	1.12251
42	794.4833	1.12235
43	1000.1667	1.12226
44	1259.1000	1.12232
45	1440.2667	1.12300

Void Ratio = 1.525 **Compression =** 0.3% >>> CALCULATED USING D_{100}
D_0 = 1.1179 **D_{90} =** 1.1197 **D_{100} =** 1.1199 **C_v at 6.91 min. =** 0.305 $ft.^2/day$

Pressure: 500.00 psf	TEST READINGS	Load No. 3

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.12211	24	12.7333	1.12802
2	0.1000	1.12338	25	15.9833	1.12827
3	0.2000	1.12343	26	20.1000	1.12895
4	0.2333	1.12342	27	25.2667	1.12961
5	0.2667	1.12345	28	31.7667	1.13013
6	0.3000	1.12347	29	39.9500	1.13045
7	0.3500	1.12347	30	50.2667	1.13094
8	0.4167	1.12349	31	63.2500	1.13152
9	0.5000	1.12354	32	79.5833	1.13195
10	0.6167	1.12360	33	100.1500	1.13260
11	0.7500	1.12376	34	126.0500	1.13325
12	0.9167	1.12385	35	158.6500	1.13369
13	1.1167	1.12408	36	199.6833	1.13384
14	1.3833	1.12429	37	251.3500	1.13402
15	1.7000	1.12458	38	316.4000	1.13412
16	2.1167	1.12494	39	398.2833	1.13434
17	2.6333	1.12546	40	501.3667	1.13435
18	3.2833	1.12572	41	631.1333	1.13422
19	4.1167	1.12608	42	794.5000	1.13414
20	5.1500	1.12633	43	1000.1833	1.13407
21	6.4500	1.12658	44	1259.1167	1.13420
22	8.0833	1.12705	45	1440.2167	1.13544
23	10.1333	1.12757			

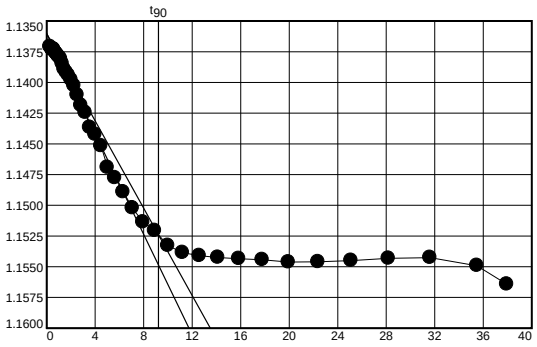


Void Ratio = 1.496 **Compression =** 1.5% >>> CALCULATED USING D_{100}
D_0 = 1.1230 **D_{90} =** 1.1304 **D_{100} =** 1.1312 **C_v at 37.75 min. =** 0.055 $ft.^2/day$

Figure B-132d

Pressure: 1000.00 psf | **TEST READINGS** | **Load No. 4**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.13311	24	12.7167	1.14367
2	0.0833	1.13709	25	15.9833	1.14424
3	0.2000	1.13730	26	20.0833	1.14517
4	0.2167	1.13730	27	25.2500	1.14692
5	0.2500	1.13729	28	31.7667	1.14778
6	0.3000	1.13728	29	39.9500	1.14892
7	0.3500	1.13730	30	50.2667	1.15023
8	0.4167	1.13741	31	63.2500	1.15138
9	0.5000	1.13752	32	79.5833	1.15207
10	0.6000	1.13761	33	100.1500	1.15328
11	0.7333	1.13770	34	126.0500	1.15386
12	0.9000	1.13784	35	158.6500	1.15410
13	1.1167	1.13793	36	199.6833	1.15425
14	1.3667	1.13808	37	251.3500	1.15435
15	1.7000	1.13846	38	316.4000	1.15443
16	2.1167	1.13892	39	398.2667	1.15462
17	2.6333	1.13918	40	501.3500	1.15460
18	3.2833	1.13941	41	631.1333	1.15450
19	4.1000	1.13978	42	794.5000	1.15432
20	5.1333	1.14027	43	1000.1833	1.15426
21	6.4333	1.14103	44	1259.1000	1.15492
22	8.0667	1.14187	45	1440.2500	1.15643
23	10.1333	1.14245			



Void Ratio = 1.437 **Compression =** 3.8% >>> CALCULATED USING D_{100}

D_0 = 1.1360 **D_{90} =** 1.1524 **D_{100} =** 1.1542 **C_V at 84.86 min. =** 0.024 $ft.^2/day$

Pressure: 2000.00 psf | **TEST READINGS** | **Load No. 5**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.15542	12	0.9167	1.16042
2	0.1000	1.15761	13	1.1333	1.16104
3	0.2000	1.15868	14	1.3833	1.16161
4	0.2333	1.15872	15	1.7167	1.16194
5	0.2667	1.15888	16	2.1167	1.16238
6	0.3000	1.15890	17	2.6333	1.16349
7	0.3667	1.15920	18	3.3000	1.16443
8	0.4333	1.15933	19	4.1167	1.16522
9	0.5167	1.15944	20	5.1500	1.16664
10	0.6167	1.15973	21	6.4500	1.16785
11	0.7500	1.16005	22	8.0833	1.16911

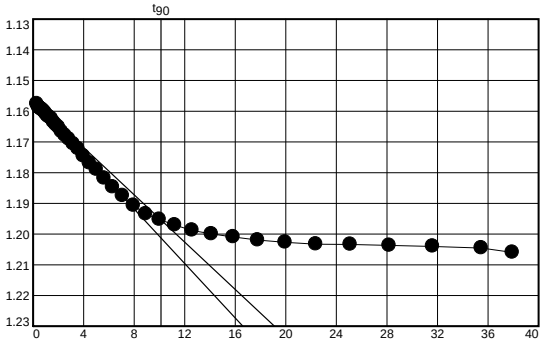


Figure B-132e

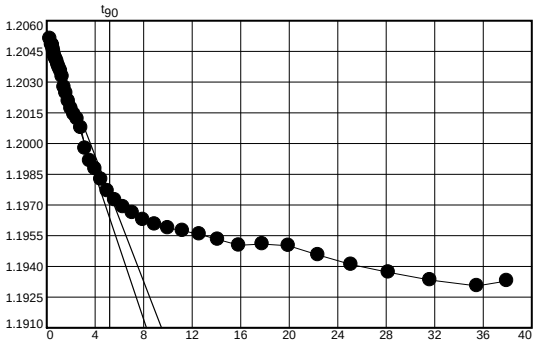
Pressure: 2000.00 psf	TEST READINGS (continued)	Load No. 5

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1500	1.17064	33	100.1667	1.19526	43	1000.1833	1.20401
24	12.7333	1.17220	34	126.0667	1.19708	44	1259.1167	1.20455
25	16.0000	1.17459	35	158.6500	1.19881	45	1440.1833	1.20596
26	20.1000	1.17686	36	199.7000	1.19995			
27	25.2667	1.17900	37	251.3667	1.20095			
28	31.7833	1.18188	38	316.4000	1.20196			
29	39.9667	1.18473	39	398.2833	1.20266			
30	50.2833	1.18753	40	501.3667	1.20327			
31	63.2500	1.19070	41	631.1333	1.20339			
32	79.5833	1.19347	42	794.5167	1.20369			

Void Ratio = 1.322 **Compression =** 8.3% >>> CALCULATED USING D_{100}
D_0 = 1.1564 **D_{90} =** 1.1954 **D_{100} =** 1.1998 **C_V at 102.54 min. =** 0.018 $ft.^2$/day

Pressure: 500.00 psf	TEST READINGS	Load No. 6

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.20758	24	12.7167	1.19916
2	0.0833	1.20512	25	15.9833	1.19876
3	0.1833	1.20483	26	20.0833	1.19825
4	0.2167	1.20481	27	25.2500	1.19768
5	0.2500	1.20481	28	31.7500	1.19724
6	0.3000	1.20463	29	39.9500	1.19690
7	0.3500	1.20450	30	50.2500	1.19661
8	0.4167	1.20434	31	63.2333	1.19628
9	0.5000	1.20422	32	79.5667	1.19605
10	0.6000	1.20413	33	100.1333	1.19587
11	0.7333	1.20402	34	126.0333	1.19574
12	0.9000	1.20385	35	158.6333	1.19557
13	1.1000	1.20370	36	199.6667	1.19531
14	1.3667	1.20354	37	251.3333	1.19503
15	1.6833	1.20327	38	316.3667	1.19509
16	2.1000	1.20275	39	398.2500	1.19501
17	2.6167	1.20246	40	501.3333	1.19456
18	3.2667	1.20207	41	631.1167	1.19409
19	4.1000	1.20171	42	794.4833	1.19371
20	5.1333	1.20142	43	1000.1500	1.19333
21	6.4333	1.20120	44	1259.0833	1.19305
22	8.0667	1.20077	45	1440.1500	1.19329
23	10.1167	1.19976			

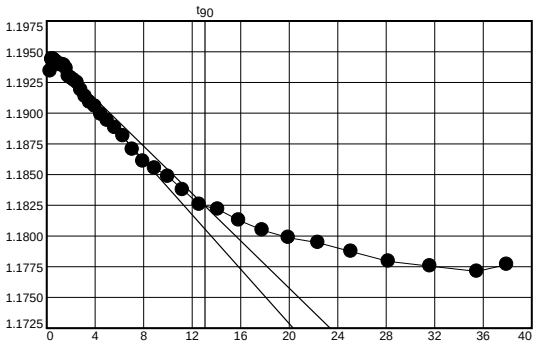


Void Ratio = 1.330 **Compression =** 8.0% >>> CALCULATED USING D_{100}
D_0 = 1.2055 **D_{90} =** 1.1976 **D_{100} =** 1.1967 **C_V at 26.95 min. =** 0.066 $ft.^2$/day

Figure B-132f

Pressure: 125.00 psf | **TEST READINGS** | **Load No. 7**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.19583	24	12.7333	1.19088
2	0.1000	1.19342	25	16.0000	1.19055
3	0.2000	1.19436	26	20.1000	1.18989
4	0.2333	1.19434	27	25.2667	1.18940
5	0.2667	1.19438	28	31.7833	1.18880
6	0.3000	1.19438	29	39.9667	1.18814
7	0.3667	1.19428	30	50.2667	1.18704
8	0.4333	1.19428	31	63.2500	1.18608
9	0.5167	1.19425	32	79.5833	1.18552
10	0.6167	1.19417	33	100.1667	1.18484
11	0.7500	1.19411	34	126.0500	1.18376
12	0.9167	1.19405	35	158.6500	1.18256
13	1.1167	1.19398	36	199.6833	1.18217
14	1.3833	1.19391	37	251.3500	1.18128
15	1.7167	1.19394	38	316.4000	1.18047
16	2.1167	1.19389	39	398.2667	1.17986
17	2.6333	1.19362	40	501.3500	1.17945
18	3.3000	1.19300	41	631.1333	1.17873
19	4.1167	1.19284	42	794.5000	1.17794
20	5.1500	1.19268	43	1000.1833	1.17755
21	6.4500	1.19247	44	1259.1167	1.17712
22	8.0833	1.19188	45	1440.1667	1.17767
23	10.1500	1.19134			



Void Ratio = 1.369 **Compression =** 6.4% >>> CALCULATED USING D_{100}

D_0 = 1.1950 **D_{90} =** 1.1824 **D_{100} =** 1.1810 **C_v at 170.38 min. =** 0.011 ft.^{2}/day

Pressure: 250.00 psf | **TEST READINGS** | **Load No. 8**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.17733	12	0.9000	1.17806
2	0.0833	1.17768	13	1.1167	1.17816
3	0.2000	1.17778	14	1.3667	1.17820
4	0.2167	1.17779	15	1.7000	1.17831
5	0.2500	1.17778	16	2.1167	1.17840
6	0.3000	1.17779	17	2.6333	1.17846
7	0.3500	1.17785	18	3.2833	1.17853
8	0.4167	1.17789	19	4.1000	1.17863
9	0.5000	1.17792	20	5.1333	1.17870
10	0.6000	1.17794	21	6.4333	1.17878
11	0.7333	1.17802	22	8.0667	1.17889

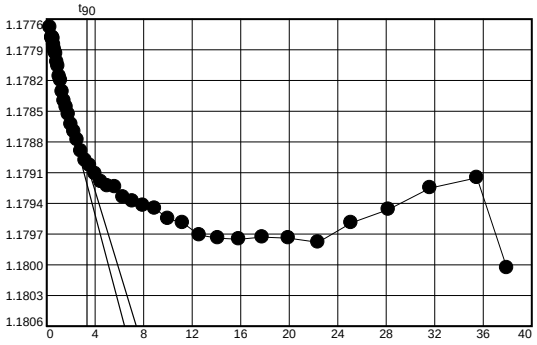


Figure B-132g

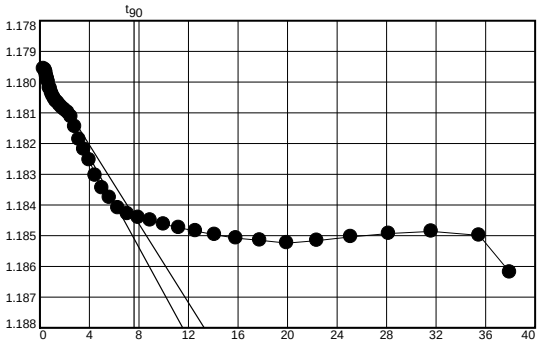
Pressure: 250.00 psf	TEST READINGS (continued)	Load No. 8

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	1.17898	33	100.1500	1.17955	43	1000.1833	1.17925
24	12.7167	1.17903	34	126.0500	1.17959	44	1259.1167	1.17915
25	15.9833	1.17911	35	158.6333	1.17971	45	1440.1667	1.18003
26	20.0833	1.17919	36	199.6833	1.17974			
27	25.2500	1.17923	37	251.3500	1.17975			
28	31.7667	1.17924	38	316.3833	1.17973			
29	39.9500	1.17934	39	398.2667	1.17974			
30	50.2500	1.17938	40	501.3667	1.17978			
31	63.2333	1.17942	41	631.1333	1.17959			
32	79.5833	1.17945	42	794.5167	1.17946			

Void Ratio = 1.374 **Compression =** 6.3% >>> CALCULATED USING D_{100}
D_0 = 1.1777 **D_{90} =** 1.1790 **D_{100} =** 1.1791 **C_V at 11.06 min. =** 0.169 $ft.^2/day$

Pressure: 500.00 psf	TEST READINGS	Load No. 9

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.17877	24	12.7333	1.18219
2	0.1000	1.17957	25	16.0000	1.18254
3	0.2000	1.17960	26	20.1000	1.18304
4	0.2333	1.17967	27	25.2667	1.18345
5	0.2667	1.17968	28	31.7667	1.18376
6	0.3000	1.17979	29	39.9667	1.18410
7	0.3500	1.17985	30	50.2667	1.18429
8	0.4167	1.17991	31	63.2500	1.18441
9	0.5000	1.17999	32	79.5833	1.18450
10	0.6167	1.18019	33	100.1500	1.18463
11	0.7500	1.18021	34	126.0500	1.18474
12	0.9167	1.18035	35	158.6500	1.18485
13	1.1167	1.18044	36	199.6833	1.18497
14	1.3833	1.18053	37	251.3500	1.18508
15	1.7000	1.18062	38	316.4000	1.18515
16	2.1167	1.18067	39	398.2667	1.18524
17	2.6333	1.18076	40	501.3500	1.18516
18	3.3000	1.18084	41	631.1333	1.18504
19	4.1167	1.18091	42	794.5000	1.18493
20	5.1500	1.18099	43	1000.1833	1.18486
21	6.4500	1.18113	44	1259.1167	1.18499
22	8.0833	1.18145	45	1440.3500	1.18619
23	10.1333	1.18187			

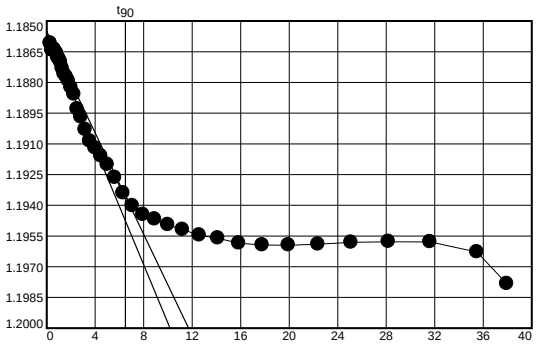


Void Ratio = 1.360 **Compression =** 6.8% >>> CALCULATED USING D_{100}
D_0 = 1.1795 **D_{90} =** 1.1844 **D_{100} =** 1.1849 **C_V at 57.82 min. =** 0.032 $ft.^2/day$

Figure B-132h

Pressure: 1000.00 psf	TEST READINGS	Load No. 10

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.18438	24	12.7333	1.19086
2	0.1000	1.18609	25	15.9833	1.19120
3	0.2000	1.18642	26	20.1000	1.19160
4	0.2333	1.18642	27	25.2667	1.19201
5	0.2667	1.18639	28	31.7667	1.19265
6	0.3000	1.18640	29	39.9500	1.19341
7	0.3500	1.18638	30	50.2667	1.19403
8	0.4167	1.18639	31	63.2500	1.19446
9	0.5000	1.18650	32	79.5833	1.19468
10	0.6167	1.18653	33	100.1500	1.19496
11	0.7333	1.18660	34	126.0500	1.19519
12	0.9000	1.18680	35	158.6500	1.19546
13	1.1167	1.18687	36	199.6833	1.19561
14	1.3833	1.18701	37	251.3500	1.19585
15	1.7000	1.18731	38	316.3833	1.19594
16	2.1167	1.18758	39	398.2667	1.19595
17	2.6333	1.18772	40	501.3500	1.19590
18	3.2833	1.18792	41	631.1167	1.19581
19	4.1167	1.18825	42	794.5000	1.19578
20	5.1500	1.18858	43	1000.1667	1.19579
21	6.4500	1.18930	44	1259.1000	1.19628
22	8.0833	1.18969	45	1440.1000	1.19783
23	10.1333	1.19030			



Void Ratio = 1.335 **Compression =** 7.8% >>> CALCULATED USING D_{100}

D_0 = 1.1855 **D_{90} =** 1.1935 **D_{100} =** 1.1944 **C_v at 42.06 min. =** 0.043 $ft.^2/day$

Pressure: 2000.00 psf	TEST READINGS	Load No. 11

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.19707	12	0.9167	1.20308
2	0.1000	1.20231	13	1.1167	1.20337
3	0.2000	1.20246	14	1.3833	1.20341
4	0.2333	1.20246	15	1.7000	1.20354
5	0.2667	1.20245	16	2.1167	1.20389
6	0.3000	1.20246	17	2.6333	1.20417
7	0.3667	1.20247	18	3.2833	1.20469
8	0.4167	1.20246	19	4.1167	1.20502
9	0.5167	1.20269	20	5.1500	1.20548
10	0.6167	1.20272	21	6.4500	1.20657
11	0.7500	1.20292	22	8.0833	1.20702

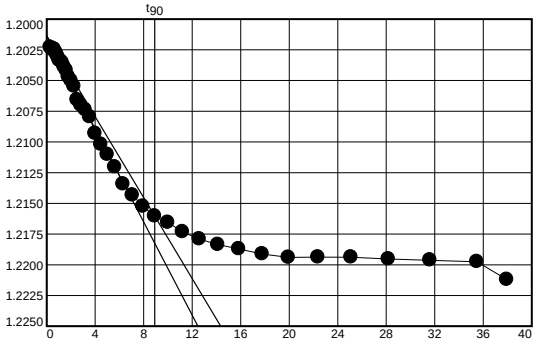


Figure B-132i

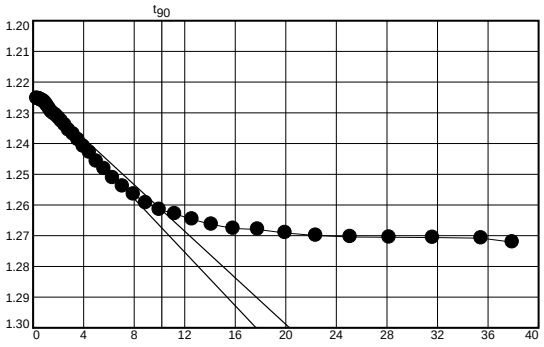
Pressure: 2000.00 psf | **TEST READINGS (continued)** | **Load No. 11**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	1.20739	33	100.1500	1.21656	43	1000.1667	1.21963
24	12.7167	1.20797	34	126.0500	1.21733	44	1259.1000	1.21976
25	15.9833	1.20932	35	158.6333	1.21791	45	1440.1500	1.22120
26	20.0833	1.21020	36	199.6833	1.21836			
27	25.2500	1.21102	37	251.3333	1.21871			
28	31.7667	1.21204	38	316.3833	1.21912			
29	39.9500	1.21343	39	398.2667	1.21940			
30	50.2667	1.21434	40	501.3500	1.21938			
31	63.2333	1.21525	41	631.1167	1.21939			
32	79.5833	1.21605	42	794.5000	1.21953			

Void Ratio = 1.277 **Compression =** 10.1% >>> CALCULATED USING D_{100}
D_0 = 1.2014 **D_{90} =** 1.2160 **D_{100} =** 1.2177 **C_V at 79.37 min. =** 0.022 $ft.^2/day$

Pressure: 4000.00 psf | **TEST READINGS** | **Load No. 12**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.21991	24	12.7333	1.23877
2	0.1000	1.22529	25	15.9833	1.24093
3	0.2000	1.22551	26	20.1000	1.24290
4	0.2333	1.22552	27	25.2667	1.24580
5	0.2667	1.22558	28	31.7667	1.24825
6	0.3000	1.22563	29	39.9500	1.25116
7	0.3500	1.22574	30	50.2667	1.25393
8	0.4167	1.22586	31	63.2500	1.25653
9	0.5000	1.22600	32	79.5833	1.25936
10	0.6167	1.22610	33	100.1500	1.26150
11	0.7333	1.22631	34	126.0500	1.26290
12	0.9000	1.22662	35	158.6500	1.26468
13	1.1167	1.22725	36	199.6833	1.26634
14	1.3667	1.22784	37	251.3500	1.26766
15	1.7000	1.22874	38	316.3833	1.26798
16	2.1167	1.22969	39	398.2667	1.26910
17	2.6333	1.23028	40	501.3500	1.26993
18	3.2833	1.23081	41	631.1333	1.27041
19	4.1000	1.23162	42	794.5000	1.27053
20	5.1333	1.23274	43	1000.1833	1.27061
21	6.4333	1.23399	44	1259.1000	1.27083
22	8.0667	1.23566	45	1440.3000	1.27213
23	10.1333	1.23692			

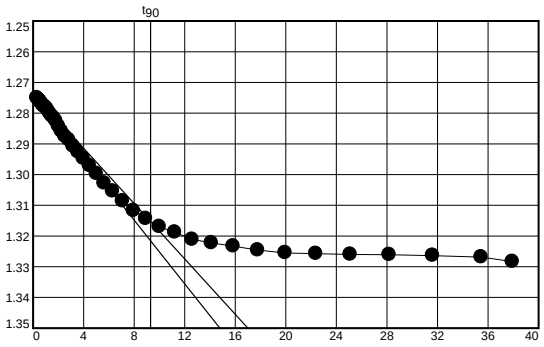


Void Ratio = 1.154 **Compression =** 14.9% >>> CALCULATED USING D_{100}
D_0 = 1.2231 **D_{90} =** 1.2617 **D_{100} =** 1.2660 **C_V at 103.69 min. =** 0.016 $ft.^2/day$

Figure B-132j

Pressure: 8000.00 psf	TEST READINGS	Load No. 13

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.26974	24	12.7167	1.29266
2	0.1000	1.27502	25	15.9667	1.29474
3	0.2000	1.27566	26	20.0833	1.29706
4	0.2333	1.27575	27	25.2500	1.29969
5	0.2667	1.27588	28	31.7500	1.30283
6	0.3000	1.27611	29	39.9500	1.30544
7	0.3500	1.27633	30	50.2500	1.30862
8	0.4167	1.27663	31	63.2333	1.31178
9	0.5000	1.27686	32	79.5833	1.31439
10	0.6000	1.27738	33	100.1500	1.31701
11	0.7333	1.27769	34	126.0333	1.31880
12	0.9000	1.27787	35	158.6333	1.32111
13	1.1167	1.27837	36	199.6833	1.32224
14	1.3667	1.27892	37	251.3500	1.32332
15	1.7000	1.27993	38	316.3833	1.32458
16	2.1167	1.28077	39	398.2667	1.32551
17	2.6333	1.28150	40	501.3500	1.32575
18	3.2833	1.28252	41	631.1167	1.32599
19	4.1000	1.28421	42	794.5000	1.32610
20	5.1333	1.28588	43	1000.1833	1.32638
21	6.4333	1.28757	44	1259.1000	1.32685
22	8.0667	1.28865	45	1440.2833	1.32834
23	10.1167	1.29075			



Void Ratio = 1.018 **Compression =** 20.3% >>> CALCULATED USING D_{100}

D_0 = 1.2734 **D_{90} =** 1.3153 **D_{100} =** 1.3200 **C_V at 86.45 min. =** 0.016 ft.^{2}/day

Pressure: 16000.00 psf	TEST READINGS	Load No. 14

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.32513	12	0.9167	1.33297
2	0.1000	1.32909	13	1.1167	1.33327
3	0.2000	1.32967	14	1.3833	1.33384
4	0.2333	1.32997	15	1.7167	1.33464
5	0.2667	1.33049	16	2.1167	1.33586
6	0.3000	1.33073	17	2.6500	1.33658
7	0.3667	1.33110	18	3.3000	1.33826
8	0.4333	1.33148	19	4.1167	1.33953
9	0.5167	1.33173	20	5.1500	1.34042
10	0.6167	1.33212	21	6.4500	1.34203
11	0.7500	1.33260	22	8.0833	1.34414

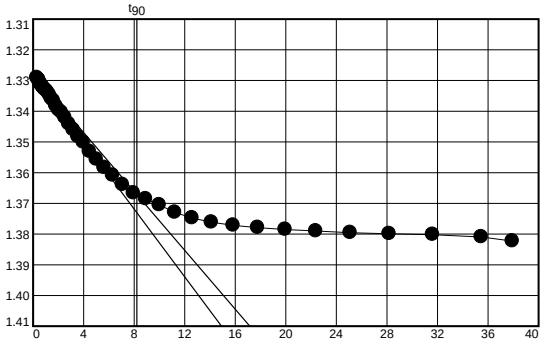


Figure B-132k

Pressure: 16000.00 psf	TEST READINGS (continued)	Load No. 14

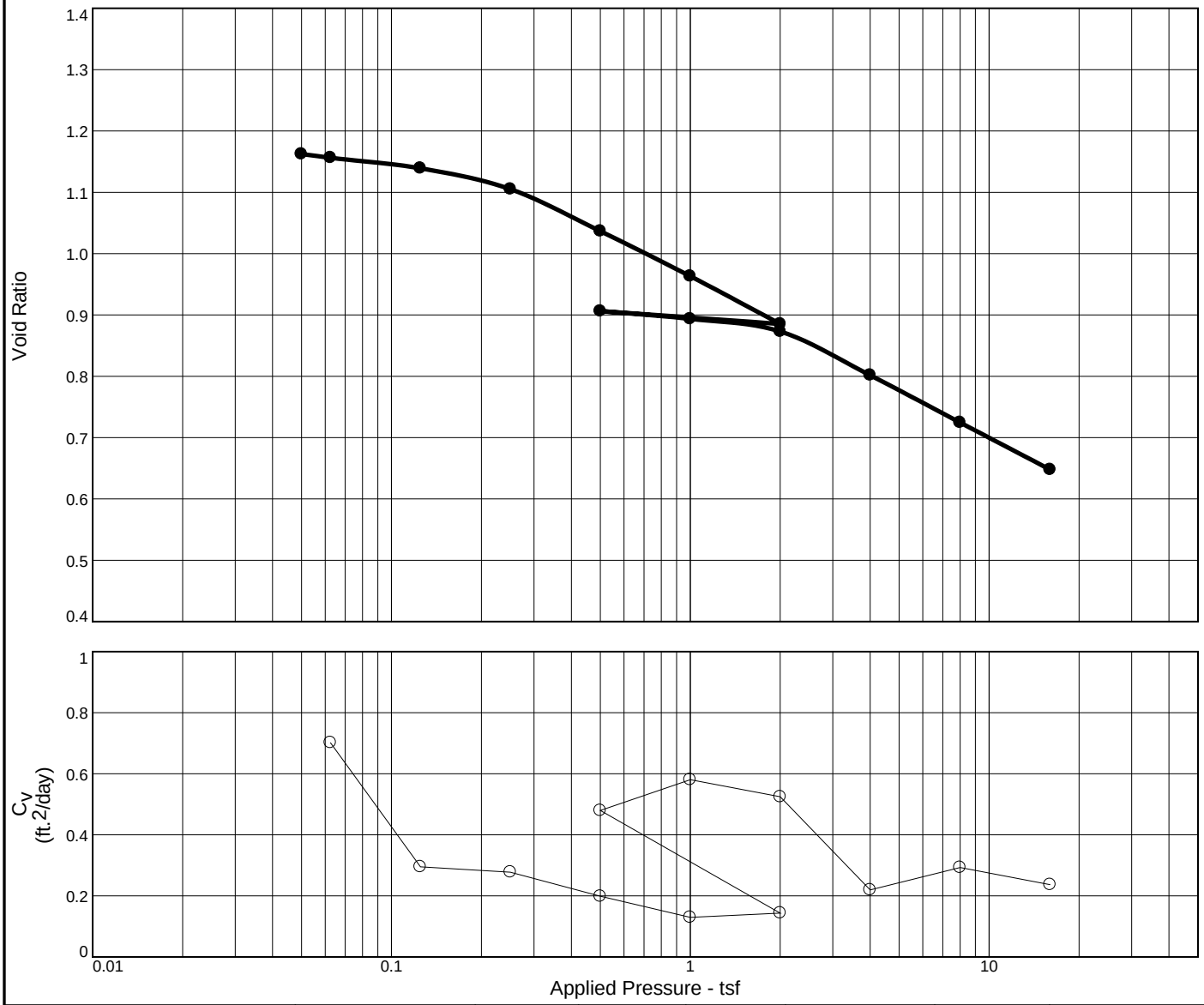
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	1.34607	33	100.1500	1.37053	43	1000.1833	1.38019
24	12.7333	1.34833	34	126.0500	1.37295	44	1259.1167	1.38095
25	15.9833	1.35012	35	158.6500	1.37479	45	1440.3333	1.38229
26	20.1000	1.35312	36	199.6833	1.37613			
27	25.2667	1.35569	37	251.3500	1.37717			
28	31.7667	1.35840	38	316.4000	1.37790			
29	39.9500	1.36092	39	398.2833	1.37852			
30	50.2667	1.36389	40	501.3667	1.37901			
31	63.2500	1.36666	41	631.1333	1.37956			
32	79.5833	1.36857	42	794.5167	1.37991			

Void Ratio = 0.887 **Compression =** 25.5% >>> CALCULATED USING D_{100}

D_0 = 1.3278 **D_{90} =** 1.3672 **D_{100} =** 1.3716 **C_V at 67.53 min. =** 0.018 $ft.^2/day$

Figure B-132l

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	P_c (tsf)	C_c	Initial Void Ratio
Saturation	Moisture							
94.8 %	40.2 %	79.1	37	15	2.741	0.3	0.26	1.163

MATERIAL DESCRIPTION	USCS	AASHTO
Soft gray silty clay with sand pockets	(CL)	

Project No. 18274-022-01 **Client:** CEC

Project: Chandeleur Island Restoration Project (PO-0199)

Location: CI-07 **Depth:** 58-60

Remarks:
Specific gravity measured

GeoEngineers

Figure B-133a

Tested By: Dustin Blanchard **Checked By:** J. Aguettant

CONSOLIDATION TEST DATA

12/22/2023

Client: CEC
Project: Chandeleur Island Restoration Project (PO-0199)
Project Number: 18274-022-01
Location: CI-07
Depth: 58-60
Material Description: Soft gray silty clay with sand pockets
Liquid Limit: 37 **Plasticity Index:** 15
USCS: (CL)
Testing Remarks: Specific gravity measured
Tested by: Dustin Blanchard **Checked by:** J. Aguettant

Test Specimen Data

NATURAL MOISTURE		VOID RATIO		AFTER TEST	
Wet w+t =	163.05 g.	Spec. Gr. =	2.741	Wet w+t =	171.97 g.
Dry w+t =	121.61 g.	Est. Ht. Solids =	0.462 in.	Dry w+t =	137.67 g.
Tare Wt. =	18.55 g.	Init. V.R. =	1.163	Tare Wt. =	36.59 g.
Moisture =	40.2 %	Init. Sat. =	94.8 %	Moisture =	33.9 %

UNIT WEIGHT		TEST START			
Height =	1.000 in.	Height =	1.000 in.		
Diameter =	2.500 in.	Diameter =	2.500 in.	Dry Wt. =	101.08 g.
Weight =	142.95 g.				
Dry Dens. =	79.1 pcf				

End-Of-Load Summary

Pressure (psf)	Final Dial (in.)	Deformation (in.)	C_v (ft.^{2}/day)	C_α	Void Ratio	% Strain
start	1.30124	0.00000			1.163	
100.00	1.30131	0.00007		0.011	1.162	0.0 Comprs.
125.00	1.30413	0.00289	0.111	0.000	1.156	0.3 Comprs.
250.00	1.31206	0.01082	0.079	0.001	1.139	1.1 Comprs.
500.00	1.32781	0.02657	0.106	0.001	1.105	2.7 Comprs.
1000.00	1.35949	0.05825	0.205	0.005	1.037	5.8 Comprs.
2000.00	1.39345	0.09221	0.141	0.004	0.963	9.2 Comprs.
4000.00	1.42944	0.12820	0.139	0.003	0.885	12.8 Comprs.
1000.00	1.41975	0.11851	0.293		0.906	11.9 Comprs.
2000.00	1.42561	0.12437	2.209	0.001	0.894	12.4 Comprs.
4000.00	1.43508	0.13384	0.497	0.001	0.873	13.4 Comprs.
8000.00	1.46814	0.16690	0.220	0.004	0.802	16.7 Comprs.
16000.00	1.50378	0.20254	0.270	0.004	0.725	20.3 Comprs.
32000.00	1.53925	0.23801	0.284	0.004	0.648	23.8 Comprs.

Compression index (C_c), tsf = 0.26 **Preconsolidation pressure (P_p), tsf =** 0.3 **Void ratio at P_p (e_m) =** 1.088
Recompression index (C_r) = 0.12

Figure B-133b

Pressure: 100.00 psf	TEST READINGS	Load No. 1

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.30124	16	2.4667	1.30128	31	79.4000	1.30157
2	0.0333	1.30125	17	3.1167	1.30127	32	99.9833	1.30157
3	0.0667	1.30126	18	3.9333	1.30128	33	125.8667	1.30156
4	0.1000	1.30128	19	4.9667	1.30126	34	158.4667	1.30157
5	0.1333	1.30126	20	6.2667	1.30127	35	199.5167	1.30157
6	0.1833	1.30128	21	7.9000	1.30127	36	251.1833	1.30142
7	0.2500	1.30127	22	9.9667	1.30127	37	316.2167	1.30128
8	0.3333	1.30127	23	12.5500	1.30130	38	398.1000	1.30118
9	0.4500	1.30127	24	15.8167	1.30131	39	501.1833	1.30114
10	0.5833	1.30128	25	19.9167	1.30132	40	630.9667	1.30105
11	0.7333	1.30126	26	25.0833	1.30131	41	794.3333	1.30084
12	0.9500	1.30125	27	31.6000	1.30137	42	1000.0167	1.30078
13	1.2000	1.30126	28	39.7833	1.30144	43	1258.9500	1.30064
14	1.5333	1.30127	29	50.0833	1.30153	44	1440.1000	1.30131
15	1.9500	1.30126	30	63.0667	1.30153			

Void Ratio = 1.162 **Compression =** 0.0%

Pressure: 125.00 psf	TEST READINGS	Load No. 2

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.30130	21	6.4500	1.30267
2	0.1000	1.30130	22	8.0833	1.30270
3	0.2000	1.30143	23	10.1333	1.30282
4	0.2333	1.30145	24	12.7333	1.30282
5	0.2667	1.30149	25	15.9833	1.30290
6	0.3000	1.30152	26	20.1000	1.30295
7	0.3667	1.30153	27	25.2667	1.30305
8	0.4333	1.30157	28	31.7667	1.30314
9	0.5167	1.30167	29	39.9667	1.30322
10	0.6167	1.30172	30	50.2667	1.30334
11	0.7500	1.30181	31	63.2500	1.30345
12	0.9167	1.30192	32	79.5833	1.30355
13	1.1167	1.30209	33	100.1500	1.30361
14	1.3833	1.30218	34	126.0500	1.30364
15	1.7167	1.30229	35	158.6500	1.30371
16	2.1167	1.30242	36	199.6833	1.30380
17	2.6333	1.30245	37	251.3500	1.30392
18	3.3000	1.30252	38	316.4000	1.30399
19	4.1167	1.30257	39	398.2833	1.30402
20	5.1500	1.30264	40	501.3667	1.30395

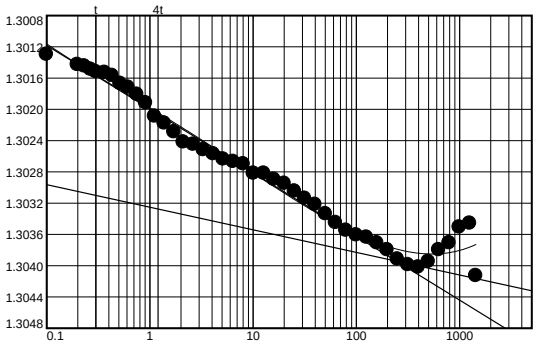


Figure B-133c

Pressure: 125.00 psf | **TEST READINGS (continued)** | **Load No. 2**

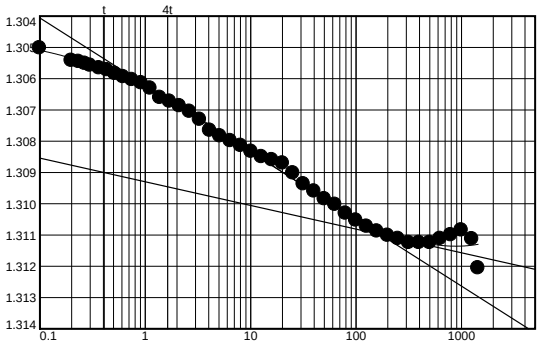
No.	Elapsed Time	Dial Reading
41	631.1333	1.30380
42	794.5167	1.30371
43	1000.1833	1.30351
44	1259.1167	1.30346
45	1440.3333	1.30413

Void Ratio = 1.156 **Compression =** 0.3%

D_0 = 1.3011 **D_{50} =** 1.3025 **D_{100} =** 1.3039 **C_v at 4.41 min. =** 0.111 ft.^{2}/day **C_α =** 0.000

Pressure: 250.00 psf | **TEST READINGS** | **Load No. 3**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.30335	24	12.7333	1.30850
2	0.1000	1.30502	25	15.9833	1.30860
3	0.2000	1.30542	26	20.0833	1.30871
4	0.2333	1.30546	27	25.2667	1.30902
5	0.2667	1.30552	28	31.7667	1.30937
6	0.3000	1.30558	29	39.9500	1.30960
7	0.3667	1.30566	30	50.2667	1.30985
8	0.4333	1.30572	31	63.2500	1.31003
9	0.5167	1.30584	32	79.5833	1.31031
10	0.6167	1.30594	33	100.1500	1.31053
11	0.7500	1.30604	34	126.0500	1.31073
12	0.9167	1.30614	35	158.6500	1.31088
13	1.1167	1.30631	36	199.6833	1.31102
14	1.3833	1.30661	37	251.3500	1.31112
15	1.7000	1.30673	38	316.4000	1.31125
16	2.1167	1.30687	39	398.2833	1.31125
17	2.6333	1.30705	40	501.3667	1.31125
18	3.2833	1.30731	41	631.1333	1.31112
19	4.1000	1.30766	42	794.5167	1.31100
20	5.1333	1.30784	43	1000.1833	1.31085
21	6.4333	1.30799	44	1259.1167	1.31113
22	8.0667	1.30814	45	1440.1667	1.31206
23	10.1333	1.30833			



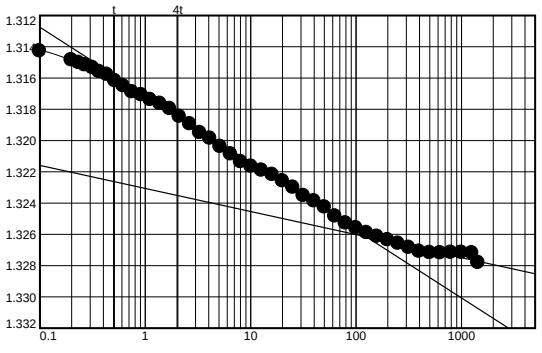
Void Ratio = 1.139 **Compression =** 1.1%

D_0 = 1.3047 **D_{50} =** 1.3079 **D_{100} =** 1.3110 **C_v at 6.19 min. =** 0.079 ft.^{2}/day **C_α =** 0.001

Figure B-133d

Pressure: 500.00 psf | **TEST READINGS** | **Load No. 4**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.31138	24	12.7333	1.32191
2	0.1000	1.31428	25	16.0000	1.32218
3	0.2000	1.31485	26	20.1000	1.32260
4	0.2333	1.31502	27	25.2667	1.32300
5	0.2667	1.31517	28	31.7833	1.32353
6	0.3167	1.31534	29	39.9667	1.32388
7	0.3667	1.31560	30	50.2833	1.32426
8	0.4333	1.31578	31	63.2500	1.32484
9	0.5167	1.31618	32	79.6000	1.32529
10	0.6167	1.31651	33	100.1667	1.32559
11	0.7500	1.31689	34	126.0667	1.32590
12	0.9167	1.31709	35	158.6667	1.32615
13	1.1167	1.31739	36	199.7000	1.32636
14	1.3833	1.31764	37	251.3667	1.32659
15	1.7167	1.31797	38	316.4000	1.32685
16	2.1167	1.31846	39	398.2833	1.32709
17	2.6500	1.31894	40	501.3833	1.32718
18	3.3000	1.31951	41	631.1500	1.32720
19	4.1167	1.31986	42	794.5333	1.32717
20	5.1500	1.32040	43	1000.2000	1.32717
21	6.4500	1.32087	44	1259.1333	1.32720
22	8.0833	1.32137	45	1440.2833	1.32781
23	10.1500	1.32165			



Void Ratio = 1.105 **Compression =** 2.7%

D_0 = 1.3138 **D_{50} =** 1.3200 **D_{100} =** 1.3262 **C_V at 4.47 min. =** 0.106 ft.^{2}/day **C_α =** 0.001

Pressure: 1000.00 psf | **TEST READINGS** | **Load No. 5**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.32716	12	0.9000	1.33716
2	0.0833	1.33386	13	1.1167	1.33796
3	0.2000	1.33516	14	1.3667	1.33892
4	0.2167	1.33527	15	1.7000	1.33990
5	0.2500	1.33530	16	2.1000	1.34074
6	0.3000	1.33533	17	2.6333	1.34158
7	0.3500	1.33545	18	3.2833	1.34251
8	0.4167	1.33554	19	4.1000	1.34333
9	0.5000	1.33577	20	5.1333	1.34445
10	0.6000	1.33614	21	6.4333	1.34547
11	0.7333	1.33669	22	8.0667	1.34616

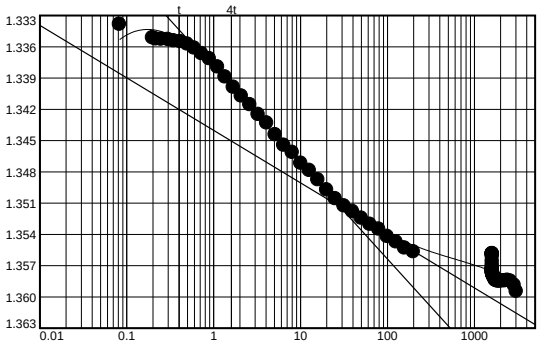


Figure B-133e

Pressure: 1000.00 psf	TEST READINGS (continued)	Load No. 5

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1167	1.34720	43	1621.9500	1.35659	63	1653.3000	1.35797
24	12.7167	1.34788	44	1622.0333	1.35694	64	1661.4833	1.35797
25	15.9667	1.34879	45	1622.1333	1.35720	65	1671.8000	1.35804
26	20.0833	1.34976	46	1622.2667	1.35733	66	1684.7667	1.35812
27	25.2500	1.35061	47	1622.4333	1.35737	67	1701.1167	1.35815
28	31.7500	1.35130	48	1622.6333	1.35746	68	1721.6833	1.35826
29	39.9333	1.35182	49	1622.9000	1.35745	69	1747.5833	1.35840
30	50.2500	1.35247	50	1623.2333	1.35746	70	1780.1833	1.35844
31	63.2333	1.35305	51	1623.6333	1.35758	71	1821.2167	1.35849
32	79.5667	1.35352	52	1624.1500	1.35762	72	1872.8833	1.35850
33	100.1333	1.35422	53	1624.8167	1.35768	73	1937.9333	1.35851
34	126.0333	1.35475	54	1625.6333	1.35769	74	2019.8000	1.35850
35	158.6333	1.35534	55	1626.6667	1.35767	75	2122.9000	1.35849
36	199.6667	1.35568	56	1627.9667	1.35767	76	2252.6667	1.35847
37	1621.7000	1.35590	57	1629.6000	1.35770	77	2416.0500	1.35844
38	1621.7333	1.35588	58	1631.6667	1.35774	78	2621.7167	1.35851
39	1621.7500	1.35590	59	1634.2500	1.35777	79	2880.6500	1.35890
40	1621.7833	1.35590	60	1637.5167	1.35786	80	3061.8000	1.35949
41	1621.8333	1.35594	61	1641.6167	1.35786			
42	1621.8833	1.35613	62	1646.7833	1.35789			

Void Ratio = 1.037 **Compression =** 5.8%

D_0 = 1.3308 **D_{50} =** 1.3411 **D_{100} =** 1.3513 **C_V at 2.20 min. =** 0.205 ft.^{2}/day **C_α =** 0.005

Pressure: 2000.00 psf	TEST READINGS	Load No. 6

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.35806	15	1.7000	1.37030
2	0.1000	1.36281	16	2.1167	1.37124
3	0.2000	1.36386	17	2.6333	1.37218
4	0.2333	1.36427	18	3.2833	1.37309
5	0.2667	1.36468	19	4.1000	1.37428
6	0.3000	1.36498	20	5.1333	1.37543
7	0.3500	1.36557	21	6.4333	1.37644
8	0.4167	1.36585	22	8.0667	1.37792
9	0.5167	1.36626	23	10.1333	1.37936
10	0.6167	1.36655	24	12.7167	1.38042
11	0.7500	1.36716	25	15.9833	1.38160
12	0.9167	1.36753	26	20.0833	1.38277
13	1.1167	1.36844	27	25.2667	1.38380
14	1.3667	1.36921	28	31.7667	1.38468

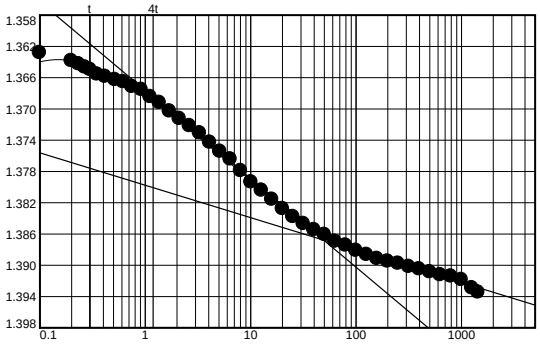


Figure B-133f

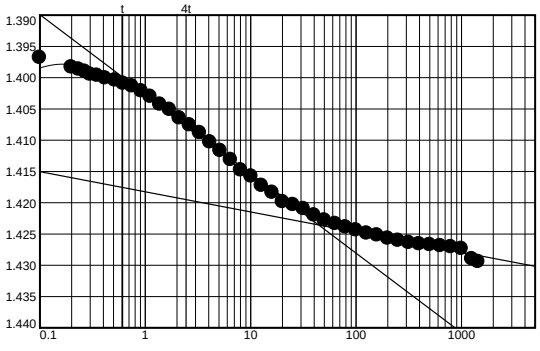
Pressure: 2000.00 psf	TEST READINGS (continued)	Load No. 6

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
29	39.9500	1.38546	39	398.2833	1.39048
30	50.2667	1.38610	40	501.3500	1.39086
31	63.2333	1.38696	41	631.1333	1.39125
32	79.5833	1.38746	42	794.5000	1.39141
33	100.1500	1.38812	43	1000.1833	1.39186
34	126.0500	1.38865	44	1259.1167	1.39290
35	158.6500	1.38915	45	1440.4167	1.39345
36	199.6833	1.38951			
37	251.3500	1.38977			
38	316.4000	1.39019			

Void Ratio = 0.963 **Compression =** 9.2%
D_0 = 1.3598 **D_{50} =** 1.3733 **D_{100} =** 1.3868 **C_v at 2.99 min. =** 0.141 ft.^{2}/day **C_α =** 0.004

Pressure: 4000.00 psf	TEST READINGS	Load No. 7

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.39098	24	12.7333	1.41727
2	0.1000	1.39678	25	16.0000	1.41839
3	0.2000	1.39835	26	20.1000	1.41986
4	0.2333	1.39869	27	25.2667	1.42034
5	0.2667	1.39900	28	31.7833	1.42099
6	0.3000	1.39948	29	39.9667	1.42198
7	0.3500	1.39965	30	50.2833	1.42279
8	0.4167	1.40007	31	63.2667	1.42337
9	0.5167	1.40042	32	79.6000	1.42392
10	0.6167	1.40093	33	100.1667	1.42437
11	0.7500	1.40137	34	126.0667	1.42488
12	0.9167	1.40215	35	158.6667	1.42519
13	1.1167	1.40303	36	199.7000	1.42571
14	1.3833	1.40428	37	251.3667	1.42605
15	1.7000	1.40512	38	316.4167	1.42640
16	2.1167	1.40647	39	398.2833	1.42661
17	2.6333	1.40757	40	501.3667	1.42675
18	3.2833	1.40881	41	631.1500	1.42690
19	4.1167	1.41033	42	794.5333	1.42709
20	5.1500	1.41167	43	1000.2000	1.42735
21	6.4500	1.41312	44	1259.1333	1.42901
22	8.0833	1.41478	45	1440.4000	1.42944
23	10.1500	1.41579			

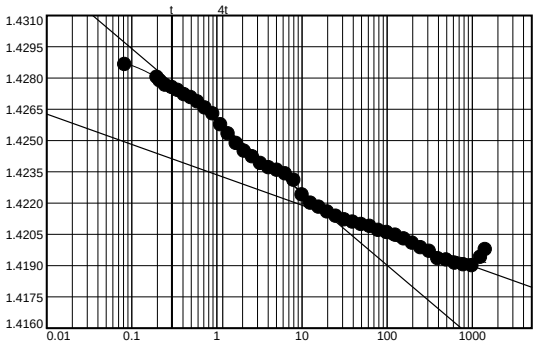


Void Ratio = 0.885 **Compression =** 12.8%
D_0 = 1.3938 **D_{50} =** 1.4087 **D_{100} =** 1.4235 **C_v at 2.82 min. =** 0.139 ft.^{2}/day **C_α =** 0.003

Figure B-133g

Pressure: 1000.00 psf	TEST READINGS	Load No. 8

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.43306	24	12.7167	1.42198
2	0.0833	1.42863	25	15.9833	1.42179
3	0.2000	1.42802	26	20.0833	1.42156
4	0.2167	1.42785	27	25.2500	1.42135
5	0.2500	1.42764	28	31.7667	1.42118
6	0.3000	1.42753	29	39.9500	1.42107
7	0.3500	1.42739	30	50.2667	1.42096
8	0.4167	1.42719	31	63.2333	1.42087
9	0.5000	1.42705	32	79.5833	1.42067
10	0.6000	1.42684	33	100.1500	1.42057
11	0.7333	1.42655	34	126.0333	1.42044
12	0.9000	1.42627	35	158.6333	1.42026
13	1.1167	1.42574	36	199.6833	1.42006
14	1.3667	1.42531	37	251.3500	1.41984
15	1.7000	1.42485	38	316.3833	1.41967
16	2.1167	1.42447	39	398.2667	1.41932
17	2.6333	1.42420	40	501.3500	1.41925
18	3.2833	1.42389	41	631.1167	1.41910
19	4.1000	1.42368	42	794.5000	1.41903
20	5.1333	1.42356	43	1000.1833	1.41898
21	6.4333	1.42339	44	1259.1000	1.41938
22	8.0667	1.42308	45	1440.4167	1.41975
23	10.1333	1.42238			



Void Ratio = 0.906 **Compression =** 11.9%

D_0 = 1.4295 **D_{50} =** 1.4255 **D_{100} =** 1.4215 **C_V at 1.29 min. =** 0.293 ft.^{2}/day

Pressure: 2000.00 psf	TEST READINGS	Load No. 9

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.41854	12	0.9000	1.42224
2	0.1000	1.42059	13	1.1167	1.42232
3	0.2000	1.42087	14	1.3833	1.42235
4	0.2333	1.42097	15	1.7000	1.42244
5	0.2667	1.42111	16	2.1167	1.42248
6	0.3000	1.42129	17	2.6333	1.42256
7	0.3500	1.42150	18	3.2833	1.42265
8	0.4167	1.42177	19	4.1000	1.42273
9	0.5000	1.42189	20	5.1333	1.42281
10	0.6167	1.42204	21	6.4333	1.42289
11	0.7500	1.42216	22	8.0667	1.42294

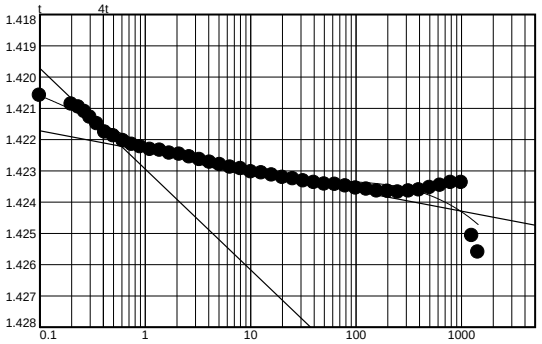


Figure B-133h

Pressure: 2000.00 psf	TEST READINGS (continued)	Load No. 9

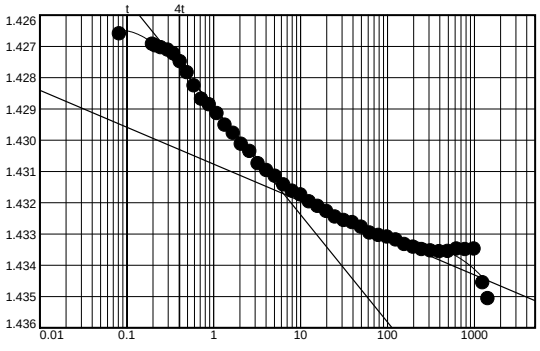
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	1.42304	33	100.1500	1.42356	43	1000.1833	1.42338
24	12.7167	1.42307	34	126.0500	1.42359	44	1259.1167	1.42508
25	15.9833	1.42314	35	158.6500	1.42365	45	1440.4833	1.42561
26	20.1000	1.42322	36	199.6833	1.42366			
27	25.2667	1.42326	37	251.3500	1.42369			
28	31.7667	1.42333	38	316.3833	1.42365			
29	39.9500	1.42338	39	398.2667	1.42362			
30	50.2667	1.42343	40	501.3500	1.42354			
31	63.2333	1.42344	41	631.1333	1.42347			
32	79.5833	1.42349	42	794.5000	1.42338			

Void Ratio = 0.894 **Compression =** 12.4%

D_0 = 1.4197 **D_{50} =** 1.4209 **D_{100} =** 1.4222 **C_v at 0.17 min. =** 2.209 ft.^{2}/day **C_α =** 0.001

Pressure: 4000.00 psf	TEST READINGS	Load No. 10

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.42332	24	12.7167	1.43198
2	0.0833	1.42661	25	15.9833	1.43213
3	0.2000	1.42694	26	20.0833	1.43229
4	0.2167	1.42699	27	25.2500	1.43247
5	0.2500	1.42705	28	31.7667	1.43258
6	0.3000	1.42713	29	39.9500	1.43265
7	0.3500	1.42725	30	50.2667	1.43279
8	0.4167	1.42750	31	63.2333	1.43298
9	0.5000	1.42785	32	79.5833	1.43306
10	0.6000	1.42827	33	100.1500	1.43311
11	0.7333	1.42870	34	126.0500	1.43320
12	0.9000	1.42888	35	158.6500	1.43335
13	1.1000	1.42916	36	199.6833	1.43343
14	1.3667	1.42953	37	251.3500	1.43351
15	1.7000	1.42979	38	316.4000	1.43355
16	2.1000	1.43014	39	398.2833	1.43358
17	2.6333	1.43037	40	501.3500	1.43357
18	3.2833	1.43076	41	631.1333	1.43349
19	4.1000	1.43098	42	794.5167	1.43351
20	5.1333	1.43116	43	1000.1833	1.43349
21	6.4333	1.43144	44	1259.1167	1.43457
22	8.0667	1.43164	45	1440.3500	1.43508
23	10.1333	1.43176			



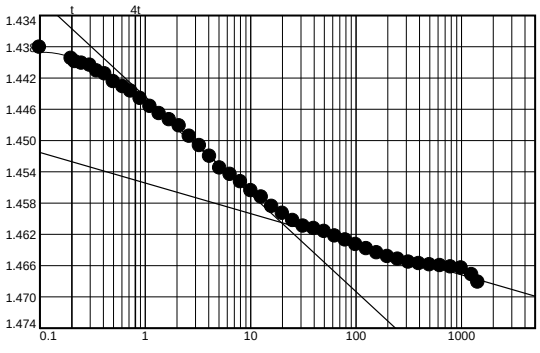
Void Ratio = 0.873 **Compression =** 13.4%

D_0 = 1.4253 **D_{50} =** 1.4285 **D_{100} =** 1.4317 **C_v at 0.75 min. =** 0.497 ft.^{2}/day **C_α =** 0.001

Figure B-133i

Pressure: 8000.00 psf	TEST READINGS	Load No. 11

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.43261	24	12.7167	1.45728
2	0.1000	1.43810	25	15.9833	1.45845
3	0.2000	1.43953	26	20.0833	1.45934
4	0.2167	1.43995	27	25.2500	1.46026
5	0.2500	1.44016	28	31.7500	1.46098
6	0.3000	1.44040	29	39.9500	1.46129
7	0.3500	1.44114	30	50.2500	1.46167
8	0.4167	1.44151	31	63.2333	1.46224
9	0.5000	1.44249	32	79.5667	1.46275
10	0.6167	1.44316	33	100.1333	1.46335
11	0.7333	1.44371	34	126.0333	1.46387
12	0.9000	1.44464	35	158.6333	1.46440
13	1.1167	1.44567	36	199.6667	1.46487
14	1.3667	1.44659	37	251.3333	1.46523
15	1.7000	1.44738	38	316.3833	1.46559
16	2.1167	1.44816	39	398.2667	1.46578
17	2.6333	1.44948	40	501.3333	1.46594
18	3.2833	1.45069	41	631.1167	1.46604
19	4.1000	1.45204	42	794.4833	1.46620
20	5.1333	1.45356	43	1000.1667	1.46635
21	6.4333	1.45436	44	1259.1000	1.46719
22	8.0667	1.45531	45	1440.4667	1.46814
23	10.1333	1.45644			



Void Ratio = 0.802 **Compression =** 16.7%

D_0 = 1.4346 **D_{50} =** 1.4475 **D_{100} =** 1.4605 **C_V at 1.62 min. =** 0.220 ft.^{2}/day **C_α =** 0.004

Pressure: 16000.00 psf	TEST READINGS	Load No. 12

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.46383	12	0.9167	1.47919
2	0.1000	1.47130	13	1.1167	1.48051
3	0.2000	1.47282	14	1.3833	1.48174
4	0.2333	1.47305	15	1.7167	1.48292
5	0.2667	1.47354	16	2.1167	1.48408
6	0.3000	1.47436	17	2.6500	1.48516
7	0.3667	1.47528	18	3.3000	1.48672
8	0.4333	1.47590	19	4.1167	1.48801
9	0.5167	1.47678	20	5.1500	1.48914
10	0.6167	1.47742	21	6.4500	1.49008
11	0.7500	1.47835	22	8.0833	1.49166

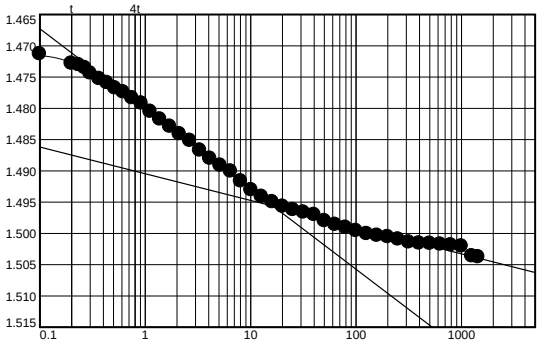


Figure B-133j

Pressure: 16000.00 psf | **TEST READINGS (continued)** | **Load No. 12**

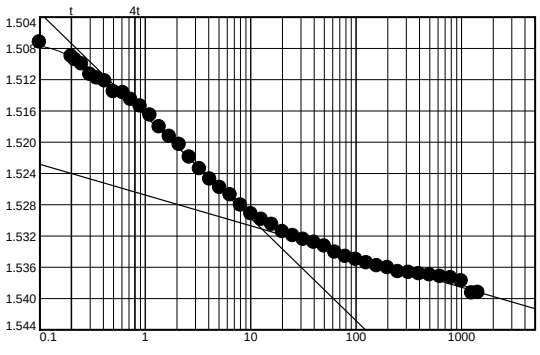
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	1.49304	33	100.1667	1.49958	43	1000.2000	1.50206
24	12.7333	1.49412	34	126.0667	1.50007	44	1259.1333	1.50364
25	16.0000	1.49496	35	158.6667	1.50034	45	1440.3500	1.50378
26	20.1000	1.49568	36	199.7000	1.50056			
27	25.2667	1.49623	37	251.3667	1.50095			
28	31.7833	1.49664	38	316.4000	1.50142			
29	39.9667	1.49703	39	398.2833	1.50159			
30	50.2833	1.49801	40	501.3667	1.50161			
31	63.2500	1.49859	41	631.1500	1.50175			
32	79.6000	1.49906	42	794.5167	1.50187			

Void Ratio = 0.725 **Compression =** 20.3%

D_0 = 1.4666 **D_{50} =** 1.4811 **D_{100} =** 1.4956 **C_v at 1.22 min. =** 0.270 ft.^{2}/day **C_α =** 0.004

Pressure: 32000.00 psf | **TEST READINGS** | **Load No. 13**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.49774	24	12.7167	1.52992
2	0.1000	1.50723	25	15.9833	1.53056
3	0.2000	1.50903	26	20.0833	1.53146
4	0.2167	1.50946	27	25.2500	1.53200
5	0.2500	1.51002	28	31.7667	1.53245
6	0.3000	1.51134	29	39.9500	1.53284
7	0.3500	1.51184	30	50.2667	1.53333
8	0.4167	1.51220	31	63.2333	1.53411
9	0.5000	1.51357	32	79.5833	1.53466
10	0.6167	1.51369	33	100.1500	1.53502
11	0.7333	1.51456	34	126.0500	1.53547
12	0.9000	1.51540	35	158.6500	1.53584
13	1.1167	1.51657	36	199.6833	1.53609
14	1.3667	1.51808	37	251.3500	1.53659
15	1.7000	1.51930	38	316.4000	1.53669
16	2.1167	1.52032	39	398.2667	1.53687
17	2.6333	1.52194	40	501.3500	1.53699
18	3.2833	1.52342	41	631.1333	1.53722
19	4.1167	1.52474	42	794.5000	1.53737
20	5.1333	1.52583	43	1000.1833	1.53777
21	6.4333	1.52678	44	1259.1167	1.53933
22	8.0667	1.52808	45	1440.3167	1.53925
23	10.1333	1.52920			

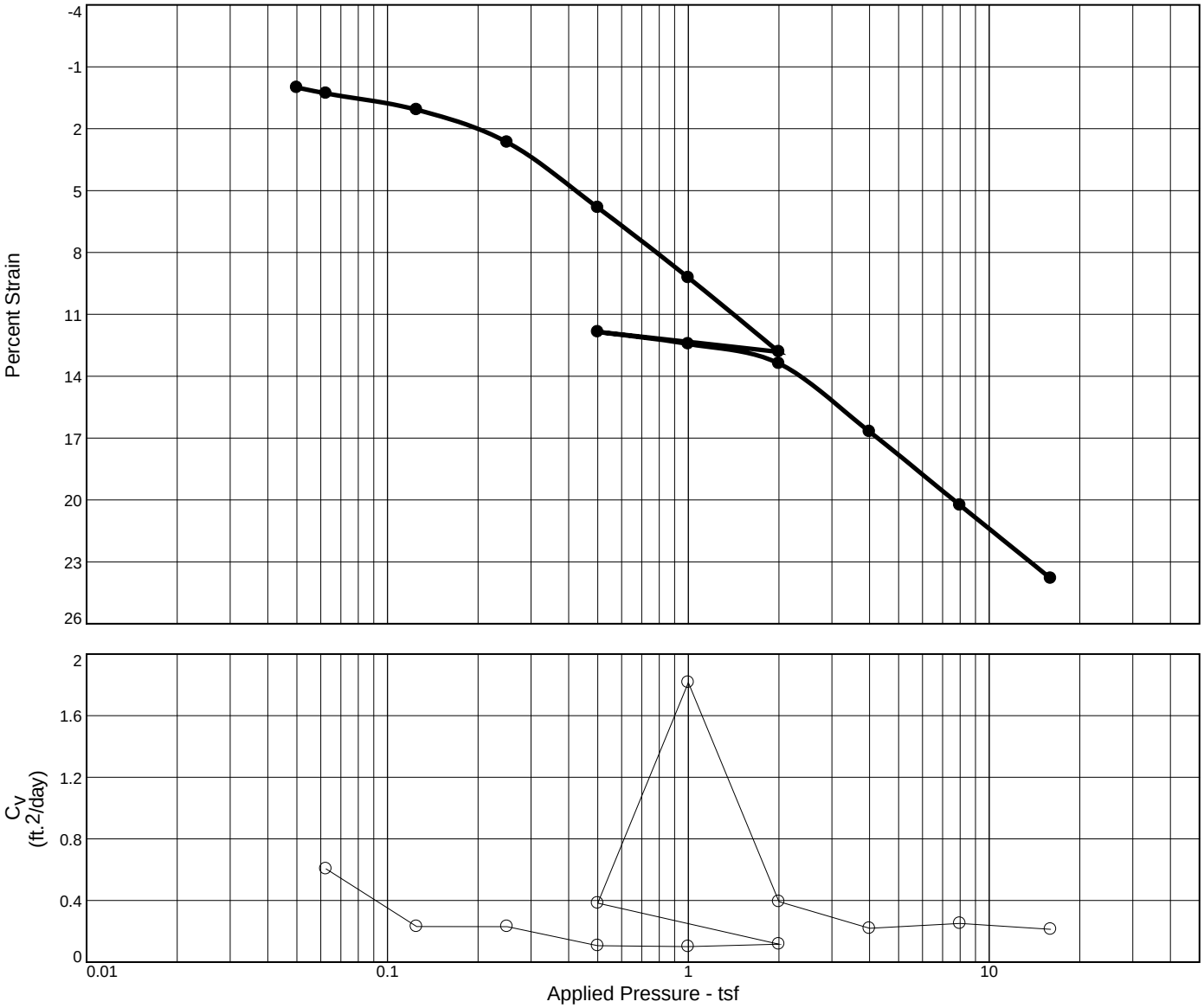


Void Ratio = 0.648 **Compression =** 23.8%

D_0 = 1.5028 **D_{50} =** 1.5170 **D_{100} =** 1.5311 **C_v at 1.06 min. =** 0.284 ft.^{2}/day **C_α =** 0.004

Figure B-133k

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	P_c (tsf)	C_c	Initial Void Ratio
Saturation	Moisture							
94.8 %	40.2 %	79.1	37	15	2.741	0.3	0.26	1.163

MATERIAL DESCRIPTION	USCS	AASHTO
Soft gray silty clay with sand pockets	(CL)	

Project No. 18274-022-01 **Client:** CEC

Project: Chandeleur Island Restoration Project (PO-0199)

Location: CI-07 sqrt **Depth:** 58-60

Remarks:
Specific gravity measured

GeoEngineers

Figure B-134a

Tested By: Dustin Blanchard **Checked By:** J. Aguettant

CONSOLIDATION TEST DATA

12/22/2023

Client: CEC
Project: Chandeleur Island Restoration Project (PO-0199)
Project Number: 18274-022-01
Location: CI-07 sqrt
Depth: 58-60
Material Description: Soft gray silty clay with sand pockets
Liquid Limit: 37 **Plasticity Index:** 15
USCS: (CL)
Testing Remarks: Specific gravity measured
Tested by: Dustin Blanchard **Checked by:** J. Aguettant

Test Specimen Data

NATURAL MOISTURE		VOID RATIO		AFTER TEST	
Wet w+t =	163.05 g.	Spec. Gr. =	2.741	Wet w+t =	171.97 g.
Dry w+t =	121.61 g.	Est. Ht. Solids =	0.462 in.	Dry w+t =	137.67 g.
Tare Wt. =	18.55 g.	Init. V.R. =	1.163	Tare Wt. =	36.59 g.
Moisture =	40.2 %	Init. Sat. =	94.8 %	Moisture =	33.9 %

UNIT WEIGHT		TEST START			
Height =	1.000 in.	Height =	1.000 in.		
Diameter =	2.500 in.	Diameter =	2.500 in.	Dry Wt. =	101.08 g.
Weight =	142.95 g.				
Dry Dens. =	79.1 pcf				

End-Of-Load Summary

Pressure (psf)	Final Dial (in.)	Deformation (in.)	C_v (ft.^{2}/day)	C_α	Void Ratio	% Strain
start	1.30124	0.00000			1.163	
100.00	1.30131	0.00007			1.162	0.0 Comprs.
125.00	1.30413	0.00289	0.605		1.156	0.3 Comprs.
250.00	1.31206	0.01082	0.231		1.139	1.1 Comprs.
500.00	1.32781	0.02657	0.231		1.105	2.7 Comprs.
1000.00	1.35949	0.05825	0.106		1.037	5.8 Comprs.
2000.00	1.39345	0.09221	0.101		0.963	9.2 Comprs.
4000.00	1.42944	0.12820	0.117		0.885	12.8 Comprs.
1000.00	1.41975	0.11851	0.383		0.906	11.9 Comprs.
2000.00	1.42561	0.12437	1.815		0.894	12.4 Comprs.
4000.00	1.43508	0.13384	0.392		0.873	13.4 Comprs.
8000.00	1.46814	0.16690	0.219		0.802	16.7 Comprs.
16000.00	1.50378	0.20254	0.251		0.725	20.3 Comprs.
32000.00	1.53925	0.23801	0.213		0.648	23.8 Comprs.

Compression index (C_c), tsf = 0.26 **Preconsolidation pressure (P_p), tsf =** 0.3 **Void ratio at P_p (e_m) =** 1.080
Recompression index (C_r) = 0.12

Figure B-134b

Pressure: 100.00 psf	TEST READINGS	Load No. 1

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.30124	16	2.4667	1.30128	31	79.4000	1.30157
2	0.0333	1.30125	17	3.1167	1.30127	32	99.9833	1.30157
3	0.0667	1.30126	18	3.9333	1.30128	33	125.8667	1.30156
4	0.1000	1.30128	19	4.9667	1.30126	34	158.4667	1.30157
5	0.1333	1.30126	20	6.2667	1.30127	35	199.5167	1.30157
6	0.1833	1.30128	21	7.9000	1.30127	36	251.1833	1.30142
7	0.2500	1.30127	22	9.9667	1.30127	37	316.2167	1.30128
8	0.3333	1.30127	23	12.5500	1.30130	38	398.1000	1.30118
9	0.4500	1.30127	24	15.8167	1.30131	39	501.1833	1.30114
10	0.5833	1.30128	25	19.9167	1.30132	40	630.9667	1.30105
11	0.7333	1.30126	26	25.0833	1.30131	41	794.3333	1.30084
12	0.9500	1.30125	27	31.6000	1.30137	42	1000.0167	1.30078
13	1.2000	1.30126	28	39.7833	1.30144	43	1258.9500	1.30064
14	1.5333	1.30127	29	50.0833	1.30153	44	1440.1000	1.30131
15	1.9500	1.30126	30	63.0667	1.30153			

Void Ratio = 1.162 **Compression =** 0.0%

Pressure: 125.00 psf	TEST READINGS	Load No. 2

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.30130	21	6.4500	1.30267
2	0.1000	1.30130	22	8.0833	1.30270
3	0.2000	1.30143	23	10.1333	1.30282
4	0.2333	1.30145	24	12.7333	1.30282
5	0.2667	1.30149	25	15.9833	1.30290
6	0.3000	1.30152	26	20.1000	1.30295
7	0.3667	1.30153	27	25.2667	1.30305
8	0.4333	1.30157	28	31.7667	1.30314
9	0.5167	1.30167	29	39.9667	1.30322
10	0.6167	1.30172	30	50.2667	1.30334
11	0.7500	1.30181	31	63.2500	1.30345
12	0.9167	1.30192	32	79.5833	1.30355
13	1.1167	1.30209	33	100.1500	1.30361
14	1.3833	1.30218	34	126.0500	1.30364
15	1.7167	1.30229	35	158.6500	1.30371
16	2.1167	1.30242	36	199.6833	1.30380
17	2.6333	1.30245	37	251.3500	1.30392
18	3.3000	1.30252	38	316.4000	1.30399
19	4.1167	1.30257	39	398.2833	1.30402
20	5.1500	1.30264	40	501.3667	1.30395

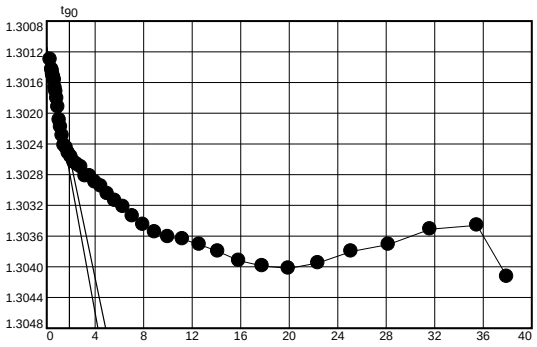


Figure B-134c

Pressure: 125.00 psf	TEST READINGS (continued)	Load No. 2

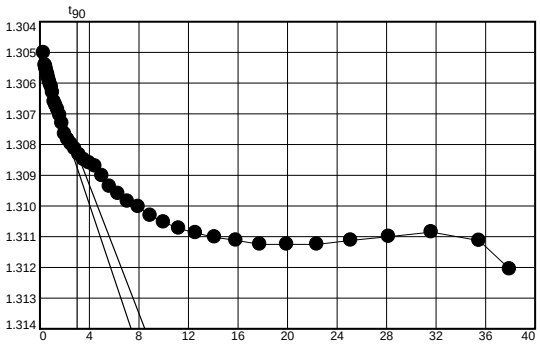
No.	Elapsed Time	Dial Reading
41	631.1333	1.30380
42	794.5167	1.30371
43	1000.1833	1.30351
44	1259.1167	1.30346
45	1440.3333	1.30413

Void Ratio = 1.156 **Compression =** 0.3%

D_0 = 1.3011 **D_{90} =** 1.3025 **D_{100} =** 1.3027 **C_v at 3.49 min. =** 0.605 ft.^{2}/day

Pressure: 250.00 psf	TEST READINGS	Load No. 3

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.30335	24	12.7333	1.30850
2	0.1000	1.30502	25	15.9833	1.30860
3	0.2000	1.30542	26	20.0833	1.30871
4	0.2333	1.30546	27	25.2667	1.30902
5	0.2667	1.30552	28	31.7667	1.30937
6	0.3000	1.30558	29	39.9500	1.30960
7	0.3667	1.30566	30	50.2667	1.30985
8	0.4333	1.30572	31	63.2500	1.31003
9	0.5167	1.30584	32	79.5833	1.31031
10	0.6167	1.30594	33	100.1500	1.31053
11	0.7500	1.30604	34	126.0500	1.31073
12	0.9167	1.30614	35	158.6500	1.31088
13	1.1167	1.30631	36	199.6833	1.31102
14	1.3833	1.30661	37	251.3500	1.31112
15	1.7000	1.30673	38	316.4000	1.31125
16	2.1167	1.30687	39	398.2833	1.31125
17	2.6333	1.30705	40	501.3667	1.31125
18	3.2833	1.30731	41	631.1333	1.31112
19	4.1000	1.30766	42	794.5167	1.31100
20	5.1333	1.30784	43	1000.1833	1.31085
21	6.4333	1.30799	44	1259.1167	1.31113
22	8.0667	1.30814	45	1440.1667	1.31206
23	10.1333	1.30833			



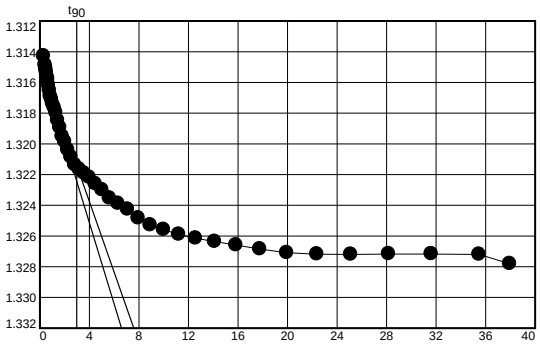
Void Ratio = 1.139 **Compression =** 1.1%

D_0 = 1.3051 **D_{90} =** 1.3082 **D_{100} =** 1.3086 **C_v at 9.05 min. =** 0.231 ft.^{2}/day

Figure B-134d

Pressure: 500.00 psf	TEST READINGS	Load No. 4

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.31138	24	12.7333	1.32191
2	0.1000	1.31428	25	16.0000	1.32218
3	0.2000	1.31485	26	20.1000	1.32260
4	0.2333	1.31502	27	25.2667	1.32300
5	0.2667	1.31517	28	31.7833	1.32353
6	0.3167	1.31534	29	39.9667	1.32388
7	0.3667	1.31560	30	50.2833	1.32426
8	0.4333	1.31578	31	63.2500	1.32484
9	0.5167	1.31618	32	79.6000	1.32529
10	0.6167	1.31651	33	100.1667	1.32559
11	0.7500	1.31689	34	126.0667	1.32590
12	0.9167	1.31709	35	158.6667	1.32615
13	1.1167	1.31739	36	199.7000	1.32636
14	1.3833	1.31764	37	251.3667	1.32659
15	1.7167	1.31797	38	316.4000	1.32685
16	2.1167	1.31846	39	398.2833	1.32709
17	2.6500	1.31894	40	501.3833	1.32718
18	3.3000	1.31951	41	631.1500	1.32720
19	4.1167	1.31986	42	794.5333	1.32717
20	5.1500	1.32040	43	1000.2000	1.32717
21	6.4500	1.32087	44	1259.1333	1.32720
22	8.0833	1.32137	45	1440.2833	1.32781
23	10.1500	1.32165			



Void Ratio = 1.105 **Compression =** 2.7%

D_0 = 1.3146 **D_{90} =** 1.3215 **D_{100} =** 1.3222 **C_V at 8.86 min. =** 0.231 ft.^{2}/day

Pressure: 1000.00 psf	TEST READINGS	Load No. 5

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.32716	12	0.9000	1.33716
2	0.0833	1.33386	13	1.1167	1.33796
3	0.2000	1.33516	14	1.3667	1.33892
4	0.2167	1.33527	15	1.7000	1.33990
5	0.2500	1.33530	16	2.1000	1.34074
6	0.3000	1.33533	17	2.6333	1.34158
7	0.3500	1.33545	18	3.2833	1.34251
8	0.4167	1.33554	19	4.1000	1.34333
9	0.5000	1.33577	20	5.1333	1.34445
10	0.6000	1.33614	21	6.4333	1.34547
11	0.7333	1.33669	22	8.0667	1.34616

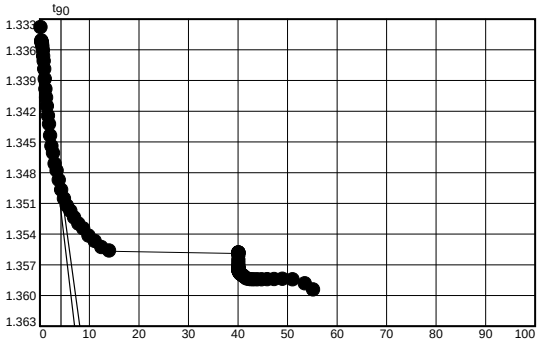


Figure B-134e

Pressure: 1000.00 psf	TEST READINGS (continued)	Load No. 5

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1167	1.34720	43	1621.9500	1.35659	63	1653.3000	1.35797
24	12.7167	1.34788	44	1622.0333	1.35694	64	1661.4833	1.35797
25	15.9667	1.34879	45	1622.1333	1.35720	65	1671.8000	1.35804
26	20.0833	1.34976	46	1622.2667	1.35733	66	1684.7667	1.35812
27	25.2500	1.35061	47	1622.4333	1.35737	67	1701.1167	1.35815
28	31.7500	1.35130	48	1622.6333	1.35746	68	1721.6833	1.35826
29	39.9333	1.35182	49	1622.9000	1.35745	69	1747.5833	1.35840
30	50.2500	1.35247	50	1623.2333	1.35746	70	1780.1833	1.35844
31	63.2333	1.35305	51	1623.6333	1.35758	71	1821.2167	1.35849
32	79.5667	1.35352	52	1624.1500	1.35762	72	1872.8833	1.35850
33	100.1333	1.35422	53	1624.8167	1.35768	73	1937.9333	1.35851
34	126.0333	1.35475	54	1625.6333	1.35769	74	2019.8000	1.35850
35	158.6333	1.35534	55	1626.6667	1.35767	75	2122.9000	1.35849
36	199.6667	1.35568	56	1627.9667	1.35767	76	2252.6667	1.35847
37	1621.7000	1.35590	57	1629.6000	1.35770	77	2416.0500	1.35844
38	1621.7333	1.35588	58	1631.6667	1.35774	78	2621.7167	1.35851
39	1621.7500	1.35590	59	1634.2500	1.35777	79	2880.6500	1.35890
40	1621.7833	1.35590	60	1637.5167	1.35786	80	3061.8000	1.35949
41	1621.8333	1.35594	61	1641.6167	1.35786			
42	1621.8833	1.35613	62	1646.7833	1.35789			

Void Ratio = 1.037 **Compression =** 5.8%

D_0 = 1.3344 D_{90} = 1.3493 D_{100} = 1.3510 C_V **at 18.28 min. =** 0.106 ft.^{2}/day

Pressure: 2000.00 psf	TEST READINGS	Load No. 6

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.35806	15	1.7000	1.37030
2	0.1000	1.36281	16	2.1167	1.37124
3	0.2000	1.36386	17	2.6333	1.37218
4	0.2333	1.36427	18	3.2833	1.37309
5	0.2667	1.36468	19	4.1000	1.37428
6	0.3000	1.36498	20	5.1333	1.37543
7	0.3500	1.36557	21	6.4333	1.37644
8	0.4167	1.36585	22	8.0667	1.37792
9	0.5167	1.36626	23	10.1333	1.37936
10	0.6167	1.36655	24	12.7167	1.38042
11	0.7500	1.36716	25	15.9833	1.38160
12	0.9167	1.36753	26	20.0833	1.38277
13	1.1167	1.36844	27	25.2667	1.38380
14	1.3667	1.36921	28	31.7667	1.38468

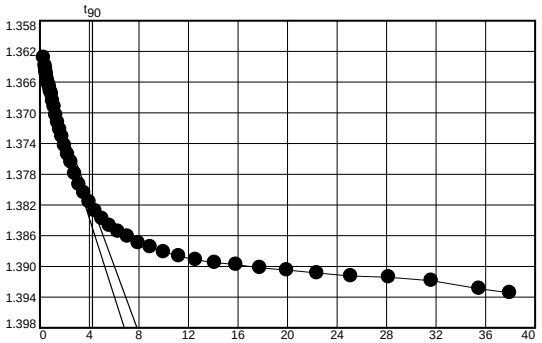


Figure B-134f

Pressure: 2000.00 psf | **TEST READINGS (continued)** | **Load No. 6**

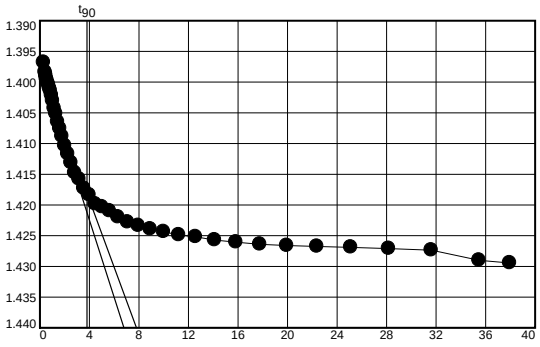
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
29	39.9500	1.38546	39	398.2833	1.39048
30	50.2667	1.38610	40	501.3500	1.39086
31	63.2333	1.38696	41	631.1333	1.39125
32	79.5833	1.38746	42	794.5000	1.39141
33	100.1500	1.38812	43	1000.1833	1.39186
34	126.0500	1.38865	44	1259.1167	1.39290
35	158.6500	1.38915	45	1440.4167	1.39345
36	199.6833	1.38951			
37	251.3500	1.38977			
38	316.4000	1.39019			

Void Ratio = 0.963 **Compression =** 9.2%

D_0 = 1.3636 **D_{90} =** 1.3822 **D_{100} =** 1.3843 **C_v at 18.01 min. =** 0.101 ft.^{2}/day

Pressure: 4000.00 psf | **TEST READINGS** | **Load No. 7**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.39098	24	12.7333	1.41727
2	0.1000	1.39678	25	16.0000	1.41839
3	0.2000	1.39835	26	20.1000	1.41986
4	0.2333	1.39869	27	25.2667	1.42034
5	0.2667	1.39900	28	31.7833	1.42099
6	0.3000	1.39948	29	39.9667	1.42198
7	0.3500	1.39965	30	50.2833	1.42279
8	0.4167	1.40007	31	63.2667	1.42337
9	0.5167	1.40042	32	79.6000	1.42392
10	0.6167	1.40093	33	100.1667	1.42437
11	0.7500	1.40137	34	126.0667	1.42488
12	0.9167	1.40215	35	158.6667	1.42519
13	1.1167	1.40303	36	199.7000	1.42571
14	1.3833	1.40428	37	251.3667	1.42605
15	1.7000	1.40512	38	316.4167	1.42640
16	2.1167	1.40647	39	398.2833	1.42661
17	2.6333	1.40757	40	501.3667	1.42675
18	3.2833	1.40881	41	631.1500	1.42690
19	4.1167	1.41033	42	794.5333	1.42709
20	5.1500	1.41167	43	1000.2000	1.42735
21	6.4500	1.41312	44	1259.1333	1.42901
22	8.0833	1.41478	45	1440.4000	1.42944
23	10.1500	1.41579			



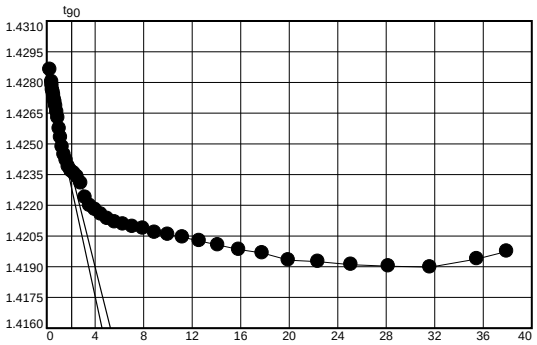
Void Ratio = 0.885 **Compression =** 12.8%

D_0 = 1.3973 **D_{90} =** 1.4179 **D_{100} =** 1.4202 **C_v at 14.44 min. =** 0.117 ft.^{2}/day

Figure B-134g

Pressure: 1000.00 psf	TEST READINGS	Load No. 8

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.43306	24	12.7167	1.42198
2	0.0833	1.42863	25	15.9833	1.42179
3	0.2000	1.42802	26	20.0833	1.42156
4	0.2167	1.42785	27	25.2500	1.42135
5	0.2500	1.42764	28	31.7667	1.42118
6	0.3000	1.42753	29	39.9500	1.42107
7	0.3500	1.42739	30	50.2667	1.42096
8	0.4167	1.42719	31	63.2333	1.42087
9	0.5000	1.42705	32	79.5833	1.42067
10	0.6000	1.42684	33	100.1500	1.42057
11	0.7333	1.42655	34	126.0333	1.42044
12	0.9000	1.42627	35	158.6333	1.42026
13	1.1167	1.42574	36	199.6833	1.42006
14	1.3667	1.42531	37	251.3500	1.41984
15	1.7000	1.42485	38	316.3833	1.41967
16	2.1167	1.42447	39	398.2667	1.41932
17	2.6333	1.42420	40	501.3500	1.41925
18	3.2833	1.42389	41	631.1167	1.41910
19	4.1000	1.42368	42	794.5000	1.41903
20	5.1333	1.42356	43	1000.1833	1.41898
21	6.4333	1.42339	44	1259.1000	1.41938
22	8.0667	1.42308	45	1440.4167	1.41975
23	10.1333	1.42238			



Void Ratio = 0.906 **Compression =** 11.9%

D_0 = 1.4284 **D_{90} =** 1.4237 **D_{100} =** 1.4231 **C_V at 4.24 min. =** 0.383 ft.^{2}/day

Pressure: 2000.00 psf	TEST READINGS	Load No. 9

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.41854	12	0.9000	1.42224
2	0.1000	1.42059	13	1.1167	1.42232
3	0.2000	1.42087	14	1.3833	1.42235
4	0.2333	1.42097	15	1.7000	1.42244
5	0.2667	1.42111	16	2.1167	1.42248
6	0.3000	1.42129	17	2.6333	1.42256
7	0.3500	1.42150	18	3.2833	1.42265
8	0.4167	1.42177	19	4.1000	1.42273
9	0.5000	1.42189	20	5.1333	1.42281
10	0.6167	1.42204	21	6.4333	1.42289
11	0.7500	1.42216	22	8.0667	1.42294

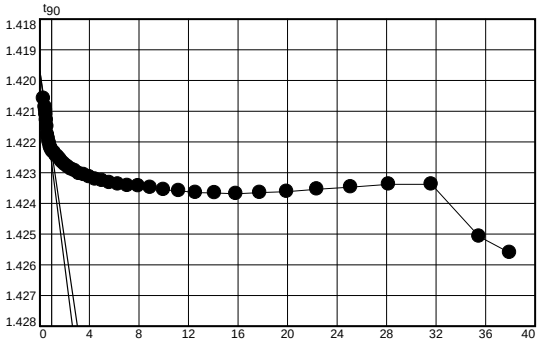


Figure B-134h

Pressure: 2000.00 psf | **TEST READINGS (continued)** | **Load No. 9**

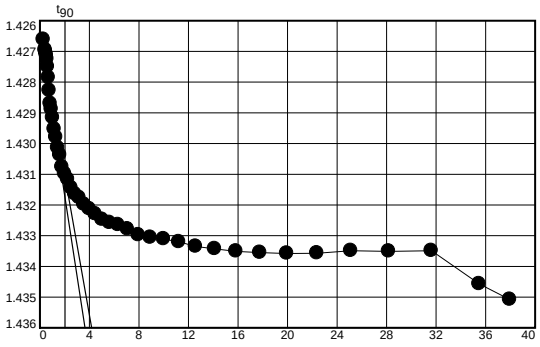
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	1.42304	33	100.1500	1.42356	43	1000.1833	1.42338
24	12.7167	1.42307	34	126.0500	1.42359	44	1259.1167	1.42508
25	15.9833	1.42314	35	158.6500	1.42365	45	1440.4833	1.42561
26	20.1000	1.42322	36	199.6833	1.42366			
27	25.2667	1.42326	37	251.3500	1.42369			
28	31.7667	1.42333	38	316.3833	1.42365			
29	39.9500	1.42338	39	398.2667	1.42362			
30	50.2667	1.42343	40	501.3500	1.42354			
31	63.2333	1.42344	41	631.1333	1.42347			
32	79.5833	1.42349	42	794.5000	1.42338			

Void Ratio = 0.894 **Compression =** 12.4%

D_0 = 1.4197 **D_{90} =** 1.4222 **D_{100} =** 1.4225 **C_V at 0.90 min. =** 1.815 ft.^{2}/day

Pressure: 4000.00 psf | **TEST READINGS** | **Load No. 10**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.42332	24	12.7167	1.43198
2	0.0833	1.42661	25	15.9833	1.43213
3	0.2000	1.42694	26	20.0833	1.43229
4	0.2167	1.42699	27	25.2500	1.43247
5	0.2500	1.42705	28	31.7667	1.43258
6	0.3000	1.42713	29	39.9500	1.43265
7	0.3500	1.42725	30	50.2667	1.43279
8	0.4167	1.42750	31	63.2333	1.43298
9	0.5000	1.42785	32	79.5833	1.43306
10	0.6000	1.42827	33	100.1500	1.43311
11	0.7333	1.42870	34	126.0500	1.43320
12	0.9000	1.42888	35	158.6500	1.43335
13	1.1000	1.42916	36	199.6833	1.43343
14	1.3667	1.42953	37	251.3500	1.43351
15	1.7000	1.42979	38	316.4000	1.43355
16	2.1000	1.43014	39	398.2833	1.43358
17	2.6333	1.43037	40	501.3500	1.43357
18	3.2833	1.43076	41	631.1333	1.43349
19	4.1000	1.43098	42	794.5167	1.43351
20	5.1333	1.43116	43	1000.1833	1.43349
21	6.4333	1.43144	44	1259.1167	1.43457
22	8.0667	1.43164	45	1440.3500	1.43508
23	10.1333	1.43176			



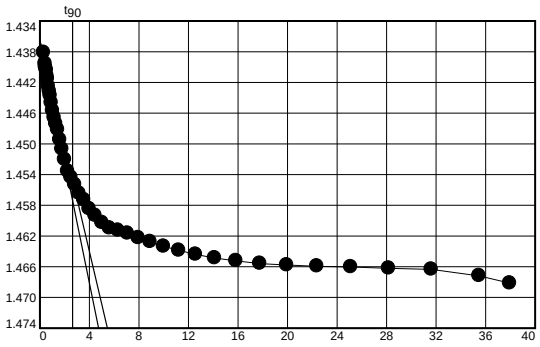
Void Ratio = 0.873 **Compression =** 13.4%

D_0 = 1.4264 **D_{90} =** 1.4310 **D_{100} =** 1.4315 **C_V at 4.11 min. =** 0.392 ft.^{2}/day

Figure B-134i

Pressure: 8000.00 psf	TEST READINGS	Load No. 11

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.43261	24	12.7167	1.45728
2	0.1000	1.43810	25	15.9833	1.45845
3	0.2000	1.43953	26	20.0833	1.45934
4	0.2167	1.43995	27	25.2500	1.46026
5	0.2500	1.44016	28	31.7500	1.46098
6	0.3000	1.44040	29	39.9500	1.46129
7	0.3500	1.44114	30	50.2500	1.46167
8	0.4167	1.44151	31	63.2333	1.46224
9	0.5000	1.44249	32	79.5667	1.46275
10	0.6167	1.44316	33	100.1333	1.46335
11	0.7333	1.44371	34	126.0333	1.46387
12	0.9000	1.44464	35	158.6333	1.46440
13	1.1167	1.44567	36	199.6667	1.46487
14	1.3667	1.44659	37	251.3333	1.46523
15	1.7000	1.44738	38	316.3833	1.46559
16	2.1167	1.44816	39	398.2667	1.46578
17	2.6333	1.44948	40	501.3333	1.46594
18	3.2833	1.45069	41	631.1167	1.46604
19	4.1000	1.45204	42	794.4833	1.46620
20	5.1333	1.45356	43	1000.1667	1.46635
21	6.4333	1.45436	44	1259.1000	1.46719
22	8.0667	1.45531	45	1440.4667	1.46814
23	10.1333	1.45644			



Void Ratio = 0.802 **Compression =** 16.7%

D_0 = 1.4365 D_{90} = 1.4547 D_{100} = 1.4567 C_V **at 7.00 min. =** 0.219 ft.^{2}/day

Pressure: 16000.00 psf	TEST READINGS	Load No. 12

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.46383	12	0.9167	1.47919
2	0.1000	1.47130	13	1.1167	1.48051
3	0.2000	1.47282	14	1.3833	1.48174
4	0.2333	1.47305	15	1.7167	1.48292
5	0.2667	1.47354	16	2.1167	1.48408
6	0.3000	1.47436	17	2.6500	1.48516
7	0.3667	1.47528	18	3.3000	1.48672
8	0.4333	1.47590	19	4.1167	1.48801
9	0.5167	1.47678	20	5.1500	1.48914
10	0.6167	1.47742	21	6.4500	1.49008
11	0.7500	1.47835	22	8.0833	1.49166

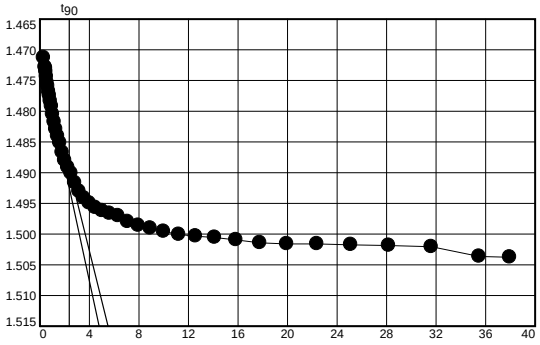


Figure B-134j

Pressure: 16000.00 psf | **TEST READINGS (continued)** | **Load No. 12**

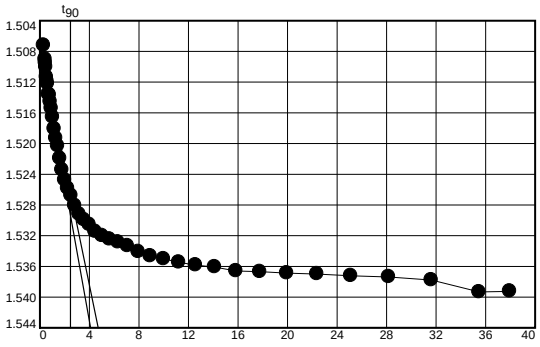
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	1.49304	33	100.1667	1.49958	43	1000.2000	1.50206
24	12.7333	1.49412	34	126.0667	1.50007	44	1259.1333	1.50364
25	16.0000	1.49496	35	158.6667	1.50034	45	1440.3500	1.50378
26	20.1000	1.49568	36	199.7000	1.50056			
27	25.2667	1.49623	37	251.3667	1.50095			
28	31.7833	1.49664	38	316.4000	1.50142			
29	39.9667	1.49703	39	398.2833	1.50159			
30	50.2833	1.49801	40	501.3667	1.50161			
31	63.2500	1.49859	41	631.1500	1.50175			
32	79.6000	1.49906	42	794.5167	1.50187			

Void Ratio = 0.725 **Compression =** 20.3%

D_0 = 1.4703 **D_{90} =** 1.4895 **D_{100} =** 1.4916 **C_V at 5.64 min. =** 0.251 ft.^{2}/day

Pressure: 32000.00 psf | **TEST READINGS** | **Load No. 13**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.49774	24	12.7167	1.52992
2	0.1000	1.50723	25	15.9833	1.53056
3	0.2000	1.50903	26	20.0833	1.53146
4	0.2167	1.50946	27	25.2500	1.53200
5	0.2500	1.51002	28	31.7667	1.53245
6	0.3000	1.51134	29	39.9500	1.53284
7	0.3500	1.51184	30	50.2667	1.53333
8	0.4167	1.51220	31	63.2333	1.53411
9	0.5000	1.51357	32	79.5833	1.53466
10	0.6167	1.51369	33	100.1500	1.53502
11	0.7333	1.51456	34	126.0500	1.53547
12	0.9000	1.51540	35	158.6500	1.53584
13	1.1167	1.51657	36	199.6833	1.53609
14	1.3667	1.51808	37	251.3500	1.53659
15	1.7000	1.51930	38	316.4000	1.53669
16	2.1167	1.52032	39	398.2667	1.53687
17	2.6333	1.52194	40	501.3500	1.53699
18	3.2833	1.52342	41	631.1333	1.53722
19	4.1167	1.52474	42	794.5000	1.53737
20	5.1333	1.52583	43	1000.1833	1.53777
21	6.4333	1.52678	44	1259.1167	1.53933
22	8.0667	1.52808	45	1440.3167	1.53925
23	10.1333	1.52920			

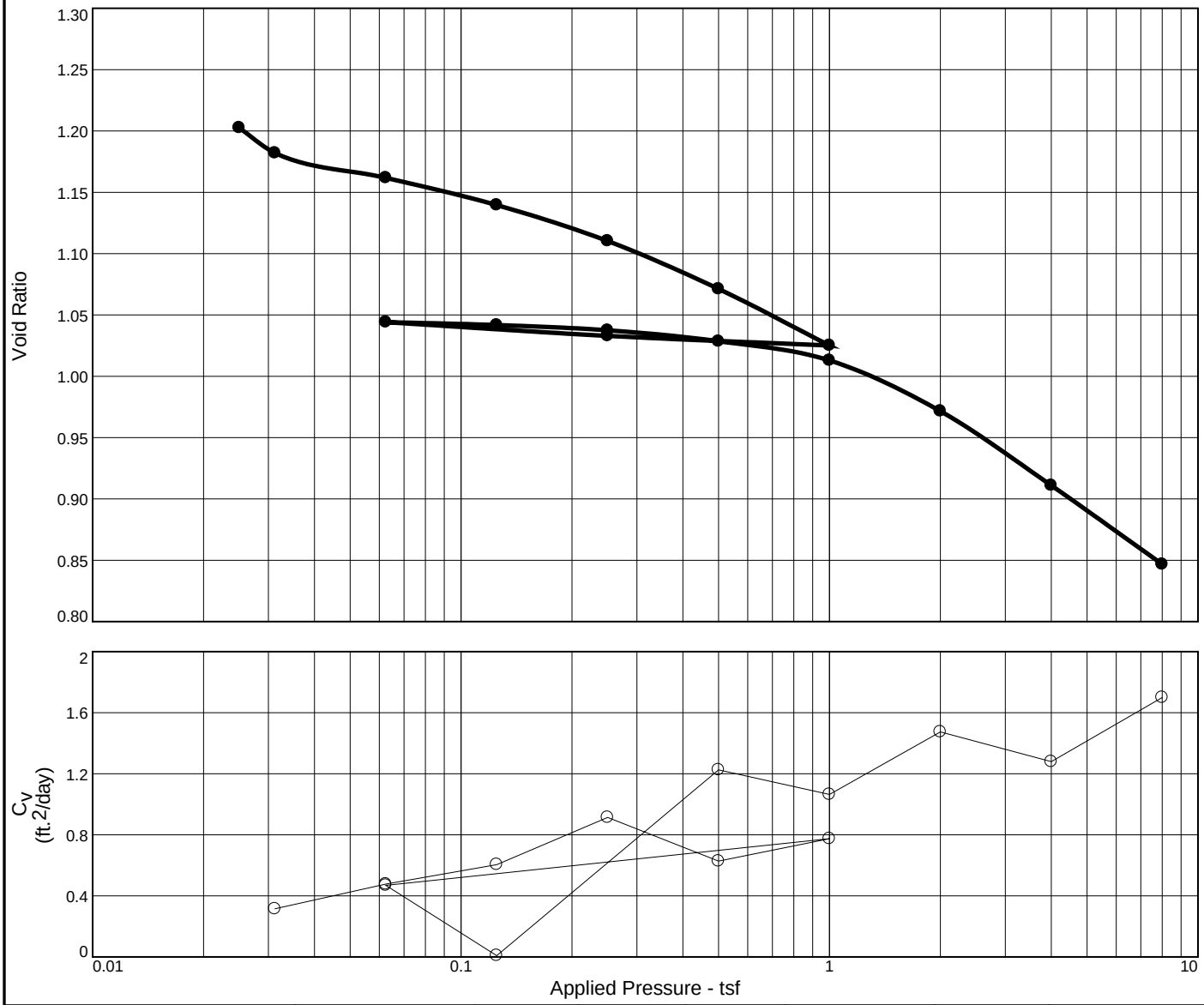


Void Ratio = 0.648 **Compression =** 23.8%

D_0 = 1.5071 **D_{90} =** 1.5265 **D_{100} =** 1.5287 **C_V at 6.10 min. =** 0.213 ft.^{2}/day

Figure B-134k

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	P_c (tsf)	C_c	Initial Void Ratio
Saturation	Moisture							
105.8 %	47.5 %	75.9	NP	NP	2.678	0.5	0.20	1.203

MATERIAL DESCRIPTION	USCS	AASHTO
Gray silt with sand, traces of clay and organic matter	(ML)	

Project No. 18274-022-01 **Client:** CEC

Project: Chandeleur Island Restoration Project (PO-0199)

Location: CI-09 **Depth:** 33-35

Remarks:
Specific gravity measured.

