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Exhibit AA.
Breaux Bridge I-10 Site Preliminary Geotechnical Engineering Report

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Breaux Bridge I-10 Site Preliminary Geotechnical Engineering Report

June 23, 2022

Zach Hager
One Acadiana
804 East St. Mary Blvd.
Lafayette, LA 70503

RE: Report for Preliminary Geotechnical Engineering Study – Site Review for Breaux Bridge I-10 Site, St. Martin Parish, Louisiana

Dear Mr. Hager,

Gulf Holdings, LLC. is pleased to submit our report for a Preliminary Geotechnical Investigation to develop General Geotechnical Characterizations for the Breaux Bridge site located in St. Martin Parish, Louisiana for the purposes of supporting Louisiana Economic Development (LED) site certification operations.

We and our subcontractors appreciate the opportunity to help in the site certification process and look forward to working with LED and CSRS on future projects. If there are any further questions as pertaining to this project, do not hesitate to reach out to our office.

Respectfully,

Simon Grigoryan, VP
Gulf Holdings, LLC.

William Pagano, PE, PG
Gulf Holdings, LLC.
FL License Number: PE68680

Project Description

The purpose of this report is to give a preliminary geotechnical characterization of the subsurface conditions at the proposed Breaux Bridge I-10 Site in St. Martin Parish, LA, for the purposed of certification of the site for LED. The proposed site is located on a 44-acre plot of land in Breaux Bridge, LA on the southern side of the Interstate-10 corridor, on the eastern bank of Bayou Teche. The site is currently largely covered by farmland, with agricultural fields covering the majority of the landscape.

The intent of this preliminary study is to provide information regarding the compatibility of this site for industrial development. The investigation was intended to study suitability of soils for building foundations and on-site roadways, calculate the load bearing capacity of a 14" concrete pile to given depths, determine requirements of soil augmentation for construction of a typical 100,000 square foot industrial manufacturing building, and find the depth of the free groundwater table.

Project Scope of Services

To determine the suitability of the site for industrial development, Gulf Holdings developed an investigation plan to study the subsurface conditions.

To do so, Gulf Holdings performed the following:

- One SPT boring to 50 feet BGS
- One SPT boring to 30 feet BGS
- One Atterberg Limit Analysis
- Two Sieve Analyses
- Two Moisture Content Analyses
- Preliminary Geotechnical Report

Gulf Holdings used the acquired data to calculate the load bearing capacity of 14" concrete piles to given depths, determine the requirements for soil augmentation for construction of a typical 100,000 square foot industrial manufacturing building, classify the underlying soil conditions, and find the depth of the free groundwater table.

The services performed by Gulf Holdings were a preliminary geotechnical study that does not constitute a final pre-construction study. Due to the limited nature of the investigation and variation of ground conditions at different locations throughout the site, further investigations will be required in order to ensure the suitability of ground conditions at the exact construction locations.

The provided Standard Penetration Test services were performed in accordance with ASTM 1586, and can only characterize the zones investigated. The conclusions generated in this report are not to be used for any construction designs, and Gulf Holdings is not liable for any such use.

Site Geology—Desktop Study

Based on a preliminary desktop study performed by Gulf Holdings, the geologic conditions on site were classified as alluvial sediments belonging to the natural levee complex of the Bayou Teche (Teche course of the Red River), which is described as silty and sometimes sandy overbank deposits that compose the low natural levees flanking Bayou Teche. Gulf Holdings' engineers performed a preliminary desktop study, and have made key findings about the geologic conditions on site based on the USDA Web Soils Survey data, Louisiana Geological Survey data, existing nearby well log data, and satellite image observations:

- The soils in the area of interest are poorly drained
- Primary facies are silty lean clays and clayey silts, with occasional sandy deposits
- The meander belt deposits are expected to primarily consist of a reddish-brown point bar deposits

Site Geology—Field Exploration

To characterize the subsurface conditions of the proposed site, Gulf Holdings oversaw the drilling of two SPT borings along the site boundary; B-1 was drilled to 50 feet BGS, and B-2 was drilled to 30 feet BGS. Boring locations are shown in the attached Boring Location Plan. The exploration was performed by a track mounted rig. The standard penetration value (N) is defined as the number of blows of a 140-pound hammer, falling 30 inches, required to advance the split-barrel sampler two feet into the soil. Blow counts for the two middle 6" intervals are added to generate the N value. Samples of granular soils were obtained utilizing a two (2) inch O.D. split-barrel sampler in general accordance with procedures for "Penetration Test and Split-Barrel Sampling of Soils" (ASTM D1586). Split spoon samples were continuously taken to 20 feet BGS in 24 inch long spoon samplers, after which samples were taken at a five foot intervals. All borings were later backfilled after investigation and water level readings were taken.

