



APTIM
2481 N.W. Boca Raton Blvd.
Boca Raton, Florida 33431
Phone # 1 (561) 391-8102

Legend for Geotechnical Data

(SP), (SM), etc. Refers to the Army Corps of Engineers Unified Soils Classification System. Class types are defined primarily by grain size, sorting and percent of material passing the 200 sieve. Classification of materials on the core logs based on visual field examinations are identified on the core logs under the Classification of Materials Description. Classifications based on laboratory sieve analyses are identified on the core logs in the Legend and under Remarks.






















Grain Size Terms

Cobble – retained on the 3.0” sieve
Gravel – greater than the #4 sieve and less than the 3.0” sieve
 Coarse: greater than the ¾” sieve and less than the 3.0” sieve
 Fine – greater than the #4 sieve and less than the ¾” sieve
Sand - greater than the #200 sieve and less than the #4 sieve
 Coarse - greater than the #10 sieve and less than the #4 sieve
 Medium - greater than the #40 sieve and less than the #10 sieve
 Fine - greater than the #230 sieve and less than the #40 sieve
Fines – (silt or clay) passing the #230 sieve

Proportional definition of descriptive terms

<u>Descriptive Term</u>	<u>Range of Proportions</u>
Sandy, gravelly, etc.	35 % to 50 %
Some	20 % to 35 %
Little	10 % to 20 %
Trace	1 % to 10 %

Legend for Geotechnical Data

GW		Well graded gravels or gravel-sand mixtures, little or no fines	ML		Inorganic silts and very fine sands, rock flour, sandy silts or clayey silts with slight plasticity
GP		Poorly graded gravels or gravel-sand mixtures, w/ little or no fines	MH		Inorganic silts, micaceous or diatomaceous fine sandy or silty soil, elastic silts
GM		Silty gravels, gravel-sand-silt mixtures	OL		Organic silts and organic silt-clays of low plasticity
GC		Clayey gravels, gravel-sand-clay mixtures	OH		Organic clays of medium to high plasticity, organic silts
SW		Well graded sands or gravelly sands, little or no fines	CL		Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
SP		Poorly graded sands or gravelly sands, little or no fines	CH		Inorganic clays of high plasticity, fat clays
SM		Silty sands, sand-silt mixtures	PT		Peat and other highly organic soils
SC		Clayey sands, sand-clay mixtures	SP-SM		Poorly-graded silty sand
SW-SM		Well-graded silty sand	SM-SC		Silty clayey sand
GW-GM		Well-graded silty gravel	ML-CL		Inorganic silty lean clay
GM-GC		Clayey silty gravel			

Note: Information is after ACOE Atlantic Division Manual # 1110-1-1 titled *Engineering and Design Geotechnical Manual for Surface and Subsurface Investigations*



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Legend for Geotechnical Data

The naming convention used by APTIM incorporates key information about the item in the title. The naming format uses the following information:

- Abbreviated area name (two letters that will be used throughout the project)
- Abbreviated data type: vibracore (VC) or surface sample (SS)
- Collection year (YY)
- Identification number
- Sample or composite identification number in the case of jet probes or vibracores. Composite samples are indicated by COMP following the identification number. COMP represents a composite developed to characterize beach compatible material.

Format examples:

- A) MBVC-19-05
B) MBVC-19-10 S#1


Example A is vibracore number 05, collected in the Mexico Beach area in the year 2019.

Example B refers to sample number 1 taken from vibracore number 10, which was collected in the Mexico Beach area in 2019.

DRILLING LOG		DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS
1. PROJECT Mexico Beach Sand Search Bay County, Florida			9. SIZE AND TYPE OF BIT 2.0 In.	
2. BORING DESIGNATION MBVC-19-01			10. COORDINATE SYSTEM/DATUM Florida State Plane North	
3. DRILLING AGENCY Athena Technologies, Inc.			11. MANUFACTURER'S DESIGNATION OF DRILL <input type="checkbox"/> AUTO HAMMER Electric <input type="checkbox"/> MANUAL HAMMER	
4. NAME OF DRILLER Palmer McClellan			12. TOTAL SAMPLES 5 DISTURBED UNDISTURBED (UD)	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED			13. TOTAL NUMBER CORE BOXES	
6. THICKNESS OF OVERBURDEN 0.0 Ft.			14. ELEVATION GROUND WATER	
7. DEPTH DRILLED INTO ROCK 0.0 Ft.			15. DATE BORING 06-18-19 07:15 STARTED COMPLETED 06-18-19 07:15 06-18-19 07:24	
8. TOTAL DEPTH OF BORING 22.0 Ft.			16. ELEVATION TOP OF BORING -18.0 Ft.	
			17. TOTAL RECOVERY FOR BORING 21.5 Ft.	
			18. SIGNATURE AND TITLE OF INSPECTOR Kristina McCoy, P.G.	


ELEV. (ft)	DEPTH (ft)	LEGEND	CLASSIFICATION OF MATERIALS Depths and elevations based on measured values	% REC.	BOX OR SAMPLE	REMARKS
-18.0	0.0					
-18.6	0.6		SAND, fine grained, quartz, trace shell hash, trace silt, color mottled light gray (2.5Y-7/2) and gray (2.5Y-5/1), (SP).		1	Sample #1, Depth = 0.3' Mean (mm): 0.20, Phi Sorting: 0.53 Fines (230): 1.18% (SP)
-20.4	2.4		SAND, fine grained, quartz, trace shell fragments, trace shell hash, trace silt, trace whole shell, shell fragments up to (0.75"x1.0"), whole shells up to 1.0", 1.5" some shell hash pocket @ 0.7', 0.5" silty organic pocket @ 1.1', (1.0"x1.5") & (0.75"x1.5") shell fragments @ 2.3', light gray (2.5Y-7/1), (SP).		2	Sample #2, Depth = 1.5' Mean (mm): 0.25, Phi Sorting: 0.73 Fines (230): 1.03% (SP)
-27.5	9.5		SAND, fine grained, quartz, trace shell hash, trace silt, silt includes silty pockets up to 0.25", 2 (0.5"x0.75") shell fragments @ 3.7' & 8.1', (0.75"x1.0") whole shell @ 5.4', white (N-8/0), (SP).		3	Sample #3, Depth = 5.9' Mean (mm): 0.23, Phi Sorting: 0.34 Fines (230): 0.86% (SP)
-30.5	12.5		SAND, fine grained, quartz, trace shell hash, trace silt, silty pockets up to (0.25"x0.75"), 0.5" shell fragment @ 9.8', (0.5"x0.75") shell fragment @ 11.7', 1.5" pocket of silty shell hash & fragments up to 0.5" @ 12.4', light greenish gray (10Y-8/1), (SP).		4	Sample #4, Depth = 11.0' Mean (mm): 0.24, Phi Sorting: 0.41 Fines (230): 1.12% (SP)
-32.2	14.2		SAND, fine grained, quartz, some shell hash, little clay, trace shell fragments, trace whole shell, shells up to 0.75", 1.25" whole shell @ 13.3', dark greenish gray (10Y-4/1), (SW-SC).		5	Sample #5, Depth = 13.4' Mean (mm): 0.49, Phi Sorting: 1.96 Fines (230): 11.04% (SW-SC)
-34.5	16.5		Shelly SAND, fine to medium grained, quartz, some clay, shell components: shell hash, shell fragments & whole shells up to (1.0"x1.25"), greenish gray (10Y-5/1), (GC).			
-35.9	17.9		SAND, fine to medium grained, quartz, some clay, little shell hash, trace organics, trace shell fragments up to 0.75", (0.75"x3.0") wood fragment @ 17.5', 0.75" wood fragment @ 17.8', dark gray (2.5Y-4/1), (SC).			
-37.9	19.9		Clayey SAND, fine to medium grained, quartz, some shell hash, trace organics, trace shell fragments & whole shells up to 1.25", 1.5" wood fragments @ 19.0' & 19.2', dark gray (2.5Y-4/1), (SC).			
-39.5	21.5		Sandy SILT, trace clay, trace shell hash, 1.0" wood fragment @ 21.2', color mottled light brownish gray (2.5Y-6/2), gray (10YR-5/1) and, very dark grayish brown (2.5Y-3/2), (ML).			
-40.0	22.0		No Recovery.			
			End of Boring			

MEXICO BEACH 2019 VIBRACORES.GPJ 10/1/19

DRILLING LOG		DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS
1. PROJECT Mexico Beach Sand Search Bay County, Florida			9. SIZE AND TYPE OF BIT 2.0 In.	
			10. COORDINATE SYSTEM/DATUM Florida State Plane North	
2. BORING DESIGNATION MBVC-19-02			HORIZONTAL NAD 1983 VERTICAL NAVD 88	
3. DRILLING AGENCY Athena Technologies, Inc.			11. MANUFACTURER'S DESIGNATION OF DRILL <input type="checkbox"/> AUTO HAMMER Electric <input type="checkbox"/> MANUAL HAMMER	
4. NAME OF DRILLER Palmer McClellan			12. TOTAL SAMPLES 4 DISTURBED 4 UNDISTURBED (UD)	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED			13. TOTAL NUMBER CORE BOXES	
6. THICKNESS OF OVERBURDEN 0.0 Ft.			14. ELEVATION GROUND WATER	
7. DEPTH DRILLED INTO ROCK 0.0 Ft.			15. DATE BORING 06-18-19 07:43 STARTED 06-18-19 07:43 COMPLETED 06-18-19 07:51	
8. TOTAL DEPTH OF BORING 22.0 Ft.			16. ELEVATION TOP OF BORING -16.7 Ft.	
			17. TOTAL RECOVERY FOR BORING 21.5 Ft.	
			18. SIGNATURE AND TITLE OF INSPECTOR Kristina McCoy, P.G.	