GeoEngineers

Figure B-135a

Tested By: Dustin Blanchard **Checked By:** J. Aguettant

CONSOLIDATION TEST DATA

12/22/2023

Client: CEC
Project: Chandeleur Island Restoration Project (PO-0199)
Project Number: 18274-022-01
Location: CI-09
Depth: 33-35
Material Description: Gray silt with sand, traces of clay and organic matter
Liquid Limit: NP **Plasticity Index:** NP
USCS: (ML)
Testing Remarks: Specific gravity measured.
Tested by: Dustin Blanchard **Checked by:** J. Aguettant

Test Specimen Data

NATURAL MOISTURE		VOID RATIO		AFTER TEST	
Wet w+t =	132.56 g.	Spec. Gr. =	2.678	Wet w+t =	168.60 g.
Dry w+t =	95.80 g.	Est. Ht. Solids =	0.454 in.	Dry w+t =	137.18 g.
Tare Wt. =	18.44 g.	Init. V.R. =	1.203	Tare Wt. =	36.97 g.
Moisture =	47.5 %	Init. Sat. =	105.8 %	Moisture =	31.4 %

UNIT WEIGHT		TEST START			
Height =	1.000 in.	Height =	1.000 in.		
Diameter =	2.500 in.	Diameter =	2.500 in.	Dry Wt. =	100.21 g.
Weight =	144.23 g.				
Dry Dens. =	75.9 pcf				

End-Of-Load Summary

Pressure (psf)	Final Dial (in.)	Deformation (in.)	C_v (ft.^{2}/day)	C_α	Void Ratio	% Strain
start	1.07860	0.00000			1.203	
50.00	1.07890	0.00030			1.203	0.0 Comprs.
62.50	1.08825	0.00965	0.315	0.001	1.182	1.0 Comprs.
125.00	1.09743	0.01883	0.785	0.002	1.162	1.9 Comprs.
250.00	1.10753	0.02893	1.013	0.001	1.140	2.9 Comprs.
500.00	1.12082	0.04222	0.046	0.001	1.110	4.2 Comprs.
1000.00	1.13855	0.05995	0.113	0.002	1.071	6.0 Comprs.
2000.00	1.15948	0.08088	0.024	0.002	1.025	8.1 Comprs.
500.00	1.15591	0.07731			1.033	7.7 Comprs.
125.00	1.15084	0.07224	0.001		1.044	7.2 Comprs.
250.00	1.15191	0.07331	0.009	0.000	1.042	7.3 Comprs.
500.00	1.15385	0.07525		0.001	1.037	7.5 Comprs.
1000.00	1.15790	0.07930	1.120	0.000	1.029	7.9 Comprs.
2000.00	1.16500	0.08640	0.134	0.001	1.013	8.6 Comprs.
4000.00	1.18378	0.10518	0.057	0.002	0.972	10.5 Comprs.
8000.00	1.21128	0.13268	0.033	0.002	0.911	13.3 Comprs.
16000.00	1.24042	0.16182	1.690	0.002	0.847	16.2 Comprs.

Compression index (C_c), tsf = 0.20 **Preconsolidation pressure (P_p), tsf =** 0.5 **Void ratio at P_p (e_m) =** 1.075
Recompression index (C_r) = 0.05

Figure B-135b

Pressure: 50.00 psf			TEST READINGS					Load No. 1
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.07860	16	2.4667	1.07866	31	79.4167	1.07874
2	0.0333	1.07859	17	3.1167	1.07869	32	99.9833	1.07882
3	0.0667	1.07859	18	3.9333	1.07868	33	125.8667	1.07887
4	0.1000	1.07859	19	4.9667	1.07865	34	158.4667	1.07888
5	0.1333	1.07860	20	6.2667	1.07866	35	199.5167	1.07898
6	0.1833	1.07861	21	7.9000	1.07862	36	251.1833	1.07917
7	0.2500	1.07861	22	9.9667	1.07867	37	316.2167	1.07928
8	0.3333	1.07862	23	12.5500	1.07867	38	398.1000	1.07936
9	0.4500	1.07864	24	15.8167	1.07868	39	501.1833	1.07939
10	0.5667	1.07868	25	19.9167	1.07866	40	630.9667	1.07947
11	0.7333	1.07863	26	25.0833	1.07874	41	794.3333	1.07934
12	0.9500	1.07868	27	31.6000	1.07870	42	1000.0167	1.07927
13	1.2000	1.07861	28	39.7833	1.07869	43	1258.9333	1.07919
14	1.5333	1.07868	29	50.1000	1.07870	44	1440.1833	1.07890
15	1.9500	1.07867	30	63.0667	1.07873			

Void Ratio = 1.203 **Compression =** 0.0%

Pressure: 62.50 psf			TEST READINGS			Load No. 2
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	
1	0.0000	1.07899	21	6.4333	1.08463	
2	0.1000	1.07903	22	8.0667	1.08496	
3	0.2000	1.07908	23	10.1333	1.08538	
4	0.2167	1.07907	24	12.7167	1.08565	
5	0.2500	1.07911	25	15.9833	1.08591	
6	0.3000	1.07914	26	20.0833	1.08645	
7	0.3500	1.07915	27	25.2500	1.08659	
8	0.4167	1.07926	28	31.7667	1.08651	
9	0.5000	1.07925	29	39.9500	1.08679	
10	0.6000	1.07938	30	50.2667	1.08683	
11	0.7333	1.07958	31	63.2333	1.08684	
12	0.9000	1.07982	32	79.5833	1.08700	
13	1.1167	1.08013	33	100.1500	1.08708	
14	1.3667	1.08083	34	126.0500	1.08725	
15	1.7000	1.08208	35	158.6500	1.08742	
16	2.1167	1.08282	36	199.6833	1.08757	
17	2.6333	1.08326	37	251.3500	1.08783	
18	3.2833	1.08367	38	316.3833	1.08793	
19	4.1000	1.08378	39	398.2667	1.08793	
20	5.1333	1.08410	40	501.3667	1.08800	

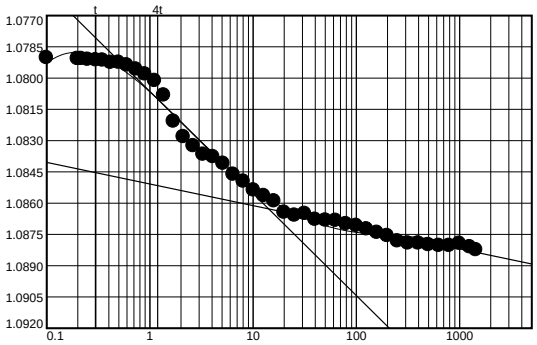


Figure B-135c

Pressure: 62.50 psf	TEST READINGS (continued)	Load No. 2

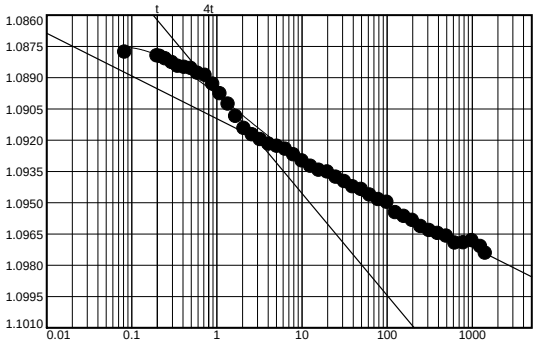
No.	Elapsed Time	Dial Reading
41	631.1333	1.08804
42	794.5167	1.08804
43	1000.2000	1.08794
44	1259.1333	1.08811
45	1440.1500	1.08825

Void Ratio = 1.182 **Compression =** 1.0%

D_0 = 1.0768 **D_{50} =** 1.0815 **D_{100} =** 1.0863 **C_v at 1.55 min. =** 0.315 ft.^{2}/day **C_α =** 0.001

Pressure: 125.00 psf	TEST READINGS	Load No. 3

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.08763	24	12.7000	1.09327
2	0.0833	1.08779	25	15.9667	1.09346
3	0.2000	1.08797	26	20.0667	1.09354
4	0.2167	1.08799	27	25.2333	1.09379
5	0.2500	1.08811	28	31.7500	1.09400
6	0.3000	1.08829	29	39.9333	1.09425
7	0.3500	1.08847	30	50.2500	1.09438
8	0.4167	1.08852	31	63.2333	1.09465
9	0.5000	1.08857	32	79.5667	1.09486
10	0.6000	1.08880	33	100.1333	1.09499
11	0.7333	1.08890	34	126.0333	1.09549
12	0.9000	1.08932	35	158.6333	1.09567
13	1.1000	1.08978	36	199.6667	1.09586
14	1.3667	1.09028	37	251.3333	1.09616
15	1.6833	1.09087	38	316.3667	1.09635
16	2.1000	1.09145	39	398.2500	1.09649
17	2.6167	1.09175	40	501.3333	1.09662
18	3.2667	1.09198	41	631.1167	1.09695
19	4.1000	1.09220	42	794.4833	1.09694
20	5.1333	1.09230	43	1000.1667	1.09683
21	6.4167	1.09245	44	1259.1000	1.09712
22	8.0500	1.09271	45	1440.2167	1.09743
23	10.1167	1.09301			



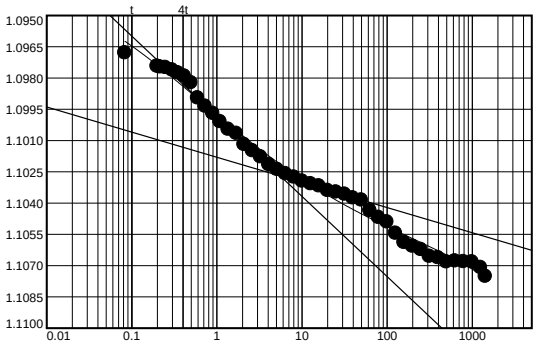
Void Ratio = 1.162 **Compression =** 1.9%

D_0 = 1.0864 **D_{50} =** 1.0891 **D_{100} =** 1.0919 **C_v at 0.61 min. =** 0.785 ft.^{2}/day **C_α =** 0.002

Figure B-135d

Pressure: 250.00 psf | **TEST READINGS** | **Load No. 4**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.09616	24	12.7167	1.10309
2	0.0833	1.09680	25	15.9833	1.10319
3	0.2000	1.09744	26	20.0833	1.10341
4	0.2167	1.09748	27	25.2500	1.10348
5	0.2500	1.09751	28	31.7500	1.10359
6	0.3000	1.09762	29	39.9500	1.10376
7	0.3500	1.09777	30	50.2500	1.10387
8	0.4167	1.09792	31	63.2333	1.10437
9	0.5000	1.09824	32	79.5667	1.10470
10	0.6000	1.09897	33	100.1500	1.10492
11	0.7333	1.09936	34	126.0333	1.10546
12	0.9000	1.09971	35	158.6333	1.10590
13	1.1000	1.10011	36	199.6667	1.10608
14	1.3667	1.10047	37	251.3333	1.10624
15	1.7000	1.10067	38	316.3833	1.10657
16	2.1000	1.10120	39	398.2667	1.10663
17	2.6333	1.10150	40	501.3500	1.10684
18	3.2833	1.10180	41	631.1167	1.10679
19	4.1000	1.10216	42	794.5000	1.10682
20	5.1333	1.10240	43	1000.1833	1.10683
21	6.4333	1.10260	44	1259.1000	1.10710
22	8.0667	1.10277	45	1440.2833	1.10753
23	10.1333	1.10296			



Void Ratio = 1.140 **Compression =** 2.9%

D_0 = 1.0945 **D_{50} =** 1.0986 **D_{100} =** 1.1027 **C_V at 0.46 min. =** 1.013 ft.^{2}/day **C_α =** 0.001

Pressure: 500.00 psf | **TEST READINGS** | **Load No. 5**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.10673	12	0.9167	1.11174
2	0.1000	1.10834	13	1.1167	1.11204
3	0.2000	1.10969	14	1.3833	1.11238
4	0.2333	1.11000	15	1.7167	1.11272
5	0.2667	1.11037	16	2.1167	1.11292
6	0.3000	1.11060	17	2.6333	1.11310
7	0.3667	1.11078	18	3.2833	1.11338
8	0.4167	1.11096	19	4.1167	1.11372
9	0.5167	1.11115	20	5.1500	1.11379
10	0.6167	1.11126	21	6.4333	1.11404
11	0.7500	1.11149	22	8.0833	1.11429

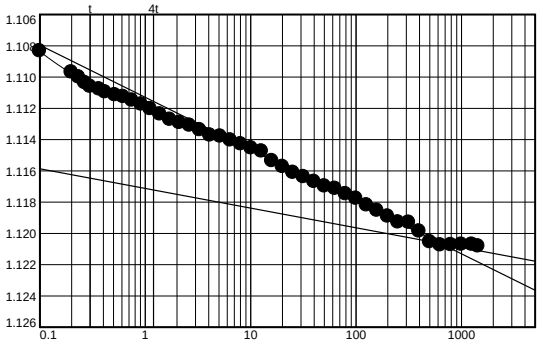


Figure B-135e

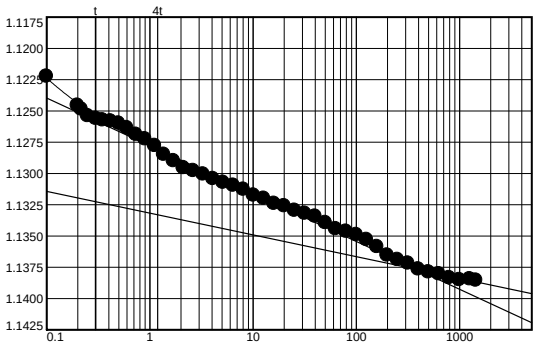
Pressure: 500.00 psf	TEST READINGS (continued)	Load No. 5

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	1.11455	33	100.1500	1.11776	43	1000.1833	1.12071
24	12.7167	1.11475	34	126.0500	1.11820	44	1259.1167	1.12071
25	15.9833	1.11536	35	158.6500	1.11853	45	1440.3333	1.12082
26	20.0833	1.11573	36	199.6833	1.11891			
27	25.2500	1.11611	37	251.3500	1.11929			
28	31.7667	1.11639	38	316.3833	1.11930			
29	39.9500	1.11670	39	398.2667	1.11987			
30	50.2667	1.11699	40	501.3500	1.12055			
31	63.2333	1.11713	41	631.1333	1.12075			
32	79.5833	1.11748	42	794.5000	1.12073			

Void Ratio = 1.110 **Compression =** 4.2%
D_0 = 1.1087 **D_{50} =** 1.1147 **D_{100} =** 1.1206 **C_v at 10.05 min. =** 0.046 ft.^{2}/day **C_α =** 0.001

Pressure: 1000.00 psf	TEST READINGS	Load No. 6

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.11951	24	12.7167	1.13201
2	0.1000	1.12225	25	15.9833	1.13241
3	0.2000	1.12456	26	20.0833	1.13261
4	0.2167	1.12486	27	25.2500	1.13296
5	0.2500	1.12539	28	31.7667	1.13321
6	0.3000	1.12561	29	39.9500	1.13344
7	0.3500	1.12573	30	50.2500	1.13395
8	0.4167	1.12583	31	63.2333	1.13444
9	0.5000	1.12599	32	79.5667	1.13464
10	0.6000	1.12635	33	100.1333	1.13490
11	0.7333	1.12688	34	126.0333	1.13530
12	0.9000	1.12726	35	158.6333	1.13587
13	1.1167	1.12778	36	199.6833	1.13655
14	1.3667	1.12849	37	251.3333	1.13690
15	1.7000	1.12900	38	316.3833	1.13718
16	2.1167	1.12955	39	398.2667	1.13765
17	2.6333	1.12979	40	501.3500	1.13790
18	3.2833	1.13006	41	631.1167	1.13804
19	4.1000	1.13042	42	794.5000	1.13835
20	5.1333	1.13072	43	1000.1667	1.13850
21	6.4333	1.13096	44	1259.1167	1.13845
22	8.0667	1.13129	45	1440.4000	1.13855
23	10.1333	1.13175			

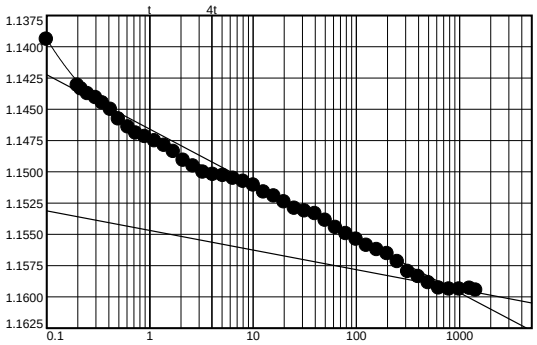


Void Ratio = 1.071 **Compression =** 6.0%
D_0 = 1.1226 **D_{50} =** 1.1301 **D_{100} =** 1.1377 **C_v at 3.94 min. =** 0.113 ft.^{2}/day **C_α =** 0.002

Figure B-135f

Pressure: 2000.00 psf | **TEST READINGS** | **Load No. 7**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.13683	24	12.7167	1.15164
2	0.1000	1.13942	25	15.9833	1.15195
3	0.2000	1.14310	26	20.0833	1.15242
4	0.2167	1.14339	27	25.2500	1.15294
5	0.2500	1.14378	28	31.7500	1.15316
6	0.3000	1.14410	29	39.9500	1.15336
7	0.3500	1.14452	30	50.2500	1.15389
8	0.4167	1.14503	31	63.2333	1.15448
9	0.5000	1.14580	32	79.5667	1.15497
10	0.6167	1.14644	33	100.1333	1.15542
11	0.7333	1.14692	34	126.0333	1.15590
12	0.9000	1.14720	35	158.6333	1.15625
13	1.1167	1.14754	36	199.6667	1.15656
14	1.3833	1.14791	37	251.3333	1.15721
15	1.7000	1.14839	38	316.3833	1.15799
16	2.1167	1.14910	39	398.2667	1.15839
17	2.6333	1.14956	40	501.3500	1.15889
18	3.2833	1.15005	41	631.1333	1.15932
19	4.1000	1.15024	42	794.5000	1.15939
20	5.1333	1.15032	43	1000.1833	1.15939
21	6.4333	1.15054	44	1259.1167	1.15933
22	8.0667	1.15079	45	1440.2833	1.15948
23	10.1333	1.15108			



Void Ratio = 1.025 **Compression =** 8.1%

D_0 = 1.1452 **D_{50} =** 1.1522 **D_{100} =** 1.1592 **C_V at 17.98 min. =** 0.024 ft.^{2}/day **C_α =** 0.002

Pressure: 500.00 psf | **TEST READINGS** | **Load No. 8**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.16159	12	0.9167	1.15763	23	10.1500	1.15703
2	0.1000	1.15844	13	1.1167	1.15762	24	12.7333	1.15702
3	0.2000	1.15807	14	1.3833	1.15754	25	16.0000	1.15699
4	0.2333	1.15800	15	1.7167	1.15744	26	20.1000	1.15695
5	0.2667	1.15797	16	2.1333	1.15740	27	25.2667	1.15686
6	0.3000	1.15795	17	2.6500	1.15732	28	31.7667	1.15692
7	0.3667	1.15786	18	3.3000	1.15727	29	39.9667	1.15688
8	0.4167	1.15785	19	4.1167	1.15727	30	50.2667	1.15693
9	0.5167	1.15784	20	5.1500	1.15717	31	63.2500	1.15682
10	0.6167	1.15765	21	6.4500	1.15713	32	79.6000	1.15685
11	0.7500	1.15762	22	8.0833	1.15720	33	100.1667	1.15685

Figure B-135g

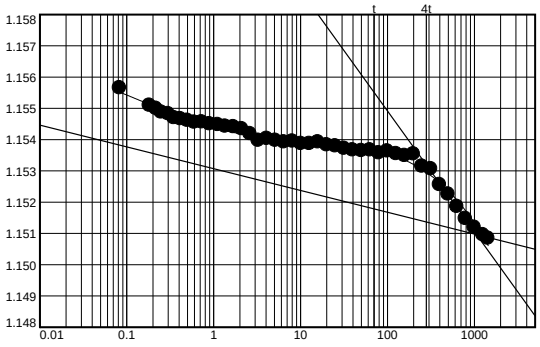
Pressure: 500.00 psf	TEST READINGS (continued)	Load No. 8

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
34	126.0500	1.15697	44	1259.1333	1.15605
35	158.6500	1.15714	45	1440.2333	1.15591
36	199.7000	1.15709			
37	251.3667	1.15695			
38	316.4000	1.15696			
39	398.2833	1.15692			
40	501.3667	1.15703			
41	631.1500	1.15690			
42	794.5167	1.15673			
43	1000.2000	1.15644			

Void Ratio = 1.033 **Compression =** 7.7%

Pressure: 125.00 psf	TEST READINGS	Load No. 9

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.15727	24	12.7167	1.15387
2	0.0833	1.15565	25	15.9833	1.15392
3	0.1833	1.15509	26	20.0833	1.15382
4	0.2167	1.15499	27	25.2500	1.15379
5	0.2500	1.15487	28	31.7667	1.15371
6	0.3000	1.15482	29	39.9500	1.15366
7	0.3500	1.15469	30	50.2667	1.15364
8	0.4167	1.15466	31	63.2333	1.15366
9	0.5000	1.15461	32	79.5833	1.15357
10	0.6000	1.15455	33	100.1500	1.15363
11	0.7333	1.15456	34	126.0333	1.15354
12	0.9000	1.15450	35	158.6500	1.15348
13	1.1167	1.15447	36	199.6833	1.15353
14	1.3667	1.15442	37	251.3500	1.15314
15	1.7000	1.15440	38	316.3833	1.15306
16	2.1167	1.15434	39	398.2667	1.15255
17	2.6333	1.15418	40	501.3500	1.15225
18	3.2833	1.15397	41	631.1333	1.15185
19	4.1000	1.15403	42	794.5167	1.15147
20	5.1333	1.15397	43	1000.1833	1.15119
21	6.4333	1.15392	44	1259.1167	1.15095
22	8.0667	1.15394	45	1440.2167	1.15084
23	10.1333	1.15387			



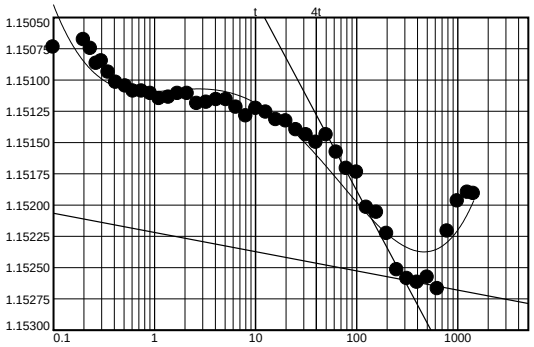
Void Ratio = 1.044 **Compression =** 7.2%

D_0 = 1.1544 **D_{50} =** 1.1527 **D_{100} =** 1.1510 **C_V at 379.82 min. =** 0.001 ft.^{2}/day

Figure B-135h

Pressure: 250.00 psf	TEST READINGS	Load No. 10

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.15069	24	12.7333	1.15126
2	0.1000	1.15074	25	15.9833	1.15132
3	0.2000	1.15068	26	20.1000	1.15133
4	0.2333	1.15075	27	25.2667	1.15140
5	0.2667	1.15087	28	31.7667	1.15144
6	0.3000	1.15085	29	39.9667	1.15150
7	0.3500	1.15094	30	50.2667	1.15144
8	0.4167	1.15102	31	63.2500	1.15158
9	0.5167	1.15105	32	79.6000	1.15171
10	0.6167	1.15109	33	100.1667	1.15174
11	0.7500	1.15109	34	126.0500	1.15202
12	0.9167	1.15111	35	158.6500	1.15206
13	1.1167	1.15115	36	199.7000	1.15223
14	1.3833	1.15114	37	251.3500	1.15252
15	1.7000	1.15111	38	316.4000	1.15259
16	2.1167	1.15111	39	398.2833	1.15262
17	2.6333	1.15119	40	501.3667	1.15258
18	3.2833	1.15118	41	631.1500	1.15267
19	4.1167	1.15116	42	794.5167	1.15221
20	5.1500	1.15116	43	1000.2000	1.15197
21	6.4500	1.15122	44	1259.1167	1.15190
22	8.0833	1.15129	45	1440.3333	1.15191
23	10.1333	1.15123			



Void Ratio = 1.042 **Compression =** 7.3%

D_0 = 1.1508 **D_{50} =** 1.1517 **D_{100} =** 1.1526 **C_V at 49.01 min. =** 0.009 ft.^{2}/day **C_α =** 0.000

Pressure: 500.00 psf	TEST READINGS	Load No. 11

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.15133	12	0.9000	1.15305	23	10.1333	1.15316
2	0.1000	1.15245	13	1.1167	1.15301	24	12.7333	1.15321
3	0.2000	1.15286	14	1.3667	1.15309	25	15.9833	1.15322
4	0.2167	1.15289	15	1.7000	1.15303	26	20.1000	1.15312
5	0.2500	1.15289	16	2.1167	1.15307	27	25.2667	1.15321
6	0.3000	1.15295	17	2.6333	1.15311	28	31.7667	1.15317
7	0.3500	1.15295	18	3.2833	1.15310	29	39.9667	1.15319
8	0.4167	1.15293	19	4.1167	1.15312	30	50.2667	1.15327
9	0.5000	1.15295	20	5.1500	1.15312	31	63.2500	1.15340
10	0.6000	1.15296	21	6.4500	1.15317	32	79.5833	1.15332
11	0.7333	1.15304	22	8.0833	1.15313	33	100.1667	1.15341

Figure B-135i

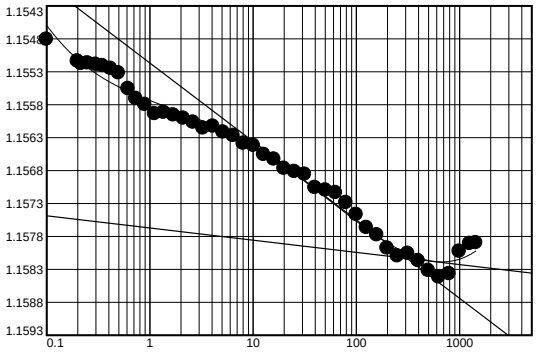
Pressure: 500.00 psf	TEST READINGS (continued)	Load No. 11

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
34	126.0500	1.15351	44	1259.1333	1.15378
35	158.6500	1.15365	45	1440.2833	1.15385
36	199.7000	1.15377			
37	251.3667	1.15394			
38	316.4000	1.15409			
39	398.2833	1.15418			
40	501.3667	1.15425			
41	631.1500	1.15407			
42	794.5167	1.15395			
43	1000.2000	1.15380			

Void Ratio = 1.037 **Compression =** 7.5%

Pressure: 1000.00 psf	TEST READINGS	Load No. 12

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.15271	24	12.7167	1.15656
2	0.1000	1.15481	25	15.9833	1.15663
3	0.2000	1.15514	26	20.0833	1.15677
4	0.2167	1.15518	27	25.2500	1.15682
5	0.2500	1.15517	28	31.7500	1.15686
6	0.3000	1.15519	29	39.9500	1.15706
7	0.3500	1.15521	30	50.2667	1.15710
8	0.4167	1.15525	31	63.2333	1.15714
9	0.5000	1.15532	32	79.5833	1.15729
10	0.6167	1.15556	33	100.1500	1.15747
11	0.7333	1.15571	34	126.0500	1.15767
12	0.9000	1.15580	35	158.6500	1.15778
13	1.1167	1.15594	36	199.6833	1.15798
14	1.3667	1.15592	37	251.3500	1.15810
15	1.7000	1.15596	38	316.4000	1.15806
16	2.1167	1.15601	39	398.2833	1.15817
17	2.6333	1.15607	40	501.3667	1.15832
18	3.2833	1.15616	41	631.1333	1.15842
19	4.1000	1.15613	42	794.5167	1.15837
20	5.1333	1.15622	43	1000.1833	1.15803
21	6.4333	1.15627	44	1259.1167	1.15791
22	8.0667	1.15639	45	1440.0333	1.15790
23	10.1333	1.15642			



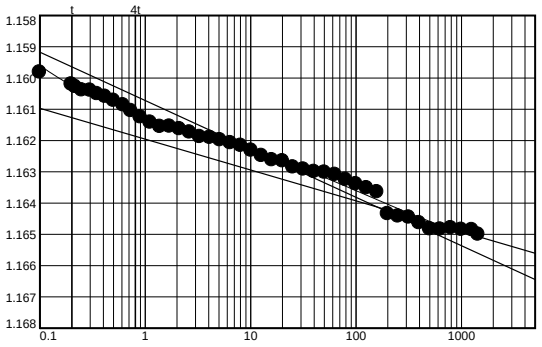
Void Ratio = 1.029 **Compression =** 7.9%

D_0 = 1.1527 **D_{50} =** 1.1554 **D_{100} =** 1.1581 **C_V at 0.37 min. =** 1.120 ft.^{2}/day **C_α =** 0.000

Figure B-135j

Pressure: 2000.00 psf	TEST READINGS	Load No. 13

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.15651	24	12.7167	1.16249
2	0.1000	1.15982	25	15.9833	1.16262
3	0.2000	1.16020	26	20.1000	1.16266
4	0.2167	1.16028	27	25.2667	1.16285
5	0.2500	1.16039	28	31.7667	1.16292
6	0.3000	1.16040	29	39.9500	1.16300
7	0.3500	1.16051	30	50.2667	1.16302
8	0.4167	1.16059	31	63.2500	1.16309
9	0.5000	1.16072	32	79.5833	1.16325
10	0.6167	1.16087	33	100.1500	1.16339
11	0.7333	1.16105	34	126.0500	1.16352
12	0.9000	1.16125	35	158.6500	1.16365
13	1.1167	1.16142	36	199.6833	1.16435
14	1.3833	1.16156	37	251.3500	1.16442
15	1.7000	1.16155	38	316.4000	1.16446
16	2.1167	1.16163	39	398.2833	1.16464
17	2.6333	1.16174	40	501.3667	1.16483
18	3.2833	1.16188	41	631.1333	1.16484
19	4.1000	1.16191	42	794.5167	1.16480
20	5.1333	1.16198	43	1000.2000	1.16485
21	6.4333	1.16208	44	1259.1333	1.16486
22	8.0833	1.16216	45	1440.2833	1.16500
23	10.1333	1.16232			



Void Ratio = 1.013 **Compression =** 8.6%

D_0 = 1.1594 **D_{50} =** 1.1617 **D_{100} =** 1.1641 **C_V at 3.10 min. =** 0.134 ft.^{2}/day **C_α =** 0.001

Pressure: 4000.00 psf	TEST READINGS	Load No. 14

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.16254	12	0.9167	1.17370
2	0.1000	1.16816	13	1.1167	1.17398
3	0.2000	1.17005	14	1.3833	1.17409
4	0.2333	1.17030	15	1.7167	1.17428
5	0.2667	1.17106	16	2.1167	1.17450
6	0.3000	1.17149	17	2.6333	1.17470
7	0.3500	1.17178	18	3.2833	1.17509
8	0.4167	1.17210	19	4.1167	1.17528
9	0.5167	1.17238	20	5.1500	1.17558
10	0.6167	1.17261	21	6.4333	1.17591
11	0.7500	1.17307	22	8.0833	1.17629

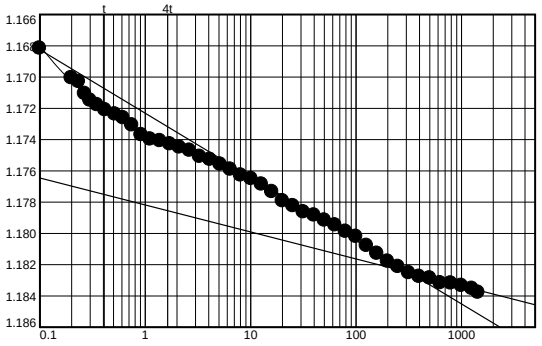


Figure B-135k

Pressure: 4000.00 psf | **TEST READINGS (continued)** | **Load No. 14**

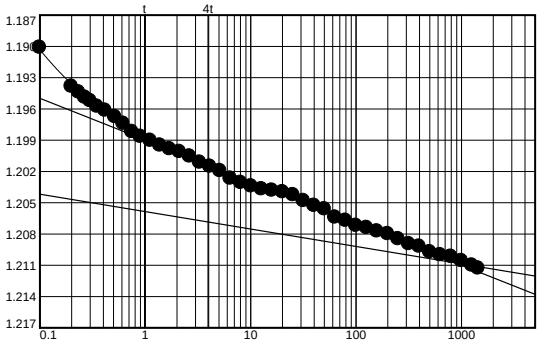
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	1.17651	33	100.1500	1.18021	43	1000.1833	1.18334
24	12.7333	1.17686	34	126.0500	1.18079	44	1259.1167	1.18353
25	15.9833	1.17734	35	158.6500	1.18129	45	1440.2833	1.18378
26	20.0833	1.17793	36	199.6833	1.18180			
27	25.2500	1.17824	37	251.3500	1.18214			
28	31.7667	1.17863	38	316.4000	1.18253			
29	39.9500	1.17884	39	398.2667	1.18276			
30	50.2667	1.17917	40	501.3500	1.18287			
31	63.2500	1.17948	41	631.1333	1.18318			
32	79.5833	1.17988	42	794.5000	1.18319			

Void Ratio = 0.972 **Compression =** 10.5%

D_0 = 1.1698 **D_{50} =** 1.1761 **D_{100} =** 1.1825 **C_v at 7.14 min. =** 0.057 ft.^{2}/day **C_α =** 0.002

Pressure: 8000.00 psf | **TEST READINGS** | **Load No. 15**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.18116	24	12.7167	1.20368
2	0.1000	1.19011	25	15.9833	1.20383
3	0.2000	1.19384	26	20.0833	1.20398
4	0.2333	1.19439	27	25.2500	1.20425
5	0.2667	1.19490	28	31.7667	1.20481
6	0.3000	1.19522	29	39.9500	1.20528
7	0.3500	1.19576	30	50.2500	1.20562
8	0.4167	1.19614	31	63.2333	1.20641
9	0.5167	1.19675	32	79.5667	1.20671
10	0.6167	1.19740	33	100.1500	1.20719
11	0.7500	1.19820	34	126.0333	1.20740
12	0.9000	1.19865	35	158.6333	1.20773
13	1.1167	1.19904	36	199.6833	1.20800
14	1.3833	1.19949	37	251.3500	1.20847
15	1.7000	1.19984	38	316.3833	1.20895
16	2.1167	1.20012	39	398.2667	1.20920
17	2.6333	1.20054	40	501.3500	1.20973
18	3.2833	1.20113	41	631.1167	1.21001
19	4.1000	1.20152	42	794.5000	1.21017
20	5.1333	1.20194	43	1000.1833	1.21057
21	6.4333	1.20267	44	1259.1000	1.21100
22	8.0667	1.20308	45	1440.3667	1.21128
23	10.1333	1.20341			



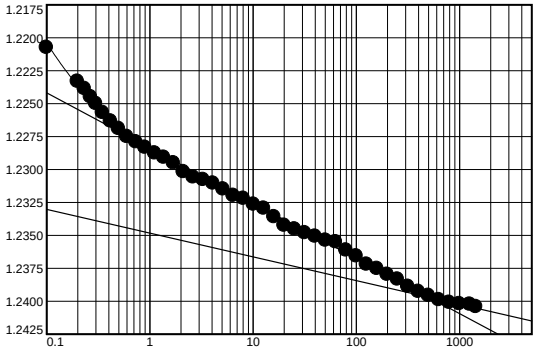
Void Ratio = 0.911 **Compression =** 13.3%

D_0 = 1.1959 **D_{50} =** 1.2033 **D_{100} =** 1.2108 **C_v at 11.55 min. =** 0.033 ft.^{2}/day **C_α =** 0.002

Figure B-135l

Pressure: 16000.00 psf	TEST READINGS	Load No. 16

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.20804	24	12.7167	1.23296
2	0.1000	1.22075	25	15.9833	1.23361
3	0.2000	1.22332	26	20.0833	1.23426
4	0.2333	1.22387	27	25.2500	1.23453
5	0.2667	1.22450	28	31.7667	1.23482
6	0.3000	1.22499	29	39.9500	1.23509
7	0.3500	1.22569	30	50.2667	1.23539
8	0.4167	1.22634	31	63.2500	1.23550
9	0.5000	1.22690	32	79.5833	1.23613
10	0.6000	1.22751	33	100.1500	1.23658
11	0.7333	1.22792	34	126.0500	1.23720
12	0.9000	1.22833	35	158.6500	1.23753
13	1.1167	1.22877	36	199.6833	1.23797
14	1.3667	1.22909	37	251.3500	1.23834
15	1.7000	1.22952	38	316.4000	1.23889
16	2.1167	1.23018	39	398.2833	1.23927
17	2.6333	1.23059	40	501.3667	1.23957
18	3.2833	1.23078	41	631.1333	1.23990
19	4.1000	1.23105	42	794.5167	1.24011
20	5.1333	1.23149	43	1000.2000	1.24021
21	6.4333	1.23198	44	1259.1333	1.24025
22	8.0667	1.23220	45	1440.2500	1.24042
23	10.1333	1.23265			

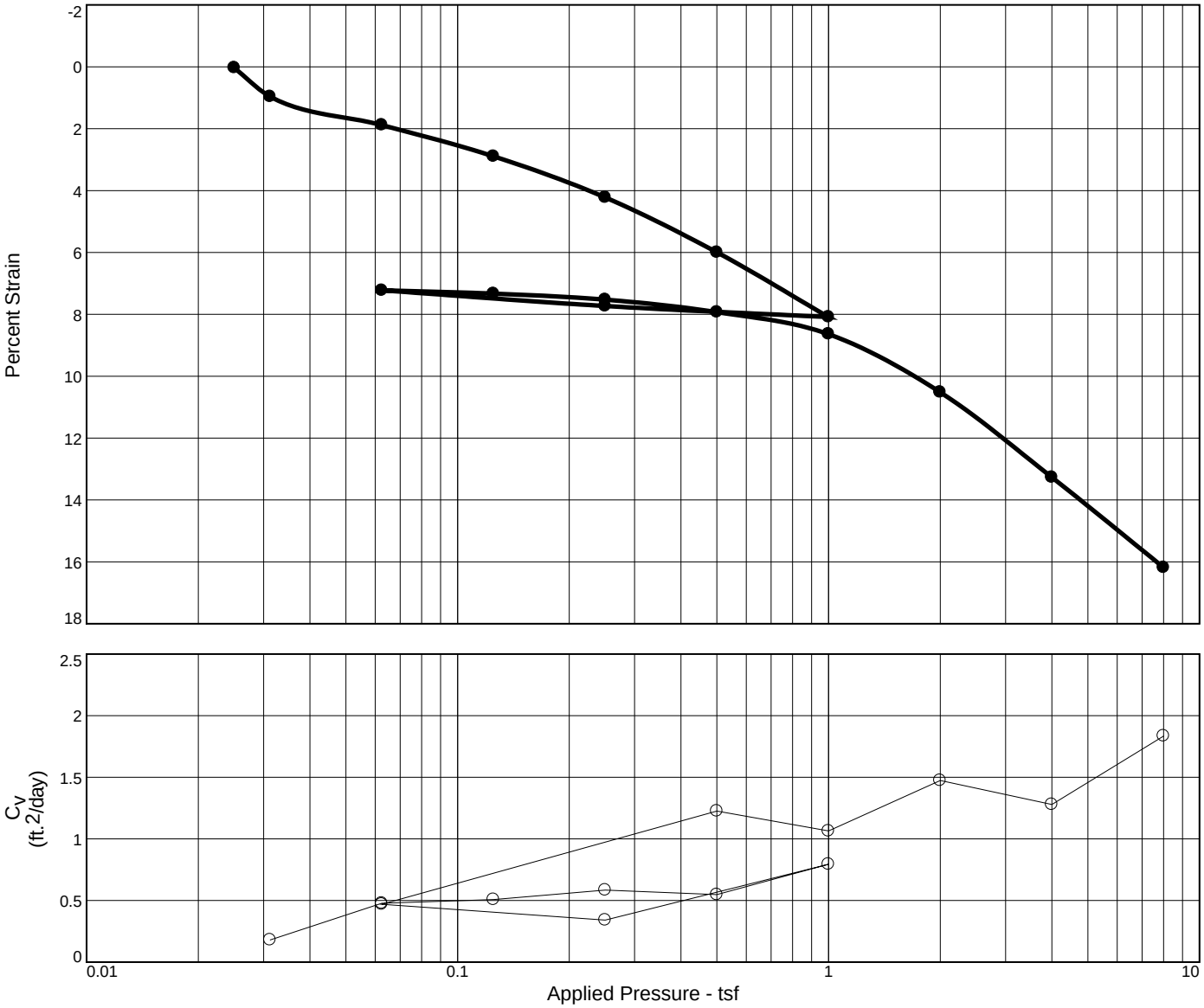


Void Ratio = 0.847 **Compression =** 16.2%

D_0 = 1.2080 **D_{50} =** 1.2239 **D_{100} =** 1.2397 **C_V at 0.21 min. =** 1.690 ft.^{2}/day **C_α =** 0.002

Figure B-135m

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	P_c (tsf)	C_c	Initial Void Ratio
Saturation	Moisture							
105.8 %	47.5 %	75.9	NP	NP	2.678	0.5	0.20	1.203

MATERIAL DESCRIPTION	USCS	AASHTO
Gray silt with sand, traces of clay and organic matter	(ML)	

Project No. 18274-022-01 **Client:** CEC

Project: Chandeleur Island Restoration Project (PO-0199)

Location: CI-09 sqrt **Depth:** 33-35

Remarks:
Specific gravity measured.

GeoEngineers

Figure B-136a

Tested By: Dustin Blanchard **Checked By:** J. Aguettant

CONSOLIDATION TEST DATA

12/22/2023

Client: CEC
Project: Chandeleur Island Restoration Project (PO-0199)
Project Number: 18274-022-01
Location: CI-09 sqrt
Depth: 33-35
Material Description: Gray silt with sand, traces of clay and organic matter
Liquid Limit: NP **Plasticity Index:** NP
USCS: (ML)
Testing Remarks: Specific gravity measured.
Tested by: Dustin Blanchard **Checked by:** J. Aguettant

Test Specimen Data

NATURAL MOISTURE		VOID RATIO		AFTER TEST	
Wet w+t =	132.56 g.	Spec. Gr. =	2.678	Wet w+t =	168.60 g.
Dry w+t =	95.80 g.	Est. Ht. Solids =	0.454 in.	Dry w+t =	137.18 g.
Tare Wt. =	18.44 g.	Init. V.R. =	1.203	Tare Wt. =	36.97 g.
Moisture =	47.5 %	Init. Sat. =	105.8 %	Moisture =	31.4 %

UNIT WEIGHT		TEST START			
Height =	1.000 in.	Height =	1.000 in.		
Diameter =	2.500 in.	Diameter =	2.500 in.	Dry Wt. =	100.21 g.
Weight =	144.23 g.				
Dry Dens. =	75.9 pcf				

End-Of-Load Summary

Pressure (psf)	Final Dial (in.)	Deformation (in.)	C_v (ft.^{2}/day)	C_α	Void Ratio	% Strain
start	1.07860	0.00000			1.203	
50.00	1.07890	0.00030			1.203	0.0 Comprs.
62.50	1.08825	0.00965	0.180		1.182	1.0 Comprs.
125.00	1.09743	0.01883	0.477		1.162	1.9 Comprs.
250.00	1.10753	0.02893	0.508		1.140	2.9 Comprs.
500.00	1.12082	0.04222	0.585		1.110	4.2 Comprs.
1000.00	1.13855	0.05995	0.547		1.071	6.0 Comprs.
2000.00	1.15948	0.08088	0.794		1.025	8.1 Comprs.
500.00	1.15591	0.07731	0.341		1.033	7.7 Comprs.
125.00	1.15084	0.07224	0.469		1.044	7.2 Comprs.
250.00	1.15191	0.07331			1.042	7.3 Comprs.
500.00	1.15385	0.07525			1.037	7.5 Comprs.
1000.00	1.15790	0.07930	1.226		1.029	7.9 Comprs.
2000.00	1.16500	0.08640	1.064		1.013	8.6 Comprs.
4000.00	1.18378	0.10518	1.474		0.972	10.5 Comprs.
8000.00	1.21128	0.13268	1.279		0.911	13.3 Comprs.
16000.00	1.24042	0.16182	1.835		0.847	16.2 Comprs.

Compression index (C_c), tsf = 0.20 **Preconsolidation pressure (P_p), tsf =** 0.5 **Void ratio at P_p (e_m) =** 1.077
Recompression index (C_r) = 0.05

Figure B-136b

Pressure: 50.00 psf	TEST READINGS	Load No. 1

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.07860	16	2.4667	1.07866	31	79.4167	1.07874
2	0.0333	1.07859	17	3.1167	1.07869	32	99.9833	1.07882
3	0.0667	1.07859	18	3.9333	1.07868	33	125.8667	1.07887
4	0.1000	1.07859	19	4.9667	1.07865	34	158.4667	1.07888
5	0.1333	1.07860	20	6.2667	1.07866	35	199.5167	1.07898
6	0.1833	1.07861	21	7.9000	1.07862	36	251.1833	1.07917
7	0.2500	1.07861	22	9.9667	1.07867	37	316.2167	1.07928
8	0.3333	1.07862	23	12.5500	1.07867	38	398.1000	1.07936
9	0.4500	1.07864	24	15.8167	1.07868	39	501.1833	1.07939
10	0.5667	1.07868	25	19.9167	1.07866	40	630.9667	1.07947
11	0.7333	1.07863	26	25.0833	1.07874	41	794.3333	1.07934
12	0.9500	1.07868	27	31.6000	1.07870	42	1000.0167	1.07927
13	1.2000	1.07861	28	39.7833	1.07869	43	1258.9333	1.07919
14	1.5333	1.07868	29	50.1000	1.07870	44	1440.1833	1.07890
15	1.9500	1.07867	30	63.0667	1.07873			

Void Ratio = 1.203 **Compression =** 0.0%

Pressure: 62.50 psf	TEST READINGS	Load No. 2

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.07899	21	6.4333	1.08463
2	0.1000	1.07903	22	8.0667	1.08496
3	0.2000	1.07908	23	10.1333	1.08538
4	0.2167	1.07907	24	12.7167	1.08565
5	0.2500	1.07911	25	15.9833	1.08591
6	0.3000	1.07914	26	20.0833	1.08645
7	0.3500	1.07915	27	25.2500	1.08659
8	0.4167	1.07926	28	31.7667	1.08651
9	0.5000	1.07925	29	39.9500	1.08679
10	0.6000	1.07938	30	50.2667	1.08683
11	0.7333	1.07958	31	63.2333	1.08684
12	0.9000	1.07982	32	79.5833	1.08700
13	1.1167	1.08013	33	100.1500	1.08708
14	1.3667	1.08083	34	126.0500	1.08725
15	1.7000	1.08208	35	158.6500	1.08742
16	2.1167	1.08282	36	199.6833	1.08757
17	2.6333	1.08326	37	251.3500	1.08783
18	3.2833	1.08367	38	316.3833	1.08793
19	4.1000	1.08378	39	398.2667	1.08793
20	5.1333	1.08410	40	501.3667	1.08800

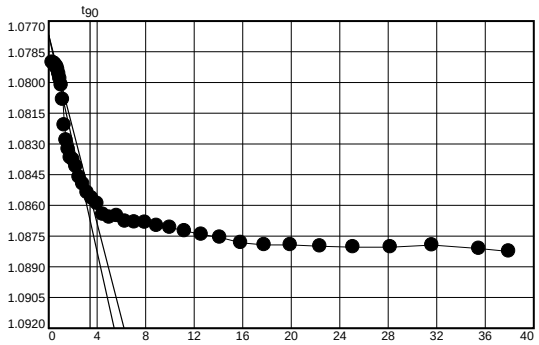


Figure B-136c

Pressure: 62.50 psf	TEST READINGS (continued)	Load No. 2

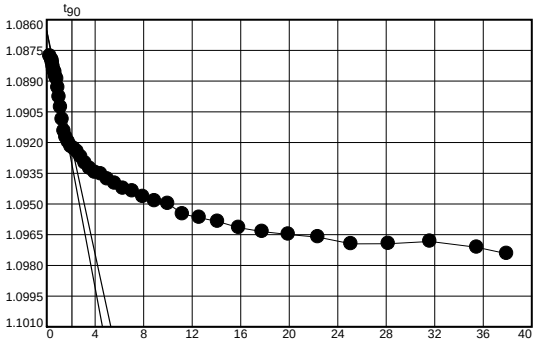
No.	Elapsed Time	Dial Reading
41	631.1333	1.08804
42	794.5167	1.08804
43	1000.2000	1.08794
44	1259.1333	1.08811
45	1440.1500	1.08825

Void Ratio = 1.182 **Compression =** 1.0%

D_0 = 1.0777 **D_{90} =** 1.0855 **D_{100} =** 1.0864 **C_v at 11.65 min. =** 0.180 ft.^{2}/day

Pressure: 125.00 psf	TEST READINGS	Load No. 3

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.08763	24	12.7000	1.09327
2	0.0833	1.08779	25	15.9667	1.09346
3	0.2000	1.08797	26	20.0667	1.09354
4	0.2167	1.08799	27	25.2333	1.09379
5	0.2500	1.08811	28	31.7500	1.09400
6	0.3000	1.08829	29	39.9333	1.09425
7	0.3500	1.08847	30	50.2500	1.09438
8	0.4167	1.08852	31	63.2333	1.09465
9	0.5000	1.08857	32	79.5667	1.09486
10	0.6000	1.08880	33	100.1333	1.09499
11	0.7333	1.08890	34	126.0333	1.09549
12	0.9000	1.08932	35	158.6333	1.09567
13	1.1000	1.08978	36	199.6667	1.09586
14	1.3667	1.09028	37	251.3333	1.09616
15	1.6833	1.09087	38	316.3667	1.09635
16	2.1000	1.09145	39	398.2500	1.09649
17	2.6167	1.09175	40	501.3333	1.09662
18	3.2667	1.09198	41	631.1167	1.09695
19	4.1000	1.09220	42	794.4833	1.09694
20	5.1333	1.09230	43	1000.1667	1.09683
21	6.4167	1.09245	44	1259.1000	1.09712
22	8.0500	1.09271	45	1440.2167	1.09743
23	10.1167	1.09301			



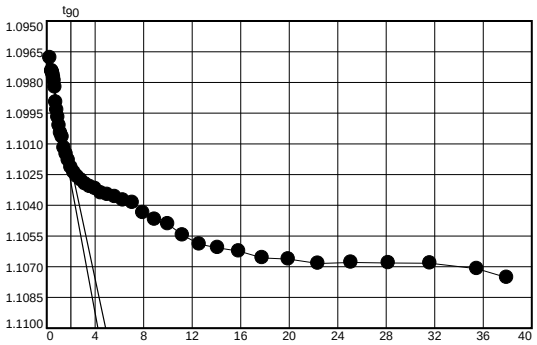
Void Ratio = 1.162 **Compression =** 1.9%

D_0 = 1.0865 **D_{90} =** 1.0922 **D_{100} =** 1.0929 **C_v at 4.32 min. =** 0.477 ft.^{2}/day

Figure B-136d

Pressure: 250.00 psf	TEST READINGS	Load No. 4

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.09616	24	12.7167	1.10309
2	0.0833	1.09680	25	15.9833	1.10319
3	0.2000	1.09744	26	20.0833	1.10341
4	0.2167	1.09748	27	25.2500	1.10348
5	0.2500	1.09751	28	31.7500	1.10359
6	0.3000	1.09762	29	39.9500	1.10376
7	0.3500	1.09777	30	50.2500	1.10387
8	0.4167	1.09792	31	63.2333	1.10437
9	0.5000	1.09824	32	79.5667	1.10470
10	0.6000	1.09897	33	100.1500	1.10492
11	0.7333	1.09936	34	126.0333	1.10546
12	0.9000	1.09971	35	158.6333	1.10590
13	1.1000	1.10011	36	199.6667	1.10608
14	1.3667	1.10047	37	251.3333	1.10624
15	1.7000	1.10067	38	316.3833	1.10657
16	2.1000	1.10120	39	398.2667	1.10663
17	2.6333	1.10150	40	501.3500	1.10684
18	3.2833	1.10180	41	631.1167	1.10679
19	4.1000	1.10216	42	794.5000	1.10682
20	5.1333	1.10240	43	1000.1833	1.10683
21	6.4333	1.10260	44	1259.1000	1.10710
22	8.0667	1.10277	45	1440.2833	1.10753
23	10.1333	1.10296			



Void Ratio = 1.140 **Compression =** 2.9%

D_0 = 1.0965 **D_{90} =** 1.1021 **D_{100} =** 1.1027 **C_V at 3.98 min. =** 0.508 ft.^{2}/day

Pressure: 500.00 psf	TEST READINGS	Load No. 5

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.10673	12	0.9167	1.11174
2	0.1000	1.10834	13	1.1167	1.11204
3	0.2000	1.10969	14	1.3833	1.11238
4	0.2333	1.11000	15	1.7167	1.11272
5	0.2667	1.11037	16	2.1167	1.11292
6	0.3000	1.11060	17	2.6333	1.11310
7	0.3667	1.11078	18	3.2833	1.11338
8	0.4167	1.11096	19	4.1167	1.11372
9	0.5167	1.11115	20	5.1500	1.11379
10	0.6167	1.11126	21	6.4333	1.11404
11	0.7500	1.11149	22	8.0833	1.11429

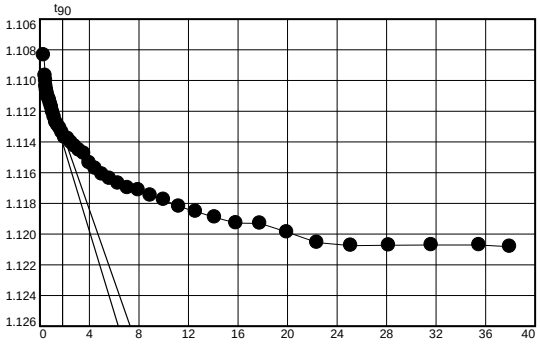


Figure B-136e

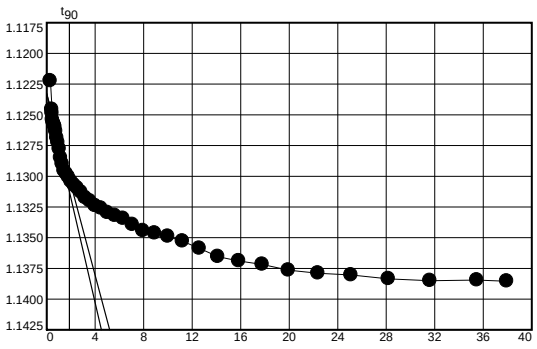
Pressure: 500.00 psf	TEST READINGS (continued)	Load No. 5

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	1.11455	33	100.1500	1.11776	43	1000.1833	1.12071
24	12.7167	1.11475	34	126.0500	1.11820	44	1259.1167	1.12071
25	15.9833	1.11536	35	158.6500	1.11853	45	1440.3333	1.12082
26	20.0833	1.11573	36	199.6833	1.11891			
27	25.2500	1.11611	37	251.3500	1.11929			
28	31.7667	1.11639	38	316.3833	1.11930			
29	39.9500	1.11670	39	398.2667	1.11987			
30	50.2667	1.11699	40	501.3500	1.12055			
31	63.2333	1.11713	41	631.1333	1.12075			
32	79.5833	1.11748	42	794.5000	1.12073			

Void Ratio = 1.110 **Compression =** 4.2%
D_0 = 1.1092 **D_{90} =** 1.1134 **D_{100} =** 1.1139 **C_V at 3.37 min. =** 0.585 ft.^{2}/day

Pressure: 1000.00 psf	TEST READINGS	Load No. 6

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.11951	24	12.7167	1.13201
2	0.1000	1.12225	25	15.9833	1.13241
3	0.2000	1.12456	26	20.0833	1.13261
4	0.2167	1.12486	27	25.2500	1.13296
5	0.2500	1.12539	28	31.7667	1.13321
6	0.3000	1.12561	29	39.9500	1.13344
7	0.3500	1.12573	30	50.2500	1.13395
8	0.4167	1.12583	31	63.2333	1.13444
9	0.5000	1.12599	32	79.5667	1.13464
10	0.6000	1.12635	33	100.1333	1.13490
11	0.7333	1.12688	34	126.0333	1.13530
12	0.9000	1.12726	35	158.6333	1.13587
13	1.1167	1.12778	36	199.6833	1.13655
14	1.3667	1.12849	37	251.3333	1.13690
15	1.7000	1.12900	38	316.3833	1.13718
16	2.1167	1.12955	39	398.2667	1.13765
17	2.6333	1.12979	40	501.3500	1.13790
18	3.2833	1.13006	41	631.1167	1.13804
19	4.1000	1.13042	42	794.5000	1.13835
20	5.1333	1.13072	43	1000.1667	1.13850
21	6.4333	1.13096	44	1259.1167	1.13845
22	8.0667	1.13129	45	1440.4000	1.13855
23	10.1333	1.13175			

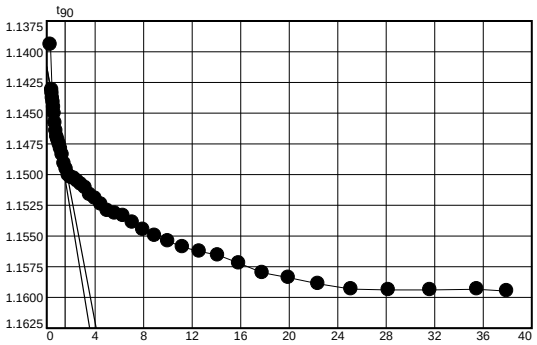


Void Ratio = 1.071 **Compression =** 6.0%
D_0 = 1.1233 **D_{90} =** 1.1302 **D_{100} =** 1.1309 **C_V at 3.49 min. =** 0.547 ft.^{2}/day

Figure B-136f

Pressure: 2000.00 psf	TEST READINGS	Load No. 7

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.13683	24	12.7167	1.15164
2	0.1000	1.13942	25	15.9833	1.15195
3	0.2000	1.14310	26	20.0833	1.15242
4	0.2167	1.14339	27	25.2500	1.15294
5	0.2500	1.14378	28	31.7500	1.15316
6	0.3000	1.14410	29	39.9500	1.15336
7	0.3500	1.14452	30	50.2500	1.15389
8	0.4167	1.14503	31	63.2333	1.15448
9	0.5000	1.14580	32	79.5667	1.15497
10	0.6167	1.14644	33	100.1333	1.15542
11	0.7333	1.14692	34	126.0333	1.15590
12	0.9000	1.14720	35	158.6333	1.15625
13	1.1167	1.14754	36	199.6667	1.15656
14	1.3833	1.14791	37	251.3333	1.15721
15	1.7000	1.14839	38	316.3833	1.15799
16	2.1167	1.14910	39	398.2667	1.15839
17	2.6333	1.14956	40	501.3500	1.15889
18	3.2833	1.15005	41	631.1333	1.15932
19	4.1000	1.15024	42	794.5000	1.15939
20	5.1333	1.15032	43	1000.1833	1.15939
21	6.4333	1.15054	44	1259.1167	1.15933
22	8.0667	1.15079	45	1440.2833	1.15948
23	10.1333	1.15108			



Void Ratio = 1.025 **Compression =** 8.1%

D_0 = 1.1412 **D_{90} =** 1.1493 **D_{100} =** 1.1502 **C_V at 2.31 min. =** 0.794 ft.^{2}/day

Pressure: 500.00 psf	TEST READINGS	Load No. 8

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.16159	12	0.9167	1.15763
2	0.1000	1.15844	13	1.1167	1.15762
3	0.2000	1.15807	14	1.3833	1.15754
4	0.2333	1.15800	15	1.7167	1.15744
5	0.2667	1.15797	16	2.1333	1.15740
6	0.3000	1.15795	17	2.6500	1.15732
7	0.3667	1.15786	18	3.3000	1.15727
8	0.4167	1.15785	19	4.1167	1.15727
9	0.5167	1.15784	20	5.1500	1.15717
10	0.6167	1.15765	21	6.4500	1.15713
11	0.7500	1.15762	22	8.0833	1.15720

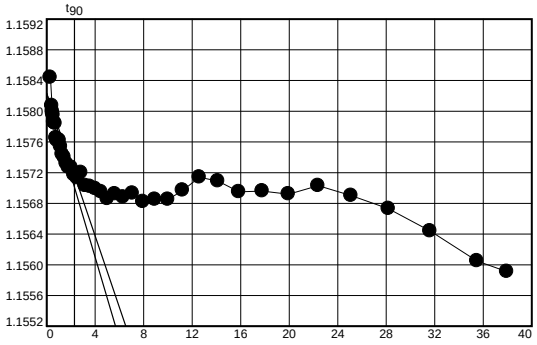


Figure B-136g

Pressure: 500.00 psf	TEST READINGS (continued)	Load No. 8

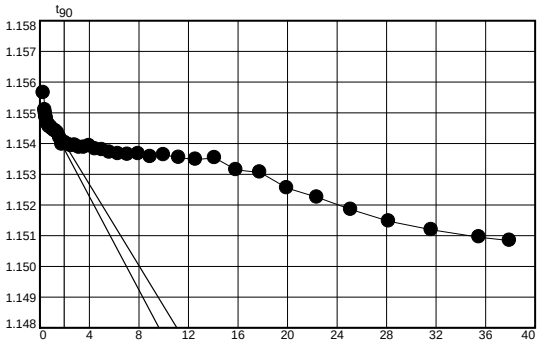
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1500	1.15703	33	100.1667	1.15685	43	1000.2000	1.15644
24	12.7333	1.15702	34	126.0500	1.15697	44	1259.1333	1.15605
25	16.0000	1.15699	35	158.6500	1.15714	45	1440.2333	1.15591
26	20.1000	1.15695	36	199.7000	1.15709			
27	25.2667	1.15686	37	251.3667	1.15695			
28	31.7667	1.15692	38	316.4000	1.15696			
29	39.9667	1.15688	39	398.2833	1.15692			
30	50.2667	1.15693	40	501.3667	1.15703			
31	63.2500	1.15682	41	631.1500	1.15690			
32	79.6000	1.15685	42	794.5167	1.15673			

Void Ratio = 1.033 **Compression =** 7.7%

D_0 = 1.1582 **D_{90} =** 1.1572 **D_{100} =** 1.1570 **C_V at 5.26 min. =** 0.341 ft.^{2}/day

Pressure: 125.00 psf	TEST READINGS	Load No. 9

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.15727	24	12.7167	1.15387
2	0.0833	1.15565	25	15.9833	1.15392
3	0.1833	1.15509	26	20.0833	1.15382
4	0.2167	1.15499	27	25.2500	1.15379
5	0.2500	1.15487	28	31.7667	1.15371
6	0.3000	1.15482	29	39.9500	1.15366
7	0.3500	1.15469	30	50.2667	1.15364
8	0.4167	1.15466	31	63.2333	1.15366
9	0.5000	1.15461	32	79.5833	1.15357
10	0.6000	1.15455	33	100.1500	1.15363
11	0.7333	1.15456	34	126.0333	1.15354
12	0.9000	1.15450	35	158.6500	1.15348
13	1.1167	1.15447	36	199.6833	1.15353
14	1.3667	1.15442	37	251.3500	1.15314
15	1.7000	1.15440	38	316.3833	1.15306
16	2.1167	1.15434	39	398.2667	1.15255
17	2.6333	1.15418	40	501.3500	1.15225
18	3.2833	1.15397	41	631.1333	1.15185
19	4.1000	1.15403	42	794.5167	1.15147
20	5.1333	1.15397	43	1000.1833	1.15119
21	6.4333	1.15392	44	1259.1167	1.15095
22	8.0667	1.15394	45	1440.2167	1.15084
23	10.1333	1.15387			



Void Ratio = 1.044 **Compression =** 7.2%

D_0 = 1.1553 **D_{90} =** 1.1540 **D_{100} =** 1.1539 **C_V at 3.86 min. =** 0.469 ft.^{2}/day

Figure B-136h

Pressure: 250.00 psf	TEST READINGS	Load No. 10

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.15069	16	2.1167	1.15111	31	63.2500	1.15158
2	0.1000	1.15074	17	2.6333	1.15119	32	79.6000	1.15171
3	0.2000	1.15068	18	3.2833	1.15118	33	100.1667	1.15174
4	0.2333	1.15075	19	4.1167	1.15116	34	126.0500	1.15202
5	0.2667	1.15087	20	5.1500	1.15116	35	158.6500	1.15206
6	0.3000	1.15085	21	6.4500	1.15122	36	199.7000	1.15223
7	0.3500	1.15094	22	8.0833	1.15129	37	251.3500	1.15252
8	0.4167	1.15102	23	10.1333	1.15123	38	316.4000	1.15259
9	0.5167	1.15105	24	12.7333	1.15126	39	398.2833	1.15262
10	0.6167	1.15109	25	15.9833	1.15132	40	501.3667	1.15258
11	0.7500	1.15109	26	20.1000	1.15133	41	631.1500	1.15267
12	0.9167	1.15111	27	25.2667	1.15140	42	794.5167	1.15221
13	1.1167	1.15115	28	31.7667	1.15144	43	1000.2000	1.15197
14	1.3833	1.15114	29	39.9667	1.15150	44	1259.1167	1.15190
15	1.7000	1.15111	30	50.2667	1.15144	45	1440.3333	1.15191

Void Ratio = 1.042 **Compression =** 7.3%

Pressure: 500.00 psf	TEST READINGS	Load No. 11

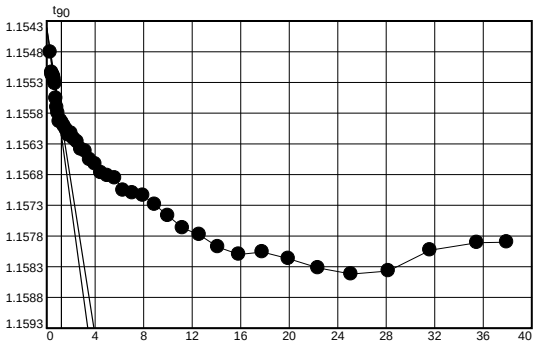
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.15133	16	2.1167	1.15307	31	63.2500	1.15340
2	0.1000	1.15245	17	2.6333	1.15311	32	79.5833	1.15332
3	0.2000	1.15286	18	3.2833	1.15310	33	100.1667	1.15341
4	0.2167	1.15289	19	4.1167	1.15312	34	126.0500	1.15351
5	0.2500	1.15289	20	5.1500	1.15312	35	158.6500	1.15365
6	0.3000	1.15295	21	6.4500	1.15317	36	199.7000	1.15377
7	0.3500	1.15295	22	8.0833	1.15313	37	251.3667	1.15394
8	0.4167	1.15293	23	10.1333	1.15316	38	316.4000	1.15409
9	0.5000	1.15295	24	12.7333	1.15321	39	398.2833	1.15418
10	0.6000	1.15296	25	15.9833	1.15322	40	501.3667	1.15425
11	0.7333	1.15304	26	20.1000	1.15312	41	631.1500	1.15407
12	0.9000	1.15305	27	25.2667	1.15321	42	794.5167	1.15395
13	1.1167	1.15301	28	31.7667	1.15317	43	1000.2000	1.15380
14	1.3667	1.15309	29	39.9667	1.15319	44	1259.1333	1.15378
15	1.7000	1.15303	30	50.2667	1.15327	45	1440.2833	1.15385

Void Ratio = 1.037 **Compression =** 7.5%

Figure B-136i

Pressure: 1000.00 psf	TEST READINGS	Load No. 12

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.15271	24	12.7167	1.15656
2	0.1000	1.15481	25	15.9833	1.15663
3	0.2000	1.15514	26	20.0833	1.15677
4	0.2167	1.15518	27	25.2500	1.15682
5	0.2500	1.15517	28	31.7500	1.15686
6	0.3000	1.15519	29	39.9500	1.15706
7	0.3500	1.15521	30	50.2667	1.15710
8	0.4167	1.15525	31	63.2333	1.15714
9	0.5000	1.15532	32	79.5833	1.15729
10	0.6167	1.15556	33	100.1500	1.15747
11	0.7333	1.15571	34	126.0500	1.15767
12	0.9000	1.15580	35	158.6500	1.15778
13	1.1167	1.15594	36	199.6833	1.15798
14	1.3667	1.15592	37	251.3500	1.15810
15	1.7000	1.15596	38	316.4000	1.15806
16	2.1167	1.15601	39	398.2833	1.15817
17	2.6333	1.15607	40	501.3667	1.15832
18	3.2833	1.15616	41	631.1333	1.15842
19	4.1000	1.15613	42	794.5167	1.15837
20	5.1333	1.15622	43	1000.1833	1.15803
21	6.4333	1.15627	44	1259.1167	1.15791
22	8.0667	1.15639	45	1440.0333	1.15790
23	10.1333	1.15642			



Void Ratio = 1.029 **Compression =** 7.9%

D_0 = 1.1544 **D_{90} =** 1.1559 **D_{100} =** 1.1561 **C_V at 1.47 min. =** 1.226 ft.^{2}/day

Pressure: 2000.00 psf	TEST READINGS	Load No. 13

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.15651	12	0.9000	1.16125
2	0.1000	1.15982	13	1.1167	1.16142
3	0.2000	1.16020	14	1.3833	1.16156
4	0.2167	1.16028	15	1.7000	1.16155
5	0.2500	1.16039	16	2.1167	1.16163
6	0.3000	1.16040	17	2.6333	1.16174
7	0.3500	1.16051	18	3.2833	1.16188
8	0.4167	1.16059	19	4.1000	1.16191
9	0.5000	1.16072	20	5.1333	1.16198
10	0.6167	1.16087	21	6.4333	1.16208
11	0.7333	1.16105	22	8.0833	1.16216

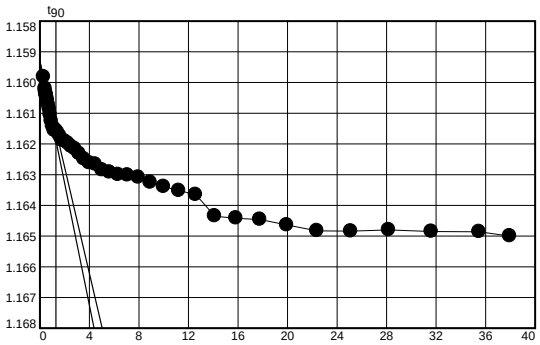


Figure B-136j

Pressure: 2000.00 psf | **TEST READINGS (continued)** | **Load No. 13**

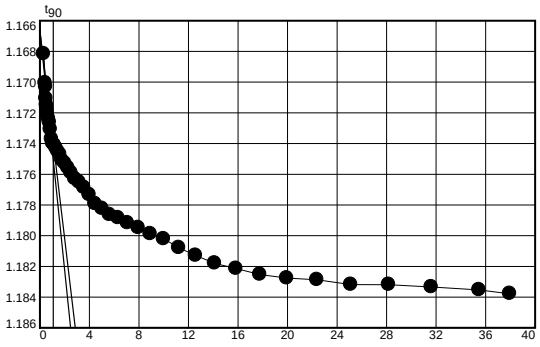
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	1.16232	33	100.1500	1.16339	43	1000.2000	1.16485
24	12.7167	1.16249	34	126.0500	1.16352	44	1259.1333	1.16486
25	15.9833	1.16262	35	158.6500	1.16365	45	1440.2833	1.16500
26	20.1000	1.16266	36	199.6833	1.16435			
27	25.2667	1.16285	37	251.3500	1.16442			
28	31.7667	1.16292	38	316.4000	1.16446			
29	39.9500	1.16300	39	398.2833	1.16464			
30	50.2667	1.16302	40	501.3667	1.16483			
31	63.2500	1.16309	41	631.1333	1.16484			
32	79.5833	1.16325	42	794.5167	1.16480			

Void Ratio = 1.013 **Compression =** 8.6%

D_0 = 1.1593 **D_{90} =** 1.1616 **D_{100} =** 1.1618 **C_V at 1.68 min. =** 1.064 ft.^{2}/day

Pressure: 4000.00 psf | **TEST READINGS** | **Load No. 14**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.16254	24	12.7333	1.17686
2	0.1000	1.16816	25	15.9833	1.17734
3	0.2000	1.17005	26	20.0833	1.17793
4	0.2333	1.17030	27	25.2500	1.17824
5	0.2667	1.17106	28	31.7667	1.17863
6	0.3000	1.17149	29	39.9500	1.17884
7	0.3500	1.17178	30	50.2667	1.17917
8	0.4167	1.17210	31	63.2500	1.17948
9	0.5167	1.17238	32	79.5833	1.17988
10	0.6167	1.17261	33	100.1500	1.18021
11	0.7500	1.17307	34	126.0500	1.18079
12	0.9167	1.17370	35	158.6500	1.18129
13	1.1167	1.17398	36	199.6833	1.18180
14	1.3833	1.17409	37	251.3500	1.18214
15	1.7167	1.17428	38	316.4000	1.18253
16	2.1167	1.17450	39	398.2667	1.18276
17	2.6333	1.17470	40	501.3500	1.18287
18	3.2833	1.17509	41	631.1333	1.18318
19	4.1167	1.17528	42	794.5000	1.18319
20	5.1500	1.17558	43	1000.1833	1.18334
21	6.4333	1.17591	44	1259.1167	1.18353
22	8.0833	1.17629	45	1440.2833	1.18378
23	10.1333	1.17651			



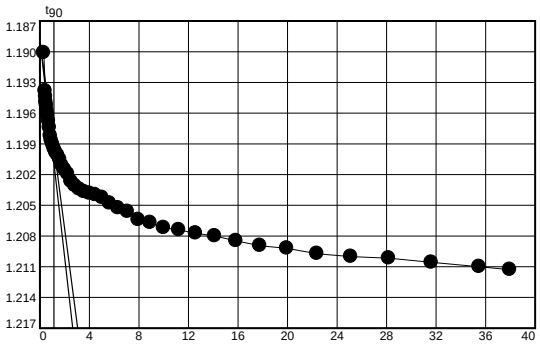
Void Ratio = 0.972 **Compression =** 10.5%

D_0 = 1.1666 **D_{90} =** 1.1740 **D_{100} =** 1.1748 **C_V at 1.18 min. =** 1.474 ft.^{2}/day

Figure B-136k

Pressure: 8000.00 psf	TEST READINGS	Load No. 15

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.18116	24	12.7167	1.20368
2	0.1000	1.19011	25	15.9833	1.20383
3	0.2000	1.19384	26	20.0833	1.20398
4	0.2333	1.19439	27	25.2500	1.20425
5	0.2667	1.19490	28	31.7667	1.20481
6	0.3000	1.19522	29	39.9500	1.20528
7	0.3500	1.19576	30	50.2500	1.20562
8	0.4167	1.19614	31	63.2333	1.20641
9	0.5167	1.19675	32	79.5667	1.20671
10	0.6167	1.19740	33	100.1500	1.20719
11	0.7500	1.19820	34	126.0333	1.20740
12	0.9000	1.19865	35	158.6333	1.20773
13	1.1167	1.19904	36	199.6833	1.20800
14	1.3833	1.19949	37	251.3500	1.20847
15	1.7000	1.19984	38	316.3833	1.20895
16	2.1167	1.20012	39	398.2667	1.20920
17	2.6333	1.20054	40	501.3500	1.20973
18	3.2833	1.20113	41	631.1167	1.21001
19	4.1000	1.20152	42	794.5000	1.21017
20	5.1333	1.20194	43	1000.1833	1.21057
21	6.4333	1.20267	44	1259.1000	1.21100
22	8.0667	1.20308	45	1440.3667	1.21128
23	10.1333	1.20341			



Void Ratio = 0.911 **Compression =** 13.3%

D_0 = 1.1889 **D_{90} =** 1.1993 **D_{100} =** 1.2005 **C_V at 1.29 min. =** 1.279 ft.^{2}/day

Pressure: 16000.00 psf	TEST READINGS	Load No. 16

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.20804	12	0.9000	1.22833
2	0.1000	1.22075	13	1.1167	1.22877
3	0.2000	1.22332	14	1.3667	1.22909
4	0.2333	1.22387	15	1.7000	1.22952
5	0.2667	1.22450	16	2.1167	1.23018
6	0.3000	1.22499	17	2.6333	1.23059
7	0.3500	1.22569	18	3.2833	1.23078
8	0.4167	1.22634	19	4.1000	1.23105
9	0.5000	1.22690	20	5.1333	1.23149
10	0.6000	1.22751	21	6.4333	1.23198
11	0.7333	1.22792	22	8.0667	1.23220

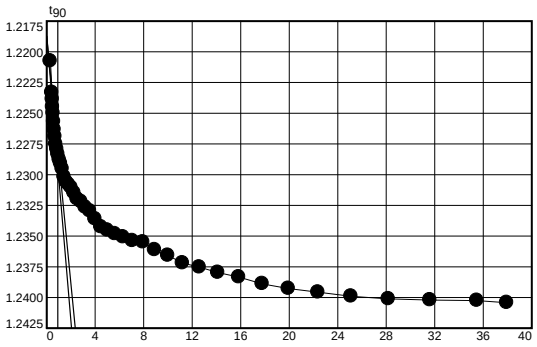


Figure B-136l

Pressure: 16000.00 psf	TEST READINGS (continued)	Load No. 16

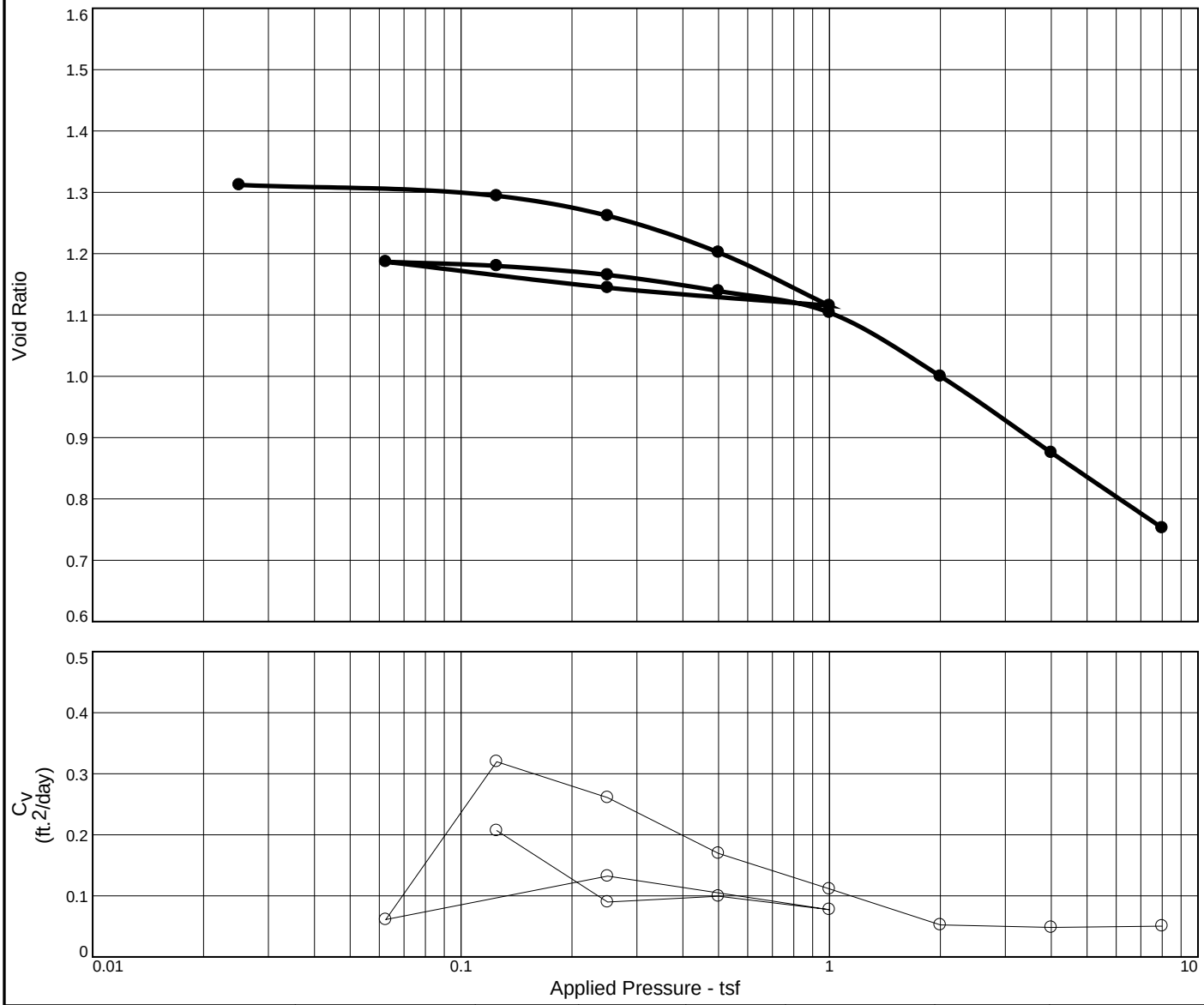
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	1.23265	33	100.1500	1.23658	43	1000.2000	1.24021
24	12.7167	1.23296	34	126.0500	1.23720	44	1259.1333	1.24025
25	15.9833	1.23361	35	158.6500	1.23753	45	1440.2500	1.24042
26	20.0833	1.23426	36	199.6833	1.23797			
27	25.2500	1.23453	37	251.3500	1.23834			
28	31.7667	1.23482	38	316.4000	1.23889			
29	39.9500	1.23509	39	398.2833	1.23927			
30	50.2667	1.23539	40	501.3667	1.23957			
31	63.2500	1.23550	41	631.1333	1.23990			
32	79.5833	1.23613	42	794.5167	1.24011			

Void Ratio = 0.847 **Compression =** 16.2%

D_0 = 1.2187 **D_{90} =** 1.2282 **D_{100} =** 1.2292 **C_V at 0.84 min. =** 1.835 ft.^{2}/day

Figure B-136m

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	P_c (tsf)	C_c	Initial Void Ratio
Saturation	Moisture							
100.9 %	48.5 %	73.7	50	28	2.731	0.5	0.42	1.313

MATERIAL DESCRIPTION	USCS	AASHTO
Very soft gray clay with sand, sand pockets, and silt pockets	(CH)	

Project No. 18274-022-01 **Client:** CEC

Project: Chandeleur Island Restoration Project (PO-0199)

Location: CI-11 **Depth:** 18-20

Remarks:
Specific gravity was measured.