The above subsurface description is generalized in nature to highlight the major subsurface stratification features and material characteristics at each exploration location. Boring logs for each boring are attached in the appendix. As expected, the generalized soil profile largely matched the expected soil profile given by the desktop study. The primary facies that was encountered in both explorations from a shallow depth to a terminal depth of 50 feet BGS was the soft Lean Clay facies. This facies is the primary construction concern to account for when constructing in the site area. These construction concerns will be discussed in the construction analysis section. As this facies has been encountered in both borings within the investigation area and in almost all strata, it is expected that any further investigations will not only encounter this

facies in most areas, but will also have to investigate the feasibility of safe industrial development on this site using any foundational footing. Further laboratory testing on such materials is recommended for further pre-construction investigations to better understand the facies structure and properties.

Groundwater Information

The free groundwater information was encountered at 9.5' below ground surface in boring B-1, and 10.5' below ground surface in boring B-2. These readings are likely relatively consistent due to the relative flatness of the site. Slight changes in the readings can be accounted for due to changes in groundwater levels (after rain events) and slight changes in elevation. For purposes of construction, a groundwater level of 10' below grade can be estimated. It should be noted that groundwater level fluctuations at this site may occur due to seasonal and climatic variations, as well as due to changes in land use and drainage patterns.

Laboratory Data

For the purposes of this project, soil samples from split spoon samplers were used to determine moisture content and grain size relationships. An Atterberg Limit test was performed to help determine the specific consistency and behavioral qualities of the soils investigated.

The laboratory results largely confirmed field observations and reinforced the initial data indicating the abundant presence of soft lean clays throughout the site area. Laboratory results are attached in the appendix.

Pile Design Analysis

The axial load bearing capacity of the pile was calculated using the N-value correlation method. This method was used and applied to both SPT borings. A factor of safety of three was used to generate a total allowable axial loading capacity. The pile design, given by the client as a square 14" diameter concrete cast pile, was used to generate the maximum allowable load results for the pile. Below are the results from the load bearing calculations, calculated to the depths of the bottom of the borings:

B-1

Depth	Cum Depth	S.P.T. Value	Corrected S.P.T. Value, N-(N-15)/2	Average S.P.T.	Surface Area in Pile (sft)	Allowable Skin Friction, Qa = 0.02N/F.S. (Tsf)	Total Allowable Skin Friction, (Ton)	Cum Skin Friction, (Ton)	Allowable End Bearing Capacity, Qa = 4N/F.S.	Allowable working Load (Ton)
0	0	0	0	0	0	0.000	0.00	0.00	0.00	**0**
2	2	7	7	3.5	196	0.023	4.57	4.57	9.98	**11**
2	4	7	7	7	196	0.047	9.15	13.72	9.98	**18**
2	6	6	6	6.5	196	0.043	8.49	22.21	8.55	**23**
2	8	6	6	6	196	0.040	7.84	30.05	8.55	**29**
2	10	4	4	5	196	0.033	6.53	36.59	5.70	**32**
2	12	7	7	5.5	196	0.037	7.19	43.77	9.98	**40**
2	14	4	4	5.5	196	0.037	7.19	50.96	5.70	**42**
2	16	2	2	3	196	0.020	3.92	54.88	2.85	**43**
2	18	2	2	2	196	0.013	2.61	57.49	2.85	**45**
2	20	2	2	2	196	0.013	2.61	60.11	2.85	**47**
5	25	2	2	2	196	0.013	2.61	62.72	2.85	**49**
5	30	4	4	3	196	0.020	3.92	66.64	5.70	**54**
5	35	5	5	4.5	196	0.030	5.88	72.52	7.13	**60**
5	40	4	4	4.5	196	0.030	5.88	78.40	5.70	**63**
5	45	3	3	3.5	196	0.023	4.57	82.97	4.28	**65**
5	50	6	6	4.5	196	0.030	5.88	88.85	8.55	**73**