ELEV. (ft)	DEPTH (ft)	LEGEND	CLASSIFICATION OF MATERIALS Depths and elevations based on measured values	% REC.	BOX OR SAMPLE	REMARKS
-16.7	0.0					
-17.4	0.7		SAND, fine grained, quartz, trace shell hash, trace silt, 0.25" shell fragment @ 0.6', color mottled light gray (2.5Y-7/2) and, gray (2.5Y-5/1), (SP).		VS VC01#1	
-20.2	3.5		SAND, fine grained, quartz, trace shell fragments, trace shell hash, trace silt, trace whole shell, shell fragments up to 1.25", whole shells up to 0.75", silty pockets up to 0.25", 2.0" some shell hash pocket @ 0.8', light gray (2.5Y-7/1), (SW).		1	Sample #1, Depth = 2.1' Mean (mm): 0.29, Phi Sorting: 1.14 Fines (230): 1.17% (SW)
-22.1	5.4		SAND, fine grained, quartz, trace shell fragments, trace shell hash, trace silt, silty pockets up to 0.5", shell fragments up to 0.75", 1.5" little shell hash pocket @ 3.6', 0.75" whole shell @ 3.8', 2.0" shell fragment @ 4.9', white (2.5Y-8/1), (SP).		2	Sample #2, Depth = 4.5' Mean (mm): 0.25, Phi Sorting: 0.60 Fines (230): 0.93% (SP)
-27.8	11.1		SAND, fine grained, quartz, trace shell fragments, trace shell hash, trace silt, silty pockets up to 0.25", shell fragments up to (0.5"x1.0"), white (N-8/0), (SP).		3	Sample #3, Depth = 8.3' Mean (mm): 0.23, Phi Sorting: 0.37 Fines (230): 1.71% (SP)
-30.2	13.5		SAND, fine grained, quartz, trace shell hash, trace silt, silty pockets up to (0.25"x1.0"), 0.75" whole shell @ 13.1', light greenish gray (10Y-7/1), (SP).		4	Sample #4, Depth = 12.3' Mean (mm): 0.22, Phi Sorting: 0.42 Fines (230): 1.28% (SP)
-31.5	14.8		SAND, fine grained, quartz, some shell hash, little clay, trace shell fragments, trace whole shell, shells up to 0.75", (1.0"x1.5") whole shell @ 14.2', dark greenish gray (10Y-4/1), (SW-SC).		VS VC01#5	
-33.7	17.0		Shelly SAND, fine to medium grained, quartz, some clay, trace coral, shell components: shell hash, shell fragments & whole shells up to 1.5", coral up to (0.25"x1.25"), greenish gray (10Y-5/1), (GC).			
-36.3	19.6		SAND, fine to medium grained, quartz, some clay, little shell hash, trace shell fragments up to 1.0", some shell hash from 18.6' to 19.2', (0.5"x1.0") wood fragments @ 17.7' & 18.1', (0.5"x2.5") wood fragment @ 18.0', dark gray (2.5Y-4/1), (SC).			
-38.2	21.5		Sandy SILT, trace clay, trace shell hash, (1.0"x1.25") wood fragment @ 20.9', color mottled light brownish gray (2.5Y-6/2), gray (10YR-5/1) and, very dark grayish brown (2.5Y-3/2), (ML).			
-38.7	22.0		No Recovery.			
End of Boring						

MEXICO BEACH 2019 VIBRACORES.GPJ 10/1/19

DRILLING LOG		DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS
1. PROJECT Mexico Beach Sand Search Bay County, Florida			9. SIZE AND TYPE OF BIT 2.0 In.	
			10. COORDINATE SYSTEM/DATUM Florida State Plane North	
2. BORING DESIGNATION MBVC-19-03			HORIZONTAL NAD 1983 VERTICAL NAVD 88	
3. DRILLING AGENCY Athena Technologies, Inc.			11. MANUFACTURER'S DESIGNATION OF DRILL <input type="checkbox"/> AUTO HAMMER Electric <input type="checkbox"/> MANUAL HAMMER	
4. NAME OF DRILLER Palmer McClellan			12. TOTAL SAMPLES 4 DISTURBED UNDISTURBED (UD)	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED			13. TOTAL NUMBER CORE BOXES	
6. THICKNESS OF OVERBURDEN 0.0 Ft.			14. ELEVATION GROUND WATER	
7. DEPTH DRILLED INTO ROCK 0.0 Ft.			15. DATE BORING STARTED 06-18-19 08:10 COMPLETED 06-18-19 08:16	
8. TOTAL DEPTH OF BORING 22.0 Ft.			16. ELEVATION TOP OF BORING -18.2 Ft.	
			17. TOTAL RECOVERY FOR BORING 21 Ft.	
			18. SIGNATURE AND TITLE OF INSPECTOR Kristina McCoy, P.G.	

ELEV. (ft)	DEPTH (ft)	LEGEND	CLASSIFICATION OF MATERIALS Depths and elevations based on measured values	% REC.	BOX OR SAMPLE	REMARKS
-18.2	0.0					
-18.7	0.5		SAND, fine grained, quartz, trace shell hash, trace silt, color mottled light gray (2.5Y-7/2) and gray (2.5Y-5/1), (SP).		VS VC01#1	Sample #1, Depth = 1.2' Mean (mm): 0.40, Phi Sorting: 1.74 Fines (230): 0.95% (SW)
-20.0	1.8		SAND, fine grained, quartz, little shell hash, trace shell fragments, trace silt, trace whole shell, shells up to 1.25", light gray (2.5Y-7/1), (SW).		1	Sample #2, Depth = 2.2' Mean (mm): 0.26, Phi Sorting: 0.90 Fines (230): 1.17% (SW)
-20.8	2.6		SAND, fine grained, quartz, trace shell fragments, trace silt, trace whole shell, silty pockets up to 0.25", shells up to 0.75", light gray (2.5Y-7/1), (SW).		2	
			SAND, fine grained, quartz, trace shell fragments, trace silt, silty pockets & shell fragments up to (0.25"x0.5"), 1.75" shell fragment @ 8.8', 1.5" whole shell @ 9.0', white (N-8/0), (SP).		3	Sample #3, Depth = 5.9' Mean (mm): 0.22, Phi Sorting: 0.38 Fines (230): 0.85% (SP)
-27.4	9.2		SAND, fine grained, quartz, trace shell hash, trace silt, silty pockets up to (0.25"x1.0"), 1.0" whole shell @ 11.9', light greenish gray (10Y-7/1), (SP).		4	Sample #4, Depth = 10.6' Mean (mm): 0.21, Phi Sorting: 0.38 Fines (230): 1.20% (SP)
-30.2	12.0		SAND, fine grained, quartz, some shell hash, little clay, trace shell fragments, trace whole shell, shells up to 0.75", dark greenish gray (10Y-4/1), (SW-SC).		VS VC01#5	
-31.4	13.2		Shelly SAND, fine to medium grained, quartz, some clay, shell components: shell hash, shell fragments & whole shells up to 1.5", greenish gray (10Y-5/1), (GC).			
-34.1	15.9		Clayey SAND, fine to medium grained, quartz, little shell hash, trace shell fragments & whole shells up to 1.0", 0.5" wood fragment @ 17.1', dark gray (2.5Y-4/1), (SC).			
-35.7	17.5		Clayey SAND, fine to medium grained, quartz, some shell hash, trace shell fragments & whole shells up to 1.25", dark gray (2.5Y-4/1), (SC).			
-38.4	20.2		Sandy SILT, trace clay, trace shell hash, trace wood fragments, wood up to 0.25", (0.25"x2.5") wood fragment @ 20.6', color mottled light brownish gray (2.5Y-6/2), gray (10YR-5/1) and, very dark grayish brown (2.5Y-3/2), (ML).			
-39.2	21.0		No Recovery.			
-40.2	22.0		End of Boring			

MEXICO BEACH 2019_VIBRACORES.GPJ 10/1/19

DRILLING LOG		DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS
1. PROJECT Mexico Beach Sand Search Bay County, Florida			9. SIZE AND TYPE OF BIT 2.0 In.	
2. BORING DESIGNATION MBVC-19-04			10. COORDINATE SYSTEM/DATUM Florida State Plane North	
3. DRILLING AGENCY Athena Technologies, Inc.			11. MANUFACTURER'S DESIGNATION OF DRILL <input type="checkbox"/> AUTO HAMMER Electric <input type="checkbox"/> MANUAL HAMMER	
4. NAME OF DRILLER Palmer McClellan			12. TOTAL SAMPLES 3 DISTURBED UNDISTURBED (UD)	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED			13. TOTAL NUMBER CORE BOXES	
6. THICKNESS OF OVERBURDEN 0.0 Ft.			14. ELEVATION GROUND WATER	
7. DEPTH DRILLED INTO ROCK 0.0 Ft.			15. DATE BORING 06-18-19 08:33 STARTED COMPLETED 06-18-19 08:33 06-18-19 08:39	
8. TOTAL DEPTH OF BORING 22.0 Ft.			16. ELEVATION TOP OF BORING -18.1 Ft.	
			17. TOTAL RECOVERY FOR BORING 19.5 Ft.	
			18. SIGNATURE AND TITLE OF INSPECTOR Kristina McCoy, P.G.	