GeoEngineers

Figure B-137a

Tested By: Dustin Blanchard **Checked By:** J. Aguettant

CONSOLIDATION TEST DATA

12/22/2023

Client: CEC
Project: Chandeleur Island Restoration Project (PO-0199)
Project Number: 18274-022-01
Location: CI-11
Depth: 18-20
Material Description: Very soft gray clay with sand, sand pockets, and silt pockets
Liquid Limit: 50 **Plasticity Index:** 28
USCS: (CH)
Testing Remarks: Specific gravity was measured.
Tested by: Dustin Blanchard **Checked by:** J. Aguettant

Test Specimen Data

NATURAL MOISTURE		VOID RATIO		AFTER TEST	
Wet w+t =	132.54 g.	Spec. Gr. =	2.731	Wet w+t =	160.20 g.
Dry w+t =	95.16 g.	Est. Ht. Solids =	0.432 in.	Dry w+t =	129.96 g.
Tare Wt. =	18.07 g.	Init. V.R. =	1.313	Tare Wt. =	36.87 g.
Moisture =	48.5 %	Init. Sat. =	100.9 %	Moisture =	32.5 %

UNIT WEIGHT		TEST START			
Height =	1.000 in.	Height =	1.000 in.	Dry Wt. =	93.09 g.
Diameter =	2.500 in.	Diameter =	2.500 in.		
Weight =	141.04 g.				
Dry Dens. =	73.7 pcf				

End-Of-Load Summary

Pressure (psf)	Final Dial (in.)	Deformation (in.)	C_v (ft.^{2}/day)	C_α	Void Ratio	% Strain
start	1.34737	0.00000			1.313	
50.00	1.34773	0.00036			1.312	0.0 Comprs.
250.00	1.35546	0.00809	0.026	0.001	1.294	0.8 Comprs.
500.00	1.36945	0.02208	0.040	0.001	1.262	2.2 Comprs.
1000.00	1.39534	0.04797	0.077	0.004	1.202	4.8 Comprs.
2000.00	1.43285	0.08548	0.046	0.005	1.115	8.5 Comprs.
500.00	1.42019	0.07282	0.299		1.144	7.3 Comprs.
125.00	1.40192	0.05455	0.038		1.187	5.5 Comprs.
250.00	1.40484	0.05747	0.320	0.001	1.180	5.7 Comprs.
500.00	1.41119	0.06382	0.137	0.001	1.165	6.4 Comprs.
1000.00	1.42253	0.07516	0.137	0.001	1.139	7.5 Comprs.
2000.00	1.43773	0.09036	0.074	0.001	1.104	9.0 Comprs.
4000.00	1.48260	0.13523	0.042	0.006	1.000	13.5 Comprs.
8000.00	1.53643	0.18906	0.049	0.007	0.876	18.9 Comprs.
16000.00	1.58954	0.24217	0.042	0.006	0.753	24.2 Comprs.

Compression index (C_c), tsf = 0.42 **Preconsolidation pressure (P_p), tsf =** 0.5 **Void ratio at P_p (e_m) =** 1.193
Recompression index (C_r) = 0.12

Figure B-137b

Pressure: 50.00 psf | **TEST READINGS** | **Load No. 1**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.34737	16	2.4667	1.34745	31	79.4000	1.34758
2	0.0333	1.34736	17	3.1167	1.34752	32	99.9667	1.34762
3	0.0667	1.34734	18	3.9333	1.34759	33	125.8667	1.34774
4	0.1000	1.34736	19	4.9667	1.34755	34	158.4667	1.34780
5	0.1333	1.34737	20	6.2667	1.34757	35	199.5000	1.34787
6	0.1833	1.34737	21	7.9000	1.34757	36	251.1667	1.34793
7	0.2500	1.34736	22	9.9500	1.34757	37	316.2167	1.34801
8	0.3333	1.34738	23	12.5500	1.34759	38	398.1000	1.34809
9	0.4500	1.34736	24	15.8167	1.34765	39	501.1833	1.34817
10	0.5667	1.34738	25	19.9167	1.34759	40	630.9500	1.34812
11	0.7333	1.34735	26	25.0833	1.34765	41	794.3333	1.34818
12	0.9500	1.34736	27	31.5833	1.34762	42	1000.0000	1.34805
13	1.2000	1.34739	28	39.7833	1.34759	43	1258.9333	1.34787
14	1.5333	1.34739	29	50.0833	1.34756	44	1440.0833	1.34773
15	1.9500	1.34742	30	63.0667	1.34755			

Void Ratio = 1.312 **Compression =** 0.0%

Pressure: 250.00 psf | **TEST READINGS** | **Load No. 2**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.34643	21	6.4333	1.35103
2	0.1000	1.34649	22	8.0667	1.35133
3	0.2000	1.34763	23	10.1333	1.35157
4	0.2333	1.34779	24	12.7167	1.35188
5	0.2667	1.34808	25	15.9833	1.35208
6	0.3000	1.34817	26	20.0833	1.35230
7	0.3500	1.34830	27	25.2500	1.35245
8	0.4167	1.34836	28	31.7667	1.35270
9	0.5167	1.34844	29	39.9500	1.35288
10	0.6167	1.34852	30	50.2667	1.35313
11	0.7500	1.34865	31	63.2333	1.35334
12	0.9167	1.34877	32	79.5833	1.35353
13	1.1167	1.34888	33	100.1500	1.35379
14	1.3833	1.34904	34	126.0500	1.35397
15	1.7000	1.34936	35	158.6500	1.35435
16	2.1167	1.34965	36	199.6833	1.35484
17	2.6333	1.34996	37	251.3500	1.35534
18	3.2833	1.35008	38	316.4000	1.35580
19	4.1000	1.35046	39	398.2833	1.35617
20	5.1333	1.35070	40	501.3667	1.35640

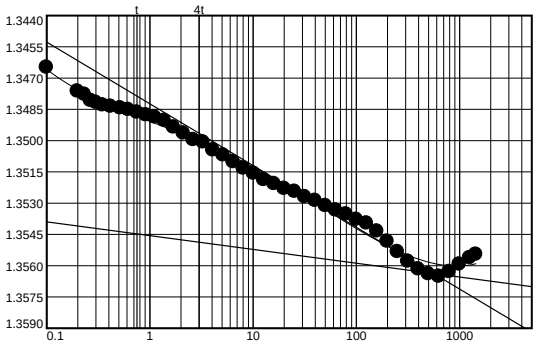


Figure B-137c

Pressure: 250.00 psf | **TEST READINGS (continued)** | **Load No. 2**

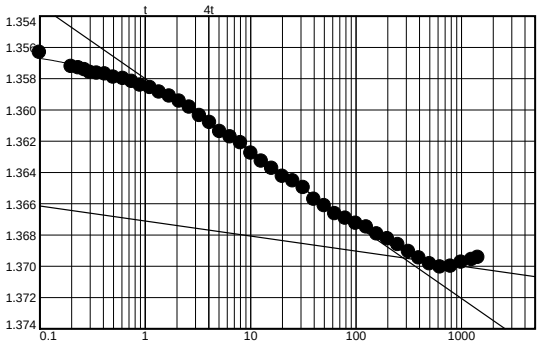
No.	Elapsed Time	Dial Reading
41	631.1333	1.35652
42	794.5167	1.35630
43	1000.1833	1.35594
44	1259.1167	1.35563
45	1440.4833	1.35546

Void Ratio = 1.294 **Compression =** 0.8%

D_0 = 1.3477 **D_{50} =** 1.3520 **D_{100} =** 1.3564 **C_v at 18.69 min. =** 0.026 ft.^{2}/day **C_α =** 0.001

Pressure: 500.00 psf | **TEST READINGS** | **Load No. 3**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.35427	24	12.7333	1.36329
2	0.1000	1.35634	25	15.9833	1.36376
3	0.2000	1.35724	26	20.1000	1.36427
4	0.2333	1.35733	27	25.2667	1.36456
5	0.2667	1.35745	28	31.7667	1.36499
6	0.3000	1.35762	29	39.9667	1.36574
7	0.3500	1.35766	30	50.2667	1.36614
8	0.4167	1.35772	31	63.2500	1.36665
9	0.5000	1.35792	32	79.5833	1.36695
10	0.6167	1.35801	33	100.1667	1.36727
11	0.7500	1.35820	34	126.0500	1.36750
12	0.9000	1.35843	35	158.6500	1.36795
13	1.1167	1.35858	36	199.7000	1.36826
14	1.3667	1.35887	37	251.3667	1.36864
15	1.7000	1.35913	38	316.4000	1.36907
16	2.1167	1.35945	39	398.2833	1.36949
17	2.6333	1.35984	40	501.3667	1.36986
18	3.2833	1.36037	41	631.1500	1.37007
19	4.1000	1.36082	42	794.5167	1.37001
20	5.1333	1.36140	43	1000.2000	1.36976
21	6.4333	1.36174	44	1259.1333	1.36959
22	8.0833	1.36212	45	1440.3833	1.36945
23	10.1333	1.36278			



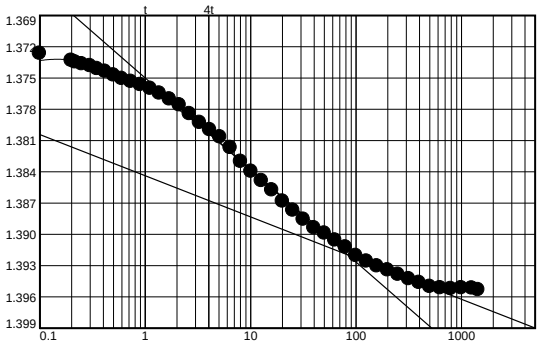
Void Ratio = 1.262 **Compression =** 2.2%

D_0 = 1.3565 **D_{50} =** 1.3630 **D_{100} =** 1.3695 **C_v at 11.98 min. =** 0.040 ft.^{2}/day **C_α =** 0.001

Figure B-137d

Pressure: 1000.00 psf	TEST READINGS	Load No. 4

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.36846	24	12.7167	1.38486
2	0.1000	1.37265	25	15.9833	1.38577
3	0.2000	1.37332	26	20.0833	1.38683
4	0.2167	1.37347	27	25.2500	1.38771
5	0.2500	1.37367	28	31.7667	1.38857
6	0.3000	1.37385	29	39.9500	1.38940
7	0.3500	1.37412	30	50.2667	1.38991
8	0.4167	1.37438	31	63.2500	1.39058
9	0.5000	1.37473	32	79.5833	1.39123
10	0.6000	1.37506	33	100.1500	1.39205
11	0.7333	1.37535	34	126.0500	1.39259
12	0.9000	1.37565	35	158.6500	1.39306
13	1.1167	1.37602	36	199.6833	1.39344
14	1.3667	1.37648	37	251.3500	1.39386
15	1.7000	1.37703	38	316.4000	1.39428
16	2.1167	1.37760	39	398.2833	1.39464
17	2.6333	1.37845	40	501.3667	1.39502
18	3.2833	1.37928	41	631.1333	1.39516
19	4.1000	1.37997	42	794.5167	1.39522
20	5.1333	1.38066	43	1000.2000	1.39514
21	6.4333	1.38169	44	1259.1333	1.39518
22	8.0667	1.38302	45	1440.2333	1.39534
23	10.1333	1.38398			



Void Ratio = 1.202 **Compression =** 4.8%

D_0 = 1.3715 **D_{50} =** 1.3817 **D_{100} =** 1.3920 **C_V at 5.94 min. =** 0.077 ft.^{2}/day **C_α =** 0.004

Pressure: 2000.00 psf	TEST READINGS	Load No. 5

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.39420	12	0.9167	1.40161
2	0.1000	1.39724	13	1.1167	1.40220
3	0.2000	1.39832	14	1.3833	1.40266
4	0.2333	1.39853	15	1.7167	1.40350
5	0.2667	1.39882	16	2.1167	1.40448
6	0.3000	1.39919	17	2.6333	1.40565
7	0.3667	1.39961	18	3.2833	1.40653
8	0.4333	1.40003	19	4.1167	1.40790
9	0.5167	1.40046	20	5.1500	1.40901
10	0.6167	1.40089	21	6.4500	1.41033
11	0.7500	1.40127	22	8.0833	1.41175

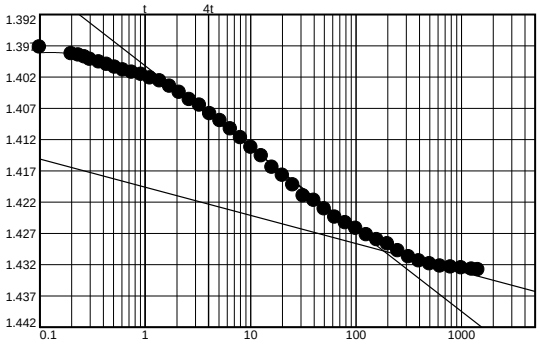


Figure B-137e

Pressure: 2000.00 psf | **TEST READINGS (continued)** | **Load No. 5**

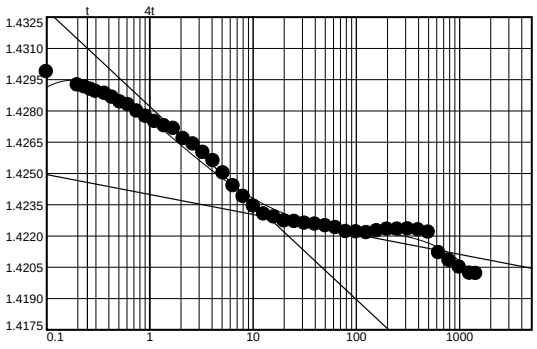
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1500	1.41329	33	100.1500	1.42624	43	1000.1833	1.43255
24	12.7333	1.41462	34	126.0500	1.42727	44	1259.1167	1.43275
25	16.0000	1.41649	35	158.6500	1.42805	45	1440.4000	1.43285
26	20.1000	1.41775	36	199.6833	1.42872			
27	25.2667	1.41927	37	251.3500	1.42983			
28	31.7833	1.42104	38	316.4000	1.43078			
29	39.9667	1.42177	39	398.2833	1.43144			
30	50.2667	1.42314	40	501.3667	1.43190			
31	63.2500	1.42444	41	631.1333	1.43227			
32	79.5833	1.42534	42	794.5167	1.43241			

Void Ratio = 1.115 **Compression =** 8.5%

D_0 = 1.3958 **D_{50} =** 1.4128 **D_{100} =** 1.4298 **C_v at 9.25 min. =** 0.046 ft.^{2}/day **C_α =** 0.005

Pressure: 500.00 psf | **TEST READINGS** | **Load No. 6**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.43427	24	12.7333	1.42304
2	0.1000	1.42987	25	15.9833	1.42290
3	0.2000	1.42923	26	20.1000	1.42271
4	0.2333	1.42914	27	25.2667	1.42268
5	0.2667	1.42903	28	31.7667	1.42260
6	0.3000	1.42893	29	39.9500	1.42256
7	0.3667	1.42883	30	50.2667	1.42248
8	0.4333	1.42864	31	63.2500	1.42239
9	0.5167	1.42842	32	79.5833	1.42220
10	0.6167	1.42829	33	100.1500	1.42219
11	0.7500	1.42798	34	126.0500	1.42215
12	0.9167	1.42773	35	158.6500	1.42223
13	1.1167	1.42748	36	199.6833	1.42231
14	1.3833	1.42727	37	251.3500	1.42231
15	1.7000	1.42715	38	316.4000	1.42232
16	2.1167	1.42666	39	398.2833	1.42228
17	2.6333	1.42640	40	501.3667	1.42217
18	3.2833	1.42600	41	631.1333	1.42119
19	4.1167	1.42560	42	794.5000	1.42082
20	5.1500	1.42501	43	1000.1833	1.42049
21	6.4500	1.42440	44	1259.1167	1.42020
22	8.0833	1.42388	45	1440.1500	1.42019
23	10.1333	1.42342			



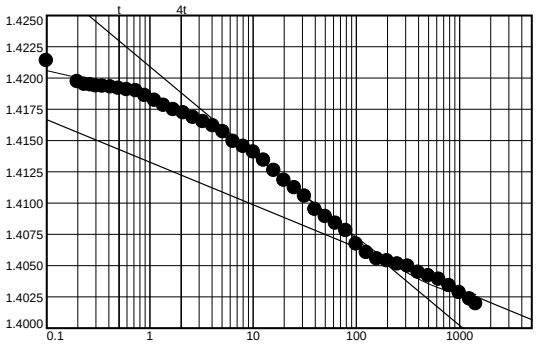
Void Ratio = 1.144 **Compression =** 7.3%

D_0 = 1.4311 **D_{50} =** 1.4270 **D_{100} =** 1.4229 **C_v at 1.39 min. =** 0.299 ft.^{2}/day

Figure B-137f

Pressure: 125.00 psf	TEST READINGS	Load No. 7

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.42140	24	12.7167	1.41341
2	0.1000	1.42138	25	15.9833	1.41258
3	0.2000	1.41968	26	20.0833	1.41179
4	0.2333	1.41948	27	25.2500	1.41120
5	0.2667	1.41943	28	31.7500	1.41053
6	0.3000	1.41935	29	39.9500	1.40948
7	0.3500	1.41933	30	50.2667	1.40890
8	0.4167	1.41927	31	63.2333	1.40836
9	0.5000	1.41916	32	79.5833	1.40778
10	0.6000	1.41904	33	100.1500	1.40670
11	0.7333	1.41896	34	126.0333	1.40603
12	0.9000	1.41858	35	158.6333	1.40552
13	1.1167	1.41819	36	199.6833	1.40537
14	1.3667	1.41779	37	251.3333	1.40511
15	1.7000	1.41744	38	316.3833	1.40494
16	2.1167	1.41719	39	398.2667	1.40445
17	2.6333	1.41683	40	501.3500	1.40417
18	3.2833	1.41649	41	631.1167	1.40388
19	4.1000	1.41616	42	794.5000	1.40338
20	5.1333	1.41568	43	1000.1833	1.40283
21	6.4333	1.41492	44	1259.1167	1.40231
22	8.0667	1.41451	45	1440.2500	1.40192
23	10.1167	1.41406			



Void Ratio = 1.187 **Compression =** 5.5%

D_0 = 1.4211 **D_{50} =** 1.4135 **D_{100} =** 1.4058 **C_V at 11.30 min. =** 0.038 ft.^{2}/day

Pressure: 250.00 psf	TEST READINGS	Load No. 8

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.40171	12	0.9000	1.40166
2	0.1000	1.40172	13	1.1167	1.40224
3	0.2000	1.40169	14	1.3833	1.40245
4	0.2333	1.40167	15	1.7000	1.40259
5	0.2667	1.40169	16	2.1167	1.40275
6	0.3000	1.40167	17	2.6333	1.40295
7	0.3500	1.40168	18	3.2833	1.40312
8	0.4167	1.40165	19	4.1000	1.40324
9	0.5000	1.40166	20	5.1333	1.40338
10	0.6167	1.40164	21	6.4333	1.40346
11	0.7333	1.40165	22	8.0667	1.40359

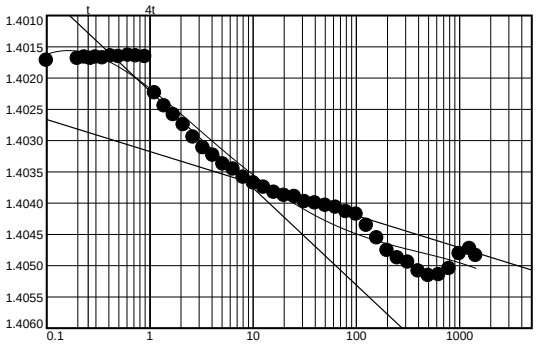


Figure B-137g

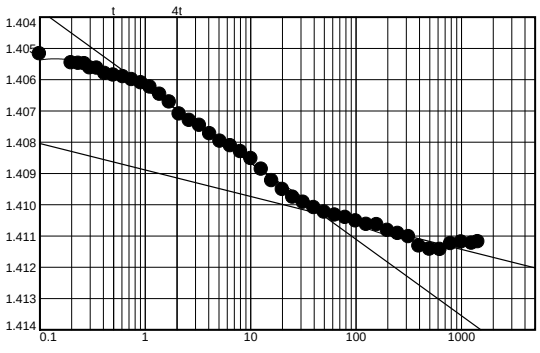
Pressure: 250.00 psf	TEST READINGS (continued)	Load No. 8

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	1.40368	33	100.1500	1.40418	43	1000.2000	1.40481
24	12.7167	1.40375	34	126.0500	1.40436	44	1259.1333	1.40473
25	15.9833	1.40383	35	158.6500	1.40456	45	1440.1500	1.40484
26	20.0833	1.40388	36	199.6833	1.40476			
27	25.2500	1.40390	37	251.3500	1.40488			
28	31.7667	1.40398	38	316.4000	1.40495			
29	39.9500	1.40400	39	398.2833	1.40509			
30	50.2667	1.40404	40	501.3667	1.40516			
31	63.2500	1.40407	41	631.1333	1.40515			
32	79.5833	1.40414	42	794.5167	1.40505			

Void Ratio = 1.180 **Compression =** 5.7%
D_0 = 1.4010 **D_{50} =** 1.4023 **D_{100} =** 1.4037 **C_v at 1.37 min. =** 0.320 ft.^{2}/day **C_α =** 0.001

Pressure: 500.00 psf	TEST READINGS	Load No. 9

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.40410	24	12.7333	1.40887
2	0.1000	1.40518	25	15.9833	1.40924
3	0.2000	1.40547	26	20.1000	1.40952
4	0.2333	1.40549	27	25.2667	1.40977
5	0.2667	1.40550	28	31.7667	1.40993
6	0.3000	1.40563	29	39.9500	1.41010
7	0.3500	1.40564	30	50.2667	1.41025
8	0.4167	1.40581	31	63.2500	1.41034
9	0.5000	1.40586	32	79.5833	1.41042
10	0.6167	1.40591	33	100.1500	1.41053
11	0.7500	1.40601	34	126.0500	1.41064
12	0.9167	1.40611	35	158.6500	1.41065
13	1.1167	1.40625	36	199.6833	1.41083
14	1.3833	1.40648	37	251.3500	1.41093
15	1.7000	1.40672	38	316.3833	1.41103
16	2.1167	1.40711	39	398.2667	1.41133
17	2.6333	1.40731	40	501.3500	1.41143
18	3.2833	1.40747	41	631.1333	1.41144
19	4.1167	1.40774	42	794.5000	1.41125
20	5.1500	1.40798	43	1000.1833	1.41120
21	6.4500	1.40812	44	1259.1167	1.41124
22	8.0833	1.40831	45	1440.1333	1.41119
23	10.1333	1.40853			

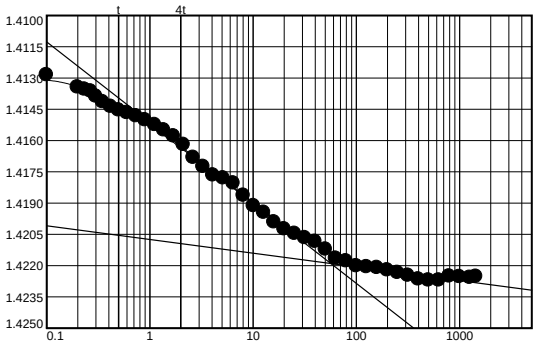


Void Ratio = 1.165 **Compression =** 6.4%
D_0 = 1.4046 **D_{50} =** 1.4075 **D_{100} =** 1.4103 **C_v at 3.18 min. =** 0.137 ft.^{2}/day **C_α =** 0.001

Figure B-137h

Pressure: 1000.00 psf	TEST READINGS	Load No. 10

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.41050	24	12.7167	1.41946
2	0.1000	1.41286	25	15.9833	1.41992
3	0.2000	1.41344	26	20.0833	1.42025
4	0.2333	1.41354	27	25.2500	1.42047
5	0.2667	1.41364	28	31.7667	1.42067
6	0.3000	1.41388	29	39.9500	1.42085
7	0.3500	1.41415	30	50.2667	1.42122
8	0.4167	1.41437	31	63.2333	1.42166
9	0.5000	1.41454	32	79.5833	1.42178
10	0.6000	1.41467	33	100.1500	1.42202
11	0.7333	1.41483	34	126.0500	1.42206
12	0.9000	1.41502	35	158.6500	1.42210
13	1.1167	1.41525	36	199.6833	1.42222
14	1.3667	1.41550	37	251.3500	1.42234
15	1.7000	1.41579	38	316.4000	1.42248
16	2.1167	1.41620	39	398.2833	1.42265
17	2.6333	1.41682	40	501.3667	1.42271
18	3.2833	1.41725	41	631.1333	1.42270
19	4.1000	1.41766	42	794.5167	1.42251
20	5.1333	1.41780	43	1000.1833	1.42254
21	6.4333	1.41805	44	1259.1167	1.42258
22	8.0667	1.41864	45	1440.0833	1.42253
23	10.1333	1.41913			



Void Ratio = 1.139 **Compression =** 7.5%

D_0 = 1.4123 **D_{50} =** 1.4171 **D_{100} =** 1.4219 **C_V at 3.12 min. =** 0.137 ft.^{2}/day **C_α =** 0.001

Pressure: 2000.00 psf	TEST READINGS	Load No. 11

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.42143	12	0.9000	1.42602
2	0.0833	1.42411	13	1.1000	1.42618
3	0.1833	1.42453	14	1.3667	1.42645
4	0.2167	1.42464	15	1.7000	1.42694
5	0.2500	1.42477	16	2.1167	1.42733
6	0.2833	1.42488	17	2.6333	1.42774
7	0.3500	1.42506	18	3.2833	1.42813
8	0.4167	1.42511	19	4.1000	1.42857
9	0.5000	1.42525	20	5.1333	1.42950
10	0.6000	1.42546	21	6.4333	1.43011
11	0.7333	1.42570	22	8.0667	1.43076

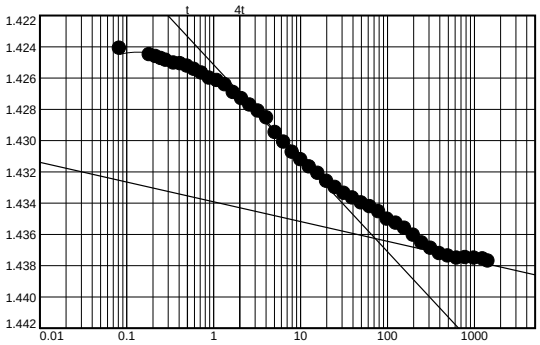


Figure B-137i

Pressure: 2000.00 psf	TEST READINGS (continued)	Load No. 11

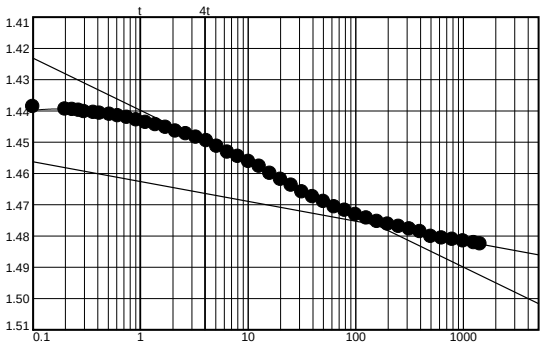
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1167	1.43124	33	100.1333	1.43505	43	1000.1833	1.43753
24	12.7167	1.43171	34	126.0333	1.43531	44	1259.1167	1.43759
25	15.9833	1.43212	35	158.6333	1.43562	45	1440.2833	1.43773
26	20.0833	1.43263	36	199.6667	1.43607			
27	25.2500	1.43301	37	251.3333	1.43656			
28	31.7500	1.43339	38	316.3833	1.43691			
29	39.9500	1.43369	39	398.2667	1.43724			
30	50.2500	1.43400	40	501.3500	1.43740			
31	63.2333	1.43425	41	631.1333	1.43753			
32	79.5667	1.43457	42	794.5000	1.43751			

Void Ratio = 1.104 **Compression =** 9.0%

D_0 = 1.4229 **D_{50} =** 1.4296 **D_{100} =** 1.4363 **C_v at 5.57 min. =** 0.074 ft.^{2}/day **C_α =** 0.001

Pressure: 4000.00 psf	TEST READINGS	Load No. 12

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.43488	24	12.7333	1.45783
2	0.1000	1.43868	25	16.0000	1.46005
3	0.2000	1.43950	26	20.1000	1.46194
4	0.2333	1.43965	27	25.2667	1.46381
5	0.2667	1.43991	28	31.7667	1.46596
6	0.3000	1.44030	29	39.9667	1.46753
7	0.3667	1.44060	30	50.2833	1.46902
8	0.4167	1.44083	31	63.2500	1.47072
9	0.5167	1.44113	32	79.6000	1.47186
10	0.6167	1.44163	33	100.1667	1.47325
11	0.7500	1.44214	34	126.0667	1.47434
12	0.9167	1.44296	35	158.6667	1.47541
13	1.1167	1.44376	36	199.7000	1.47627
14	1.3833	1.44448	37	251.3667	1.47702
15	1.7167	1.44537	38	316.4000	1.47783
16	2.1167	1.44651	39	398.2833	1.47865
17	2.6500	1.44742	40	501.3667	1.48025
18	3.3000	1.44850	41	631.1500	1.48073
19	4.1167	1.44962	42	794.5167	1.48117
20	5.1500	1.45138	43	1000.2000	1.48168
21	6.4500	1.45331	44	1259.1333	1.48223
22	8.0833	1.45466	45	1440.3167	1.48260
23	10.1500	1.45625			



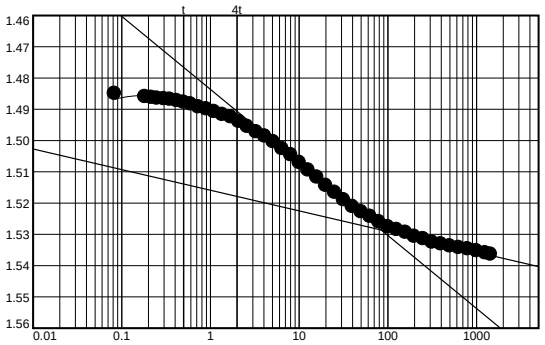
Void Ratio = 1.000 **Compression =** 13.5%

D_0 = 1.4358 **D_{50} =** 1.4561 **D_{100} =** 1.4765 **C_v at 9.35 min. =** 0.042 ft.^{2}/day **C_α =** 0.006

Figure B-137j

Pressure: 8000.00 psf	TEST READINGS	Load No. 13

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.48012	24	12.7167	1.50952
2	0.0833	1.48497	25	15.9833	1.51177
3	0.1833	1.48601	26	20.0833	1.51441
4	0.2167	1.48626	27	25.2500	1.51667
5	0.2500	1.48654	28	31.7500	1.51899
6	0.3000	1.48669	29	39.9500	1.52117
7	0.3500	1.48687	30	50.2500	1.52290
8	0.4167	1.48727	31	63.2333	1.52430
9	0.5000	1.48785	32	79.5667	1.52604
10	0.6000	1.48837	33	100.1500	1.52763
11	0.7333	1.48931	34	126.0333	1.52854
12	0.9000	1.48995	35	158.6333	1.52947
13	1.1000	1.49082	36	199.6667	1.53071
14	1.3667	1.49176	37	251.3500	1.53150
15	1.7000	1.49250	38	316.3833	1.53257
16	2.1000	1.49394	39	398.2667	1.53314
17	2.6167	1.49561	40	501.3500	1.53375
18	3.2833	1.49725	41	631.1167	1.53429
19	4.1000	1.49865	42	794.5000	1.53472
20	5.1333	1.50043	43	1000.1833	1.53528
21	6.4333	1.50265	44	1259.1167	1.53601
22	8.0667	1.50461	45	1440.1500	1.53643
23	10.1167	1.50706			



Void Ratio = 0.876 **Compression =** 18.9%

D_0 = 1.4801 **D_{50} =** 1.5043 **D_{100} =** 1.5286 **C_V at 7.05 min. =** 0.049 ft.^{2}/day **C_α =** 0.007

Pressure: 16000.00 psf	TEST READINGS	Load No. 14

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.53208	12	0.9167	1.54446
2	0.1000	1.53821	13	1.1167	1.54503
3	0.2000	1.53952	14	1.3833	1.54604
4	0.2333	1.53980	15	1.7167	1.54741
5	0.2667	1.54026	16	2.1333	1.54846
6	0.3000	1.54061	17	2.6500	1.54996
7	0.3667	1.54091	18	3.3000	1.55164
8	0.4333	1.54135	19	4.1167	1.55312
9	0.5167	1.54192	20	5.1500	1.55467
10	0.6167	1.54274	21	6.4500	1.55724
11	0.7500	1.54371	22	8.0833	1.55920

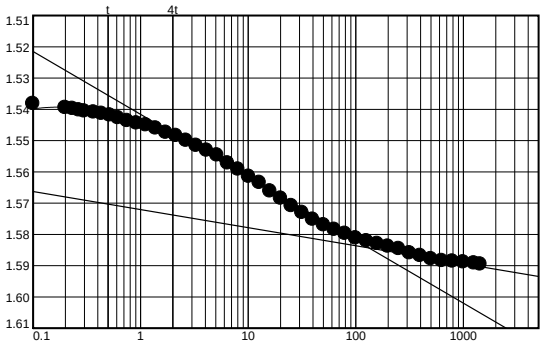


Figure B-137k

Pressure: 16000.00 psf	TEST READINGS (continued)	Load No. 14

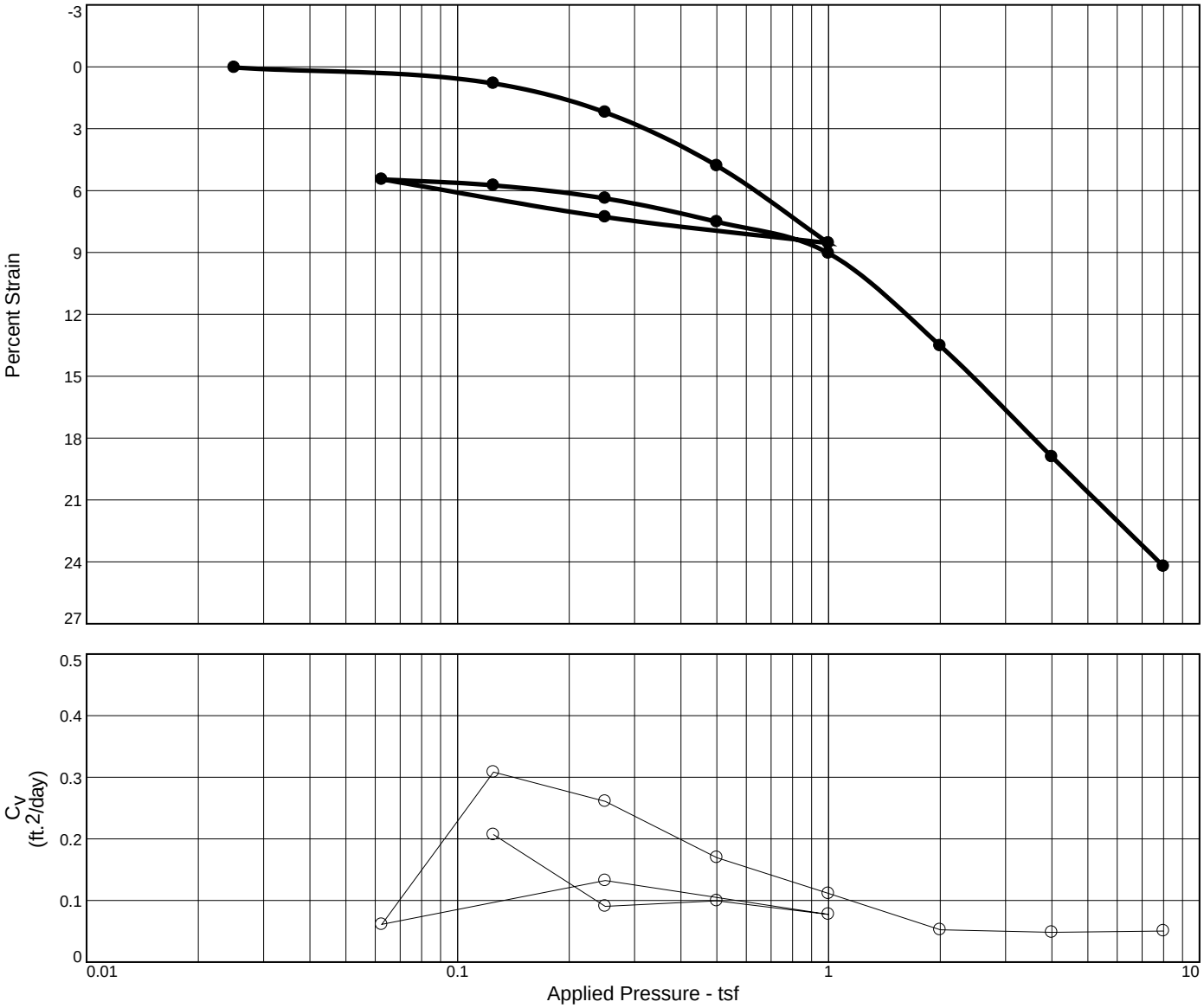
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1500	1.56154	33	100.1500	1.58120	43	1000.2000	1.58887
24	12.7333	1.56349	34	126.0500	1.58211	44	1259.1167	1.58922
25	16.0000	1.56622	35	158.6500	1.58297	45	1440.3000	1.58954
26	20.1000	1.56849	36	199.6833	1.58388			
27	25.2667	1.57088	37	251.3500	1.58459			
28	31.7667	1.57306	38	316.4000	1.58597			
29	39.9667	1.57522	39	398.2833	1.58684			
30	50.2667	1.57705	40	501.3667	1.58786			
31	63.2500	1.57846	41	631.1333	1.58843			
32	79.5833	1.57975	42	794.5167	1.58859			

Void Ratio = 0.753 **Compression =** 24.2%

D_0 = 1.5338 **D_{50} =** 1.5591 **D_{100} =** 1.5843 **C_V at 7.31 min. =** 0.042 ft.^{2}/day **C_α =** 0.006

Figure B-137l

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	P_c (tsf)	C_c	Initial Void Ratio
Saturation	Moisture							
100.9 %	48.5 %	73.7	50	28	2.731	0.5	0.42	1.313

MATERIAL DESCRIPTION	USCS	AASHTO
Very soft gray clay with sand, sand pockets, and silt pockets	(CH)	

Project No. 18274-022-01 **Client:** CEC

Project: Chandeleur Island Restoration Project (PO-0199)

Location: CI-11 sqrt **Depth:** 18-20

Remarks:
Specific gravity was measured.

GeoEngineers

Figure B-138a

Tested By: Dustin Blanchard **Checked By:** J. Aguettant

CONSOLIDATION TEST DATA

12/22/2023

Client: CEC
Project: Chandeleur Island Restoration Project (PO-0199)
Project Number: 18274-022-01
Location: CI-11 sqrt
Depth: 18-20
Material Description: Very soft gray clay with sand, sand pockets, and silt pockets
Liquid Limit: 50 **Plasticity Index:** 28
USCS: (CH)
Testing Remarks: Specific gravity was measured.
Tested by: Dustin Blanchard **Checked by:** J. Aguettant

Test Specimen Data

NATURAL MOISTURE		VOID RATIO		AFTER TEST	
Wet w+t =	132.54 g.	Spec. Gr. =	2.731	Wet w+t =	160.20 g.
Dry w+t =	95.16 g.	Est. Ht. Solids =	0.432 in.	Dry w+t =	129.96 g.
Tare Wt. =	18.07 g.	Init. V.R. =	1.313	Tare Wt. =	36.87 g.
Moisture =	48.5 %	Init. Sat. =	100.9 %	Moisture =	32.5 %

UNIT WEIGHT		TEST START			
Height =	1.000 in.	Height =	1.000 in.	Dry Wt. =	93.09 g.
Diameter =	2.500 in.	Diameter =	2.500 in.		
Weight =	141.04 g.				
Dry Dens. =	73.7 pcf				

End-Of-Load Summary

Pressure (psf)	Final Dial (in.)	Deformation (in.)	C_v (ft.^{2}/day)	C_α	Void Ratio	% Strain
start	1.34737	0.00000			1.313	
50.00	1.34773	0.00036			1.312	0.0 Comprs.
250.00	1.35546	0.00809	0.207		1.294	0.8 Comprs.
500.00	1.36945	0.02208	0.091		1.262	2.2 Comprs.
1000.00	1.39534	0.04797	0.099		1.202	4.8 Comprs.
2000.00	1.43285	0.08548	0.077		1.115	8.5 Comprs.
500.00	1.42019	0.07282	0.132		1.144	7.3 Comprs.
125.00	1.40192	0.05455	0.061		1.187	5.5 Comprs.
250.00	1.40484	0.05747	0.308		1.180	5.7 Comprs.
500.00	1.41119	0.06382	0.261		1.165	6.4 Comprs.
1000.00	1.42253	0.07516	0.170		1.139	7.5 Comprs.
2000.00	1.43773	0.09036	0.111		1.104	9.0 Comprs.
4000.00	1.48260	0.13523	0.053		1.000	13.5 Comprs.
8000.00	1.53643	0.18906	0.048		0.876	18.9 Comprs.
16000.00	1.58954	0.24217	0.050		0.753	24.2 Comprs.

Compression index (C_c), tsf = 0.42 **Preconsolidation pressure (P_p), tsf =** 0.5 **Void ratio at P_p (e_m) =** 1.193
Recompression index (C_r) = 0.12

Figure B-138b

Pressure: 50.00 psf	TEST READINGS	Load No. 1

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.34737	16	2.4667	1.34745	31	79.4000	1.34758
2	0.0333	1.34736	17	3.1167	1.34752	32	99.9667	1.34762
3	0.0667	1.34734	18	3.9333	1.34759	33	125.8667	1.34774
4	0.1000	1.34736	19	4.9667	1.34755	34	158.4667	1.34780
5	0.1333	1.34737	20	6.2667	1.34757	35	199.5000	1.34787
6	0.1833	1.34737	21	7.9000	1.34757	36	251.1667	1.34793
7	0.2500	1.34736	22	9.9500	1.34757	37	316.2167	1.34801
8	0.3333	1.34738	23	12.5500	1.34759	38	398.1000	1.34809
9	0.4500	1.34736	24	15.8167	1.34765	39	501.1833	1.34817
10	0.5667	1.34738	25	19.9167	1.34759	40	630.9500	1.34812
11	0.7333	1.34735	26	25.0833	1.34765	41	794.3333	1.34818
12	0.9500	1.34736	27	31.5833	1.34762	42	1000.0000	1.34805
13	1.2000	1.34739	28	39.7833	1.34759	43	1258.9333	1.34787
14	1.5333	1.34739	29	50.0833	1.34756	44	1440.0833	1.34773
15	1.9500	1.34742	30	63.0667	1.34755			

Void Ratio = 1.312 **Compression =** 0.0%

Pressure: 250.00 psf	TEST READINGS	Load No. 2

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.34643	21	6.4333	1.35103
2	0.1000	1.34649	22	8.0667	1.35133
3	0.2000	1.34763	23	10.1333	1.35157
4	0.2333	1.34779	24	12.7167	1.35188
5	0.2667	1.34808	25	15.9833	1.35208
6	0.3000	1.34817	26	20.0833	1.35230
7	0.3500	1.34830	27	25.2500	1.35245
8	0.4167	1.34836	28	31.7667	1.35270
9	0.5167	1.34844	29	39.9500	1.35288
10	0.6167	1.34852	30	50.2667	1.35313
11	0.7500	1.34865	31	63.2333	1.35334
12	0.9167	1.34877	32	79.5833	1.35353
13	1.1167	1.34888	33	100.1500	1.35379
14	1.3833	1.34904	34	126.0500	1.35397
15	1.7000	1.34936	35	158.6500	1.35435
16	2.1167	1.34965	36	199.6833	1.35484
17	2.6333	1.34996	37	251.3500	1.35534
18	3.2833	1.35008	38	316.4000	1.35580
19	4.1000	1.35046	39	398.2833	1.35617
20	5.1333	1.35070	40	501.3667	1.35640

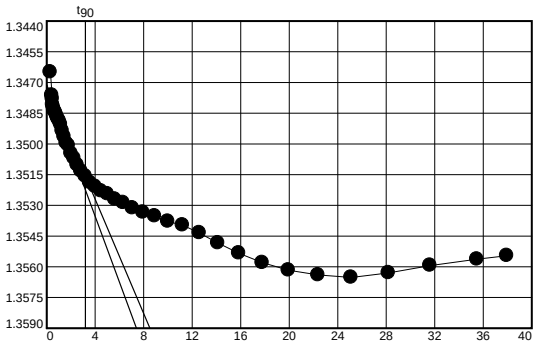


Figure B-138c

Pressure: 250.00 psf	TEST READINGS (continued)	Load No. 2

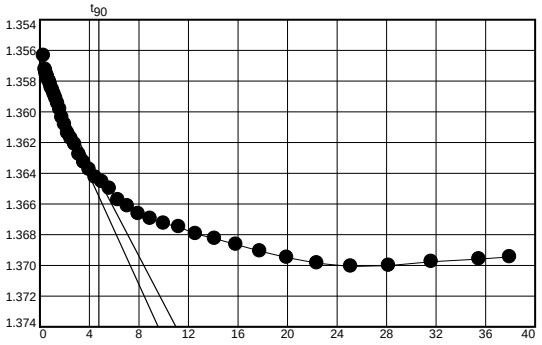
No.	Elapsed Time	Dial Reading
41	631.1333	1.35652
42	794.5167	1.35630
43	1000.1833	1.35594
44	1259.1167	1.35563
45	1440.4833	1.35546

Void Ratio = 1.294 **Compression =** 0.8%

D_0 = 1.3471 **D_{90} =** 1.3516 **D_{100} =** 1.3521 **C_v at 10.18 min. =** 0.207 ft.^{2}/day

Pressure: 500.00 psf	TEST READINGS	Load No. 3

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.35427	24	12.7333	1.36329
2	0.1000	1.35634	25	15.9833	1.36376
3	0.2000	1.35724	26	20.1000	1.36427
4	0.2333	1.35733	27	25.2667	1.36456
5	0.2667	1.35745	28	31.7667	1.36499
6	0.3000	1.35762	29	39.9667	1.36574
7	0.3500	1.35766	30	50.2667	1.36614
8	0.4167	1.35772	31	63.2500	1.36665
9	0.5000	1.35792	32	79.5833	1.36695
10	0.6167	1.35801	33	100.1667	1.36727
11	0.7500	1.35820	34	126.0500	1.36750
12	0.9000	1.35843	35	158.6500	1.36795
13	1.1167	1.35858	36	199.7000	1.36826
14	1.3667	1.35887	37	251.3667	1.36864
15	1.7000	1.35913	38	316.4000	1.36907
16	2.1167	1.35945	39	398.2833	1.36949
17	2.6333	1.35984	40	501.3667	1.36986
18	3.2833	1.36037	41	631.1500	1.37007
19	4.1000	1.36082	42	794.5167	1.37001
20	5.1333	1.36140	43	1000.2000	1.36976
21	6.4333	1.36174	44	1259.1333	1.36959
22	8.0833	1.36212	45	1440.3833	1.36945
23	10.1333	1.36278			



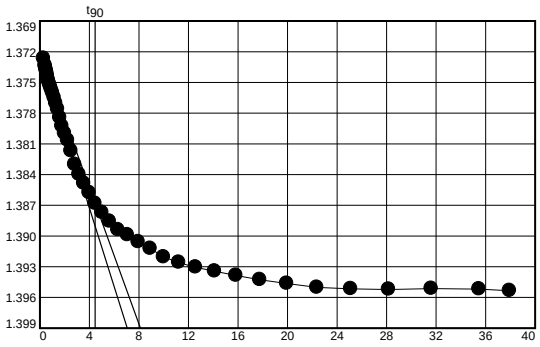
Void Ratio = 1.262 **Compression =** 2.2%

D_0 = 1.3571 **D_{90} =** 1.3644 **D_{100} =** 1.3652 **C_v at 22.74 min. =** 0.091 ft.^{2}/day

Figure B-138d

Pressure: 1000.00 psf | **TEST READINGS** | **Load No. 4**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.36846	24	12.7167	1.38486
2	0.1000	1.37265	25	15.9833	1.38577
3	0.2000	1.37332	26	20.0833	1.38683
4	0.2167	1.37347	27	25.2500	1.38771
5	0.2500	1.37367	28	31.7667	1.38857
6	0.3000	1.37385	29	39.9500	1.38940
7	0.3500	1.37412	30	50.2667	1.38991
8	0.4167	1.37438	31	63.2500	1.39058
9	0.5000	1.37473	32	79.5833	1.39123
10	0.6000	1.37506	33	100.1500	1.39205
11	0.7333	1.37535	34	126.0500	1.39259
12	0.9000	1.37565	35	158.6500	1.39306
13	1.1167	1.37602	36	199.6833	1.39344
14	1.3667	1.37648	37	251.3500	1.39386
15	1.7000	1.37703	38	316.4000	1.39428
16	2.1167	1.37760	39	398.2833	1.39464
17	2.6333	1.37845	40	501.3667	1.39502
18	3.2833	1.37928	41	631.1333	1.39516
19	4.1000	1.37997	42	794.5167	1.39522
20	5.1333	1.38066	43	1000.2000	1.39514
21	6.4333	1.38169	44	1259.1333	1.39518
22	8.0667	1.38302	45	1440.2333	1.39534
23	10.1333	1.38398			



Void Ratio = 1.202 **Compression =** 4.8%

D_0 = 1.3719 **D_{90} =** 1.3868 **D_{100} =** 1.3884 **C_V at 19.86 min. =** 0.099 ft.^{2}/day

Pressure: 2000.00 psf | **TEST READINGS** | **Load No. 5**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.39420	12	0.9167	1.40161
2	0.1000	1.39724	13	1.1167	1.40220
3	0.2000	1.39832	14	1.3833	1.40266
4	0.2333	1.39853	15	1.7167	1.40350
5	0.2667	1.39882	16	2.1167	1.40448
6	0.3000	1.39919	17	2.6333	1.40565
7	0.3667	1.39961	18	3.2833	1.40653
8	0.4333	1.40003	19	4.1167	1.40790
9	0.5167	1.40046	20	5.1500	1.40901
10	0.6167	1.40089	21	6.4500	1.41033
11	0.7500	1.40127	22	8.0833	1.41175

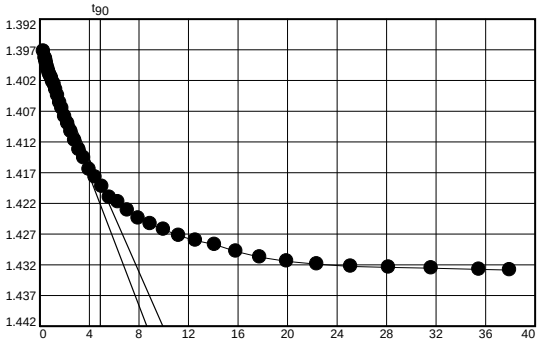


Figure B-138e

Pressure: 2000.00 psf	TEST READINGS (continued)	Load No. 5

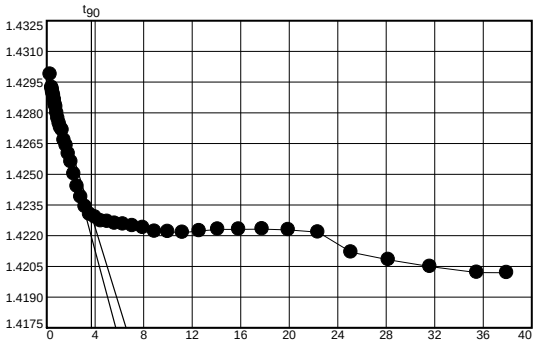
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1500	1.41329	33	100.1500	1.42624	43	1000.1833	1.43255
24	12.7333	1.41462	34	126.0500	1.42727	44	1259.1167	1.43275
25	16.0000	1.41649	35	158.6500	1.42805	45	1440.4000	1.43285
26	20.1000	1.41775	36	199.6833	1.42872			
27	25.2667	1.41927	37	251.3500	1.42983			
28	31.7833	1.42104	38	316.4000	1.43078			
29	39.9667	1.42177	39	398.2833	1.43144			
30	50.2667	1.42314	40	501.3667	1.43190			
31	63.2500	1.42444	41	631.1333	1.43227			
32	79.5833	1.42534	42	794.5167	1.43241			

Void Ratio = 1.115 **Compression =** 8.5%

D_0 = 1.3965 **D_{90} =** 1.4189 **D_{100} =** 1.4214 **C_V at 23.87 min. =** 0.077 ft.^{2}/day

Pressure: 500.00 psf	TEST READINGS	Load No. 6

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.43427	24	12.7333	1.42304
2	0.1000	1.42987	25	15.9833	1.42290
3	0.2000	1.42923	26	20.1000	1.42271
4	0.2333	1.42914	27	25.2667	1.42268
5	0.2667	1.42903	28	31.7667	1.42260
6	0.3000	1.42893	29	39.9500	1.42256
7	0.3667	1.42883	30	50.2667	1.42248
8	0.4333	1.42864	31	63.2500	1.42239
9	0.5167	1.42842	32	79.5833	1.42220
10	0.6167	1.42829	33	100.1500	1.42219
11	0.7500	1.42798	34	126.0500	1.42215
12	0.9167	1.42773	35	158.6500	1.42223
13	1.1167	1.42748	36	199.6833	1.42231
14	1.3833	1.42727	37	251.3500	1.42231
15	1.7000	1.42715	38	316.4000	1.42232
16	2.1167	1.42666	39	398.2833	1.42228
17	2.6333	1.42640	40	501.3667	1.42217
18	3.2833	1.42600	41	631.1333	1.42119
19	4.1167	1.42560	42	794.5000	1.42082
20	5.1500	1.42501	43	1000.1833	1.42049
21	6.4500	1.42440	44	1259.1167	1.42020
22	8.0833	1.42388	45	1440.1500	1.42019
23	10.1333	1.42342			



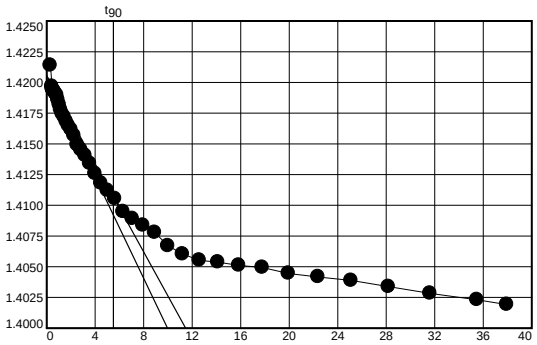
Void Ratio = 1.144 **Compression =** 7.3%

D_0 = 1.4301 **D_{90} =** 1.4230 **D_{100} =** 1.4222 **C_V at 13.56 min. =** 0.132 ft.^{2}/day

Figure B-138f

Pressure: 125.00 psf	TEST READINGS	Load No. 7

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.42140	24	12.7167	1.41341
2	0.1000	1.42138	25	15.9833	1.41258
3	0.2000	1.41968	26	20.0833	1.41179
4	0.2333	1.41948	27	25.2500	1.41120
5	0.2667	1.41943	28	31.7500	1.41053
6	0.3000	1.41935	29	39.9500	1.40948
7	0.3500	1.41933	30	50.2667	1.40890
8	0.4167	1.41927	31	63.2333	1.40836
9	0.5000	1.41916	32	79.5833	1.40778
10	0.6000	1.41904	33	100.1500	1.40670
11	0.7333	1.41896	34	126.0333	1.40603
12	0.9000	1.41858	35	158.6333	1.40552
13	1.1167	1.41819	36	199.6833	1.40537
14	1.3667	1.41779	37	251.3333	1.40511
15	1.7000	1.41744	38	316.3833	1.40494
16	2.1167	1.41719	39	398.2667	1.40445
17	2.6333	1.41683	40	501.3500	1.40417
18	3.2833	1.41649	41	631.1167	1.40388
19	4.1000	1.41616	42	794.5000	1.40338
20	5.1333	1.41568	43	1000.1833	1.40283
21	6.4333	1.41492	44	1259.1167	1.40231
22	8.0667	1.41451	45	1440.2500	1.40192
23	10.1167	1.41406			



Void Ratio = 1.187 **Compression =** 5.5%

D_0 = 1.4205 **D_{90} =** 1.4107 **D_{100} =** 1.4096 **C_V at 30.32 min. =** 0.061 ft.^{2}/day

Pressure: 250.00 psf	TEST READINGS	Load No. 8

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.40171	12	0.9000	1.40166
2	0.1000	1.40172	13	1.1167	1.40224
3	0.2000	1.40169	14	1.3833	1.40245
4	0.2333	1.40167	15	1.7000	1.40259
5	0.2667	1.40169	16	2.1167	1.40275
6	0.3000	1.40167	17	2.6333	1.40295
7	0.3500	1.40168	18	3.2833	1.40312
8	0.4167	1.40165	19	4.1000	1.40324
9	0.5000	1.40166	20	5.1333	1.40338
10	0.6167	1.40164	21	6.4333	1.40346
11	0.7333	1.40165	22	8.0667	1.40359

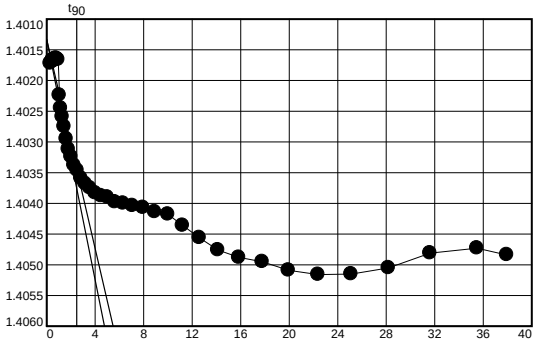


Figure B-138g

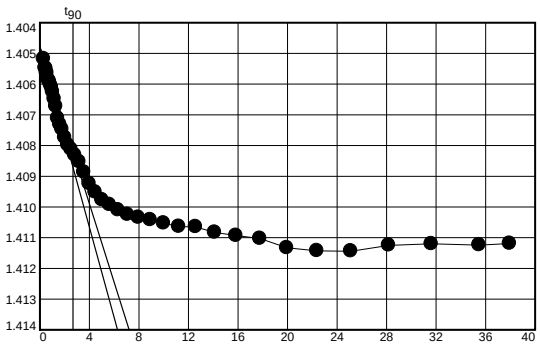
Pressure: 250.00 psf	TEST READINGS (continued)	Load No. 8

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	1.40368	33	100.1500	1.40418	43	1000.2000	1.40481
24	12.7167	1.40375	34	126.0500	1.40436	44	1259.1333	1.40473
25	15.9833	1.40383	35	158.6500	1.40456	45	1440.1500	1.40484
26	20.0833	1.40388	36	199.6833	1.40476			
27	25.2500	1.40390	37	251.3500	1.40488			
28	31.7667	1.40398	38	316.4000	1.40495			
29	39.9500	1.40400	39	398.2833	1.40509			
30	50.2667	1.40404	40	501.3667	1.40516			
31	63.2500	1.40407	41	631.1333	1.40515			
32	79.5833	1.40414	42	794.5167	1.40505			

Void Ratio = 1.180 **Compression =** 5.7%
D_0 = 1.4013 **D_{90} =** 1.4034 **D_{100} =** 1.4037 **C_V at 6.13 min. =** 0.308 ft.^{2}/day

Pressure: 500.00 psf	TEST READINGS	Load No. 9

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.40410	24	12.7333	1.40887
2	0.1000	1.40518	25	15.9833	1.40924
3	0.2000	1.40547	26	20.1000	1.40952
4	0.2333	1.40549	27	25.2667	1.40977
5	0.2667	1.40550	28	31.7667	1.40993
6	0.3000	1.40563	29	39.9500	1.41010
7	0.3500	1.40564	30	50.2667	1.41025
8	0.4167	1.40581	31	63.2500	1.41034
9	0.5000	1.40586	32	79.5833	1.41042
10	0.6167	1.40591	33	100.1500	1.41053
11	0.7500	1.40601	34	126.0500	1.41064
12	0.9167	1.40611	35	158.6500	1.41065
13	1.1167	1.40625	36	199.6833	1.41083
14	1.3833	1.40648	37	251.3500	1.41093
15	1.7000	1.40672	38	316.3833	1.41103
16	2.1167	1.40711	39	398.2667	1.41133
17	2.6333	1.40731	40	501.3500	1.41143
18	3.2833	1.40747	41	631.1333	1.41144
19	4.1167	1.40774	42	794.5000	1.41125
20	5.1500	1.40798	43	1000.1833	1.41120
21	6.4500	1.40812	44	1259.1167	1.41124
22	8.0833	1.40831	45	1440.1333	1.41119
23	10.1333	1.40853			

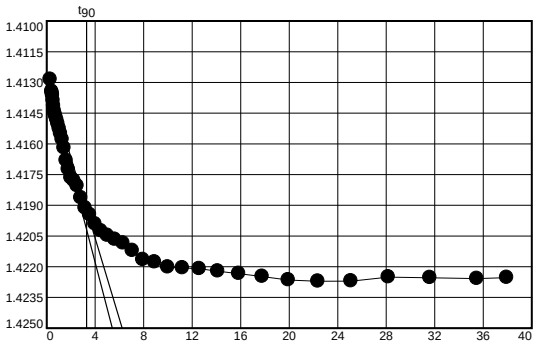


Void Ratio = 1.165 **Compression =** 6.4%
D_0 = 1.4048 **D_{90} =** 1.4082 **D_{100} =** 1.4086 **C_V at 7.18 min. =** 0.261 ft.^{2}/day

Figure B-138h

Pressure: 1000.00 psf	TEST READINGS	Load No. 10

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.41050	24	12.7167	1.41946
2	0.1000	1.41286	25	15.9833	1.41992
3	0.2000	1.41344	26	20.0833	1.42025
4	0.2333	1.41354	27	25.2500	1.42047
5	0.2667	1.41364	28	31.7667	1.42067
6	0.3000	1.41388	29	39.9500	1.42085
7	0.3500	1.41415	30	50.2667	1.42122
8	0.4167	1.41437	31	63.2333	1.42166
9	0.5000	1.41454	32	79.5833	1.42178
10	0.6000	1.41467	33	100.1500	1.42202
11	0.7333	1.41483	34	126.0500	1.42206
12	0.9000	1.41502	35	158.6500	1.42210
13	1.1167	1.41525	36	199.6833	1.42222
14	1.3667	1.41550	37	251.3500	1.42234
15	1.7000	1.41579	38	316.4000	1.42248
16	2.1167	1.41620	39	398.2833	1.42265
17	2.6333	1.41682	40	501.3667	1.42271
18	3.2833	1.41725	41	631.1333	1.42270
19	4.1000	1.41766	42	794.5167	1.42251
20	5.1333	1.41780	43	1000.1833	1.42254
21	6.4333	1.41805	44	1259.1167	1.42258
22	8.0667	1.41864	45	1440.0833	1.42253
23	10.1333	1.41913			



Void Ratio = 1.139 **Compression =** 7.5%

D_0 = 1.4127 **D_{90} =** 1.4192 **D_{100} =** 1.4199 **C_V at 10.83 min. =** 0.170 ft.^{2}/day

Pressure: 2000.00 psf	TEST READINGS	Load No. 11

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.42143	12	0.9000	1.42602
2	0.0833	1.42411	13	1.1000	1.42618
3	0.1833	1.42453	14	1.3667	1.42645
4	0.2167	1.42464	15	1.7000	1.42694
5	0.2500	1.42477	16	2.1167	1.42733
6	0.2833	1.42488	17	2.6333	1.42774
7	0.3500	1.42506	18	3.2833	1.42813
8	0.4167	1.42511	19	4.1000	1.42857
9	0.5000	1.42525	20	5.1333	1.42950
10	0.6000	1.42546	21	6.4333	1.43011
11	0.7333	1.42570	22	8.0667	1.43076

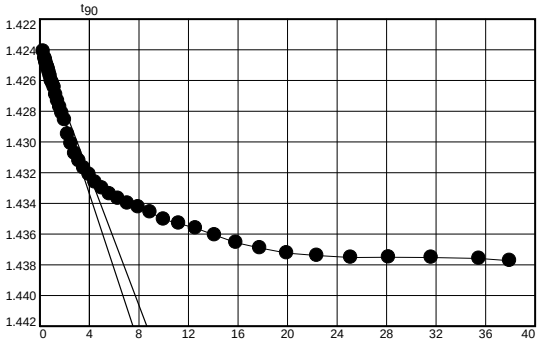


Figure B-138i

Pressure: 2000.00 psf | **TEST READINGS (continued)** | **Load No. 11**

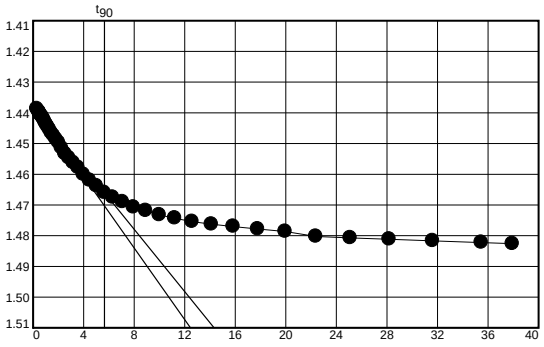
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1167	1.43124	33	100.1333	1.43505	43	1000.1833	1.43753
24	12.7167	1.43171	34	126.0333	1.43531	44	1259.1167	1.43759
25	15.9833	1.43212	35	158.6333	1.43562	45	1440.2833	1.43773
26	20.0833	1.43263	36	199.6667	1.43607			
27	25.2500	1.43301	37	251.3333	1.43656			
28	31.7500	1.43339	38	316.3833	1.43691			
29	39.9500	1.43369	39	398.2667	1.43724			
30	50.2500	1.43400	40	501.3500	1.43740			
31	63.2333	1.43425	41	631.1333	1.43753			
32	79.5667	1.43457	42	794.5000	1.43751			

Void Ratio = 1.104 **Compression =** 9.0%

D_0 = 1.4236 **D_{90} =** 1.4321 **D_{100} =** 1.4331 **C_V at 16.03 min. =** 0.111 ft.^{2}/day

Pressure: 4000.00 psf | **TEST READINGS** | **Load No. 12**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.43488	24	12.7333	1.45783
2	0.1000	1.43868	25	16.0000	1.46005
3	0.2000	1.43950	26	20.1000	1.46194
4	0.2333	1.43965	27	25.2667	1.46381
5	0.2667	1.43991	28	31.7667	1.46596
6	0.3000	1.44030	29	39.9667	1.46753
7	0.3667	1.44060	30	50.2833	1.46902
8	0.4167	1.44083	31	63.2500	1.47072
9	0.5167	1.44113	32	79.6000	1.47186
10	0.6167	1.44163	33	100.1667	1.47325
11	0.7500	1.44214	34	126.0667	1.47434
12	0.9167	1.44296	35	158.6667	1.47541
13	1.1167	1.44376	36	199.7000	1.47627
14	1.3833	1.44448	37	251.3667	1.47702
15	1.7167	1.44537	38	316.4000	1.47783
16	2.1167	1.44651	39	398.2833	1.47865
17	2.6500	1.44742	40	501.3667	1.48025
18	3.3000	1.44850	41	631.1500	1.48073
19	4.1167	1.44962	42	794.5167	1.48117
20	5.1500	1.45138	43	1000.2000	1.48168
21	6.4500	1.45331	44	1259.1333	1.48223
22	8.0833	1.45466	45	1440.3167	1.48260
23	10.1500	1.45625			



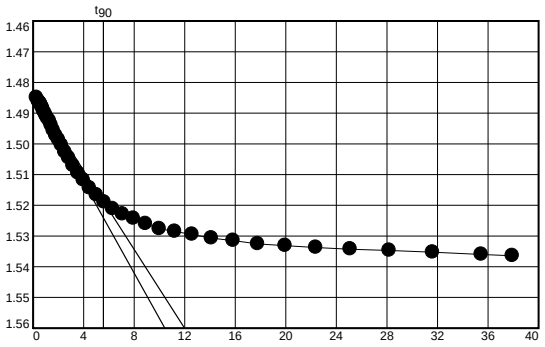
Void Ratio = 1.000 **Compression =** 13.5%

D_0 = 1.4373 **D_{90} =** 1.4660 **D_{100} =** 1.4692 **C_V at 31.85 min. =** 0.053 ft.^{2}/day

Figure B-138j

Pressure: 8000.00 psf	TEST READINGS	Load No. 13

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.48012	24	12.7167	1.50952
2	0.0833	1.48497	25	15.9833	1.51177
3	0.1833	1.48601	26	20.0833	1.51441
4	0.2167	1.48626	27	25.2500	1.51667
5	0.2500	1.48654	28	31.7500	1.51899
6	0.3000	1.48669	29	39.9500	1.52117
7	0.3500	1.48687	30	50.2500	1.52290
8	0.4167	1.48727	31	63.2333	1.52430
9	0.5000	1.48785	32	79.5667	1.52604
10	0.6000	1.48837	33	100.1500	1.52763
11	0.7333	1.48931	34	126.0333	1.52854
12	0.9000	1.48995	35	158.6333	1.52947
13	1.1000	1.49082	36	199.6667	1.53071
14	1.3667	1.49176	37	251.3500	1.53150
15	1.7000	1.49250	38	316.3833	1.53257
16	2.1000	1.49394	39	398.2667	1.53314
17	2.6167	1.49561	40	501.3500	1.53375
18	3.2833	1.49725	41	631.1167	1.53429
19	4.1000	1.49865	42	794.5000	1.53472
20	5.1333	1.50043	43	1000.1833	1.53528
21	6.4333	1.50265	44	1259.1167	1.53601
22	8.0667	1.50461	45	1440.1500	1.53643
23	10.1167	1.50706			



Void Ratio = 0.876 **Compression =** 18.9%

D_0 = 1.4830 **D_{90} =** 1.5187 **D_{100} =** 1.5227 **C_V at 30.91 min. =** 0.048 ft.^{2}/day

Pressure: 16000.00 psf	TEST READINGS	Load No. 14

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.53208	12	0.9167	1.54446
2	0.1000	1.53821	13	1.1167	1.54503
3	0.2000	1.53952	14	1.3833	1.54604
4	0.2333	1.53980	15	1.7167	1.54741
5	0.2667	1.54026	16	2.1333	1.54846
6	0.3000	1.54061	17	2.6500	1.54996
7	0.3667	1.54091	18	3.3000	1.55164
8	0.4333	1.54135	19	4.1167	1.55312
9	0.5167	1.54192	20	5.1500	1.55467
10	0.6167	1.54274	21	6.4500	1.55724
11	0.7500	1.54371	22	8.0833	1.55920

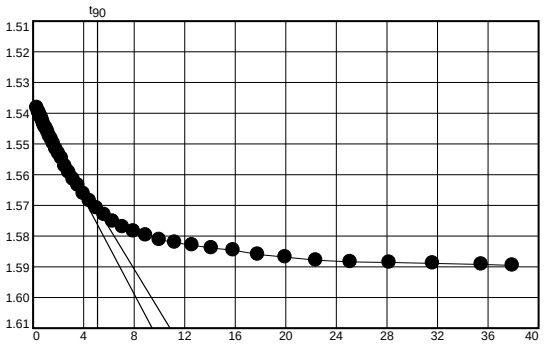


Figure B-138k

Pressure: 16000.00 psf	TEST READINGS (continued)	Load No. 14

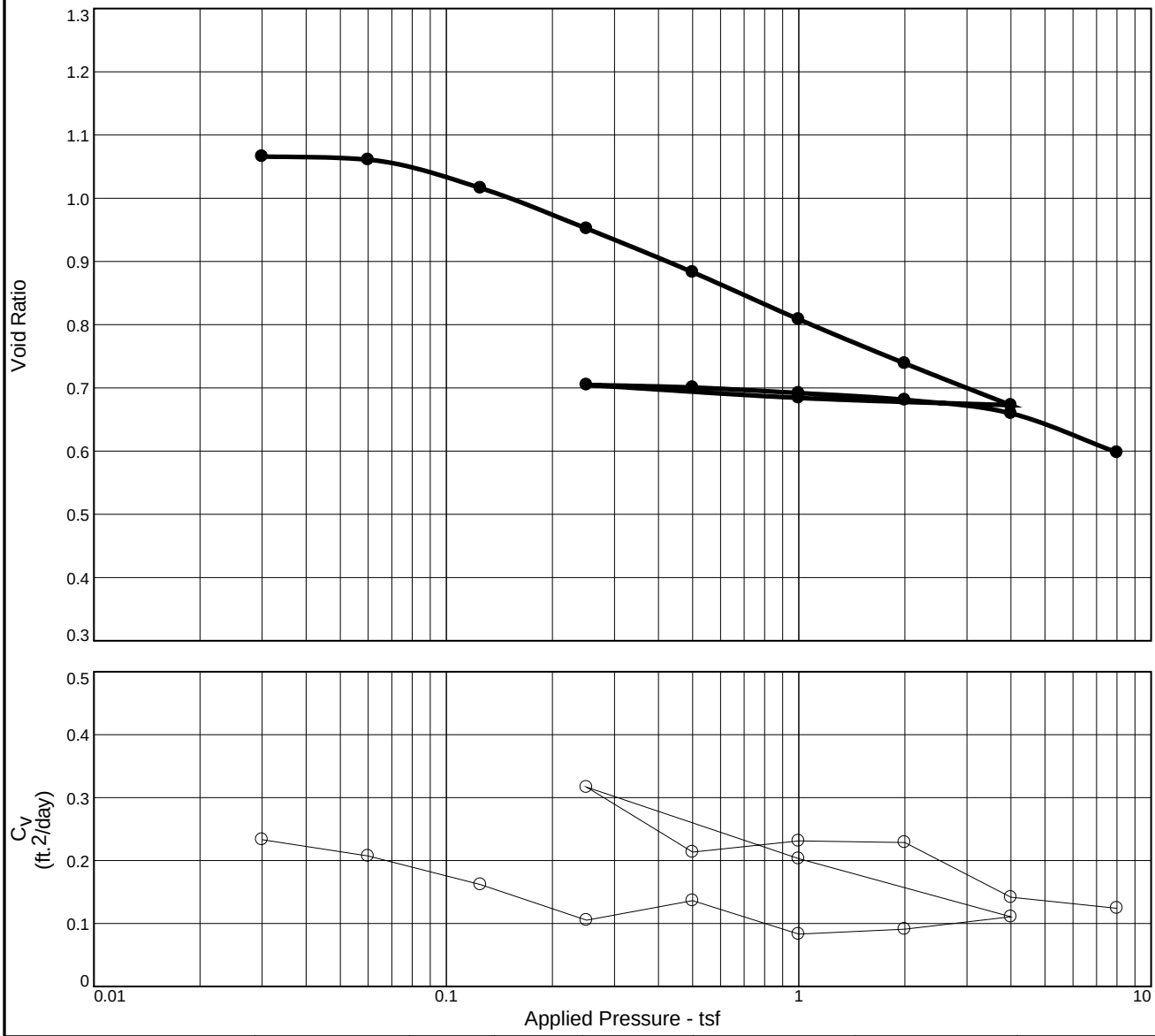
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1500	1.56154	33	100.1500	1.58120	43	1000.2000	1.58887
24	12.7333	1.56349	34	126.0500	1.58211	44	1259.1167	1.58922
25	16.0000	1.56622	35	158.6500	1.58297	45	1440.3000	1.58954
26	20.1000	1.56849	36	199.6833	1.58388			
27	25.2667	1.57088	37	251.3500	1.58459			
28	31.7667	1.57306	38	316.4000	1.58597			
29	39.9667	1.57522	39	398.2833	1.58684			
30	50.2667	1.57705	40	501.3667	1.58786			
31	63.2500	1.57846	41	631.1333	1.58843			
32	79.5833	1.57975	42	794.5167	1.58859			

Void Ratio = 0.753 **Compression =** 24.2%

D_0 = 1.5366 **D_{90} =** 1.5711 **D_{100} =** 1.5750 **C_V at 25.97 min. =** 0.050 $ft.^2/day$

Figure B-138l

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	USCS	AASHTO	Initial Void Ratio
Saturation	Moisture							
97.5 %	39.0 %	80.9	37	16	2.688	CL		1.075

MATERIAL DESCRIPTION

Gray lean clay with sand pockets

Project No. 23A177 **Client:** Geoengineers, Inc.

Project: Chandeleur Island Restoration

Source of Sample: CI-13 **Depth:** 28-30ft

Remarks:

ADAPTIVE
MANAGEMENT AND ENGINEERING

Figure B-139a

Tested By: JSA **Checked By:** VT

CONSOLIDATION TEST DATA

9/25/2023

Client: Geoengineers, Inc.
Project: Chandeleur Island Restoration
Project Number: 23A177
Location: CI-13
Depth: 28-30ft
Material Description: Gray lean clay with sand pockets
Liquid Limit: 37 **Plasticity Index:** 16
USCS: CL
Tested by: JSA **Checked by:** VT

Test Specimen Data

NATURAL MOISTURE			VOID RATIO			AFTER TEST		
Wet w+t =	109.34	g.	Spec. Gr. =	2.688		Wet w+t =		g.
Dry w+t =	87.14	g.	Est. Ht. Solids =	0.482	in.	Dry w+t =		g.
Tare Wt. =	30.21	g.	Init. V.R. =	1.075		Tare Wt. =		g.
Moisture =	39.0	%	Init. Sat. =	97.5	%	Moisture =		%

UNIT WEIGHT			TEST START			
Height =	1.000	in.	Height =	1.000	in.	Dry Wt. =
Diameter =	2.499	in.	Diameter =	2.499	in.	
Weight =	144.73	g.				
Dry Dens. =	80.9	pcf				

End-Of-Load Summary

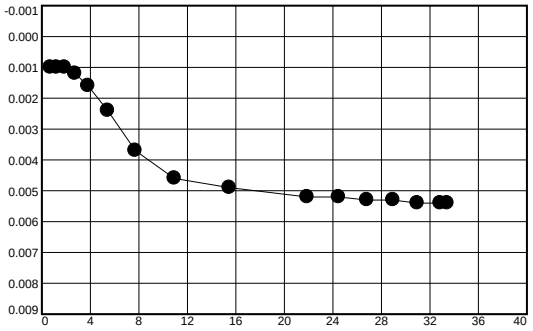
Pressure (tsf)	Final Dial (in.)	Deformation (in.)	C_v (ft.^{2}/day)	C_α	Void Ratio	% Strain
start	0.00110	0.00000			1.075	
0.03	0.00540	0.00430	0.233		1.066	0.4 Comprs.
0.06	0.00780	0.00670	0.207		1.061	0.7 Comprs.
0.13	0.02940	0.02830	0.162		1.016	2.8 Comprs.
0.25	0.06030	0.05920	0.105		0.952	5.9 Comprs.
0.50	0.09360	0.09250	0.136		0.883	9.2 Comprs.
1.00	0.12950	0.12840	0.083		0.808	12.8 Comprs.
2.00	0.16310	0.16200	0.091		0.739	16.2 Comprs.
4.00	0.19500	0.19390	0.111		0.673	19.4 Comprs.
1.00	0.18940	0.18830	0.203		0.684	18.8 Comprs.
0.25	0.17950	0.17840	0.317		0.705	17.8 Comprs.
0.50	0.18150	0.18040	0.214		0.701	18.0 Comprs.
1.00	0.18570	0.18460	0.231		0.692	18.5 Comprs.
2.00	0.19090	0.18980	0.229		0.681	19.0 Comprs.
4.00	0.20120	0.20010	0.142		0.660	20.0 Comprs.
8.00	0.23100	0.22990	0.124		0.598	23.0 Comprs.