B-2

Depth	Cum Depth	S.P.T. Value	Corrected S.P.T. Value, N-(N-15)/2	Average S.P.T.	Surface Area in Pile (sft)	Allowable Skin Friction, Qa = 0.02N/F.S. (Tsf)	Total Allowable Skin Friction, (Ton)	Cum Skin Friction, (Ton)	Allowable End Bearing Capacity, Qa = 4N/F.S.	Allowable working Load (Ton)
0	0	0	0	0	0	0.000	0.00	0.00	0.00	**0**
3	3	6	6	3	196	0.020	3.92	3.92	8.55	**9**
3	6	5	5	5.5	196	0.037	7.19	11.11	7.13	**14**
2	8	4	4	4.5	196	0.030	5.88	16.99	5.70	**17**
2	10	3	3	3.5	196	0.023	4.57	21.56	4.28	**19**
5	15	3	3	3	196	0.020	3.92	25.48	4.28	**22**
5	20	3	3	3	196	0.020	3.92	29.40	4.28	**25**
5	25	5	5	4	196	0.027	5.23	34.63	7.13	**31**
5	30	6	6	5.5	196	0.037	7.19	41.81	8.55	**38**

Industrial Structure Suitability Analysis

For a typical 100,000 square foot industrial facility and associated roadways, the following assumptions about the structure, using preconstructed facility specifications, were made:

- Single story warehouse facility
- 4 truck loading docks and equipment with 9' x 10' overhead doors at each
- 2 ground-level 12' x 14' overhead doors
- 10-ton crane system (300 lineal feet)

- 8,000-square-foot office area
- Structural column loads ~100 kips
- Wall loads 5 kips/foot
- Average Daily Traffic of 200 trucks

Site preparations for such a facility's construction would include but not be limited to clearing of the site of vegetation, leveling existing grades, removal of organics and other deleterious materials, dewatering and drainage operations (prevention of seepage, etc.), and removal of all soft material in construction zones. Based on the soil boring data, many of the encountered soils in the site area were classified as soft to very soft soils.

Due to the presence of the soft to very soft silty lean clay facies throughout the scope of the investigation, any major industrial development on the site would require major earthwork, fill operations, and ground reinforcement. Throughout the investigation, the soil was found to be relatively soft and unsupportive. In its current state, the silty lean clay and clayey silt soils are not conducive to any major construction or industrial development.

Construction on such soft soils presents numerous construction challenges to any major industrial projects, such as poor drainage, excessive post-construction settlement (excessive or differential), or low axial bearing capacities. Due to the low strength of the materials encountered, is their inability to support any significant loads without structural failure. Another major issue is settlement when changes in groundwater levels occur. Soft clays matrices tend to drastically change in volume when experiencing changes in moisture content. These changes in volume will cause serious settlement issues for any structures that bear on the clays. Any industrial development upon such soils is not feasible until the soils are either removed, replaced, or densified, in addition to providing proper structural improvements for foundations.

According to the axial pile bearing capacity calculations performed, neither shallow foundations nor deep foundations (to any economical depth) on their own would be sufficient to support any major industrial development. When determining foundation types, weight, cost, and other factors must also be taken into consideration. Based on the available soil data, the existing soils would either have to be removed and replaced with engineered fill to a significant depth, or competent flat slab or slab-beam foundations would need to be constructed. For most industrial structures listed above, flat slab or slab-beam foundations would be most suitable for the described industrial structures in the project location. However, based on the specificities of the construction requirements for the specific design, other foundations such as shallow foundations upon compacted structural granular fill may be suitable, or even wide strip footing for smaller building and wall structures. Flat slab or slab-beam foundations would most be suitable for a major industrial structure when major loads, such as typical fuel storage tanks (20 kips) or cranes (10 kips), are expected. The above pile analysis demonstrates the predicted load bearing capacities of concrete cast 14" diameter piles axially loaded. A hypothetical 100,000 square foot structure, as described above, would likely be adept in distributing loads with a flat slab or slab-beam foundation structures. Assuming such a foundation, the Breaux Bridge industrial site