ELEV. (ft)	DEPTH (ft)	LEGEND	CLASSIFICATION OF MATERIALS Depths and elevations based on measured values	% REC.	BOX OR SAMPLE	REMARKS
-18.1	0.0					
-19.8	1.7		SAND, fine grained, quartz, trace shell fragments, trace shell hash, trace silt, shell fragments up to 0.5", 0.25" silty pocket @ 1.1', 1.0" whole shell @ 1.3', 2.0" pocket of some shell hash, shell fragments & whole shells up to 1.0" @ 1.6', light gray (2.5Y-7/2), (SW).		1	Sample #1, Depth = 0.8' Mean (mm): 0.26, Phi Sorting: 0.98 Fines (230): 0.95% (SW)
-20.5	2.4		SAND, fine grained, quartz, trace shell fragments, trace shell hash, trace silt, silty pockets & shell fragments up to (0.25"x0.5"), light gray (2.5Y-7/1), (SP).		2	Sample #2, Depth = 2.0' Mean (mm): 0.25, Phi Sorting: 0.84 Fines (230): 0.90% (SP)
-30.3	12.2		SAND, fine grained, quartz, trace shell hash, trace silt, silty pockets up to 0.75", (0.5"x0.75") shell fragment @ 7.1', 3.0" silty pocket @ 11.8', 1.5" pocket of little shell hash & shell fragments up to 0.5" @ 12.2', white (N-8/0), (SP).		3	Sample #3, Depth = 7.4' Mean (mm): 0.22, Phi Sorting: 0.43 Fines (230): 1.00% (SP)
-32.2	14.1		SAND, fine grained, quartz, some shell hash, little clay, trace shell fragments, trace whole shell, shells up to 1.0", (2.0"x2.5") whole shell @ 13.9', dark greenish gray (10Y-4/1), (SW-SC).		VS	
-34.1	16.0		Shelly SAND, fine to medium grained, quartz, some clay, shell components: shell hash, shell fragments & whole shells up to 1.0", (0.25"x0.75") coral @ 15.7', dark greenish gray (10Y-4/1), (GC).		VC01#5	
-35.8	17.7		Clayey SAND, fine to medium grained, quartz, little shell hash, trace shell fragments & whole shells up to 0.75", dark gray (2.5Y-4/1), (SC).			
-37.6	19.5		Clayey SAND, fine to medium grained, quartz, some shell hash, little shell fragments up to 1.25", trace whole shells up to 1.0", dark gray (2.5Y-4/1), (SC).			
-40.1	22.0		No Recovery.			
			End of Boring			

MEXICO BEACH 2019 VIBRACORES.GPJ 10/1/19

DRILLING LOG		DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS
1. PROJECT Mexico Beach Sand Search Bay County, Florida			9. SIZE AND TYPE OF BIT 2.0 In.	
2. BORING DESIGNATION MBVC-19-05			10. COORDINATE SYSTEM/DATUM Florida State Plane North	
3. DRILLING AGENCY Athena Technologies, Inc.			11. MANUFACTURER'S DESIGNATION OF DRILL <input type="checkbox"/> AUTO HAMMER Electric <input type="checkbox"/> MANUAL HAMMER	
4. NAME OF DRILLER Palmer McClellan			12. TOTAL SAMPLES 6 DISTURBED UNDISTURBED (UD)	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED			13. TOTAL NUMBER CORE BOXES	
6. THICKNESS OF OVERBURDEN 0.0 Ft.			14. ELEVATION GROUND WATER	
7. DEPTH DRILLED INTO ROCK 0.0 Ft.			15. DATE BORING 06-18-19 08:55 COMPLETED 06-18-19 09:06	
8. TOTAL DEPTH OF BORING 23.0 Ft.			16. ELEVATION TOP OF BORING -18.6 Ft.	
			17. TOTAL RECOVERY FOR BORING 22.8 Ft.	
			18. SIGNATURE AND TITLE OF INSPECTOR Alexandra Valente	


ELEV. (ft)	DEPTH (ft)	LEGEND	CLASSIFICATION OF MATERIALS Depths and elevations based on measured values	% REC.	BOX OR SAMPLE	REMARKS
-18.6	0.0					
-19.5	0.9		SAND, fine grained, quartz, trace shell hash, trace silt, 0.75" shell fragment @ 0.5', 0.5" shell fragment @ 0.8', white (2.5Y-8/1), (SP).		1	Sample #1, Depth = 0.5' Mean (mm): 0.26, Phi Sorting: 0.51 Fines (230): 0.80% (SP)
-22.3	3.7		SAND, fine grained, quartz, trace shell fragments, trace silt, silty pockets up to 0.25", shell fragments up to (0.5"x0.75"), 2 (1.0") & 1 (1.25") whole shells & (0.75"x2.0") shell fragment @ 1.2', (0.5"x1.75") shell fragment @ 1.3', light gray (2.5Y-7/1), (SP).		2	Sample #2, Depth = 2.3' Mean (mm): 0.25, Phi Sorting: 0.42 Fines (230): 0.96% (SP)
-27.7	9.1		SAND, fine grained, quartz, trace shell fragments, trace shell hash, trace silt, trace whole shell, silty pockets & shells up to (0.25"x0.5"), 3 shell fragments up to (1.0"x1.75") @ 4.1', (0.75"x1.25") shell fragment @ 5.5', (1.5"x2.0") whole shell @ 6.3', white (N-8/0), (SP).		3	Sample #3, Depth = 5.4' Mean (mm): 0.24, Phi Sorting: 0.56 Fines (230): 0.89% (SP)
-29.7	11.1		SAND, fine grained, quartz, trace shell hash, trace silt, silty pockets up to 0.25", light gray (5Y-7/1), (SP).		4	Sample #4, Depth = 10.1' Mean (mm): 0.21, Phi Sorting: 0.45 Fines (230): 1.24% (SP)
-30.6	12.0		SAND, fine grained, quartz, some shell hash, trace shell fragments, trace silt, shell fragments up to 0.5", (0.75"x1.5") shell fragment @ 11.4', color mottled light gray (2.5Y-7/1) and, light olive gray (5Y-6/2), (SW).		5	Sample #5, Depth = 11.4' Mean (mm): 0.33, Phi Sorting: 1.36 Fines (230): 2.02% (SW)
-33.7	15.1		Shelly SAND, fine to medium grained, quartz, trace clay, shell components: shell hash, shell fragments & whole shells up to 1.5", 1.0" coral @ 14.8', dark greenish gray (10Y-4/1), (GW-GC).		6	Sample #6, Depth = 13.5' Mean (mm): 0.66, Phi Sorting: 2.21 Fines (230): 6.54% (SW-SC)
-35.3	16.7		Clayey SAND, fine to medium grained, some shell hash, some silt, trace wood fragments, trace shell fragments & whole shells up to 0.5", wood up to (1.0"x2.0"), dark gray (2.5Y-4/1), (SC).			
-37.5	18.9		Shelly SAND, fine to medium grained, quartz, some clay, shell components: shell hash, shell fragments & whole shells up to (1.0"x1.5"), color mottled gray (2.5Y-6/1) and, dark gray (2.5Y-4/1), (GC).			
-41.4	22.8		Sandy SILT, trace shell hash, 0.5" whole shell @ 19.1', 0.75" whole shell @ 19.2', color mottled light gray (2.5Y-7/2) and, dark grayish brown (10YR-4/2), (ML).			
-41.6	23.0		No Recovery.			
			End of Boring			

MEXICO BEACH 2019 VIBRACORES.GPJ 10/1/19

DRILLING LOG		DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS
1. PROJECT Mexico Beach Sand Search Bay County, Florida			9. SIZE AND TYPE OF BIT 2.0 In.	
2. BORING DESIGNATION MBVC-19-06			10. COORDINATE SYSTEM/DATUM Florida State Plane North	
3. DRILLING AGENCY Athena Technologies, Inc.			11. MANUFACTURER'S DESIGNATION OF DRILL <input type="checkbox"/> AUTO HAMMER Electric <input type="checkbox"/> MANUAL HAMMER	
4. NAME OF DRILLER Palmer McClellan			12. TOTAL SAMPLES 5	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED			13. TOTAL NUMBER CORE BOXES	
6. THICKNESS OF OVERBURDEN 0.0 Ft.			14. ELEVATION GROUND WATER	
7. DEPTH DRILLED INTO ROCK 0.0 Ft.			15. DATE BORING 06-18-19 09:25	
8. TOTAL DEPTH OF BORING 22.0 Ft.			16. ELEVATION TOP OF BORING -17.8 Ft.	
			17. TOTAL RECOVERY FOR BORING 20.3 Ft.	
			18. SIGNATURE AND TITLE OF INSPECTOR Kristina McCoy, P.G.	