Compression index (C_c), tsf = 0.25 **Preconsolidation pressure (P_p), tsf =** 0.1 **Void ratio at P_p (e_m) =** 1.030

Figure B-139b

Pressure: 0.03 tsf | **TEST READINGS** | **Load No. 1**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.5000	0.0011	11	480.0000	0.0052
2	1.0000	0.0010	12	600.0000	0.0052
3	2.0000	0.0010	13	720.0000	0.0053
4	4.0000	0.0010	14	840.0000	0.0053
5	8.0000	0.0012	15	960.0000	0.0054
6	15.0000	0.0016	16	1080.0000	0.0054
7	30.0000	0.0024	17	1118.5000	0.0054
8	60.0000	0.0037			
9	120.0000	0.0046			
10	240.0000	0.0049			

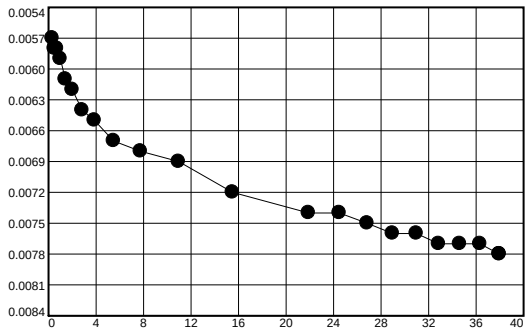


Void Ratio = 1.066 **Compression =** 0.4%

D_0 = -0.0001 **D_{90} =** 0.0013 **D_{100} =** 0.0015 **C_v at 9.05 min. =** 0.233 ft.^{2}/day

Pressure: 0.06 tsf | **TEST READINGS** | **Load No. 2**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.0054	13	240.0000	0.0072
2	0.1000	0.0057	14	480.0000	0.0074
3	0.2500	0.0058	15	600.0000	0.0074
4	0.5000	0.0058	16	720.0000	0.0075
5	1.0000	0.0059	17	840.0000	0.0076
6	2.0000	0.0061	18	960.0000	0.0076
7	4.0000	0.0062	19	1080.0000	0.0077
8	8.0000	0.0064	20	1200.0000	0.0077
9	15.0000	0.0065	21	1320.0000	0.0077
10	30.0000	0.0067	22	1440.0000	0.0078
11	60.0000	0.0068	23	1441.9833	0.0078
12	120.0000	0.0069			



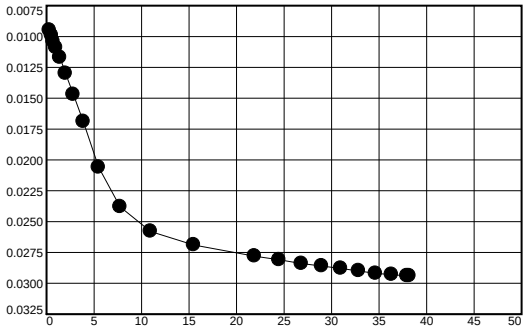
Void Ratio = 1.061 **Compression =** 0.7%

D_0 = 0.0056 **D_{90} =** 0.0064 **D_{100} =** 0.0065 **C_v at 10.12 min. =** 0.207 ft.^{2}/day

Figure B-139c

Pressure: 0.13 tsf	TEST READINGS	Load No. 3

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.0078	13	240.0000	0.0269
2	0.1000	0.0095	14	480.0000	0.0278
3	0.2833	0.0099	15	600.0000	0.0281
4	0.5000	0.0104	16	720.0000	0.0284
5	1.0000	0.0109	17	840.0000	0.0286
6	2.0000	0.0117	18	960.0000	0.0288
7	4.0000	0.0130	19	1080.0000	0.0290
8	8.0000	0.0147	20	1200.0000	0.0292
9	15.0000	0.0169	21	1320.0000	0.0293
10	30.0000	0.0206	22	1440.0000	0.0294
11	60.0000	0.0238	23	1457.3833	0.0294
12	120.0000	0.0258			

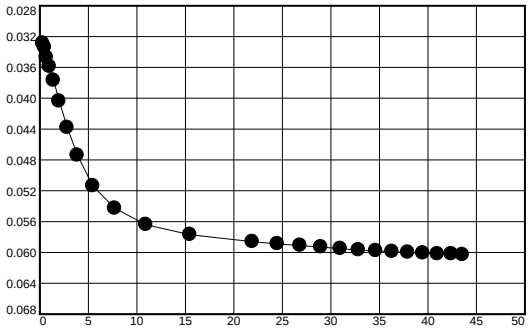


Void Ratio = 1.016 **Compression =** 2.8%

D_0 = 0.0088 **D_{90} =** 0.0162 **D_{100} =** 0.0171 **C_V at 12.65 min. =** 0.162 ft.^{2}/day

Pressure: 0.25 tsf	TEST READINGS	Load No. 4

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.0294	14	480.0000	0.0586
2	0.1000	0.0329	15	600.0000	0.0589
3	0.2500	0.0334	16	720.0000	0.0591
4	0.5000	0.0347	17	840.0000	0.0593
5	1.0000	0.0359	18	960.0000	0.0595
6	2.0000	0.0377	19	1080.0000	0.0597
7	4.0000	0.0404	20	1200.0000	0.0598
8	8.0000	0.0438	21	1320.0000	0.0599
9	15.0000	0.0474	22	1440.0000	0.0600
10	30.0000	0.0514	23	1560.0000	0.0601
11	60.0000	0.0543	24	1680.0000	0.0602
12	120.0000	0.0564	25	1800.0000	0.0602
13	240.0000	0.0577	26	1898.9833	0.0603



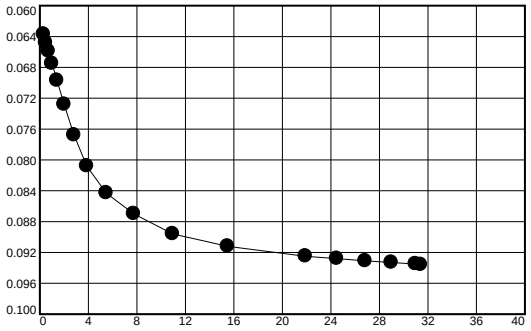
Void Ratio = 0.952 **Compression =** 5.9%

D_0 = 0.0308 **D_{90} =** 0.0484 **D_{100} =** 0.0504 **C_V at 18.43 min. =** 0.105 ft.^{2}/day

Figure B-139d

Pressure: 0.50 tsf	TEST READINGS	Load No. 5

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.0603	11	60.0000	0.0870
2	0.1000	0.0637	12	120.0000	0.0896
3	0.2500	0.0648	13	240.0000	0.0912
4	0.5000	0.0659	14	480.0000	0.0925
5	1.0000	0.0675	15	600.0000	0.0928
6	2.0000	0.0697	16	720.0000	0.0931
7	4.0000	0.0728	17	840.0000	0.0933
8	8.0000	0.0768	18	960.0000	0.0935
9	15.0000	0.0808	19	986.4500	0.0936
10	30.0000	0.0843			

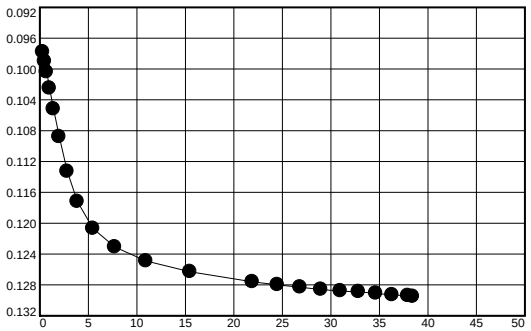


Void Ratio = 0.883 **Compression =** 9.2%

D_0 = 0.0625 **D_{90} =** 0.0799 **D_{100} =** 0.0819 **C_v at 13.29 min. =** 0.136 ft.^{2}/day

Pressure: 1.00 tsf	TEST READINGS	Load No. 6

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.0936	13	240.0000	0.1263
2	0.1000	0.0978	14	480.0000	0.1276
3	0.2500	0.0990	15	600.0000	0.1280
4	0.5000	0.1004	16	720.0000	0.1283
5	1.0000	0.1025	17	840.0000	0.1286
6	2.0000	0.1052	18	960.0000	0.1288
7	4.0000	0.1088	19	1080.0000	0.1289
8	8.0000	0.1133	20	1200.0000	0.1291
9	15.0000	0.1172	21	1320.0000	0.1293
10	30.0000	0.1207	22	1440.0000	0.1294
11	60.0000	0.1231	23	1478.0667	0.1295
12	120.0000	0.1249			



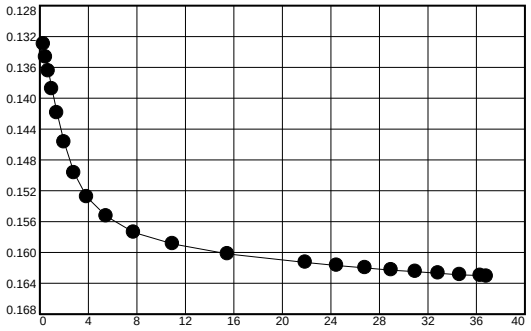
Void Ratio = 0.808 **Compression =** 12.8%

D_0 = 0.0967 **D_{90} =** 0.1185 **D_{100} =** 0.1210 **C_v at 20.17 min. =** 0.083 ft.^{2}/day

Figure B-139e

Pressure: 2.00 tsf **TEST READINGS** **Load No. 7**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.1295	12	120.0000	0.1589
2	0.1000	0.1330	13	240.0000	0.1602
3	0.2500	0.1347	14	480.0000	0.1613
4	0.5000	0.1365	15	600.0000	0.1617
5	1.0000	0.1388	16	720.0000	0.1620
6	2.0000	0.1419	17	840.0000	0.1623
7	4.0000	0.1457	18	960.0000	0.1625
8	8.0000	0.1497	19	1080.0000	0.1627
9	15.0000	0.1528	20	1200.0000	0.1629
10	30.0000	0.1553	21	1320.0000	0.1630
11	60.0000	0.1574	22	1357.0500	0.1631

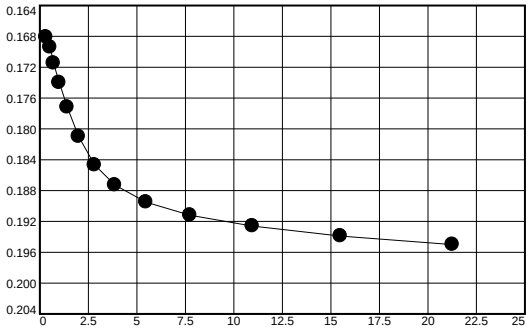


Void Ratio = 0.739 **Compression =** 16.2%

D_0 = 0.1317 **D_{90} =** 0.1532 **D_{100} =** 0.1556 **C_v at 17.01 min. =** 0.091 ft.^{2}/day

Pressure: 4.00 tsf **TEST READINGS** **Load No. 8**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.1631	11	60.0000	0.1912
2	0.1000	0.1681	12	120.0000	0.1926
3	0.2833	0.1694	13	240.0000	0.1939
4	0.5000	0.1715	14	452.3333	0.1950
5	1.0000	0.1740			
6	2.0000	0.1772			
7	4.0000	0.1810			
8	8.0000	0.1847			
9	15.0000	0.1873			
10	30.0000	0.1895			



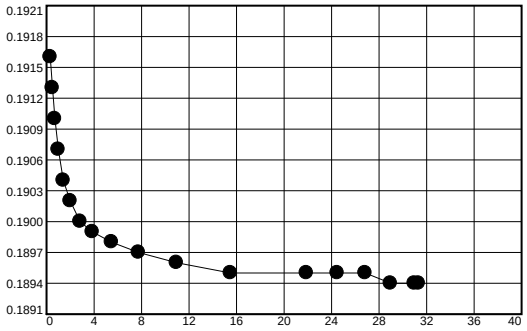
Void Ratio = 0.673 **Compression =** 19.4%

D_0 = 0.1654 **D_{90} =** 0.1866 **D_{100} =** 0.1890 **C_v at 12.94 min. =** 0.111 ft.^{2}/day

Figure B-139f

Pressure: 1.00 tsf | **TEST READINGS** | **Load No. 9**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.1950	11	60.0000	0.1897
2	0.1000	0.1916	12	120.0000	0.1896
3	0.2500	0.1913	13	240.0000	0.1895
4	0.5000	0.1910	14	480.0000	0.1895
5	1.0000	0.1907	15	600.0000	0.1895
6	2.0000	0.1904	16	720.0000	0.1895
7	4.0000	0.1902	17	840.0000	0.1894
8	8.0000	0.1900	18	960.0000	0.1894
9	15.0000	0.1899	19	981.8167	0.1894
10	30.0000	0.1898			

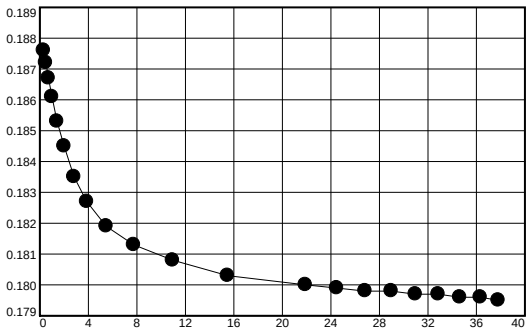


Void Ratio = 0.684 **Compression =** 18.8%

D_0 = 0.1912 **D_{90} =** 0.1901 **D_{100} =** 0.1899 **C_V at 6.84 min. =** 0.203 ft.^{2}/day

Pressure: 0.25 tsf | **TEST READINGS** | **Load No. 10**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.1894	12	120.0000	0.1808
2	0.1000	0.1876	13	240.0000	0.1803
3	0.2500	0.1872	14	480.0000	0.1800
4	0.5000	0.1867	15	600.0000	0.1799
5	1.0000	0.1861	16	720.0000	0.1798
6	2.0000	0.1853	17	840.0000	0.1798
7	4.0000	0.1845	18	960.0000	0.1797
8	8.0000	0.1835	19	1080.0000	0.1797
9	15.0000	0.1827	20	1200.0000	0.1796
10	30.0000	0.1819	21	1320.0000	0.1796
11	60.0000	0.1813	22	1430.3000	0.1795



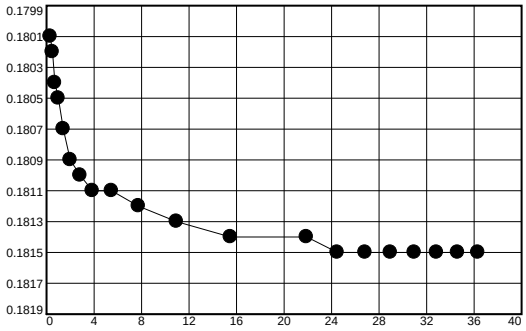
Void Ratio = 0.705 **Compression =** 17.8%

D_0 = 0.1885 **D_{90} =** 0.1844 **D_{100} =** 0.1839 **C_V at 4.47 min. =** 0.317 ft.^{2}/day

Figure B-139g

Pressure: 0.50 tsf	TEST READINGS	Load No. 11

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.1795	12	120.0000	0.1813
2	0.1000	0.1801	13	240.0000	0.1814
3	0.2500	0.1802	14	480.0000	0.1814
4	0.5000	0.1804	15	600.0000	0.1815
5	1.0000	0.1805	16	720.0000	0.1815
6	2.0000	0.1807	17	840.0000	0.1815
7	4.0000	0.1809	18	960.0000	0.1815
8	8.0000	0.1810	19	1080.0000	0.1815
9	15.0000	0.1811	20	1200.0000	0.1815
10	30.0000	0.1811	21	1320.0000	0.1815
11	60.0000	0.1812			

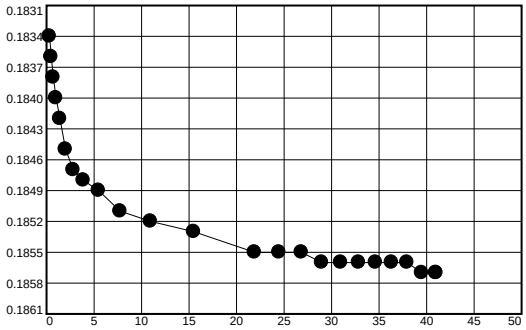


Void Ratio = 0.701 **Compression =** 18.0%

D_0 = 0.1801 **D_{90} =** 0.1810 **D_{100} =** 0.1811 **C_v at 6.69 min. =** 0.214 ft.^{2}/day

Pressure: 1.00 tsf	TEST READINGS	Load No. 12

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.1815	14	480.0000	0.1855
2	0.1000	0.1834	15	600.0000	0.1855
3	0.2500	0.1836	16	720.0000	0.1855
4	0.5000	0.1838	17	840.0000	0.1856
5	1.0000	0.1840	18	960.0000	0.1856
6	2.0000	0.1842	19	1080.0000	0.1856
7	4.0000	0.1845	20	1200.0000	0.1856
8	8.0000	0.1847	21	1320.0000	0.1856
9	15.0000	0.1848	22	1440.0000	0.1856
10	30.0000	0.1849	23	1560.0000	0.1857
11	60.0000	0.1851	24	1680.0000	0.1857
12	120.0000	0.1852	25	1682.5833	0.1857
13	240.0000	0.1853			



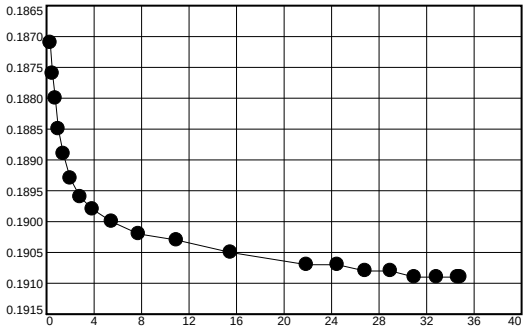
Void Ratio = 0.692 **Compression =** 18.5%

D_0 = 0.1835 **D_{90} =** 0.1846 **D_{100} =** 0.1847 **C_v at 6.13 min. =** 0.231 ft.^{2}/day

Figure B-139h

Pressure: 2.00 tsf	TEST READINGS	Load No. 13

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.1857	12	120.0000	0.1903
2	0.1000	0.1871	13	240.0000	0.1905
3	0.2500	0.1876	14	480.0000	0.1907
4	0.5500	0.1880	15	600.0000	0.1907
5	1.0000	0.1885	16	720.0000	0.1908
6	2.0000	0.1889	17	840.0000	0.1908
7	4.0000	0.1893	18	960.0000	0.1909
8	8.0000	0.1896	19	1080.0000	0.1909
9	15.0000	0.1898	20	1200.0000	0.1909
10	30.0000	0.1900	21	1213.4667	0.1909
11	60.0000	0.1902			

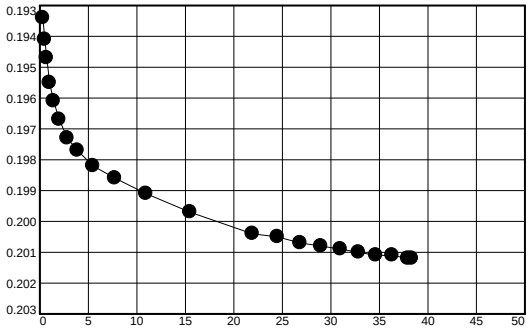


Void Ratio = 0.681 **Compression =** 19.0%

D_0 = 0.1876 **D_{90} =** 0.1895 **D_{100} =** 0.1897 **C_v at 6.12 min. =** 0.229 ft.^{2}/day

Pressure: 4.00 tsf	TEST READINGS	Load No. 14

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.1909	13	240.0000	0.1997
2	0.1000	0.1934	14	480.0000	0.2004
3	0.2500	0.1941	15	600.0000	0.2005
4	0.5000	0.1947	16	720.0000	0.2007
5	1.0000	0.1955	17	840.0000	0.2008
6	2.0000	0.1961	18	960.0000	0.2009
7	4.0000	0.1967	19	1080.0000	0.2010
8	8.0000	0.1973	20	1200.0000	0.2011
9	15.0000	0.1977	21	1320.0000	0.2011
10	30.0000	0.1982	22	1440.0000	0.2012
11	60.0000	0.1986	23	1468.3333	0.2012
12	120.0000	0.1991			



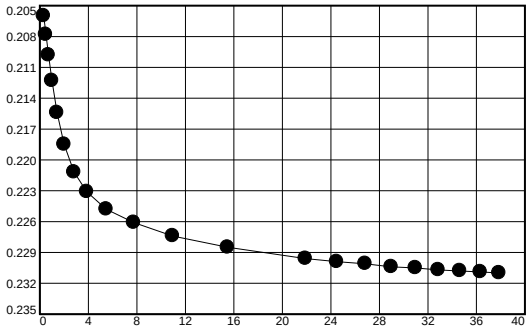
Void Ratio = 0.660 **Compression =** 20.0%

D_0 = 0.1945 **D_{90} =** 0.1974 **D_{100} =** 0.1977 **C_v at 9.70 min. =** 0.142 ft.^{2}/day

Figure B-139i

Pressure: 8.00 tsf	TEST READINGS	Load No. 15

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.2012	12	120.0000	0.2274
2	0.1000	0.2060	13	240.0000	0.2285
3	0.2500	0.2078	14	480.0000	0.2296
4	0.5000	0.2098	15	600.0000	0.2299
5	1.0000	0.2123	16	720.0000	0.2301
6	2.0000	0.2154	17	840.0000	0.2304
7	4.0000	0.2185	18	960.0000	0.2305
8	8.0000	0.2212	19	1080.0000	0.2307
9	15.0000	0.2231	20	1200.0000	0.2308
10	30.0000	0.2248	21	1320.0000	0.2309
11	60.0000	0.2261	22	1434.5000	0.2310

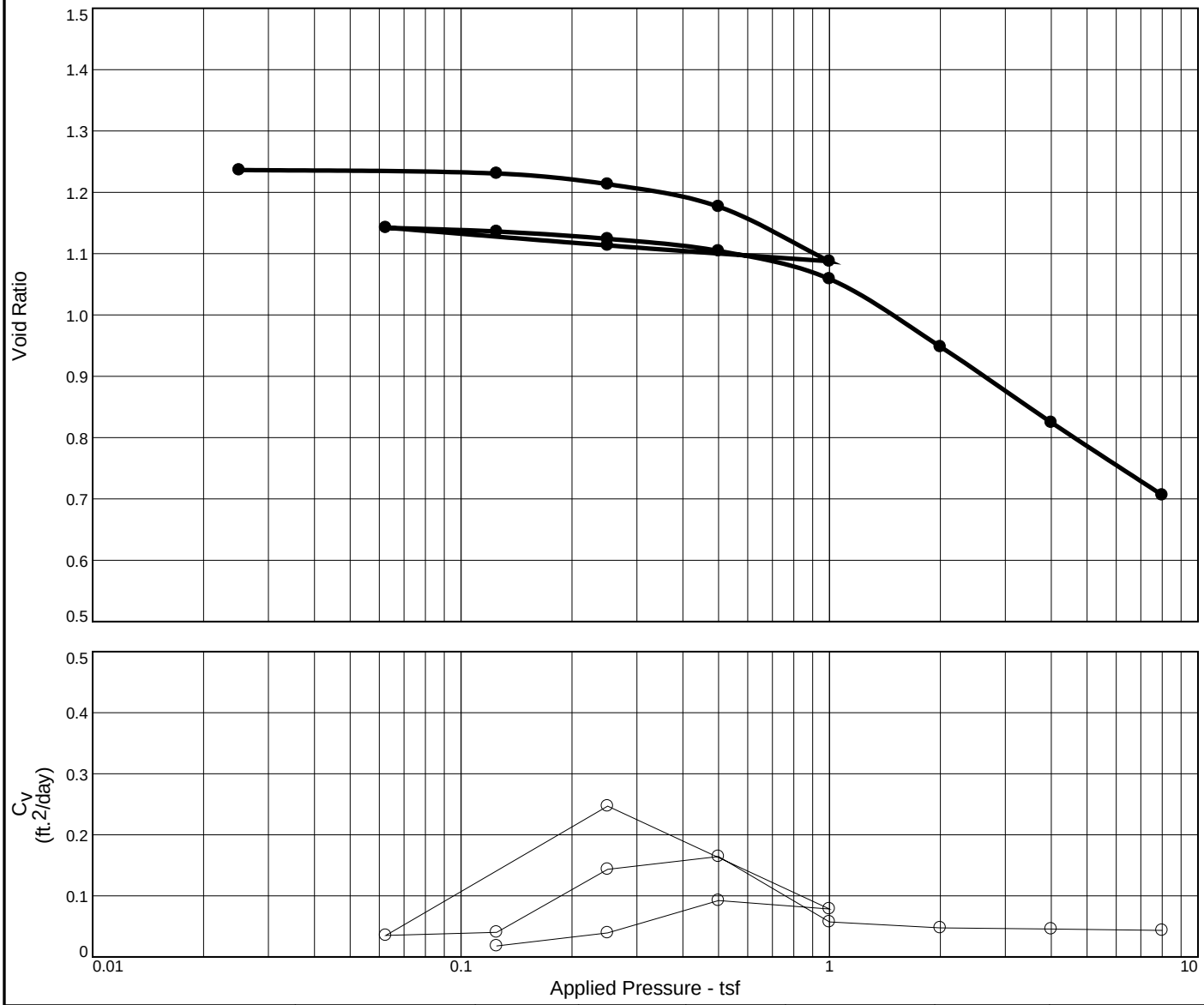


Void Ratio = 0.598 **Compression =** 23.0%

D_0 = 0.2093 **D_{90} =** 0.2220 **D_{100} =** 0.2234 **C_v at 10.52 min. =** 0.124 ft.^{2}/day

Figure B-139j

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	P_c (tsf)	C_c	Initial Void Ratio
Saturation	Moisture							
92.5 %	41.5 %	76.9	37	17	2.756	0.7	0.43	1.238

MATERIAL DESCRIPTION	USCS	AASHTO
Soft gray silty clay with sand lenses	(CL)	

Project No. 18274-022-01 **Client:** CEC

Project: Chandeleur Island Restoration Project (PO-0199)

Location: CI-15 **Depth:** 58-60

Remarks:
Specific gravity measured

GeoEngineers

Figure B-140a

Tested By: Dustin Blanchard **Checked By:** J. Aguettant

CONSOLIDATION TEST DATA

12/22/2023

Client: CEC
Project: Chandeleur Island Restoration Project (PO-0199)
Project Number: 18274-022-01
Location: CI-15
Depth: 58-60
Material Description: Soft gray silty clay with sand lenses
Liquid Limit: 37 **Plasticity Index:** 17
USCS: (CL)
Testing Remarks: Specific gravity measured
Tested by: Dustin Blanchard **Checked by:** J. Aguettant

Test Specimen Data

NATURAL MOISTURE

Wet w+t	= 147.68	g.
Dry w+t	= 109.85	g.
Tare Wt.	= 18.78	g.
Moisture	= 41.5	%

VOID RATIO

Spec. Gr.	= 2.756	
Est. Ht. Solids	= 0.446	in.
Init. V.R.	= 1.238	
Init. Sat.	= 92.5	%

AFTER TEST

Wet w+t	= 160.83	g.
Dry w+t	= 133.47	g.
Tare Wt.	= 36.77	g.
Moisture	= 28.3	%

UNIT WEIGHT

Height	= 0.999	in.
Diameter	= 2.500	in.
Weight	= 140.08	g.
Dry Dens.	= 76.9	pcf

TEST START

Height	= 0.999	in.
Diameter	= 2.500	in.

Dry Wt. = 96.70 g.

End-Of-Load Summary

Pressure (psf)	Final Dial (in.)	Deformation (in.)	C_v (ft.^{2}/day)	C_α	Void Ratio	% Strain
start	1.71917	0.00000			1.238	
50.00	1.71981	0.00064		0.001	1.236	0.1 Comprs.
250.00	1.72234	0.00317	0.018	0.001	1.231	0.3 Comprs.
500.00	1.73012	0.01095	0.039	0.000	1.213	1.1 Comprs.
1000.00	1.74648	0.02731	0.092	0.002	1.177	2.7 Comprs.
2000.00	1.78628	0.06711	0.079	0.005	1.087	6.7 Comprs.
500.00	1.77470	0.05553	0.247		1.113	5.6 Comprs.
125.00	1.76178	0.04261	0.035		1.142	4.3 Comprs.
250.00	1.76458	0.04541	0.040	0.000	1.136	4.5 Comprs.
500.00	1.76990	0.05073	0.143	0.001	1.124	5.1 Comprs.
1000.00	1.77870	0.05953	0.165	0.001	1.104	6.0 Comprs.
2000.00	1.79910	0.07993	0.057	0.002	1.059	8.0 Comprs.
4000.00	1.84846	0.12929	0.048	0.008	0.948	12.9 Comprs.
8000.00	1.90357	0.18440	0.046	0.008	0.825	18.5 Comprs.
16000.00	1.95648	0.23731	0.043	0.008	0.706	23.8 Comprs.

Compression index (C_c), tsf = 0.43 **Preconsolidation pressure (P_p), tsf =** 0.7 **Void ratio at P_p (e_m) =** 1.149
Recompression index (C_r) = 0.13

Figure B-140b

Pressure: 50.00 psf	TEST READINGS	Load No. 1

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.71917	16	2.4667	1.71932	31	79.4167	1.71953
2	0.0333	1.71917	17	3.1167	1.71939	32	99.9833	1.71958
3	0.0667	1.71918	18	3.9333	1.71938	33	125.8833	1.71969
4	0.1000	1.71917	19	4.9833	1.71943	34	158.4833	1.71978
5	0.1333	1.71918	20	6.2833	1.71943	35	199.5167	1.72004
6	0.1833	1.71917	21	7.9167	1.71940	36	251.1833	1.72028
7	0.2500	1.71915	22	9.9667	1.71943	37	316.2167	1.72039
8	0.3500	1.71915	23	12.5667	1.71940	38	398.1000	1.72056
9	0.4500	1.71916	24	15.8167	1.71942	39	501.1833	1.72052
10	0.5833	1.71914	25	19.9333	1.71939	40	630.9667	1.72057
11	0.7500	1.71915	26	25.1000	1.71941	41	794.3333	1.72047
12	0.9500	1.71918	27	31.6000	1.71941	42	1000.0167	1.72013
13	1.2167	1.71915	28	39.8000	1.71944	43	1258.9333	1.71976
14	1.5500	1.71920	29	50.1000	1.71947	44	1440.0833	1.71981
15	1.9500	1.71919	30	63.0833	1.71949			

Void Ratio = 1.236 **Compression =** 0.1%

Pressure: 250.00 psf	TEST READINGS	Load No. 2

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.71920	21	6.4333	1.72095
2	0.1000	1.71921	22	8.0667	1.72112
3	0.2000	1.71976	23	10.1333	1.72127
4	0.2167	1.71978	24	12.7167	1.72141
5	0.2500	1.71981	25	15.9833	1.72159
6	0.3000	1.71996	26	20.0833	1.72179
7	0.3500	1.72014	27	25.2500	1.72195
8	0.4167	1.72022	28	31.7667	1.72203
9	0.5000	1.72025	29	39.9500	1.72211
10	0.6000	1.72029	30	50.2667	1.72219
11	0.7333	1.72031	31	63.2333	1.72233
12	0.9000	1.72032	32	79.5833	1.72247
13	1.1000	1.72038	33	100.1500	1.72263
14	1.3667	1.72045	34	126.0333	1.72296
15	1.7000	1.72049	35	158.6333	1.72311
16	2.1000	1.72050	36	199.6833	1.72332
17	2.6333	1.72055	37	251.3333	1.72338
18	3.2833	1.72061	38	316.3833	1.72355
19	4.1000	1.72072	39	398.2667	1.72385
20	5.1333	1.72081	40	501.3500	1.72385

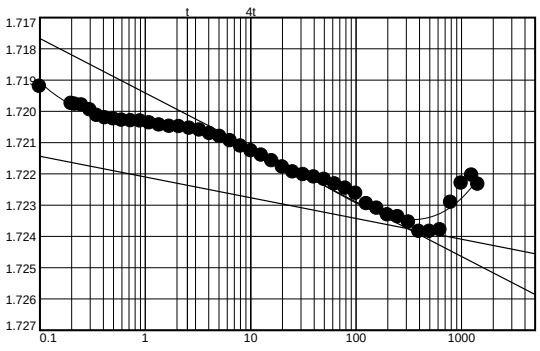


Figure B-140c

Pressure: 250.00 psf | **TEST READINGS (continued)** | **Load No. 2**

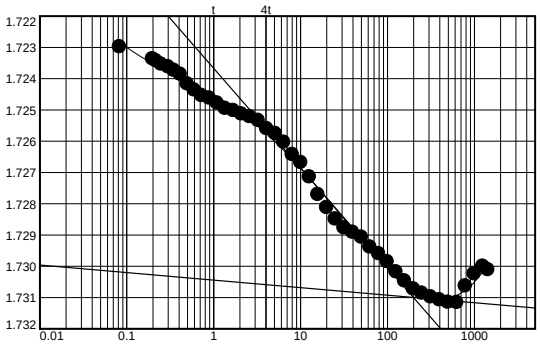
No.	Elapsed Time	Dial Reading
41	631.1167	1.72380
42	794.4833	1.72292
43	1000.1667	1.72231
44	1259.1000	1.72205
45	1440.2167	1.72234

Void Ratio = 1.231 **Compression =** 0.3%

D_0 = 1.7200 **D_{50} =** 1.7219 **D_{100} =** 1.7238 **C_v at 27.17 min. =** 0.018 ft.^{2}/day **C_α =** 0.001

Pressure: 500.00 psf | **TEST READINGS** | **Load No. 3**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.72144	24	12.7167	1.72715
2	0.0833	1.72299	25	15.9667	1.72771
3	0.2000	1.72337	26	20.0833	1.72813
4	0.2167	1.72343	27	25.2500	1.72850
5	0.2500	1.72354	28	31.7500	1.72878
6	0.3000	1.72363	29	39.9333	1.72892
7	0.3500	1.72374	30	50.2500	1.72908
8	0.4167	1.72387	31	63.2333	1.72939
9	0.5000	1.72417	32	79.5667	1.72961
10	0.6000	1.72437	33	100.1333	1.72986
11	0.7333	1.72455	34	126.0333	1.73019
12	0.9000	1.72463	35	158.6333	1.73048
13	1.1000	1.72479	36	199.6667	1.73073
14	1.3667	1.72496	37	251.3333	1.73087
15	1.7000	1.72503	38	316.3667	1.73099
16	2.1000	1.72514	39	398.2500	1.73108
17	2.6167	1.72522	40	501.3333	1.73116
18	3.2833	1.72534	41	631.1000	1.73117
19	4.1000	1.72561	42	794.4833	1.73064
20	5.1333	1.72576	43	1000.1500	1.73025
21	6.4333	1.72604	44	1259.0833	1.73001
22	8.0667	1.72643	45	1440.2000	1.73012
23	10.1333	1.72669			



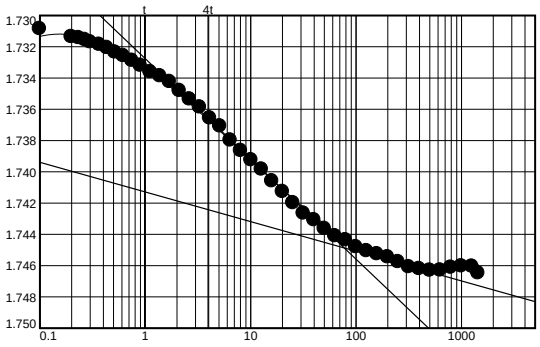
Void Ratio = 1.213 **Compression =** 1.1%

D_0 = 1.7233 **D_{50} =** 1.7271 **D_{100} =** 1.7310 **C_v at 12.30 min. =** 0.039 ft.^{2}/day **C_α =** 0.000

Figure B-140d

Pressure: 1000.00 psf	TEST READINGS	Load No. 4

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.72779	24	12.7167	1.73985
2	0.1000	1.73086	25	15.9833	1.74059
3	0.2000	1.73136	26	20.0833	1.74128
4	0.2333	1.73143	27	25.2500	1.74200
5	0.2667	1.73156	28	31.7667	1.74266
6	0.3000	1.73170	29	39.9500	1.74308
7	0.3667	1.73186	30	50.2667	1.74364
8	0.4333	1.73207	31	63.2333	1.74411
9	0.5167	1.73236	32	79.5833	1.74436
10	0.6167	1.73258	33	100.1500	1.74480
11	0.7500	1.73289	34	126.0333	1.74506
12	0.9000	1.73320	35	158.6333	1.74526
13	1.1167	1.73361	36	199.6667	1.74545
14	1.3833	1.73387	37	251.3333	1.74577
15	1.7000	1.73424	38	316.3833	1.74609
16	2.1167	1.73481	39	398.2667	1.74621
17	2.6333	1.73536	40	501.3500	1.74631
18	3.2833	1.73587	41	631.1167	1.74630
19	4.1000	1.73657	42	794.4833	1.74612
20	5.1333	1.73708	43	1000.1667	1.74603
21	6.4333	1.73799	44	1259.1000	1.74606
22	8.0667	1.73865	45	1440.4500	1.74648
23	10.1333	1.73924			



Void Ratio = 1.177 **Compression =** 2.7%

D_0 = 1.7299 **D_{50} =** 1.7374 **D_{100} =** 1.7449 **C_V at 5.13 min. =** 0.092 ft.^{2}/day **C_α =** 0.002

Pressure: 2000.00 psf	TEST READINGS	Load No. 5

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.74546	12	0.9000	1.75623
2	0.0833	1.75248	13	1.1167	1.75713
3	0.2000	1.75321	14	1.3667	1.75790
4	0.2167	1.75337	15	1.7000	1.75863
5	0.2500	1.75354	16	2.1000	1.75934
6	0.3000	1.75372	17	2.6333	1.76006
7	0.3500	1.75387	18	3.2833	1.76115
8	0.4167	1.75401	19	4.1000	1.76235
9	0.5000	1.75409	20	5.1333	1.76323
10	0.6000	1.75466	21	6.4167	1.76503
11	0.7333	1.75538	22	8.0667	1.76623

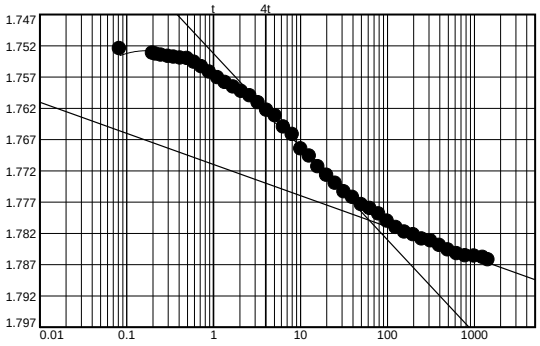


Figure B-140e

Pressure: 2000.00 psf | **TEST READINGS (continued)** | **Load No. 5**

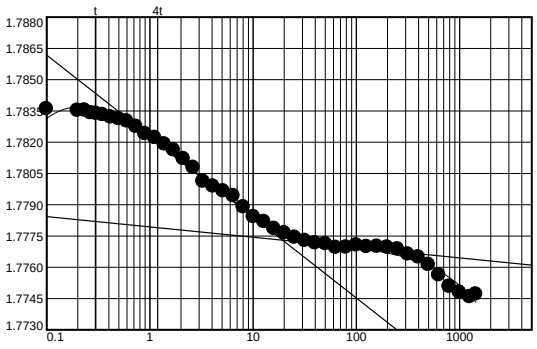
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1167	1.76853	33	100.1333	1.78007	43	1000.1667	1.78566
24	12.7167	1.76969	34	126.0333	1.78109	44	1259.0833	1.78590
25	15.9667	1.77140	35	158.6333	1.78182	45	1440.3167	1.78628
26	20.0833	1.77275	36	199.6667	1.78227			
27	25.2500	1.77403	37	251.3333	1.78294			
28	31.7500	1.77541	38	316.3667	1.78326			
29	39.9333	1.77629	39	398.2500	1.78398			
30	50.2500	1.77746	40	501.3333	1.78468			
31	63.2333	1.77806	41	631.1167	1.78530			
32	79.5667	1.77894	42	794.4833	1.78561			

Void Ratio = 1.087 **Compression =** 6.7%

D_0 = 1.7500 **D_{50} =** 1.7649 **D_{100} =** 1.7799 **C_v at 5.69 min. =** 0.079 ft.^{2}/day **C_α =** 0.005

Pressure: 500.00 psf | **TEST READINGS** | **Load No. 6**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.78791	24	12.7333	1.77818
2	0.1000	1.78359	25	15.9833	1.77785
3	0.2000	1.78352	26	20.1000	1.77764
4	0.2333	1.78353	27	25.2667	1.77743
5	0.2667	1.78340	28	31.7667	1.77728
6	0.3000	1.78338	29	39.9500	1.77716
7	0.3500	1.78331	30	50.2667	1.77712
8	0.4167	1.78320	31	63.2333	1.77694
9	0.5000	1.78312	32	79.5833	1.77695
10	0.6000	1.78301	33	100.1500	1.77706
11	0.7333	1.78275	34	126.0333	1.77698
12	0.9000	1.78241	35	158.6333	1.77699
13	1.1167	1.78221	36	199.6833	1.77696
14	1.3833	1.78191	37	251.3500	1.77687
15	1.7000	1.78163	38	316.3833	1.77662
16	2.1167	1.78120	39	398.2667	1.77648
17	2.6333	1.78078	40	501.3500	1.77612
18	3.2833	1.78012	41	631.1167	1.77563
19	4.1000	1.77988	42	794.4833	1.77507
20	5.1333	1.77966	43	1000.1667	1.77480
21	6.4333	1.77942	44	1259.1000	1.77458
22	8.0833	1.77889	45	1440.0167	1.77470
23	10.1333	1.77842			



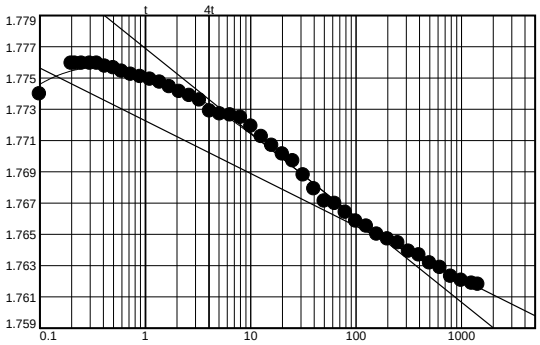
Void Ratio = 1.113 **Compression =** 5.6%

D_0 = 1.7853 **D_{50} =** 1.7813 **D_{100} =** 1.7773 **C_v at 1.75 min. =** 0.247 ft.^{2}/day

Figure B-140f

Pressure: 125.00 psf	TEST READINGS	Load No. 7

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.77723	24	12.7167	1.77123
2	0.1000	1.77396	25	15.9833	1.77068
3	0.2000	1.77592	26	20.0833	1.77012
4	0.2167	1.77593	27	25.2667	1.76969
5	0.2500	1.77593	28	31.7667	1.76878
6	0.3000	1.77593	29	39.9500	1.76789
7	0.3500	1.77592	30	50.2667	1.76711
8	0.4167	1.77574	31	63.2333	1.76695
9	0.5000	1.77563	32	79.5833	1.76639
10	0.6000	1.77542	33	100.1500	1.76583
11	0.7333	1.77522	34	126.0500	1.76551
12	0.9000	1.77507	35	158.6500	1.76500
13	1.1167	1.77491	36	199.6833	1.76468
14	1.3833	1.77471	37	251.3500	1.76444
15	1.7000	1.77442	38	316.3833	1.76391
16	2.1167	1.77412	39	398.2667	1.76367
17	2.6333	1.77387	40	501.3500	1.76315
18	3.2833	1.77358	41	631.1333	1.76286
19	4.1000	1.77287	42	794.5000	1.76230
20	5.1333	1.77269	43	1000.1667	1.76205
21	6.4333	1.77262	44	1259.1000	1.76186
22	8.0833	1.77247	45	1440.3667	1.76178
23	10.1333	1.77190			



Void Ratio = 1.142 **Compression =** 4.3%

D_0 = 1.7772 **D_{50} =** 1.7709 **D_{100} =** 1.7646 **C_V at 12.57 min. =** 0.035 ft.^{2}/day

Pressure: 250.00 psf	TEST READINGS	Load No. 8

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.76146	12	0.9000	1.76218
2	0.1000	1.76186	13	1.1167	1.76222
3	0.2000	1.76195	14	1.3667	1.76227
4	0.2333	1.76197	15	1.7000	1.76234
5	0.2667	1.76199	16	2.1167	1.76243
6	0.3000	1.76200	17	2.6333	1.76247
7	0.3500	1.76202	18	3.2833	1.76260
8	0.4167	1.76205	19	4.1000	1.76269
9	0.5000	1.76207	20	5.1333	1.76280
10	0.6167	1.76212	21	6.4333	1.76288
11	0.7333	1.76214	22	8.0667	1.76295

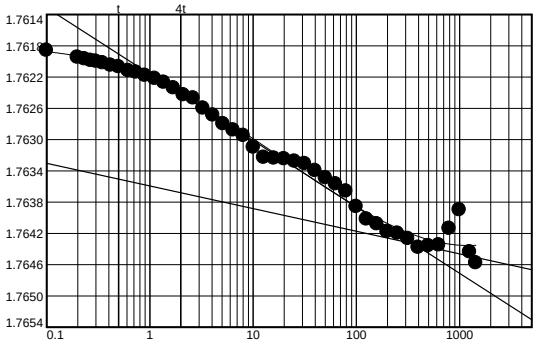


Figure B-140g

Pressure: 250.00 psf	TEST READINGS (continued)	Load No. 8

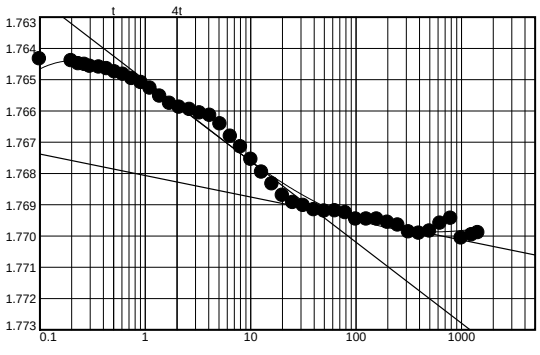
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	1.76310	33	100.1500	1.76386	43	1000.1667	1.76390
24	12.7167	1.76323	34	126.0500	1.76402	44	1259.1000	1.76444
25	15.9833	1.76324	35	158.6500	1.76408	45	1440.0167	1.76458
26	20.0833	1.76325	36	199.6833	1.76418			
27	25.2500	1.76328	37	251.3500	1.76420			
28	31.7667	1.76331	38	316.3833	1.76427			
29	39.9500	1.76340	39	398.2667	1.76438			
30	50.2667	1.76349	40	501.3500	1.76436			
31	63.2500	1.76357	41	631.1333	1.76435			
32	79.5833	1.76366	42	794.5000	1.76414			

Void Ratio = 1.136 **Compression =** 4.5%

D_0 = 1.7617 **D_{50} =** 1.7630 **D_{100} =** 1.7643 **C_v at 11.12 min. =** 0.040 ft.^{2}/day **C_α =** 0.000

Pressure: 500.00 psf	TEST READINGS	Load No. 9

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.76332	24	12.7500	1.76797
2	0.1000	1.76434	25	16.0000	1.76834
3	0.2000	1.76440	26	20.1000	1.76871
4	0.2333	1.76450	27	25.2833	1.76894
5	0.2667	1.76452	28	31.7833	1.76903
6	0.3000	1.76458	29	39.9667	1.76917
7	0.3667	1.76461	30	50.2833	1.76921
8	0.4333	1.76466	31	63.2667	1.76920
9	0.5167	1.76476	32	79.6000	1.76926
10	0.6167	1.76484	33	100.1667	1.76947
11	0.7500	1.76497	34	126.0667	1.76947
12	0.9167	1.76510	35	158.6667	1.76947
13	1.1167	1.76528	36	199.7000	1.76957
14	1.3833	1.76554	37	251.3667	1.76966
15	1.7167	1.76577	38	316.4167	1.76988
16	2.1167	1.76589	39	398.3000	1.76992
17	2.6500	1.76596	40	501.3833	1.76985
18	3.3000	1.76607	41	631.1500	1.76960
19	4.1167	1.76615	42	794.5167	1.76944
20	5.1500	1.76642	43	1000.2000	1.77007
21	6.4500	1.76682	44	1259.1333	1.76997
22	8.0833	1.76716	45	1440.2000	1.76990
23	10.1500	1.76756			



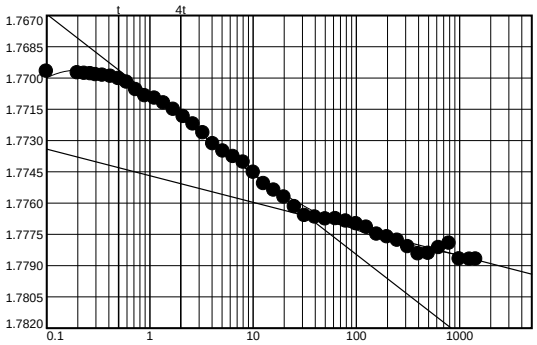
Void Ratio = 1.124 **Compression =** 5.1%

D_0 = 1.7635 **D_{50} =** 1.7663 **D_{100} =** 1.7692 **C_v at 3.11 min. =** 0.143 ft.^{2}/day **C_α =** 0.001

Figure B-140h

Pressure: 1000.00 psf	TEST READINGS	Load No. 10

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.76810	24	12.7167	1.77508
2	0.1000	1.76969	25	15.9833	1.77539
3	0.2000	1.76976	26	20.0833	1.77573
4	0.2333	1.76979	27	25.2500	1.77619
5	0.2667	1.76981	28	31.7667	1.77661
6	0.3000	1.76986	29	39.9500	1.77669
7	0.3500	1.76988	30	50.2667	1.77677
8	0.4167	1.76993	31	63.2333	1.77676
9	0.5000	1.77004	32	79.5833	1.77688
10	0.6000	1.77021	33	100.1500	1.77700
11	0.7333	1.77057	34	126.0333	1.77717
12	0.9000	1.77086	35	158.6333	1.77751
13	1.1167	1.77098	36	199.6833	1.77763
14	1.3667	1.77121	37	251.3500	1.77780
15	1.7000	1.77152	38	316.3833	1.77810
16	2.1167	1.77186	39	398.2667	1.77845
17	2.6333	1.77222	40	501.3500	1.77843
18	3.2833	1.77264	41	631.1167	1.77815
19	4.1000	1.77317	42	794.5000	1.77794
20	5.1333	1.77352	43	1000.1667	1.77869
21	6.4333	1.77378	44	1259.1000	1.77871
22	8.0667	1.77405	45	1440.2833	1.77870
23	10.1333	1.77454			



Void Ratio = 1.104 **Compression =** 6.0%

D_0 = 1.7682 **D_{50} =** 1.7724 **D_{100} =** 1.7766 **C_V at 2.67 min. =** 0.165 ft.^{2}/day **C_α =** 0.001

Pressure: 2000.00 psf	TEST READINGS	Load No. 11

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.77795	12	0.9000	1.78268
2	0.0833	1.78074	13	1.1167	1.78282
3	0.2000	1.78144	14	1.3833	1.78327
4	0.2167	1.78149	15	1.7000	1.78383
5	0.2500	1.78165	16	2.1167	1.78462
6	0.3000	1.78176	17	2.6333	1.78562
7	0.3500	1.78185	18	3.3000	1.78606
8	0.4167	1.78187	19	4.1167	1.78631
9	0.5000	1.78193	20	5.1500	1.78677
10	0.6000	1.78209	21	6.4500	1.78774
11	0.7333	1.78238	22	8.0833	1.78857

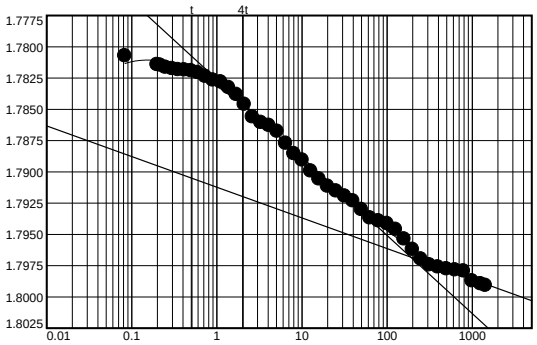


Figure B-140i

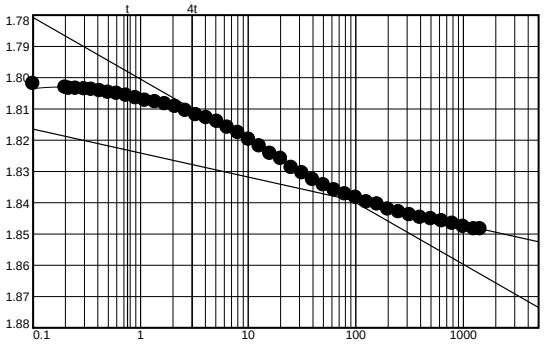
Pressure: 2000.00 psf	TEST READINGS (continued)	Load No. 11

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	1.78908	33	100.1500	1.79415	43	1000.1667	1.79873
24	12.7333	1.78995	34	126.0500	1.79462	44	1259.1000	1.79897
25	15.9833	1.79058	35	158.6333	1.79538	45	1440.4667	1.79910
26	20.1000	1.79117	36	199.6833	1.79621			
27	25.2667	1.79155	37	251.3500	1.79699			
28	31.7667	1.79195	38	316.3833	1.79745			
29	39.9500	1.79233	39	398.2667	1.79762			
30	50.2667	1.79303	40	501.3500	1.79777			
31	63.2333	1.79370	41	631.1167	1.79785			
32	79.5833	1.79393	42	794.5000	1.79794			

Void Ratio = 1.059 **Compression =** 8.0%
D_0 = 1.7793 **D_{50} =** 1.7880 **D_{100} =** 1.7968 **C_v at 7.42 min. =** 0.057 ft.^{2}/day **C_α =** 0.002

Pressure: 4000.00 psf	TEST READINGS	Load No. 12

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.79777	24	12.7167	1.82192
2	0.1000	1.80197	25	15.9667	1.82429
3	0.2000	1.80317	26	20.0833	1.82595
4	0.2167	1.80348	27	25.2500	1.82881
5	0.2500	1.80349	28	31.7500	1.83055
6	0.3000	1.80364	29	39.9500	1.83262
7	0.3500	1.80386	30	50.2500	1.83438
8	0.4167	1.80427	31	63.2333	1.83595
9	0.5000	1.80476	32	79.5667	1.83729
10	0.6000	1.80508	33	100.1500	1.83839
11	0.7333	1.80567	34	126.0333	1.83982
12	0.9000	1.80651	35	158.6333	1.84051
13	1.1000	1.80732	36	199.6667	1.84213
14	1.3667	1.80779	37	251.3333	1.84300
15	1.6833	1.80844	38	316.3833	1.84391
16	2.1000	1.80925	39	398.2667	1.84480
17	2.6167	1.81054	40	501.3500	1.84522
18	3.2667	1.81192	41	631.1167	1.84588
19	4.1000	1.81289	42	794.5000	1.84668
20	5.1333	1.81408	43	1000.1667	1.84770
21	6.4333	1.81596	44	1259.1000	1.84846
22	8.0667	1.81761	45	1440.3333	1.84846
23	10.1167	1.81974			

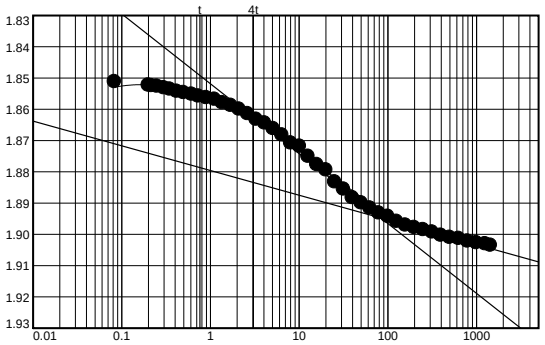


Void Ratio = 0.948 **Compression =** 12.9%
D_0 = 1.7987 **D_{50} =** 1.8189 **D_{100} =** 1.8391 **C_v at 8.29 min. =** 0.048 ft.^{2}/day **C_α =** 0.008

Figure B-140j

Pressure: 8000.00 psf | **TEST READINGS** | **Load No. 13**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.84610	24	12.7167	1.87514
2	0.0833	1.85123	25	15.9833	1.87779
3	0.2000	1.85232	26	20.1000	1.87951
4	0.2167	1.85252	27	25.2667	1.88332
5	0.2500	1.85269	28	31.7667	1.88565
6	0.3000	1.85319	29	39.9500	1.88831
7	0.3500	1.85362	30	50.2667	1.89001
8	0.4167	1.85429	31	63.2500	1.89170
9	0.5000	1.85474	32	79.5833	1.89325
10	0.6167	1.85523	33	100.1500	1.89432
11	0.7333	1.85583	34	126.0500	1.89593
12	0.9000	1.85637	35	158.6500	1.89715
13	1.1167	1.85688	36	199.6833	1.89791
14	1.3667	1.85797	37	251.3500	1.89855
15	1.7000	1.85885	38	316.3833	1.89936
16	2.1167	1.86005	39	398.2667	1.90034
17	2.6333	1.86151	40	501.3500	1.90106
18	3.2833	1.86330	41	631.1333	1.90141
19	4.1000	1.86446	42	794.5000	1.90228
20	5.1333	1.86624	43	1000.1833	1.90277
21	6.4333	1.86834	44	1259.1167	1.90312
22	8.0667	1.87083	45	1440.2167	1.90357
23	10.1333	1.87190			



Void Ratio = 0.825 **Compression =** 18.5%

D_0 = 1.8472 **D_{50} =** 1.8710 **D_{100} =** 1.8948 **C_V at 7.66 min. =** 0.046 ft.^{2}/day **C_α =** 0.008

Pressure: 16000.00 psf | **TEST READINGS** | **Load No. 14**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.90035	12	0.9000	1.91078
2	0.0833	1.90557	13	1.1000	1.91183
3	0.1833	1.90692	14	1.3667	1.91273
4	0.2167	1.90694	15	1.7000	1.91337
5	0.2500	1.90743	16	2.1000	1.91470
6	0.3000	1.90775	17	2.6333	1.91561
7	0.3500	1.90791	18	3.2833	1.91696
8	0.4167	1.90823	19	4.1000	1.91861
9	0.5000	1.90897	20	5.1333	1.92086
10	0.6000	1.90940	21	6.4333	1.92301
11	0.7333	1.91022	22	8.0667	1.92428

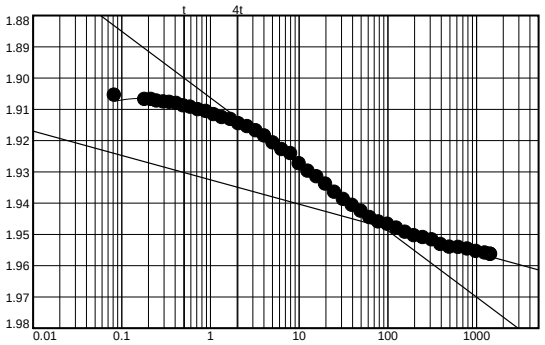


Figure B-140k

Pressure: 16000.00 psf	TEST READINGS (continued)	Load No. 14

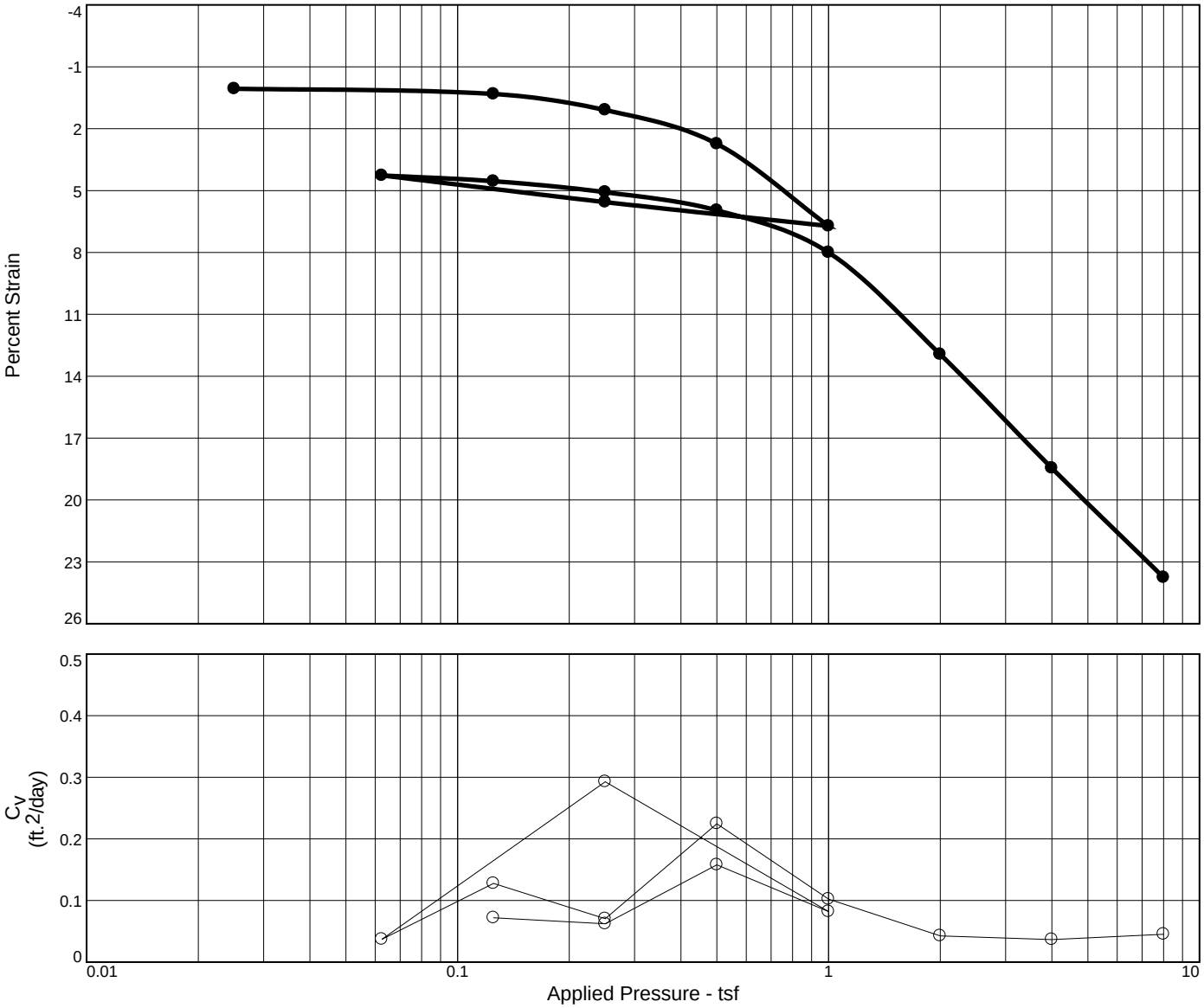
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1167	1.92747	33	100.1333	1.94689	43	1000.1500	1.95552
24	12.7167	1.92990	34	126.0333	1.94809	44	1259.0833	1.95606
25	15.9667	1.93168	35	158.6333	1.94941	45	1440.4333	1.95645
26	20.0833	1.93402	36	199.6667	1.95052	46	1451.4000	1.95648
27	25.2500	1.93660	37	251.3333	1.95113			
28	31.7500	1.93889	38	316.3667	1.95184			
29	39.9333	1.94077	39	398.2500	1.95334			
30	50.2500	1.94265	40	501.3333	1.95419			
31	63.2333	1.94470	41	631.1000	1.95430			
32	79.5667	1.94613	42	794.4833	1.95476			

Void Ratio = 0.706 **Compression =** 23.8%

D_0 = 1.9014 **D_{50} =** 1.9245 **D_{100} =** 1.9477 **C_v at 7.07 min. =** 0.043 ft.^{2}/day **C_α =** 0.008

Figure B-140l

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	P_c (tsf)	C_c	Initial Void Ratio
Saturation	Moisture							
92.5 %	41.5 %	76.9	37	17	2.756	0.6	0.43	1.238

MATERIAL DESCRIPTION	USCS	AASHTO
Soft gray silty clay with sand lenses	(CL)	

Project No. 18274-022-01 **Client:** CEC

Project: Chandeleur Island Restoration Project (PO-0199)

Location: CI-15 sqrt **Depth:** 58-60

Remarks:
Specific gravity measured

GeoEngineers

Figure B-141a

Tested By: Dustin Blanchard **Checked By:** J. Aguettant

CONSOLIDATION TEST DATA

12/22/2023

Client: CEC
Project: Chandeleur Island Restoration Project (PO-0199)
Project Number: 18274-022-01
Location: CI-15 sqrt
Depth: 58-60
Material Description: Soft gray silty clay with sand lenses
Liquid Limit: 37 **Plasticity Index:** 17
USCS: (CL)
Testing Remarks: Specific gravity measured
Tested by: Dustin Blanchard **Checked by:** J. Aguettant

Test Specimen Data

NATURAL MOISTURE		VOID RATIO		AFTER TEST	
Wet w+t =	147.68 g.	Spec. Gr. =	2.756	Wet w+t =	160.83 g.
Dry w+t =	109.85 g.	Est. Ht. Solids =	0.446 in.	Dry w+t =	133.47 g.
Tare Wt. =	18.78 g.	Init. V.R. =	1.238	Tare Wt. =	36.77 g.
Moisture =	41.5 %	Init. Sat. =	92.5 %	Moisture =	28.3 %

UNIT WEIGHT		TEST START			
Height =	0.999 in.	Height =	0.999 in.	Dry Wt. =	96.70 g.
Diameter =	2.500 in.	Diameter =	2.500 in.		
Weight =	140.08 g.				
Dry Dens. =	76.9 pcf				

End-Of-Load Summary

Pressure (psf)	Final Dial (in.)	Deformation (in.)	C_v ($ft.^2$/day)	C_α	Void Ratio	% Strain
start	1.71917	0.00000			1.238	
50.00	1.71981	0.00064			1.236	0.1 Comprs.
250.00	1.72234	0.00317	0.072		1.231	0.3 Comprs.
500.00	1.73012	0.01095	0.062		1.213	1.1 Comprs.
1000.00	1.74648	0.02731	0.158		1.177	2.7 Comprs.
2000.00	1.78628	0.06711	0.082		1.087	6.7 Comprs.
500.00	1.77470	0.05553	0.293		1.113	5.6 Comprs.
125.00	1.76178	0.04261	0.037		1.142	4.3 Comprs.
250.00	1.76458	0.04541	0.128		1.136	4.5 Comprs.
500.00	1.76990	0.05073	0.070		1.124	5.1 Comprs.
1000.00	1.77870	0.05953	0.225		1.104	6.0 Comprs.
2000.00	1.79910	0.07993	0.102		1.059	8.0 Comprs.
4000.00	1.84846	0.12929	0.043		0.948	12.9 Comprs.
8000.00	1.90357	0.18440	0.037		0.825	18.5 Comprs.
16000.00	1.95648	0.23731	0.045		0.706	23.8 Comprs.

Compression index (C_c), tsf = 0.43 **Preconsolidation pressure (P_p), tsf =** 0.6 **Void ratio at P_p (e_m) =** 1.154
Recompression index (C_r) = 0.13

Figure B-141b

Pressure: 50.00 psf	TEST READINGS	Load No. 1

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.71917	16	2.4667	1.71932	31	79.4167	1.71953
2	0.0333	1.71917	17	3.1167	1.71939	32	99.9833	1.71958
3	0.0667	1.71918	18	3.9333	1.71938	33	125.8833	1.71969
4	0.1000	1.71917	19	4.9833	1.71943	34	158.4833	1.71978
5	0.1333	1.71918	20	6.2833	1.71943	35	199.5167	1.72004
6	0.1833	1.71917	21	7.9167	1.71940	36	251.1833	1.72028
7	0.2500	1.71915	22	9.9667	1.71943	37	316.2167	1.72039
8	0.3500	1.71915	23	12.5667	1.71940	38	398.1000	1.72056
9	0.4500	1.71916	24	15.8167	1.71942	39	501.1833	1.72052
10	0.5833	1.71914	25	19.9333	1.71939	40	630.9667	1.72057
11	0.7500	1.71915	26	25.1000	1.71941	41	794.3333	1.72047
12	0.9500	1.71918	27	31.6000	1.71941	42	1000.0167	1.72013
13	1.2167	1.71915	28	39.8000	1.71944	43	1258.9333	1.71976
14	1.5500	1.71920	29	50.1000	1.71947	44	1440.0833	1.71981
15	1.9500	1.71919	30	63.0833	1.71949			

Void Ratio = 1.236 **Compression =** 0.1%

Pressure: 250.00 psf	TEST READINGS	Load No. 2

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.71920	21	6.4333	1.72095
2	0.1000	1.71921	22	8.0667	1.72112
3	0.2000	1.71976	23	10.1333	1.72127
4	0.2167	1.71978	24	12.7167	1.72141
5	0.2500	1.71981	25	15.9833	1.72159
6	0.3000	1.71996	26	20.0833	1.72179
7	0.3500	1.72014	27	25.2500	1.72195
8	0.4167	1.72022	28	31.7667	1.72203
9	0.5000	1.72025	29	39.9500	1.72211
10	0.6000	1.72029	30	50.2667	1.72219
11	0.7333	1.72031	31	63.2333	1.72233
12	0.9000	1.72032	32	79.5833	1.72247
13	1.1000	1.72038	33	100.1500	1.72263
14	1.3667	1.72045	34	126.0333	1.72296
15	1.7000	1.72049	35	158.6333	1.72311
16	2.1000	1.72050	36	199.6833	1.72332
17	2.6333	1.72055	37	251.3333	1.72338
18	3.2833	1.72061	38	316.3833	1.72355
19	4.1000	1.72072	39	398.2667	1.72385
20	5.1333	1.72081	40	501.3500	1.72385

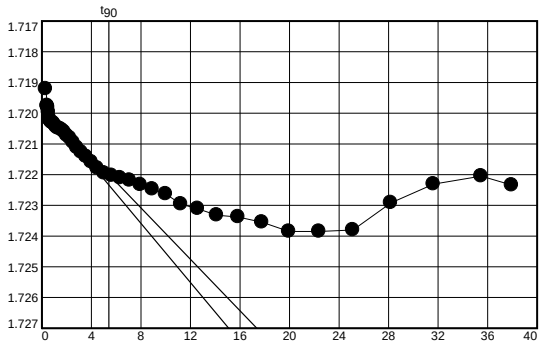


Figure B-141c

Pressure: 250.00 psf	TEST READINGS (continued)	Load No. 2

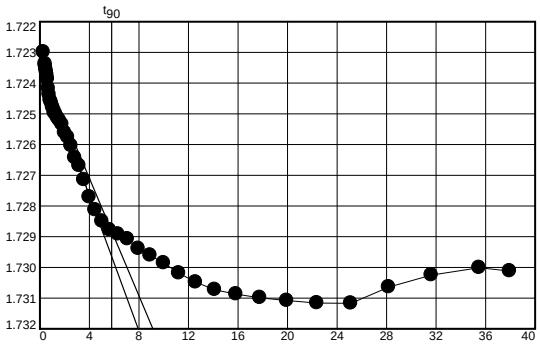
No.	Elapsed Time	Dial Reading
41	631.1167	1.72380
42	794.4833	1.72292
43	1000.1667	1.72231
44	1259.1000	1.72205
45	1440.2167	1.72234

Void Ratio = 1.231 **Compression =** 0.3%

D_0 = 1.7197 **D_{90} =** 1.7220 **D_{100} =** 1.7223 **C_v at 29.29 min. =** 0.072 ft.^{2}/day

Pressure: 500.00 psf	TEST READINGS	Load No. 3

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.72144	24	12.7167	1.72715
2	0.0833	1.72299	25	15.9667	1.72771
3	0.2000	1.72337	26	20.0833	1.72813
4	0.2167	1.72343	27	25.2500	1.72850
5	0.2500	1.72354	28	31.7500	1.72878
6	0.3000	1.72363	29	39.9333	1.72892
7	0.3500	1.72374	30	50.2500	1.72908
8	0.4167	1.72387	31	63.2333	1.72939
9	0.5000	1.72417	32	79.5667	1.72961
10	0.6000	1.72437	33	100.1333	1.72986
11	0.7333	1.72455	34	126.0333	1.73019
12	0.9000	1.72463	35	158.6333	1.73048
13	1.1000	1.72479	36	199.6667	1.73073
14	1.3667	1.72496	37	251.3333	1.73087
15	1.7000	1.72503	38	316.3667	1.73099
16	2.1000	1.72514	39	398.2500	1.73108
17	2.6167	1.72522	40	501.3333	1.73116
18	3.2833	1.72534	41	631.1000	1.73117
19	4.1000	1.72561	42	794.4833	1.73064
20	5.1333	1.72576	43	1000.1500	1.73025
21	6.4333	1.72604	44	1259.0833	1.73001
22	8.0667	1.72643	45	1440.2000	1.73012
23	10.1333	1.72669			



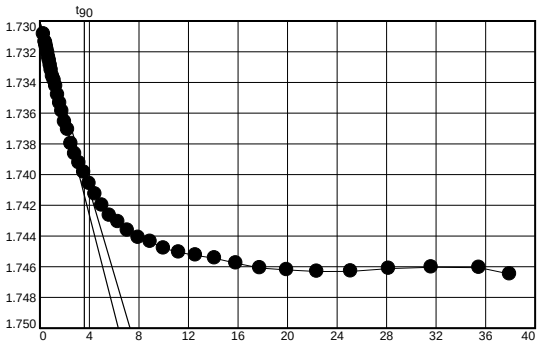
Void Ratio = 1.213 **Compression =** 1.1%

D_0 = 1.7233 **D_{90} =** 1.7288 **D_{100} =** 1.7294 **C_v at 33.55 min. =** 0.062 ft.^{2}/day

Figure B-141d

Pressure: 1000.00 psf	TEST READINGS	Load No. 4

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.72779	24	12.7167	1.73985
2	0.1000	1.73086	25	15.9833	1.74059
3	0.2000	1.73136	26	20.0833	1.74128
4	0.2333	1.73143	27	25.2500	1.74200
5	0.2667	1.73156	28	31.7667	1.74266
6	0.3000	1.73170	29	39.9500	1.74308
7	0.3667	1.73186	30	50.2667	1.74364
8	0.4333	1.73207	31	63.2333	1.74411
9	0.5167	1.73236	32	79.5833	1.74436
10	0.6167	1.73258	33	100.1500	1.74480
11	0.7500	1.73289	34	126.0333	1.74506
12	0.9000	1.73320	35	158.6333	1.74526
13	1.1167	1.73361	36	199.6667	1.74545
14	1.3833	1.73387	37	251.3333	1.74577
15	1.7000	1.73424	38	316.3833	1.74609
16	2.1167	1.73481	39	398.2667	1.74621
17	2.6333	1.73536	40	501.3500	1.74631
18	3.2833	1.73587	41	631.1167	1.74630
19	4.1000	1.73657	42	794.4833	1.74612
20	5.1333	1.73708	43	1000.1667	1.74603
21	6.4333	1.73799	44	1259.1000	1.74606
22	8.0667	1.73865	45	1440.4500	1.74648
23	10.1333	1.73924			



Void Ratio = 1.177 **Compression =** 2.7%

D_0 = 1.7301 D_{90} = 1.7399 D_{100} = 1.7410 C_V **at 12.92 min. =** 0.158 ft.^{2}/day

Pressure: 2000.00 psf	TEST READINGS	Load No. 5

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.74546	12	0.9000	1.75623
2	0.0833	1.75248	13	1.1167	1.75713
3	0.2000	1.75321	14	1.3667	1.75790
4	0.2167	1.75337	15	1.7000	1.75863
5	0.2500	1.75354	16	2.1000	1.75934
6	0.3000	1.75372	17	2.6333	1.76006
7	0.3500	1.75387	18	3.2833	1.76115
8	0.4167	1.75401	19	4.1000	1.76235
9	0.5000	1.75409	20	5.1333	1.76323
10	0.6000	1.75466	21	6.4167	1.76503
11	0.7333	1.75538	22	8.0667	1.76623

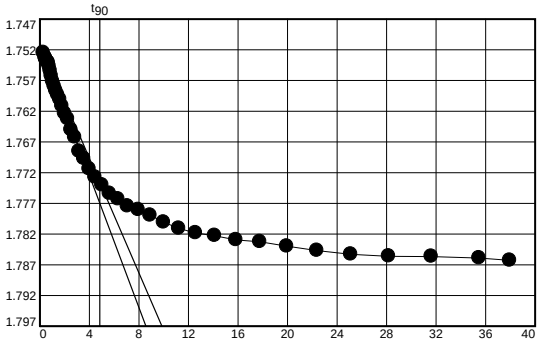


Figure B-141e

Pressure: 2000.00 psf | **TEST READINGS (continued)** | **Load No. 5**

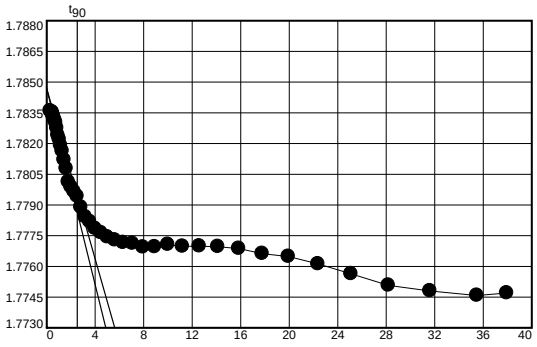
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1167	1.76853	33	100.1333	1.78007	43	1000.1667	1.78566
24	12.7167	1.76969	34	126.0333	1.78109	44	1259.0833	1.78590
25	15.9667	1.77140	35	158.6333	1.78182	45	1440.3167	1.78628
26	20.0833	1.77275	36	199.6667	1.78227			
27	25.2500	1.77403	37	251.3333	1.78294			
28	31.7500	1.77541	38	316.3667	1.78326			
29	39.9333	1.77629	39	398.2500	1.78398			
30	50.2500	1.77746	40	501.3333	1.78468			
31	63.2333	1.77806	41	631.1167	1.78530			
32	79.5667	1.77894	42	794.4833	1.78561			

Void Ratio = 1.087 **Compression =** 6.7%

D_0 = 1.7510 **D_{90} =** 1.7736 **D_{100} =** 1.7761 **C_V at 23.42 min. =** 0.082 ft.^{2}/day

Pressure: 500.00 psf | **TEST READINGS** | **Load No. 6**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.78791	24	12.7333	1.77818
2	0.1000	1.78359	25	15.9833	1.77785
3	0.2000	1.78352	26	20.1000	1.77764
4	0.2333	1.78353	27	25.2667	1.77743
5	0.2667	1.78340	28	31.7667	1.77728
6	0.3000	1.78338	29	39.9500	1.77716
7	0.3500	1.78331	30	50.2667	1.77712
8	0.4167	1.78320	31	63.2333	1.77694
9	0.5000	1.78312	32	79.5833	1.77695
10	0.6000	1.78301	33	100.1500	1.77706
11	0.7333	1.78275	34	126.0333	1.77698
12	0.9000	1.78241	35	158.6333	1.77699
13	1.1167	1.78221	36	199.6833	1.77696
14	1.3833	1.78191	37	251.3500	1.77687
15	1.7000	1.78163	38	316.3833	1.77662
16	2.1167	1.78120	39	398.2667	1.77648
17	2.6333	1.78078	40	501.3500	1.77612
18	3.2833	1.78012	41	631.1167	1.77563
19	4.1000	1.77988	42	794.4833	1.77507
20	5.1333	1.77966	43	1000.1667	1.77480
21	6.4333	1.77942	44	1259.1000	1.77458
22	8.0833	1.77889	45	1440.0167	1.77470
23	10.1333	1.77842			



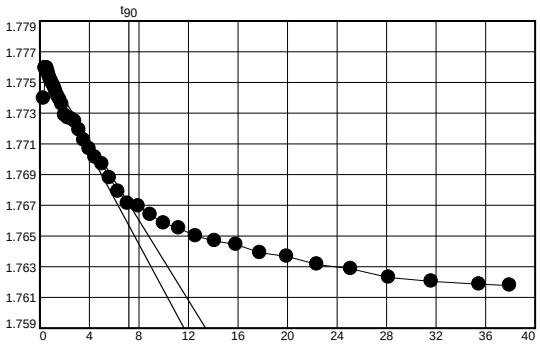
Void Ratio = 1.113 **Compression =** 5.6%

D_0 = 1.7847 **D_{90} =** 1.7794 **D_{100} =** 1.7789 **C_V at 6.36 min. =** 0.293 ft.^{2}/day

Figure B-141f

Pressure: 125.00 psf	TEST READINGS	Load No. 7

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.77723	24	12.7167	1.77123
2	0.1000	1.77396	25	15.9833	1.77068
3	0.2000	1.77592	26	20.0833	1.77012
4	0.2167	1.77593	27	25.2667	1.76969
5	0.2500	1.77593	28	31.7667	1.76878
6	0.3000	1.77593	29	39.9500	1.76789
7	0.3500	1.77592	30	50.2667	1.76711
8	0.4167	1.77574	31	63.2333	1.76695
9	0.5000	1.77563	32	79.5833	1.76639
10	0.6000	1.77542	33	100.1500	1.76583
11	0.7333	1.77522	34	126.0500	1.76551
12	0.9000	1.77507	35	158.6500	1.76500
13	1.1167	1.77491	36	199.6833	1.76468
14	1.3833	1.77471	37	251.3500	1.76444
15	1.7000	1.77442	38	316.3833	1.76391
16	2.1167	1.77412	39	398.2667	1.76367
17	2.6333	1.77387	40	501.3500	1.76315
18	3.2833	1.77358	41	631.1333	1.76286
19	4.1000	1.77287	42	794.5000	1.76230
20	5.1333	1.77269	43	1000.1667	1.76205
21	6.4333	1.77262	44	1259.1000	1.76186
22	8.0833	1.77247	45	1440.3667	1.76178
23	10.1333	1.77190			



Void Ratio = 1.142 **Compression =** 4.3%

D_0 = 1.7765 **D_{90} =** 1.7671 **D_{100} =** 1.7661 **C_V at 51.59 min. =** 0.037 ft.^{2}/day

Pressure: 250.00 psf	TEST READINGS	Load No. 8

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.76146	12	0.9000	1.76218
2	0.1000	1.76186	13	1.1167	1.76222
3	0.2000	1.76195	14	1.3667	1.76227
4	0.2333	1.76197	15	1.7000	1.76234
5	0.2667	1.76199	16	2.1167	1.76243
6	0.3000	1.76200	17	2.6333	1.76247
7	0.3500	1.76202	18	3.2833	1.76260
8	0.4167	1.76205	19	4.1000	1.76269
9	0.5000	1.76207	20	5.1333	1.76280
10	0.6167	1.76212	21	6.4333	1.76288
11	0.7333	1.76214	22	8.0667	1.76295

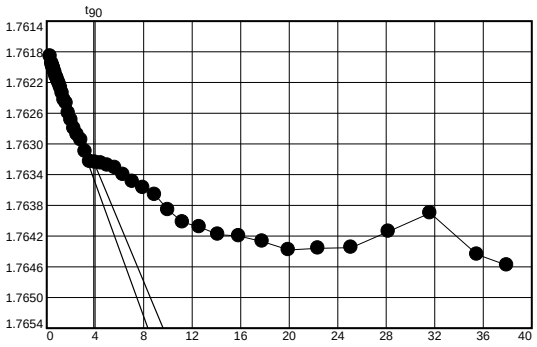


Figure B-141g

Pressure: 250.00 psf	TEST READINGS (continued)	Load No. 8

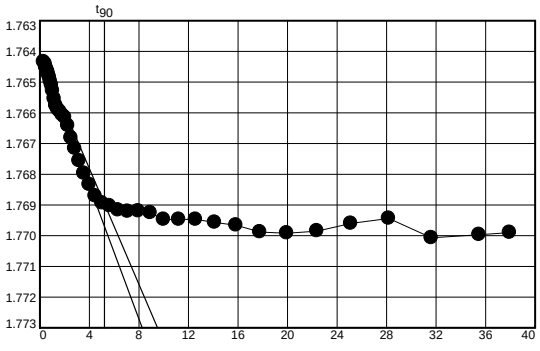
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	1.76310	33	100.1500	1.76386	43	1000.1667	1.76390
24	12.7167	1.76323	34	126.0500	1.76402	44	1259.1000	1.76444
25	15.9833	1.76324	35	158.6500	1.76408	45	1440.0167	1.76458
26	20.0833	1.76325	36	199.6833	1.76418			
27	25.2500	1.76328	37	251.3500	1.76420			
28	31.7667	1.76331	38	316.3833	1.76427			
29	39.9500	1.76340	39	398.2667	1.76438			
30	50.2667	1.76349	40	501.3500	1.76436			
31	63.2500	1.76357	41	631.1333	1.76435			
32	79.5833	1.76366	42	794.5000	1.76414			

Void Ratio = 1.136 **Compression =** 4.5%

D_0 = 1.7618 **D_{90} =** 1.7632 **D_{100} =** 1.7634 **C_V at 15.13 min. =** 0.128 ft.^{2}/day

Pressure: 500.00 psf	TEST READINGS	Load No. 9

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.76332	24	12.7500	1.76797
2	0.1000	1.76434	25	16.0000	1.76834
3	0.2000	1.76440	26	20.1000	1.76871
4	0.2333	1.76450	27	25.2833	1.76894
5	0.2667	1.76452	28	31.7833	1.76903
6	0.3000	1.76458	29	39.9667	1.76917
7	0.3667	1.76461	30	50.2833	1.76921
8	0.4333	1.76466	31	63.2667	1.76920
9	0.5167	1.76476	32	79.6000	1.76926
10	0.6167	1.76484	33	100.1667	1.76947
11	0.7500	1.76497	34	126.0667	1.76947
12	0.9167	1.76510	35	158.6667	1.76947
13	1.1167	1.76528	36	199.7000	1.76957
14	1.3833	1.76554	37	251.3667	1.76966
15	1.7167	1.76577	38	316.4167	1.76988
16	2.1167	1.76589	39	398.3000	1.76992
17	2.6500	1.76596	40	501.3833	1.76985
18	3.3000	1.76607	41	631.1500	1.76960
19	4.1167	1.76615	42	794.5167	1.76944
20	5.1500	1.76642	43	1000.2000	1.77007
21	6.4500	1.76682	44	1259.1333	1.76997
22	8.0833	1.76716	45	1440.2000	1.76990
23	10.1500	1.76756			



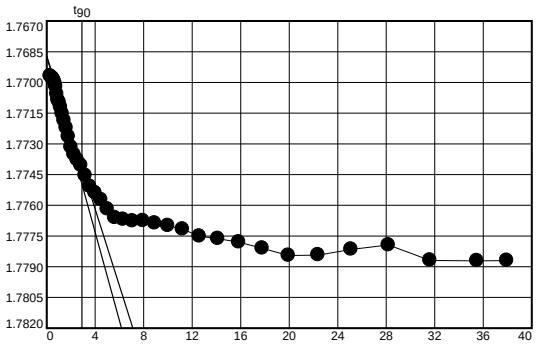
Void Ratio = 1.124 **Compression =** 5.1%

D_0 = 1.7641 **D_{90} =** 1.7690 **D_{100} =** 1.7695 **C_V at 27.23 min. =** 0.070 ft.^{2}/day

Figure B-141h

Pressure: 1000.00 psf	TEST READINGS	Load No. 10

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.76810	24	12.7167	1.77508
2	0.1000	1.76969	25	15.9833	1.77539
3	0.2000	1.76976	26	20.0833	1.77573
4	0.2333	1.76979	27	25.2500	1.77619
5	0.2667	1.76981	28	31.7667	1.77661
6	0.3000	1.76986	29	39.9500	1.77669
7	0.3500	1.76988	30	50.2667	1.77677
8	0.4167	1.76993	31	63.2333	1.77676
9	0.5000	1.77004	32	79.5833	1.77688
10	0.6000	1.77021	33	100.1500	1.77700
11	0.7333	1.77057	34	126.0333	1.77717
12	0.9000	1.77086	35	158.6333	1.77751
13	1.1167	1.77098	36	199.6833	1.77763
14	1.3667	1.77121	37	251.3500	1.77780
15	1.7000	1.77152	38	316.3833	1.77810
16	2.1167	1.77186	39	398.2667	1.77845
17	2.6333	1.77222	40	501.3500	1.77843
18	3.2833	1.77264	41	631.1167	1.77815
19	4.1000	1.77317	42	794.5000	1.77794
20	5.1333	1.77352	43	1000.1667	1.77869
21	6.4333	1.77378	44	1259.1000	1.77871
22	8.0667	1.77405	45	1440.2833	1.77870
23	10.1333	1.77454			



Void Ratio = 1.104 **Compression =** 6.0%

D_0 = 1.7687 **D_{90} =** 1.7741 **D_{100} =** 1.7747 **C_V at 8.43 min. =** 0.225 ft.^{2}/day

Pressure: 2000.00 psf	TEST READINGS	Load No. 11

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.77795	12	0.9000	1.78268
2	0.0833	1.78074	13	1.1167	1.78282
3	0.2000	1.78144	14	1.3833	1.78327
4	0.2167	1.78149	15	1.7000	1.78383
5	0.2500	1.78165	16	2.1167	1.78462
6	0.3000	1.78176	17	2.6333	1.78562
7	0.3500	1.78185	18	3.3000	1.78606
8	0.4167	1.78187	19	4.1167	1.78631
9	0.5000	1.78193	20	5.1500	1.78677
10	0.6000	1.78209	21	6.4500	1.78774
11	0.7333	1.78238	22	8.0833	1.78857

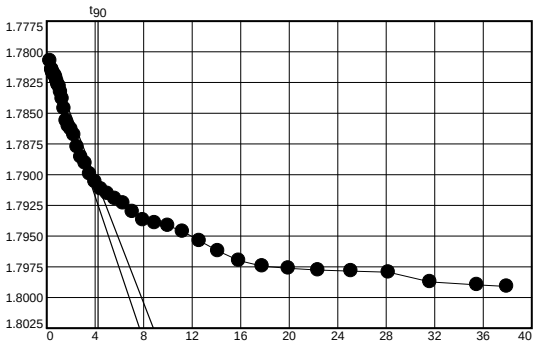


Figure B-141i

Pressure: 2000.00 psf	TEST READINGS (continued)	Load No. 11

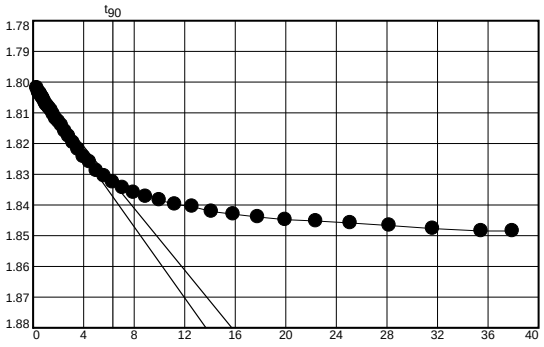
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	1.78908	33	100.1500	1.79415	43	1000.1667	1.79873
24	12.7333	1.78995	34	126.0500	1.79462	44	1259.1000	1.79897
25	15.9833	1.79058	35	158.6333	1.79538	45	1440.4667	1.79910
26	20.1000	1.79117	36	199.6833	1.79621			
27	25.2667	1.79155	37	251.3500	1.79699			
28	31.7667	1.79195	38	316.3833	1.79745			
29	39.9500	1.79233	39	398.2667	1.79762			
30	50.2667	1.79303	40	501.3500	1.79777			
31	63.2333	1.79370	41	631.1167	1.79785			
32	79.5833	1.79393	42	794.5000	1.79794			

Void Ratio = 1.059 **Compression =** 8.0%

D_0 = 1.7801 **D_{90} =** 1.7909 **D_{100} =** 1.7921 **C_V at 17.92 min. =** 0.102 ft.^{2}/day

Pressure: 4000.00 psf	TEST READINGS	Load No. 12

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.79777	24	12.7167	1.82192
2	0.1000	1.80197	25	15.9667	1.82429
3	0.2000	1.80317	26	20.0833	1.82595
4	0.2167	1.80348	27	25.2500	1.82881
5	0.2500	1.80349	28	31.7500	1.83055
6	0.3000	1.80364	29	39.9500	1.83262
7	0.3500	1.80386	30	50.2500	1.83438
8	0.4167	1.80427	31	63.2333	1.83595
9	0.5000	1.80476	32	79.5667	1.83729
10	0.6000	1.80508	33	100.1500	1.83839
11	0.7333	1.80567	34	126.0333	1.83982
12	0.9000	1.80651	35	158.6333	1.84051
13	1.1000	1.80732	36	199.6667	1.84213
14	1.3667	1.80779	37	251.3333	1.84300
15	1.6833	1.80844	38	316.3833	1.84391
16	2.1000	1.80925	39	398.2667	1.84480
17	2.6167	1.81054	40	501.3500	1.84522
18	3.2667	1.81192	41	631.1167	1.84588
19	4.1000	1.81289	42	794.5000	1.84668
20	5.1333	1.81408	43	1000.1667	1.84770
21	6.4333	1.81596	44	1259.1000	1.84846
22	8.0667	1.81761	45	1440.3333	1.84846
23	10.1167	1.81974			



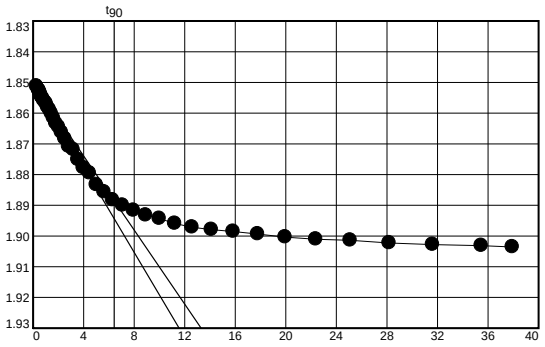
Void Ratio = 0.948 **Compression =** 12.9%

D_0 = 1.8008 **D_{90} =** 1.8326 **D_{100} =** 1.8361 **C_V at 39.84 min. =** 0.043 ft.^{2}/day

Figure B-141j

Pressure: 8000.00 psf	TEST READINGS	Load No. 13

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.84610	24	12.7167	1.87514
2	0.0833	1.85123	25	15.9833	1.87779
3	0.2000	1.85232	26	20.1000	1.87951
4	0.2167	1.85252	27	25.2667	1.88332
5	0.2500	1.85269	28	31.7667	1.88565
6	0.3000	1.85319	29	39.9500	1.88831
7	0.3500	1.85362	30	50.2667	1.89001
8	0.4167	1.85429	31	63.2500	1.89170
9	0.5000	1.85474	32	79.5833	1.89325
10	0.6167	1.85523	33	100.1500	1.89432
11	0.7333	1.85583	34	126.0500	1.89593
12	0.9000	1.85637	35	158.6500	1.89715
13	1.1167	1.85688	36	199.6833	1.89791
14	1.3667	1.85797	37	251.3500	1.89855
15	1.7000	1.85885	38	316.3833	1.89936
16	2.1167	1.86005	39	398.2667	1.90034
17	2.6333	1.86151	40	501.3500	1.90106
18	3.2833	1.86330	41	631.1333	1.90141
19	4.1000	1.86446	42	794.5000	1.90228
20	5.1333	1.86624	43	1000.1833	1.90277
21	6.4333	1.86834	44	1259.1167	1.90312
22	8.0667	1.87083	45	1440.2167	1.90357
23	10.1333	1.87190			



Void Ratio = 0.825 **Compression =** 18.5%

D_0 = 1.8498 **D_{90} =** 1.8885 **D_{100} =** 1.8928 **C_V at 41.19 min. =** 0.037 ft.^{2}/day

Pressure: 16000.00 psf	TEST READINGS	Load No. 14

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.90035	12	0.9000	1.91078
2	0.0833	1.90557	13	1.1000	1.91183
3	0.1833	1.90692	14	1.3667	1.91273
4	0.2167	1.90694	15	1.7000	1.91337
5	0.2500	1.90743	16	2.1000	1.91470
6	0.3000	1.90775	17	2.6333	1.91561
7	0.3500	1.90791	18	3.2833	1.91696
8	0.4167	1.90823	19	4.1000	1.91861
9	0.5000	1.90897	20	5.1333	1.92086
10	0.6000	1.90940	21	6.4333	1.92301
11	0.7333	1.91022	22	8.0667	1.92428

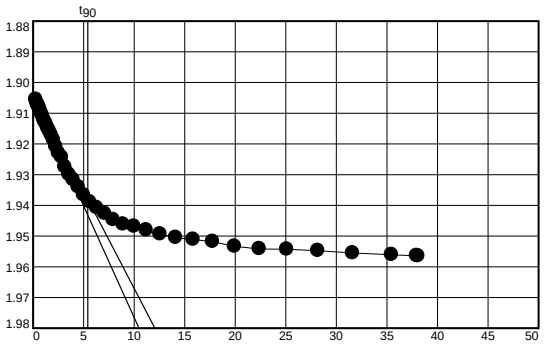


Figure B-141k

Pressure: 16000.00 psf	TEST READINGS (continued)	Load No. 14

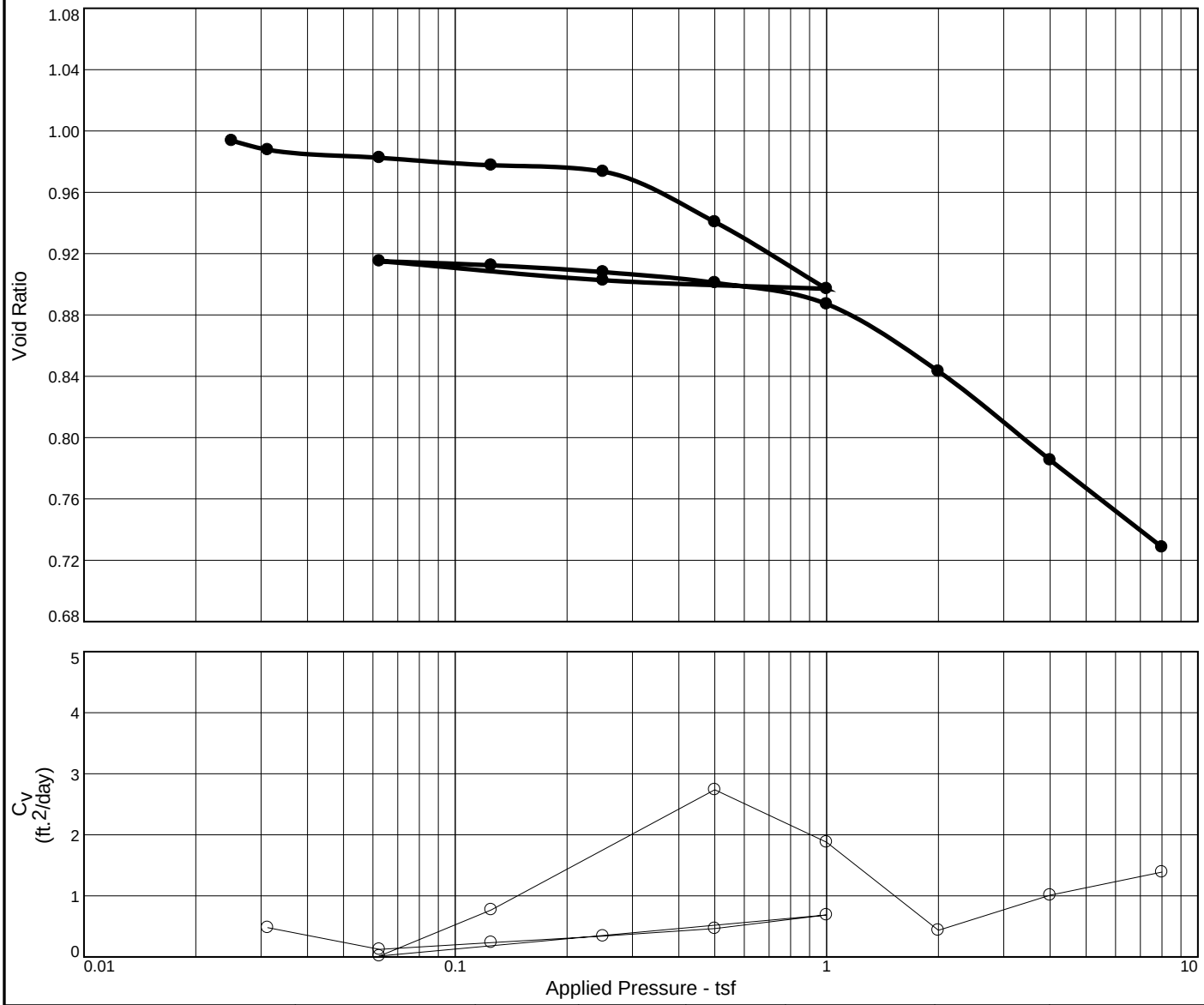
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1167	1.92747	33	100.1333	1.94689	43	1000.1500	1.95552
24	12.7167	1.92990	34	126.0333	1.94809	44	1259.0833	1.95606
25	15.9667	1.93168	35	158.6333	1.94941	45	1440.4333	1.95645
26	20.0833	1.93402	36	199.6667	1.95052	46	1451.4000	1.95648
27	25.2500	1.93660	37	251.3333	1.95113			
28	31.7500	1.93889	38	316.3667	1.95184			
29	39.9333	1.94077	39	398.2500	1.95334			
30	50.2500	1.94265	40	501.3333	1.95419			
31	63.2333	1.94470	41	631.1000	1.95430			
32	79.5667	1.94613	42	794.4833	1.95476			

Void Ratio = 0.706 **Compression =** 23.8%

D_0 = 1.9039 **D_{90} =** 1.9380 **D_{100} =** 1.9418 **C_V at 29.23 min. =** 0.045 $ft.^2/day$

Figure B-141l

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	P_c (tsf)	C_c	Initial Void Ratio
Saturation	Moisture							
93.2 %	34.1 %	85.1	48	27	2.719	0.5	0.19	0.994

MATERIAL DESCRIPTION	USCS	AASHTO
Soft gray clay with silt and sand	(CL)	

Project No. 18274-022-01 **Client:** CEC

Project: Chandeleur Island Restoration Project (PO-0199)

Location: CI-16 **Depth:** 23-25

Remarks:
Specific gravity was measured

GeoEngineers

Figure B-142a

Tested By: Dustin Blanchard **Checked By:** J. Aguettant

CONSOLIDATION TEST DATA

12/22/2023

Client: CEC
Project: Chandeleur Island Restoration Project (PO-0199)
Project Number: 18274-022-01
Location: CI-16
Depth: 23-25
Material Description: Soft gray clay with silt and sand
Liquid Limit: 48 **Plasticity Index:** 27
USCS: (CL)
Testing Remarks: Specific gravity was measured
Tested by: Dustin Blanchard **Checked by:** J. Aguettant

Test Specimen Data

NATURAL MOISTURE		VOID RATIO		AFTER TEST	
Wet w+t =	121.32 g.	Spec. Gr. =	2.719	Wet w+t =	174.65 g.
Dry w+t =	95.03 g.	Est. Ht. Solids =	0.502 in.	Dry w+t =	144.59 g.
Tare Wt. =	17.88 g.	Init. V.R. =	0.994	Tare Wt. =	36.89 g.
Moisture =	34.1 %	Init. Sat. =	93.2 %	Moisture =	27.9 %

UNIT WEIGHT		TEST START			
Height =	1.000 in.	Height =	1.000 in.		
Diameter =	2.500 in.	Diameter =	2.500 in.		
Weight =	147.08 g.			Dry Wt. =	107.70 g.
Dry Dens. =	85.1 pcf				

End-Of-Load Summary

Pressure (psf)	Final Dial (in.)	Deformation (in.)	C_v (ft.^{2}/day)	C_α	Void Ratio	% Strain
start	1.95477	0.00000			0.994	
50.00	1.95483	0.00006		0.003	0.994	0.0 Comprs.
62.50	1.95782	0.00305	0.479	0.000	0.988	0.3 Comprs.
125.00	1.96043	0.00566	0.125	0.001	0.983	0.6 Comprs.
250.00	1.96286	0.00809	0.235	0.001	0.978	0.8 Comprs.
500.00	1.96493	0.01016	0.342	0.001	0.974	1.0 Comprs.
1000.00	1.98141	0.02664	0.464	0.003	0.941	2.7 Comprs.
2000.00	2.00330	0.04853	0.688	0.003	0.897	4.9 Comprs.
500.00	2.00047	0.04570			0.903	4.6 Comprs.
125.00	1.99423	0.03946	0.016		0.915	3.9 Comprs.
250.00	1.99560	0.04083	0.770	0.000	0.912	4.1 Comprs.
500.00	1.99782	0.04305		0.000	0.908	4.3 Comprs.
1000.00	2.00133	0.04656	2.738	0.001	0.901	4.7 Comprs.
2000.00	2.00825	0.05348	1.879	0.001	0.887	5.3 Comprs.
4000.00	2.03028	0.07551	0.437	0.003	0.843	7.6 Comprs.
8000.00	2.05930	0.10453	1.011	0.004	0.785	10.5 Comprs.
16000.00	2.08777	0.13300	1.391	0.003	0.729	13.3 Comprs.