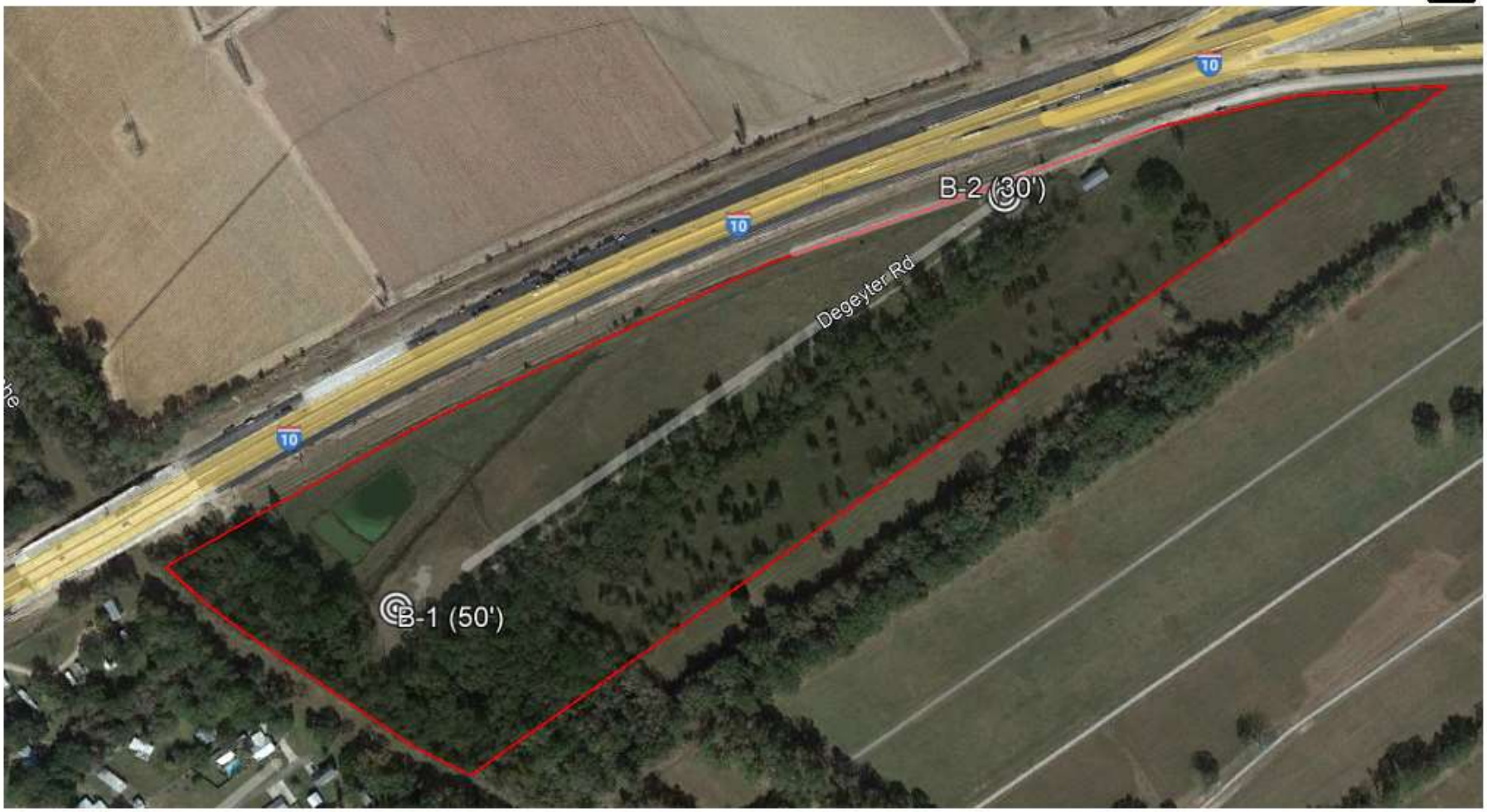
would likely be suitable for such industrial development, pending a more detailed and localized geotechnical investigation.