ELEV. (ft)	DEPTH (ft)	LEGEND	CLASSIFICATION OF MATERIALS Depths and elevations based on measured values	% REC.	BOX OR SAMPLE	REMARKS
-17.8	0.0					
-19.1	1.3		SAND, fine grained, quartz, trace shell fragments, trace shell hash, trace silt, shell fragments up to (0.5"x1.0"), 0.75" whole shell @ 1.3', white (2.5Y-8/1), (SP).		1	Sample #1, Depth = 0.6' Mean (mm): 0.26, Phi Sorting: 0.76 Fines (230): 0.88% (SP)
-21.1	3.3		SAND, fine grained, quartz, trace shell hash, trace silt, silty pockets & shell fragments up to 0.25", 1.0" silty pocket @ 3.1', white (N-8/0), (SP).		2	Sample #2, Depth = 2.3' Mean (mm): 0.25, Phi Sorting: 0.48 Fines (230): 0.85% (SP)
-29.3	11.5		SAND, fine grained, quartz, trace shell fragments, trace shell hash, trace silt, silty pockets & shell fragments up to (0.5"x0.75"), white (N-8/0), (SP).		3	Sample #3, Depth = 7.4' Mean (mm): 0.24, Phi Sorting: 0.63 Fines (230): 0.88% (SP)
-30.2	12.4		SAND, fine grained, quartz, trace shell fragments, trace shell hash, trace silt, silty pockets up to 0.5", shell fragments up to (0.5"x0.75"), gray (2.5Y-6/1), (SP).		4	Sample #4, Depth = 12.0' Mean (mm): 0.21, Phi Sorting: 0.48 Fines (230): 1.48% (SP)
-31.0	13.2		SAND, fine grained, quartz, little shell hash, trace clay, trace shell fragments, trace whole shell, shell fragments up to 0.5", whole shells up to 1.0", dark greenish gray (10Y-4/1), (SW-SC).		5	Sample #5, Depth = 12.8' Mean (mm): 0.27, Phi Sorting: 1.19 Fines (230): 6.44% (SW-SC)
-34.0	16.2		Shelly SAND, fine to medium grained, quartz, trace clay, shell components: shell hash, shell fragments & whole shells up to 1.5, dark greenish gray (10Y-4/1), (GW-GC).		VS VC05#6	
-35.6	17.8		SAND, fine to medium grained, quartz, some clay, little shell hash, trace organics, trace shell fragments & whole shells up to 0.75", dark greenish gray (10Y-4/1), (SC).			
-36.8	19.0		Clayey SAND, fine to medium grained, quartz, little shell hash, trace shell fragments & whole shells up to (0.5"x0.75"), very dark greenish gray (10Y-3/1), (SC).			
-38.1	20.3		Clayey SAND, fine to medium grained, quartz, little shell hash, trace shell fragments & whole shells up to 1.0", wood up to 1.25", dark greenish gray (10Y-4/1), (SC).			
-39.8	22.0		No Recovery. End of Boring			

MEXICO BEACH 2019 VIBRACORES.GPJ 10/1/19

DRILLING LOG		DIVISION	INSTALLATION	SHEET 1
1. PROJECT Mexico Beach Sand Search Bay County, Florida				9. SIZE AND TYPE OF BIT 2.0 In.
2. BORING DESIGNATION MBVC-19-07		LOCATION COORDINATES (ft) X = 1,665,948 Y = 338,851		10. COORDINATE SYSTEM/DATUM Florida State Plane North
3. DRILLING AGENCY Athena Technologies, Inc.		CONTRACTOR FILE NO.		HORIZONTAL NAD 1983
4. NAME OF DRILLER Palmer McClellan		11. MANUFACTURER'S DESIGNATION OF DRILL Electric		<input type="checkbox"/> AUTO HAMMER <input type="checkbox"/> MANUAL HAMMER
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG. FROM VERTICAL	BEARING	12. TOTAL SAMPLES 6
6. THICKNESS OF OVERBURDEN 0.0 Ft.		13. TOTAL NUMBER CORE BOXES		DISTURBED
7. DEPTH DRILLED INTO ROCK 0.0 Ft.		14. ELEVATION GROUND WATER		UNDISTURBED (UD)
8. TOTAL DEPTH OF BORING 21.0 Ft.		15. DATE BORING		STARTED 06-18-19 10:14
		16. ELEVATION TOP OF BORING -17.5 Ft.		COMPLETED 06-18-19 10:20
		17. TOTAL RECOVERY FOR BORING 19.8 Ft.		18. SIGNATURE AND TITLE OF INSPECTOR Kristina McCoy, P.G.

ELEV. (ft)	DEPTH (ft)	LEGEND	CLASSIFICATION OF MATERIALS Depths and elevations based on measured values	% REC.	BOX OR SAMPLE	REMARKS
-17.5	0.0					
-18.0	0.5		SAND, fine grained, quartz, trace shell hash, trace silt, 1.0" whole shell @ 0.4', light gray (2.5Y-7/1), (SP).		1	Sample #1, Depth = 0.3'
-18.7	1.2		SAND, fine to medium grained, quartz, little shell hash, trace shell fragments, trace silt, trace whole shell, shells up to 1.25", light gray (2.5Y-7/1), (SW).		2	Mean (mm): 0.26, Phi Sorting: 0.62 Fines (230): 0.93% (SP)
-21.2	3.7		SAND, fine grained, quartz, trace shell fragments, trace shell hash, trace silt, silty pockets up to 0.25", shell fragments up to 0.75", (2.0"x3.0") whole shell @ 1.3', 1.0" whole shells @ 2.0' and 2.3', white (2.5Y-8/1), (SP).		3	Sample #2, Depth = 0.8' Mean (mm): 0.65, Phi Sorting: 2.31 Fines (230): 0.83% (SW)
-26.6	9.1		SAND, fine grained, quartz, trace shell fragments, trace silt, silty pockets & shell fragments up to (0.25"x0.5"), (0.5"x0.75") shell fragment @ 4.1', 1.0" whole shell @ 4.6', white (2.5Y-8/1), (SP).		4	Sample #3, Depth = 2.5' Mean (mm): 0.27, Phi Sorting: 0.84 Fines (230): 0.79% (SP)
-28.2	10.7		SAND, fine grained, quartz, trace shell hash, trace silt, silty pockets up to 0.5", silt increases with depth, light gray (2.5Y-7/1), (SP).		5	Sample #4, Depth = 6.4' Mean (mm): 0.21, Phi Sorting: 0.35 Fines (230): 0.88% (SP)
-28.7	11.2		SAND, fine to medium grained, quartz, little shell hash, trace clay, trace shell fragments, trace whole shell, shells up to 1.25", dark greenish gray (10Y-4/1), (SW).		6	Sample #5, Depth = 9.9' Mean (mm): 0.23, Phi Sorting: 0.46 Fines (230): 1.23% (SP)
-32.4	14.9		Shelly SAND, fine to medium grained, quartz, trace clay, shell components: shell hash, shell fragments up to (1.5"x2.0") & whole shells up to 1.25", dark greenish gray (10Y-4/1), (GW-GC).		VS VC08#7	Sample #6, Depth = 10.9' Mean (mm): 0.49, Phi Sorting: 2.21 Fines (230): 4.16% (SW)
-33.5	16.0		SAND, fine to medium grained, quartz, some clay, little shell hash, trace shell fragments up to 0.75", 0.25" wood fragment @ 15.7', dark greenish gray (10Y-4/1), (SC).			
-35.2	17.7		Shelly SAND, fine to medium grained, quartz, some clay, shell components: shell hash, shell fragments & whole shells up to 1.25", dark greenish gray (10Y-4/1), (GC).			
-37.3	19.8		Silty SAND, trace shell hash, color mottled light brownish gray (10YR-6/2) and, very dark gray (N-3/0), (SM).			
-38.5	21.0		No Recovery.			
			End of Boring			