Compression index (C_c), tsf = 0.19 **Preconsolidation pressure (P_p), tsf =** 0.5 **Void ratio at P_p (e_m) =** 0.941
Recompression index (C_r) = 0.05

Figure B-142b

Pressure: 50.00 psf	TEST READINGS	Load No. 1

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.95477	16	2.4667	1.95479	31	79.4167	1.95483
2	0.0333	1.95477	17	3.1333	1.95478	32	99.9833	1.95487
3	0.0667	1.95478	18	3.9500	1.95477	33	125.8833	1.95491
4	0.1000	1.95476	19	4.9833	1.95477	34	158.4833	1.95490
5	0.1500	1.95476	20	6.2833	1.95475	35	199.5167	1.95490
6	0.2000	1.95474	21	7.9167	1.95475	36	251.1833	1.95489
7	0.2667	1.95479	22	9.9667	1.95478	37	316.2167	1.95490
8	0.3500	1.95478	23	12.5667	1.95478	38	398.1000	1.95489
9	0.4500	1.95475	24	15.8167	1.95479	39	501.1833	1.95488
10	0.5833	1.95476	25	19.9333	1.95482	40	630.9667	1.95483
11	0.7500	1.95475	26	25.1000	1.95480	41	794.3333	1.95482
12	0.9500	1.95475	27	31.6000	1.95482	42	1000.0167	1.95471
13	1.2167	1.95476	28	39.8000	1.95483	43	1258.9500	1.95466
14	1.5500	1.95475	29	50.1000	1.95488	44	1440.4833	1.95483
15	1.9500	1.95477	30	63.0833	1.95488			

Void Ratio = 0.994 **Compression =** 0.0%

Pressure: 62.50 psf	TEST READINGS	Load No. 2

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.95456	21	6.4333	1.95689
2	0.1000	1.95456	22	8.0667	1.95701
3	0.2000	1.95469	23	10.1333	1.95707
4	0.2333	1.95472	24	12.7167	1.95714
5	0.2667	1.95474	25	15.9833	1.95719
6	0.3000	1.95477	26	20.0833	1.95723
7	0.3500	1.95479	27	25.2500	1.95730
8	0.4167	1.95485	28	31.7667	1.95733
9	0.5000	1.95495	29	39.9500	1.95738
10	0.6167	1.95500	30	50.2667	1.95738
11	0.7500	1.95508	31	63.2333	1.95743
12	0.9000	1.95532	32	79.5833	1.95747
13	1.1167	1.95553	33	100.1500	1.95746
14	1.3667	1.95570	34	126.0500	1.95751
15	1.7000	1.95593	35	158.6500	1.95753
16	2.1167	1.95609	36	199.6833	1.95751
17	2.6333	1.95625	37	251.3500	1.95749
18	3.2833	1.95646	38	316.3833	1.95752
19	4.1000	1.95657	39	398.2667	1.95750
20	5.1333	1.95681	40	501.3500	1.95753

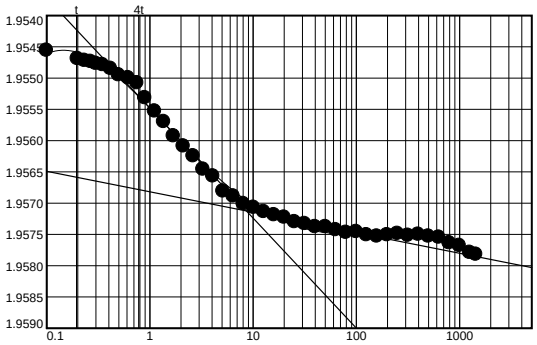


Figure B-142c

Pressure: 62.50 psf	TEST READINGS (continued)	Load No. 2

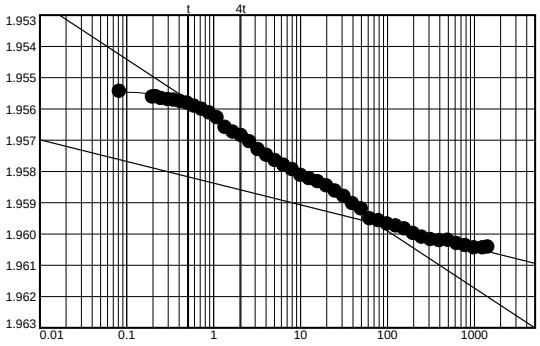
No.	Elapsed Time	Dial Reading
41	631.1333	1.95755
42	794.5000	1.95764
43	1000.1833	1.95768
44	1259.1167	1.95779
45	1440.3167	1.95782

Void Ratio = 0.988 **Compression =** 0.3%

D_0 = 1.9539 **D_{50} =** 1.9555 **D_{100} =** 1.9571 **C_v at 1.02 min. =** 0.479 ft.^{2}/day **C_α =** 0.000

Pressure: 125.00 psf	TEST READINGS	Load No. 3

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.95523	24	12.7167	1.95824
2	0.0833	1.95545	25	15.9667	1.95834
3	0.2000	1.95563	26	20.0833	1.95847
4	0.2167	1.95562	27	25.2500	1.95864
5	0.2500	1.95568	28	31.7500	1.95881
6	0.3000	1.95571	29	39.9333	1.95904
7	0.3500	1.95573	30	50.2500	1.95921
8	0.4167	1.95577	31	63.2333	1.95952
9	0.5000	1.95582	32	79.5667	1.95958
10	0.6000	1.95592	33	100.1500	1.95969
11	0.7333	1.95602	34	126.0333	1.95975
12	0.9000	1.95614	35	158.6333	1.95985
13	1.1000	1.95629	36	199.6833	1.95999
14	1.3667	1.95660	37	251.3500	1.96011
15	1.6833	1.95675	38	316.3833	1.96019
16	2.1000	1.95686	39	398.2667	1.96022
17	2.6167	1.95706	40	501.3500	1.96021
18	3.2833	1.95731	41	631.1333	1.96032
19	4.1000	1.95749	42	794.5000	1.96038
20	5.1333	1.95766	43	1000.1833	1.96045
21	6.4333	1.95781	44	1259.1167	1.96045
22	8.0667	1.95795	45	1440.0667	1.96043
23	10.1167	1.95813			



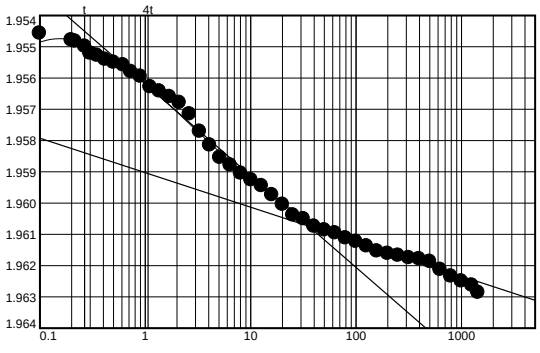
Void Ratio = 0.983 **Compression =** 0.6%

D_0 = 1.9550 **D_{50} =** 1.9573 **D_{100} =** 1.9597 **C_v at 3.93 min. =** 0.125 ft.^{2}/day **C_α =** 0.001

Figure B-142d

Pressure: 250.00 psf	TEST READINGS	Load No. 4

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.95340	24	12.7167	1.95945
2	0.1000	1.95457	25	15.9833	1.95974
3	0.2000	1.95479	26	20.0833	1.96005
4	0.2167	1.95483	27	25.2500	1.96039
5	0.2667	1.95499	28	31.7667	1.96051
6	0.3000	1.95521	29	39.9500	1.96075
7	0.3500	1.95528	30	50.2667	1.96087
8	0.4167	1.95541	31	63.2500	1.96096
9	0.5000	1.95550	32	79.5833	1.96112
10	0.6167	1.95559	33	100.1500	1.96123
11	0.7333	1.95580	34	126.0500	1.96138
12	0.9000	1.95595	35	158.6500	1.96154
13	1.1167	1.95629	36	199.6833	1.96162
14	1.3667	1.95642	37	251.3500	1.96168
15	1.7000	1.95660	38	316.3833	1.96175
16	2.1167	1.95679	39	398.2667	1.96179
17	2.6333	1.95716	40	501.3500	1.96187
18	3.2833	1.95771	41	631.1333	1.96213
19	4.1000	1.95815	42	794.5000	1.96234
20	5.1333	1.95855	43	1000.1833	1.96250
21	6.4333	1.95879	44	1259.1167	1.96263
22	8.0667	1.95905	45	1440.4833	1.96286
23	10.1333	1.95926			



Void Ratio = 0.978 **Compression =** 0.8%

D_0 = 1.9535 **D_{50} =** 1.9571 **D_{100} =** 1.9607 **C_V at 2.08 min. =** 0.235 ft.^{2}/day **C_α =** 0.001

Pressure: 500.00 psf	TEST READINGS	Load No. 5

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.95199	12	0.9167	1.95597
2	0.1000	1.95436	13	1.1167	1.95639
3	0.2000	1.95478	14	1.3833	1.95688
4	0.2333	1.95486	15	1.7167	1.95714
5	0.2667	1.95492	16	2.1167	1.95758
6	0.3000	1.95499	17	2.6333	1.95811
7	0.3667	1.95508	18	3.2833	1.95867
8	0.4333	1.95523	19	4.1167	1.95907
9	0.5167	1.95543	20	5.1500	1.95935
10	0.6167	1.95558	21	6.4333	1.95968
11	0.7500	1.95579	22	8.0833	1.96013

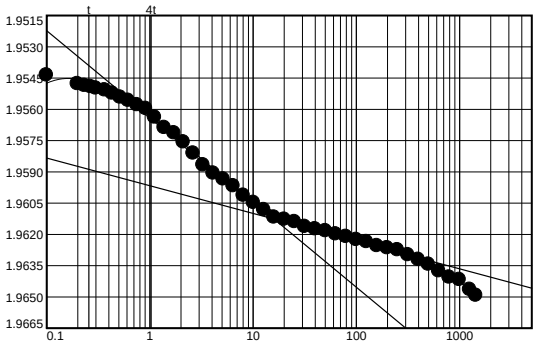


Figure B-142e

Pressure: 500.00 psf | **TEST READINGS (continued)** | **Load No. 5**

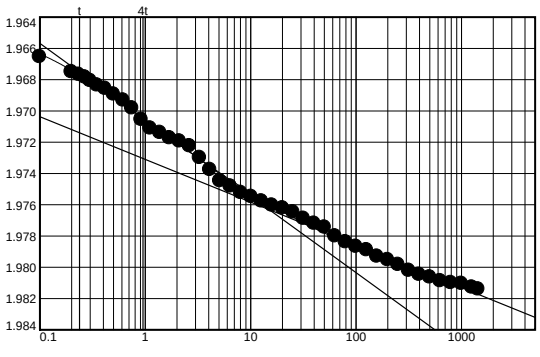
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	1.96048	33	100.1500	1.96226	43	1000.1833	1.96418
24	12.7333	1.96083	34	126.0500	1.96236	44	1259.1167	1.96465
25	15.9833	1.96118	35	158.6500	1.96255	45	1440.0000	1.96493
26	20.1000	1.96129	36	199.6833	1.96265			
27	25.2667	1.96140	37	251.3500	1.96275			
28	31.7667	1.96163	38	316.4000	1.96299			
29	39.9667	1.96174	39	398.2667	1.96321			
30	50.2667	1.96184	40	501.3500	1.96344			
31	63.2500	1.96199	41	631.1333	1.96376			
32	79.5833	1.96211	42	794.5000	1.96406			

Void Ratio = 0.974 **Compression =** 1.0%

D_0 = 1.9529 **D_{50} =** 1.9571 **D_{100} =** 1.9613 **C_v at 1.43 min. =** 0.342 ft.^{2}/day **C_α =** 0.001

Pressure: 1000.00 psf | **TEST READINGS** | **Load No. 6**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.96378	24	12.7167	1.97578
2	0.1000	1.96654	25	15.9833	1.97604
3	0.2000	1.96750	26	20.0833	1.97622
4	0.2333	1.96768	27	25.2500	1.97647
5	0.2667	1.96784	28	31.7667	1.97688
6	0.3000	1.96806	29	39.9500	1.97720
7	0.3500	1.96835	30	50.2500	1.97744
8	0.4167	1.96857	31	63.2333	1.97801
9	0.5000	1.96893	32	79.5833	1.97838
10	0.6167	1.96932	33	100.1500	1.97868
11	0.7500	1.96982	34	126.0500	1.97890
12	0.9167	1.97056	35	158.6500	1.97930
13	1.1167	1.97111	36	199.6833	1.97953
14	1.3833	1.97139	37	251.3500	1.97984
15	1.7000	1.97174	38	316.3833	1.98021
16	2.1167	1.97194	39	398.2667	1.98047
17	2.6333	1.97225	40	501.3500	1.98064
18	3.2833	1.97299	41	631.1333	1.98088
19	4.1167	1.97376	42	794.5000	1.98099
20	5.1333	1.97448	43	1000.1833	1.98104
21	6.4333	1.97482	44	1259.1000	1.98129
22	8.0833	1.97523	45	1440.1500	1.98141
23	10.1333	1.97549			



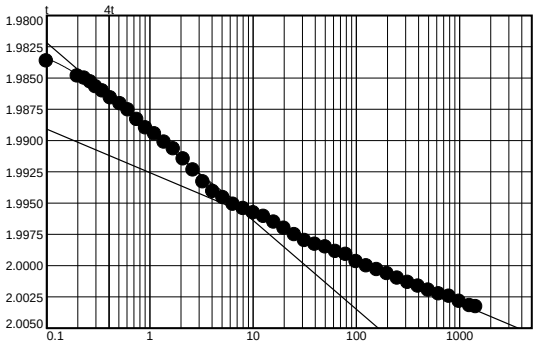
Void Ratio = 0.941 **Compression =** 2.7%

D_0 = 1.9649 **D_{50} =** 1.9706 **D_{100} =** 1.9763 **C_v at 1.02 min. =** 0.464 ft.^{2}/day **C_α =** 0.003

Figure B-142f

Pressure: 2000.00 psf	TEST READINGS	Load No. 7

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.97973	24	12.7167	1.99609
2	0.1000	1.98366	25	15.9833	1.99654
3	0.2000	1.98487	26	20.0833	1.99704
4	0.2333	1.98504	27	25.2500	1.99755
5	0.2667	1.98533	28	31.7667	1.99801
6	0.3000	1.98571	29	39.9500	1.99832
7	0.3500	1.98605	30	50.2667	1.99854
8	0.4167	1.98662	31	63.2333	1.99890
9	0.5167	1.98709	32	79.5833	1.99912
10	0.6167	1.98758	33	100.1500	1.99970
11	0.7500	1.98833	34	126.0500	2.00004
12	0.9167	1.98901	35	158.6500	2.00034
13	1.1167	1.98949	36	199.6833	2.00067
14	1.3833	1.99015	37	251.3500	2.00103
15	1.7000	1.99069	38	316.3833	2.00137
16	2.1167	1.99149	39	398.2667	2.00167
17	2.6333	1.99238	40	501.3500	2.00198
18	3.2833	1.99333	41	631.1333	2.00228
19	4.1000	1.99410	42	794.5000	2.00248
20	5.1333	1.99458	43	1000.1833	2.00288
21	6.4333	1.99511	44	1259.1167	2.00323
22	8.0667	1.99546	45	1440.0000	2.00330
23	10.1333	1.99580			



Void Ratio = 0.897 **Compression =** 4.9%

D_0 = 1.9803 **D_{50} =** 1.9880 **D_{100} =** 1.9957 **C_V at 0.66 min. =** 0.688 ft.^{2}/day **C_α =** 0.003

Pressure: 500.00 psf	TEST READINGS	Load No. 8

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	2.00545	12	0.9167	2.00202	23	10.1333	2.00094
2	0.1000	2.00308	13	1.1167	2.00192	24	12.7167	2.00087
3	0.2000	2.00260	14	1.3833	2.00172	25	15.9833	2.00089
4	0.2333	2.00249	15	1.7000	2.00147	26	20.0833	2.00088
5	0.2667	2.00243	16	2.1167	2.00134	27	25.2667	2.00084
6	0.3000	2.00244	17	2.6333	2.00120	28	31.7667	2.00079
7	0.3667	2.00246	18	3.2833	2.00113	29	39.9500	2.00077
8	0.4333	2.00234	19	4.1000	2.00115	30	50.2667	2.00077
9	0.5167	2.00225	20	5.1333	2.00106	31	63.2500	2.00074
10	0.6167	2.00221	21	6.4333	2.00105	32	79.5833	2.00069
11	0.7500	2.00210	22	8.0667	2.00101	33	100.1667	2.00063

Figure B-142g

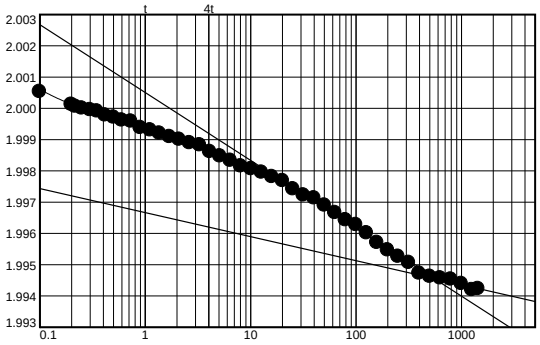
Pressure: 500.00 psf	TEST READINGS (continued)	Load No. 8

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
34	126.0500	2.00061	44	1259.1333	2.00040
35	158.6500	2.00054	45	1440.4667	2.00047
36	199.7000	2.00060			
37	251.3667	2.00066			
38	316.4000	2.00060			
39	398.2833	2.00059			
40	501.3667	2.00058			
41	631.1500	2.00054			
42	794.5167	2.00049			
43	1000.2000	2.00042			

Void Ratio = 0.903 **Compression =** 4.6%

Pressure: 125.00 psf	TEST READINGS	Load No. 9

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	2.00201	24	12.7167	1.99795
2	0.1000	2.00053	25	15.9833	1.99781
3	0.2000	2.00012	26	20.0833	1.99768
4	0.2167	2.00006	27	25.2500	1.99742
5	0.2500	2.00000	28	31.7667	1.99722
6	0.3000	1.99995	29	39.9500	1.99713
7	0.3500	1.99991	30	50.2667	1.99690
8	0.4167	1.99978	31	63.2333	1.99666
9	0.5000	1.99971	32	79.5667	1.99643
10	0.6000	1.99962	33	100.1500	1.99627
11	0.7333	1.99958	34	126.0333	1.99601
12	0.9000	1.99938	35	158.6333	1.99570
13	1.1167	1.99930	36	199.6833	1.99546
14	1.3667	1.99920	37	251.3500	1.99526
15	1.7000	1.99909	38	316.3833	1.99506
16	2.1000	1.99900	39	398.2667	1.99472
17	2.6333	1.99889	40	501.3500	1.99462
18	3.2833	1.99882	41	631.1333	1.99457
19	4.1000	1.99861	42	794.5000	1.99453
20	5.1333	1.99847	43	1000.1833	1.99439
21	6.4333	1.99833	44	1259.1167	1.99419
22	8.0667	1.99815	45	1440.3333	1.99423
23	10.1333	1.99806			



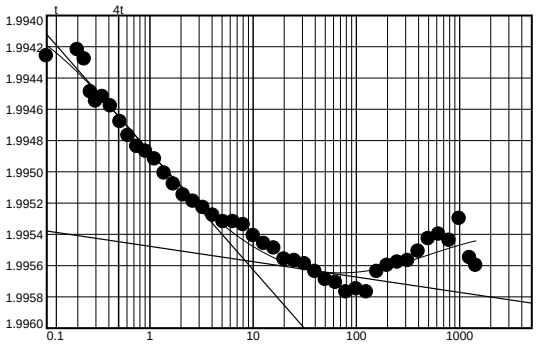
Void Ratio = 0.915 **Compression =** 3.9%

D_0 = 2.0000 **D_{50} =** 1.9973 **D_{100} =** 1.9946 **C_v at 28.88 min. =** 0.016 ft.^{2}/day

Figure B-142h

Pressure: 250.00 psf	TEST READINGS	Load No. 10

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.99376	24	12.7333	1.99546
2	0.1000	1.99426	25	15.9833	1.99549
3	0.2000	1.99422	26	20.0833	1.99556
4	0.2333	1.99428	27	25.2667	1.99557
5	0.2667	1.99449	28	31.7667	1.99559
6	0.3000	1.99455	29	39.9500	1.99564
7	0.3500	1.99452	30	50.2667	1.99569
8	0.4167	1.99458	31	63.2333	1.99571
9	0.5167	1.99468	32	79.5833	1.99577
10	0.6167	1.99477	33	100.1500	1.99575
11	0.7500	1.99484	34	126.0333	1.99577
12	0.9167	1.99487	35	158.6333	1.99564
13	1.1167	1.99492	36	199.6833	1.99560
14	1.3833	1.99501	37	251.3500	1.99558
15	1.7000	1.99508	38	316.3833	1.99557
16	2.1167	1.99515	39	398.2667	1.99551
17	2.6333	1.99519	40	501.3500	1.99543
18	3.2833	1.99523	41	631.1333	1.99540
19	4.1000	1.99528	42	794.5000	1.99544
20	5.1500	1.99532	43	1000.1833	1.99530
21	6.4333	1.99532	44	1259.1167	1.99555
22	8.0833	1.99534	45	1440.0500	1.99560
23	10.1333	1.99541			



Void Ratio = 0.912 **Compression =** 4.1%

D_0 = 1.9938 **D_{50} =** 1.9947 **D_{100} =** 1.9956 **C_V at 0.59 min. =** 0.770 ft.^{2}/day **C_α =** 0.000

Pressure: 500.00 psf	TEST READINGS	Load No. 11

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.99479	12	0.9000	1.99673	23	10.1333	1.99723
2	0.1000	1.99595	13	1.1167	1.99683	24	12.7333	1.99723
3	0.2000	1.99621	14	1.3833	1.99691	25	15.9833	1.99725
4	0.2167	1.99624	15	1.7000	1.99693	26	20.1000	1.99734
5	0.2500	1.99630	16	2.1167	1.99698	27	25.2667	1.99732
6	0.3000	1.99634	17	2.6333	1.99702	28	31.7667	1.99735
7	0.3500	1.99638	18	3.2833	1.99706	29	39.9667	1.99735
8	0.4167	1.99642	19	4.1000	1.99710	30	50.2667	1.99740
9	0.5000	1.99645	20	5.1500	1.99716	31	63.2500	1.99743
10	0.6167	1.99659	21	6.4333	1.99716	32	79.5833	1.99747
11	0.7500	1.99662	22	8.0833	1.99719	33	100.1500	1.99751

Figure B-142i

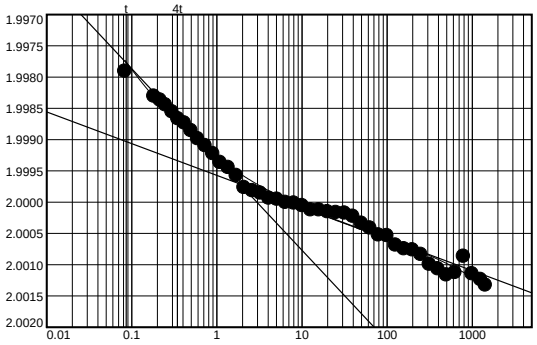
Pressure: 500.00 psf	TEST READINGS (continued)	Load No. 11

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
34	126.0500	1.99752	44	1259.1167	1.99778
35	158.6500	1.99757	45	1440.4667	1.99782
36	199.6833	1.99747			
37	251.3500	1.99761			
38	316.4000	1.99766			
39	398.2833	1.99764			
40	501.3667	1.99765			
41	631.1333	1.99764			
42	794.5167	1.99775			
43	1000.1833	1.99779			

Void Ratio = 0.908 **Compression =** 4.3%

Pressure: 1000.00 psf	TEST READINGS	Load No. 12

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.99697	24	12.7167	2.00013
2	0.0833	1.99791	25	15.9667	2.00013
3	0.1833	1.99831	26	20.0833	2.00016
4	0.2167	1.99837	27	25.2500	2.00017
5	0.2500	1.99845	28	31.7500	2.00018
6	0.3000	1.99856	29	39.9333	2.00023
7	0.3500	1.99867	30	50.2500	2.00034
8	0.4167	1.99874	31	63.2333	2.00042
9	0.5000	1.99886	32	79.5667	2.00053
10	0.6000	1.99899	33	100.1333	2.00054
11	0.7333	1.99910	34	126.0333	2.00069
12	0.9000	1.99923	35	158.6333	2.00075
13	1.1000	1.99937	36	199.6667	2.00077
14	1.3667	1.99945	37	251.3333	2.00084
15	1.7000	1.99958	38	316.3833	2.00100
16	2.1000	1.99977	39	398.2500	2.00107
17	2.6167	1.99982	40	501.3333	2.00117
18	3.2667	1.99986	41	631.1167	2.00113
19	4.1000	1.99994	42	794.4833	2.00087
20	5.1167	1.99996	43	1000.1667	2.00115
21	6.4333	2.00001	44	1259.1000	2.00124
22	8.0667	2.00002	45	1440.1000	2.00133
23	10.1167	2.00006			



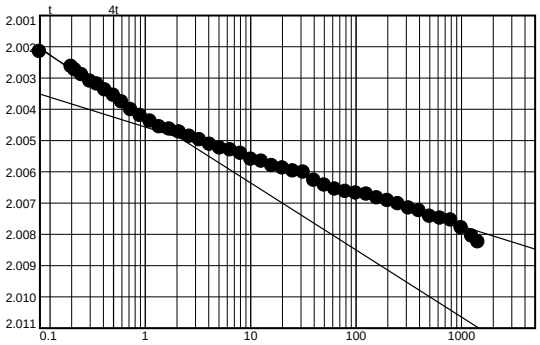
Void Ratio = 0.901 **Compression =** 4.7%

D_0 = 1.9968 **D_{50} =** 1.9982 **D_{100} =** 1.9997 **C_v at 0.16 min. =** 2.738 ft.^{2}/day **C_α =** 0.001

Figure B-142j

Pressure: 2000.00 psf	TEST READINGS	Load No. 13

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.99987	24	12.7167	2.00567
2	0.1000	2.00216	25	15.9833	2.00581
3	0.2000	2.00264	26	20.0833	2.00589
4	0.2167	2.00275	27	25.2500	2.00598
5	0.2500	2.00290	28	31.7500	2.00602
6	0.3000	2.00311	29	39.9500	2.00628
7	0.3500	2.00320	30	50.2500	2.00643
8	0.4167	2.00339	31	63.2333	2.00656
9	0.5000	2.00356	32	79.5667	2.00664
10	0.6000	2.00377	33	100.1500	2.00669
11	0.7333	2.00402	34	126.0333	2.00672
12	0.9000	2.00421	35	158.6333	2.00684
13	1.1167	2.00439	36	199.6833	2.00693
14	1.3667	2.00457	37	251.3500	2.00703
15	1.7000	2.00464	38	316.3833	2.00717
16	2.1167	2.00474	39	398.2667	2.00725
17	2.6333	2.00487	40	501.3500	2.00743
18	3.2833	2.00498	41	631.1167	2.00749
19	4.1000	2.00513	42	794.5000	2.00755
20	5.1333	2.00525	43	1000.1667	2.00780
21	6.4333	2.00531	44	1259.1000	2.00806
22	8.0667	2.00542	45	1440.3500	2.00825
23	10.1333	2.00561			



Void Ratio = 0.887 **Compression =** 5.3%

D_0 = 2.0009 **D_{50} =** 2.0029 **D_{100} =** 2.0049 **C_V at 0.24 min. =** 1.879 ft.^{2}/day **C_α =** 0.001

Pressure: 4000.00 psf	TEST READINGS	Load No. 14

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	2.00722	12	0.9167	2.01710
2	0.1000	2.01155	13	1.1167	2.01765
3	0.2000	2.01252	14	1.3833	2.01846
4	0.2333	2.01261	15	1.7167	2.01902
5	0.2667	2.01275	16	2.1167	2.01941
6	0.3000	2.01294	17	2.6500	2.01996
7	0.3667	2.01325	18	3.3000	2.02041
8	0.4333	2.01421	19	4.1167	2.02080
9	0.5167	2.01495	20	5.1500	2.02128
10	0.6167	2.01558	21	6.4500	2.02200
11	0.7500	2.01636	22	8.0833	2.02263

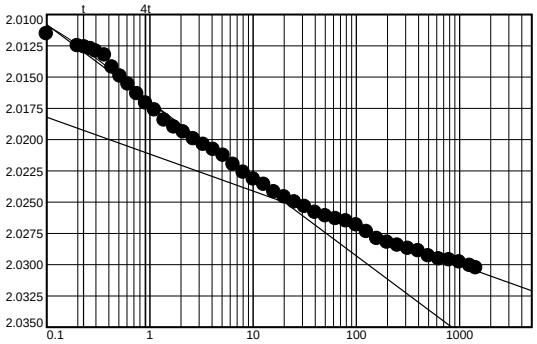


Figure B-142k

Pressure: 4000.00 psf	TEST READINGS (continued)	Load No. 14

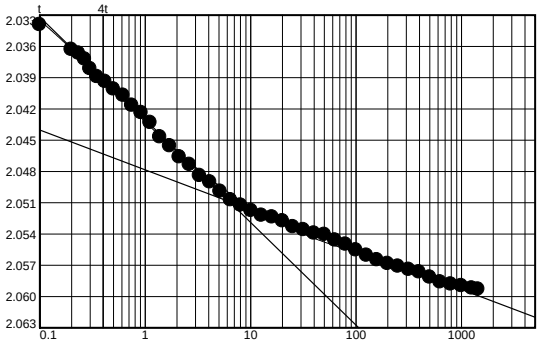
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	2.02318	33	100.1500	2.02684	43	1000.1833	2.02981
24	12.7333	2.02360	34	126.0500	2.02737	44	1259.1167	2.03009
25	15.9833	2.02419	35	158.6500	2.02792	45	1440.1000	2.03028
26	20.1000	2.02461	36	199.6833	2.02822			
27	25.2667	2.02501	37	251.3500	2.02846			
28	31.7667	2.02537	38	316.4000	2.02872			
29	39.9667	2.02584	39	398.2833	2.02891			
30	50.2667	2.02612	40	501.3667	2.02932			
31	63.2500	2.02634	41	631.1333	2.02956			
32	79.5833	2.02652	42	794.5000	2.02964			

Void Ratio = 0.843 **Compression =** 7.6%

D_0 = 2.0088 **D_{50} =** 2.0169 **D_{100} =** 2.0250 **C_v at 0.99 min. =** 0.437 ft.^{2}/day **C_α =** 0.003

Pressure: 8000.00 psf	TEST READINGS	Load No. 15

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	2.02872	24	12.7333	2.05222
2	0.1000	2.03394	25	16.0000	2.05239
3	0.2000	2.03630	26	20.1000	2.05277
4	0.2333	2.03668	27	25.2667	2.05332
5	0.2667	2.03724	28	31.7667	2.05361
6	0.3000	2.03815	29	39.9667	2.05394
7	0.3500	2.03893	30	50.2667	2.05406
8	0.4167	2.03938	31	63.2500	2.05461
9	0.5000	2.04011	32	79.5833	2.05500
10	0.6167	2.04071	33	100.1667	2.05556
11	0.7500	2.04167	34	126.0500	2.05606
12	0.9167	2.04238	35	158.6500	2.05649
13	1.1167	2.04333	36	199.7000	2.05685
14	1.3833	2.04470	37	251.3333	2.05711
15	1.7167	2.04556	38	316.3833	2.05741
16	2.1167	2.04661	39	398.2833	2.05766
17	2.6333	2.04735	40	501.3667	2.05816
18	3.2833	2.04842	41	631.1333	2.05861
19	4.1167	2.04902	42	794.5167	2.05883
20	5.1500	2.04992	43	1000.1833	2.05899
21	6.4500	2.05074	44	1259.1167	2.05922
22	8.0833	2.05126	45	1440.2667	2.05930
23	10.1500	2.05176			



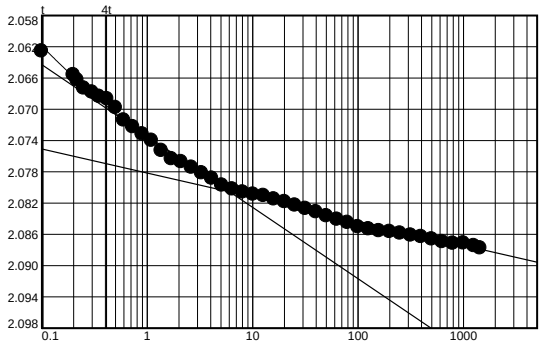
Void Ratio = 0.785 **Compression =** 10.5%

D_0 = 2.0277 **D_{50} =** 2.0393 **D_{100} =** 2.0509 **C_v at 0.40 min. =** 1.011 ft.^{2}/day **C_α =** 0.004

Figure B-142l

Pressure: 16000.00 psf	TEST READINGS	Load No. 16

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	2.05706	24	12.7167	2.08108
2	0.1000	2.06257	25	15.9667	2.08150
3	0.2000	2.06560	26	20.0833	2.08184
4	0.2167	2.06626	27	25.2500	2.08228
5	0.2500	2.06733	28	31.7500	2.08272
6	0.3000	2.06783	29	39.9500	2.08314
7	0.3500	2.06838	30	50.2500	2.08366
8	0.4167	2.06869	31	63.2333	2.08409
9	0.5000	2.06980	32	79.5667	2.08450
10	0.6000	2.07142	33	100.1333	2.08506
11	0.7333	2.07227	34	126.0333	2.08534
12	0.9000	2.07318	35	158.6333	2.08558
13	1.1000	2.07400	36	199.6667	2.08567
14	1.3667	2.07531	37	251.3333	2.08588
15	1.7000	2.07636	38	316.3833	2.08613
16	2.1000	2.07673	39	398.2500	2.08632
17	2.6333	2.07746	40	501.3333	2.08662
18	3.2833	2.07817	41	631.1167	2.08698
19	4.1000	2.07885	42	794.4833	2.08718
20	5.1333	2.07973	43	1000.1667	2.08715
21	6.4333	2.08023	44	1259.1000	2.08749
22	8.0667	2.08063	45	1440.0000	2.08777
23	10.1167	2.08090			

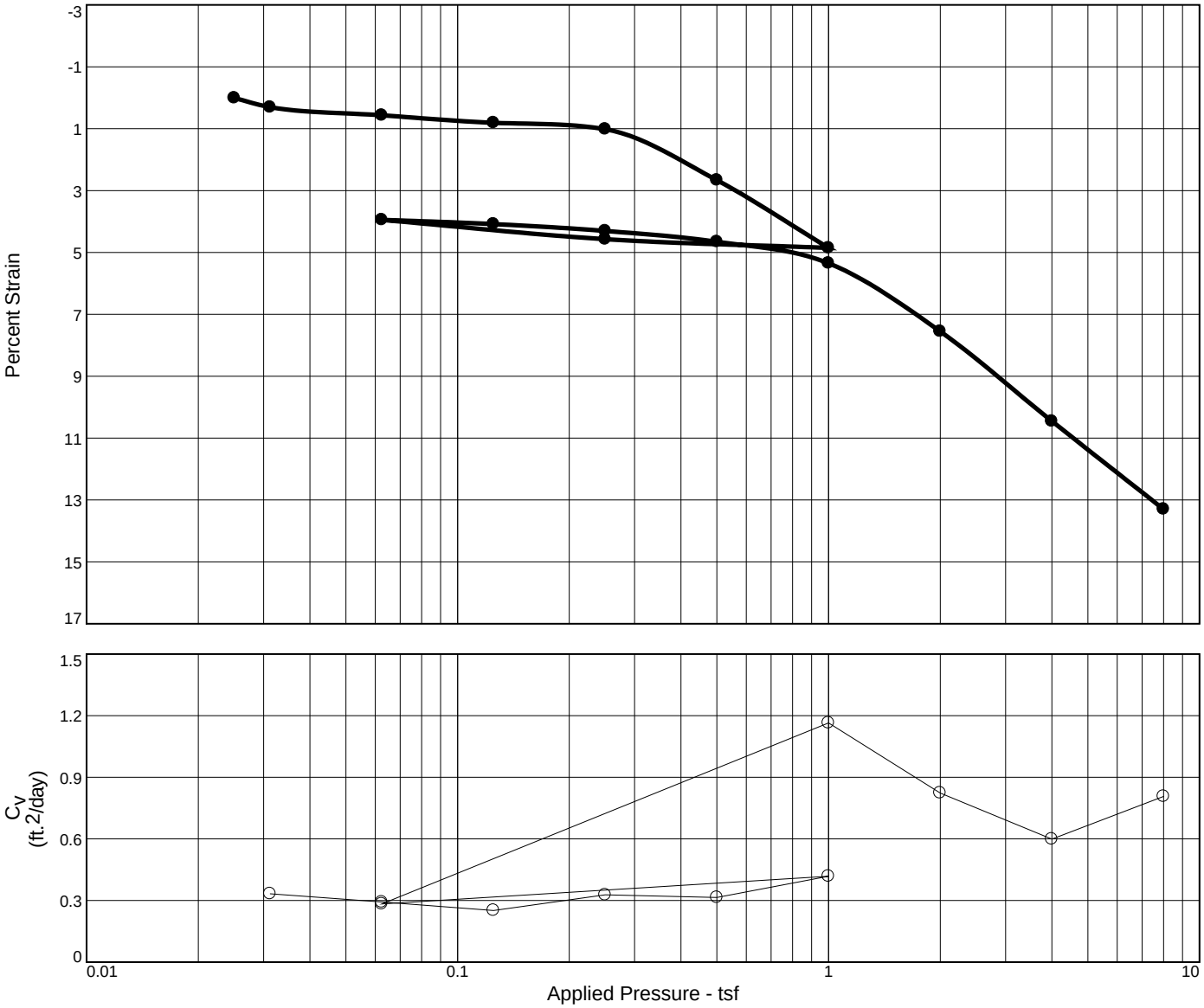


Void Ratio = 0.729 **Compression =** 13.3%

D_0 = 2.0546 **D_{50} =** 2.0676 **D_{100} =** 2.0806 **C_V at 0.28 min. =** 1.391 ft.^{2}/day **C_α =** 0.003

Figure B-142m

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	P_c (tsf)	C_c	Initial Void Ratio
Saturation	Moisture							
93.2 %	34.1 %	85.1	48	27	2.719	0.5	0.19	0.994

MATERIAL DESCRIPTION	USCS	AASHTO
Soft gray clay with silt and sand	(CL)	

Project No. 18274-022-01 **Client:** CEC

Project: Chandeleur Island Restoration Project (PO-0199)

Location: CI-16 sqrt **Depth:** 23-25

Remarks:
Specific gravity was measured

GeoEngineers

Figure B-143a

Tested By: Dustin Blanchard **Checked By:** J. Aguettant

CONSOLIDATION TEST DATA

12/22/2023

Client: CEC
Project: Chandeleur Island Restoration Project (PO-0199)
Project Number: 18274-022-01
Location: CI-16 sqrt
Depth: 23-25
Material Description: Soft gray clay with silt and sand
Liquid Limit: 48 **Plasticity Index:** 27
USCS: (CL)
Testing Remarks: Specific gravity was measured
Tested by: Dustin Blanchard **Checked by:** J. Aguettant

Test Specimen Data

NATURAL MOISTURE		VOID RATIO		AFTER TEST	
Wet w+t =	121.32 g.	Spec. Gr. =	2.719	Wet w+t =	174.65 g.
Dry w+t =	95.03 g.	Est. Ht. Solids =	0.502 in.	Dry w+t =	144.59 g.
Tare Wt. =	17.88 g.	Init. V.R. =	0.994	Tare Wt. =	36.89 g.
Moisture =	34.1 %	Init. Sat. =	93.2 %	Moisture =	27.9 %

UNIT WEIGHT		TEST START			
Height =	1.000 in.	Height =	1.000 in.		
Diameter =	2.500 in.	Diameter =	2.500 in.	Dry Wt. =	107.70 g.
Weight =	147.08 g.				
Dry Dens. =	85.1 pcf				

End-Of-Load Summary

Pressure (psf)	Final Dial (in.)	Deformation (in.)	C_v (ft.^{2}/day)	C_α	Void Ratio	% Strain
start	1.95477	0.00000			0.994	
50.00	1.95483	0.00006			0.994	0.0 Comprs.
62.50	1.95782	0.00305	0.333		0.988	0.3 Comprs.
125.00	1.96043	0.00566	0.293		0.983	0.6 Comprs.
250.00	1.96286	0.00809	0.251		0.978	0.8 Comprs.
500.00	1.96493	0.01016	0.327		0.974	1.0 Comprs.
1000.00	1.98141	0.02664	0.315		0.941	2.7 Comprs.
2000.00	2.00330	0.04853	0.418		0.897	4.9 Comprs.
500.00	2.00047	0.04570			0.903	4.6 Comprs.
125.00	1.99423	0.03946	0.283		0.915	3.9 Comprs.
250.00	1.99560	0.04083			0.912	4.1 Comprs.
500.00	1.99782	0.04305			0.908	4.3 Comprs.
1000.00	2.00133	0.04656			0.901	4.7 Comprs.
2000.00	2.00825	0.05348	1.165		0.887	5.3 Comprs.
4000.00	2.03028	0.07551	0.823		0.843	7.6 Comprs.
8000.00	2.05930	0.10453	0.599		0.785	10.5 Comprs.
16000.00	2.08777	0.13300	0.807		0.729	13.3 Comprs.

Compression index (C_c), tsf = 0.19 **Preconsolidation pressure (P_p), tsf =** 0.5 **Void ratio at P_p (e_m) =** 0.947
Recompression index (C_r) = 0.05

Figure B-143b

Pressure: 50.00 psf	TEST READINGS	Load No. 1

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.95477	16	2.4667	1.95479	31	79.4167	1.95483
2	0.0333	1.95477	17	3.1333	1.95478	32	99.9833	1.95487
3	0.0667	1.95478	18	3.9500	1.95477	33	125.8833	1.95491
4	0.1000	1.95476	19	4.9833	1.95477	34	158.4833	1.95490
5	0.1500	1.95476	20	6.2833	1.95475	35	199.5167	1.95490
6	0.2000	1.95474	21	7.9167	1.95475	36	251.1833	1.95489
7	0.2667	1.95479	22	9.9667	1.95478	37	316.2167	1.95490
8	0.3500	1.95478	23	12.5667	1.95478	38	398.1000	1.95489
9	0.4500	1.95475	24	15.8167	1.95479	39	501.1833	1.95488
10	0.5833	1.95476	25	19.9333	1.95482	40	630.9667	1.95483
11	0.7500	1.95475	26	25.1000	1.95480	41	794.3333	1.95482
12	0.9500	1.95475	27	31.6000	1.95482	42	1000.0167	1.95471
13	1.2167	1.95476	28	39.8000	1.95483	43	1258.9500	1.95466
14	1.5500	1.95475	29	50.1000	1.95488	44	1440.4833	1.95483
15	1.9500	1.95477	30	63.0833	1.95488			

Void Ratio = 0.994 **Compression =** 0.0%

Pressure: 62.50 psf	TEST READINGS	Load No. 2

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.95456	21	6.4333	1.95689
2	0.1000	1.95456	22	8.0667	1.95701
3	0.2000	1.95469	23	10.1333	1.95707
4	0.2333	1.95472	24	12.7167	1.95714
5	0.2667	1.95474	25	15.9833	1.95719
6	0.3000	1.95477	26	20.0833	1.95723
7	0.3500	1.95479	27	25.2500	1.95730
8	0.4167	1.95485	28	31.7667	1.95733
9	0.5000	1.95495	29	39.9500	1.95738
10	0.6167	1.95500	30	50.2667	1.95738
11	0.7500	1.95508	31	63.2333	1.95743
12	0.9000	1.95532	32	79.5833	1.95747
13	1.1167	1.95553	33	100.1500	1.95746
14	1.3667	1.95570	34	126.0500	1.95751
15	1.7000	1.95593	35	158.6500	1.95753
16	2.1167	1.95609	36	199.6833	1.95751
17	2.6333	1.95625	37	251.3500	1.95749
18	3.2833	1.95646	38	316.3833	1.95752
19	4.1000	1.95657	39	398.2667	1.95750
20	5.1333	1.95681	40	501.3500	1.95753

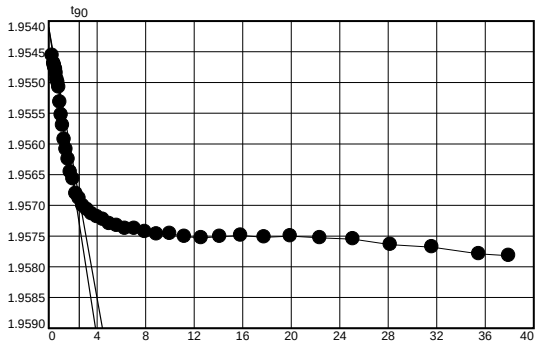


Figure B-143c

Pressure: 62.50 psf	TEST READINGS (continued)	Load No. 2

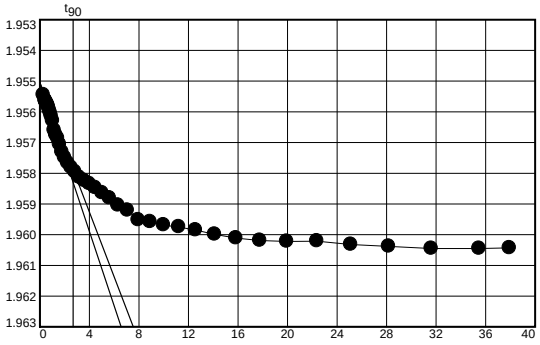
No.	Elapsed Time	Dial Reading
41	631.1333	1.95755
42	794.5000	1.95764
43	1000.1833	1.95768
44	1259.1167	1.95779
45	1440.3167	1.95782

Void Ratio = 0.988 **Compression =** 0.3%

D_0 = 1.9541 **D_{90} =** 1.9569 **D_{100} =** 1.9572 **C_V at 6.36 min. =** 0.333 ft.^{2}/day

Pressure: 125.00 psf	TEST READINGS	Load No. 3

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.95523	24	12.7167	1.95824
2	0.0833	1.95545	25	15.9667	1.95834
3	0.2000	1.95563	26	20.0833	1.95847
4	0.2167	1.95562	27	25.2500	1.95864
5	0.2500	1.95568	28	31.7500	1.95881
6	0.3000	1.95571	29	39.9333	1.95904
7	0.3500	1.95573	30	50.2500	1.95921
8	0.4167	1.95577	31	63.2333	1.95952
9	0.5000	1.95582	32	79.5667	1.95958
10	0.6000	1.95592	33	100.1500	1.95969
11	0.7333	1.95602	34	126.0333	1.95975
12	0.9000	1.95614	35	158.6333	1.95985
13	1.1000	1.95629	36	199.6833	1.95999
14	1.3667	1.95660	37	251.3500	1.96011
15	1.6833	1.95675	38	316.3833	1.96019
16	2.1000	1.95686	39	398.2667	1.96022
17	2.6167	1.95706	40	501.3500	1.96021
18	3.2833	1.95731	41	631.1333	1.96032
19	4.1000	1.95749	42	794.5000	1.96038
20	5.1333	1.95766	43	1000.1833	1.96045
21	6.4333	1.95781	44	1259.1167	1.96045
22	8.0667	1.95795	45	1440.0667	1.96043
23	10.1167	1.95813			



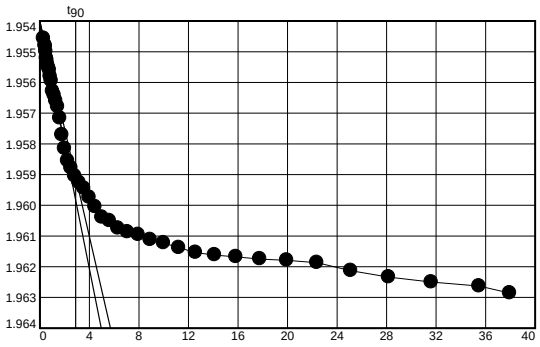
Void Ratio = 0.983 **Compression =** 0.6%

D_0 = 1.9550 **D_{90} =** 1.9579 **D_{100} =** 1.9582 **C_V at 7.20 min. =** 0.293 ft.^{2}/day

Figure B-143d

Pressure: 250.00 psf	TEST READINGS	Load No. 4

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.95340	24	12.7167	1.95945
2	0.1000	1.95457	25	15.9833	1.95974
3	0.2000	1.95479	26	20.0833	1.96005
4	0.2167	1.95483	27	25.2500	1.96039
5	0.2667	1.95499	28	31.7667	1.96051
6	0.3000	1.95521	29	39.9500	1.96075
7	0.3500	1.95528	30	50.2667	1.96087
8	0.4167	1.95541	31	63.2500	1.96096
9	0.5000	1.95550	32	79.5833	1.96112
10	0.6167	1.95559	33	100.1500	1.96123
11	0.7333	1.95580	34	126.0500	1.96138
12	0.9000	1.95595	35	158.6500	1.96154
13	1.1167	1.95629	36	199.6833	1.96162
14	1.3667	1.95642	37	251.3500	1.96168
15	1.7000	1.95660	38	316.3833	1.96175
16	2.1167	1.95679	39	398.2667	1.96179
17	2.6333	1.95716	40	501.3500	1.96187
18	3.2833	1.95771	41	631.1333	1.96213
19	4.1000	1.95815	42	794.5000	1.96234
20	5.1333	1.95855	43	1000.1833	1.96250
21	6.4333	1.95879	44	1259.1167	1.96263
22	8.0667	1.95905	45	1440.4833	1.96286
23	10.1333	1.95926			



Void Ratio = 0.978 **Compression =** 0.8%

D_0 = 1.9540 **D_{90} =** 1.9591 **D_{100} =** 1.9596 **C_V at 8.37 min. =** 0.251 ft.^{2}/day

Pressure: 500.00 psf	TEST READINGS	Load No. 5

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.95199	12	0.9167	1.95597
2	0.1000	1.95436	13	1.1167	1.95639
3	0.2000	1.95478	14	1.3833	1.95688
4	0.2333	1.95486	15	1.7167	1.95714
5	0.2667	1.95492	16	2.1167	1.95758
6	0.3000	1.95499	17	2.6333	1.95811
7	0.3667	1.95508	18	3.2833	1.95867
8	0.4333	1.95523	19	4.1167	1.95907
9	0.5167	1.95543	20	5.1500	1.95935
10	0.6167	1.95558	21	6.4333	1.95968
11	0.7500	1.95579	22	8.0833	1.96013

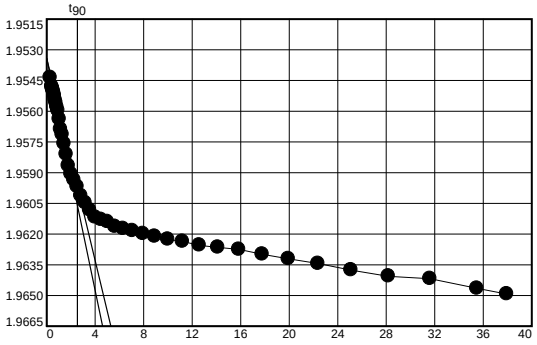


Figure B-143e

Pressure: 500.00 psf	TEST READINGS (continued)	Load No. 5

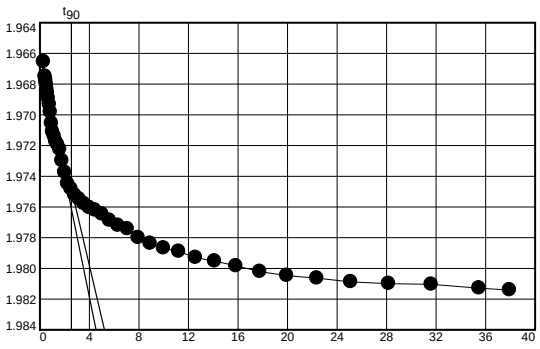
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	1.96048	33	100.1500	1.96226	43	1000.1833	1.96418
24	12.7333	1.96083	34	126.0500	1.96236	44	1259.1167	1.96465
25	15.9833	1.96118	35	158.6500	1.96255	45	1440.0000	1.96493
26	20.1000	1.96129	36	199.6833	1.96265			
27	25.2667	1.96140	37	251.3500	1.96275			
28	31.7667	1.96163	38	316.4000	1.96299			
29	39.9667	1.96174	39	398.2667	1.96321			
30	50.2667	1.96184	40	501.3500	1.96344			
31	63.2500	1.96199	41	631.1333	1.96376			
32	79.5833	1.96211	42	794.5000	1.96406			

Void Ratio = 0.974 **Compression =** 1.0%

D_0 = 1.9534 **D_{90} =** 1.9597 **D_{100} =** 1.9604 **C_V at 6.43 min. =** 0.327 ft.^{2}/day

Pressure: 1000.00 psf	TEST READINGS	Load No. 6

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.96378	24	12.7167	1.97578
2	0.1000	1.96654	25	15.9833	1.97604
3	0.2000	1.96750	26	20.0833	1.97622
4	0.2333	1.96768	27	25.2500	1.97647
5	0.2667	1.96784	28	31.7667	1.97688
6	0.3000	1.96806	29	39.9500	1.97720
7	0.3500	1.96835	30	50.2500	1.97744
8	0.4167	1.96857	31	63.2333	1.97801
9	0.5000	1.96893	32	79.5833	1.97838
10	0.6167	1.96932	33	100.1500	1.97868
11	0.7500	1.96982	34	126.0500	1.97890
12	0.9167	1.97056	35	158.6500	1.97930
13	1.1167	1.97111	36	199.6833	1.97953
14	1.3833	1.97139	37	251.3500	1.97984
15	1.7000	1.97174	38	316.3833	1.98021
16	2.1167	1.97194	39	398.2667	1.98047
17	2.6333	1.97225	40	501.3500	1.98064
18	3.2833	1.97299	41	631.1333	1.98088
19	4.1167	1.97376	42	794.5000	1.98099
20	5.1333	1.97448	43	1000.1833	1.98104
21	6.4333	1.97482	44	1259.1000	1.98129
22	8.0833	1.97523	45	1440.1500	1.98141
23	10.1333	1.97549			



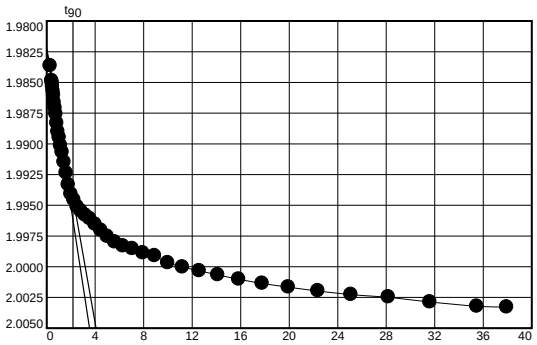
Void Ratio = 0.941 **Compression =** 2.7%

D_0 = 1.9661 **D_{90} =** 1.9748 **D_{100} =** 1.9758 **C_V at 6.50 min. =** 0.315 ft.^{2}/day

Figure B-143f

Pressure: 2000.00 psf	TEST READINGS	Load No. 7

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.97973	24	12.7167	1.99609
2	0.1000	1.98366	25	15.9833	1.99654
3	0.2000	1.98487	26	20.0833	1.99704
4	0.2333	1.98504	27	25.2500	1.99755
5	0.2667	1.98533	28	31.7667	1.99801
6	0.3000	1.98571	29	39.9500	1.99832
7	0.3500	1.98605	30	50.2667	1.99854
8	0.4167	1.98662	31	63.2333	1.99890
9	0.5167	1.98709	32	79.5833	1.99912
10	0.6167	1.98758	33	100.1500	1.99970
11	0.7500	1.98833	34	126.0500	2.00004
12	0.9167	1.98901	35	158.6500	2.00034
13	1.1167	1.98949	36	199.6833	2.00067
14	1.3833	1.99015	37	251.3500	2.00103
15	1.7000	1.99069	38	316.3833	2.00137
16	2.1167	1.99149	39	398.2667	2.00167
17	2.6333	1.99238	40	501.3500	2.00198
18	3.2833	1.99333	41	631.1333	2.00228
19	4.1000	1.99410	42	794.5000	2.00248
20	5.1333	1.99458	43	1000.1833	2.00288
21	6.4333	1.99511	44	1259.1167	2.00323
22	8.0667	1.99546	45	1440.0000	2.00330
23	10.1333	1.99580			



Void Ratio = 0.897 **Compression =** 4.9%

D_0 = 1.9823 **D_{90} =** 1.9944 **D_{100} =** 1.9957 **C_V at 4.70 min. =** 0.418 ft.^{2}/day

Pressure: 500.00 psf	TEST READINGS	Load No. 8

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	2.00545	12	0.9167	2.00202	23	10.1333	2.00094
2	0.1000	2.00308	13	1.1167	2.00192	24	12.7167	2.00087
3	0.2000	2.00260	14	1.3833	2.00172	25	15.9833	2.00089
4	0.2333	2.00249	15	1.7000	2.00147	26	20.0833	2.00088
5	0.2667	2.00243	16	2.1167	2.00134	27	25.2667	2.00084
6	0.3000	2.00244	17	2.6333	2.00120	28	31.7667	2.00079
7	0.3667	2.00246	18	3.2833	2.00113	29	39.9500	2.00077
8	0.4333	2.00234	19	4.1000	2.00115	30	50.2667	2.00077
9	0.5167	2.00225	20	5.1333	2.00106	31	63.2500	2.00074
10	0.6167	2.00221	21	6.4333	2.00105	32	79.5833	2.00069
11	0.7500	2.00210	22	8.0667	2.00101	33	100.1667	2.00063

Figure B-143g

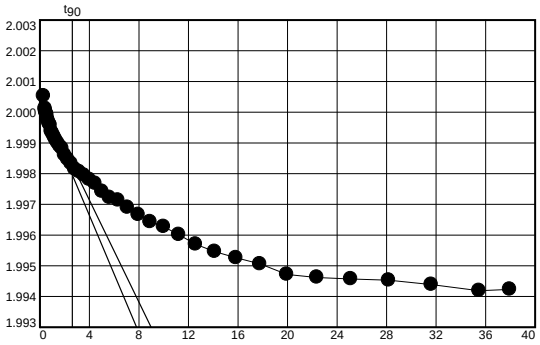
Pressure: 500.00 psf	TEST READINGS (continued)	Load No. 8

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
34	126.0500	2.00061	44	1259.1333	2.00040
35	158.6500	2.00054	45	1440.4667	2.00047
36	199.7000	2.00060			
37	251.3667	2.00066			
38	316.4000	2.00060			
39	398.2833	2.00059			
40	501.3667	2.00058			
41	631.1500	2.00054			
42	794.5167	2.00049			
43	1000.2000	2.00042			

Void Ratio = 0.903 **Compression =** 4.6%

Pressure: 125.00 psf	TEST READINGS	Load No. 9

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	2.00201	24	12.7167	1.99795
2	0.1000	2.00053	25	15.9833	1.99781
3	0.2000	2.00012	26	20.0833	1.99768
4	0.2167	2.00006	27	25.2500	1.99742
5	0.2500	2.00000	28	31.7667	1.99722
6	0.3000	1.99995	29	39.9500	1.99713
7	0.3500	1.99991	30	50.2667	1.99690
8	0.4167	1.99978	31	63.2333	1.99666
9	0.5000	1.99971	32	79.5667	1.99643
10	0.6000	1.99962	33	100.1500	1.99627
11	0.7333	1.99958	34	126.0333	1.99601
12	0.9000	1.99938	35	158.6333	1.99570
13	1.1167	1.99930	36	199.6833	1.99546
14	1.3667	1.99920	37	251.3500	1.99526
15	1.7000	1.99909	38	316.3833	1.99506
16	2.1000	1.99900	39	398.2667	1.99472
17	2.6333	1.99889	40	501.3500	1.99462
18	3.2833	1.99882	41	631.1333	1.99457
19	4.1000	1.99861	42	794.5000	1.99453
20	5.1333	1.99847	43	1000.1833	1.99439
21	6.4333	1.99833	44	1259.1167	1.99419
22	8.0667	1.99815	45	1440.3333	1.99423
23	10.1333	1.99806			



Void Ratio = 0.915 **Compression =** 3.9%
D_0 = 2.0005 **D_{90} =** 1.9983 **D_{100} =** 1.9980 **C_V at 6.84 min. =** 0.283 ft.^{2}/day

Figure B-143h

Pressure: 250.00 psf	TEST READINGS	Load No. 10

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.99376	16	2.1167	1.99515	31	63.2333	1.99571
2	0.1000	1.99426	17	2.6333	1.99519	32	79.5833	1.99577
3	0.2000	1.99422	18	3.2833	1.99523	33	100.1500	1.99575
4	0.2333	1.99428	19	4.1000	1.99528	34	126.0333	1.99577
5	0.2667	1.99449	20	5.1500	1.99532	35	158.6333	1.99564
6	0.3000	1.99455	21	6.4333	1.99532	36	199.6833	1.99560
7	0.3500	1.99452	22	8.0833	1.99534	37	251.3500	1.99558
8	0.4167	1.99458	23	10.1333	1.99541	38	316.3833	1.99557
9	0.5167	1.99468	24	12.7333	1.99546	39	398.2667	1.99551
10	0.6167	1.99477	25	15.9833	1.99549	40	501.3500	1.99543
11	0.7500	1.99484	26	20.0833	1.99556	41	631.1333	1.99540
12	0.9167	1.99487	27	25.2667	1.99557	42	794.5000	1.99544
13	1.1167	1.99492	28	31.7667	1.99559	43	1000.1833	1.99530
14	1.3833	1.99501	29	39.9500	1.99564	44	1259.1167	1.99555
15	1.7000	1.99508	30	50.2667	1.99569	45	1440.0500	1.99560

Void Ratio = 0.912 **Compression =** 4.1%

Pressure: 500.00 psf	TEST READINGS	Load No. 11

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.99479	16	2.1167	1.99698	31	63.2500	1.99743
2	0.1000	1.99595	17	2.6333	1.99702	32	79.5833	1.99747
3	0.2000	1.99621	18	3.2833	1.99706	33	100.1500	1.99751
4	0.2167	1.99624	19	4.1000	1.99710	34	126.0500	1.99752
5	0.2500	1.99630	20	5.1500	1.99716	35	158.6500	1.99757
6	0.3000	1.99634	21	6.4333	1.99716	36	199.6833	1.99747
7	0.3500	1.99638	22	8.0833	1.99719	37	251.3500	1.99761
8	0.4167	1.99642	23	10.1333	1.99723	38	316.4000	1.99766
9	0.5000	1.99645	24	12.7333	1.99723	39	398.2833	1.99764
10	0.6167	1.99659	25	15.9833	1.99725	40	501.3667	1.99765
11	0.7500	1.99662	26	20.1000	1.99734	41	631.1333	1.99764
12	0.9000	1.99673	27	25.2667	1.99732	42	794.5167	1.99775
13	1.1167	1.99683	28	31.7667	1.99735	43	1000.1833	1.99779
14	1.3833	1.99691	29	39.9667	1.99735	44	1259.1167	1.99778
15	1.7000	1.99693	30	50.2667	1.99740	45	1440.4667	1.99782

Void Ratio = 0.908 **Compression =** 4.3%

Figure B-143i

Pressure: 1000.00 psf	TEST READINGS	Load No. 12

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.99697	16	2.1000	1.99977	31	63.2333	2.00042
2	0.0833	1.99791	17	2.6167	1.99982	32	79.5667	2.00053
3	0.1833	1.99831	18	3.2667	1.99986	33	100.1333	2.00054
4	0.2167	1.99837	19	4.1000	1.99994	34	126.0333	2.00069
5	0.2500	1.99845	20	5.1167	1.99996	35	158.6333	2.00075
6	0.3000	1.99856	21	6.4333	2.00001	36	199.6667	2.00077
7	0.3500	1.99867	22	8.0667	2.00002	37	251.3333	2.00084
8	0.4167	1.99874	23	10.1167	2.00006	38	316.3833	2.00100
9	0.5000	1.99886	24	12.7167	2.00013	39	398.2500	2.00107
10	0.6000	1.99899	25	15.9667	2.00013	40	501.3333	2.00117
11	0.7333	1.99910	26	20.0833	2.00016	41	631.1167	2.00113
12	0.9000	1.99923	27	25.2500	2.00017	42	794.4833	2.00087
13	1.1000	1.99937	28	31.7500	2.00018	43	1000.1667	2.00115
14	1.3667	1.99945	29	39.9333	2.00023	44	1259.1000	2.00124
15	1.7000	1.99958	30	50.2500	2.00034	45	1440.1000	2.00133

Void Ratio = 0.901 **Compression =** 4.7%

Pressure: 2000.00 psf	TEST READINGS	Load No. 13

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.99987	21	6.4333	2.00531
2	0.1000	2.00216	22	8.0667	2.00542
3	0.2000	2.00264	23	10.1333	2.00561
4	0.2167	2.00275	24	12.7167	2.00567
5	0.2500	2.00290	25	15.9833	2.00581
6	0.3000	2.00311	26	20.0833	2.00589
7	0.3500	2.00320	27	25.2500	2.00598
8	0.4167	2.00339	28	31.7500	2.00602
9	0.5000	2.00356	29	39.9500	2.00628
10	0.6000	2.00377	30	50.2500	2.00643
11	0.7333	2.00402	31	63.2333	2.00656
12	0.9000	2.00421	32	79.5667	2.00664
13	1.1167	2.00439	33	100.1500	2.00669
14	1.3667	2.00457	34	126.0333	2.00672
15	1.7000	2.00464	35	158.6333	2.00684
16	2.1167	2.00474	36	199.6833	2.00693
17	2.6333	2.00487	37	251.3500	2.00703
18	3.2833	2.00498	38	316.3833	2.00717
19	4.1000	2.00513	39	398.2667	2.00725
20	5.1333	2.00525	40	501.3500	2.00743

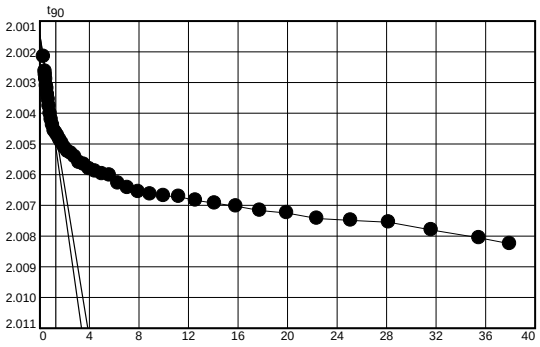


Figure B-143j

Pressure: 2000.00 psf	TEST READINGS (continued)	Load No. 13

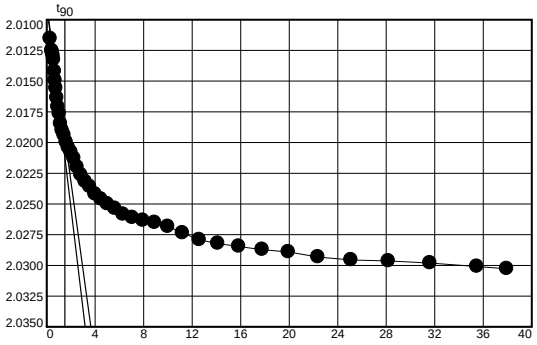
No.	Elapsed Time	Dial Reading
41	631.1167	2.00749
42	794.5000	2.00755
43	1000.1667	2.00780
44	1259.1000	2.00806
45	1440.3500	2.00825

Void Ratio = 0.887 **Compression =** 5.3%

D_0 = 2.0015 **D_{90} =** 2.0046 **D_{100} =** 2.0050 **C_V at 1.65 min. =** 1.165 ft.^{2}/day

Pressure: 4000.00 psf	TEST READINGS	Load No. 14

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	2.00722	24	12.7333	2.02360
2	0.1000	2.01155	25	15.9833	2.02419
3	0.2000	2.01252	26	20.1000	2.02461
4	0.2333	2.01261	27	25.2667	2.02501
5	0.2667	2.01275	28	31.7667	2.02537
6	0.3000	2.01294	29	39.9667	2.02584
7	0.3667	2.01325	30	50.2667	2.02612
8	0.4333	2.01421	31	63.2500	2.02634
9	0.5167	2.01495	32	79.5833	2.02652
10	0.6167	2.01558	33	100.1500	2.02684
11	0.7500	2.01636	34	126.0500	2.02737
12	0.9167	2.01710	35	158.6500	2.02792
13	1.1167	2.01765	36	199.6833	2.02822
14	1.3833	2.01846	37	251.3500	2.02846
15	1.7167	2.01902	38	316.4000	2.02872
16	2.1167	2.01941	39	398.2833	2.02891
17	2.6500	2.01996	40	501.3667	2.02932
18	3.3000	2.02041	41	631.1333	2.02956
19	4.1167	2.02080	42	794.5000	2.02964
20	5.1500	2.02128	43	1000.1833	2.02981
21	6.4500	2.02200	44	1259.1167	2.03009
22	8.0833	2.02263	45	1440.1000	2.03028
23	10.1333	2.02318			



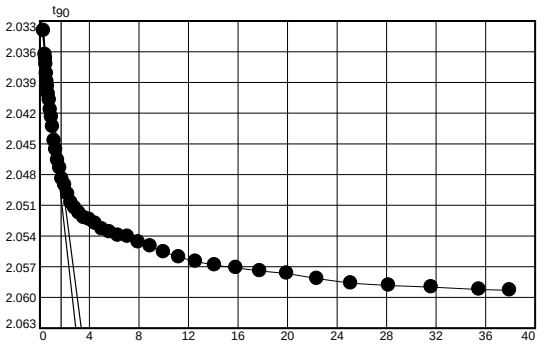
Void Ratio = 0.843 **Compression =** 7.6%

D_0 = 2.0087 **D_{90} =** 2.0196 **D_{100} =** 2.0208 **C_V at 2.26 min. =** 0.823 ft.^{2}/day

Figure B-143k

Pressure: 8000.00 psf	TEST READINGS	Load No. 15

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	2.02872	24	12.7333	2.05222
2	0.1000	2.03394	25	16.0000	2.05239
3	0.2000	2.03630	26	20.1000	2.05277
4	0.2333	2.03668	27	25.2667	2.05332
5	0.2667	2.03724	28	31.7667	2.05361
6	0.3000	2.03815	29	39.9667	2.05394
7	0.3500	2.03893	30	50.2667	2.05406
8	0.4167	2.03938	31	63.2500	2.05461
9	0.5000	2.04011	32	79.5833	2.05500
10	0.6167	2.04071	33	100.1667	2.05556
11	0.7500	2.04167	34	126.0500	2.05606
12	0.9167	2.04238	35	158.6500	2.05649
13	1.1167	2.04333	36	199.7000	2.05685
14	1.3833	2.04470	37	251.3333	2.05711
15	1.7167	2.04556	38	316.3833	2.05741
16	2.1167	2.04661	39	398.2833	2.05766
17	2.6333	2.04735	40	501.3667	2.05816
18	3.2833	2.04842	41	631.1333	2.05861
19	4.1167	2.04902	42	794.5167	2.05883
20	5.1500	2.04992	43	1000.1833	2.05899
21	6.4500	2.05074	44	1259.1167	2.05922
22	8.0833	2.05126	45	1440.2667	2.05930
23	10.1500	2.05176			



Void Ratio = 0.785 **Compression =** 10.5%

D_0 = 2.0319 **D_{90} =** 2.0479 **D_{100} =** 2.0496 **C_V at 2.94 min. =** 0.599 ft.^{2}/day

Pressure: 16000.00 psf	TEST READINGS	Load No. 16

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	2.05706	12	0.9000	2.07318
2	0.1000	2.06257	13	1.1000	2.07400
3	0.2000	2.06560	14	1.3667	2.07531
4	0.2167	2.06626	15	1.7000	2.07636
5	0.2500	2.06733	16	2.1000	2.07673
6	0.3000	2.06783	17	2.6333	2.07746
7	0.3500	2.06838	18	3.2833	2.07817
8	0.4167	2.06869	19	4.1000	2.07885
9	0.5000	2.06980	20	5.1333	2.07973
10	0.6000	2.07142	21	6.4333	2.08023
11	0.7333	2.07227	22	8.0667	2.08063

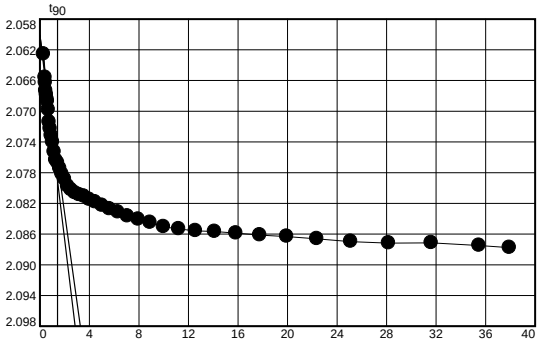


Figure B-143l

Pressure: 16000.00 psf	TEST READINGS (continued)	Load No. 16

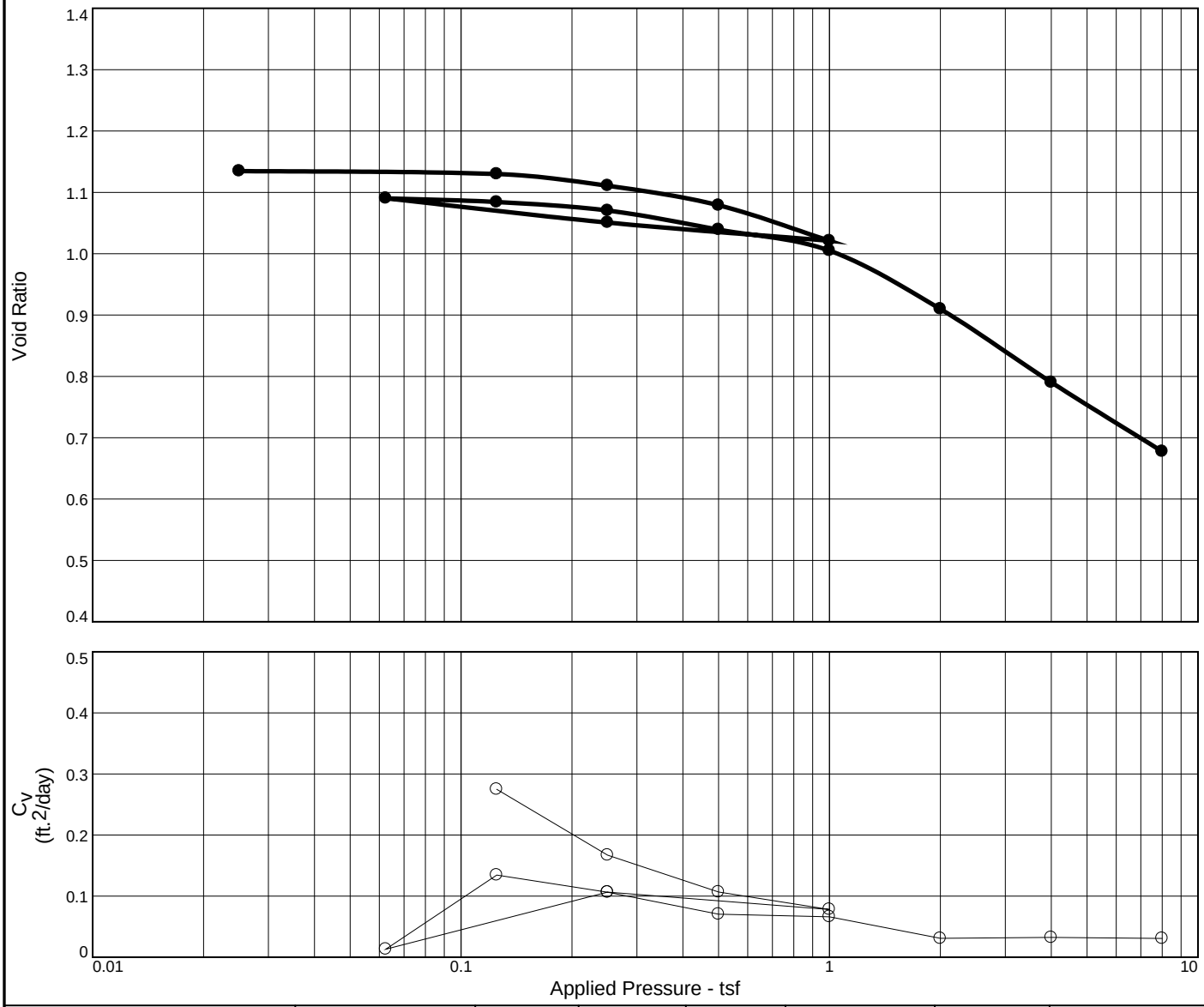
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1167	2.08090	33	100.1333	2.08506	43	1000.1667	2.08715
24	12.7167	2.08108	34	126.0333	2.08534	44	1259.1000	2.08749
25	15.9667	2.08150	35	158.6333	2.08558	45	1440.0000	2.08777
26	20.0833	2.08184	36	199.6667	2.08567			
27	25.2500	2.08228	37	251.3333	2.08588			
28	31.7500	2.08272	38	316.3833	2.08613			
29	39.9500	2.08314	39	398.2500	2.08632			
30	50.2500	2.08366	40	501.3333	2.08662			
31	63.2333	2.08409	41	631.1167	2.08698			
32	79.5667	2.08450	42	794.4833	2.08718			

Void Ratio = 0.729 **Compression =** 13.3%

D_0 = 2.0601 **D_{90} =** 2.0767 **D_{100} =** 2.0785 **C_V at 2.05 min. =** 0.807 ft.^{2}/day

Figure B-143m

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	P_c (tsf)	C_c	Initial Void Ratio
Saturation	Moisture							
93.9 %	39.2 %	79.6	79	49	2.723	0.7	0.37	1.136

MATERIAL DESCRIPTION	USCS	AASHTO
Medium gray clay with silt pockets	(CH)	

Project No. 18274-022-01 **Client:** CEC

Project: Chandeleur Island Restoration Project (PO-0199)

Location: CI-20 **Depth:** 73-75

Remarks:
Specific gravity was measured.

GeoEngineers

Figure B-144a

Tested By: Dustin Blanchard **Checked By:** J. Aguettant

CONSOLIDATION TEST DATA

12/22/2023

Client: CEC
Project: Chandeleur Island Restoration Project (PO-0199)
Project Number: 18274-022-01
Location: CI-20
Depth: 73-75
Material Description: Medium gray clay with silt pockets
Liquid Limit: 79 **Plasticity Index:** 49
USCS: (CH)
Testing Remarks: Specific gravity was measured.
Tested by: Dustin Blanchard **Checked by:** J. Aguettant

Test Specimen Data

NATURAL MOISTURE		VOID RATIO		AFTER TEST	
Wet w+t =	133.61 g.	Spec. Gr. =	2.723	Wet w+t =	166.55 g.
Dry w+t =	101.05 g.	Est. Ht. Solids =	0.468 in.	Dry w+t =	137.05 g.
Tare Wt. =	17.97 g.	Init. V.R. =	1.136	Tare Wt. =	36.85 g.
Moisture =	39.2 %	Init. Sat. =	93.9 %	Moisture =	29.4 %

UNIT WEIGHT		TEST START			
Height =	1.000 in.	Height =	1.000 in.	Dry Wt. =	100.20 g.
Diameter =	2.500 in.	Diameter =	2.500 in.		
Weight =	142.73 g.				
Dry Dens. =	79.6 pcf				

End-Of-Load Summary

Pressure (psf)	Final Dial (in.)	Deformation (in.)	C_v (ft.^{2}/day)	C_α	Void Ratio	% Strain
start	1.37372	0.00000			1.136	
50.00	1.37439	0.00067		0.000	1.135	0.1 Comprs.
250.00	1.37659	0.00287	0.275	0.000	1.130	0.3 Comprs.
500.00	1.38555	0.01183	0.167	0.001	1.111	1.2 Comprs.
1000.00	1.40046	0.02674	0.107	0.001	1.079	2.7 Comprs.
2000.00	1.42755	0.05383	0.078	0.002	1.021	5.4 Comprs.
500.00	1.41366	0.03994	0.107		1.051	4.0 Comprs.
125.00	1.39515	0.02143	0.013		1.090	2.1 Comprs.
250.00	1.39799	0.02427	0.135	0.000	1.084	2.4 Comprs.
500.00	1.40447	0.03075	0.106	0.001	1.070	3.1 Comprs.
1000.00	1.41905	0.04533	0.070	0.000	1.039	4.5 Comprs.
2000.00	1.43510	0.06138	0.066	0.001	1.005	6.1 Comprs.
4000.00	1.47966	0.10594	0.031	0.007	0.910	10.6 Comprs.
8000.00	1.53560	0.16188	0.032	0.006	0.790	16.2 Comprs.
16000.00	1.58839	0.21467	0.031	0.006	0.678	21.5 Comprs.