For parking lot, ramp, and roadway construction, grading and or slab on grade construction is likely to be used. Like the nearby LA 328 Highway, approximately two to three feet of structural granular fill replacing the existing moisture-sensitive soils, topped by a limestone road base, would be needed for roadway construction. For larger structures, such as the nearby Interstate-10 freeway, larger scale soil works and deep pile foundations would be needed. Based on the field data for near-surface soils and typically associated values, the estimated California Bearing Ratios (CBRs) for the existing subgrade are estimated to be to the order of 5 or less, with corresponding Modulus of Subgrade Reaction (k-value) of about 50 pci. Specific requirements for the roadway and slab design are to be determined in accordance with proper engineering practice. With proper fill use and proper engineering oversight, the ground conditions on the Breaux Bridge site will be suitable for roadway and slab on grade construction.

Report Limitations

This report is only a preliminary geotechnical report based on two SPT boring analyses and associated laboratory data. The assumptions and conclusions within this report are generalized and cannot be used for preconstruction analysis and engineering. Gulf Holdings cannot be held responsible for this report's use in the design of a specific structure without performing a localized investigation. Once specific development and construction plans are made, a qualified geotechnical engineer must be retained for further investigation.

Appendix



Gulf Holdings

Breaux Bride I-10 Industrial Site
Boring Location Plan
Breaux Bridge, LA

Preliminary Geotechnical Engineering Report

Gulf Holdings, LLC.
06/23/2022

Gulf Holdings	Project: Breaux Bridge, LA Site Certification	Client: CSRS	Boring No. B-1
		Drilling Contractor: APS	Drill Rig Type: Track
	Date: Started: 6/21/22	Bit Type: Diamond	Diameter: 2"
	Date: Completed: 6/21/22	Hammer Type: Auto	Address, City, State: Breaux Bridge, LA
Logged By: S. Grigoryan	Date: Backfilled: 6/21/22	Hammer Weight: 140 lbs	Hammer Drop: 30"
Drill Crew:	Groundwater Depth: 9.5 ft	Elevation: 23 ft	Depth of Boring: 50'

Depth (feet)	Sample Type	Sample Number	Blow Counts (blows/6")	Graphic Log	Lithology **Soil Group Name:** density/consistency, color, modifier, moisture, grain size, other descriptors	Recovery (in)	Recovery (%)	Additional Test
		1	2;3 3;4		Medium, reddish-brown, FAT CLAY WITH Sand, some organic matter, dry (CH)	20	83.33 0	
		2	3;3 4;4		Medium, dark brown, FAT CLAY with Sand, some Organic Matter, trace Gravel, dry (CH)	19	79.17 0	
5		3	2;3 3;3		Medium, light brown, SILTY LEAN CLAY WITH Sand, some Organic Matter, little Gravel, moist (CL)	20	83.33 0	
		4	2;3 3;3		Medium, light brown, SILTY LEAN CLAY WITH Sand, moist (CL)	19	79.17 0	
	▽	5	2;2 2;2		Soft, light brown, SILTY LEAN CLAY WITH Sand, moist (CL)	18	75 0	
10		6	3;4 3;3		Medium, light brown, SILTY LEAN CLAY WITH Sand, moist (CL)	18	75 0	
		7	2;2 2;2		Soft, light brown, SILTY LEAN CLAY WITH Sand, wet (CL)	17	70.83	
15		8	1;1 1;2		Very soft, light brown, SILTY LEAN CLAY WITH Sand, wet (CL)	19	79.17	
		9	1;1 1;1		Very soft, light to dark brown, SILTY LEAN CLAY WITH Sand, wet (CL)	24	100	
		10	1;1 1;1		Very soft, light brown, SILTY LEAN CLAY WITH Sand, wet (CL)	5	20.83 0	
20							0	
							0	
							0	
		11	1;1 1;2		Very soft, dark brown, SILTY LEAN CLAY WITH Sand, wet (CL)	20	83.33 0	
25							0	
							0	
							0	
		12	1;2 2;1		Soft, dark brown, SILTY LEAN CLAY WITH Sand, wet (CL)	24	100 0	