MEXICO BEACH 2019 VIBRACORES.GPJ 10/1/19

DRILLING LOG		DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS
1. PROJECT Mexico Beach Sand Search Bay County, Florida			9. SIZE AND TYPE OF BIT 2.0 In. 10. COORDINATE SYSTEM/DATUM Florida State Plane North HORIZONTAL: NAD 1983 VERTICAL: NAVD 88	
2. BORING DESIGNATION MBVC-19-08		LOCATION COORDINATES (ft) X = 1,666,629 Y = 339,059		11. MANUFACTURER'S DESIGNATION OF DRILL <input type="checkbox"/> AUTO HAMMER Electric <input type="checkbox"/> MANUAL HAMMER
3. DRILLING AGENCY Athena Technologies, Inc.		CONTRACTOR FILE NO.		
4. NAME OF DRILLER Palmer McClellan		12. TOTAL SAMPLES DISTURBED UNDISTURBED (UD) 7 7 0		
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG. FROM VERTICAL BEARING		13. TOTAL NUMBER CORE BOXES 14. ELEVATION GROUND WATER
6. THICKNESS OF OVERBURDEN 0.0 Ft.		15. DATE BORING STARTED COMPLETED 06-18-19 10:40 06-18-19 10:48		
7. DEPTH DRILLED INTO ROCK 0.0 Ft.		16. ELEVATION TOP OF BORING -16.9 Ft.		
8. TOTAL DEPTH OF BORING 22.0 Ft.		17. TOTAL RECOVERY FOR BORING 21.6 Ft. 18. SIGNATURE AND TITLE OF INSPECTOR Kristina McCoy, P.G.		

ELEV. (ft)	DEPTH (ft)	LEGEND	CLASSIFICATION OF MATERIALS Depths and elevations based on measured values	% REC.	BOX OR SAMPLE	REMARKS
-16.9	0.0					
-17.3	0.4		SAND, fine grained, quartz, trace shell fragments, trace shell hash, trace silt, trace whole shell, shell fragments up to (0.25"x0.5"), whole shells up to 1.0", light gray (2.5Y-7/2), (SW).		1	Sample #1, Depth = 0.2' Mean (mm): 0.30, Phi Sorting: 1.37 Fines (230): 0.86% (SW)
-18.9	2.0		SAND, fine grained, quartz, little shell hash, trace shell fragments, trace silt, trace whole shell, shell fragments up to (0.5"x1.25"), whole shells up to 1.0", 1.5" shell fragment @ 1.5", (1.25"x1.75") whole shell @ 1.8", light gray (2.5Y-7/1), (SW).		2	Sample #2, Depth = 1.2' Mean (mm): 0.41, Phi Sorting: 1.77 Fines (230): 0.90% (SW)
-21.5	4.6		SAND, fine grained, quartz, trace shell fragments, trace shell hash, trace silt, trace whole shell, silty pockets up to 0.25", shells up to 0.75", (0.5"x2.5") shell fragment @ 2.4", 3.0" pocket of shell fragments & whole shells up to 1.5" @ 3.7", light gray (2.5Y-7/1), (SW).		3	Sample #3, Depth = 3.3' Mean (mm): 0.29, Phi Sorting: 1.15 Fines (230): 1.06% (SW)
-27.3	10.4		SAND, fine grained, quartz, trace shell hash, trace silt, silty pockets up to 0.25", shells up to 0.75", (0.5"x2.5") shell fragment @ 2.4", 3.0" pocket of shell fragments & whole shells up to 1.5" @ 3.7", light gray (2.5Y-7/1), (SW).		4	Sample #4, Depth = 7.5' Mean (mm): 0.22, Phi Sorting: 0.37 Fines (230): 0.92% (SP)
-29.5	12.6		SAND, fine grained, quartz, trace shell hash, trace silt, silty pockets up to 0.25", shells up to 0.75", (0.5"x2.5") shell fragment @ 2.4", 3.0" pocket of shell fragments & whole shells up to 1.5" @ 3.7", light gray (2.5Y-7/1), (SW).		5	Sample #5, Depth = 11.5' Mean (mm): 0.23, Phi Sorting: 0.39 Fines (230): 0.96% (SP)
-30.0	13.1		SAND, fine grained, quartz, some shell hash, trace clay, trace shell fragments, trace whole shell, shells up to 0.75", greenish gray (10Y-5/1), (SW).		6	Sample #6, Depth = 12.8' Mean (mm): 0.37, Phi Sorting: 1.40 Fines (230): 2.59% (SW)
-33.5	16.6		Shelly SAND, fine to medium grained, quartz, trace clay, shell components: shell hash, shell fragments & whole shells up to 1.5", dark greenish gray (10Y-4/1), (GW-GC).		7	Sample #7, Depth = 14.8' Mean (mm): 0.68, Phi Sorting: 2.03 Fines (230): 6.62% (SW-SC)
-34.7	17.8		SAND, fine to medium grained, quartz, some clay, little shell hash, trace organics, trace shell fragments up to 1.0", dark greenish gray (10Y-4/1), (SC).			
-35.1	18.2		WOOD FRAGMENTS, some sand, trace shell hash, black (10YR-2/1), (PT).			
-36.4	19.5		Shelly SAND, fine to medium grained, quartz, some clay, trace organics, trace wood fragments, shell components: shell hash, shell fragments & whole shells up to 1.25", wood up to 2.5", dark greenish gray (10Y-4/1), (GC).			
-38.5	21.6		Silty SAND, fine grained, quartz, trace shell hash, color mottled light brownish gray (10YR-6/2) and, very dark gray (N-3/0), (SM).			
-38.9	22.0		No Recovery.			
End of Boring						

MEXICO BEACH 2019 VIBRACORES.GPJ 10/1/19

DRILLING LOG		DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS
1. PROJECT Mexico Beach Sand Search Bay County, Florida			9. SIZE AND TYPE OF BIT 2.0 In.	
2. BORING DESIGNATION MBVC-19-09			10. COORDINATE SYSTEM/DATUM Florida State Plane North	
3. DRILLING AGENCY Athena Technologies, Inc.			11. MANUFACTURER'S DESIGNATION OF DRILL <input type="checkbox"/> AUTO HAMMER Electric <input type="checkbox"/> MANUAL HAMMER	
4. NAME OF DRILLER Palmer McClellan			12. TOTAL SAMPLES 5 DISTURBED UNDISTURBED (UD)	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED			13. TOTAL NUMBER CORE BOXES	
6. THICKNESS OF OVERBURDEN 0.0 Ft.			14. ELEVATION GROUND WATER	
7. DEPTH DRILLED INTO ROCK 0.0 Ft.			15. DATE BORING 06-18-19 11:34 STARTED COMPLETED 06-18-19 11:40	
8. TOTAL DEPTH OF BORING 20.0 Ft.			16. ELEVATION TOP OF BORING -18.4 Ft.	
			17. TOTAL RECOVERY FOR BORING 19.7 Ft.	
			18. SIGNATURE AND TITLE OF INSPECTOR Alexandra Valente	


ELEV. (ft)	DEPTH (ft)	LEGEND	CLASSIFICATION OF MATERIALS Depths and elevations based on measured values	% REC.	BOX OR SAMPLE	REMARKS
-18.4	0.0					
-19.0	0.6		SAND, fine grained, quartz, trace silt, light brownish gray (2.5Y-6/2), (SP).		1	Sample #1, Depth = 0.3' Mean (mm): 0.22, Phi Sorting: 0.42 Fines (230): 1.26% (SP)
-20.1	1.7		SAND, fine grained, quartz, trace shell fragments, trace shell hash, trace silt, shell fragments up to 0.75", (0.5"x0.75") whole shell @ 0.8', (0.25"x0.5") coral @ 0.9', light gray (2.5Y-7/1), (SW).		2	Sample #2, Depth = 1.1' Mean (mm): 0.29, Phi Sorting: 1.02 Fines (230): 0.97% (SW)
			SAND, fine grained, quartz, trace shell hash, trace silt, silty laminae & pockets up to 0.25", 0.5" whole shell @ 1.8', (0.75"x1.0") shell fragment @ 2.4', 0.75" coral @ 7.2', 0.5" coral @ 8.9', white (N-8/0), (SP).		3	Sample #3, Depth = 5.3' Mean (mm): 0.23, Phi Sorting: 0.44 Fines (230): 0.94% (SP)
-27.4	9.0		SAND, fine grained, quartz, trace shell hash, trace silt, silty pockets up to 0.5", 3 shell fragments up to (0.75"x1.5") @ 9.7', light gray (2.5Y-7/1), (SP).		4	Sample #4, Depth = 9.4' Mean (mm): 0.22, Phi Sorting: 0.52 Fines (230): 1.53% (SP)
-28.2	9.8				5	Sample #5, Depth = 10.2' Mean (mm): 0.30, Phi Sorting: 1.63 Fines (230): 3.67% (SW)
-29.0	10.6		SAND, fine to medium grained, quartz, little shell hash, trace shell fragments, trace silt, trace whole shell, shells up to 1.0", light brownish gray (2.5Y-6/2), (SW).			
-33.3	14.9		Shelly SAND, fine to medium grained, quartz, trace clay, shell components: shell hash, shell fragments & whole shells up to (0.75"x2.0"), grayish brown (2.5Y-5/2), (GW-GC).		VS VC05#6	
-35.0	16.6		Shelly SAND, fine to medium grained, quartz, little clay, shell components: shell hash, shell fragments & whole shells up to 1.75", (1.75"x2.0") wood fragment @ 15.7', (0.75"x1.0") wood fragment @ 16.3', greenish gray (10Y-5/1), (GC).			
-37.2	18.8		Sandy SILT, fine grained, quartz, trace clay, color mottled gray (2.5Y-6/1) and, dark gray (10YR-4/1), (ML).			
-38.1	19.7		Silty SAND, fine grained, quartz, color mottled light brownish gray (2.5Y-6/2) and, white (N-8/0), (SM).			
-38.4	20.0		No Recovery.			
			End of Boring			