Compression index (C_C), tsf = 0.37 **Preconsolidation pressure (P_p), tsf =** 0.7 **Void ratio at P_p (e_m) =** 1.052
Recompression index (C_r) = 0.12

Figure B-144b

Pressure: 50.00 psf	TEST READINGS	Load No. 1

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.37372	16	2.4667	1.37374	31	79.4000	1.37411
2	0.0333	1.37376	17	3.1167	1.37377	32	99.9667	1.37413
3	0.0500	1.37372	18	3.9333	1.37376	33	125.8667	1.37417
4	0.0833	1.37372	19	4.9667	1.37379	34	158.4667	1.37421
5	0.1333	1.37373	20	6.2667	1.37382	35	199.5000	1.37426
6	0.1833	1.37376	21	7.9000	1.37383	36	251.1667	1.37425
7	0.2500	1.37374	22	9.9667	1.37387	37	316.2167	1.37422
8	0.3333	1.37373	23	12.5500	1.37390	38	398.1000	1.37421
9	0.4333	1.37373	24	15.8167	1.37395	39	501.1833	1.37402
10	0.5667	1.37373	25	19.9167	1.37394	40	630.9500	1.37417
11	0.7333	1.37373	26	25.0833	1.37394	41	794.3333	1.37416
12	0.9333	1.37376	27	31.5833	1.37397	42	1000.0000	1.37419
13	1.2000	1.37375	28	39.7833	1.37396	43	1258.9333	1.37416
14	1.5333	1.37374	29	50.0833	1.37404	44	1440.3500	1.37439
15	1.9500	1.37374	30	63.0667	1.37409			

Void Ratio = 1.135 **Compression =** 0.1%

Pressure: 250.00 psf	TEST READINGS	Load No. 2

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.37308	21	6.4333	1.37584
2	0.1000	1.37336	22	8.0667	1.37600
3	0.2000	1.37436	23	10.1333	1.37607
4	0.2333	1.37450	24	12.7167	1.37615
5	0.2667	1.37463	25	15.9833	1.37622
6	0.3000	1.37472	26	20.1000	1.37631
7	0.3667	1.37475	27	25.2667	1.37640
8	0.4333	1.37481	28	31.7667	1.37644
9	0.5167	1.37486	29	39.9500	1.37652
10	0.6167	1.37491	30	50.2667	1.37663
11	0.7500	1.37500	31	63.2500	1.37659
12	0.9167	1.37509	32	79.5833	1.37669
13	1.1167	1.37517	33	100.1500	1.37676
14	1.3833	1.37517	34	126.0500	1.37683
15	1.7000	1.37518	35	158.6500	1.37696
16	2.1167	1.37524	36	199.6833	1.37701
17	2.6333	1.37535	37	251.3500	1.37708
18	3.2833	1.37541	38	316.3833	1.37711
19	4.1167	1.37554	39	398.2667	1.37706
20	5.1500	1.37569	40	501.3500	1.37698

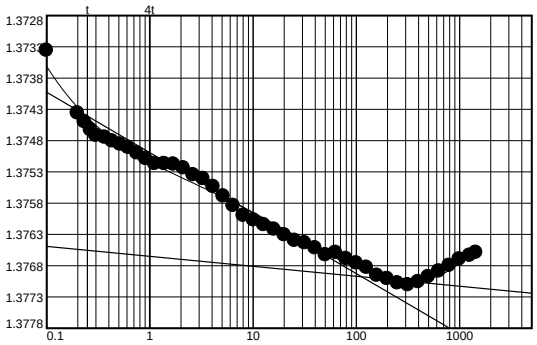


Figure B-144c

Pressure: 250.00 psf | **TEST READINGS (continued)** | **Load No. 2**

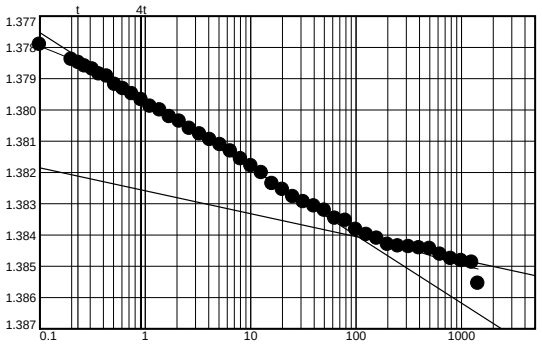
No.	Elapsed Time	Dial Reading
41	631.1333	1.37689
42	794.5167	1.37680
43	1000.1833	1.37670
44	1259.1167	1.37664
45	1440.3333	1.37659

Void Ratio = 1.130 **Compression =** 0.3%

D_0 = 1.3737 **D_{50} =** 1.3753 **D_{100} =** 1.3770 **C_v at 1.79 min. =** 0.275 ft.^{2}/day **C_α =** 0.000

Pressure: 500.00 psf | **TEST READINGS** | **Load No. 3**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.37536	24	12.7333	1.38201
2	0.1000	1.37791	25	16.0000	1.38236
3	0.2000	1.37839	26	20.1000	1.38255
4	0.2333	1.37849	27	25.2667	1.38278
5	0.2667	1.37860	28	31.7667	1.38294
6	0.3167	1.37870	29	39.9667	1.38308
7	0.3667	1.37886	30	50.2667	1.38322
8	0.4333	1.37893	31	63.2500	1.38347
9	0.5167	1.37919	32	79.5833	1.38354
10	0.6167	1.37933	33	100.1500	1.38383
11	0.7500	1.37949	34	126.0500	1.38399
12	0.9167	1.37968	35	158.6500	1.38411
13	1.1167	1.37989	36	199.6833	1.38431
14	1.3833	1.38001	37	251.3500	1.38436
15	1.7000	1.38022	38	316.4000	1.38438
16	2.1167	1.38037	39	398.2833	1.38442
17	2.6333	1.38060	40	501.3667	1.38444
18	3.3000	1.38078	41	631.1333	1.38462
19	4.1167	1.38096	42	794.5167	1.38476
20	5.1500	1.38112	43	1000.1833	1.38483
21	6.4500	1.38132	44	1259.1167	1.38488
22	8.0833	1.38157	45	1440.2667	1.38555
23	10.1333	1.38179			



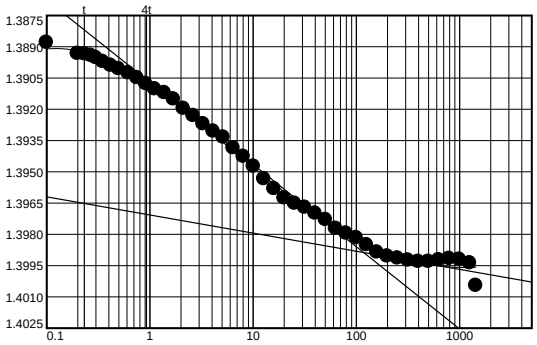
Void Ratio = 1.111 **Compression =** 1.2%

D_0 = 1.3773 **D_{50} =** 1.3807 **D_{100} =** 1.3841 **C_v at 2.91 min. =** 0.167 ft.^{2}/day **C_α =** 0.001

Figure B-144d

Pressure: 1000.00 psf | **TEST READINGS** | **Load No. 4**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.38464	24	12.7333	1.39534
2	0.1000	1.38880	25	15.9833	1.39582
3	0.2000	1.38933	26	20.0833	1.39626
4	0.2333	1.38935	27	25.2667	1.39652
5	0.2667	1.38942	28	31.7667	1.39671
6	0.3000	1.38953	29	39.9500	1.39699
7	0.3500	1.38971	30	50.2667	1.39730
8	0.4167	1.38990	31	63.2333	1.39772
9	0.5000	1.39006	32	79.5833	1.39795
10	0.6167	1.39026	33	100.1500	1.39817
11	0.7500	1.39049	34	126.0500	1.39851
12	0.9167	1.39078	35	158.6500	1.39886
13	1.1167	1.39103	36	199.6833	1.39905
14	1.3833	1.39121	37	251.3500	1.39915
15	1.7000	1.39152	38	316.3833	1.39924
16	2.1167	1.39197	39	398.2667	1.39931
17	2.6333	1.39231	40	501.3500	1.39931
18	3.2833	1.39271	41	631.1333	1.39923
19	4.1167	1.39306	42	794.5000	1.39917
20	5.1500	1.39335	43	1000.1833	1.39921
21	6.4500	1.39386	44	1259.1167	1.39938
22	8.0833	1.39427	45	1440.3333	1.40046
23	10.1333	1.39474			



Void Ratio = 1.079 **Compression =** 2.7%

D_0 = 1.3878 **D_{50} =** 1.3933 **D_{100} =** 1.3989 **C_V at 4.44 min. =** 0.107 ft.^{2}/day **C_α =** 0.001

Pressure: 2000.00 psf | **TEST READINGS** | **Load No. 5**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.39935	12	0.9167	1.40825
2	0.1000	1.40518	13	1.1167	1.40859
3	0.2000	1.40587	14	1.3833	1.40894
4	0.2333	1.40607	15	1.7000	1.40935
5	0.2667	1.40611	16	2.1167	1.41008
6	0.3000	1.40615	17	2.6333	1.41084
7	0.3667	1.40639	18	3.3000	1.41147
8	0.4333	1.40663	19	4.1167	1.41203
9	0.5167	1.40698	20	5.1500	1.41297
10	0.6167	1.40743	21	6.4500	1.41387
11	0.7500	1.40787	22	8.0833	1.41464

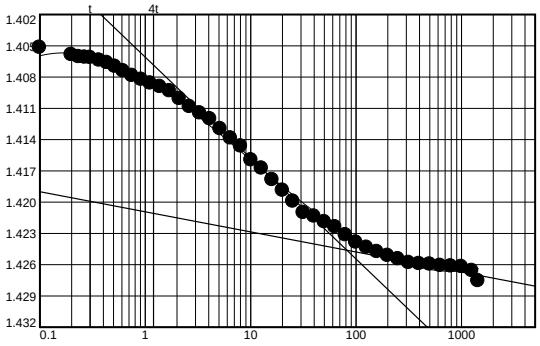


Figure B-144e

Pressure: 2000.00 psf | **TEST READINGS (continued)** | **Load No. 5**

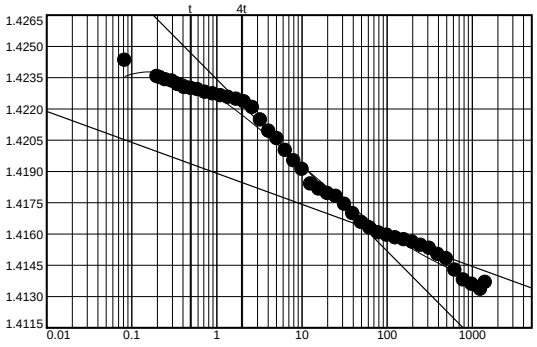
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	1.41596	33	100.1667	1.42386	43	1000.1833	1.42621
24	12.7333	1.41677	34	126.0500	1.42435	44	1259.1167	1.42659
25	16.0000	1.41786	35	158.6500	1.42477	45	1440.0833	1.42755
26	20.1000	1.41888	36	199.7000	1.42514			
27	25.2667	1.41993	37	251.3500	1.42546			
28	31.7667	1.42102	38	316.4000	1.42581			
29	39.9667	1.42136	39	398.2833	1.42592			
30	50.2833	1.42191	40	501.3667	1.42598			
31	63.2500	1.42239	41	631.1333	1.42610			
32	79.6000	1.42315	42	794.5167	1.42614			

Void Ratio = 1.021 **Compression =** 5.4%

D_0 = 1.4032 **D_{50} =** 1.4139 **D_{100} =** 1.4246 **C_v at 5.81 min. =** 0.078 ft.^{2}/day **C_α =** 0.002

Pressure: 500.00 psf | **TEST READINGS** | **Load No. 6**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.42899	24	12.7167	1.41839
2	0.0833	1.42432	25	15.9833	1.41814
3	0.2000	1.42354	26	20.0833	1.41793
4	0.2167	1.42349	27	25.2500	1.41779
5	0.2500	1.42339	28	31.7667	1.41741
6	0.3000	1.42332	29	39.9500	1.41696
7	0.3500	1.42316	30	50.2500	1.41654
8	0.4167	1.42302	31	63.2333	1.41627
9	0.5000	1.42297	32	79.5833	1.41604
10	0.6000	1.42291	33	100.1500	1.41593
11	0.7333	1.42279	34	126.0333	1.41580
12	0.9000	1.42271	35	158.6333	1.41571
13	1.1167	1.42262	36	199.6833	1.41560
14	1.3667	1.42254	37	251.3500	1.41544
15	1.7000	1.42245	38	316.3833	1.41530
16	2.1167	1.42232	39	398.2667	1.41501
17	2.6333	1.42206	40	501.3500	1.41480
18	3.2833	1.42146	41	631.1333	1.41425
19	4.1000	1.42092	42	794.5000	1.41378
20	5.1333	1.42056	43	1000.1833	1.41357
21	6.4333	1.42000	44	1259.1167	1.41333
22	8.0667	1.41950	45	1440.4167	1.41366
23	10.1167	1.41909			



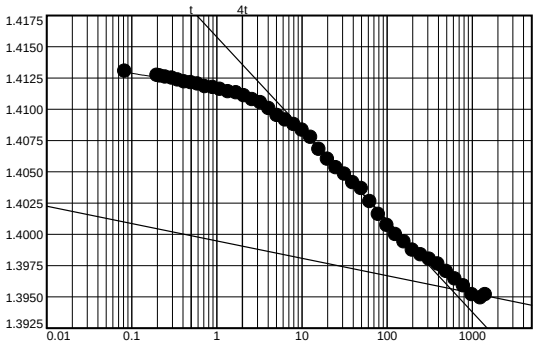
Void Ratio = 1.051 **Compression =** 4.0%

D_0 = 1.4249 **D_{50} =** 1.4206 **D_{100} =** 1.4164 **C_v at 4.19 min. =** 0.107 ft.^{2}/day

Figure B-144f

Pressure: 125.00 psf | **TEST READINGS** | **Load No. 7**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.41488	24	12.7167	1.40773
2	0.0833	1.41302	25	15.9667	1.40677
3	0.2000	1.41269	26	20.0833	1.40598
4	0.2167	1.41263	27	25.2500	1.40531
5	0.2500	1.41255	28	31.7500	1.40479
6	0.3000	1.41246	29	39.9500	1.40411
7	0.3500	1.41232	30	50.2500	1.40364
8	0.4167	1.41217	31	63.2333	1.40260
9	0.5000	1.41211	32	79.5667	1.40157
10	0.6000	1.41199	33	100.1333	1.40069
11	0.7333	1.41179	34	126.0333	1.39996
12	0.9000	1.41172	35	158.6333	1.39937
13	1.1000	1.41157	36	199.6667	1.39872
14	1.3667	1.41138	37	251.3333	1.39834
15	1.7000	1.41129	38	316.3667	1.39799
16	2.1000	1.41105	39	398.2500	1.39760
17	2.6167	1.41075	40	501.3333	1.39700
18	3.2833	1.41051	41	631.1167	1.39641
19	4.1000	1.41003	42	794.5000	1.39585
20	5.1333	1.40948	43	1000.1667	1.39515
21	6.4333	1.40912	44	1259.1000	1.39490
22	8.0667	1.40875	45	1440.0167	1.39515
23	10.1167	1.40831			



Void Ratio = 1.090 **Compression =** 2.1%

D_0 = 1.4134 **D_{50} =** 1.4045 **D_{100} =** 1.3957 **C_V at 34.99 min. =** 0.013 ft.^{2}/day

Pressure: 250.00 psf | **TEST READINGS** | **Load No. 8**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.39495	12	0.9000	1.39619
2	0.1000	1.39590	13	1.1167	1.39626
3	0.2000	1.39590	14	1.3833	1.39626
4	0.2333	1.39595	15	1.7000	1.39633
5	0.2667	1.39591	16	2.1167	1.39640
6	0.3000	1.39591	17	2.6333	1.39648
7	0.3500	1.39601	18	3.2833	1.39662
8	0.4167	1.39607	19	4.1167	1.39673
9	0.5000	1.39609	20	5.1333	1.39689
10	0.6167	1.39616	21	6.4333	1.39701
11	0.7333	1.39613	22	8.0833	1.39712

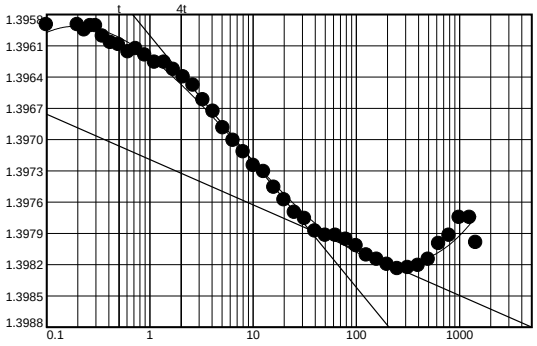


Figure B-144g

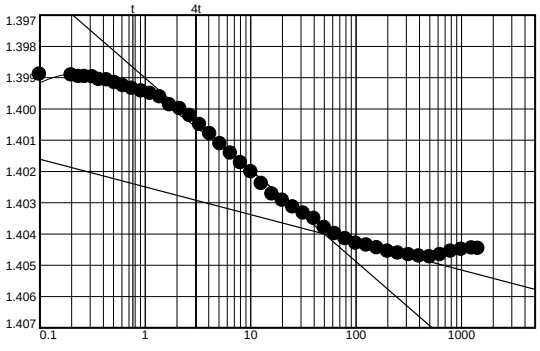
Pressure: 250.00 psf	TEST READINGS (continued)	Load No. 8

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	1.39725	33	100.1500	1.39802	43	1000.1833	1.39775
24	12.7167	1.39731	34	126.0500	1.39811	44	1259.1167	1.39775
25	15.9833	1.39746	35	158.6500	1.39815	45	1440.0333	1.39799
26	20.0833	1.39758	36	199.6833	1.39820			
27	25.2667	1.39770	37	251.3500	1.39824			
28	31.7667	1.39776	38	316.4000	1.39823			
29	39.9500	1.39788	39	398.2667	1.39821			
30	50.2667	1.39792	40	501.3500	1.39815			
31	63.2333	1.39792	41	631.1333	1.39800			
32	79.5833	1.39796	42	794.5167	1.39792			

Void Ratio = 1.084 **Compression =** 2.4%
D_0 = 1.3956 **D_{50} =** 1.3967 **D_{100} =** 1.3979 **C_v at 3.50 min. =** 0.135 ft.^{2}/day **C_α =** 0.000

Pressure: 500.00 psf	TEST READINGS	Load No. 9

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.39724	24	12.7333	1.40239
2	0.1000	1.39890	25	16.0000	1.40273
3	0.2000	1.39892	26	20.1000	1.40293
4	0.2333	1.39897	27	25.2667	1.40314
5	0.2667	1.39897	28	31.7833	1.40334
6	0.3167	1.39898	29	39.9667	1.40351
7	0.3667	1.39907	30	50.2833	1.40380
8	0.4333	1.39908	31	63.2500	1.40400
9	0.5167	1.39917	32	79.6000	1.40416
10	0.6167	1.39926	33	100.1667	1.40430
11	0.7500	1.39935	34	126.0667	1.40436
12	0.9167	1.39943	35	158.6667	1.40445
13	1.1167	1.39951	36	199.7000	1.40456
14	1.3833	1.39962	37	251.3667	1.40462
15	1.7167	1.39988	38	316.4000	1.40467
16	2.1333	1.40000	39	398.2833	1.40471
17	2.6500	1.40022	40	501.3667	1.40474
18	3.3000	1.40051	41	631.1500	1.40467
19	4.1167	1.40080	42	794.5167	1.40456
20	5.1500	1.40112	43	1000.2000	1.40450
21	6.4500	1.40142	44	1259.1333	1.40446
22	8.0833	1.40173	45	1440.0333	1.40447
23	10.1500	1.40202			

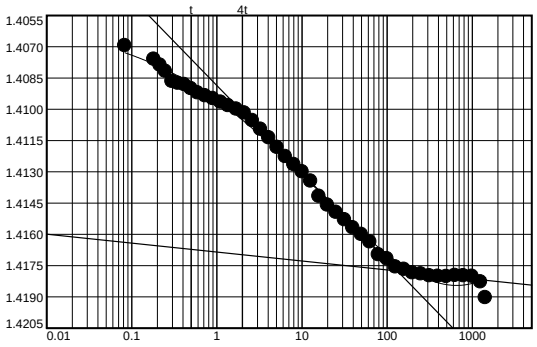


Void Ratio = 1.070 **Compression =** 3.1%
D_0 = 1.3980 **D_{50} =** 1.4010 **D_{100} =** 1.4040 **C_v at 4.38 min. =** 0.106 ft.^{2}/day **C_α =** 0.001

Figure B-144h

Pressure: 1000.00 psf | **TEST READINGS** | **Load No. 10**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.40378	24	12.7167	1.41346
2	0.0833	1.40696	25	15.9833	1.41419
3	0.1833	1.40761	26	20.0833	1.41461
4	0.2167	1.40789	27	25.2500	1.41496
5	0.2500	1.40819	28	31.7667	1.41531
6	0.3000	1.40867	29	39.9500	1.41570
7	0.3500	1.40876	30	50.2667	1.41602
8	0.4167	1.40883	31	63.2333	1.41637
9	0.5000	1.40902	32	79.5833	1.41699
10	0.6000	1.40922	33	100.1500	1.41718
11	0.7333	1.40937	34	126.0500	1.41758
12	0.9000	1.40950	35	158.6500	1.41769
13	1.1167	1.40967	36	199.6833	1.41786
14	1.3667	1.40984	37	251.3500	1.41791
15	1.7000	1.41001	38	316.4000	1.41800
16	2.1167	1.41019	39	398.2667	1.41803
17	2.6333	1.41056	40	501.3500	1.41804
18	3.2833	1.41097	41	631.1333	1.41799
19	4.1000	1.41138	42	794.5000	1.41800
20	5.1333	1.41184	43	1000.1833	1.41802
21	6.4333	1.41228	44	1259.1167	1.41830
22	8.0667	1.41267	45	1440.3833	1.41905
23	10.1333	1.41301			



Void Ratio = 1.039 **Compression =** 4.5%

D_0 = 1.4070 **D_{50} =** 1.4124 **D_{100} =** 1.4178 **C_V at 6.47 min. =** 0.070 ft.^{2}/day **C_α =** 0.000

Pressure: 2000.00 psf | **TEST READINGS** | **Load No. 11**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.41797	12	0.9167	1.42268
2	0.1000	1.42115	13	1.1167	1.42304
3	0.2000	1.42136	14	1.3833	1.42352
4	0.2333	1.42144	15	1.7167	1.42393
5	0.2667	1.42149	16	2.1167	1.42436
6	0.3000	1.42156	17	2.6500	1.42476
7	0.3667	1.42166	18	3.3000	1.42515
8	0.4167	1.42186	19	4.1167	1.42555
9	0.5167	1.42202	20	5.1500	1.42604
10	0.6167	1.42212	21	6.4500	1.42641
11	0.7500	1.42238	22	8.0833	1.42703

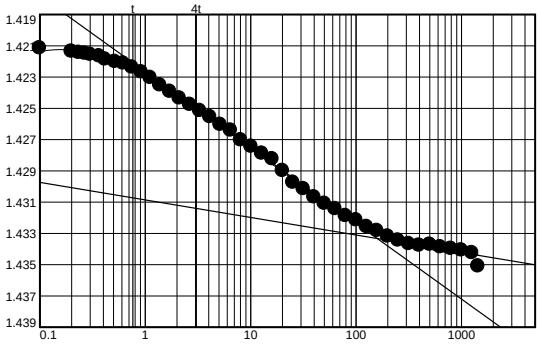


Figure B-144i

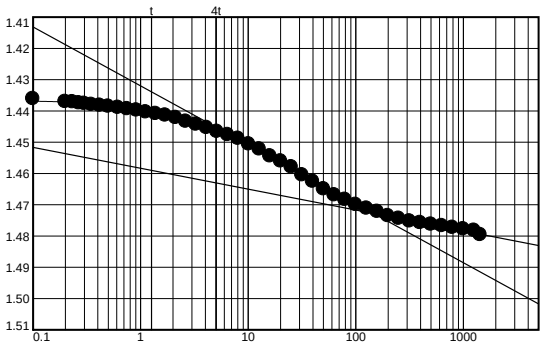
Pressure: 2000.00 psf	TEST READINGS (continued)	Load No. 11

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1500	1.42744	33	100.1833	1.43215	43	1000.2167	1.43407
24	12.7500	1.42788	34	126.0667	1.43258	44	1259.1500	1.43424
25	16.0000	1.42824	35	158.6667	1.43283	45	1440.3333	1.43510
26	20.1167	1.42900	36	199.7167	1.43319			
27	25.2833	1.42974	37	251.3667	1.43344			
28	31.7833	1.43016	38	316.4167	1.43367			
29	39.9667	1.43068	39	398.3000	1.43377			
30	50.2833	1.43109	40	501.3833	1.43371			
31	63.2667	1.43144	41	631.1500	1.43387			
32	79.6000	1.43188	42	794.5333	1.43397			

Void Ratio = 1.005 **Compression =** 6.1%
D_0 = 1.4200 **D_{50} =** 1.4267 **D_{100} =** 1.4333 **C_v at 6.67 min. =** 0.066 ft.^{2}/day **C_α =** 0.001

Pressure: 4000.00 psf	TEST READINGS	Load No. 12

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.43225	24	12.7333	1.45228
2	0.1000	1.43614	25	16.0000	1.45444
3	0.2000	1.43703	26	20.1000	1.45608
4	0.2333	1.43719	27	25.2667	1.45798
5	0.2667	1.43749	28	31.7667	1.46050
6	0.3000	1.43770	29	39.9500	1.46253
7	0.3500	1.43798	30	50.2667	1.46500
8	0.4167	1.43827	31	63.2500	1.46689
9	0.5000	1.43856	32	79.5833	1.46836
10	0.6167	1.43894	33	100.1500	1.47002
11	0.7500	1.43934	34	126.0500	1.47115
12	0.9167	1.43977	35	158.6500	1.47223
13	1.1167	1.44040	36	199.6833	1.47354
14	1.3833	1.44089	37	251.3500	1.47444
15	1.7000	1.44138	38	316.3833	1.47527
16	2.1167	1.44221	39	398.2667	1.47581
17	2.6333	1.44335	40	501.3500	1.47630
18	3.2833	1.44428	41	631.1333	1.47677
19	4.1167	1.44538	42	794.5000	1.47730
20	5.1333	1.44662	43	1000.1833	1.47779
21	6.4500	1.44765	44	1259.1167	1.47825
22	8.0833	1.44880	45	1440.0333	1.47966
23	10.1333	1.45065			

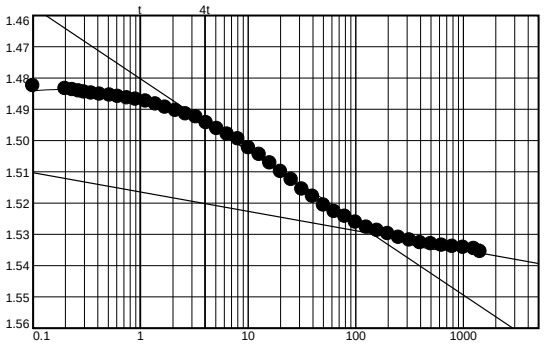


Void Ratio = 0.910 **Compression =** 10.6%
D_0 = 1.4341 **D_{50} =** 1.4534 **D_{100} =** 1.4728 **C_v at 13.43 min. =** 0.031 ft.^{2}/day **C_α =** 0.007

Figure B-144j

Pressure: 8000.00 psf	TEST READINGS	Load No. 13

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.47717	24	12.7167	1.50454
2	0.1000	1.48251	25	15.9833	1.50723
3	0.2000	1.48348	26	20.0833	1.51001
4	0.2333	1.48377	27	25.2500	1.51251
5	0.2667	1.48423	28	31.7667	1.51563
6	0.3000	1.48461	29	39.9500	1.51790
7	0.3500	1.48491	30	50.2667	1.52073
8	0.4167	1.48525	31	63.2500	1.52279
9	0.5167	1.48555	32	79.5833	1.52429
10	0.6167	1.48598	33	100.1500	1.52619
11	0.7500	1.48646	34	126.0500	1.52779
12	0.9000	1.48685	35	158.6500	1.52886
13	1.1167	1.48749	36	199.6833	1.52987
14	1.3833	1.48839	37	251.3500	1.53105
15	1.7000	1.48946	38	316.4000	1.53188
16	2.1167	1.49046	39	398.2667	1.53274
17	2.6333	1.49160	40	501.3500	1.53310
18	3.2833	1.49254	41	631.1333	1.53357
19	4.1000	1.49436	42	794.5000	1.53399
20	5.1333	1.49622	43	1000.1833	1.53425
21	6.4333	1.49803	44	1259.1167	1.53460
22	8.0833	1.49954	45	1440.3833	1.53560
23	10.1333	1.50236			



Void Ratio = 0.790 **Compression =** 16.2%

D_0 = 1.4788 **D_{50} =** 1.5042 **D_{100} =** 1.5297 **C_V at 11.43 min. =** 0.032 ft.^{2}/day **C_α =** 0.006

Pressure: 16000.00 psf	TEST READINGS	Load No. 14

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.53125	12	0.9167	1.54161
2	0.1000	1.53693	13	1.1333	1.54240
3	0.2000	1.53847	14	1.3833	1.54342
4	0.2333	1.53848	15	1.7167	1.54443
5	0.2667	1.53873	16	2.1333	1.54504
6	0.3000	1.53899	17	2.6500	1.54628
7	0.3667	1.53924	18	3.3000	1.54782
8	0.4333	1.53963	19	4.1167	1.54901
9	0.5167	1.53993	20	5.1500	1.55054
10	0.6167	1.54046	21	6.4500	1.55254
11	0.7500	1.54098	22	8.0833	1.55425

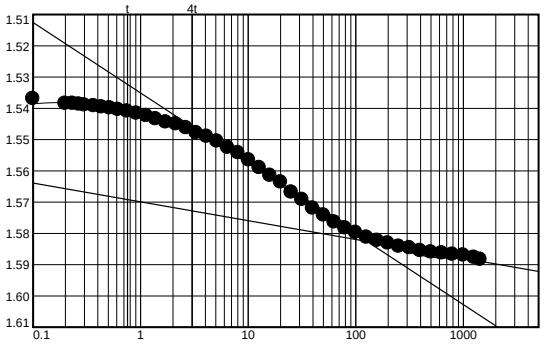


Figure B-144k

Pressure: 16000.00 psf	TEST READINGS (continued)	Load No. 14

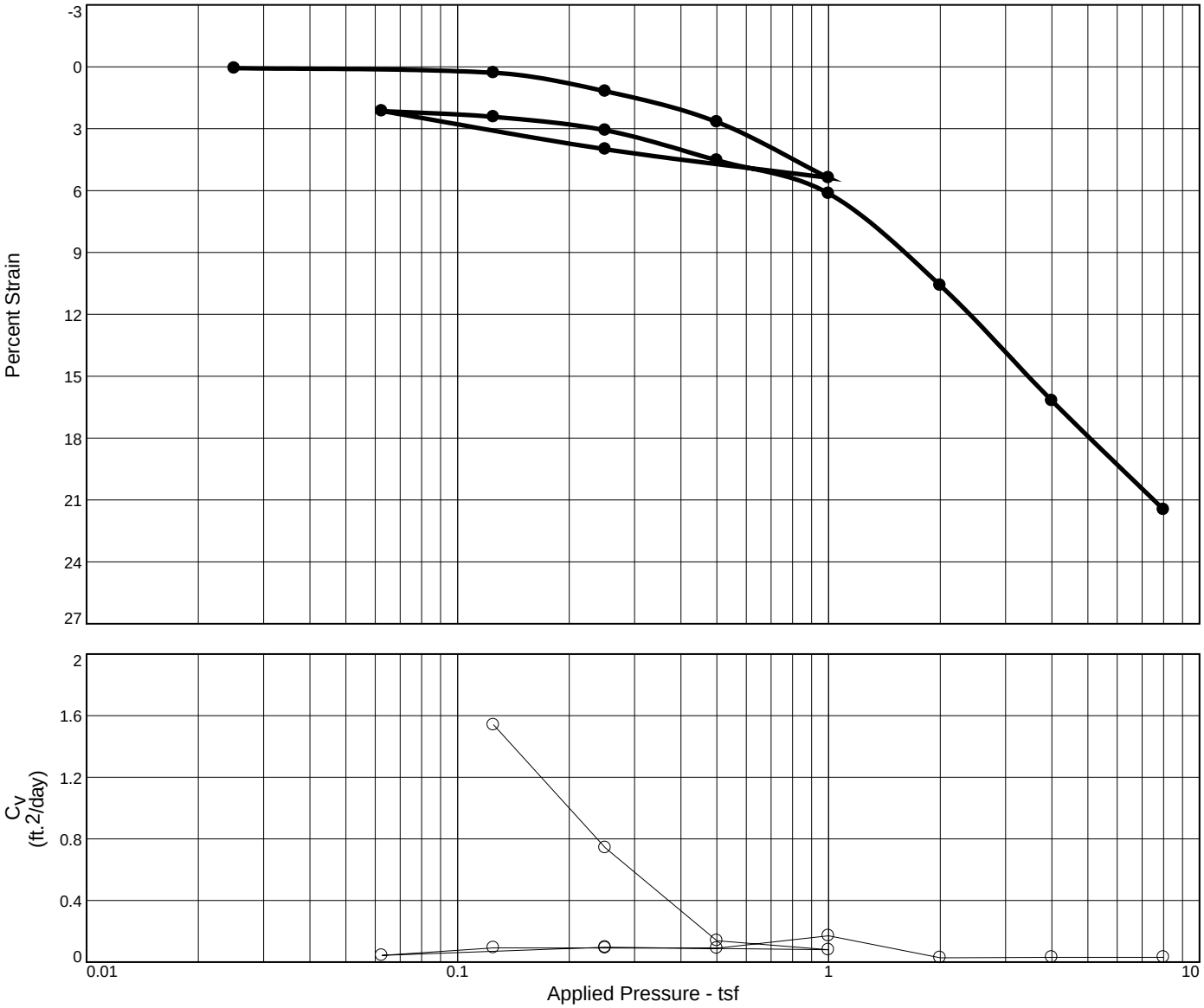
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1500	1.55653	33	100.1667	1.57972	43	1000.1833	1.58704
24	12.7333	1.55903	34	126.0500	1.58132	44	1259.1167	1.58773
25	16.0000	1.56148	35	158.6500	1.58229	45	1440.3500	1.58839
26	20.1000	1.56365	36	199.6833	1.58320			
27	25.2667	1.56690	37	251.3500	1.58419			
28	31.7833	1.56922	38	316.4000	1.58466			
29	39.9667	1.57198	39	398.2833	1.58557			
30	50.2833	1.57422	40	501.3667	1.58602			
31	63.2500	1.57642	41	631.1333	1.58634			
32	79.6000	1.57831	42	794.5167	1.58674			

Void Ratio = 0.678 **Compression =** 21.5%

D_0 = 1.5333 **D_{50} =** 1.5579 **D_{100} =** 1.5826 **C_v at 10.59 min. =** 0.031 $ft.^2/day$ **C_α =** 0.006

Figure B-144l

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	P_c (tsf)	C_c	Initial Void Ratio
Saturation	Moisture							
93.9 %	39.2 %	79.6	79	49	2.723	0.7	0.39	1.136

MATERIAL DESCRIPTION	USCS	AASHTO
Medium gray clay with silt pockets	(CH)	

Project No. 18274-022-01 **Client:** CEC

Project: Chandeleur Island Restoration Project (PO-0199)

Location: CI-20 sqrt **Depth:** 73-75

Remarks:
Specific gravity was measured.

GeoEngineers

Figure B-145a

Tested By: Dustin Blanchard **Checked By:** J. Aguettant

CONSOLIDATION TEST DATA

12/22/2023

Client: CEC
Project: Chandeleur Island Restoration Project (PO-0199)
Project Number: 18274-022-01
Location: CI-20 sqrt
Depth: 73-75
Material Description: Medium gray clay with silt pockets
Liquid Limit: 79 **Plasticity Index:** 49
USCS: (CH)
Testing Remarks: Specific gravity was measured.
Tested by: Dustin Blanchard **Checked by:** J. Aguettant

Test Specimen Data

NATURAL MOISTURE		VOID RATIO		AFTER TEST	
Wet w+t =	133.61 g.	Spec. Gr. =	2.723	Wet w+t =	166.55 g.
Dry w+t =	101.05 g.	Est. Ht. Solids =	0.468 in.	Dry w+t =	137.05 g.
Tare Wt. =	17.97 g.	Init. V.R. =	1.136	Tare Wt. =	36.85 g.
Moisture =	39.2 %	Init. Sat. =	93.9 %	Moisture =	29.4 %

UNIT WEIGHT		TEST START			
Height =	1.000 in.	Height =	1.000 in.		
Diameter =	2.500 in.	Diameter =	2.500 in.	Dry Wt. =	100.20 g.
Weight =	142.73 g.				
Dry Dens. =	79.6 pcf				

End-Of-Load Summary

Pressure (psf)	Final Dial (in.)	Deformation (in.)	C_v ($ft.^2$/day)	C_α	Void Ratio	% Strain
start	1.37372	0.00000			1.136	
50.00	1.37439	0.00067			1.135	0.1 Comprs.
250.00	1.37659	0.00287	1.540		1.130	0.3 Comprs.
500.00	1.38555	0.01183	0.742		1.111	1.2 Comprs.
1000.00	1.40046	0.02674	0.139		1.079	2.7 Comprs.
2000.00	1.42755	0.05383	0.080		1.021	5.4 Comprs.
500.00	1.41366	0.03994	0.097		1.051	4.0 Comprs.
125.00	1.39515	0.02143	0.044		1.090	2.1 Comprs.
250.00	1.39799	0.02427	0.092		1.084	2.4 Comprs.
500.00	1.40447	0.03075	0.092		1.070	3.1 Comprs.
1000.00	1.41905	0.04533	0.090		1.039	4.5 Comprs.
2000.00	1.43510	0.06138	0.171		1.005	6.1 Comprs.
4000.00	1.47966	0.10594	0.028		0.910	10.6 Comprs.
8000.00	1.53560	0.16188	0.031		0.790	16.2 Comprs.
16000.00	1.58839	0.21467	0.031		0.678	21.5 Comprs.

Compression index (C_C), tsf = 0.39 **Preconsolidation pressure (P_p), tsf =** 0.7 **Void ratio at P_p (e_m) =** 1.052
Recompression index (C_r) = 0.12

Figure B-145b

Pressure: 50.00 psf	TEST READINGS	Load No. 1

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.37372	16	2.4667	1.37374	31	79.4000	1.37411
2	0.0333	1.37376	17	3.1167	1.37377	32	99.9667	1.37413
3	0.0500	1.37372	18	3.9333	1.37376	33	125.8667	1.37417
4	0.0833	1.37372	19	4.9667	1.37379	34	158.4667	1.37421
5	0.1333	1.37373	20	6.2667	1.37382	35	199.5000	1.37426
6	0.1833	1.37376	21	7.9000	1.37383	36	251.1667	1.37425
7	0.2500	1.37374	22	9.9667	1.37387	37	316.2167	1.37422
8	0.3333	1.37373	23	12.5500	1.37390	38	398.1000	1.37421
9	0.4333	1.37373	24	15.8167	1.37395	39	501.1833	1.37402
10	0.5667	1.37373	25	19.9167	1.37394	40	630.9500	1.37417
11	0.7333	1.37373	26	25.0833	1.37394	41	794.3333	1.37416
12	0.9333	1.37376	27	31.5833	1.37397	42	1000.0000	1.37419
13	1.2000	1.37375	28	39.7833	1.37396	43	1258.9333	1.37416
14	1.5333	1.37374	29	50.0833	1.37404	44	1440.3500	1.37439
15	1.9500	1.37374	30	63.0667	1.37409			

Void Ratio = 1.135 **Compression =** 0.1%

Pressure: 250.00 psf	TEST READINGS	Load No. 2

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.37308	21	6.4333	1.37584
2	0.1000	1.37336	22	8.0667	1.37600
3	0.2000	1.37436	23	10.1333	1.37607
4	0.2333	1.37450	24	12.7167	1.37615
5	0.2667	1.37463	25	15.9833	1.37622
6	0.3000	1.37472	26	20.1000	1.37631
7	0.3667	1.37475	27	25.2667	1.37640
8	0.4333	1.37481	28	31.7667	1.37644
9	0.5167	1.37486	29	39.9500	1.37652
10	0.6167	1.37491	30	50.2667	1.37663
11	0.7500	1.37500	31	63.2500	1.37659
12	0.9167	1.37509	32	79.5833	1.37669
13	1.1167	1.37517	33	100.1500	1.37676
14	1.3833	1.37517	34	126.0500	1.37683
15	1.7000	1.37518	35	158.6500	1.37696
16	2.1167	1.37524	36	199.6833	1.37701
17	2.6333	1.37535	37	251.3500	1.37708
18	3.2833	1.37541	38	316.3833	1.37711
19	4.1167	1.37554	39	398.2667	1.37706
20	5.1500	1.37569	40	501.3500	1.37698

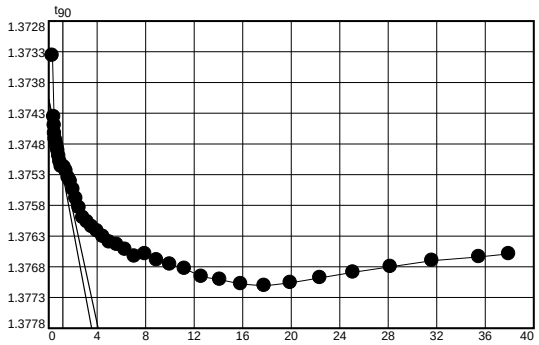


Figure B-145c

Pressure: 250.00 psf	TEST READINGS (continued)	Load No. 2

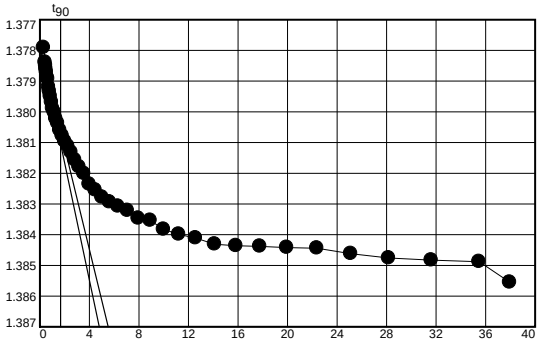
No.	Elapsed Time	Dial Reading
41	631.1333	1.37689
42	794.5167	1.37680
43	1000.1833	1.37670
44	1259.1167	1.37664
45	1440.3333	1.37659

Void Ratio = 1.130 **Compression =** 0.3%

D_0 = 1.3741 **D_{90} =** 1.3752 **D_{100} =** 1.3753 **C_v at 1.37 min. =** 1.540 ft.^{2}/day

Pressure: 500.00 psf	TEST READINGS	Load No. 3

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.37536	24	12.7333	1.38201
2	0.1000	1.37791	25	16.0000	1.38236
3	0.2000	1.37839	26	20.1000	1.38255
4	0.2333	1.37849	27	25.2667	1.38278
5	0.2667	1.37860	28	31.7667	1.38294
6	0.3167	1.37870	29	39.9667	1.38308
7	0.3667	1.37886	30	50.2667	1.38322
8	0.4333	1.37893	31	63.2500	1.38347
9	0.5167	1.37919	32	79.5833	1.38354
10	0.6167	1.37933	33	100.1500	1.38383
11	0.7500	1.37949	34	126.0500	1.38399
12	0.9167	1.37968	35	158.6500	1.38411
13	1.1167	1.37989	36	199.6833	1.38431
14	1.3833	1.38001	37	251.3500	1.38436
15	1.7000	1.38022	38	316.4000	1.38438
16	2.1167	1.38037	39	398.2833	1.38442
17	2.6333	1.38060	40	501.3667	1.38444
18	3.3000	1.38078	41	631.1333	1.38462
19	4.1167	1.38096	42	794.5167	1.38476
20	5.1500	1.38112	43	1000.1833	1.38483
21	6.4500	1.38132	44	1259.1167	1.38488
22	8.0833	1.38157	45	1440.2667	1.38555
23	10.1333	1.38179			



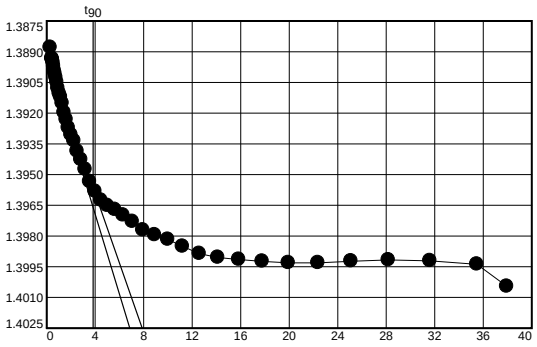
Void Ratio = 1.111 **Compression =** 1.2%

D_0 = 1.3779 **D_{90} =** 1.3807 **D_{100} =** 1.3810 **C_v at 2.82 min. =** 0.742 ft.^{2}/day

Figure B-145d

Pressure: 1000.00 psf	TEST READINGS	Load No. 4

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.38464	24	12.7333	1.39534
2	0.1000	1.38880	25	15.9833	1.39582
3	0.2000	1.38933	26	20.0833	1.39626
4	0.2333	1.38935	27	25.2667	1.39652
5	0.2667	1.38942	28	31.7667	1.39671
6	0.3000	1.38953	29	39.9500	1.39699
7	0.3500	1.38971	30	50.2667	1.39730
8	0.4167	1.38990	31	63.2333	1.39772
9	0.5000	1.39006	32	79.5833	1.39795
10	0.6167	1.39026	33	100.1500	1.39817
11	0.7500	1.39049	34	126.0500	1.39851
12	0.9167	1.39078	35	158.6500	1.39886
13	1.1167	1.39103	36	199.6833	1.39905
14	1.3833	1.39121	37	251.3500	1.39915
15	1.7000	1.39152	38	316.3833	1.39924
16	2.1167	1.39197	39	398.2667	1.39931
17	2.6333	1.39231	40	501.3500	1.39931
18	3.2833	1.39271	41	631.1333	1.39923
19	4.1167	1.39306	42	794.5000	1.39917
20	5.1500	1.39335	43	1000.1833	1.39921
21	6.4500	1.39386	44	1259.1167	1.39938
22	8.0833	1.39427	45	1440.3333	1.40046
23	10.1333	1.39474			



Void Ratio = 1.079 **Compression =** 2.7%

D_0 = 1.3891 **D_{90} =** 1.3956 **D_{100} =** 1.3964 **C_V at 14.69 min. =** 0.139 ft.^{2}/day

Pressure: 2000.00 psf	TEST READINGS	Load No. 5

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.39935	12	0.9167	1.40825
2	0.1000	1.40518	13	1.1167	1.40859
3	0.2000	1.40587	14	1.3833	1.40894
4	0.2333	1.40607	15	1.7000	1.40935
5	0.2667	1.40611	16	2.1167	1.41008
6	0.3000	1.40615	17	2.6333	1.41084
7	0.3667	1.40639	18	3.3000	1.41147
8	0.4333	1.40663	19	4.1167	1.41203
9	0.5167	1.40698	20	5.1500	1.41297
10	0.6167	1.40743	21	6.4500	1.41387
11	0.7500	1.40787	22	8.0833	1.41464

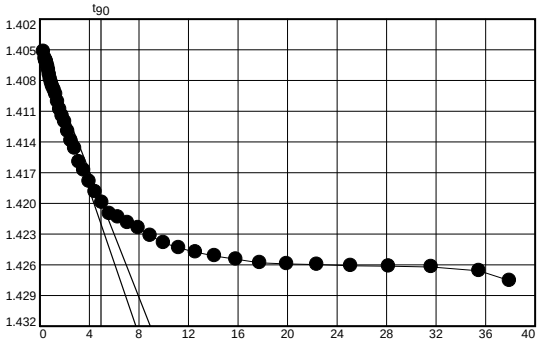


Figure B-145e

Pressure: 2000.00 psf | **TEST READINGS (continued)** | **Load No. 5**

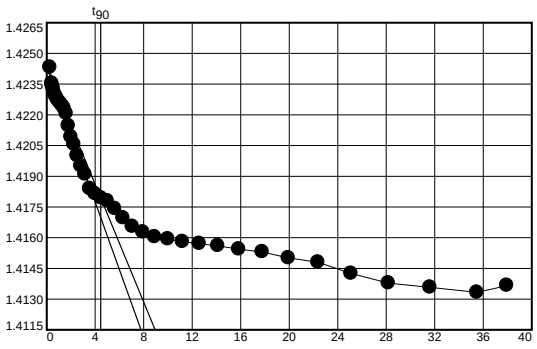
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	1.41596	33	100.1667	1.42386	43	1000.1833	1.42621
24	12.7333	1.41677	34	126.0500	1.42435	44	1259.1167	1.42659
25	16.0000	1.41786	35	158.6500	1.42477	45	1440.0833	1.42755
26	20.1000	1.41888	36	199.7000	1.42514			
27	25.2667	1.41993	37	251.3500	1.42546			
28	31.7667	1.42102	38	316.4000	1.42581			
29	39.9667	1.42136	39	398.2833	1.42592			
30	50.2833	1.42191	40	501.3667	1.42598			
31	63.2500	1.42239	41	631.1333	1.42610			
32	79.6000	1.42315	42	794.5167	1.42614			

Void Ratio = 1.021 **Compression =** 5.4%

D_0 = 1.4046 **D_{90} =** 1.4198 **D_{100} =** 1.4214 **C_v at 24.40 min. =** 0.080 ft.^{2}/day

Pressure: 500.00 psf | **TEST READINGS** | **Load No. 6**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.42899	24	12.7167	1.41839
2	0.0833	1.42432	25	15.9833	1.41814
3	0.2000	1.42354	26	20.0833	1.41793
4	0.2167	1.42349	27	25.2500	1.41779
5	0.2500	1.42339	28	31.7667	1.41741
6	0.3000	1.42332	29	39.9500	1.41696
7	0.3500	1.42316	30	50.2500	1.41654
8	0.4167	1.42302	31	63.2333	1.41627
9	0.5000	1.42297	32	79.5833	1.41604
10	0.6000	1.42291	33	100.1500	1.41593
11	0.7333	1.42279	34	126.0333	1.41580
12	0.9000	1.42271	35	158.6333	1.41571
13	1.1167	1.42262	36	199.6833	1.41560
14	1.3667	1.42254	37	251.3500	1.41544
15	1.7000	1.42245	38	316.3833	1.41530
16	2.1167	1.42232	39	398.2667	1.41501
17	2.6333	1.42206	40	501.3500	1.41480
18	3.2833	1.42146	41	631.1333	1.41425
19	4.1000	1.42092	42	794.5000	1.41378
20	5.1333	1.42056	43	1000.1833	1.41357
21	6.4333	1.42000	44	1259.1167	1.41333
22	8.0667	1.41950	45	1440.4167	1.41366
23	10.1167	1.41909			



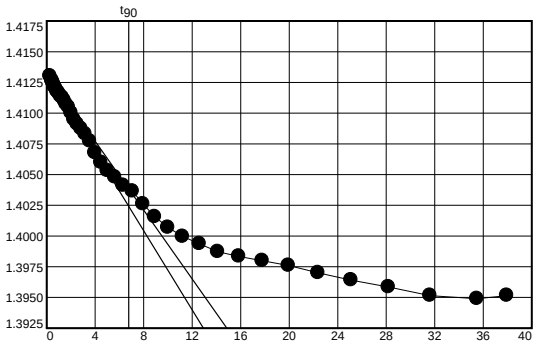
Void Ratio = 1.051 **Compression =** 4.0%

D_0 = 1.4243 **D_{90} =** 1.4179 **D_{100} =** 1.4172 **C_v at 19.85 min. =** 0.097 ft.^{2}/day

Figure B-145f

Pressure: 125.00 psf | **TEST READINGS** | **Load No. 7**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.41488	24	12.7167	1.40773
2	0.0833	1.41302	25	15.9667	1.40677
3	0.2000	1.41269	26	20.0833	1.40598
4	0.2167	1.41263	27	25.2500	1.40531
5	0.2500	1.41255	28	31.7500	1.40479
6	0.3000	1.41246	29	39.9500	1.40411
7	0.3500	1.41232	30	50.2500	1.40364
8	0.4167	1.41217	31	63.2333	1.40260
9	0.5000	1.41211	32	79.5667	1.40157
10	0.6000	1.41199	33	100.1333	1.40069
11	0.7333	1.41179	34	126.0333	1.39996
12	0.9000	1.41172	35	158.6333	1.39937
13	1.1000	1.41157	36	199.6667	1.39872
14	1.3667	1.41138	37	251.3333	1.39834
15	1.7000	1.41129	38	316.3667	1.39799
16	2.1000	1.41105	39	398.2500	1.39760
17	2.6167	1.41075	40	501.3333	1.39700
18	3.2833	1.41051	41	631.1167	1.39641
19	4.1000	1.41003	42	794.5000	1.39585
20	5.1333	1.40948	43	1000.1667	1.39515
21	6.4333	1.40912	44	1259.1000	1.39490
22	8.0667	1.40875	45	1440.0167	1.39515
23	10.1167	1.40831			



Void Ratio = 1.090 **Compression =** 2.1%

D_0 = 1.4133 **D_{90} =** 1.4038 **D_{100} =** 1.4028 **C_V at 45.72 min. =** 0.044 ft.^{2}/day

Pressure: 250.00 psf | **TEST READINGS** | **Load No. 8**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.39495	12	0.9000	1.39619
2	0.1000	1.39590	13	1.1167	1.39626
3	0.2000	1.39590	14	1.3833	1.39626
4	0.2333	1.39595	15	1.7000	1.39633
5	0.2667	1.39591	16	2.1167	1.39640
6	0.3000	1.39591	17	2.6333	1.39648
7	0.3500	1.39601	18	3.2833	1.39662
8	0.4167	1.39607	19	4.1167	1.39673
9	0.5000	1.39609	20	5.1333	1.39689
10	0.6167	1.39616	21	6.4333	1.39701
11	0.7333	1.39613	22	8.0833	1.39712

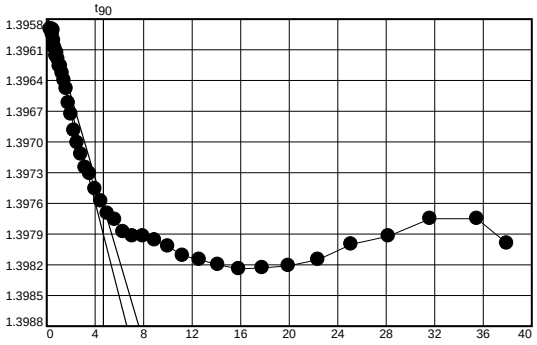


Figure B-145g

Pressure: 250.00 psf	TEST READINGS (continued)	Load No. 8

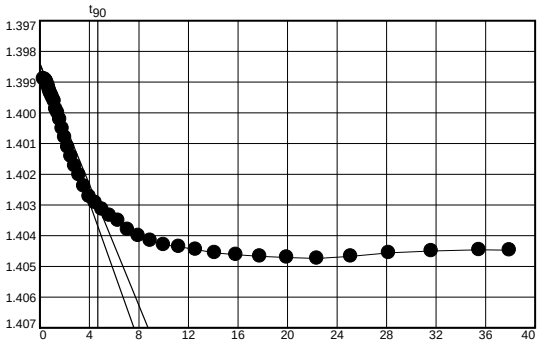
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	1.39725	33	100.1500	1.39802	43	1000.1833	1.39775
24	12.7167	1.39731	34	126.0500	1.39811	44	1259.1167	1.39775
25	15.9833	1.39746	35	158.6500	1.39815	45	1440.0333	1.39799
26	20.0833	1.39758	36	199.6833	1.39820			
27	25.2667	1.39770	37	251.3500	1.39824			
28	31.7667	1.39776	38	316.4000	1.39823			
29	39.9500	1.39788	39	398.2667	1.39821			
30	50.2667	1.39792	40	501.3500	1.39815			
31	63.2333	1.39792	41	631.1333	1.39800			
32	79.5833	1.39796	42	794.5167	1.39792			

Void Ratio = 1.084 **Compression =** 2.4%

D_0 = 1.3957 **D_{90} =** 1.3976 **D_{100} =** 1.3978 **C_V at 21.90 min. =** 0.092 ft.^{2}/day

Pressure: 500.00 psf	TEST READINGS	Load No. 9

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.39724	24	12.7333	1.40239
2	0.1000	1.39890	25	16.0000	1.40273
3	0.2000	1.39892	26	20.1000	1.40293
4	0.2333	1.39897	27	25.2667	1.40314
5	0.2667	1.39897	28	31.7833	1.40334
6	0.3167	1.39898	29	39.9667	1.40351
7	0.3667	1.39907	30	50.2833	1.40380
8	0.4333	1.39908	31	63.2500	1.40400
9	0.5167	1.39917	32	79.6000	1.40416
10	0.6167	1.39926	33	100.1667	1.40430
11	0.7500	1.39935	34	126.0667	1.40436
12	0.9167	1.39943	35	158.6667	1.40445
13	1.1167	1.39951	36	199.7000	1.40456
14	1.3833	1.39962	37	251.3667	1.40462
15	1.7167	1.39988	38	316.4000	1.40467
16	2.1333	1.40000	39	398.2833	1.40471
17	2.6500	1.40022	40	501.3667	1.40474
18	3.3000	1.40051	41	631.1500	1.40467
19	4.1167	1.40080	42	794.5167	1.40456
20	5.1500	1.40112	43	1000.2000	1.40450
21	6.4500	1.40142	44	1259.1333	1.40446
22	8.0833	1.40173	45	1440.0333	1.40447
23	10.1500	1.40202			



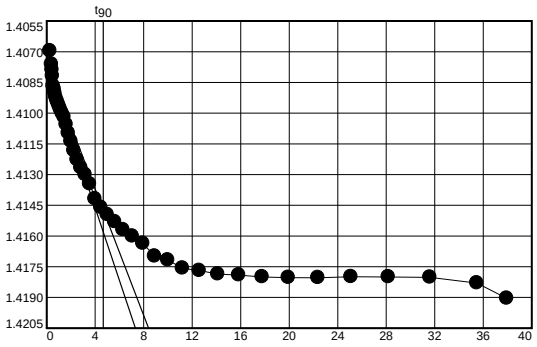
Void Ratio = 1.070 **Compression =** 3.1%

D_0 = 1.3984 **D_{90} =** 1.4030 **D_{100} =** 1.4035 **C_V at 21.90 min. =** 0.092 ft.^{2}/day

Figure B-145h

Pressure: 1000.00 psf	TEST READINGS	Load No. 10

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.40378	24	12.7167	1.41346
2	0.0833	1.40696	25	15.9833	1.41419
3	0.1833	1.40761	26	20.0833	1.41461
4	0.2167	1.40789	27	25.2500	1.41496
5	0.2500	1.40819	28	31.7667	1.41531
6	0.3000	1.40867	29	39.9500	1.41570
7	0.3500	1.40876	30	50.2667	1.41602
8	0.4167	1.40883	31	63.2333	1.41637
9	0.5000	1.40902	32	79.5833	1.41699
10	0.6000	1.40922	33	100.1500	1.41718
11	0.7333	1.40937	34	126.0500	1.41758
12	0.9000	1.40950	35	158.6500	1.41769
13	1.1167	1.40967	36	199.6833	1.41786
14	1.3667	1.40984	37	251.3500	1.41791
15	1.7000	1.41001	38	316.4000	1.41800
16	2.1167	1.41019	39	398.2667	1.41803
17	2.6333	1.41056	40	501.3500	1.41804
18	3.2833	1.41097	41	631.1333	1.41799
19	4.1000	1.41138	42	794.5000	1.41800
20	5.1333	1.41184	43	1000.1833	1.41802
21	6.4333	1.41228	44	1259.1167	1.41830
22	8.0667	1.41267	45	1440.3833	1.41905
23	10.1333	1.41301			



Void Ratio = 1.039 **Compression =** 4.5%

D_0 = 1.4075 **D_{90} =** 1.4147 **D_{100} =** 1.4155 **C_V at 21.73 min. =** 0.090 ft.^{2}/day

Pressure: 2000.00 psf	TEST READINGS	Load No. 11

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.41797	12	0.9167	1.42268
2	0.1000	1.42115	13	1.1167	1.42304
3	0.2000	1.42136	14	1.3833	1.42352
4	0.2333	1.42144	15	1.7167	1.42393
5	0.2667	1.42149	16	2.1167	1.42436
6	0.3000	1.42156	17	2.6500	1.42476
7	0.3667	1.42166	18	3.3000	1.42515
8	0.4167	1.42186	19	4.1167	1.42555
9	0.5167	1.42202	20	5.1500	1.42604
10	0.6167	1.42212	21	6.4500	1.42641
11	0.7500	1.42238	22	8.0833	1.42703

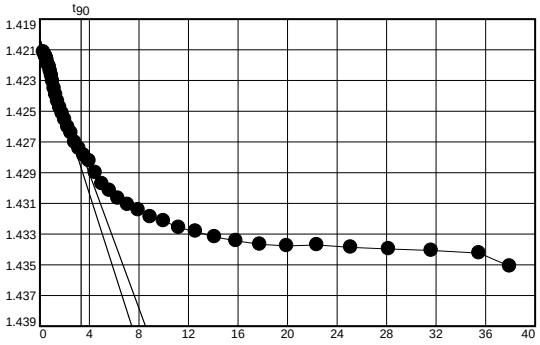


Figure B-145i

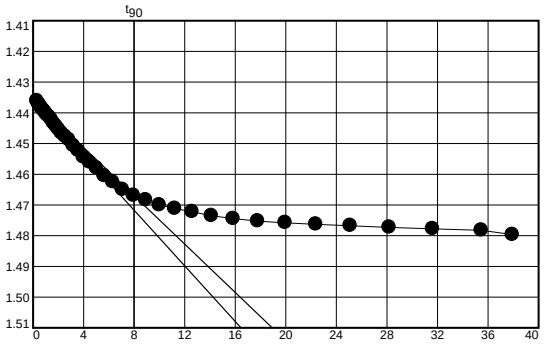
Pressure: 2000.00 psf	TEST READINGS (continued)	Load No. 11

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1500	1.42744	33	100.1833	1.43215	43	1000.2167	1.43407
24	12.7500	1.42788	34	126.0667	1.43258	44	1259.1500	1.43424
25	16.0000	1.42824	35	158.6667	1.43283	45	1440.3333	1.43510
26	20.1167	1.42900	36	199.7167	1.43319			
27	25.2833	1.42974	37	251.3667	1.43344			
28	31.7833	1.43016	38	316.4167	1.43367			
29	39.9667	1.43068	39	398.3000	1.43377			
30	50.2833	1.43109	40	501.3833	1.43371			
31	63.2667	1.43144	41	631.1500	1.43387			
32	79.6000	1.43188	42	794.5333	1.43397			

Void Ratio = 1.005 **Compression =** 6.1%
D_0 = 1.4203 **D_{90} =** 1.4276 **D_{100} =** 1.4284 **C_V at 11.10 min. =** 0.171 ft.^{2}/day

Pressure: 4000.00 psf	TEST READINGS	Load No. 12

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.43225	24	12.7333	1.45228
2	0.1000	1.43614	25	16.0000	1.45444
3	0.2000	1.43703	26	20.1000	1.45608
4	0.2333	1.43719	27	25.2667	1.45798
5	0.2667	1.43749	28	31.7667	1.46050
6	0.3000	1.43770	29	39.9500	1.46253
7	0.3500	1.43798	30	50.2667	1.46500
8	0.4167	1.43827	31	63.2500	1.46689
9	0.5000	1.43856	32	79.5833	1.46836
10	0.6167	1.43894	33	100.1500	1.47002
11	0.7500	1.43934	34	126.0500	1.47115
12	0.9167	1.43977	35	158.6500	1.47223
13	1.1167	1.44040	36	199.6833	1.47354
14	1.3833	1.44089	37	251.3500	1.47444
15	1.7000	1.44138	38	316.3833	1.47527
16	2.1167	1.44221	39	398.2667	1.47581
17	2.6333	1.44335	40	501.3500	1.47630
18	3.2833	1.44428	41	631.1333	1.47677
19	4.1167	1.44538	42	794.5000	1.47730
20	5.1333	1.44662	43	1000.1833	1.47779
21	6.4500	1.44765	44	1259.1167	1.47825
22	8.0833	1.44880	45	1440.0333	1.47966
23	10.1333	1.45065			

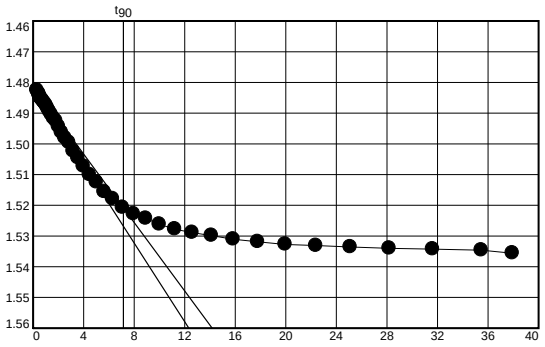


Void Ratio = 0.910 **Compression =** 10.6%
D_0 = 1.4355 **D_{90} =** 1.4669 **D_{100} =** 1.4704 **C_V at 63.64 min. =** 0.028 ft.^{2}/day

Figure B-145j

Pressure: 8000.00 psf	TEST READINGS	Load No. 13

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.47717	24	12.7167	1.50454
2	0.1000	1.48251	25	15.9833	1.50723
3	0.2000	1.48348	26	20.0833	1.51001
4	0.2333	1.48377	27	25.2500	1.51251
5	0.2667	1.48423	28	31.7667	1.51563
6	0.3000	1.48461	29	39.9500	1.51790
7	0.3500	1.48491	30	50.2667	1.52073
8	0.4167	1.48525	31	63.2500	1.52279
9	0.5167	1.48555	32	79.5833	1.52429
10	0.6167	1.48598	33	100.1500	1.52619
11	0.7500	1.48646	34	126.0500	1.52779
12	0.9000	1.48685	35	158.6500	1.52886
13	1.1167	1.48749	36	199.6833	1.52987
14	1.3833	1.48839	37	251.3500	1.53105
15	1.7000	1.48946	38	316.4000	1.53188
16	2.1167	1.49046	39	398.2667	1.53274
17	2.6333	1.49160	40	501.3500	1.53310
18	3.2833	1.49254	41	631.1333	1.53357
19	4.1000	1.49436	42	794.5000	1.53399
20	5.1333	1.49622	43	1000.1833	1.53425
21	6.4333	1.49803	44	1259.1167	1.53460
22	8.0833	1.49954	45	1440.3833	1.53560
23	10.1333	1.50236			



Void Ratio = 0.790 **Compression =** 16.2%

D_0 = 1.4810 **D_{90} =** 1.5209 **D_{100} =** 1.5253 **C_V at 51.10 min. =** 0.031 ft.^{2}/day

Pressure: 16000.00 psf	TEST READINGS	Load No. 14

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.53125	12	0.9167	1.54161
2	0.1000	1.53693	13	1.1333	1.54240
3	0.2000	1.53847	14	1.3833	1.54342
4	0.2333	1.53848	15	1.7167	1.54443
5	0.2667	1.53873	16	2.1333	1.54504
6	0.3000	1.53899	17	2.6500	1.54628
7	0.3667	1.53924	18	3.3000	1.54782
8	0.4333	1.53963	19	4.1167	1.54901
9	0.5167	1.53993	20	5.1500	1.55054
10	0.6167	1.54046	21	6.4500	1.55254
11	0.7500	1.54098	22	8.0833	1.55425

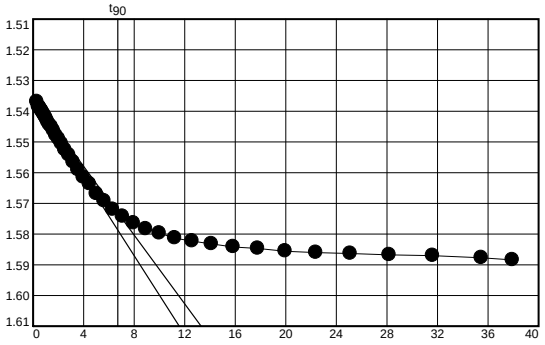


Figure B-145k

Pressure: 16000.00 psf	TEST READINGS (continued)	Load No. 14

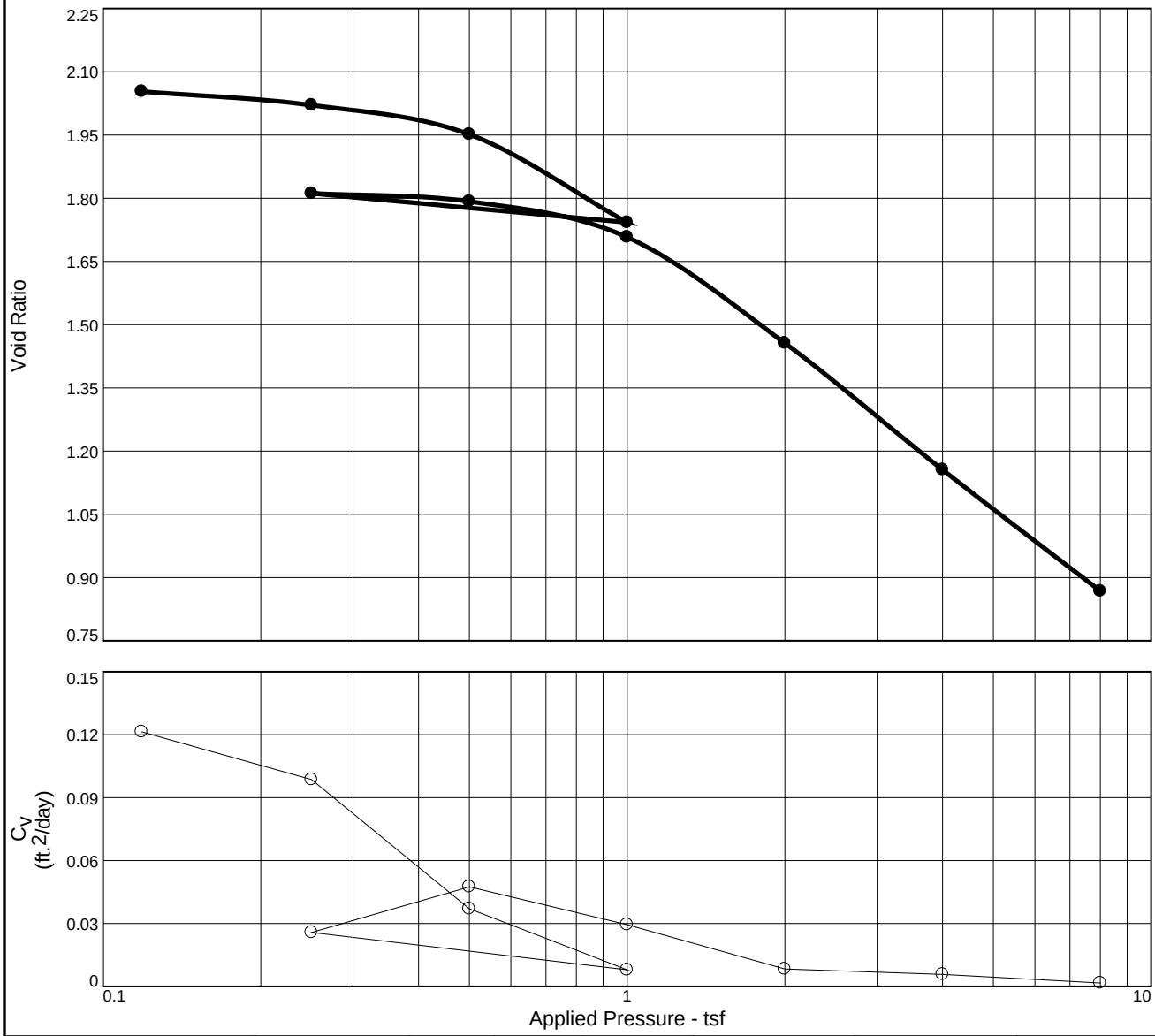
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1500	1.55653	33	100.1667	1.57972	43	1000.1833	1.58704
24	12.7333	1.55903	34	126.0500	1.58132	44	1259.1167	1.58773
25	16.0000	1.56148	35	158.6500	1.58229	45	1440.3500	1.58839
26	20.1000	1.56365	36	199.6833	1.58320			
27	25.2667	1.56690	37	251.3500	1.58419			
28	31.7833	1.56922	38	316.4000	1.58466			
29	39.9667	1.57198	39	398.2833	1.58557			
30	50.2833	1.57422	40	501.3667	1.58602			
31	63.2500	1.57642	41	631.1333	1.58634			
32	79.6000	1.57831	42	794.5167	1.58674			

Void Ratio = 0.678 **Compression =** 21.5%

D_0 = 1.5356 **D_{90} =** 1.5731 **D_{100} =** 1.5773 **C_V at 44.90 min. =** 0.031 ft.^{2}/day

Figure B-145l

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	USCS	AASHTO	Initial Void Ratio
Saturation	Moisture							
99.4 %	74.6 %	56.0	67	40	2.746	CH		2.060

MATERIAL DESCRIPTION

Gray fat clay with trace organics

Project No. 23A177 **Client:** Geoengineers, Inc.

Project: Chandeleur Island Restoration

Source of Sample: CI-22 **Depth:** 18-20ft

ADAPTIVE
MANAGEMENT AND ENGINEERING

Remarks:
Swell pressure = 237.11 psf

Figure B-146a

Tested By: JSA **Checked By:** VT

CONSOLIDATION TEST DATA

9/27/2023

Client: Geoengineers, Inc.
Project: Chandeleur Island Restoration
Project Number: 23A177
Location: CI-22
Depth: 18-20ft
Material Description: Gray fat clay with trace organics
Liquid Limit: 67 **Plasticity Index:** 40
USCS: CH
Testing Remarks: Swell pressure = 237.11 psf
Tested by: JSA **Checked by:** VT

Test Specimen Data

NATURAL MOISTURE		VOID RATIO		AFTER TEST	
Wet w+t =	97.10 g.	Spec. Gr. =	2.746	Wet w+t =	133.56 g.
Dry w+t =	68.46 g.	Est. Ht. Solids =	0.327 in.	Dry w+t =	101.77 g.
Tare Wt. =	30.06 g.	Init. V.R. =	2.060	Tare Wt. =	31.71 g.
Moisture =	74.6 %	Init. Sat. =	99.4 %	Moisture =	45.4 %

UNIT WEIGHT		TEST START			
Height =	1.000 in.	Height =	1.000 in.	Dry Wt. =	70.06 g.
Diameter =	2.499 in.	Diameter =	2.499 in.		
Weight =	125.91 g.				
Dry Dens. =	56.0 pcf				

End-Of-Load Summary

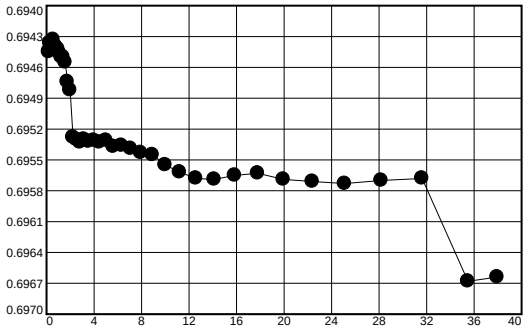
Pressure (psf)	Final Dial (in.)	Deformation (in.)	C_v ($ft.^2$/day)	C_α	Void Ratio	% Strain
start	0.69437	0.00000			2.060	
237.11	0.69664	0.00227	0.121		2.053	0.2 Comprs.
500.00	0.70726	0.01289	0.099		2.021	1.3 Comprs.
1000.00	0.72991	0.03554	0.037		1.952	3.6 Comprs.
2000.00	0.79817	0.10380	0.008		1.743	10.4 Comprs.
500.00	0.77565	0.08128	0.026		1.812	8.1 Comprs.
1000.00	0.78194	0.08757	0.047		1.792	8.8 Comprs.
2000.00	0.80959	0.11522	0.029		1.708	11.5 Comprs.
4000.00	0.89177	0.19740	0.008		1.456	19.7 Comprs.
8000.00	0.99000	0.29563	0.006		1.156	29.6 Comprs.
16000.00	1.08400	0.38963	0.002		0.868	39.0 Comprs.

Compression index (C_c), tsf = 1.00 **Preconsolidation pressure (P_p), tsf =** 0.7 **Void ratio at P_p (e_m) =** 1.880

Figure B-146b

Pressure: 237.11 psf | **TEST READINGS** | **Load No. 1**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.69437	23	12.5500	0.69532
2	0.0333	0.69445	24	15.8167	0.69531
3	0.0500	0.69444	25	19.9167	0.69533
4	0.0833	0.69436	26	25.0833	0.69531
5	0.1333	0.69439	27	31.5833	0.69537
6	0.1833	0.69439	28	39.8000	0.69536
7	0.2500	0.69440	29	50.1167	0.69539
8	0.3333	0.69433	30	63.1000	0.69543
9	0.4333	0.69441	31	79.4333	0.69545
10	0.5667	0.69439	32	100.0000	0.69555
11	0.7333	0.69444	33	125.9000	0.69562
12	0.9500	0.69442	34	158.5000	0.69568
13	1.2000	0.69446	35	199.5333	0.69569
14	1.5333	0.69450	36	251.2000	0.69565
15	1.9500	0.69450	37	316.2333	0.69563
16	2.4667	0.69455	38	398.1167	0.69569
17	3.1167	0.69474	39	501.2000	0.69571
18	3.9333	0.69482	40	630.9833	0.69573
19	4.9667	0.69528	41	794.3500	0.69570
20	6.2667	0.69530	42	1000.0167	0.69568
21	7.9000	0.69533	43	1258.9500	0.69668
22	9.9667	0.69530	44	1440.0667	0.69664



Void Ratio = 2.053 **Compression =** 0.2%

D_0 = 0.6942 **D_{90} =** 0.6953 **D_{100} =** 0.6954 **C_v at 17.43 min. =** 0.121 ft.^{2}/day

Pressure: 500.00 psf | **TEST READINGS** | **Load No. 2**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.69546	14	1.3667	0.69800
2	0.1000	0.69651	15	1.7000	0.69826
3	0.2000	0.69693	16	2.1167	0.69839
4	0.2333	0.69693	17	2.6333	0.69855
5	0.2667	0.69703	18	3.2833	0.69886
6	0.3000	0.69706	19	4.1000	0.69889
7	0.3500	0.69710	20	5.1333	0.69946
8	0.4167	0.69719	21	6.4333	0.70000
9	0.5000	0.69741	22	8.0667	0.70060
10	0.6000	0.69761	23	10.1333	0.70133
11	0.7333	0.69771	24	12.7167	0.70167
12	0.9000	0.69789	25	15.9833	0.70186
13	1.1167	0.69799	26	20.0833	0.70202

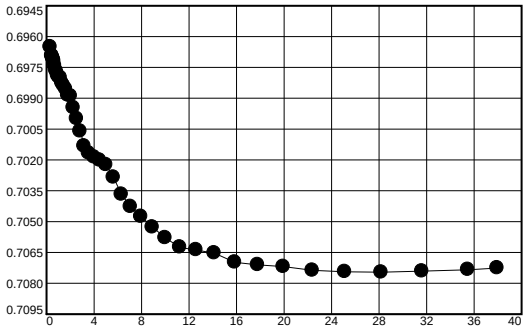


Figure B-146c

Pressure: 500.00 psf	TEST READINGS (continued)	Load No. 2

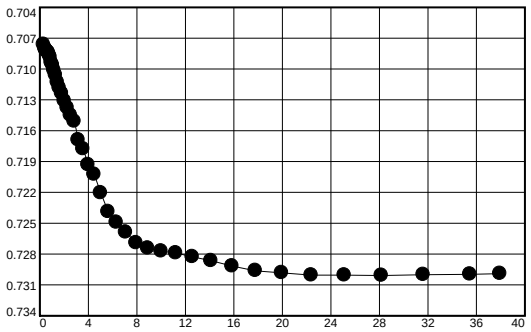
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
27	25.2500	0.70224	37	251.3667	0.70698
28	31.7500	0.70285	38	316.4000	0.70710
29	39.9833	0.70368	39	398.2833	0.70719
30	50.2833	0.70428	40	501.3667	0.70737
31	63.2667	0.70475	41	631.1333	0.70744
32	79.6000	0.70527	42	794.5167	0.70746
33	100.1667	0.70579	43	1000.1833	0.70741
34	126.0667	0.70625	44	1259.1167	0.70734
35	158.6667	0.70638	45	1440.2500	0.70726
36	199.7000	0.70653			

Void Ratio = 2.021 **Compression =** 1.3%

D_0 = 0.6959 **D_{90} =** 0.7021 **D_{100} =** 0.7028 **C_v at 21.20 min. =** 0.099 ft.^{2}/day

Pressure: 1000.00 psf	TEST READINGS	Load No. 3

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.70599	24	12.7167	0.71778
2	0.1000	0.70762	25	15.9833	0.71933
3	0.2000	0.70803	26	20.1000	0.72026
4	0.2167	0.70804	27	25.2667	0.72206
5	0.2500	0.70814	28	31.7667	0.72389
6	0.3000	0.70823	29	39.9500	0.72493
7	0.3500	0.70830	30	50.2667	0.72588
8	0.4167	0.70833	31	63.2333	0.72692
9	0.5000	0.70839	32	79.5833	0.72743
10	0.6000	0.70862	33	100.1500	0.72773
11	0.7333	0.70884	34	126.0500	0.72790
12	0.9000	0.70936	35	158.6333	0.72827
13	1.1167	0.70962	36	199.6833	0.72865
14	1.3667	0.71012	37	251.3500	0.72917
15	1.7000	0.71058	38	316.3833	0.72963
16	2.1167	0.71128	39	398.2667	0.72983
17	2.6333	0.71183	40	501.3500	0.73005
18	3.2833	0.71236	41	631.1167	0.73005
19	4.1000	0.71309	42	794.5000	0.73009
20	5.1333	0.71378	43	1000.1667	0.73001
21	6.4333	0.71450	44	1259.1000	0.72997
22	8.0667	0.71510	45	1440.4500	0.72991
23	10.1333	0.71692			



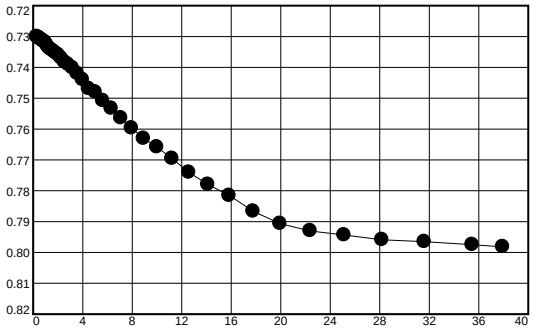
Void Ratio = 1.952 **Compression =** 3.6%

D_0 = 0.7066 **D_{90} =** 0.7262 **D_{100} =** 0.7284 **C_v at 54.58 min. =** 0.037 ft.^{2}/day

Figure B-146d

Pressure: 2000.00 psf	TEST READINGS	Load No. 4

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.72808	24	12.7167	0.74201
2	0.0833	0.73009	25	15.9833	0.74397
3	0.2000	0.73035	26	20.0833	0.74689
4	0.2167	0.73052	27	25.2500	0.74808
5	0.2500	0.73062	28	31.7500	0.75078
6	0.3000	0.73067	29	39.9833	0.75329
7	0.3500	0.73083	30	50.2833	0.75643
8	0.4167	0.73101	31	63.2667	0.75968
9	0.5000	0.73114	32	79.6000	0.76308
10	0.6000	0.73143	33	100.1667	0.76587
11	0.7333	0.73156	34	126.0667	0.76958
12	0.9000	0.73182	35	158.6667	0.77408
13	1.1167	0.73241	36	199.7000	0.77800
14	1.3667	0.73313	37	251.3667	0.78156
15	1.7000	0.73378	38	316.4167	0.78667
16	2.1000	0.73424	39	398.2833	0.79067
17	2.6167	0.73471	40	501.3667	0.79303
18	3.2833	0.73532	41	631.1500	0.79436
19	4.1000	0.73591	42	794.5167	0.79590
20	5.1333	0.73702	43	1000.1833	0.79652
21	6.4333	0.73822	44	1259.1167	0.79750
22	8.0667	0.73903	45	1440.0667	0.79817
23	10.1333	0.74021			



Void Ratio = 1.743 **Compression =** 10.4%

D_0 = 0.7284 **D_{90} =** 0.7803 **D_{100} =** 0.7860 **C_V at 232.07 min. =** 0.008 ft.^{2}/day

Pressure: 500.00 psf	TEST READINGS	Load No. 5

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.79996	13	1.1167	0.79557
2	0.1000	0.79789	14	1.3833	0.79529
3	0.2000	0.79759	15	1.7000	0.79507
4	0.2333	0.79753	16	2.1167	0.79437
5	0.2667	0.79745	17	2.6333	0.79370
6	0.3000	0.79745	18	3.2833	0.79337
7	0.3500	0.79728	19	4.1167	0.79313
8	0.4167	0.79721	20	5.1333	0.79257
9	0.5000	0.79695	21	6.4333	0.79190
10	0.6167	0.79654	22	8.0667	0.79151
11	0.7500	0.79609	23	10.1333	0.79061
12	0.9167	0.79586	24	12.7333	0.78908

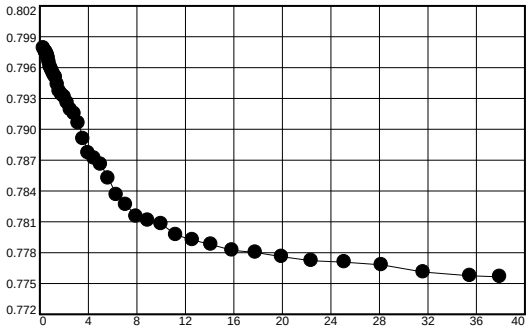


Figure B-146e

Pressure: 500.00 psf	TEST READINGS (continued)	Load No. 5

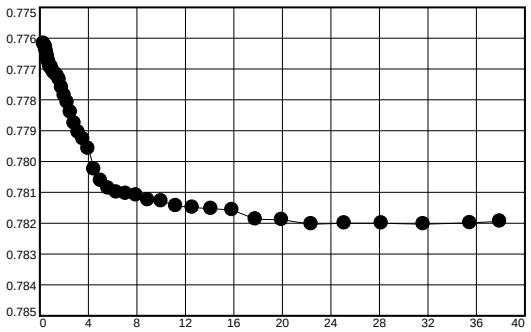
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
25	15.9833	0.78770	35	158.6833	0.77923	45	1440.3000	0.77565
26	20.1000	0.78718	36	199.7167	0.77879			
27	25.2667	0.78658	37	251.3833	0.77823			
28	31.7667	0.78524	38	316.4167	0.77802			
29	40.0000	0.78362	39	398.3000	0.77761			
30	50.3000	0.78267	40	501.3833	0.77721			
31	63.2833	0.78152	41	631.1500	0.77708			
32	79.6167	0.78113	42	794.5333	0.77681			
33	100.1833	0.78079	43	1000.2000	0.77611			
34	126.0833	0.77973	44	1259.1333	0.77575			

Void Ratio = 1.812 **Compression =** 8.1%

D_0 = 0.7988 **D_{90} =** 0.7814 **D_{100} =** 0.7795 **C_V at 67.65 min. =** 0.026 ft.^{2}/day

Pressure: 1000.00 psf	TEST READINGS	Load No. 6

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.77552	24	12.7167	0.77927
2	0.1000	0.77617	25	15.9833	0.77958
3	0.2000	0.77626	26	20.0833	0.78025
4	0.2167	0.77628	27	25.2500	0.78062
5	0.2500	0.77635	28	31.7500	0.78087
6	0.3000	0.77642	29	39.9833	0.78100
7	0.3500	0.77653	30	50.2833	0.78104
8	0.4167	0.77659	31	63.2667	0.78109
9	0.5000	0.77672	32	79.6000	0.78125
10	0.6167	0.77681	33	100.1833	0.78128
11	0.7333	0.77694	34	126.0667	0.78144
12	0.9000	0.77693	35	158.6667	0.78149
13	1.1167	0.77705	36	199.7167	0.78153
14	1.3833	0.77712	37	251.3667	0.78157
15	1.7000	0.77717	38	316.4167	0.78187
16	2.1167	0.77723	39	398.3000	0.78189
17	2.6333	0.77734	40	501.3833	0.78203
18	3.2833	0.77760	41	631.1500	0.78200
19	4.1000	0.77786	42	794.5333	0.78200
20	5.1333	0.77808	43	1000.2000	0.78203
21	6.4333	0.77840	44	1259.1333	0.78199
22	8.0667	0.77876	45	1440.0000	0.78194
23	10.1333	0.77905			



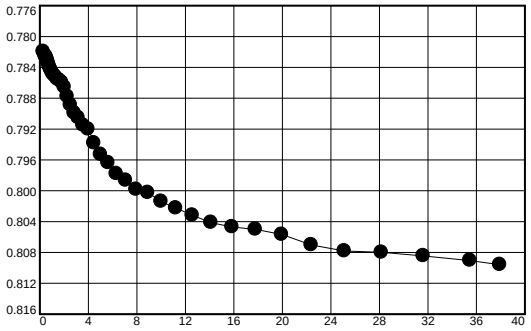
Void Ratio = 1.792 **Compression =** 8.8%

D_0 = 0.7760 **D_{90} =** 0.7810 **D_{100} =** 0.7815 **C_V at 37.42 min. =** 0.047 ft.^{2}/day

Figure B-146f

Pressure: 2000.00 psf **TEST READINGS** **Load No. 7**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.78031	24	12.7167	0.79152
2	0.0833	0.78197	25	15.9667	0.79202
3	0.2000	0.78247	26	20.0833	0.79381
4	0.2167	0.78250	27	25.2500	0.79531
5	0.2500	0.78258	28	31.7500	0.79638
6	0.3000	0.78265	29	39.9667	0.79781
7	0.3500	0.78290	30	50.2833	0.79867
8	0.4167	0.78307	31	63.2667	0.79983
9	0.5000	0.78340	32	79.6000	0.80024
10	0.6000	0.78376	33	100.1667	0.80141
11	0.7333	0.78414	34	126.0667	0.80225
12	0.9000	0.78442	35	158.6667	0.80319
13	1.1167	0.78480	36	199.7167	0.80414
14	1.3667	0.78499	37	251.3667	0.80470
15	1.7000	0.78521	38	316.4167	0.80501
16	2.1000	0.78553	39	398.3000	0.80567
17	2.6167	0.78566	40	501.3833	0.80703
18	3.2833	0.78593	41	631.1500	0.80782
19	4.1000	0.78655	42	794.5167	0.80799
20	5.1333	0.78778	43	1000.1833	0.80845
21	6.4333	0.78889	44	1259.1167	0.80905
22	8.0667	0.78992	45	1440.1667	0.80959
23	10.1167	0.79054			



Void Ratio = 1.708 **Compression =** 11.5%

D_0 = 0.7815 **D_{90} =** 0.7994 **D_{100} =** 0.8014 **C_V at 58.27 min. =** 0.029 ft.^{2}/day

Pressure: 4000.00 psf **TEST READINGS** **Load No. 8**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.80699	13	1.1167	0.81374
2	0.1000	0.80992	14	1.3833	0.81435
3	0.2000	0.81087	15	1.7000	0.81469
4	0.2333	0.81095	16	2.1167	0.81598
5	0.2667	0.81106	17	2.6333	0.81698
6	0.3000	0.81112	18	3.2833	0.81829
7	0.3667	0.81125	19	4.1000	0.81952
8	0.4333	0.81134	20	5.1333	0.82079
9	0.5167	0.81184	21	6.4333	0.82210
10	0.6167	0.81226	22	8.0667	0.82410
11	0.7500	0.81274	23	10.1333	0.82612
12	0.9167	0.81319	24	12.7167	0.82801

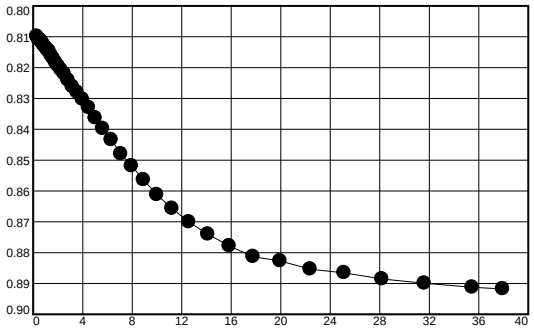


Figure B-146g

Pressure: 4000.00 psf	TEST READINGS (continued)	Load No. 8

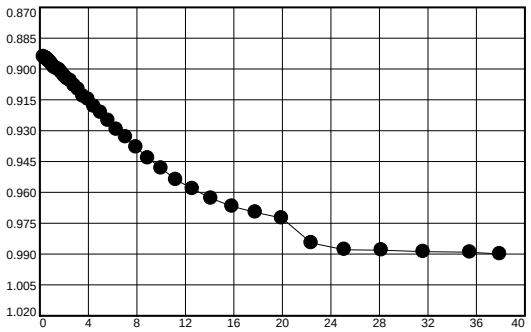
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
25	15.9833	0.83028	35	158.6667	0.87010	45	1440.4500	0.89177
26	20.0833	0.83302	36	199.7167	0.87406			
27	25.2500	0.83637	37	251.3833	0.87784			
28	31.7667	0.83981	38	316.4167	0.88131			
29	39.9833	0.84343	39	398.3000	0.88272			
30	50.3000	0.84804	40	501.3833	0.88537			
31	63.2667	0.85189	41	631.1500	0.88655			
32	79.6167	0.85642	42	794.5333	0.88854			
33	100.1833	0.86126	43	1000.2000	0.88994			
34	126.0833	0.86571	44	1259.1333	0.89123			

Void Ratio = 1.456 **Compression =** 19.7%

D_0 = 0.8082 **D_{90} =** 0.8724 **D_{100} =** 0.8795 **C_V at 181.61 min. =** 0.008 ft.^{2}/day

Pressure: 8000.00 psf	TEST READINGS	Load No. 9

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.88908	24	12.7333	0.91323
2	0.1000	0.89410	25	15.9833	0.91478
3	0.2000	0.89460	26	20.0833	0.91825
4	0.2333	0.89476	27	25.2667	0.92118
5	0.2667	0.89490	28	31.8000	0.92506
6	0.3000	0.89504	29	39.9833	0.92943
7	0.3667	0.89515	30	50.3000	0.93318
8	0.4333	0.89576	31	63.2833	0.93809
9	0.5167	0.89588	32	79.6167	0.94339
10	0.6167	0.89621	33	100.1833	0.94827
11	0.7500	0.89668	34	126.0833	0.95388
12	0.9167	0.89734	35	158.6833	0.95827
13	1.1167	0.89824	36	199.7167	0.96296
14	1.3833	0.89912	37	251.3833	0.96679
15	1.7167	0.89958	38	316.4167	0.96974
16	2.1167	0.90006	39	398.3000	0.97250
17	2.6333	0.90041	40	501.3833	0.98459
18	3.2833	0.90188	41	631.1500	0.98791
19	4.1167	0.90339	42	794.5167	0.98812
20	5.1500	0.90483	43	1000.2000	0.98886
21	6.4500	0.90576	44	1259.1167	0.98912
22	8.0833	0.90808	45	1440.0667	0.99000
23	10.1333	0.90992			



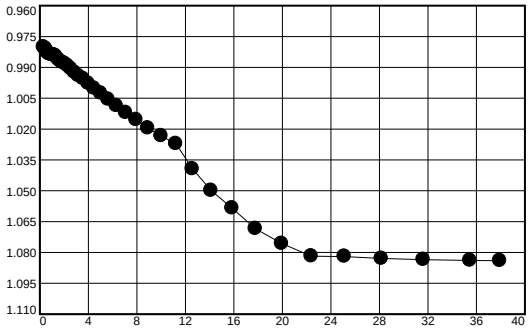
Void Ratio = 1.156 **Compression =** 29.6%

D_0 = 0.8920 **D_{90} =** 0.9637 **D_{100} =** 0.9717 **C_V at 209.20 min. =** 0.006 ft.^{2}/day

Figure B-146h

Pressure: 16000.00 psf	TEST READINGS	Load No. 10

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.99000	24	12.7167	0.99552
2	0.1000	0.98009	25	15.9667	0.99784
3	0.2000	0.98078	26	20.0833	1.00018
4	0.2167	0.98096	27	25.2500	1.00261
5	0.2500	0.98120	28	31.7833	1.00552
6	0.3000	0.98167	29	39.9667	1.00873
7	0.3500	0.98226	30	50.2833	1.01207
8	0.4167	0.98285	31	63.2667	1.01549
9	0.5000	0.98327	32	79.6000	1.01959
10	0.6000	0.98353	33	100.1667	1.02331
11	0.7333	0.98370	34	126.0667	1.02716
12	0.9000	0.98380	35	158.6667	1.03942
13	1.1167	0.98401	36	199.7000	1.04989
14	1.3667	0.98409	37	251.3667	1.05850
15	1.7000	0.98438	38	316.4000	1.06850
16	2.1000	0.98564	39	398.2833	1.07568
17	2.6333	0.98660	40	501.3667	1.08182
18	3.2833	0.98748	41	631.1333	1.08201
19	4.1000	0.98803	42	794.5167	1.08294
20	5.1333	0.98908	43	1000.1833	1.08353
21	6.4333	0.99057	44	1259.1167	1.08389
22	8.0667	0.99238	45	1440.0833	1.08400
23	10.1167	0.99405			

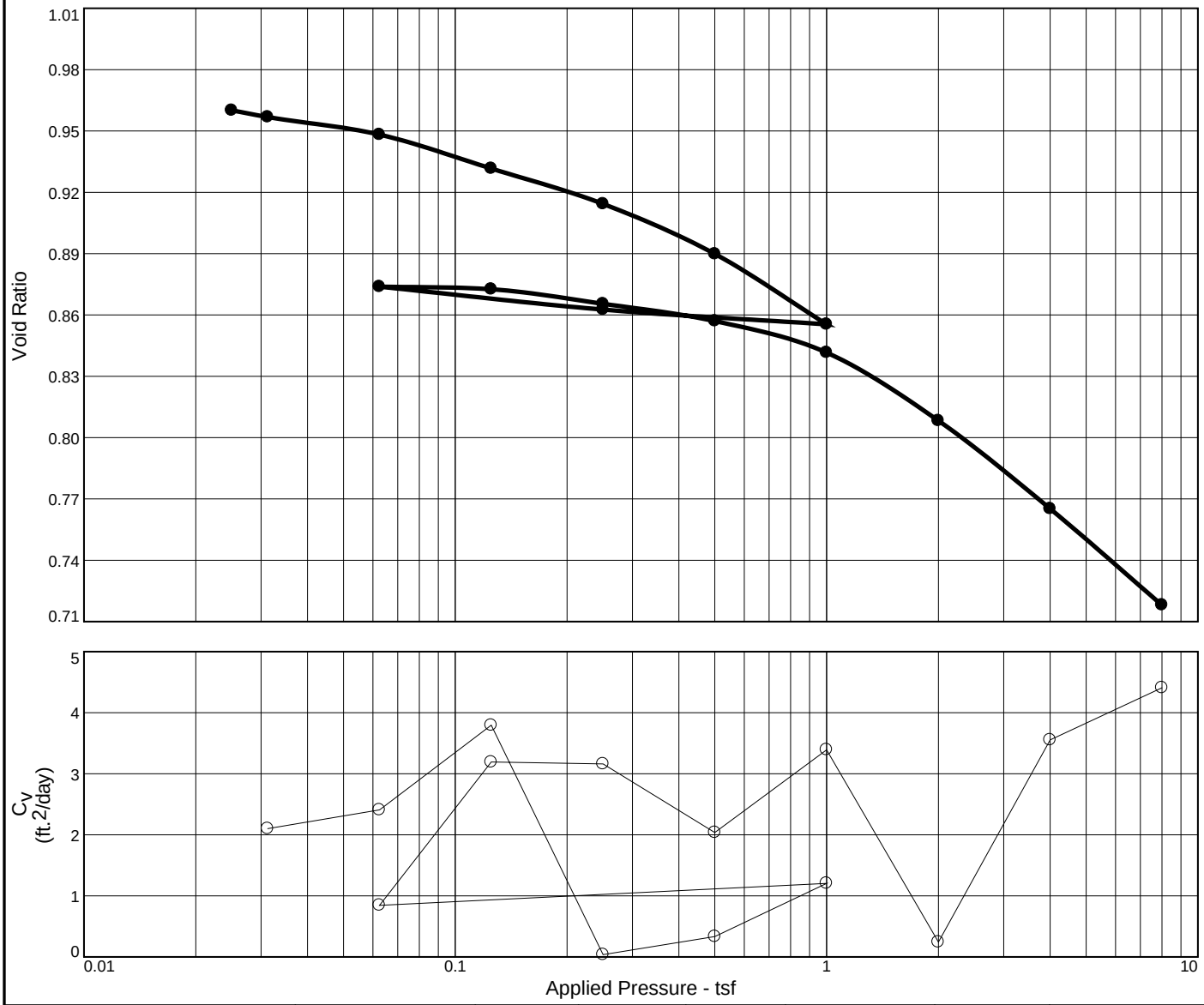


Void Ratio = 0.868 **Compression =** 39.0%

D_0 = 0.9780 **D_{90} =** 1.0819 **D_{100} =** 1.0934 **C_V at 556.38 min. =** 0.002 $ft.^2$/day

Figure B-146i

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	P_c (tsf)	C_c	Initial Void Ratio
Saturation	Moisture							
89.7 %	31.8 %	86.3	60	36	2.710	0.5	0.15	0.960

MATERIAL DESCRIPTION	USCS	AASHTO
Soft gray clay with sand layers	(CH)	

Project No. 18274-022-01 **Client:** CEC

Project: Chandeleur Island Restoration Project (PO-0199)

Location: CI-23 **Depth:** 33-35

Remarks:
Specific gravity was measured.