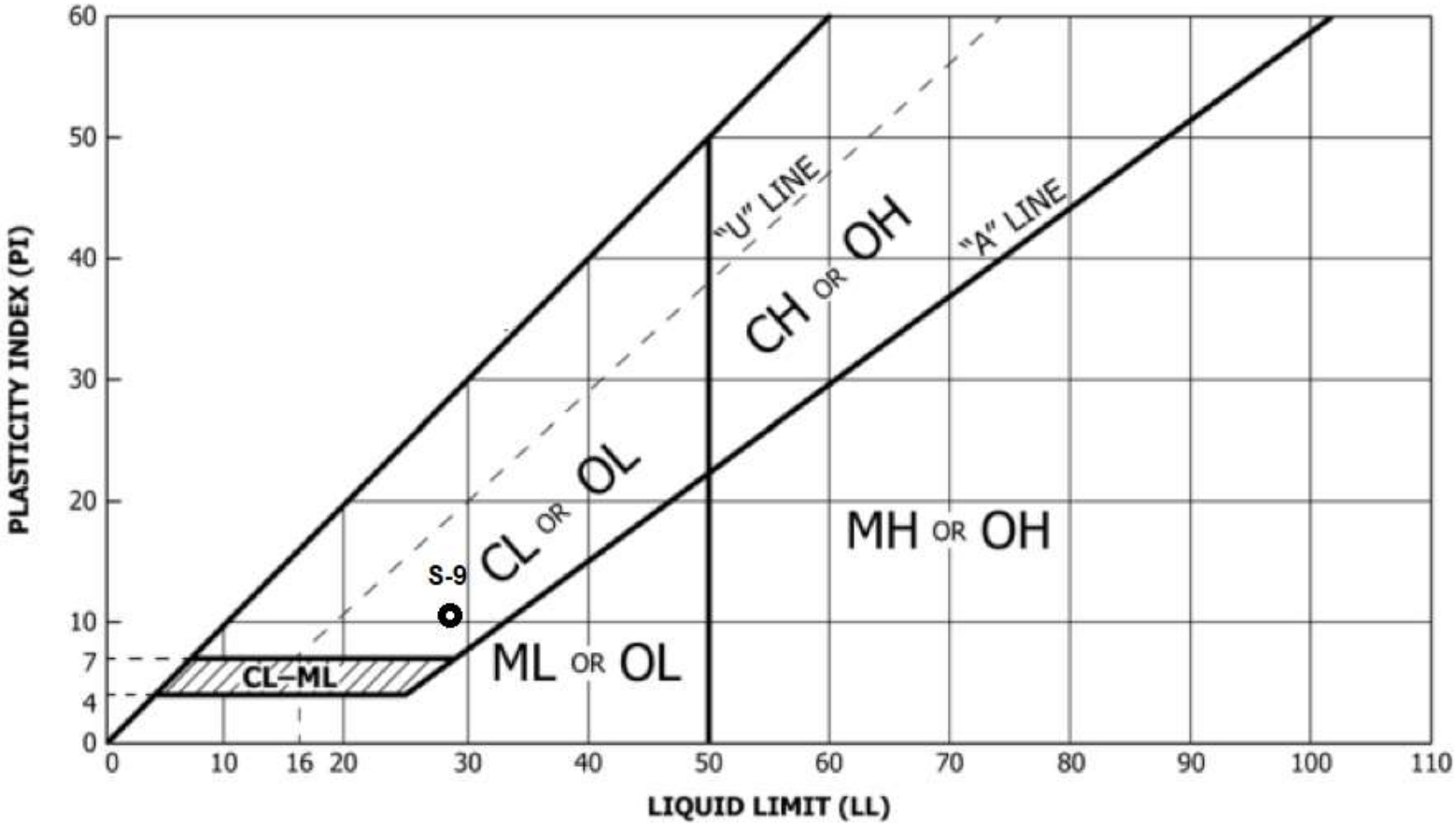
Gulf Holdings	Project: Breaux Bridge, LA Site Certification	Client: CSRS	Boring No. B-1
		Drilling Contractor: APS	Drill Rig Type: Track
	Date: Started: 6/21/22	Bit Type: Diamond	Diameter: 2"
	Date: Completed: 6/21/22	Hammer Type: Auto	Address, City, State: Breaux Bridge, LA
Logged By: S. Grigoryan	Date: Backfilled: 6/21/22	Hammer Weight: 140 lbs	Hammer Drop: 30"
Drill Crew: APS	Groundwater Depth: 9.5 ft	Elevation: 23 ft	Depth of Boring: 50'