MEXICO BEACH 2019 VIBRACORES.GPJ 10/1/19

DRILLING LOG		DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS
1. PROJECT Mexico Beach Sand Search Bay County, Florida			9. SIZE AND TYPE OF BIT 2.0 In.	
2. BORING DESIGNATION MBVC-19-10			10. COORDINATE SYSTEM/DATUM Florida State Plane North	
3. DRILLING AGENCY Athena Technologies, Inc.			11. MANUFACTURER'S DESIGNATION OF DRILL <input type="checkbox"/> AUTO HAMMER Electric <input type="checkbox"/> MANUAL HAMMER	
4. NAME OF DRILLER Palmer McClellan			12. TOTAL SAMPLES 5	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED			13. TOTAL NUMBER CORE BOXES	
6. THICKNESS OF OVERBURDEN 0.0 Ft.			14. ELEVATION GROUND WATER	
7. DEPTH DRILLED INTO ROCK 0.0 Ft.			15. DATE BORING 06-18-19 11:57	
8. TOTAL DEPTH OF BORING 21.0 Ft.			16. ELEVATION TOP OF BORING -17.6 Ft.	
			17. TOTAL RECOVERY FOR BORING 20.5 Ft.	
			18. SIGNATURE AND TITLE OF INSPECTOR Alexandra Valente	


ELEV. (ft)	DEPTH (ft)	LEGEND	CLASSIFICATION OF MATERIALS Depths and elevations based on measured values	% REC.	BOX OR SAMPLE	REMARKS
-17.6	0.0					
-18.9	1.3		SAND, fine grained, quartz, trace shell fragments, trace silt, trace whole shell, shells up to 0.75", light gray (2.5Y-7/1), (SP).		1	Sample #1, Depth = 0.7' Mean (mm): 0.28, Phi Sorting: 0.85 Fines (230): 0.95% (SP)
-19.9	2.3		SAND, fine grained, quartz, trace shell hash, trace silt, 1.0" shell hash pocket @ 1.7', (0.5"x0.75") shell fragment @ 1.4', (0.25"x0.5") shell fragment @ 2.2', light gray (2.5Y-7/1), (SW).		2	Sample #2, Depth = 1.8' Mean (mm): 0.30, Phi Sorting: 1.01 Fines (230): 1.05% (SW)
-28.2	10.6		SAND, fine grained, quartz, trace shell hash, trace silt, silty laminae & pockets up to (0.25"x0.5"), (0.5"x0.75") shell fragment @ 3.5', white (N-8/0), (SP).		3	Sample #3, Depth = 6.4' Mean (mm): 0.24, Phi Sorting: 0.53 Fines (230): 0.65% (SP)
-29.5	11.9		SAND, fine grained, quartz, trace shell hash, trace silt, silty laminae & pockets up to (0.25"x0.5"), color mottled gray (2.5Y-6/1) and gray (2.5Y-6/1), (SP).		4	Sample #4, Depth = 11.2' Mean (mm): 0.21, Phi Sorting: 0.43 Fines (230): 1.15% (SP)
-30.0	12.4		SAND, fine grained, quartz, trace shell hash, trace silt, grayish brown (2.5Y-5/2), (SW).		5	Sample #5, Depth = 12.1' Mean (mm): 0.22, Phi Sorting: 0.90 Fines (230): 4.44% (SW)
-31.8	14.2		Shelly SAND, fine to medium grained, quartz, trace clay, shell components: shell hash, shell fragments & whole shells up to (0.75"x1.75"), 0.5" silt pocket @ 13.8', dark gray (2.5Y-4/1), (GW-GC).		VS VC05#6	
-34.2	16.6		Shelly SAND, fine to medium grained, quartz, some clay, shell components: shell hash, shell fragments & whole shells up to (1.75"x2.0"), dark greenish gray (10Y-4/1), (GC).			
-35.0	17.4		SAND, fine to medium grained, quartz, some clay, some shell hash, trace shell fragments up to 0.5", dark gray (2.5Y-4/1), (SC).			
-37.9	20.3		Shelly SAND, fine to medium grained, quartz, some clay, shell components: shell hash, shell fragments & whole shells up to 2.0", 3 (0.75") wood fragments @ 19.4', dark gray (2.5Y-4/1), (GC).			
-38.1	20.5					
-38.6	21.0		Sandy SILT, fine grained, quartz, trace shell hash, 0.75" whole shell @ 20.4', color mottled light gray (2.5Y-7/1) and, (2.5Y-4/2), (ML). No Recovery.			
			End of Boring			

MEXICO BEACH 2019 VIBRACORES.GPJ 10/1/19

DRILLING LOG		DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS
1. PROJECT Mexico Beach Sand Search Bay County, Florida			9. SIZE AND TYPE OF BIT 2.0 In.	
			10. COORDINATE SYSTEM/DATUM Florida State Plane North HORIZONTAL NAD 1983 VERTICAL NAVD 88	
2. BORING DESIGNATION MBVC-19-11		LOCATION COORDINATES (ft) X = 1,665,566 Y = 339,430		11. MANUFACTURER'S DESIGNATION OF DRILL <input type="checkbox"/> AUTO HAMMER Electric <input type="checkbox"/> MANUAL HAMMER
3. DRILLING AGENCY Athena Technologies, Inc.		CONTRACTOR FILE NO.		
4. NAME OF DRILLER Palmer McClellan			12. TOTAL SAMPLES DISTURBED UNDISTURBED (UD) 4 4 0	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED			13. TOTAL NUMBER CORE BOXES	
6. THICKNESS OF OVERBURDEN 0.0 Ft.			14. ELEVATION GROUND WATER	
7. DEPTH DRILLED INTO ROCK 0.0 Ft.			15. DATE BORING STARTED COMPLETED 06-18-19 12:24 06-18-19 12:30	
8. TOTAL DEPTH OF BORING 20.0 Ft.			16. ELEVATION TOP OF BORING -17.8 Ft.	
			17. TOTAL RECOVERY FOR BORING 18.8 Ft.	
			18. SIGNATURE AND TITLE OF INSPECTOR Kristina McCoy, P.G.	

ELEV. (ft)	DEPTH (ft)	LEGEND	CLASSIFICATION OF MATERIALS Depths and elevations based on measured values	% REC.	BOX OR SAMPLE	REMARKS
-17.8	0.0					
-18.7	0.9		SAND, fine grained, quartz, trace shell hash, trace silt, light gray (2.5Y-7/2), (SP).		VS VC12#1	Sample #1, Depth = 1.4' Mean (mm): 0.41, Phi Sorting: 1.71 Fines (230): 0.55% (SW)
-19.7	1.9		SAND, fine grained, quartz, trace silt, silty pockets & shell fragments up to (0.25"x0.5"), whole shells up to 1.25", (1.0"x1.5") silty pocket @ 1.8', light gray (2.5Y-7/1), (SW).		1	
			SAND, fine grained, quartz, trace shell fragments, trace silt, trace whole shell, silty pockets up to (0.25"x0.75"), shells up to (0.5"x0.75"), 1.25" whole shell @ 7.0', white (N-8/0), (SP).		2	Sample #2, Depth = 5.4' Mean (mm): 0.24, Phi Sorting: 0.41 Fines (230): 0.54% (SP)
-26.7	8.9		SAND, fine grained, quartz, trace shell fragments, trace shell hash, trace silt, silty pockets up to (0.5"x1.0"), shell fragments up to 0.75", 0.75" whole shell @ 12.3', light gray (2.5Y-7/1), (SP).		3	Sample #3, Depth = 10.5' Mean (mm): 0.21, Phi Sorting: 0.38 Fines (230): 0.87% (SP)
-30.1	12.3		SAND, fine grained, quartz, little shell hash, trace clay, trace shell fragments, trace silt, trace whole shell, shell fragments up to (0.5"x0.75"), whole shells up to (0.75"x1.25"), dark greenish gray (10Y-4/1), (SW-SM).		4	Sample #4, Depth = 12.6' Mean (mm): 0.38, Phi Sorting: 1.95 Fines (230): 6.36% (SW-SM)
-30.8	13.0		Shelly SAND, fine to medium grained, quartz, trace clay, shell components: shell hash, shell fragments & whole shells up to (0.75"x1.25"), 1.75" whole shell @ 13.0', dark greenish gray (10Y-4/1), (GW-GC).		VS VC08#7	
-32.0	14.2		SAND, fine to medium grained, quartz, some clay, little shell hash, trace shell fragments & whole shells up to 1.0", 1.5" whole shell @ 14.6', dark greenish gray (10Y-4/1), (SC).			
-32.7	14.9		Shelly SAND, fine to medium grained, quartz, some clay, shell components: shell hash, shell fragments up to 1.5" & whole shells up to 1.25", dark greenish gray (10Y-4/1), (GC).			
-35.2	17.4		Sandy SHELL, some clay, shell components: shell hash, shell fragments & whole shells up to 1.25", dark greenish gray (10Y-4/1), (GC).			
-36.2	18.4		SAND, fine grained, quartz, trace silt, light gray (2.5Y-7/1), (SP-SM).			
-36.6	18.8		No Recovery.			
-37.8	20.0		No Recovery.			
			End of Boring			