GeoEngineers

Figure B-147a

Tested By: Dustin Blanchard **Checked By:** J. Aguettant

CONSOLIDATION TEST DATA

12/22/2023

Client: CEC
Project: Chandeleur Island Restoration Project (PO-0199)
Project Number: 18274-022-01
Location: CI-23
Depth: 33-35
Material Description: Soft gray clay with sand layers
Liquid Limit: 60 **Plasticity Index:** 36
USCS: (CH)
Testing Remarks: Specific gravity was measured.
Tested by: Dustin Blanchard **Checked by:** J. Aguettant

Test Specimen Data

NATURAL MOISTURE		VOID RATIO		AFTER TEST	
Wet w+t =	143.58 g.	Spec. Gr. =	2.710	Wet w+t =	176.73 g.
Dry w+t =	113.41 g.	Est. Ht. Solids =	0.510 in.	Dry w+t =	145.04 g.
Tare Wt. =	18.49 g.	Init. V.R. =	0.960	Tare Wt. =	36.73 g.
Moisture =	31.8 %	Init. Sat. =	89.7 %	Moisture =	29.3 %

UNIT WEIGHT		TEST START			
Height =	1.000 in.	Height =	1.000 in.		
Diameter =	2.500 in.	Diameter =	2.500 in.	Dry Wt. =	108.31 g.
Weight =	146.57 g.				
Dry Dens. =	86.3 pcf				

End-Of-Load Summary

Pressure (psf)	Final Dial (in.)	Deformation (in.)	C_v (ft.^{2}/day)	C_α	Void Ratio	% Strain
start	1.78247	0.00000			0.960	
50.00	1.78243	-0.00004		0.003	0.960	0.0 Swell
62.50	1.78410	0.00163	2.101	0.002	0.957	0.2 Comprs.
125.00	1.78848	0.00601	2.408	0.007	0.948	0.6 Comprs.
250.00	1.79695	0.01448	3.795	0.001	0.932	1.4 Comprs.
500.00	1.80578	0.02331	0.039	0.000	0.914	2.3 Comprs.
1000.00	1.81826	0.03579	0.333	0.001	0.890	3.6 Comprs.
2000.00	1.83583	0.05336	1.205	0.002	0.855	5.3 Comprs.
500.00	1.83216	0.04969			0.863	5.0 Comprs.
125.00	1.82644	0.04397	0.845		0.874	4.4 Comprs.
250.00	1.82708	0.04461	3.192	0.000	0.873	4.5 Comprs.
500.00	1.83071	0.04824	3.160	0.000	0.865	4.8 Comprs.
1000.00	1.83503	0.05256	2.037	0.000	0.857	5.3 Comprs.
2000.00	1.84289	0.06042	3.392	0.001	0.842	6.0 Comprs.
4000.00	1.85988	0.07741	0.243	0.001	0.808	7.7 Comprs.
8000.00	1.88187	0.09940	3.555	0.003	0.765	9.9 Comprs.
16000.00	1.90591	0.12344	4.407	0.003	0.718	12.3 Comprs.

Compression index (C_c), tsf = 0.15 **Preconsolidation pressure (P_p), tsf =** 0.5 **Void ratio at P_p (e_m) =** 0.888
Recompression index (C_r) = 0.04

Figure B-147b

Pressure: 50.00 psf	TEST READINGS	Load No. 1

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.78247	16	2.4833	1.78247	31	79.4667	1.78257
2	0.0333	1.78243	17	3.1500	1.78243	32	100.0333	1.78252
3	0.0667	1.78242	18	3.9667	1.78249	33	125.9333	1.78261
4	0.1000	1.78245	19	5.0000	1.78245	34	158.5333	1.78265
5	0.1333	1.78246	20	6.3000	1.78245	35	199.5833	1.78262
6	0.2000	1.78248	21	7.9333	1.78248	36	251.2500	1.78262
7	0.2667	1.78246	22	10.0000	1.78247	37	316.2833	1.78264
8	0.3500	1.78242	23	12.5833	1.78246	38	398.1667	1.78259
9	0.4500	1.78247	24	15.8500	1.78245	39	501.2500	1.78257
10	0.5833	1.78247	25	19.9667	1.78244	40	631.0333	1.78240
11	0.7500	1.78247	26	25.1333	1.78249	41	794.4167	1.78241
12	0.9500	1.78247	27	31.6333	1.78249	42	1000.0833	1.78236
13	1.2167	1.78246	28	39.8333	1.78249	43	1259.0333	1.78227
14	1.5500	1.78247	29	50.1333	1.78251	44	1440.3833	1.78243
15	1.9667	1.78246	30	63.1167	1.78255			

Void Ratio = 0.960 **Swell =** 0.0%

Pressure: 62.50 psf	TEST READINGS	Load No. 2

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.78227	21	6.4833	1.78361
2	0.0833	1.78227	22	8.1167	1.78359
3	0.2000	1.78249	23	10.1833	1.78360
4	0.2333	1.78250	24	12.7667	1.78360
5	0.2667	1.78251	25	16.0333	1.78373
6	0.3000	1.78257	26	20.1333	1.78374
7	0.3667	1.78261	27	25.3167	1.78371
8	0.4333	1.78264	28	31.8167	1.78375
9	0.5167	1.78277	29	40.0167	1.78380
10	0.6333	1.78288	30	50.3167	1.78383
11	0.7667	1.78308	31	63.3000	1.78382
12	0.9333	1.78319	32	79.6500	1.78380
13	1.1500	1.78341	33	100.2167	1.78385
14	1.4000	1.78350	34	126.1167	1.78384
15	1.7333	1.78358	35	158.7167	1.78393
16	2.1500	1.78358	36	199.7667	1.78394
17	2.6667	1.78357	37	251.4333	1.78402
18	3.3167	1.78355	38	316.4833	1.78402
19	4.1500	1.78354	39	398.3667	1.78405
20	5.1833	1.78354	40	501.4500	1.78408

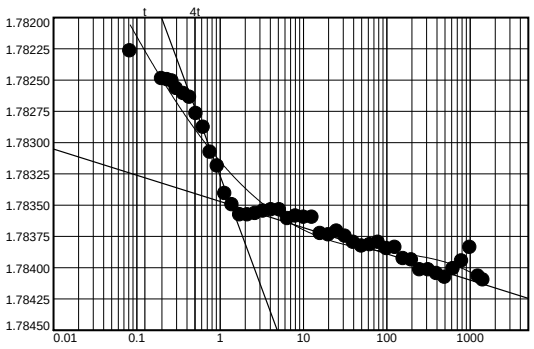


Figure B-147c

Pressure: 62.50 psf	TEST READINGS (continued)	Load No. 2

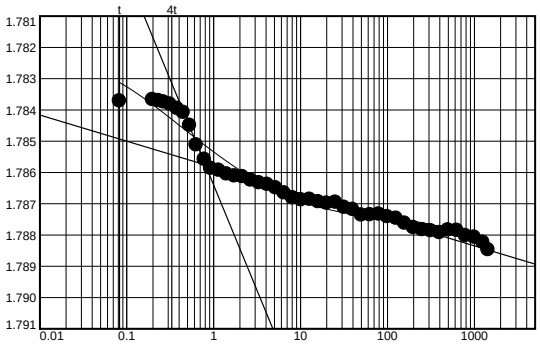
No.	Elapsed Time	Dial Reading
41	631.2167	1.78401
42	794.6000	1.78395
43	1000.2833	1.78384
44	1259.2167	1.78407
45	1440.3167	1.78410

Void Ratio = 0.957 **Compression =** 0.2%

D_0 = 1.7816 **D_{50} =** 1.7826 **D_{100} =** 1.7835 **C_v at 0.23 min. =** 2.101 ft.^{2}/day **C_α =** 0.002

Pressure: 125.00 psf	TEST READINGS	Load No. 3

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.78370	24	12.7833	1.78687
2	0.0833	1.78372	25	16.0500	1.78694
3	0.2000	1.78368	26	20.1667	1.78699
4	0.2333	1.78371	27	25.3333	1.78696
5	0.2667	1.78375	28	31.8500	1.78712
6	0.3167	1.78382	29	40.0333	1.78719
7	0.3833	1.78396	30	50.3500	1.78737
8	0.4500	1.78409	31	63.3333	1.78736
9	0.5333	1.78450	32	79.6667	1.78734
10	0.6333	1.78513	33	100.2500	1.78742
11	0.7833	1.78559	34	126.1500	1.78747
12	0.9333	1.78588	35	158.7500	1.78763
13	1.1500	1.78594	36	199.7833	1.78777
14	1.4167	1.78606	37	251.4500	1.78784
15	1.7500	1.78612	38	316.5000	1.78787
16	2.1500	1.78614	39	398.3833	1.78793
17	2.6833	1.78625	40	501.4667	1.78785
18	3.3333	1.78634	41	631.2333	1.78786
19	4.1500	1.78639	42	794.6167	1.78803
20	5.2000	1.78650	43	1000.3000	1.78808
21	6.5000	1.78666	44	1259.2333	1.78824
22	8.1333	1.78682	45	1440.2833	1.78848
23	10.2000	1.78688			



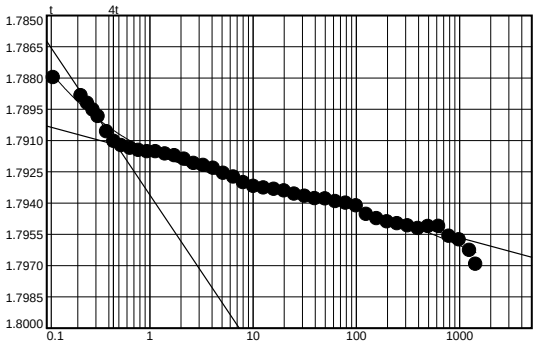
Void Ratio = 0.948 **Compression =** 0.6%

D_0 = 1.7819 **D_{50} =** 1.7839 **D_{100} =** 1.7858 **C_v at 0.20 min. =** 2.408 ft.^{2}/day **C_α =** 0.007

Figure B-147d

Pressure: 250.00 psf	TEST READINGS	Load No. 4

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.78771	24	12.7833	1.79329
2	0.1167	1.78799	25	16.0500	1.79335
3	0.2167	1.78887	26	20.1667	1.79343
4	0.2500	1.78923	27	25.3333	1.79358
5	0.2833	1.78955	28	31.8333	1.79369
6	0.3167	1.78986	29	40.0333	1.79380
7	0.3833	1.79059	30	50.3333	1.79382
8	0.4500	1.79105	31	63.3167	1.79394
9	0.5333	1.79126	32	79.6667	1.79402
10	0.6500	1.79139	33	100.2333	1.79415
11	0.7833	1.79149	34	126.1333	1.79456
12	0.9500	1.79155	35	158.7333	1.79476
13	1.1500	1.79155	36	199.7667	1.79492
14	1.4167	1.79166	37	251.4333	1.79501
15	1.7500	1.79174	38	316.4833	1.79511
16	2.1667	1.79191	39	398.3667	1.79524
17	2.6833	1.79211	40	501.4500	1.79514
18	3.3333	1.79221	41	631.2333	1.79513
19	4.1500	1.79234	42	794.6000	1.79561
20	5.1833	1.79259	43	1000.2833	1.79578
21	6.5000	1.79277	44	1259.2167	1.79629
22	8.1333	1.79303	45	1440.4167	1.79695
23	10.2000	1.79322			



Void Ratio = 0.932 **Compression =** 1.4%

D_0 = 1.7850 **D_{50} =** 1.7881 **D_{100} =** 1.7912 **C_V at 0.13 min. =** 3.795 ft.^{2}/day **C_α =** 0.001

Pressure: 500.00 psf	TEST READINGS	Load No. 5

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.79578	12	0.9167	1.80079
2	0.0833	1.79919	13	1.1333	1.80086
3	0.1833	1.79991	14	1.3833	1.80093
4	0.2167	1.79992	15	1.7167	1.80107
5	0.2667	1.80001	16	2.1333	1.80112
6	0.3000	1.80006	17	2.6667	1.80126
7	0.3667	1.80016	18	3.3167	1.80139
8	0.4333	1.80032	19	4.1500	1.80156
9	0.5167	1.80046	20	5.1833	1.80172
10	0.6167	1.80054	21	6.4833	1.80187
11	0.7500	1.80068	22	8.1167	1.80203

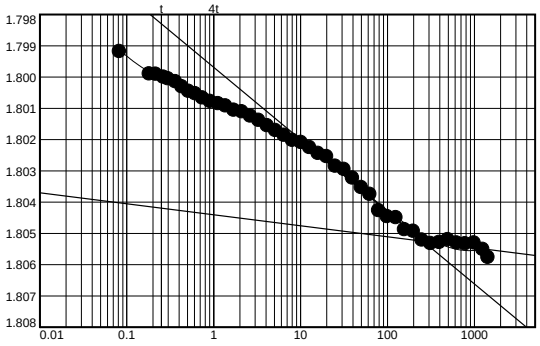


Figure B-147e

Pressure: 500.00 psf	TEST READINGS (continued)	Load No. 5

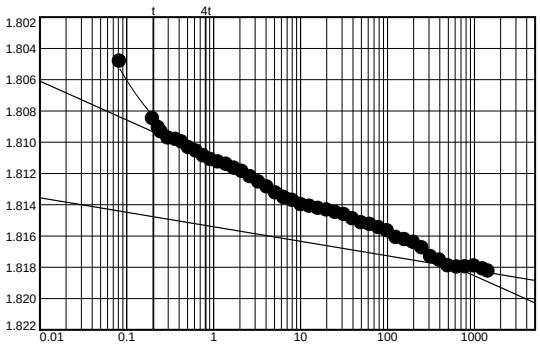
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1833	1.80210	33	100.2500	1.80447	43	1000.3000	1.80532
24	12.7667	1.80226	34	126.1333	1.80451	44	1259.2333	1.80552
25	16.0333	1.80245	35	158.7500	1.80489	45	1440.2667	1.80578
26	20.1500	1.80255	36	199.7833	1.80494			
27	25.3167	1.80286	37	251.4500	1.80522			
28	31.8333	1.80296	38	316.5000	1.80533			
29	40.0167	1.80324	39	398.3833	1.80530			
30	50.3333	1.80354	40	501.4667	1.80521			
31	63.3167	1.80376	41	631.2333	1.80532			
32	79.6667	1.80428	42	794.6167	1.80534			

Void Ratio = 0.914 **Compression =** 2.3%

D_0 = 1.7993 **D_{50} =** 1.8023 **D_{100} =** 1.8053 **C_v at 12.26 min. =** 0.039 ft.^{2}/day **C_α =** 0.000

Pressure: 1000.00 psf	TEST READINGS	Load No. 6

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.80441	24	12.7667	1.81411
2	0.0833	1.80484	25	16.0333	1.81426
3	0.2000	1.80851	26	20.1333	1.81436
4	0.2333	1.80909	27	25.3167	1.81451
5	0.2500	1.80936	28	31.8167	1.81465
6	0.3000	1.80975	29	40.0167	1.81492
7	0.3667	1.80983	30	50.3167	1.81517
8	0.4333	1.81000	31	63.3000	1.81528
9	0.5167	1.81037	32	79.6500	1.81548
10	0.6333	1.81059	33	100.2167	1.81569
11	0.7667	1.81089	34	126.1167	1.81611
12	0.9333	1.81113	35	158.7167	1.81625
13	1.1333	1.81129	36	199.7667	1.81642
14	1.4000	1.81143	37	251.4333	1.81678
15	1.7333	1.81168	38	316.4667	1.81734
16	2.1333	1.81188	39	398.3667	1.81757
17	2.6500	1.81222	40	501.4333	1.81793
18	3.3167	1.81256	41	631.2167	1.81801
19	4.1333	1.81288	42	794.6000	1.81799
20	5.1833	1.81326	43	1000.2667	1.81794
21	6.4833	1.81357	44	1259.2000	1.81813
22	8.1167	1.81374	45	1440.3167	1.81826
23	10.1833	1.81401			



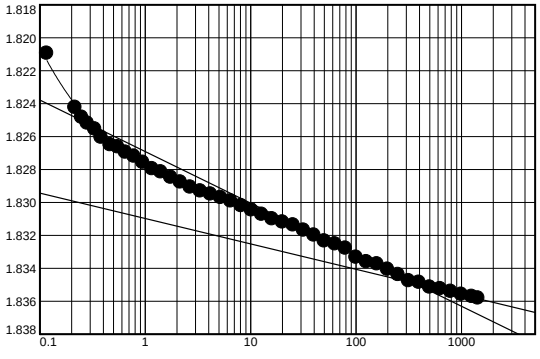
Void Ratio = 0.890 **Compression =** 3.6%

D_0 = 1.8056 **D_{50} =** 1.8118 **D_{100} =** 1.8180 **C_v at 1.39 min. =** 0.333 ft.^{2}/day **C_α =** 0.001

Figure B-147f

Pressure: 2000.00 psf	TEST READINGS	Load No. 7

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.81663	24	12.8000	1.83073
2	0.1167	1.82095	25	16.0667	1.83101
3	0.2167	1.82424	26	20.1833	1.83121
4	0.2500	1.82484	27	25.3500	1.83138
5	0.2833	1.82520	28	31.8667	1.83170
6	0.3333	1.82555	29	40.0500	1.83200
7	0.3833	1.82606	30	50.3667	1.83235
8	0.4667	1.82651	31	63.3500	1.83254
9	0.5500	1.82664	32	79.6833	1.83280
10	0.6500	1.82696	33	100.2667	1.83334
11	0.7833	1.82720	34	126.1667	1.83362
12	0.9500	1.82758	35	158.7667	1.83375
13	1.1667	1.82796	36	199.8000	1.83408
14	1.4167	1.82816	37	251.4667	1.83440
15	1.7500	1.82849	38	316.5167	1.83477
16	2.1667	1.82877	39	398.4000	1.83487
17	2.6833	1.82909	40	501.4833	1.83516
18	3.3500	1.82932	41	631.2667	1.83525
19	4.1667	1.82950	42	794.6333	1.83542
20	5.2000	1.82971	43	1000.3167	1.83559
21	6.5000	1.82993	44	1259.2500	1.83572
22	8.1500	1.83021	45	1440.0667	1.83583
23	10.2167	1.83047			



Void Ratio = 0.855 **Compression =** 5.3%

D_0 = 1.8166 **D_{50} =** 1.8258 **D_{100} =** 1.8349 **C_V at 0.37 min. =** 1.205 ft.^{2}/day **C_α =** 0.002

Pressure: 500.00 psf	TEST READINGS	Load No. 8

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.83784	12	0.9333	1.83329	23	10.1667	1.83277
2	0.1000	1.83672	13	1.1333	1.83323	24	12.7667	1.83267
3	0.2000	1.83462	14	1.4000	1.83313	25	16.0333	1.83260
4	0.2333	1.83434	15	1.7333	1.83314	26	20.1333	1.83258
5	0.2667	1.83418	16	2.1333	1.83310	27	25.3000	1.83254
6	0.3000	1.83400	17	2.6667	1.83303	28	31.8167	1.83257
7	0.3667	1.83387	18	3.3167	1.83298	29	40.0000	1.83252
8	0.4333	1.83378	19	4.1333	1.83294	30	50.3167	1.83245
9	0.5167	1.83364	20	5.1667	1.83289	31	63.3000	1.83244
10	0.6333	1.83350	21	6.4667	1.83286	32	79.6333	1.83231
11	0.7667	1.83337	22	8.1167	1.83280	33	100.2167	1.83231

Figure B-147g

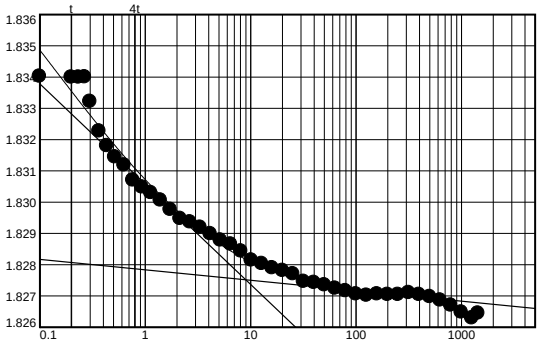
Pressure: 500.00 psf	TEST READINGS (continued)	Load No. 8

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
34	126.1167	1.83236	44	1259.2000	1.83171
35	158.7167	1.83244	45	1440.0667	1.83216
36	199.7500	1.83239			
37	251.4333	1.83231			
38	316.4667	1.83231			
39	398.3500	1.83245			
40	501.4333	1.83238			
41	631.2167	1.83233			
42	794.5833	1.83194			
43	1000.2667	1.83189			

Void Ratio = 0.863 **Compression =** 5.0%

Pressure: 125.00 psf	TEST READINGS	Load No. 9

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.83402	24	12.7833	1.82803
2	0.1000	1.83402	25	16.0500	1.82789
3	0.2000	1.83399	26	20.1500	1.82781
4	0.2333	1.83399	27	25.3167	1.82770
5	0.2667	1.83400	28	31.8333	1.82746
6	0.3000	1.83321	29	40.0167	1.82742
7	0.3667	1.83227	30	50.3333	1.82735
8	0.4333	1.83180	31	63.3167	1.82724
9	0.5167	1.83144	32	79.6500	1.82716
10	0.6333	1.83118	33	100.2333	1.82706
11	0.7667	1.83070	34	126.1167	1.82701
12	0.9333	1.83048	35	158.7167	1.82706
13	1.1333	1.83030	36	199.7667	1.82704
14	1.4000	1.83006	37	251.4333	1.82704
15	1.7333	1.82976	38	316.4667	1.82710
16	2.1500	1.82947	39	398.3500	1.82704
17	2.6667	1.82936	40	501.4500	1.82697
18	3.3333	1.82919	41	631.2167	1.82686
19	4.1500	1.82898	42	794.5833	1.82670
20	5.1833	1.82878	43	1000.2667	1.82648
21	6.4833	1.82865	44	1259.2000	1.82629
22	8.1333	1.82843	45	1440.1333	1.82644
23	10.1833	1.82814			

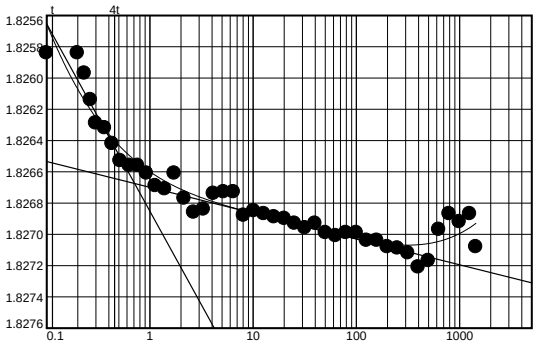


Void Ratio = 0.874 **Compression =** 4.4%
D_0 = 1.8360 **D_{50} =** 1.8318 **D_{100} =** 1.8275 **C_V at 0.53 min. =** 0.845 ft.^{2}/day

Figure B-147h

Pressure: 250.00 psf	TEST READINGS	Load No. 10

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.82581	24	12.7667	1.82687
2	0.1000	1.82584	25	16.0333	1.82689
3	0.2000	1.82584	26	20.1500	1.82690
4	0.2333	1.82597	27	25.3167	1.82693
5	0.2667	1.82614	28	31.8167	1.82696
6	0.3000	1.82629	29	40.0167	1.82693
7	0.3667	1.82632	30	50.3167	1.82699
8	0.4333	1.82642	31	63.3000	1.82701
9	0.5167	1.82653	32	79.6500	1.82699
10	0.6333	1.82656	33	100.2167	1.82699
11	0.7667	1.82656	34	126.1167	1.82704
12	0.9333	1.82661	35	158.7167	1.82704
13	1.1333	1.82669	36	199.7667	1.82708
14	1.4000	1.82671	37	251.4333	1.82709
15	1.7333	1.82661	38	316.4833	1.82712
16	2.1500	1.82677	39	398.3667	1.82721
17	2.6667	1.82686	40	501.4500	1.82717
18	3.3167	1.82684	41	631.2167	1.82697
19	4.1500	1.82674	42	794.6000	1.82687
20	5.1833	1.82673	43	1000.2833	1.82692
21	6.4833	1.82673	44	1259.2000	1.82687
22	8.1167	1.82688	45	1440.0500	1.82708
23	10.1833	1.82685			



Void Ratio = 0.873 **Compression =** 4.5%

D_0 = 1.8251 **D_{50} =** 1.8259 **D_{100} =** 1.8267 **C_V at 0.14 min. =** 3.192 ft.^{2}/day **C_α =** 0.000

Pressure: 500.00 psf	TEST READINGS	Load No. 11

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.82621	12	0.9500	1.82885
2	0.1000	1.82783	13	1.1667	1.82889
3	0.2167	1.82832	14	1.4167	1.82892
4	0.2500	1.82846	15	1.7500	1.82892
5	0.2833	1.82858	16	2.1667	1.82894
6	0.3333	1.82861	17	2.6833	1.82902
7	0.3833	1.82874	18	3.3333	1.82908
8	0.4500	1.82873	19	4.1667	1.82917
9	0.5500	1.82876	20	5.2000	1.82915
10	0.6500	1.82880	21	6.5000	1.82918
11	0.7833	1.82882	22	8.1333	1.82925

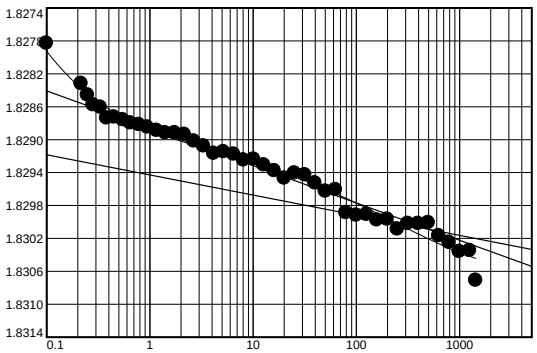


Figure B-147i

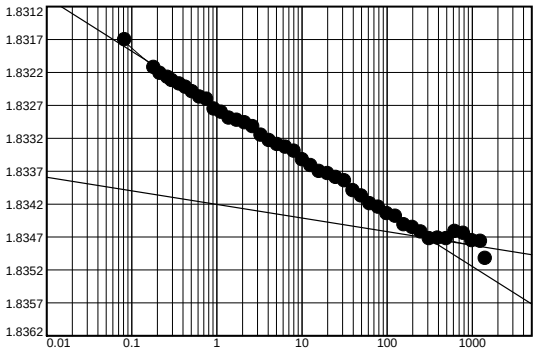
Pressure: 500.00 psf	TEST READINGS (continued)	Load No. 11

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.2000	1.82924	33	100.2333	1.82992	43	1000.2833	1.83036
24	12.7833	1.82931	34	126.1167	1.82991	44	1259.2167	1.83035
25	16.0500	1.82938	35	158.7167	1.82998	45	1440.0833	1.83071
26	20.1500	1.82947	36	199.7667	1.82997			
27	25.3167	1.82941	37	251.4333	1.83009			
28	31.8333	1.82943	38	316.4833	1.83002			
29	40.0167	1.82953	39	398.3667	1.83002			
30	50.3333	1.82963	40	501.4500	1.83001			
31	63.3167	1.82961	41	631.2333	1.83017			
32	79.6500	1.82989	42	794.6000	1.83025			

Void Ratio = 0.865 **Compression =** 4.8%
D_0 = 1.8262 **D_{50} =** 1.8282 **D_{100} =** 1.8301 **C_v at 0.14 min. =** 3.160 ft.^{2}/day **C_α =** 0.000

Pressure: 1000.00 psf	TEST READINGS	Load No. 12

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.82966	24	12.7833	1.83362
2	0.0833	1.83171	25	16.0500	1.83371
3	0.1833	1.83213	26	20.1500	1.83374
4	0.2167	1.83222	27	25.3333	1.83380
5	0.2667	1.83228	28	31.8333	1.83385
6	0.3000	1.83233	29	40.0333	1.83400
7	0.3667	1.83238	30	50.3500	1.83408
8	0.4333	1.83243	31	63.3167	1.83420
9	0.5167	1.83250	32	79.6667	1.83425
10	0.6333	1.83258	33	100.2333	1.83435
11	0.7667	1.83261	34	126.1333	1.83439
12	0.9333	1.83276	35	158.7333	1.83452
13	1.1333	1.83281	36	199.7833	1.83456
14	1.4000	1.83290	37	251.4500	1.83463
15	1.7333	1.83293	38	316.5000	1.83473
16	2.1500	1.83297	39	398.3833	1.83472
17	2.6667	1.83303	40	501.4667	1.83473
18	3.3333	1.83316	41	631.2333	1.83462
19	4.1500	1.83324	42	794.6167	1.83465
20	5.1833	1.83330	43	1000.3000	1.83476
21	6.4833	1.83334	44	1259.2167	1.83477
22	8.1333	1.83340	45	1440.1000	1.83503
23	10.1833	1.83353			

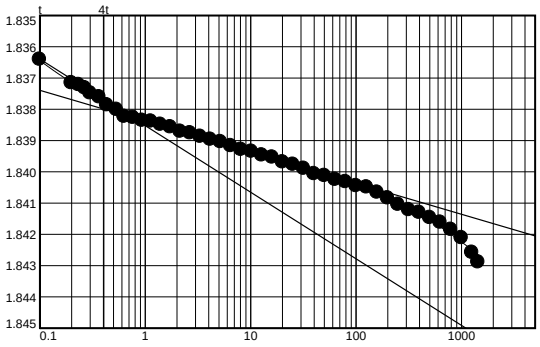


Void Ratio = 0.857 **Compression =** 5.3%
D_0 = 1.8297 **D_{50} =** 1.8322 **D_{100} =** 1.8347 **C_v at 0.22 min. =** 2.037 ft.^{2}/day **C_α =** 0.000

Figure B-147j

Pressure: 2000.00 psf	TEST READINGS	Load No. 13

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.83357	24	12.7667	1.83947
2	0.1000	1.83641	25	16.0333	1.83954
3	0.2000	1.83716	26	20.1333	1.83969
4	0.2333	1.83722	27	25.3167	1.83977
5	0.2667	1.83732	28	31.8167	1.83990
6	0.3000	1.83748	29	40.0000	1.84007
7	0.3667	1.83761	30	50.3167	1.84013
8	0.4333	1.83787	31	63.3000	1.84025
9	0.5333	1.83801	32	79.6500	1.84032
10	0.6333	1.83823	33	100.2167	1.84045
11	0.7667	1.83827	34	126.1167	1.84049
12	0.9333	1.83836	35	158.7167	1.84066
13	1.1333	1.83839	36	199.7500	1.84084
14	1.4000	1.83849	37	251.4167	1.84105
15	1.7333	1.83857	38	316.4667	1.84122
16	2.1500	1.83871	39	398.3500	1.84130
17	2.6667	1.83876	40	501.4333	1.84147
18	3.3333	1.83887	41	631.2000	1.84162
19	4.1500	1.83897	42	794.5833	1.84185
20	5.1833	1.83904	43	1000.2667	1.84211
21	6.4833	1.83917	44	1259.2000	1.84258
22	8.1167	1.83929	45	1440.1333	1.84289
23	10.1833	1.83935			



Void Ratio = 0.842 **Compression =** 6.0%

D_0 = 1.8352 **D_{50} =** 1.8367 **D_{100} =** 1.8383 **C_V at 0.13 min. =** 3.392 ft.^{2}/day **C_α =** 0.001

Pressure: 4000.00 psf	TEST READINGS	Load No. 14

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.84039	12	0.9333	1.85095
2	0.1000	1.84557	13	1.1500	1.85137
3	0.2000	1.84787	14	1.4000	1.85166
4	0.2333	1.84835	15	1.7333	1.85200
5	0.2667	1.84848	16	2.1500	1.85238
6	0.3167	1.84899	17	2.6833	1.85271
7	0.3667	1.84948	18	3.3333	1.85300
8	0.4500	1.84998	19	4.1667	1.85326
9	0.5333	1.85030	20	5.2000	1.85345
10	0.6333	1.85051	21	6.5000	1.85365
11	0.7667	1.85079	22	8.1333	1.85386

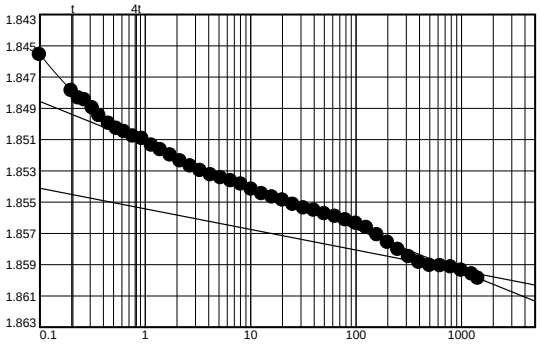


Figure B-147k

Pressure: 4000.00 psf | **TEST READINGS (continued)** | **Load No. 14**

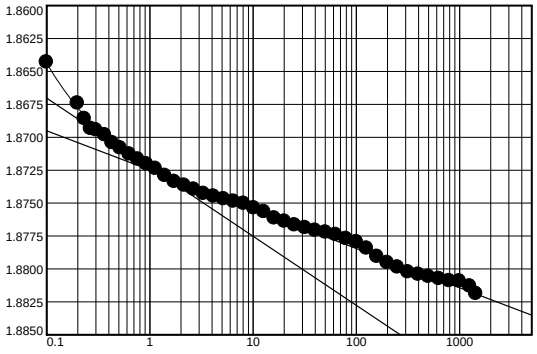
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.2000	1.85418	33	100.2333	1.85637	43	1000.2833	1.85937
24	12.7833	1.85448	34	126.1333	1.85665	44	1259.2167	1.85961
25	16.0500	1.85469	35	158.7333	1.85711	45	1440.3167	1.85988
26	20.1500	1.85489	36	199.7667	1.85759			
27	25.3167	1.85516	37	251.4333	1.85804			
28	31.8333	1.85539	38	316.4833	1.85851			
29	40.0167	1.85554	39	398.3667	1.85887			
30	50.3333	1.85575	40	501.4500	1.85906			
31	63.3167	1.85592	41	631.2333	1.85908			
32	79.6500	1.85615	42	794.6000	1.85916			

Void Ratio = 0.808 **Compression =** 7.7%

D_0 = 1.8449 **D_{50} =** 1.8521 **D_{100} =** 1.8593 **C_v at 1.76 min. =** 0.243 ft.^{2}/day **C_α =** 0.001

Pressure: 8000.00 psf | **TEST READINGS** | **Load No. 15**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.85759	24	12.7833	1.87567
2	0.1000	1.86431	25	16.0500	1.87615
3	0.2000	1.86743	26	20.1500	1.87639
4	0.2333	1.86859	27	25.3167	1.87668
5	0.2667	1.86935	28	31.8333	1.87687
6	0.3000	1.86945	29	40.0167	1.87708
7	0.3667	1.86983	30	50.3333	1.87723
8	0.4333	1.87043	31	63.3167	1.87741
9	0.5167	1.87083	32	79.6500	1.87770
10	0.6333	1.87129	33	100.2333	1.87796
11	0.7667	1.87167	34	126.1333	1.87844
12	0.9333	1.87203	35	158.7167	1.87906
13	1.1333	1.87239	36	199.7333	1.87953
14	1.4000	1.87292	37	251.4167	1.87988
15	1.7333	1.87338	38	316.4667	1.88023
16	2.1500	1.87365	39	398.3667	1.88042
17	2.6667	1.87396	40	501.4500	1.88058
18	3.3167	1.87428	41	631.2167	1.88075
19	4.1500	1.87448	42	794.6000	1.88091
20	5.1833	1.87470	43	1000.2833	1.88093
21	6.4833	1.87488	44	1259.2167	1.88131
22	8.1167	1.87504	45	1440.1667	1.88187
23	10.1833	1.87538			



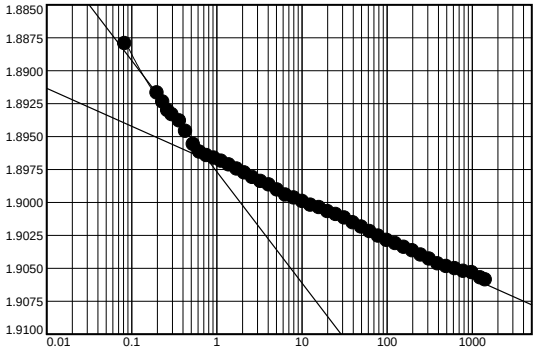
Void Ratio = 0.765 **Compression =** 9.9%

D_0 = 1.8576 **D_{50} =** 1.8652 **D_{100} =** 1.8728 **C_v at 0.12 min. =** 3.555 ft.^{2}/day **C_α =** 0.003

Figure B-147l

Pressure: 16000.00 psf **TEST READINGS** **Load No. 16**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.87935	24	12.7667	1.90023
2	0.0833	1.88796	25	16.0333	1.90041
3	0.2000	1.89171	26	20.1500	1.90072
4	0.2333	1.89240	27	25.3167	1.90094
5	0.2667	1.89305	28	31.8333	1.90120
6	0.3000	1.89336	29	40.0167	1.90156
7	0.3667	1.89384	30	50.3333	1.90189
8	0.4333	1.89463	31	63.3167	1.90223
9	0.5333	1.89561	32	79.6667	1.90258
10	0.6333	1.89621	33	100.2333	1.90291
11	0.7667	1.89646	34	126.1333	1.90315
12	0.9333	1.89666	35	158.7333	1.90344
13	1.1333	1.89689	36	199.7833	1.90370
14	1.4000	1.89718	37	251.4500	1.90401
15	1.7333	1.89749	38	316.5000	1.90433
16	2.1333	1.89779	39	398.3833	1.90468
17	2.6500	1.89813	40	501.4667	1.90489
18	3.3167	1.89843	41	631.2333	1.90505
19	4.1333	1.89869	42	794.6167	1.90526
20	5.1833	1.89908	43	1000.3000	1.90536
21	6.4833	1.89947	44	1259.2333	1.90575
22	8.1167	1.89969	45	1440.2500	1.90591
23	10.1667	1.89995			

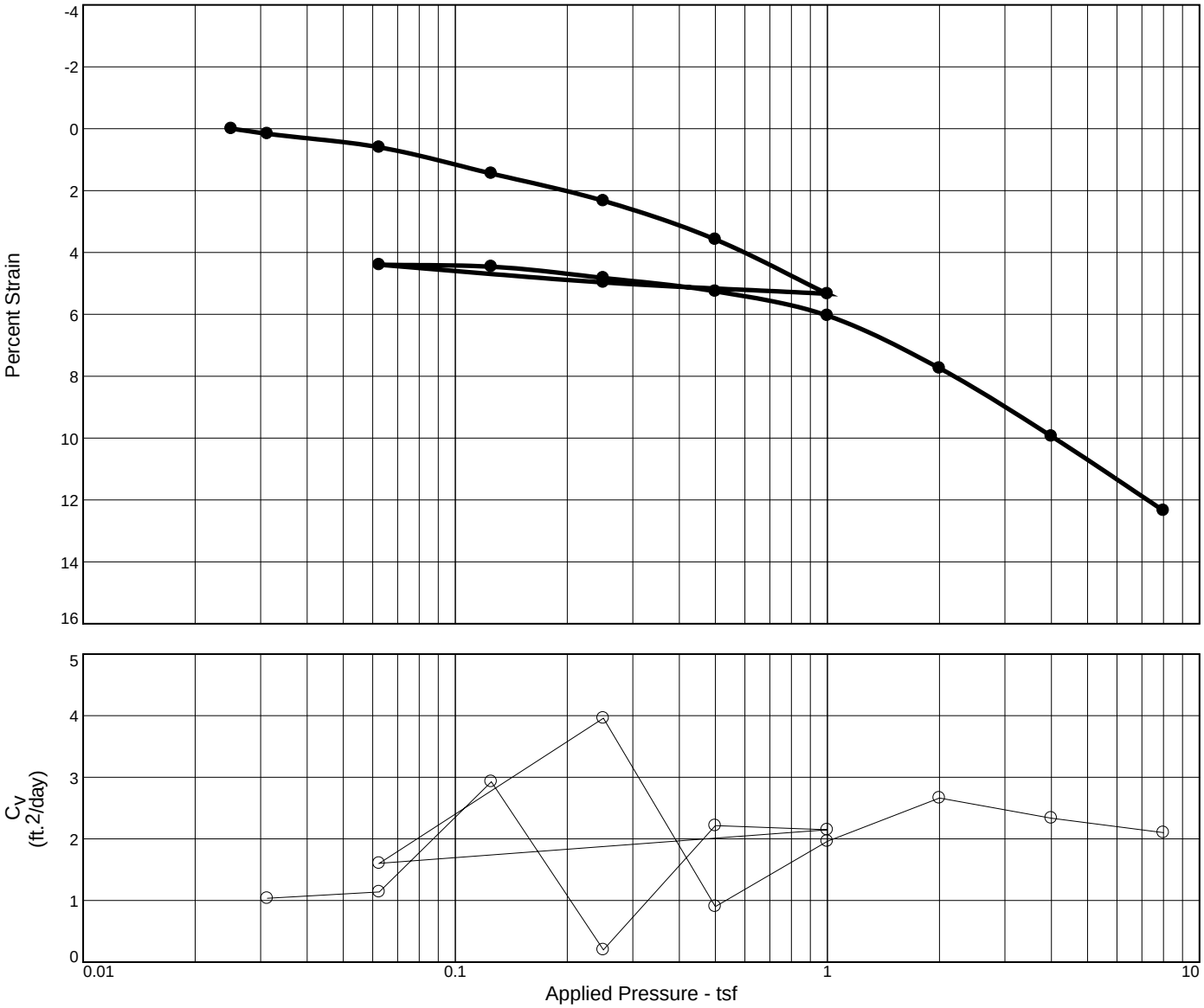


Void Ratio = 0.718 **Compression =** 12.3%

D_0 = 1.8794 **D_{50} =** 1.8881 **D_{100} =** 1.8968 **C_V at 0.09 min. =** 4.407 ft.^{2}/day **C_α =** 0.003

Figure B-147m

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	P_c (tsf)	C_c	Initial Void Ratio
Saturation	Moisture							
89.7 %	31.8 %	86.3	60	36	2.710	0.5	0.15	0.960

MATERIAL DESCRIPTION	USCS	AASHTO
Soft gray clay with sand layers	(CH)	

Project No. 18274-022-01 **Client:** CEC

Project: Chandeleur Island Restoration Project (PO-0199)

Location: CI-23 sqrt **Depth:** 33-35

Remarks:
Specific gravity was measured.

GeoEngineers

Figure B-148a

Tested By: Dustin Blanchard **Checked By:** J. Aguettant

CONSOLIDATION TEST DATA

12/22/2023

Client: CEC
Project: Chandeleur Island Restoration Project (PO-0199)
Project Number: 18274-022-01
Location: CI-23 sqrt
Depth: 33-35
Material Description: Soft gray clay with sand layers
Liquid Limit: 60 **Plasticity Index:** 36
USCS: (CH)
Testing Remarks: Specific gravity was measured.
Tested by: Dustin Blanchard **Checked by:** J. Aguettant

Test Specimen Data

NATURAL MOISTURE		VOID RATIO		AFTER TEST	
Wet w+t =	143.58 g.	Spec. Gr. =	2.710	Wet w+t =	176.73 g.
Dry w+t =	113.41 g.	Est. Ht. Solids =	0.510 in.	Dry w+t =	145.04 g.
Tare Wt. =	18.49 g.	Init. V.R. =	0.960	Tare Wt. =	36.73 g.
Moisture =	31.8 %	Init. Sat. =	89.7 %	Moisture =	29.3 %

UNIT WEIGHT		TEST START			
Height =	1.000 in.	Height =	1.000 in.		
Diameter =	2.500 in.	Diameter =	2.500 in.	Dry Wt. =	108.31 g.
Weight =	146.57 g.				
Dry Dens. =	86.3 pcf				

End-Of-Load Summary

Pressure (psf)	Final Dial (in.)	Deformation (in.)	C_v (ft.^{2}/day)	C_α	Void Ratio	% Strain
start	1.78247	0.00000			0.960	
50.00	1.78243	-0.00004			0.960	0.0 Swell
62.50	1.78410	0.00163	1.035		0.957	0.2 Comprs.
125.00	1.78848	0.00601	1.139		0.948	0.6 Comprs.
250.00	1.79695	0.01448	2.927		0.932	1.4 Comprs.
500.00	1.80578	0.02331	0.199		0.914	2.3 Comprs.
1000.00	1.81826	0.03579	2.215		0.890	3.6 Comprs.
2000.00	1.83583	0.05336	2.147		0.855	5.3 Comprs.
500.00	1.83216	0.04969			0.863	5.0 Comprs.
125.00	1.82644	0.04397	1.604		0.874	4.4 Comprs.
250.00	1.82708	0.04461			0.873	4.5 Comprs.
500.00	1.83071	0.04824	3.959		0.865	4.8 Comprs.
1000.00	1.83503	0.05256	0.902		0.857	5.3 Comprs.
2000.00	1.84289	0.06042	1.961		0.842	6.0 Comprs.
4000.00	1.85988	0.07741	2.664		0.808	7.7 Comprs.
8000.00	1.88187	0.09940	2.336		0.765	9.9 Comprs.
16000.00	1.90591	0.12344	2.101		0.718	12.3 Comprs.

Compression index (C_c), tsf = 0.15 **Preconsolidation pressure (P_p), tsf =** 0.5 **Void ratio at P_p (e_m) =** 0.887
Recompression index (C_r) = 0.04

Figure B-148b

Pressure: 50.00 psf	TEST READINGS	Load No. 1

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.78247	16	2.4833	1.78247	31	79.4667	1.78257
2	0.0333	1.78243	17	3.1500	1.78243	32	100.0333	1.78252
3	0.0667	1.78242	18	3.9667	1.78249	33	125.9333	1.78261
4	0.1000	1.78245	19	5.0000	1.78245	34	158.5333	1.78265
5	0.1333	1.78246	20	6.3000	1.78245	35	199.5833	1.78262
6	0.2000	1.78248	21	7.9333	1.78248	36	251.2500	1.78262
7	0.2667	1.78246	22	10.0000	1.78247	37	316.2833	1.78264
8	0.3500	1.78242	23	12.5833	1.78246	38	398.1667	1.78259
9	0.4500	1.78247	24	15.8500	1.78245	39	501.2500	1.78257
10	0.5833	1.78247	25	19.9667	1.78244	40	631.0333	1.78240
11	0.7500	1.78247	26	25.1333	1.78249	41	794.4167	1.78241
12	0.9500	1.78247	27	31.6333	1.78249	42	1000.0833	1.78236
13	1.2167	1.78246	28	39.8333	1.78249	43	1259.0333	1.78227
14	1.5500	1.78247	29	50.1333	1.78251	44	1440.3833	1.78243
15	1.9667	1.78246	30	63.1167	1.78255			

Void Ratio = 0.960 **Swell =** 0.0%

Pressure: 62.50 psf	TEST READINGS	Load No. 2

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.78227	21	6.4833	1.78361
2	0.0833	1.78227	22	8.1167	1.78359
3	0.2000	1.78249	23	10.1833	1.78360
4	0.2333	1.78250	24	12.7667	1.78360
5	0.2667	1.78251	25	16.0333	1.78373
6	0.3000	1.78257	26	20.1333	1.78374
7	0.3667	1.78261	27	25.3167	1.78371
8	0.4333	1.78264	28	31.8167	1.78375
9	0.5167	1.78277	29	40.0167	1.78380
10	0.6333	1.78288	30	50.3167	1.78383
11	0.7667	1.78308	31	63.3000	1.78382
12	0.9333	1.78319	32	79.6500	1.78380
13	1.1500	1.78341	33	100.2167	1.78385
14	1.4000	1.78350	34	126.1167	1.78384
15	1.7333	1.78358	35	158.7167	1.78393
16	2.1500	1.78358	36	199.7667	1.78394
17	2.6667	1.78357	37	251.4333	1.78402
18	3.3167	1.78355	38	316.4833	1.78402
19	4.1500	1.78354	39	398.3667	1.78405
20	5.1833	1.78354	40	501.4500	1.78408

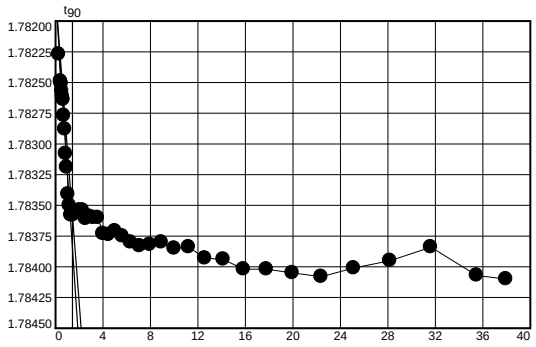


Figure B-148c

Pressure: 62.50 psf	TEST READINGS (continued)	Load No. 2

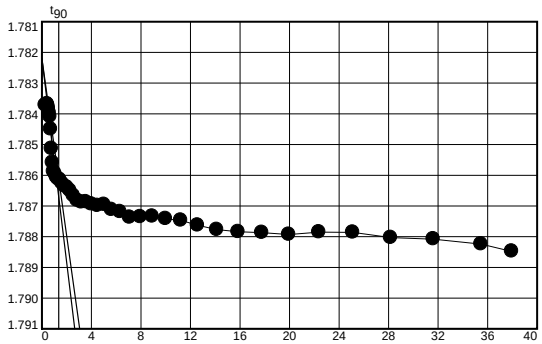
No.	Elapsed Time	Dial Reading
41	631.2167	1.78401
42	794.6000	1.78395
43	1000.2833	1.78384
44	1259.2167	1.78407
45	1440.3167	1.78410

Void Ratio = 0.957 **Compression =** 0.2%

D_0 = 1.7818 **D_{90} =** 1.7836 **D_{100} =** 1.7838 **C_v at 2.04 min. =** 1.035 ft.^{2}/day

Pressure: 125.00 psf	TEST READINGS	Load No. 3

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.78370	24	12.7833	1.78687
2	0.0833	1.78372	25	16.0500	1.78694
3	0.2000	1.78368	26	20.1667	1.78699
4	0.2333	1.78371	27	25.3333	1.78696
5	0.2667	1.78375	28	31.8500	1.78712
6	0.3167	1.78382	29	40.0333	1.78719
7	0.3833	1.78396	30	50.3500	1.78737
8	0.4500	1.78409	31	63.3333	1.78736
9	0.5333	1.78450	32	79.6667	1.78734
10	0.6333	1.78513	33	100.2500	1.78742
11	0.7833	1.78559	34	126.1500	1.78747
12	0.9333	1.78588	35	158.7500	1.78763
13	1.1500	1.78594	36	199.7833	1.78777
14	1.4167	1.78606	37	251.4500	1.78784
15	1.7500	1.78612	38	316.5000	1.78787
16	2.1500	1.78614	39	398.3833	1.78793
17	2.6833	1.78625	40	501.4667	1.78785
18	3.3333	1.78634	41	631.2333	1.78786
19	4.1500	1.78639	42	794.6167	1.78803
20	5.2000	1.78650	43	1000.3000	1.78808
21	6.5000	1.78666	44	1259.2333	1.78824
22	8.1333	1.78682	45	1440.2833	1.78848
23	10.2000	1.78688			



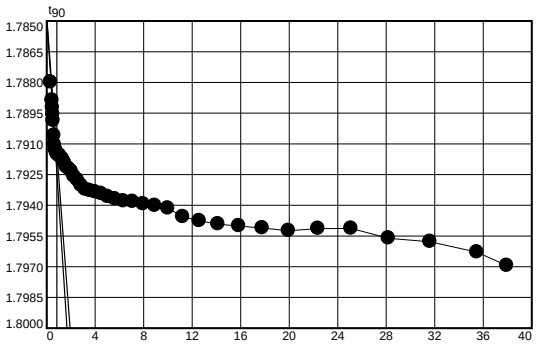
Void Ratio = 0.948 **Compression =** 0.6%

D_0 = 1.7822 **D_{90} =** 1.7861 **D_{100} =** 1.7866 **C_v at 1.85 min. =** 1.139 ft.^{2}/day

Figure B-148d

Pressure: 250.00 psf	TEST READINGS	Load No. 4

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.78771	24	12.7833	1.79329
2	0.1167	1.78799	25	16.0500	1.79335
3	0.2167	1.78887	26	20.1667	1.79343
4	0.2500	1.78923	27	25.3333	1.79358
5	0.2833	1.78955	28	31.8333	1.79369
6	0.3167	1.78986	29	40.0333	1.79380
7	0.3833	1.79059	30	50.3333	1.79382
8	0.4500	1.79105	31	63.3167	1.79394
9	0.5333	1.79126	32	79.6667	1.79402
10	0.6500	1.79139	33	100.2333	1.79415
11	0.7833	1.79149	34	126.1333	1.79456
12	0.9500	1.79155	35	158.7333	1.79476
13	1.1500	1.79155	36	199.7667	1.79492
14	1.4167	1.79166	37	251.4333	1.79501
15	1.7500	1.79174	38	316.4833	1.79511
16	2.1667	1.79191	39	398.3667	1.79524
17	2.6833	1.79211	40	501.4500	1.79514
18	3.3333	1.79221	41	631.2333	1.79513
19	4.1500	1.79234	42	794.6000	1.79561
20	5.1833	1.79259	43	1000.2833	1.79578
21	6.5000	1.79277	44	1259.2167	1.79629
22	8.1333	1.79303	45	1440.4167	1.79695
23	10.2000	1.79322			



Void Ratio = 0.932 **Compression =** 1.4%

D_0 = 1.7848 **D_{90} =** 1.7914 **D_{100} =** 1.7922 **C_V at 0.71 min. =** 2.927 ft.^{2}/day

Pressure: 500.00 psf	TEST READINGS	Load No. 5

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.79578	12	0.9167	1.80079
2	0.0833	1.79919	13	1.1333	1.80086
3	0.1833	1.79991	14	1.3833	1.80093
4	0.2167	1.79992	15	1.7167	1.80107
5	0.2667	1.80001	16	2.1333	1.80112
6	0.3000	1.80006	17	2.6667	1.80126
7	0.3667	1.80016	18	3.3167	1.80139
8	0.4333	1.80032	19	4.1500	1.80156
9	0.5167	1.80046	20	5.1833	1.80172
10	0.6167	1.80054	21	6.4833	1.80187
11	0.7500	1.80068	22	8.1167	1.80203

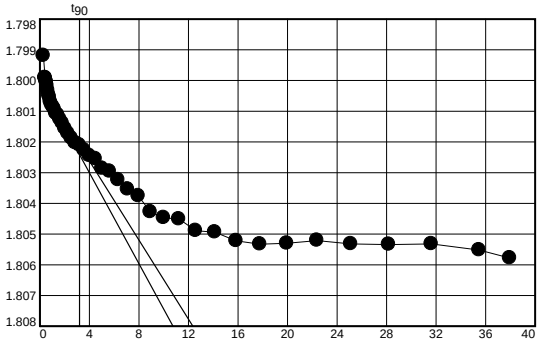


Figure B-148e

Pressure: 500.00 psf | **TEST READINGS (continued)** | **Load No. 5**

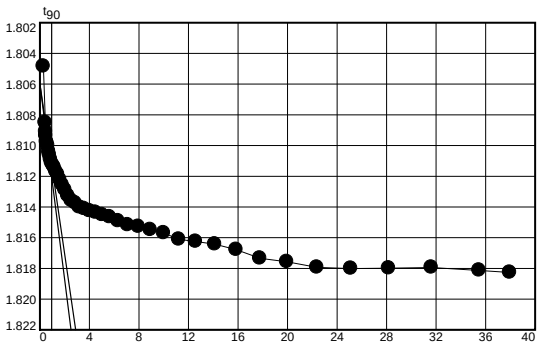
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1833	1.80210	33	100.2500	1.80447	43	1000.3000	1.80532
24	12.7667	1.80226	34	126.1333	1.80451	44	1259.2333	1.80552
25	16.0333	1.80245	35	158.7500	1.80489	45	1440.2667	1.80578
26	20.1500	1.80255	36	199.7833	1.80494			
27	25.3167	1.80286	37	251.4500	1.80522			
28	31.8333	1.80296	38	316.5000	1.80533			
29	40.0167	1.80324	39	398.3833	1.80530			
30	50.3333	1.80354	40	501.4667	1.80521			
31	63.3167	1.80376	41	631.2333	1.80532			
32	79.6667	1.80428	42	794.6167	1.80534			

Void Ratio = 0.914 **Compression =** 2.3%

D_0 = 1.8000 **D_{90} =** 1.8021 **D_{100} =** 1.8023 **C_V at 10.25 min. =** 0.199 ft.^{2}/day

Pressure: 1000.00 psf | **TEST READINGS** | **Load No. 6**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.80441	24	12.7667	1.81411
2	0.0833	1.80484	25	16.0333	1.81426
3	0.2000	1.80851	26	20.1333	1.81436
4	0.2333	1.80909	27	25.3167	1.81451
5	0.2500	1.80936	28	31.8167	1.81465
6	0.3000	1.80975	29	40.0167	1.81492
7	0.3667	1.80983	30	50.3167	1.81517
8	0.4333	1.81000	31	63.3000	1.81528
9	0.5167	1.81037	32	79.6500	1.81548
10	0.6333	1.81059	33	100.2167	1.81569
11	0.7667	1.81089	34	126.1167	1.81611
12	0.9333	1.81113	35	158.7167	1.81625
13	1.1333	1.81129	36	199.7667	1.81642
14	1.4000	1.81143	37	251.4333	1.81678
15	1.7333	1.81168	38	316.4667	1.81734
16	2.1333	1.81188	39	398.3667	1.81757
17	2.6500	1.81222	40	501.4333	1.81793
18	3.3167	1.81256	41	631.2167	1.81801
19	4.1333	1.81288	42	794.6000	1.81799
20	5.1833	1.81326	43	1000.2667	1.81794
21	6.4833	1.81357	44	1259.2000	1.81813
22	8.1167	1.81374	45	1440.3167	1.81826
23	10.1833	1.81401			



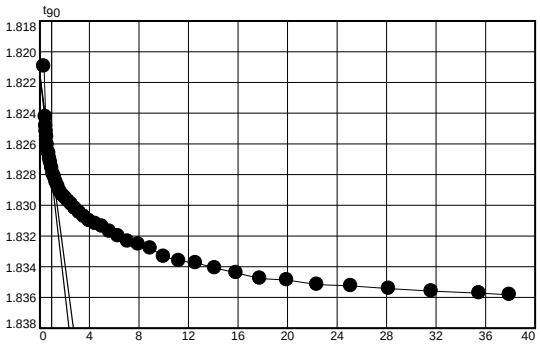
Void Ratio = 0.890 **Compression =** 3.6%

D_0 = 1.8060 **D_{90} =** 1.8111 **D_{100} =** 1.8117 **C_V at 0.90 min. =** 2.215 ft.^{2}/day

Figure B-148f

Pressure: 2000.00 psf	TEST READINGS	Load No. 7

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.81663	24	12.8000	1.83073
2	0.1167	1.82095	25	16.0667	1.83101
3	0.2167	1.82424	26	20.1833	1.83121
4	0.2500	1.82484	27	25.3500	1.83138
5	0.2833	1.82520	28	31.8667	1.83170
6	0.3333	1.82555	29	40.0500	1.83200
7	0.3833	1.82606	30	50.3667	1.83235
8	0.4667	1.82651	31	63.3500	1.83254
9	0.5500	1.82664	32	79.6833	1.83280
10	0.6500	1.82696	33	100.2667	1.83334
11	0.7833	1.82720	34	126.1667	1.83362
12	0.9500	1.82758	35	158.7667	1.83375
13	1.1667	1.82796	36	199.8000	1.83408
14	1.4167	1.82816	37	251.4667	1.83440
15	1.7500	1.82849	38	316.5167	1.83477
16	2.1667	1.82877	39	398.4000	1.83487
17	2.6833	1.82909	40	501.4833	1.83516
18	3.3500	1.82932	41	631.2667	1.83525
19	4.1667	1.82950	42	794.6333	1.83542
20	5.2000	1.82971	43	1000.3167	1.83559
21	6.5000	1.82993	44	1259.2500	1.83572
22	8.1500	1.83021	45	1440.0667	1.83583
23	10.2167	1.83047			



Void Ratio = 0.855 **Compression =** 5.3%

D_0 = 1.8215 **D_{90} =** 1.8275 **D_{100} =** 1.8281 **C_V at 0.90 min. =** 2.147 ft.^{2}/day

Pressure: 500.00 psf	TEST READINGS	Load No. 8

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.83784	12	0.9333	1.83329	23	10.1667	1.83277
2	0.1000	1.83672	13	1.1333	1.83323	24	12.7667	1.83267
3	0.2000	1.83462	14	1.4000	1.83313	25	16.0333	1.83260
4	0.2333	1.83434	15	1.7333	1.83314	26	20.1333	1.83258
5	0.2667	1.83418	16	2.1333	1.83310	27	25.3000	1.83254
6	0.3000	1.83400	17	2.6667	1.83303	28	31.8167	1.83257
7	0.3667	1.83387	18	3.3167	1.83298	29	40.0000	1.83252
8	0.4333	1.83378	19	4.1333	1.83294	30	50.3167	1.83245
9	0.5167	1.83364	20	5.1667	1.83289	31	63.3000	1.83244
10	0.6333	1.83350	21	6.4667	1.83286	32	79.6333	1.83231
11	0.7667	1.83337	22	8.1167	1.83280	33	100.2167	1.83231

Figure B-148g

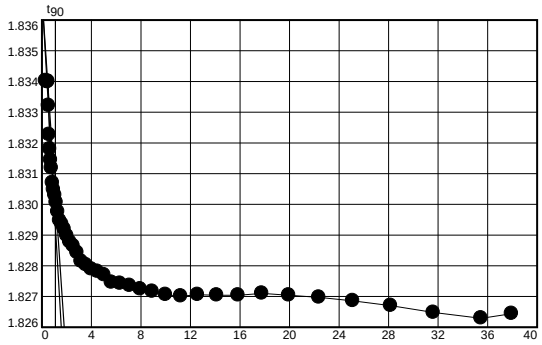
Pressure: 500.00 psf	TEST READINGS (continued)	Load No. 8

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
34	126.1167	1.83236	44	1259.2000	1.83171
35	158.7167	1.83244	45	1440.0667	1.83216
36	199.7500	1.83239			
37	251.4333	1.83231			
38	316.4667	1.83231			
39	398.3500	1.83245			
40	501.4333	1.83238			
41	631.2167	1.83233			
42	794.5833	1.83194			
43	1000.2667	1.83189			

Void Ratio = 0.863 **Compression =** 5.0%

Pressure: 125.00 psf	TEST READINGS	Load No. 9

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.83402	24	12.7833	1.82803
2	0.1000	1.83402	25	16.0500	1.82789
3	0.2000	1.83399	26	20.1500	1.82781
4	0.2333	1.83399	27	25.3167	1.82770
5	0.2667	1.83400	28	31.8333	1.82746
6	0.3000	1.83321	29	40.0167	1.82742
7	0.3667	1.83227	30	50.3333	1.82735
8	0.4333	1.83180	31	63.3167	1.82724
9	0.5167	1.83144	32	79.6500	1.82716
10	0.6333	1.83118	33	100.2333	1.82706
11	0.7667	1.83070	34	126.1167	1.82701
12	0.9333	1.83048	35	158.7167	1.82706
13	1.1333	1.83030	36	199.7667	1.82704
14	1.4000	1.83006	37	251.4333	1.82704
15	1.7333	1.82976	38	316.4667	1.82710
16	2.1500	1.82947	39	398.3500	1.82704
17	2.6667	1.82936	40	501.4500	1.82697
18	3.3333	1.82919	41	631.2167	1.82686
19	4.1500	1.82898	42	794.5833	1.82670
20	5.1833	1.82878	43	1000.2667	1.82648
21	6.4833	1.82865	44	1259.2000	1.82629
22	8.1333	1.82843	45	1440.1333	1.82644
23	10.1833	1.82814			



Void Ratio = 0.874 **Compression =** 4.4%

D_0 = 1.8368 **D_{90} =** 1.8302 **D_{100} =** 1.8295 **C_v at 1.20 min. =** 1.604 ft.^{2}/day

Figure B-148h

Pressure: 250.00 psf	TEST READINGS	Load No. 10

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.82581	16	2.1500	1.82677	31	63.3000	1.82701
2	0.1000	1.82584	17	2.6667	1.82686	32	79.6500	1.82699
3	0.2000	1.82584	18	3.3167	1.82684	33	100.2167	1.82699
4	0.2333	1.82597	19	4.1500	1.82674	34	126.1167	1.82704
5	0.2667	1.82614	20	5.1833	1.82673	35	158.7167	1.82704
6	0.3000	1.82629	21	6.4833	1.82673	36	199.7667	1.82708
7	0.3667	1.82632	22	8.1167	1.82688	37	251.4333	1.82709
8	0.4333	1.82642	23	10.1833	1.82685	38	316.4833	1.82712
9	0.5167	1.82653	24	12.7667	1.82687	39	398.3667	1.82721
10	0.6333	1.82656	25	16.0333	1.82689	40	501.4500	1.82717
11	0.7667	1.82656	26	20.1500	1.82690	41	631.2167	1.82697
12	0.9333	1.82661	27	25.3167	1.82693	42	794.6000	1.82687
13	1.1333	1.82669	28	31.8167	1.82696	43	1000.2833	1.82692
14	1.4000	1.82671	29	40.0167	1.82693	44	1259.2000	1.82687
15	1.7333	1.82661	30	50.3167	1.82699	45	1440.0500	1.82708

Void Ratio = 0.873 **Compression =** 4.5%

Pressure: 500.00 psf	TEST READINGS	Load No. 11

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.82621	21	6.5000	1.82918
2	0.1000	1.82783	22	8.1333	1.82925
3	0.2167	1.82832	23	10.2000	1.82924
4	0.2500	1.82846	24	12.7833	1.82931
5	0.2833	1.82858	25	16.0500	1.82938
6	0.3333	1.82861	26	20.1500	1.82947
7	0.3833	1.82874	27	25.3167	1.82941
8	0.4500	1.82873	28	31.8333	1.82943
9	0.5500	1.82876	29	40.0167	1.82953
10	0.6500	1.82880	30	50.3333	1.82963
11	0.7833	1.82882	31	63.3167	1.82961
12	0.9500	1.82885	32	79.6500	1.82989
13	1.1667	1.82889	33	100.2333	1.82992
14	1.4167	1.82892	34	126.1167	1.82991
15	1.7500	1.82892	35	158.7167	1.82998
16	2.1667	1.82894	36	199.7667	1.82997
17	2.6833	1.82902	37	251.4333	1.83009
18	3.3333	1.82908	38	316.4833	1.83002
19	4.1667	1.82917	39	398.3667	1.83002
20	5.2000	1.82915	40	501.4500	1.83001

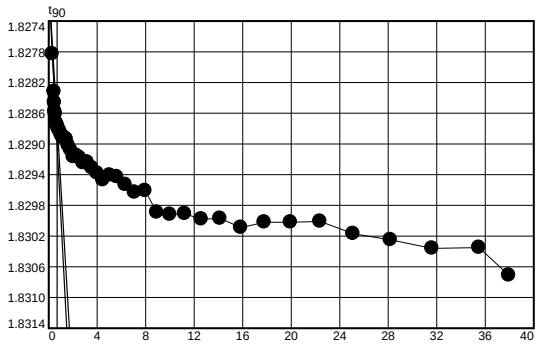


Figure B-148i

Pressure: 500.00 psf	TEST READINGS (continued)	Load No. 11

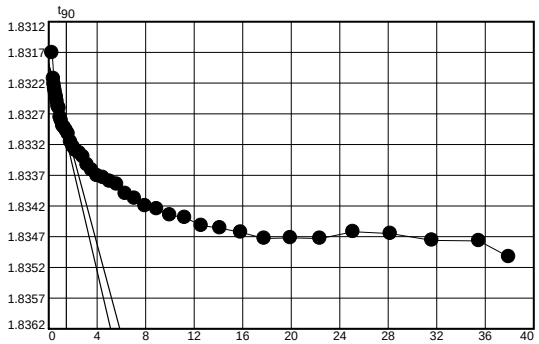
No.	Elapsed Time	Dial Reading
41	631.2333	1.83017
42	794.6000	1.83025
43	1000.2833	1.83036
44	1259.2167	1.83035
45	1440.0833	1.83071

Void Ratio = 0.865 **Compression =** 4.8%

D_0 = 1.8269 **D_{90} =** 1.8287 **D_{100} =** 1.8289 **C_v at 0.49 min. =** 3.959 ft.^{2}/day

Pressure: 1000.00 psf	TEST READINGS	Load No. 12

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.82966	24	12.7833	1.83362
2	0.0833	1.83171	25	16.0500	1.83371
3	0.1833	1.83213	26	20.1500	1.83374
4	0.2167	1.83222	27	25.3333	1.83380
5	0.2667	1.83228	28	31.8333	1.83385
6	0.3000	1.83233	29	40.0333	1.83400
7	0.3667	1.83238	30	50.3500	1.83408
8	0.4333	1.83243	31	63.3167	1.83420
9	0.5167	1.83250	32	79.6667	1.83425
10	0.6333	1.83258	33	100.2333	1.83435
11	0.7667	1.83261	34	126.1333	1.83439
12	0.9333	1.83276	35	158.7333	1.83452
13	1.1333	1.83281	36	199.7833	1.83456
14	1.4000	1.83290	37	251.4500	1.83463
15	1.7333	1.83293	38	316.5000	1.83473
16	2.1500	1.83297	39	398.3833	1.83472
17	2.6667	1.83303	40	501.4667	1.83473
18	3.3333	1.83316	41	631.2333	1.83462
19	4.1500	1.83324	42	794.6167	1.83465
20	5.1833	1.83330	43	1000.3000	1.83476
21	6.4833	1.83334	44	1259.2167	1.83477
22	8.1333	1.83340	45	1440.1000	1.83503
23	10.1833	1.83353			



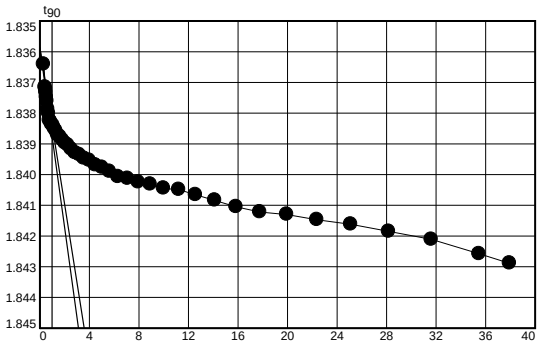
Void Ratio = 0.857 **Compression =** 5.3%

D_0 = 1.8319 **D_{90} =** 1.8330 **D_{100} =** 1.8331 **C_v at 2.12 min. =** 0.902 ft.^{2}/day

Figure B-148j

Pressure: 2000.00 psf	TEST READINGS	Load No. 13

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.83357	24	12.7667	1.83947
2	0.1000	1.83641	25	16.0333	1.83954
3	0.2000	1.83716	26	20.1333	1.83969
4	0.2333	1.83722	27	25.3167	1.83977
5	0.2667	1.83732	28	31.8167	1.83990
6	0.3000	1.83748	29	40.0000	1.84007
7	0.3667	1.83761	30	50.3167	1.84013
8	0.4333	1.83787	31	63.3000	1.84025
9	0.5333	1.83801	32	79.6500	1.84032
10	0.6333	1.83823	33	100.2167	1.84045
11	0.7667	1.83827	34	126.1167	1.84049
12	0.9333	1.83836	35	158.7167	1.84066
13	1.1333	1.83839	36	199.7500	1.84084
14	1.4000	1.83849	37	251.4167	1.84105
15	1.7333	1.83857	38	316.4667	1.84122
16	2.1500	1.83871	39	398.3500	1.84130
17	2.6667	1.83876	40	501.4333	1.84147
18	3.3333	1.83887	41	631.2000	1.84162
19	4.1500	1.83897	42	794.5833	1.84185
20	5.1833	1.83904	43	1000.2667	1.84211
21	6.4833	1.83917	44	1259.2000	1.84258
22	8.1167	1.83929	45	1440.1333	1.84289
23	10.1833	1.83935			



Void Ratio = 0.842 **Compression =** 6.0%

D_0 = 1.8359 **D_{90} =** 1.8384 **D_{100} =** 1.8386 **C_V at 0.96 min. =** 1.961 ft.^{2}/day

Pressure: 4000.00 psf	TEST READINGS	Load No. 14

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.84039	12	0.9333	1.85095
2	0.1000	1.84557	13	1.1500	1.85137
3	0.2000	1.84787	14	1.4000	1.85166
4	0.2333	1.84835	15	1.7333	1.85200
5	0.2667	1.84848	16	2.1500	1.85238
6	0.3167	1.84899	17	2.6833	1.85271
7	0.3667	1.84948	18	3.3333	1.85300
8	0.4500	1.84998	19	4.1667	1.85326
9	0.5333	1.85030	20	5.2000	1.85345
10	0.6333	1.85051	21	6.5000	1.85365
11	0.7667	1.85079	22	8.1333	1.85386

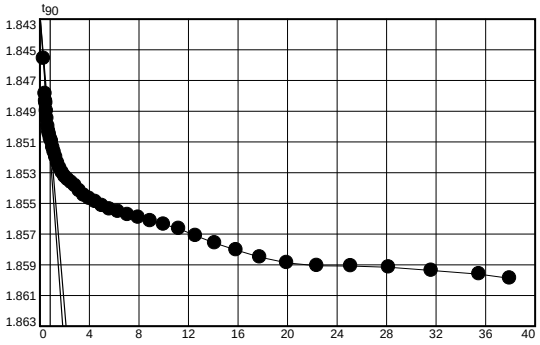


Figure B-148k

Pressure: 4000.00 psf	TEST READINGS (continued)	Load No. 14

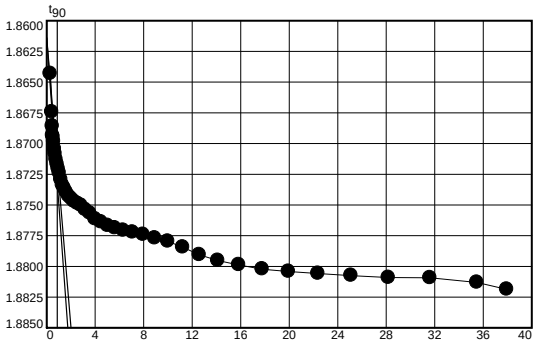
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.2000	1.85418	33	100.2333	1.85637	43	1000.2833	1.85937
24	12.7833	1.85448	34	126.1333	1.85665	44	1259.2167	1.85961
25	16.0500	1.85469	35	158.7333	1.85711	45	1440.3167	1.85988
26	20.1500	1.85489	36	199.7667	1.85759			
27	25.3167	1.85516	37	251.4333	1.85804			
28	31.8333	1.85539	38	316.4833	1.85851			
29	40.0167	1.85554	39	398.3667	1.85887			
30	50.3333	1.85575	40	501.4500	1.85906			
31	63.3167	1.85592	41	631.2333	1.85908			
32	79.6500	1.85615	42	794.6000	1.85916			

Void Ratio = 0.808 **Compression =** 7.7%

D_0 = 1.8426 **D_{90} =** 1.8506 **D_{100} =** 1.8515 **C_V at 0.69 min. =** 2.664 ft.^{2}/day

Pressure: 8000.00 psf	TEST READINGS	Load No. 15

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.85759	24	12.7833	1.87567
2	0.1000	1.86431	25	16.0500	1.87615
3	0.2000	1.86743	26	20.1500	1.87639
4	0.2333	1.86859	27	25.3167	1.87668
5	0.2667	1.86935	28	31.8333	1.87687
6	0.3000	1.86945	29	40.0167	1.87708
7	0.3667	1.86983	30	50.3333	1.87723
8	0.4333	1.87043	31	63.3167	1.87741
9	0.5167	1.87083	32	79.6500	1.87770
10	0.6333	1.87129	33	100.2333	1.87796
11	0.7667	1.87167	34	126.1333	1.87844
12	0.9333	1.87203	35	158.7167	1.87906
13	1.1333	1.87239	36	199.7333	1.87953
14	1.4000	1.87292	37	251.4167	1.87988
15	1.7333	1.87338	38	316.4667	1.88023
16	2.1500	1.87365	39	398.3667	1.88042
17	2.6667	1.87396	40	501.4500	1.88058
18	3.3167	1.87428	41	631.2167	1.88075
19	4.1500	1.87448	42	794.6000	1.88091
20	5.1833	1.87470	43	1000.2833	1.88093
21	6.4833	1.87488	44	1259.2167	1.88131
22	8.1167	1.87504	45	1440.1667	1.88187
23	10.1833	1.87538			



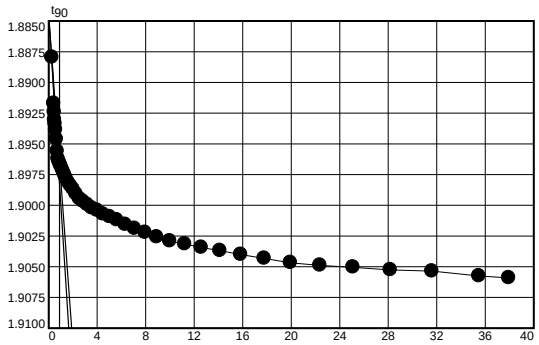
Void Ratio = 0.765 **Compression =** 9.9%

D_0 = 1.8614 **D_{90} =** 1.8716 **D_{100} =** 1.8728 **C_V at 0.76 min. =** 2.336 ft.^{2}/day

Figure B-148l

Pressure: 16000.00 psf	TEST READINGS	Load No. 16

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.87935	24	12.7667	1.90023
2	0.0833	1.88796	25	16.0333	1.90041
3	0.2000	1.89171	26	20.1500	1.90072
4	0.2333	1.89240	27	25.3167	1.90094
5	0.2667	1.89305	28	31.8333	1.90120
6	0.3000	1.89336	29	40.0167	1.90156
7	0.3667	1.89384	30	50.3333	1.90189
8	0.4333	1.89463	31	63.3167	1.90223
9	0.5333	1.89561	32	79.6667	1.90258
10	0.6333	1.89621	33	100.2333	1.90291
11	0.7667	1.89646	34	126.1333	1.90315
12	0.9333	1.89666	35	158.7333	1.90344
13	1.1333	1.89689	36	199.7833	1.90370
14	1.4000	1.89718	37	251.4500	1.90401
15	1.7333	1.89749	38	316.5000	1.90433
16	2.1333	1.89779	39	398.3833	1.90468
17	2.6500	1.89813	40	501.4667	1.90489
18	3.3167	1.89843	41	631.2333	1.90505
19	4.1333	1.89869	42	794.6167	1.90526
20	5.1833	1.89908	43	1000.3000	1.90536
21	6.4833	1.89947	44	1259.2333	1.90575
22	8.1167	1.89969	45	1440.2500	1.90591
23	10.1667	1.89995			

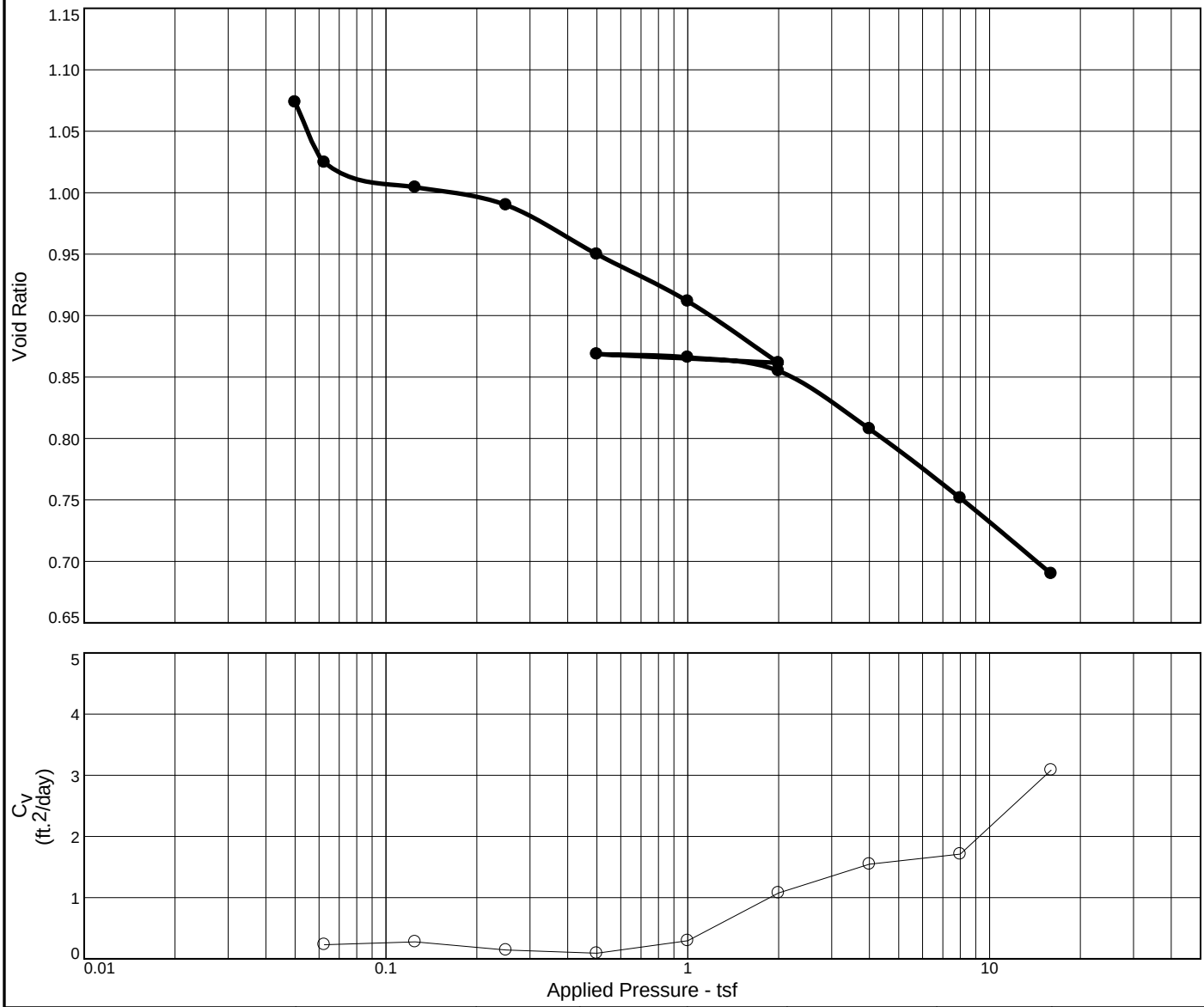


Void Ratio = 0.718 **Compression =** 12.3%

D_0 = 1.8845 **D_{90} =** 1.8965 **D_{100} =** 1.8978 **C_V at 0.80 min. =** 2.101 ft.^{2}/day

Figure B-148m

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	P_c (tsf)	C_c	Initial Void Ratio
Saturation	Moisture							
108.5 %	43.5 %	80.6	39	14	2.677	0.6	0.19	1.073

MATERIAL DESCRIPTION	USCS	AASHTO
Very soft gray silty clay with sand and shell fragments	(CL)	

Project No. 18274-022-01 **Client:** CEC

Project: Chandeleur Island Restoration Project (PO-0199)

Location: C-24 **Depth:** 8-10

Remarks:
Specific gravity was measured.

GeoEngineers

Figure B-149a

Tested By: Dustin Blanchard **Checked By:** J. Aguettant

CONSOLIDATION TEST DATA

12/22/2023

Client: CEC
Project: Chandeleur Island Restoration Project (PO-0199)
Project Number: 18274-022-01
Location: C-24
Depth: 8-10
Material Description: Very soft gray silty clay with sand and shell fragments
Liquid Limit: 39 **Plasticity Index:** 14
USCS: (CL)
Testing Remarks: Specific gravity was measured.
Tested by: Dustin Blanchard **Checked by:** J. Aguettant

Test Specimen Data

NATURAL MOISTURE		VOID RATIO		AFTER TEST	
Wet w+t =	153.35 g.	Spec. Gr. =	2.677	Wet w+t =	175.20 g.
Dry w+t =	112.47 g.	Est. Ht. Solids =	0.482 in.	Dry w+t =	144.50 g.
Tare Wt. =	18.47 g.	Init. V.R. =	1.073	Tare Wt. =	36.93 g.
Moisture =	43.5 %	Init. Sat. =	108.5 %	Moisture =	28.5 %

UNIT WEIGHT		TEST START			
Height =	1.000 in.	Height =	1.000 in.	Dry Wt. =	107.57 g.
Diameter =	2.500 in.	Diameter =	2.500 in.		
Weight =	149.07 g.				
Dry Dens. =	80.6 pcf				

End-Of-Load Summary

Pressure (psf)	Final Dial (in.)	Deformation (in.)	C_v (ft.^{2}/day)	C_α	Void Ratio	% Strain
start	1.67361	0.00000			1.073	
100.00	1.67314	-0.00047			1.074	0.0 Swell
125.00	1.69685	0.02324	0.232	0.001	1.025	2.3 Comprs.
250.00	1.70658	0.03297	0.277	0.001	1.004	3.3 Comprs.
500.00	1.71356	0.03995	0.144	0.001	0.990	4.0 Comprs.
1000.00	1.73286	0.05925	0.092	0.001	0.950	5.9 Comprs.
2000.00	1.75136	0.07775	0.296	0.001	0.912	7.8 Comprs.
4000.00	1.77552	0.10191	1.077	0.003	0.862	10.2 Comprs.
1000.00	1.77210	0.09849			0.869	9.8 Comprs.
2000.00	1.77336	0.09975		0.000	0.866	10.0 Comprs.
4000.00	1.77869	0.10508		0.000	0.855	10.5 Comprs.
8000.00	1.80146	0.12785	1.547	0.003	0.808	12.8 Comprs.
16000.00	1.82861	0.15500	1.712	0.003	0.751	15.5 Comprs.
32000.00	1.85827	0.18466	3.084	0.004	0.690	18.5 Comprs.