Depth (feet)	Sample Type	Sample Number	Blow Counts (blows/6")	Graphic Log	Lithology **Soil Group Name:** density/consistency, color, modifier, moisture, grain size, other descriptors	Recovery (in)	Recovery (%)	Additional Test
							0	
							0	
							0	
		13	2;2		Medium, dark brown, SILTY LEAN CLAY WITH Sand, wet (CL)	21	87.5	
35			3;4				0	
							0	
							0	
							0	
		14	2;2		Soft, dark brown, SILTY LEAN CLAY WITH Sand, wet (CL)	23	95.83	
40			2;4				0	
							0	
							0	
							0	
		15	2;1		Soft, dark brown, SILTY LEAN CLAY WITH Sand, wet (CL)	24	100	
45			2;3				0	
							0	
							0	
							0	
		16	3;3		Medium, dark brown, SILTY LEAN CLAY WITH Sand, wet (CL)	23	95.83	
50			3;5				0	
					END OF BORING @ 50' BGS		0	
							0	
							0	
							0	
							0	
							0	
							0	
							0	
							0	
							0	

Gulf Holdings	Project: Breaux Bridge, LA Site Certification	Client: CSRS	Boring No. B-2	
		Drilling Contractor: APS	Drill Rig Type: Track	
	Date: Started: 6/21/22	Bit Type: Diamond	Diameter: 2"	
	Date: Completed: 6/21/22	Hammer Type: Auto	Address, City, State: Breaux Bridge, LA	
Logged By: O. Kaldirim	Date: Backfilled: 6/21/22	Hammer Weight: 140 lbs	Hammer Drop: 30"	
Drill Crew:	Groundwater Depth: 10.5 ft	Elevation: 23 ft	Depth of Boring: 30'	

Depth (feet)	Sample Type	Sample Number	Blow Counts (blows/6")	Graphic Log	Lithology **Soil Group Name:** density/consistency, color, modifier, moisture, grain size, other descriptors	Recovery (in)	Recovery (%)	Additional Test
							0	
		1	3 3;4		Medium, brownish gray, FAT CLAY with Sand, dry (CH)	8	33.33	
							0	
							0	
5		2	2;2 3;3		Medium, brownish gray, FAT CLAY with Sand, some Gravel, moist (CH)	15	62.5	
							0	
		3	2;2 2;2		Medium, brownish gray, FAT CLAY with Sand, moist (CH)	23	95.83	
							0	
		4	2;2 2;3		Soft, brownish gray, FAT CLAY with Sand, moist (CH)	19	79.17	
10	▽						0	
							0	
							0	
							0	
		5	1;1 2;2		Soft, gray, SILTY LEAN CLAY with Sand, wet (CL)	18	75	
15							0	
							0	
							0	
							0	
		6	1;2 1;1		Soft, gray, SILTY LEAN CLAY with Sand, wet (CL)	20	83.33	
20							0	
							0	
							0	
							0	
		7	5;3 2;2		Medium, gray, SILTY LEAN CLAY with Sand, wet (CL)	15	62.5	
25							0	
							0	
							0	
							0	
		8	3;3 3;4		Medium, gray, SILTY LEAN CLAY with Sand, wet (CL)	18	75	
							0	

END OF BORING 30' BGS



Boring Number	Sample Number	Depth	Material Description	LL	PL	PI	Moisture Content (%)
B-1	S-4	6' – 8'	Tan Lean Clay (CL)				21.1
B-1	S-9	16' – 18'	Tan Lean Clay (CL)	28	17	11	22.3
B-1	S-14	38' – 40'	Tan Lean Clay (CL)				
B-2	S-6	18' – 20'	Gray Lean Clay (CL)				
B-2	S-8	28' – 30'	Gray Lean Clay (CL)				40.1