MEXICO BEACH 2019 VIBRACORES.GPJ 10/1/19

DRILLING LOG		DIVISION	INSTALLATION	SHEET 1
1. PROJECT Mexico Beach Sand Search Bay County, Florida				9. SIZE AND TYPE OF BIT 2.0 In.
2. BORING DESIGNATION MBVC-19-12		LOCATION COORDINATES (ft) X = 1,666,365 Y = 339,904		10. COORDINATE SYSTEM/DATUM Florida State Plane North
3. DRILLING AGENCY Athena Technologies, Inc.		CONTRACTOR FILE NO.		HORIZONTAL NAD 1983
4. NAME OF DRILLER Palmer McClellan		11. MANUFACTURER'S DESIGNATION OF DRILL Electric		<input type="checkbox"/> AUTO HAMMER <input type="checkbox"/> MANUAL HAMMER
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG. FROM VERTICAL	BEARING	12. TOTAL SAMPLES 5
6. THICKNESS OF OVERBURDEN 0.0 Ft.		13. TOTAL NUMBER CORE BOXES		DISTURBED
7. DEPTH DRILLED INTO ROCK 0.0 Ft.		14. ELEVATION GROUND WATER		UNDISTURBED (UD)
8. TOTAL DEPTH OF BORING 22.0 Ft.		15. DATE BORING		STARTED 06-18-19 12:49
		16. ELEVATION TOP OF BORING -17.4 Ft.		COMPLETED 06-18-19 12:59
		17. TOTAL RECOVERY FOR BORING 21.6 Ft.		18. SIGNATURE AND TITLE OF INSPECTOR Kristina McCoy, P.G.

ELEV. (ft)	DEPTH (ft)	LEGEND	CLASSIFICATION OF MATERIALS Depths and elevations based on measured values	% REC.	BOX OR SAMPLE	REMARKS
-17.4	0.0					
-18.3	0.9		SAND, fine grained, quartz, trace shell hash, trace silt, (0.5"x0.75") shell fragment @ 0.3', light gray (2.5Y-7/2), (SP).		1	Sample #1, Depth = 0.4' Mean (mm): 0.25, Phi Sorting: 0.53 Fines (230): 0.96% (SP)
-21.9	4.5		SAND, fine grained, quartz, trace shell fragments, trace shell hash, trace silt, trace whole shell, shell fragments up to (0.5"x0.75"), whole shells up to 1.0", (0.5"x1.75") shell fragment @ 4.4', light gray (2.5Y-7/1), (SW).		2	Sample #2, Depth = 2.7' Mean (mm): 0.45, Phi Sorting: 1.83 Fines (230): 0.78% (SW)
-27.0	9.6		SAND, fine grained, quartz, trace shell fragments, trace silt, silty pockets & shell fragments up to (0.25"x0.5"), (0.5"x1.5") silty pocket @ 8.2', white (N-8/0), (SP).		3	Sample #3, Depth = 7.0' Mean (mm): 0.24, Phi Sorting: 0.48 Fines (230): 0.84% (SP)
-28.8	11.4		SAND, fine grained, quartz, trace shell hash, trace silt, silty pockets up to (0.25"x0.5"), silt increases with depth, light gray (2.5Y-7/1), (SP).		4	Sample #4, Depth = 10.5' Mean (mm): 0.21, Phi Sorting: 0.38 Fines (230): 1.02% (SP)
-29.3	11.9		SAND, fine grained, quartz, trace shell hash, trace silt, gray (2.5Y-6/1), (SP).		5	Sample #5, Depth = 11.6' Mean (mm): 0.20, Phi Sorting: 0.41 Fines (230): 1.37% (SP)
-30.0	12.6		SAND, fine grained, quartz, some shell hash, trace clay, trace shell fragments, trace whole shell, shells up to 0.75", greenish gray (10Y-5/1), (SW).		VS VC08#6	
-33.1	15.7		Shelly SAND, fine to medium grained, quartz, trace clay, shell components: shell hash, shell fragments up to 1.0" & whole shells up to 1.25", 2.25" whole shell @ 15.2', dark greenish gray (10Y-4/1), (GW-GC).		VS VC08#7	
-34.3	16.9		SAND, fine to medium grained, quartz, some clay, little shell hash, trace shell fragments & whole shells up to 0.75", dark greenish gray (10Y-4/1), (SC).			
-36.4	19.0		Shelly SAND, fine to medium grained, quartz, some clay, trace organics, shell components: shell hash, shell fragments & whole shells up to 1.0", (1.0"x1.5") wood fragments @ 17.5' and 18.9', dark greenish gray (10Y-4/1), (GC).			
-39.0	21.6		Clayey SAND, fine to medium grained, quartz, trace organics, trace shell hash, trace wood fragments, wood up to 0.75", color mottled gray (2.5Y-6/1), dark gray (2.5Y-4/1) and, black (10YR-2/1), (SC).			
-39.4	22.0		No Recovery.			
End of Boring						

MEXICO BEACH 2019 VIBRACORES.GPJ 10/1/19

DRILLING LOG		DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS
1. PROJECT Mexico Beach Sand Search Bay County, Florida			9. SIZE AND TYPE OF BIT 2.0 In.	
2. BORING DESIGNATION MBVC-19-13			10. COORDINATE SYSTEM/DATUM Florida State Plane North	
3. DRILLING AGENCY Athena Technologies, Inc.			11. MANUFACTURER'S DESIGNATION OF DRILL <input type="checkbox"/> AUTO HAMMER Electric <input type="checkbox"/> MANUAL HAMMER	
4. NAME OF DRILLER Palmer McClellan			12. TOTAL SAMPLES 4 DISTURBED UNDISTURBED (UD)	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED			13. TOTAL NUMBER CORE BOXES	
6. THICKNESS OF OVERBURDEN 0.0 Ft.			14. ELEVATION GROUND WATER	
7. DEPTH DRILLED INTO ROCK 0.0 Ft.			15. DATE BORING 06-18-19 13:14 STARTED COMPLETED 06-18-19 13:24	
8. TOTAL DEPTH OF BORING 21.0 Ft.			16. ELEVATION TOP OF BORING -17.8 Ft.	
			17. TOTAL RECOVERY FOR BORING 20 Ft.	
			18. SIGNATURE AND TITLE OF INSPECTOR Kristina McCoy, P.G.	