Compression index (C_c), tsf = 0.19 **Preconsolidation pressure (P_p), tsf =** 0.6 **Void ratio at P_p (e_m) =** 0.941
Recompression index (C_r) = 0.07

Figure B-149b

Pressure: 100.00 psf	TEST READINGS	Load No. 1

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.67361	16	2.4500	1.67361	31	79.4000	1.67373
2	0.0333	1.67359	17	3.1167	1.67364	32	99.9667	1.67374
3	0.0500	1.67360	18	3.9333	1.67364	33	125.8667	1.67373
4	0.0833	1.67362	19	4.9667	1.67365	34	158.4667	1.67383
5	0.1333	1.67358	20	6.2667	1.67364	35	199.5000	1.67389
6	0.1833	1.67361	21	7.9000	1.67364	36	251.1667	1.67385
7	0.2500	1.67360	22	9.9500	1.67364	37	316.2000	1.67380
8	0.3333	1.67361	23	12.5500	1.67361	38	398.0833	1.67365
9	0.4333	1.67361	24	15.8167	1.67361	39	501.1667	1.67341
10	0.5667	1.67361	25	19.9167	1.67365	40	630.9500	1.67313
11	0.7333	1.67360	26	25.0833	1.67364	41	794.3167	1.67296
12	0.9333	1.67362	27	31.5833	1.67365	42	999.9833	1.67323
13	1.2000	1.67362	28	39.7833	1.67368	43	1258.9167	1.67308
14	1.5333	1.67361	29	50.0833	1.67369	44	1440.2167	1.67314
15	1.9333	1.67361	30	63.0667	1.67371			

Void Ratio = 1.074 **Swell =** 0.0%

Pressure: 125.00 psf	TEST READINGS	Load No. 2

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.67299	21	6.4333	1.68709
2	0.1000	1.67312	22	8.0667	1.68887
3	0.2000	1.67336	23	10.1333	1.68998
4	0.2333	1.67347	24	12.7167	1.69104
5	0.2667	1.67356	25	15.9833	1.69186
6	0.3000	1.67367	26	20.1000	1.69318
7	0.3500	1.67390	27	25.2667	1.69387
8	0.4167	1.67413	28	31.7667	1.69429
9	0.5000	1.67439	29	39.9500	1.69484
10	0.6167	1.67464	30	50.2667	1.69500
11	0.7333	1.67485	31	63.2500	1.69515
12	0.9000	1.67535	32	79.5833	1.69548
13	1.1167	1.67739	33	100.1500	1.69563
14	1.3833	1.67889	34	126.0500	1.69573
15	1.7000	1.68001	35	158.6500	1.69604
16	2.1167	1.68131	36	199.6833	1.69627
17	2.6333	1.68198	37	251.3500	1.69644
18	3.2833	1.68318	38	316.3833	1.69648
19	4.1000	1.68461	39	398.2667	1.69645
20	5.1333	1.68606	40	501.3500	1.69626

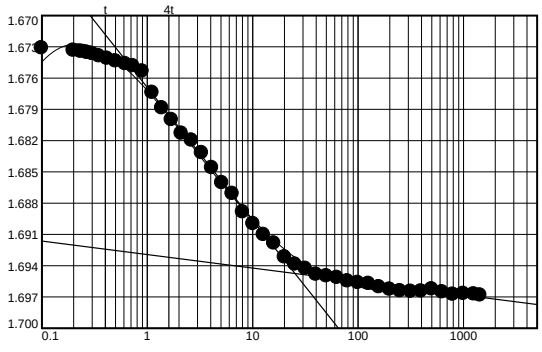


Figure B-149c

Pressure: 125.00 psf	TEST READINGS (continued)	Load No. 2

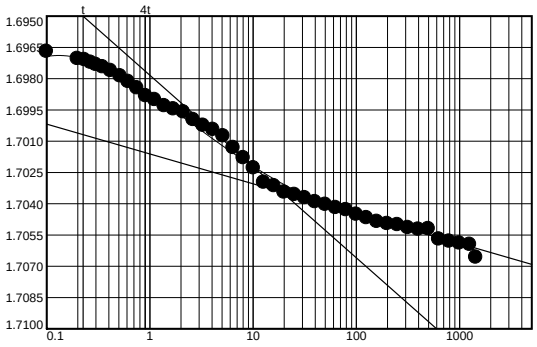
No.	Elapsed Time	Dial Reading
41	631.1333	1.69654
42	794.5000	1.69676
43	1000.1667	1.69668
44	1259.1000	1.69675
45	1440.2667	1.69685

Void Ratio = 1.025 **Compression =** 2.3%

D_0 = 1.6675 **D_{50} =** 1.6811 **D_{100} =** 1.6947 **C_v at 2.08 min. =** 0.232 ft.^{2}/day **C_α =** 0.001

Pressure: 250.00 psf	TEST READINGS	Load No. 3

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.69572	24	12.7167	1.70298
2	0.1000	1.69670	25	15.9833	1.70315
3	0.2000	1.69704	26	20.0833	1.70345
4	0.2333	1.69710	27	25.2500	1.70357
5	0.2667	1.69722	28	31.7667	1.70372
6	0.3000	1.69733	29	39.9500	1.70391
7	0.3500	1.69744	30	50.2500	1.70404
8	0.4167	1.69762	31	63.2333	1.70420
9	0.5167	1.69788	32	79.5833	1.70430
10	0.6167	1.69814	33	100.1500	1.70452
11	0.7500	1.69845	34	126.0333	1.70468
12	0.9167	1.69883	35	158.6333	1.70486
13	1.1167	1.69902	36	199.6833	1.70496
14	1.3833	1.69931	37	251.3333	1.70501
15	1.7000	1.69946	38	316.3833	1.70516
16	2.1167	1.69960	39	398.2667	1.70523
17	2.6333	1.69997	40	501.3500	1.70521
18	3.2833	1.70025	41	631.1167	1.70571
19	4.1000	1.70045	42	794.5000	1.70581
20	5.1333	1.70075	43	1000.1667	1.70590
21	6.4333	1.70132	44	1259.1000	1.70596
22	8.0667	1.70180	45	1440.3333	1.70658
23	10.1333	1.70229			



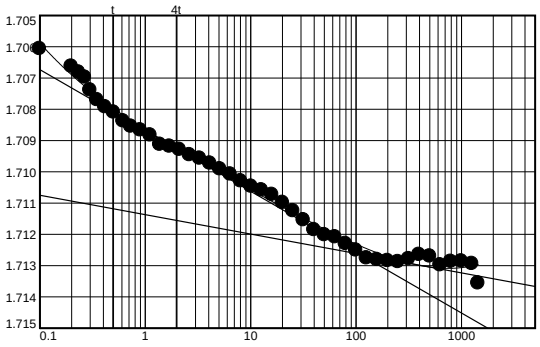
Void Ratio = 1.004 **Compression =** 3.3%

D_0 = 1.6956 **D_{50} =** 1.6995 **D_{100} =** 1.7034 **C_v at 1.68 min. =** 0.277 ft.^{2}/day **C_α =** 0.001

Figure B-149d

Pressure: 500.00 psf	TEST READINGS	Load No. 4

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.70501	24	12.7167	1.71059
2	0.1000	1.70607	25	15.9833	1.71073
3	0.2000	1.70663	26	20.0833	1.71099
4	0.2333	1.70682	27	25.2500	1.71125
5	0.2667	1.70698	28	31.7667	1.71154
6	0.3000	1.70739	29	39.9500	1.71186
7	0.3500	1.70770	30	50.2500	1.71202
8	0.4167	1.70793	31	63.2333	1.71209
9	0.5000	1.70810	32	79.5667	1.71230
10	0.6167	1.70838	33	100.1333	1.71251
11	0.7333	1.70855	34	126.0333	1.71276
12	0.9000	1.70867	35	158.6333	1.71281
13	1.1167	1.70883	36	199.6667	1.71285
14	1.3833	1.70913	37	251.3333	1.71288
15	1.7000	1.70919	38	316.3833	1.71279
16	2.1167	1.70929	39	398.2667	1.71265
17	2.6333	1.70946	40	501.3500	1.71270
18	3.2833	1.70957	41	631.1167	1.71298
19	4.1167	1.70973	42	794.4833	1.71287
20	5.1333	1.70991	43	1000.1667	1.71286
21	6.4333	1.71008	44	1259.1000	1.71294
22	8.0667	1.71030	45	1440.2500	1.71356
23	10.1333	1.71047			



Void Ratio = 0.990 **Compression =** 4.0%

D_0 = 1.7067 **D_{50} =** 1.7096 **D_{100} =** 1.7126 **C_V at 3.18 min. =** 0.144 ft.^{2}/day **C_α =** 0.001

Pressure: 1000.00 psf	TEST READINGS	Load No. 5

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.71288	12	0.9167	1.71898
2	0.1000	1.71559	13	1.1167	1.71976
3	0.2000	1.71674	14	1.3833	1.72022
4	0.2333	1.71696	15	1.7000	1.72071
5	0.2667	1.71705	16	2.1167	1.72148
6	0.3000	1.71718	17	2.6333	1.72231
7	0.3667	1.71728	18	3.3000	1.72266
8	0.4333	1.71749	19	4.1167	1.72304
9	0.5167	1.71777	20	5.1500	1.72324
10	0.6167	1.71826	21	6.4500	1.72360
11	0.7500	1.71871	22	8.0833	1.72402

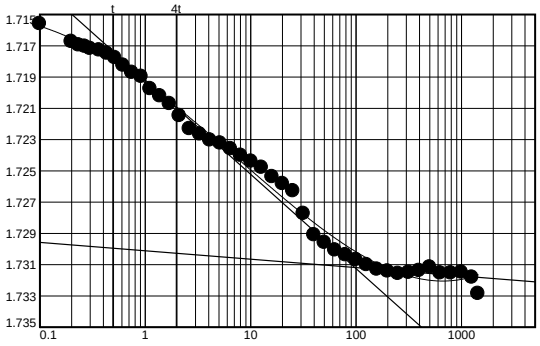


Figure B-149e

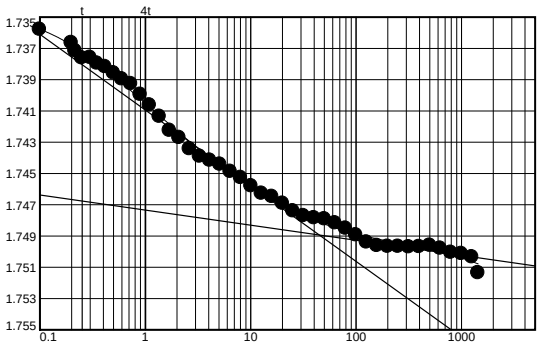
Pressure: 1000.00 psf | **TEST READINGS (continued)** | **Load No. 5**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	1.72440	33	100.1500	1.73069	43	1000.1833	1.73149
24	12.7333	1.72479	34	126.0500	1.73102	44	1259.1167	1.73181
25	16.0000	1.72539	35	158.6500	1.73130	45	1440.2500	1.73286
26	20.1000	1.72583	36	199.6833	1.73143			
27	25.2667	1.72629	37	251.3500	1.73158			
28	31.7667	1.72774	38	316.4000	1.73151			
29	39.9667	1.72910	39	398.2833	1.73139			
30	50.2667	1.72959	40	501.3667	1.73117			
31	63.2500	1.73007	41	631.1333	1.73155			
32	79.5833	1.73039	42	794.5167	1.73154			

Void Ratio = 0.950 **Compression =** 5.9%
D_0 = 1.7150 **D_{50} =** 1.7231 **D_{100} =** 1.7312 **C_v at 4.86 min. =** 0.092 ft.^{2}/day **C_α =** 0.001

Pressure: 2000.00 psf | **TEST READINGS** | **Load No. 6**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.73196	24	12.7167	1.74628
2	0.1000	1.73579	25	15.9833	1.74649
3	0.2000	1.73664	26	20.0833	1.74692
4	0.2167	1.73716	27	25.2500	1.74741
5	0.2500	1.73761	28	31.7500	1.74772
6	0.3000	1.73759	29	39.9500	1.74785
7	0.3500	1.73796	30	50.2500	1.74792
8	0.4167	1.73818	31	63.2333	1.74817
9	0.5000	1.73858	32	79.5667	1.74851
10	0.6000	1.73897	33	100.1333	1.74894
11	0.7333	1.73927	34	126.0333	1.74941
12	0.9000	1.73995	35	158.6333	1.74962
13	1.1000	1.74063	36	199.6667	1.74967
14	1.3667	1.74136	37	251.3333	1.74968
15	1.7000	1.74226	38	316.3833	1.74971
16	2.1000	1.74271	39	398.2667	1.74970
17	2.6333	1.74344	40	501.3500	1.74961
18	3.2833	1.74391	41	631.1167	1.74980
19	4.1000	1.74416	42	794.4833	1.75006
20	5.1333	1.74442	43	1000.1667	1.75013
21	6.4333	1.74489	44	1259.1000	1.75035
22	8.0667	1.74528	45	1440.4333	1.75136
23	10.1167	1.74581			

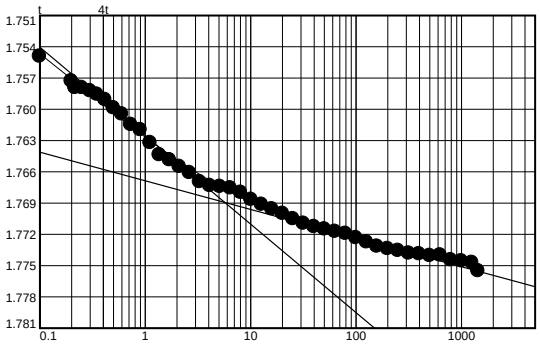


Void Ratio = 0.912 **Compression =** 7.8%
D_0 = 1.7340 **D_{50} =** 1.7414 **D_{100} =** 1.7489 **C_v at 1.44 min. =** 0.296 ft.^{2}/day **C_α =** 0.001

Figure B-149f

Pressure: 4000.00 psf	TEST READINGS	Load No. 7

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.74969	24	12.7167	1.76915
2	0.1000	1.75493	25	15.9833	1.76958
3	0.2000	1.75730	26	20.0833	1.77002
4	0.2167	1.75793	27	25.2500	1.77052
5	0.2500	1.75794	28	31.7500	1.77097
6	0.3000	1.75824	29	39.9500	1.77128
7	0.3500	1.75858	30	50.2500	1.77151
8	0.4167	1.75908	31	63.2333	1.77174
9	0.5000	1.75987	32	79.5667	1.77194
10	0.6000	1.76047	33	100.1500	1.77235
11	0.7333	1.76148	34	126.0333	1.77276
12	0.9000	1.76198	35	158.6333	1.77315
13	1.1167	1.76322	36	199.6833	1.77338
14	1.3667	1.76439	37	251.3333	1.77357
15	1.7000	1.76487	38	316.3833	1.77382
16	2.1167	1.76552	39	398.2667	1.77389
17	2.6333	1.76611	40	501.3500	1.77405
18	3.2833	1.76696	41	631.1167	1.77400
19	4.1000	1.76734	42	794.4833	1.77446
20	5.1333	1.76744	43	1000.1667	1.77457
21	6.4333	1.76757	44	1259.1000	1.77472
22	8.0667	1.76799	45	1440.4333	1.77552
23	10.1333	1.76867			



Void Ratio = 0.862 **Compression =** 10.2%

D_0 = 1.7498 **D_{50} =** 1.7594 **D_{100} =** 1.7689 **C_V at 0.38 min. =** 1.077 ft.^{2}/day **C_α =** 0.003

Pressure: 1000.00 psf	TEST READINGS	Load No. 8

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.77744	12	0.9167	1.77365	23	10.1500	1.77345
2	0.1000	1.77500	13	1.1167	1.77359	24	12.7333	1.77345
3	0.2000	1.77413	14	1.3833	1.77359	25	16.0000	1.77346
4	0.2333	1.77406	15	1.7167	1.77360	26	20.1000	1.77348
5	0.2667	1.77401	16	2.1167	1.77350	27	25.2667	1.77346
6	0.3000	1.77394	17	2.6500	1.77352	28	31.7667	1.77347
7	0.3667	1.77382	18	3.3000	1.77348	29	39.9667	1.77349
8	0.4333	1.77376	19	4.1167	1.77349	30	50.2667	1.77348
9	0.5167	1.77374	20	5.1500	1.77349	31	63.2500	1.77348
10	0.6167	1.77369	21	6.4500	1.77345	32	79.5833	1.77348
11	0.7500	1.77367	22	8.0833	1.77349	33	100.1500	1.77350

Figure B-149g

Pressure: 1000.00 psf	TEST READINGS (continued)	Load No. 8

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
34	126.0500	1.77344	44	1259.1167	1.77188
35	158.6500	1.77344	45	1440.4667	1.77210
36	199.7000	1.77342			
37	251.3500	1.77335			
38	316.4000	1.77318			
39	398.2833	1.77289			
40	501.3667	1.77248			
41	631.1333	1.77231			
42	794.5000	1.77228			
43	1000.1833	1.77202			

Void Ratio = 0.869 **Compression =** 9.8%

Pressure: 2000.00 psf	TEST READINGS	Load No. 9

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.77152	16	2.1167	1.77338	31	63.2333	1.77396
2	0.1000	1.77326	17	2.6333	1.77343	32	79.5667	1.77401
3	0.2000	1.77330	18	3.2833	1.77343	33	100.1333	1.77401
4	0.2333	1.77329	19	4.1000	1.77346	34	126.0333	1.77401
5	0.2667	1.77330	20	5.1333	1.77347	35	158.6333	1.77398
6	0.3000	1.77332	21	6.4333	1.77351	36	199.6833	1.77405
7	0.3500	1.77333	22	8.0667	1.77353	37	251.3333	1.77404
8	0.4167	1.77331	23	10.1333	1.77356	38	316.3833	1.77401
9	0.5000	1.77333	24	12.7167	1.77357	39	398.2667	1.77386
10	0.6167	1.77332	25	15.9833	1.77362	40	501.3500	1.77355
11	0.7333	1.77332	26	20.0833	1.77363	41	631.1167	1.77322
12	0.9000	1.77334	27	25.2500	1.77370	42	794.5000	1.77347
13	1.1167	1.77337	28	31.7500	1.77375	43	1000.1833	1.77337
14	1.3833	1.77337	29	39.9500	1.77381	44	1259.1000	1.77325
15	1.7000	1.77341	30	50.2500	1.77384	45	1440.0000	1.77336

Void Ratio = 0.866 **Compression =** 10.0%

Figure B-149h

Pressure: 4000.00 psf	TEST READINGS	Load No. 10

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.77212	16	2.1333	1.77573	31	63.2500	1.77671
2	0.1000	1.77527	17	2.6500	1.77577	32	79.5833	1.77675
3	0.2000	1.77545	18	3.3000	1.77581	33	100.1667	1.77682
4	0.2333	1.77548	19	4.1167	1.77591	34	126.0500	1.77695
5	0.2667	1.77551	20	5.1500	1.77606	35	158.6500	1.77712
6	0.3000	1.77550	21	6.4500	1.77615	36	199.7000	1.77727
7	0.3667	1.77547	22	8.0833	1.77623	37	251.3500	1.77738
8	0.4333	1.77553	23	10.1500	1.77628	38	316.4000	1.77758
9	0.5167	1.77555	24	12.7333	1.77630	39	398.2833	1.77748
10	0.6167	1.77556	25	16.0000	1.77643	40	501.3667	1.77732
11	0.7500	1.77556	26	20.1000	1.77649	41	631.1333	1.77720
12	0.9167	1.77561	27	25.2667	1.77653	42	794.5000	1.77763
13	1.1167	1.77561	28	31.7667	1.77658	43	1000.1833	1.77766
14	1.3833	1.77565	29	39.9667	1.77661	44	1259.1167	1.77807
15	1.7167	1.77568	30	50.2667	1.77667	45	1440.1667	1.77869

Void Ratio = 0.855 **Compression =** 10.5%

Pressure: 8000.00 psf	TEST READINGS	Load No. 11

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.77641	21	6.4333	1.79393
2	0.1000	1.78250	22	8.0667	1.79444
3	0.2000	1.78407	23	10.1333	1.79492
4	0.2333	1.78471	24	12.7167	1.79529
5	0.2667	1.78506	25	15.9833	1.79553
6	0.3000	1.78564	26	20.0833	1.79590
7	0.3500	1.78628	27	25.2500	1.79610
8	0.4167	1.78699	28	31.7667	1.79621
9	0.5000	1.78751	29	39.9500	1.79669
10	0.6167	1.78810	30	50.2667	1.79704
11	0.7333	1.78873	31	63.2333	1.79748
12	0.9167	1.78946	32	79.5833	1.79815
13	1.1167	1.79027	33	100.1500	1.79869
14	1.3667	1.79053	34	126.0500	1.79898
15	1.7000	1.79067	35	158.6333	1.79927
16	2.1167	1.79133	36	199.6833	1.79970
17	2.6333	1.79205	37	251.3333	1.79993
18	3.2833	1.79284	38	316.3833	1.80018
19	4.1000	1.79338	39	398.2667	1.80017
20	5.1333	1.79369	40	501.3500	1.80019

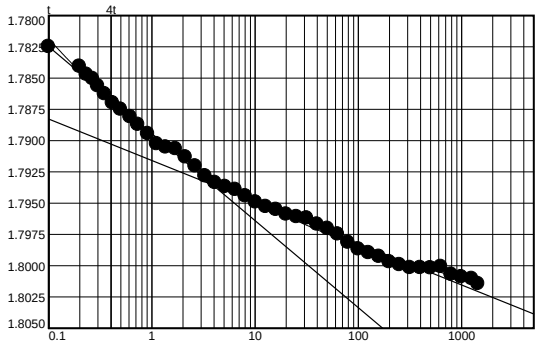


Figure B-149i

Pressure: 8000.00 psf	TEST READINGS (continued)	Load No. 11

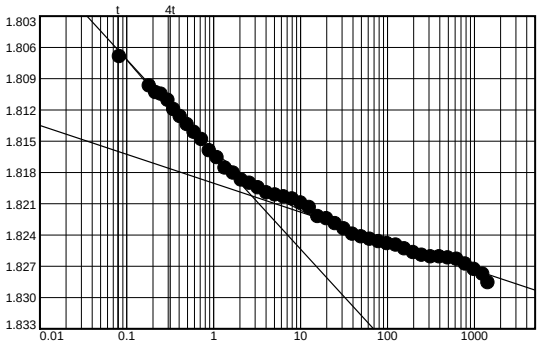
No.	Elapsed Time	Dial Reading
41	631.1167	1.80008
42	794.5000	1.80070
43	1000.1667	1.80091
44	1259.1000	1.80105
45	1440.0333	1.80146

Void Ratio = 0.808 **Compression =** 12.8%

D_0 = 1.7769 **D_{50} =** 1.7852 **D_{100} =** 1.7936 **C_v at 0.25 min. =** 1.547 ft.^{2}/day **C_α =** 0.003

Pressure: 16000.00 psf	TEST READINGS	Load No. 12

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.79810	24	12.7167	1.82140
2	0.0833	1.80692	25	15.9667	1.82226
3	0.1833	1.80973	26	20.0833	1.82247
4	0.2167	1.81037	27	25.2500	1.82294
5	0.2500	1.81053	28	31.7500	1.82344
6	0.3000	1.81110	29	39.9500	1.82395
7	0.3500	1.81199	30	50.2500	1.82421
8	0.4167	1.81266	31	63.2333	1.82443
9	0.5000	1.81343	32	79.5667	1.82467
10	0.6000	1.81418	33	100.1333	1.82486
11	0.7333	1.81486	34	126.0333	1.82501
12	0.9000	1.81594	35	158.6333	1.82536
13	1.1000	1.81661	36	199.6833	1.82572
14	1.3667	1.81761	37	251.3333	1.82598
15	1.7000	1.81810	38	316.3833	1.82612
16	2.1000	1.81875	39	398.2667	1.82612
17	2.6167	1.81907	40	501.3500	1.82622
18	3.2833	1.81951	41	631.1167	1.82635
19	4.1000	1.81998	42	794.4833	1.82681
20	5.1333	1.82020	43	1000.1667	1.82733
21	6.4333	1.82038	44	1259.1000	1.82780
22	8.0667	1.82058	45	1440.4833	1.82861
23	10.1167	1.82096			



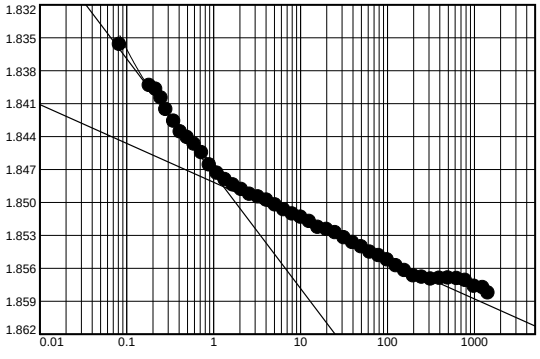
Void Ratio = 0.751 **Compression =** 15.5%

D_0 = 1.8005 **D_{50} =** 1.8104 **D_{100} =** 1.8202 **C_v at 0.21 min. =** 1.712 ft.^{2}/day **C_α =** 0.003

Figure B-149j

Pressure: 32000.00 psf	TEST READINGS	Load No. 13

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.82483	24	12.7167	1.85176
2	0.0833	1.83562	25	15.9667	1.85229
3	0.1833	1.83938	26	20.0833	1.85250
4	0.2167	1.83972	27	25.2500	1.85278
5	0.2500	1.84051	28	31.7500	1.85325
6	0.2833	1.84156	29	39.9500	1.85369
7	0.3500	1.84263	30	50.2500	1.85408
8	0.4167	1.84359	31	63.2333	1.85455
9	0.5000	1.84411	32	79.5667	1.85488
10	0.6000	1.84471	33	100.1333	1.85526
11	0.7333	1.84549	34	126.0333	1.85579
12	0.9000	1.84661	35	158.6333	1.85624
13	1.1000	1.84736	36	199.6667	1.85672
14	1.3667	1.84794	37	251.3333	1.85685
15	1.6833	1.84844	38	316.3833	1.85700
16	2.1000	1.84884	39	398.2667	1.85693
17	2.6167	1.84928	40	501.3500	1.85691
18	3.2667	1.84952	41	631.1167	1.85697
19	4.1000	1.84981	42	794.4833	1.85712
20	5.1333	1.85026	43	1000.1667	1.85767
21	6.4333	1.85070	44	1259.1000	1.85779
22	8.0667	1.85108	45	1440.4833	1.85827
23	10.1167	1.85137			

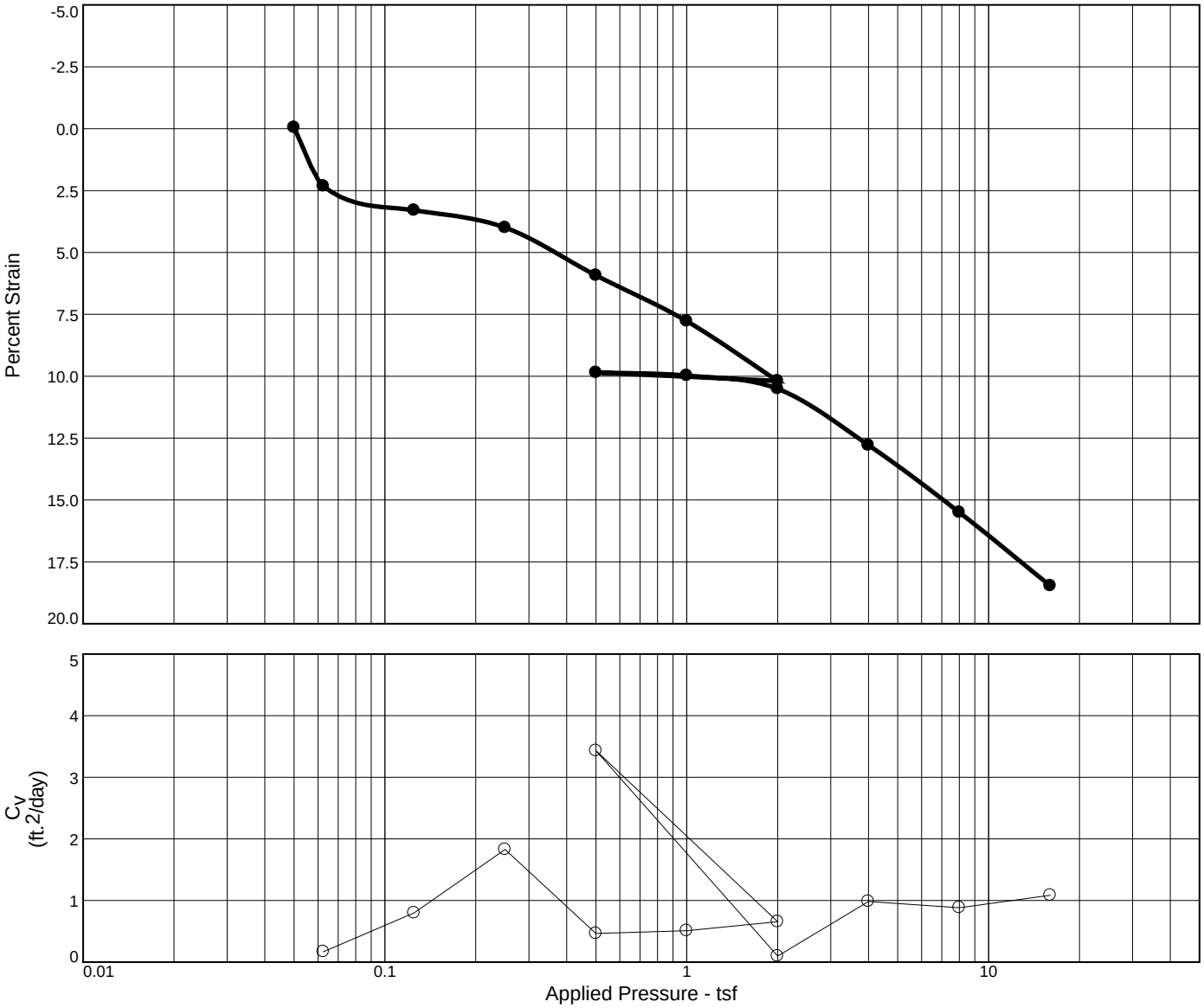


Void Ratio = 0.690 **Compression =** 18.5%

D_0 = 1.8248 **D_{50} =** 1.8367 **D_{100} =** 1.8486 **C_V at 0.11 min. =** 3.084 ft.^{2}/day **C_α =** 0.004

Figure B-149k

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	P_c (tsf)	C_c	Initial Void Ratio
Saturation	Moisture							
108.5 %	43.5 %	80.6	39	14	2.677	0.6	0.19	1.073

MATERIAL DESCRIPTION	USCS	AASHTO
Very soft gray silty clay with sand and shell fragments	(CL)	

Project No. 18274-022-01 **Client:** CEC

Project: Chandeleur Island Restoration Project (PO-0199)

Location: C-24 sqrt **Depth:** 8-10

Remarks:
Specific gravity was measured.

GeoEngineers

Figure B-150a

Tested By: Dustin Blanchard **Checked By:** J. Aguettant

CONSOLIDATION TEST DATA

12/22/2023

Client: CEC
Project: Chandeleur Island Restoration Project (PO-0199)
Project Number: 18274-022-01
Location: C-24 sqrt
Depth: 8-10
Material Description: Very soft gray silty clay with sand and shell fragments
Liquid Limit: 39 **Plasticity Index:** 14
USCS: (CL)
Testing Remarks: Specific gravity was measured.
Tested by: Dustin Blanchard **Checked by:** J. Aguettant

Test Specimen Data

NATURAL MOISTURE		VOID RATIO		AFTER TEST	
Wet w+t =	153.35 g.	Spec. Gr. =	2.677	Wet w+t =	175.20 g.
Dry w+t =	112.47 g.	Est. Ht. Solids =	0.482 in.	Dry w+t =	144.50 g.
Tare Wt. =	18.47 g.	Init. V.R. =	1.073	Tare Wt. =	36.93 g.
Moisture =	43.5 %	Init. Sat. =	108.5 %	Moisture =	28.5 %

UNIT WEIGHT		TEST START			
Height =	1.000 in.	Height =	1.000 in.		
Diameter =	2.500 in.	Diameter =	2.500 in.	Dry Wt. =	107.57 g.
Weight =	149.07 g.				
Dry Dens. =	80.6 pcf				

End-Of-Load Summary

Pressure (psf)	Final Dial (in.)	Deformation (in.)	C_v (ft.^{2}/day)	C_α	Void Ratio	% Strain
start	1.67361	0.00000			1.073	
100.00	1.67314	-0.00047			1.074	0.0 Swell
125.00	1.69685	0.02324	0.168		1.025	2.3 Comprs.
250.00	1.70658	0.03297	0.800		1.004	3.3 Comprs.
500.00	1.71356	0.03995	1.827		0.990	4.0 Comprs.
1000.00	1.73286	0.05925	0.465		0.950	5.9 Comprs.
2000.00	1.75136	0.07775	0.509		0.912	7.8 Comprs.
4000.00	1.77552	0.10191	0.655		0.862	10.2 Comprs.
1000.00	1.77210	0.09849	3.432		0.869	9.8 Comprs.
2000.00	1.77336	0.09975			0.866	10.0 Comprs.
4000.00	1.77869	0.10508	0.097		0.855	10.5 Comprs.
8000.00	1.80146	0.12785	0.984		0.808	12.8 Comprs.
16000.00	1.82861	0.15500	0.883		0.751	15.5 Comprs.
32000.00	1.85827	0.18466	1.084		0.690	18.5 Comprs.

Compression index (C_c), tsf = 0.19 **Preconsolidation pressure (P_p), tsf =** 0.6 **Void ratio at P_p (e_m) =** 0.941
Recompression index (C_r) = 0.07

Figure B-150b

Pressure: 100.00 psf	TEST READINGS	Load No. 1

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.67361	16	2.4500	1.67361	31	79.4000	1.67373
2	0.0333	1.67359	17	3.1167	1.67364	32	99.9667	1.67374
3	0.0500	1.67360	18	3.9333	1.67364	33	125.8667	1.67373
4	0.0833	1.67362	19	4.9667	1.67365	34	158.4667	1.67383
5	0.1333	1.67358	20	6.2667	1.67364	35	199.5000	1.67389
6	0.1833	1.67361	21	7.9000	1.67364	36	251.1667	1.67385
7	0.2500	1.67360	22	9.9500	1.67364	37	316.2000	1.67380
8	0.3333	1.67361	23	12.5500	1.67361	38	398.0833	1.67365
9	0.4333	1.67361	24	15.8167	1.67361	39	501.1667	1.67341
10	0.5667	1.67361	25	19.9167	1.67365	40	630.9500	1.67313
11	0.7333	1.67360	26	25.0833	1.67364	41	794.3167	1.67296
12	0.9333	1.67362	27	31.5833	1.67365	42	999.9833	1.67323
13	1.2000	1.67362	28	39.7833	1.67368	43	1258.9167	1.67308
14	1.5333	1.67361	29	50.0833	1.67369	44	1440.2167	1.67314
15	1.9333	1.67361	30	63.0667	1.67371			

Void Ratio = 1.074 **Swell =** 0.0%

Pressure: 125.00 psf	TEST READINGS	Load No. 2

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.67299	21	6.4333	1.68709
2	0.1000	1.67312	22	8.0667	1.68887
3	0.2000	1.67336	23	10.1333	1.68998
4	0.2333	1.67347	24	12.7167	1.69104
5	0.2667	1.67356	25	15.9833	1.69186
6	0.3000	1.67367	26	20.1000	1.69318
7	0.3500	1.67390	27	25.2667	1.69387
8	0.4167	1.67413	28	31.7667	1.69429
9	0.5000	1.67439	29	39.9500	1.69484
10	0.6167	1.67464	30	50.2667	1.69500
11	0.7333	1.67485	31	63.2500	1.69515
12	0.9000	1.67535	32	79.5833	1.69548
13	1.1167	1.67739	33	100.1500	1.69563
14	1.3833	1.67889	34	126.0500	1.69573
15	1.7000	1.68001	35	158.6500	1.69604
16	2.1167	1.68131	36	199.6833	1.69627
17	2.6333	1.68198	37	251.3500	1.69644
18	3.2833	1.68318	38	316.3833	1.69648
19	4.1000	1.68461	39	398.2667	1.69645
20	5.1333	1.68606	40	501.3500	1.69626

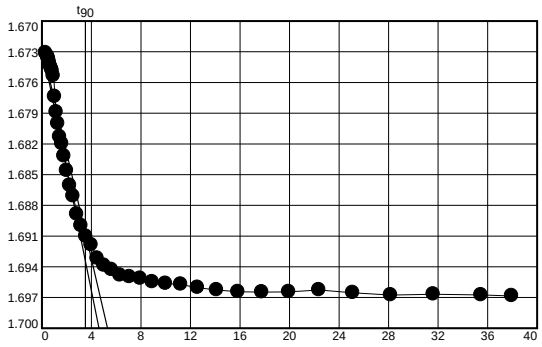


Figure B-150c

Pressure: 125.00 psf | **TEST READINGS (continued)** | **Load No. 2**

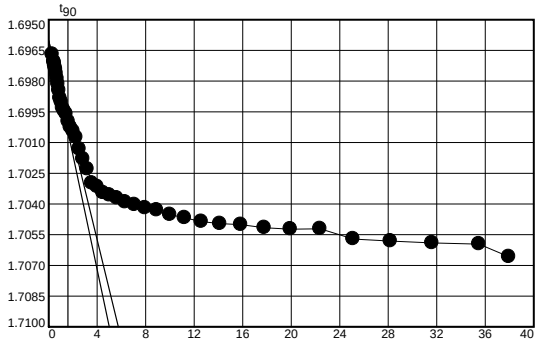
No.	Elapsed Time	Dial Reading
41	631.1333	1.69654
42	794.5000	1.69676
43	1000.1667	1.69668
44	1259.1000	1.69675
45	1440.2667	1.69685

Void Ratio = 1.025 **Compression =** 2.3%

D_0 = 1.6725 **D_{90} =** 1.6909 **D_{100} =** 1.6929 **C_v at 12.36 min. =** 0.168 ft.^{2}/day

Pressure: 250.00 psf | **TEST READINGS** | **Load No. 3**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.69572	24	12.7167	1.70298
2	0.1000	1.69670	25	15.9833	1.70315
3	0.2000	1.69704	26	20.0833	1.70345
4	0.2333	1.69710	27	25.2500	1.70357
5	0.2667	1.69722	28	31.7667	1.70372
6	0.3000	1.69733	29	39.9500	1.70391
7	0.3500	1.69744	30	50.2500	1.70404
8	0.4167	1.69762	31	63.2333	1.70420
9	0.5167	1.69788	32	79.5833	1.70430
10	0.6167	1.69814	33	100.1500	1.70452
11	0.7500	1.69845	34	126.0333	1.70468
12	0.9167	1.69883	35	158.6333	1.70486
13	1.1167	1.69902	36	199.6833	1.70496
14	1.3833	1.69931	37	251.3333	1.70501
15	1.7000	1.69946	38	316.3833	1.70516
16	2.1167	1.69960	39	398.2667	1.70523
17	2.6333	1.69997	40	501.3500	1.70521
18	3.2833	1.70025	41	631.1167	1.70571
19	4.1000	1.70045	42	794.5000	1.70581
20	5.1333	1.70075	43	1000.1667	1.70590
21	6.4333	1.70132	44	1259.1000	1.70596
22	8.0667	1.70180	45	1440.3333	1.70658
23	10.1333	1.70229			



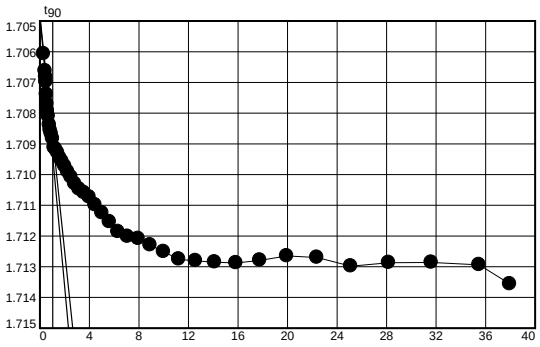
Void Ratio = 1.004 **Compression =** 3.3%

D_0 = 1.6960 **D_{90} =** 1.6999 **D_{100} =** 1.7003 **C_v at 2.51 min. =** 0.800 ft.^{2}/day

Figure B-150d

Pressure: 500.00 psf	TEST READINGS	Load No. 4

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.70501	24	12.7167	1.71059
2	0.1000	1.70607	25	15.9833	1.71073
3	0.2000	1.70663	26	20.0833	1.71099
4	0.2333	1.70682	27	25.2500	1.71125
5	0.2667	1.70698	28	31.7667	1.71154
6	0.3000	1.70739	29	39.9500	1.71186
7	0.3500	1.70770	30	50.2500	1.71202
8	0.4167	1.70793	31	63.2333	1.71209
9	0.5000	1.70810	32	79.5667	1.71230
10	0.6167	1.70838	33	100.1333	1.71251
11	0.7333	1.70855	34	126.0333	1.71276
12	0.9000	1.70867	35	158.6333	1.71281
13	1.1167	1.70883	36	199.6667	1.71285
14	1.3833	1.70913	37	251.3333	1.71288
15	1.7000	1.70919	38	316.3833	1.71279
16	2.1167	1.70929	39	398.2667	1.71265
17	2.6333	1.70946	40	501.3500	1.71270
18	3.2833	1.70957	41	631.1167	1.71298
19	4.1167	1.70973	42	794.4833	1.71287
20	5.1333	1.70991	43	1000.1667	1.71286
21	6.4333	1.71008	44	1259.1000	1.71294
22	8.0667	1.71030	45	1440.2500	1.71356
23	10.1333	1.71047			



Void Ratio = 0.990 **Compression =** 4.0%

D_0 = 1.7048 **D_{90} =** 1.7088 **D_{100} =** 1.7092 **C_V at 1.08 min. =** 1.827 ft.^{2}/day

Pressure: 1000.00 psf	TEST READINGS	Load No. 5

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.71288	12	0.9167	1.71898
2	0.1000	1.71559	13	1.1167	1.71976
3	0.2000	1.71674	14	1.3833	1.72022
4	0.2333	1.71696	15	1.7000	1.72071
5	0.2667	1.71705	16	2.1167	1.72148
6	0.3000	1.71718	17	2.6333	1.72231
7	0.3667	1.71728	18	3.3000	1.72266
8	0.4333	1.71749	19	4.1167	1.72304
9	0.5167	1.71777	20	5.1500	1.72324
10	0.6167	1.71826	21	6.4500	1.72360
11	0.7500	1.71871	22	8.0833	1.72402

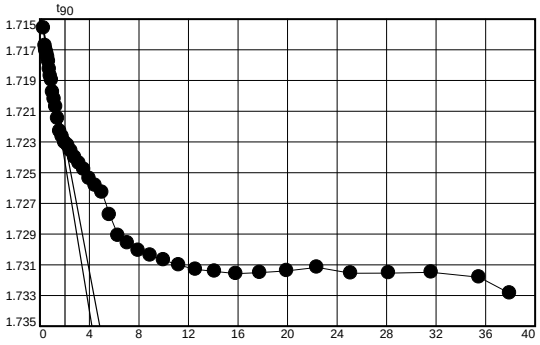


Figure B-150e

Pressure: 1000.00 psf | **TEST READINGS (continued)** | **Load No. 5**

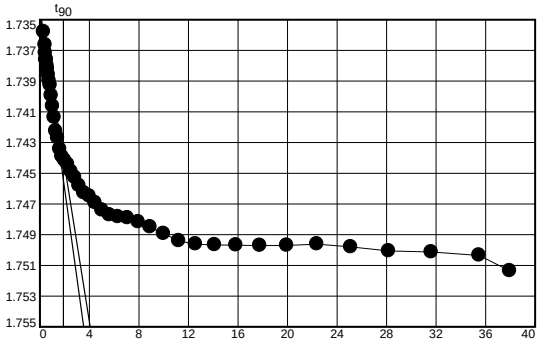
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	1.72440	33	100.1500	1.73069	43	1000.1833	1.73149
24	12.7333	1.72479	34	126.0500	1.73102	44	1259.1167	1.73181
25	16.0000	1.72539	35	158.6500	1.73130	45	1440.2500	1.73286
26	20.1000	1.72583	36	199.6833	1.73143			
27	25.2667	1.72629	37	251.3500	1.73158			
28	31.7667	1.72774	38	316.4000	1.73151			
29	39.9667	1.72910	39	398.2833	1.73139			
30	50.2667	1.72959	40	501.3667	1.73117			
31	63.2500	1.73007	41	631.1333	1.73155			
32	79.5833	1.73039	42	794.5167	1.73154			

Void Ratio = 0.950 **Compression =** 5.9%

D_0 = 1.7144 **D_{90} =** 1.7230 **D_{100} =** 1.7240 **C_V at 4.12 min. =** 0.465 ft.^{2}/day

Pressure: 2000.00 psf | **TEST READINGS** | **Load No. 6**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.73196	24	12.7167	1.74628
2	0.1000	1.73579	25	15.9833	1.74649
3	0.2000	1.73664	26	20.0833	1.74692
4	0.2167	1.73716	27	25.2500	1.74741
5	0.2500	1.73761	28	31.7500	1.74772
6	0.3000	1.73759	29	39.9500	1.74785
7	0.3500	1.73796	30	50.2500	1.74792
8	0.4167	1.73818	31	63.2333	1.74817
9	0.5000	1.73858	32	79.5667	1.74851
10	0.6000	1.73897	33	100.1333	1.74894
11	0.7333	1.73927	34	126.0333	1.74941
12	0.9000	1.73995	35	158.6333	1.74962
13	1.1000	1.74063	36	199.6667	1.74967
14	1.3667	1.74136	37	251.3333	1.74968
15	1.7000	1.74226	38	316.3833	1.74971
16	2.1000	1.74271	39	398.2667	1.74970
17	2.6333	1.74344	40	501.3500	1.74961
18	3.2833	1.74391	41	631.1167	1.74980
19	4.1000	1.74416	42	794.4833	1.75006
20	5.1333	1.74442	43	1000.1667	1.75013
21	6.4333	1.74489	44	1259.1000	1.75035
22	8.0667	1.74528	45	1440.4333	1.75136
23	10.1167	1.74581			



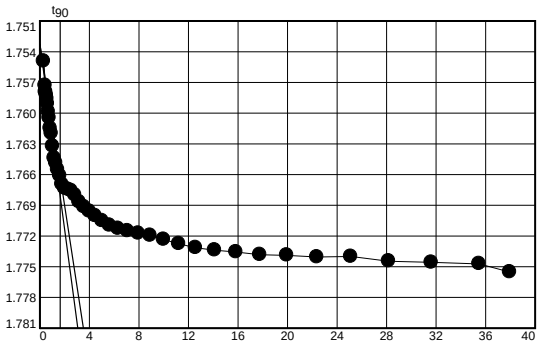
Void Ratio = 0.912 **Compression =** 7.8%

D_0 = 1.7344 **D_{90} =** 1.7440 **D_{100} =** 1.7451 **C_V at 3.61 min. =** 0.509 ft.^{2}/day

Figure B-150f

Pressure: 4000.00 psf	TEST READINGS	Load No. 7

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.74969	24	12.7167	1.76915
2	0.1000	1.75493	25	15.9833	1.76958
3	0.2000	1.75730	26	20.0833	1.77002
4	0.2167	1.75793	27	25.2500	1.77052
5	0.2500	1.75794	28	31.7500	1.77097
6	0.3000	1.75824	29	39.9500	1.77128
7	0.3500	1.75858	30	50.2500	1.77151
8	0.4167	1.75908	31	63.2333	1.77174
9	0.5000	1.75987	32	79.5667	1.77194
10	0.6000	1.76047	33	100.1500	1.77235
11	0.7333	1.76148	34	126.0333	1.77276
12	0.9000	1.76198	35	158.6333	1.77315
13	1.1167	1.76322	36	199.6833	1.77338
14	1.3667	1.76439	37	251.3333	1.77357
15	1.7000	1.76487	38	316.3833	1.77382
16	2.1167	1.76552	39	398.2667	1.77389
17	2.6333	1.76611	40	501.3500	1.77405
18	3.2833	1.76696	41	631.1167	1.77400
19	4.1000	1.76734	42	794.4833	1.77446
20	5.1333	1.76744	43	1000.1667	1.77457
21	6.4333	1.76757	44	1259.1000	1.77472
22	8.0667	1.76799	45	1440.4333	1.77552
23	10.1333	1.76867			



Void Ratio = 0.862 **Compression =** 10.2%

D_0 = 1.7533 **D_{90} =** 1.7662 **D_{100} =** 1.7676 **C_V at 2.69 min. =** 0.655 ft.^{2}/day

Pressure: 1000.00 psf	TEST READINGS	Load No. 8

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.77744	12	0.9167	1.77365
2	0.1000	1.77500	13	1.1167	1.77359
3	0.2000	1.77413	14	1.3833	1.77359
4	0.2333	1.77406	15	1.7167	1.77360
5	0.2667	1.77401	16	2.1167	1.77350
6	0.3000	1.77394	17	2.6500	1.77352
7	0.3667	1.77382	18	3.3000	1.77348
8	0.4333	1.77376	19	4.1167	1.77349
9	0.5167	1.77374	20	5.1500	1.77349
10	0.6167	1.77369	21	6.4500	1.77345
11	0.7500	1.77367	22	8.0833	1.77349

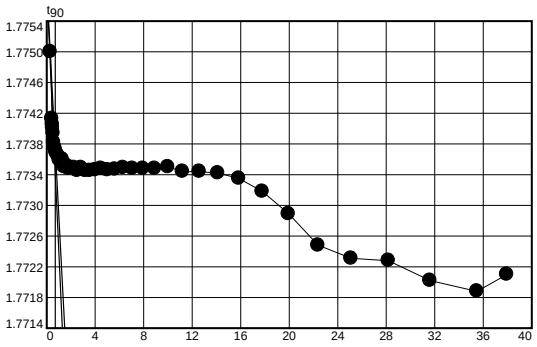


Figure B-150g

Pressure: 1000.00 psf	TEST READINGS (continued)	Load No. 8

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1500	1.77345	33	100.1500	1.77350	43	1000.1833	1.77202
24	12.7333	1.77345	34	126.0500	1.77344	44	1259.1167	1.77188
25	16.0000	1.77346	35	158.6500	1.77344	45	1440.4667	1.77210
26	20.1000	1.77348	36	199.7000	1.77342			
27	25.2667	1.77346	37	251.3500	1.77335			
28	31.7667	1.77347	38	316.4000	1.77318			
29	39.9667	1.77349	39	398.2833	1.77289			
30	50.2667	1.77348	40	501.3667	1.77248			
31	63.2500	1.77348	41	631.1333	1.77231			
32	79.5833	1.77348	42	794.5000	1.77228			

Void Ratio = 0.869 **Compression =** 9.8%

D_0 = 1.7759 **D_{90} =** 1.7737 **D_{100} =** 1.7735 **C_V at 0.50 min. =** 3.432 ft.^{2}/day

Pressure: 2000.00 psf	TEST READINGS	Load No. 9

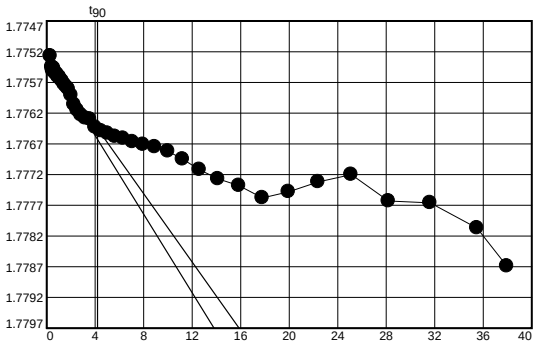
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.77152	16	2.1167	1.77338	31	63.2333	1.77396
2	0.1000	1.77326	17	2.6333	1.77343	32	79.5667	1.77401
3	0.2000	1.77330	18	3.2833	1.77343	33	100.1333	1.77401
4	0.2333	1.77329	19	4.1000	1.77346	34	126.0333	1.77401
5	0.2667	1.77330	20	5.1333	1.77347	35	158.6333	1.77398
6	0.3000	1.77332	21	6.4333	1.77351	36	199.6833	1.77405
7	0.3500	1.77333	22	8.0667	1.77353	37	251.3333	1.77404
8	0.4167	1.77331	23	10.1333	1.77356	38	316.3833	1.77401
9	0.5000	1.77333	24	12.7167	1.77357	39	398.2667	1.77386
10	0.6167	1.77332	25	15.9833	1.77362	40	501.3500	1.77355
11	0.7333	1.77332	26	20.0833	1.77363	41	631.1167	1.77322
12	0.9000	1.77334	27	25.2500	1.77370	42	794.5000	1.77347
13	1.1167	1.77337	28	31.7500	1.77375	43	1000.1833	1.77337
14	1.3833	1.77337	29	39.9500	1.77381	44	1259.1000	1.77325
15	1.7000	1.77341	30	50.2500	1.77384	45	1440.0000	1.77336

Void Ratio = 0.866 **Compression =** 10.0%

Figure B-150h

Pressure: 4000.00 psf	TEST READINGS	Load No. 10

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.77212	24	12.7333	1.77630
2	0.1000	1.77527	25	16.0000	1.77643
3	0.2000	1.77545	26	20.1000	1.77649
4	0.2333	1.77548	27	25.2667	1.77653
5	0.2667	1.77551	28	31.7667	1.77658
6	0.3000	1.77550	29	39.9667	1.77661
7	0.3667	1.77547	30	50.2667	1.77667
8	0.4333	1.77553	31	63.2500	1.77671
9	0.5167	1.77555	32	79.5833	1.77675
10	0.6167	1.77556	33	100.1667	1.77682
11	0.7500	1.77556	34	126.0500	1.77695
12	0.9167	1.77561	35	158.6500	1.77712
13	1.1167	1.77561	36	199.7000	1.77727
14	1.3833	1.77565	37	251.3500	1.77738
15	1.7167	1.77568	38	316.4000	1.77758
16	2.1333	1.77573	39	398.2833	1.77748
17	2.6500	1.77577	40	501.3667	1.77732
18	3.3000	1.77581	41	631.1333	1.77720
19	4.1167	1.77591	42	794.5000	1.77763
20	5.1500	1.77606	43	1000.1833	1.77766
21	6.4500	1.77615	44	1259.1167	1.77807
22	8.0833	1.77623	45	1440.1667	1.77869
23	10.1500	1.77628			



Void Ratio = 0.855 **Compression =** 10.5%

D_0 = 1.7753 **D_{90} =** 1.7765 **D_{100} =** 1.7766 **C_V at 17.57 min. =** 0.097 ft.^{2}/day

Pressure: 8000.00 psf	TEST READINGS	Load No. 11

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.77641	12	0.9167	1.78946
2	0.1000	1.78250	13	1.1167	1.79027
3	0.2000	1.78407	14	1.3667	1.79053
4	0.2333	1.78471	15	1.7000	1.79067
5	0.2667	1.78506	16	2.1167	1.79133
6	0.3000	1.78564	17	2.6333	1.79205
7	0.3500	1.78628	18	3.2833	1.79284
8	0.4167	1.78699	19	4.1000	1.79338
9	0.5000	1.78751	20	5.1333	1.79369
10	0.6167	1.78810	21	6.4333	1.79393
11	0.7333	1.78873	22	8.0667	1.79444

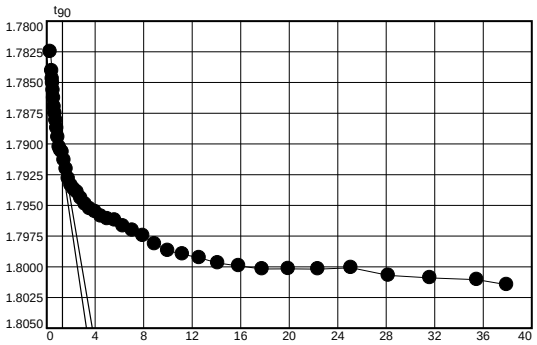


Figure B-150i

Pressure: 8000.00 psf | **TEST READINGS (continued)** | **Load No. 11**

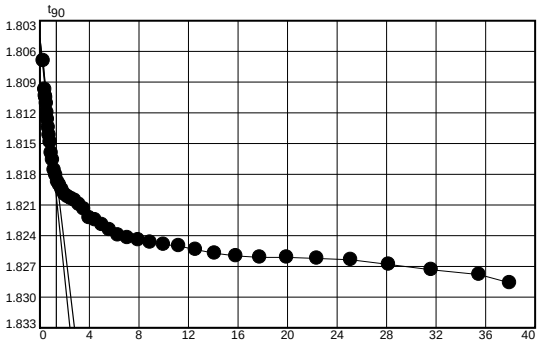
No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
23	10.1333	1.79492	33	100.1500	1.79869	43	1000.1667	1.80091
24	12.7167	1.79529	34	126.0500	1.79898	44	1259.1000	1.80105
25	15.9833	1.79553	35	158.6333	1.79927	45	1440.0333	1.80146
26	20.0833	1.79590	36	199.6833	1.79970			
27	25.2500	1.79610	37	251.3333	1.79993			
28	31.7667	1.79621	38	316.3833	1.80018			
29	39.9500	1.79669	39	398.2667	1.80017			
30	50.2667	1.79704	40	501.3500	1.80019			
31	63.2333	1.79748	41	631.1167	1.80008			
32	79.5833	1.79815	42	794.5000	1.80070			

Void Ratio = 0.808 **Compression =** 12.8%

D_0 = 1.7832 **D_{90} =** 1.7907 **D_{100} =** 1.7915 **C_V at 1.69 min. =** 0.984 ft.^{2}/day

Pressure: 16000.00 psf | **TEST READINGS** | **Load No. 12**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.79810	24	12.7167	1.82140
2	0.0833	1.80692	25	15.9667	1.82226
3	0.1833	1.80973	26	20.0833	1.82247
4	0.2167	1.81037	27	25.2500	1.82294
5	0.2500	1.81053	28	31.7500	1.82344
6	0.3000	1.81110	29	39.9500	1.82395
7	0.3500	1.81199	30	50.2500	1.82421
8	0.4167	1.81266	31	63.2333	1.82443
9	0.5000	1.81343	32	79.5667	1.82467
10	0.6000	1.81418	33	100.1333	1.82486
11	0.7333	1.81486	34	126.0333	1.82501
12	0.9000	1.81594	35	158.6333	1.82536
13	1.1000	1.81661	36	199.6833	1.82572
14	1.3667	1.81761	37	251.3333	1.82598
15	1.7000	1.81810	38	316.3833	1.82612
16	2.1000	1.81875	39	398.2667	1.82612
17	2.6167	1.81907	40	501.3500	1.82622
18	3.2833	1.81951	41	631.1167	1.82635
19	4.1000	1.81998	42	794.4833	1.82681
20	5.1333	1.82020	43	1000.1667	1.82733
21	6.4333	1.82038	44	1259.1000	1.82780
22	8.0667	1.82058	45	1440.4833	1.82861
23	10.1167	1.82096			



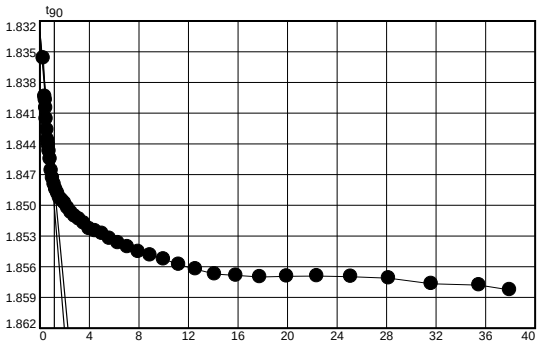
Void Ratio = 0.751 **Compression =** 15.5%

D_0 = 1.8047 **D_{90} =** 1.8182 **D_{100} =** 1.8197 **C_V at 1.78 min. =** 0.883 ft.^{2}/day

Figure B-150j

Pressure: 32000.00 psf	TEST READINGS	Load No. 13

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	1.82483	24	12.7167	1.85176
2	0.0833	1.83562	25	15.9667	1.85229
3	0.1833	1.83938	26	20.0833	1.85250
4	0.2167	1.83972	27	25.2500	1.85278
5	0.2500	1.84051	28	31.7500	1.85325
6	0.2833	1.84156	29	39.9500	1.85369
7	0.3500	1.84263	30	50.2500	1.85408
8	0.4167	1.84359	31	63.2333	1.85455
9	0.5000	1.84411	32	79.5667	1.85488
10	0.6000	1.84471	33	100.1333	1.85526
11	0.7333	1.84549	34	126.0333	1.85579
12	0.9000	1.84661	35	158.6333	1.85624
13	1.1000	1.84736	36	199.6667	1.85672
14	1.3667	1.84794	37	251.3333	1.85685
15	1.6833	1.84844	38	316.3833	1.85700
16	2.1000	1.84884	39	398.2667	1.85693
17	2.6167	1.84928	40	501.3500	1.85691
18	3.2667	1.84952	41	631.1167	1.85697
19	4.1000	1.84981	42	794.4833	1.85712
20	5.1333	1.85026	43	1000.1667	1.85767
21	6.4333	1.85070	44	1259.1000	1.85779
22	8.0667	1.85108	45	1440.4833	1.85827
23	10.1167	1.85137			

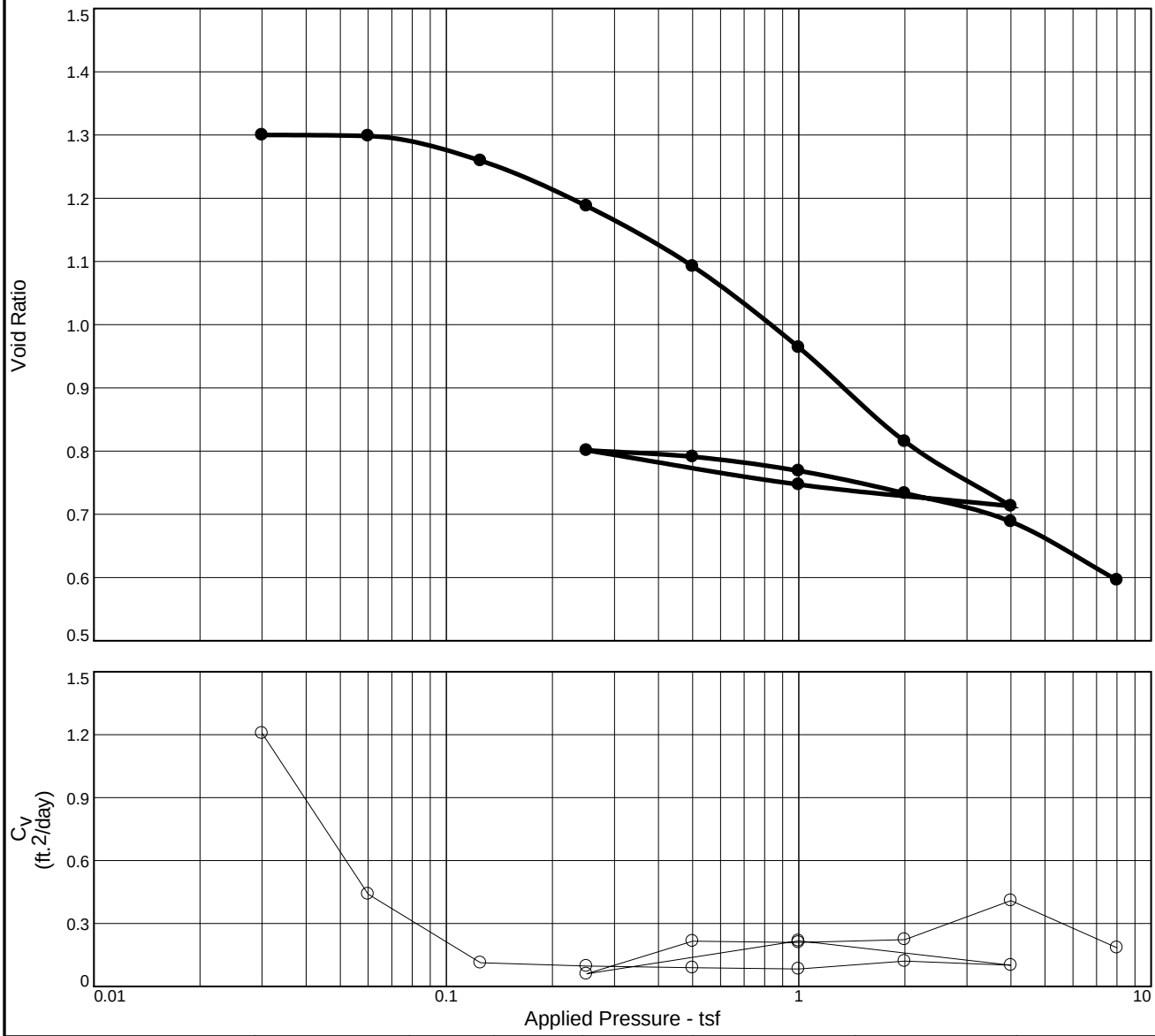


Void Ratio = 0.690 **Compression =** 18.5%

D_0 = 1.8331 **D_{90} =** 1.8479 **D_{100} =** 1.8496 **C_V at 1.35 min. =** 1.084 ft.^{2}/day

Figure B-150k

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	USCS	AASHTO	Initial Void Ratio
Saturation	Moisture							
99.0 %	48.6 %	71.9	40	18	2.650	CL		1.300

MATERIAL DESCRIPTION

Gray lean clay with sand pockets

Project No. 23A177 **Client:** Geoengineers, Inc.

Project: Chandeleur Island Restoration

Source of Sample: CI-25 **Depth:** 23-25ft

ADAPTIVE
MANAGEMENT AND ENGINEERING

Remarks:

Figure B-151a

Tested By: JSA **Checked By:** VT

CONSOLIDATION TEST DATA

9/13/2023

Client: Geoengineers, Inc.
Project: Chandeleur Island Restoration
Project Number: 23A177
Location: CI-25
Depth: 23-25ft
Material Description: Gray lean clay with sand pockets
Liquid Limit: 40 **Plasticity Index:** 18
USCS: CL
Tested by: JSA **Checked by:** VT

Test Specimen Data

NATURAL MOISTURE			VOID RATIO			AFTER TEST		
Wet w+t =	146.81	g.	Spec. Gr. =	2.650		Wet w+t =		g.
Dry w+t =	109.13	g.	Est. Ht. Solids =	0.434	in.	Dry w+t =		g.
Tare Wt. =	31.57	g.	Init. V.R. =	1.300		Tare Wt. =		g.
Moisture =	48.6	%	Init. Sat. =	99.0	%	Moisture =		%

UNIT WEIGHT			TEST START			Dry Wt. =
Height =	0.999	in.	Height =	0.999	in.	
Diameter =	2.499	in.	Diameter =	2.499	in.	
Weight =	137.43	g.				
Dry Dens. =	71.9	pcf				

End-Of-Load Summary

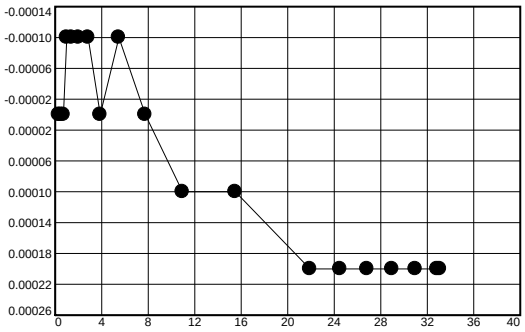
Pressure (tsf)	Final Dial (in.)	Deformation (in.)	C_v (ft.^{2}/day)	C_α	Void Ratio	% Strain
start	0.00000	0.00000			1.300	
0.03	0.00020	0.00020	1.206		1.300	0.0 Comprs.
0.06	0.00090	0.00090	0.440		1.298	0.1 Comprs.
0.13	0.01780	0.01780	0.113		1.259	1.8 Comprs.
0.25	0.04900	0.04900	0.097		1.188	4.9 Comprs.
0.50	0.09040	0.09040	0.089		1.092	9.0 Comprs.
1.00	0.14610	0.14610	0.083		0.964	14.6 Comprs.
2.00	0.21070	0.21070	0.121		0.815	21.1 Comprs.
4.00	0.25510	0.25510	0.101		0.713	25.5 Comprs.
1.00	0.24030	0.24030	0.218		0.747	24.1 Comprs.
0.25	0.21680	0.21680	0.060		0.801	21.7 Comprs.
0.50	0.22120	0.22120	0.216		0.791	22.1 Comprs.
1.00	0.23090	0.23090	0.210		0.769	23.1 Comprs.
2.00	0.24630	0.24630	0.223		0.733	24.7 Comprs.
4.00	0.26580	0.26580	0.409		0.688	26.6 Comprs.
8.00	0.30590	0.30590	0.184		0.596	30.6 Comprs.

Compression index (C_c), tsf = 0.31 **Preconsolidation pressure (P_p), tsf =** 0.1 **Void ratio at P_p (e_m) =** 1.300

Figure B-151b

Pressure: 0.03 tsf	TEST READINGS	Load No. 1

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.0000	11	60.0000	0.0000
2	0.1000	0.0000	12	120.0000	0.0001
3	0.2500	0.0000	13	240.0000	0.0001
4	0.5000	0.0000	14	480.0000	0.0002
5	1.0000	-0.0001	15	600.0000	0.0002
6	2.0000	-0.0001	16	720.0000	0.0002
7	4.0000	-0.0001	17	840.0000	0.0002
8	8.0000	-0.0001	18	960.0000	0.0002
9	15.0000	0.0000	19	1080.0000	0.0002
10	30.0000	-0.0001	20	1094.3500	0.0002

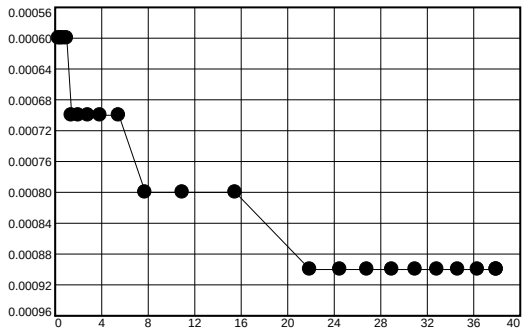


Void Ratio = 1.300 **Compression =** 0.0%

D_0 = 0.0001 **D_{90} =** -0.0001 **D_{100} =** -0.0001 **C_v at 1.75 min. =** 1.206 ft.^{2}/day

Pressure: 0.06 tsf	TEST READINGS	Load No. 2

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.0002	13	240.0000	0.0008
2	0.1000	0.0006	14	480.0000	0.0009
3	0.2500	0.0006	15	600.0000	0.0009
4	0.5000	0.0006	16	720.0000	0.0009
5	1.0000	0.0006	17	840.0000	0.0009
6	2.0000	0.0007	18	960.0000	0.0009
7	4.0000	0.0007	19	1080.0000	0.0009
8	8.0000	0.0007	20	1200.0000	0.0009
9	15.0000	0.0007	21	1320.0000	0.0009
10	30.0000	0.0007	22	1440.0000	0.0009
11	60.0000	0.0008	23	1441.2500	0.0009
12	120.0000	0.0008			



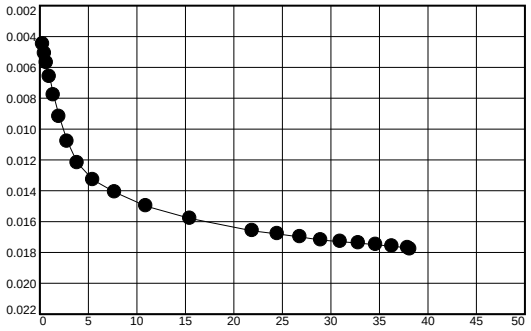
Void Ratio = 1.298 **Compression =** 0.1%

D_0 = 0.0006 **D_{90} =** 0.0007 **D_{100} =** 0.0007 **C_v at 4.80 min. =** 0.440 ft.^{2}/day

Figure B-151c

Pressure: 0.13 tsf	TEST READINGS	Load No. 3

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.0009	13	240.0000	0.0158
2	0.1000	0.0045	14	480.0000	0.0166
3	0.2500	0.0051	15	600.0000	0.0168
4	0.5000	0.0057	16	720.0000	0.0170
5	1.0000	0.0066	17	840.0000	0.0172
6	2.0000	0.0078	18	960.0000	0.0173
7	4.0000	0.0092	19	1080.0000	0.0174
8	8.0000	0.0108	20	1200.0000	0.0175
9	15.0000	0.0122	21	1320.0000	0.0176
10	30.0000	0.0133	22	1440.0000	0.0177
11	60.0000	0.0141	23	1456.6333	0.0178
12	120.0000	0.0150			

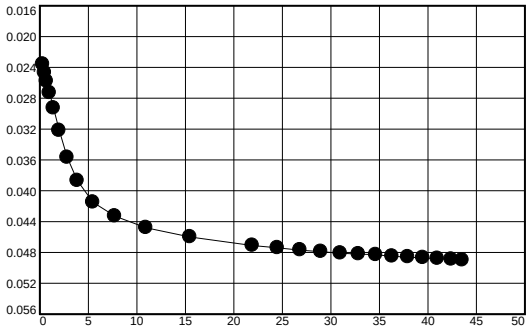


Void Ratio = 1.259 **Compression =** 1.8%

D_0 = 0.0042 **D_{90} =** 0.0125 **D_{100} =** 0.0134 **C_V at 18.39 min. =** 0.113 ft.^{2}/day

Pressure: 0.25 tsf	TEST READINGS	Load No. 4

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.0178	14	480.0000	0.0471
2	0.1000	0.0236	15	600.0000	0.0474
3	0.2500	0.0247	16	720.0000	0.0477
4	0.5000	0.0258	17	840.0000	0.0479
5	1.0000	0.0273	18	960.0000	0.0481
6	2.0000	0.0293	19	1080.0000	0.0482
7	4.0000	0.0322	20	1200.0000	0.0483
8	8.0000	0.0357	21	1320.0000	0.0485
9	15.0000	0.0387	22	1440.0000	0.0486
10	30.0000	0.0415	23	1560.0000	0.0487
11	60.0000	0.0433	24	1680.0000	0.0488
12	120.0000	0.0448	25	1800.0000	0.0489
13	240.0000	0.0460	26	1897.6667	0.0490



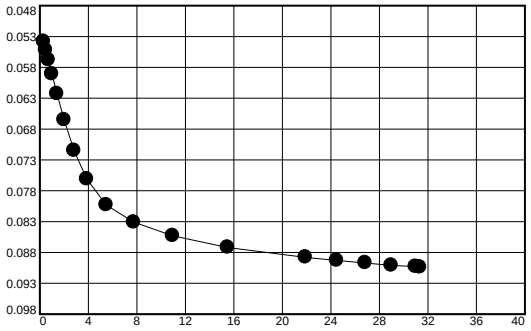
Void Ratio = 1.188 **Compression =** 4.9%

D_0 = 0.0228 **D_{90} =** 0.0398 **D_{100} =** 0.0417 **C_V at 20.35 min. =** 0.097 ft.^{2}/day

Figure B-151d

Pressure: 0.50 tsf	TEST READINGS	Load No. 5

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.0490	11	60.0000	0.0831
2	0.1000	0.0538	12	120.0000	0.0853
3	0.2500	0.0552	13	240.0000	0.0872
4	0.5000	0.0568	14	480.0000	0.0888
5	1.0000	0.0591	15	600.0000	0.0893
6	2.0000	0.0623	16	720.0000	0.0897
7	4.0000	0.0665	17	840.0000	0.0901
8	8.0000	0.0715	18	960.0000	0.0903
9	15.0000	0.0761	19	982.0833	0.0904
10	30.0000	0.0803			

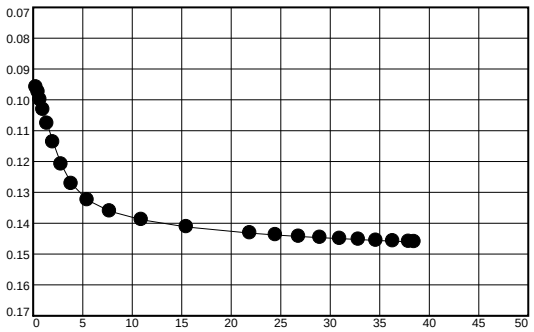


Void Ratio = 1.092 **Compression =** 9.0%

D_0 = 0.0525 **D_{90} =** 0.0778 **D_{100} =** 0.0806 **C_v at 20.49 min. =** 0.089 ft.^{2}/day

Pressure: 1.00 tsf	TEST READINGS	Load No. 6

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.0904	13	240.0000	0.1412
2	0.1000	0.0959	14	480.0000	0.1432
3	0.2833	0.0975	15	600.0000	0.1438
4	0.5000	0.1000	16	720.0000	0.1443
5	1.0000	0.1032	17	840.0000	0.1447
6	2.0000	0.1077	18	960.0000	0.1450
7	4.0000	0.1137	19	1080.0000	0.1453
8	8.0000	0.1209	20	1200.0000	0.1456
9	15.0000	0.1272	21	1320.0000	0.1458
10	30.0000	0.1325	22	1440.0000	0.1460
11	60.0000	0.1361	23	1482.7333	0.1461
12	120.0000	0.1389			



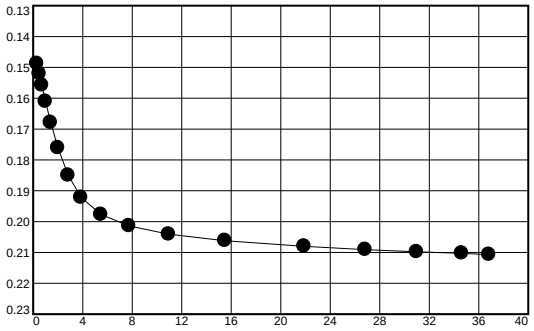
Void Ratio = 0.964 **Compression =** 14.6%

D_0 = 0.0938 **D_{90} =** 0.1291 **D_{100} =** 0.1330 **C_v at 19.80 min. =** 0.083 ft.^{2}/day

Figure B-151e

Pressure: 2.00 tsf | **TEST READINGS** | **Load No. 7**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.1461	11	60.0000	0.2014
2	0.1000	0.1488	12	120.0000	0.2041
3	0.2500	0.1521	13	240.0000	0.2062
4	0.5000	0.1558	14	480.0000	0.2080
5	1.0000	0.1611	15	720.0000	0.2091
6	2.0000	0.1679	16	960.0000	0.2098
7	4.0000	0.1761	17	1200.0000	0.2103
8	8.0000	0.1850	18	1357.2667	0.2107
9	15.0000	0.1922			
10	30.0000	0.1977			

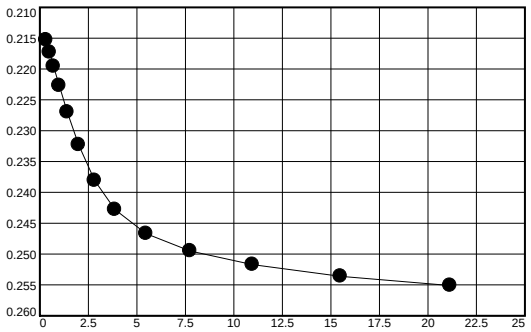


Void Ratio = 0.815 **Compression =** 21.1%

D_0 = 0.1455 **D_{90} =** 0.1892 **D_{100} =** 0.1941 **C_V at 11.82 min. =** 0.121 ft.^{2}/day

Pressure: 4.00 tsf | **TEST READINGS** | **Load No. 8**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.2107	11	60.0000	0.2495
2	0.1000	0.2153	12	120.0000	0.2517
3	0.2500	0.2173	13	240.0000	0.2536
4	0.5000	0.2196	14	446.9667	0.2551
5	1.0000	0.2227			
6	2.0000	0.2270			
7	4.0000	0.2323			
8	8.0000	0.2381			
9	15.0000	0.2428			
10	30.0000	0.2467			



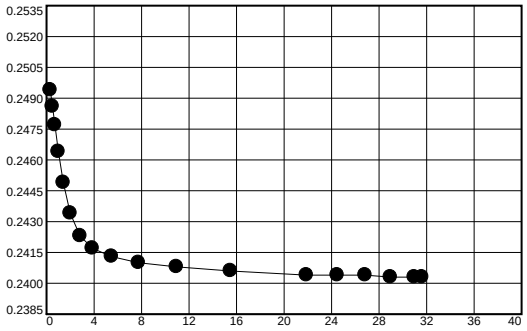
Void Ratio = 0.713 **Compression =** 25.5%

D_0 = 0.2131 **D_{90} =** 0.2412 **D_{100} =** 0.2443 **C_V at 12.31 min. =** 0.101 ft.^{2}/day

Figure B-151f

Pressure: 1.00 tsf | **TEST READINGS** | **Load No. 9**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.2551	11	60.0000	0.2410
2	0.1000	0.2494	12	120.0000	0.2408
3	0.2500	0.2486	13	240.0000	0.2406
4	0.5000	0.2477	14	480.0000	0.2404
5	1.0000	0.2464	15	600.0000	0.2404
6	2.0000	0.2449	16	720.0000	0.2404
7	4.0000	0.2434	17	840.0000	0.2403
8	8.0000	0.2423	18	960.0000	0.2403
9	15.0000	0.2417	19	999.6000	0.2403
10	30.0000	0.2413			

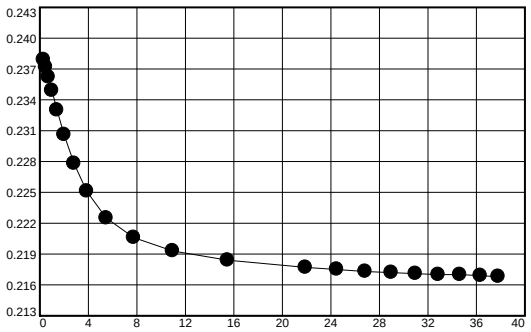


Void Ratio = 0.747 **Compression =** 24.1%

D_0 = 0.2503 **D_{90} =** 0.2429 **D_{100} =** 0.2421 **C_V at 5.50 min. =** 0.218 ft.^{2}/day

Pressure: 0.25 tsf | **TEST READINGS** | **Load No. 10**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.2403	12	120.0000	0.2193
2	0.1000	0.2379	13	240.0000	0.2184
3	0.2500	0.2372	14	480.0000	0.2177
4	0.5000	0.2362	15	600.0000	0.2175
5	1.0000	0.2349	16	720.0000	0.2173
6	2.0000	0.2330	17	840.0000	0.2172
7	4.0000	0.2306	18	960.0000	0.2171
8	8.0000	0.2278	19	1080.0000	0.2170
9	15.0000	0.2251	20	1200.0000	0.2170
10	30.0000	0.2225	21	1320.0000	0.2169
11	60.0000	0.2206	22	1429.3833	0.2168



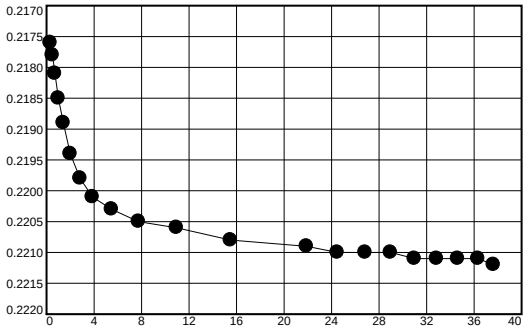
Void Ratio = 0.801 **Compression =** 21.7%

D_0 = 0.2387 **D_{90} =** 0.2240 **D_{100} =** 0.2223 **C_V at 20.97 min. =** 0.060 ft.^{2}/day

Figure B-151g

Pressure: 0.50 tsf | **TEST READINGS** | **Load No. 11**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.2168	12	120.0000	0.2206
2	0.1000	0.2176	13	240.0000	0.2208
3	0.2500	0.2178	14	480.0000	0.2209
4	0.5000	0.2181	15	600.0000	0.2210
5	1.0000	0.2185	16	720.0000	0.2210
6	2.0000	0.2189	17	840.0000	0.2210
7	4.0000	0.2194	18	960.0000	0.2211
8	8.0000	0.2198	19	1080.0000	0.2211
9	15.0000	0.2201	20	1200.0000	0.2211
10	30.0000	0.2203	21	1320.0000	0.2211
11	60.0000	0.2205	22	1416.4667	0.2212

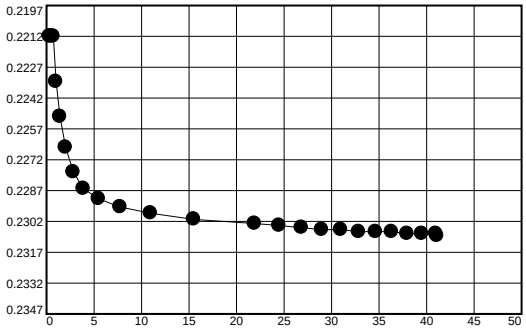


Void Ratio = 0.791 **Compression =** 22.1%

D_0 = 0.2173 **D_{90} =** 0.2196 **D_{100} =** 0.2199 **C_v at 5.98 min. =** 0.216 ft.^{2}/day

Pressure: 1.00 tsf | **TEST READINGS** | **Load No. 12**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.2212	14	480.0000	0.2303
2	0.1000	0.2212	15	600.0000	0.2304
3	0.2500	0.2212	16	720.0000	0.2305
4	0.5000	0.2212	17	840.0000	0.2306
5	1.0000	0.2234	18	960.0000	0.2306
6	2.0000	0.2251	19	1080.0000	0.2307
7	4.0000	0.2266	20	1200.0000	0.2307
8	8.0000	0.2278	21	1320.0000	0.2307
9	15.0000	0.2286	22	1440.0000	0.2308
10	30.0000	0.2291	23	1560.0000	0.2308
11	60.0000	0.2295	24	1680.0000	0.2308
12	120.0000	0.2298	25	1688.3333	0.2309
13	240.0000	0.2301			



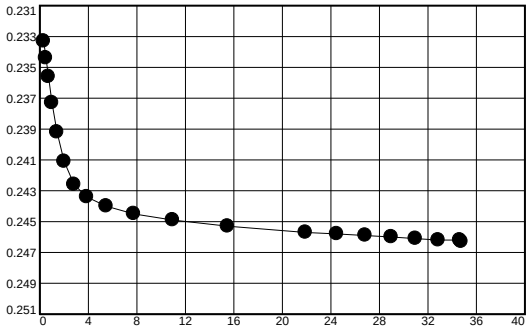
Void Ratio = 0.769 **Compression =** 23.1%

D_0 = 0.2195 **D_{90} =** 0.2273 **D_{100} =** 0.2281 **C_v at 6.04 min. =** 0.210 ft.^{2}/day

Figure B-151h

Pressure: 2.00 tsf | **TEST READINGS** | **Load No. 13**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.2309	12	120.0000	0.2449
2	0.1000	0.2333	13	240.0000	0.2453
3	0.2500	0.2344	14	480.0000	0.2457
4	0.5000	0.2356	15	600.0000	0.2458
5	1.0000	0.2373	16	720.0000	0.2459
6	2.0000	0.2392	17	840.0000	0.2460
7	4.0000	0.2411	18	960.0000	0.2461
8	8.0000	0.2426	19	1080.0000	0.2462
9	15.0000	0.2434	20	1200.0000	0.2462
10	30.0000	0.2440	21	1207.7167	0.2463
11	60.0000	0.2445			

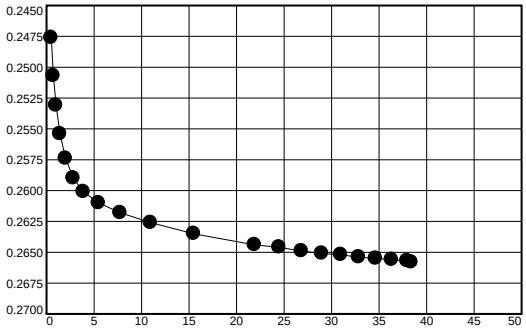


Void Ratio = 0.733 **Compression =** 24.7%

D_0 = 0.2322 **D_{90} =** 0.2417 **D_{100} =** 0.2428 **C_v at 5.49 min. =** 0.223 ft.^{2}/day

Pressure: 4.00 tsf | **TEST READINGS** | **Load No. 14**

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.2463	12	240.0000	0.2635
2	0.2500	0.2476	13	480.0000	0.2644
3	0.5000	0.2507	14	600.0000	0.2646
4	1.0000	0.2531	15	720.0000	0.2649
5	2.0000	0.2554	16	840.0000	0.2651
6	4.0000	0.2574	17	960.0000	0.2652
7	8.0000	0.2590	18	1080.0000	0.2654
8	15.0000	0.2601	19	1200.0000	0.2655
9	30.0000	0.2610	20	1320.0000	0.2656
10	60.0000	0.2618	21	1440.0000	0.2657
11	120.0000	0.2626	22	1474.1167	0.2658



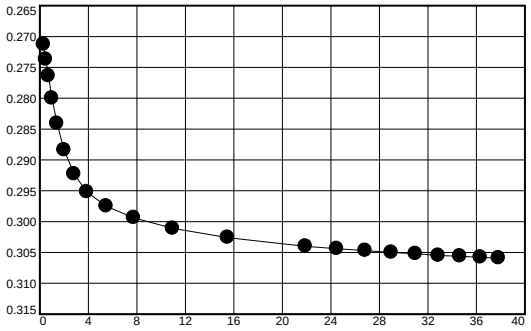
Void Ratio = 0.688 **Compression =** 26.6%

D_0 = 0.2443 **D_{90} =** 0.2563 **D_{100} =** 0.2577 **C_v at 2.86 min. =** 0.409 ft.^{2}/day

Figure B-151i

Pressure: 8.00 tsf	TEST READINGS	Load No. 15

No.	Elapsed Time	Dial Reading	No.	Elapsed Time	Dial Reading
1	0.0000	0.2658	12	120.0000	0.3011
2	0.1000	0.2713	13	240.0000	0.3026
3	0.2500	0.2737	14	480.0000	0.3040
4	0.5000	0.2764	15	600.0000	0.3044
5	1.0000	0.2800	16	720.0000	0.3047
6	2.0000	0.2841	17	840.0000	0.3050
7	4.0000	0.2884	18	960.0000	0.3052
8	8.0000	0.2923	19	1080.0000	0.3055
9	15.0000	0.2952	20	1200.0000	0.3056
10	30.0000	0.2975	21	1320.0000	0.3058
11	60.0000	0.2994	22	1431.6167	0.3059



Void Ratio = 0.596 **Compression =** 30.6%

D_0 = 0.2689 **D_{90} =** 0.2904 **D_{100} =** 0.2928 **C_v at 5.85 min. =** 0.184 $ft.^2/day$

Figure B-151j

APPENDIX C
Report Limitations and Guidelines for Use

APPENDIX C
REPORT LIMITATIONS AND GUIDELINES FOR USE[1]

This appendix provides information to help you manage your risks with respect to the use of this report.

Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

This report has been prepared for Coastal Engineering Consultants, Inc. (CEC) and the Louisiana Coastal Protection and Restoration Authority (CPRA), and their authorized agents and regulatory agencies. The information contained herein is not applicable to other sites.

GeoEngineers structures our services to meet the specific needs of our clients. No party other than CEC and CPRA may rely on the product of our services unless we agree to such reliance in advance and in writing. This is to provide our firm with reasonable protection against open-ended liability claims by third parties; otherwise, there would be no contractual limits to their actions. Within the limitations of scope, schedule, and budget, our services have been executed in accordance with our Agreement with the Client and generally accepted geotechnical practices in this area at the time this report was prepared. Use of this report is not recommended for any purpose or project except the one originally contemplated.

A Geotechnical Engineering or Geologic Report is Based on a Unique Set of Project-Specific Factors

This report has been prepared for the Chandeleur Island Restoration (PO-0199) Project. GeoEngineers considered a number of unique, project-specific factors when establishing the scope of services for this project and report. Unless GeoEngineers specifically indicates otherwise, it is important not to rely on this report if it was:

- Not prepared for you,
- Not prepared for your project,
- Not prepared for the specific site explored, or
- Completed before important project changes were made.

For example, changes that can affect the applicability of this report include those that affect:

- The function of the proposed structure;
- Elevation, configuration, location, orientation, or weight of the proposed structure;
- Composition of the design team; or
- Project ownership.

[1] Developed based on material provided by ASFE, Professional Firms Practicing in the Geosciences; www.asfe.org.

If important changes are made after the date of this report, we recommend that GeoEngineers be given the opportunity to review our interpretations and recommendations. Based on that review, we can provide written modifications or confirmation, as appropriate.

Subsurface Conditions Can Change

This geotechnical or geologic report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time, by man-made events such as construction on or adjacent to the site, or by natural events such as floods, earthquakes, slope instability, or groundwater fluctuations. If more than a few months have passed since issuance of our report or work product, or if any of the described events may have occurred, please contact GeoEngineers before applying this report for its intended purpose so that we may evaluate whether changed conditions affect the continued reliability or applicability of our conclusions and recommendations.

Most Geotechnical and Geologic Findings Are Professional Opinions

Our interpretations of subsurface conditions are based on field observations from widely spaced sampling locations at the site. Site exploration identifies the specific subsurface conditions only at those points where subsurface tests are conducted or samples are taken. GeoEngineers reviewed field and laboratory data and then applied our professional judgment to render an informed opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ, sometimes significantly, from those indicated in this report. Our report, conclusions, and interpretations should not be construed as a warranty of the subsurface conditions.

Geotechnical Engineering Report Recommendations Are Not Final

The construction recommendations included in this report are preliminary and should not be considered final. GeoEngineers' recommendations can be finalized only by observing actual subsurface conditions revealed during construction. GeoEngineers is unable to assume responsibility for the recommendations in this report without performing construction observation.

We recommend that you allow sufficient monitoring, testing, and consultation during construction by GeoEngineers to confirm that the conditions encountered are consistent with those indicated by the explorations, to provide recommendations for design changes if the conditions revealed during the work differ from those anticipated, and to evaluate whether earthwork activities are completed in accordance with our recommendations. Retaining GeoEngineers for construction observation for this project is the most effective method of managing the risks associated with unanticipated conditions.

A Geotechnical Engineering or Geologic Report Could Be Subject to Misinterpretation

Misinterpretation of this report by members of the design team or by contractors can result in costly problems. GeoEngineers can help reduce the risks of misinterpretation by conferring with appropriate members of the design team after submitting the report, reviewing pertinent elements of the design team's plans and specifications, participating in pre-bid and preconstruction conferences, and providing construction observation.

Do Not Redraw the Exploration Logs

Geotechnical engineers and geologists prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. The logs included in a geotechnical engineering or geologic report should never be redrawn for inclusion in architectural or other design drawings. Photographic or electronic reproduction is acceptable but separating logs from the report can create a risk of misinterpretation.

Give Contractors a Complete Report and Guidance

To help prevent costly problems associated with unanticipated subsurface conditions, we recommend giving contractors the complete geotechnical engineering or geologic report but preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report's accuracy is limited. In addition, encourage them to confer with GeoEngineers and/or to conduct additional study to obtain the specific types of information they need or prefer.

Contractors Are Responsible for Site Safety on Their Own Construction Projects

Our geotechnical recommendations are not intended to direct the contractor's procedures, methods, schedule, or management of the work site. The contractor is solely responsible for job site safety and for managing construction operations to minimize risks to on-site personnel and adjacent properties.

Read These Provisions Closely

It is important to recognize that the geoscience practices (geotechnical engineering, geology, and environmental science) are less exact than other engineering and natural science disciplines. Without this understanding, there may be expectations that could lead to disappointments, claims, and disputes. GeoEngineers includes these explanatory "limitations" provisions in our reports to help reduce such risks. Please confer with GeoEngineers if you need to know more how these "Report Limitations and Guidelines for Use" apply to your project or site.

Biological Pollutants

GeoEngineers' Scope of Work specifically excludes the investigation, detection, prevention, or assessment of the presence of Biological Pollutants. Accordingly, this report does not include any interpretations, recommendations, findings, or conclusions regarding the detecting, assessing, preventing, or abating of Biological Pollutants, and no conclusions or inferences should be drawn regarding Biological Pollutants as they may relate to this project. The term "Biological Pollutants" includes, but is not limited to, molds, fungi, spores, bacteria, and viruses, and/or any of their byproducts.

A Client that desires these specialized services is advised to obtain them from a consultant who offers services in this specialized field.

GeoEngineers