ELEV. (ft)	DEPTH (ft)	LEGEND	CLASSIFICATION OF MATERIALS Depths and elevations based on measured values	% REC.	BOX OR SAMPLE	REMARKS
-17.8	0.0					
-18.5	0.7		SAND, fine grained, quartz, trace shell hash, trace silt, light gray (2.5Y-7/2), (SP).		VS VC12#1	
-21.6	3.8		SAND, fine grained, quartz, trace shell fragments, trace silt, trace whole shell, shells up to 1.0", (1.25"x2.0") shell fragment @ 0.9', (0.25"x0.5") coral @ 1.7', (1.0"x1.5") shell fragments @ 2.1' & 3.6', light gray (2.5Y-7/1), (SW).		1	Sample #1, Depth = 2.2' Mean (mm): 0.38, Phi Sorting: 1.61 Fines (230): 0.68% (SW)
-26.8	9.0		SAND, fine grained, quartz, trace shell fragments, trace shell hash, trace silt, silty pockets & shell fragments up to (0.25"x0.5"), 0.75" whole shells @ 4.5' & 4.8', (0.25"x1.0") silty pocket @ 6.7', light greenish gray (10Y-8/1), (SP).		2	Sample #2, Depth = 6.4' Mean (mm): 0.24, Phi Sorting: 0.39 Fines (230): 1.07% (SP)
-28.7	10.9		SAND, fine grained, quartz, trace silt, silty pockets up to (0.25"x0.5"), (0.5"x1.0") shell fragment @ 10.2', greenish gray (10Y-6/1), (SP).		3	Sample #3, Depth = 9.9' Mean (mm): 0.22, Phi Sorting: 0.48 Fines (230): 1.32% (SP)
-29.4	11.6		SAND, fine grained, quartz, trace clay, trace shell hash, 0.5" whole shell & 0.75" shell fragment @ 11.5', greenish gray (10Y-5/1), (SP).		4	Sample #4, Depth = 11.2' Mean (mm): 0.23, Phi Sorting: 0.62 Fines (230): 4.11% (SP)
-32.3	14.5		Shelly SAND, fine to medium grained, quartz, trace clay, shell components: shell hash, shell fragments & whole shells up to 1.25", 1.5" shell fragment @ 14.3', dark greenish gray (10Y-4/1), (GW-GC).		VS VC08#7	
-35.9	18.1		Clayey SAND, fine grained, quartz, trace organics, trace shell hash, trace wood fragments, wood up to (0.75"x1.0"), color mottled gray (2.5Y-6/1), dark gray (N-4/0), (SC).			
-37.4	19.6		Shelly SAND, fine to medium grained, quartz, some clay, shell components: shell hash, shell fragments up to 0.75" & whole shells up to 1.25", dark greenish gray (10Y-4/1), (GC).			
-37.8	20.0		Sandy WOOD FRAGMENTS, little organics, little silt, wood up to 2.0", color mottled dark greenish gray (10Y-4/1) and, black (10YR-2/1), (PT).			
-38.8	21.0		No Recovery.			
			End of Boring			

MEXICO BEACH 2019 VIBRACORES.GPJ 10/1/19

DRILLING LOG		DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS
1. PROJECT Mexico Beach Sand Search Bay County, Florida			9. SIZE AND TYPE OF BIT 2.0 In.	
2. BORING DESIGNATION MBVC-19-14			10. COORDINATE SYSTEM/DATUM Florida State Plane North	
3. DRILLING AGENCY Athena Technologies, Inc.			11. MANUFACTURER'S DESIGNATION OF DRILL <input type="checkbox"/> AUTO HAMMER Electric <input type="checkbox"/> MANUAL HAMMER	
4. NAME OF DRILLER Palmer McClellan			12. TOTAL SAMPLES 5	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED			13. TOTAL NUMBER CORE BOXES	
6. THICKNESS OF OVERBURDEN 0.0 Ft.			14. ELEVATION GROUND WATER	
7. DEPTH DRILLED INTO ROCK 0.0 Ft.			15. DATE BORING 06-23-19 08:45	
8. TOTAL DEPTH OF BORING 21.0 Ft.			16. ELEVATION TOP OF BORING -16.9 Ft.	
			17. TOTAL RECOVERY FOR BORING 20.6 Ft.	
			18. SIGNATURE AND TITLE OF INSPECTOR Kristina McCoy, P.G.	


ELEV. (ft)	DEPTH (ft)	LEGEND	CLASSIFICATION OF MATERIALS Depths and elevations based on measured values	% REC.	BOX OR SAMPLE	REMARKS
-16.9	0.0					
-17.5	0.6		SAND, fine grained, quartz, trace shell fragments, trace shell hash, trace silt, shell fragments up to 0.5", light gray (2.5Y-7/2), (SW).		1	Sample #1, Depth = 0.3' Mean (mm): 0.33, Phi Sorting: 1.38 Fines (230): 0.60% (SW)
-20.1	3.2		SAND, fine grained, quartz, trace shell fragments, trace shell hash, trace silt, trace whole shell, silty pockets up to 0.25", shells up to 1.0", (1.0"x1.5") shell fragment @ 2.2', light gray (2.5Y-7/1), (SW).		2	Sample #2, Depth = 1.9' Mean (mm): 0.30, Phi Sorting: 1.36 Fines (230): 0.81% (SW)
-28.0	11.1		SAND, fine grained, quartz, trace shell fragments, trace shell hash, trace silt, silty pockets up to 0.75", shell fragments up to (0.75"x1.0"), 2 (1.0") whole shells @ 4.8', 1.25" whole shell @ 7.3', (0.5"x0.75") whole shell @ 9.9', light greenish gray (10Y-8/1), (SP).		3	Sample #3, Depth = 7.1' Mean (mm): 0.22, Phi Sorting: 0.35 Fines (230): 0.68% (SP)
-29.3	12.4		SAND, fine grained, quartz, trace shell hash, trace silt, silty pockets up to (0.25"x0.5"), (0.25"x0.5") shell fragment @ 12.0', greenish gray (10Y-6/1), (SP).		4	Sample #4, Depth = 11.7' Mean (mm): 0.22, Phi Sorting: 0.33 Fines (230): 0.84% (SP)
-29.9	13.0		SAND, fine grained, quartz, trace clay, trace shell fragments, trace shell hash, shell fragments up to (0.25"x0.5"), dark greenish gray (10Y-4/1), (SP-SC).		5	Sample #5, Depth = 12.7' Mean (mm): 0.23, Phi Sorting: 0.56 Fines (230): 8.45% (SP-SC)
-33.2	16.3		Shelly SAND, fine to medium grained, quartz, trace clay, shell fragments up to 1.5", whole shells up to (1.5"x2.0"), 0.25" wood fragment @ 14.0', dark greenish gray (10Y-4/1), (GW-GC).		VS VC08#7	
-34.8	17.9		SAND, fine to medium grained, quartz, some clay, little shell hash, trace shell fragments & whole shells up to 0.75", dark greenish gray (10Y-4/1), (SC).			
-36.6	19.7		Shelly SAND, fine to medium grained, quartz, some clay, shell components: shell hash, shell fragments up to 2.0" & whole shells up to 1.25", dark greenish gray (10Y-4/1), (GC).			
-37.5	20.6		Silty SAND, fine grained, quartz, trace shell hash, color mottled light brownish gray (10YR-6/2) and, very dark gray (N-3/0), (SM).			
-37.9	21.0		No Recovery.			
			End of Boring			

MEXICO BEACH 2019 VIBRACORES.GPJ 10/1/19

DRILLING LOG		DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS
1. PROJECT Mexico Beach Sand Search Bay County, Florida			9. SIZE AND TYPE OF BIT 2.0 In.	
2. BORING DESIGNATION MBVC-19-15			10. COORDINATE SYSTEM/DATUM Florida State Plane North	
3. DRILLING AGENCY Athena Technologies, Inc.			11. MANUFACTURER'S DESIGNATION OF DRILL <input type="checkbox"/> AUTO HAMMER Electric <input type="checkbox"/> MANUAL HAMMER	
4. NAME OF DRILLER Palmer McClellan			12. TOTAL SAMPLES 7	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED			13. TOTAL NUMBER CORE BOXES	
6. THICKNESS OF OVERBURDEN 0.0 Ft.			14. ELEVATION GROUND WATER	
7. DEPTH DRILLED INTO ROCK 0.0 Ft.			15. DATE BORING 06-18-19 14:42	
8. TOTAL DEPTH OF BORING 20.0 Ft.			16. ELEVATION TOP OF BORING -18.7 Ft.	
			17. TOTAL RECOVERY FOR BORING 17.4 Ft.	
			18. SIGNATURE AND TITLE OF INSPECTOR Kristina McCoy, P.G.	


ELEV. (ft)	DEPTH (ft)	LEGEND	CLASSIFICATION OF MATERIALS Depths and elevations based on measured values	% REC.	BOX OR SAMPLE	REMARKS
-18.7	0.0					
-19.7	1.0		SAND, fine grained, quartz, trace shell hash, trace silt, silty pockets up to 0.25", (0.5"x0.75") shell fragment @ 0.8', gray (2.5Y-5/1), (SP).		1	Sample #1, Depth = 0.5' Mean (mm): 0.21, Phi Sorting: 0.58 Fines (230): 1.15% (SP)
-20.1	1.4				VS	
-20.9	2.2		SAND, fine to medium grained, quartz, some shell hash, trace silt, trace shell fragments & whole shells up to 0.75", (1.25"x1.5") whole shell @ 1.1', light gray (2.5Y-7/1), (SW).		2	Sample #2, Depth = 1.8' Mean (mm): 0.27, Phi Sorting: 0.85 Fines (230): 0.88% (SP)
-21.8	3.1				4	Sample #3, Depth = 3.4' Mean (mm): 0.36, Phi Sorting: 1.37 Fines (230): 0.59% (SW)
-22.4	3.7		SAND, fine grained, quartz, little shell hash, trace silt, silty pockets up to 0.25", trace shell fragments up to 0.5", light gray (2.5Y-7/1), (SP).		3	
			SAND, fine grained, quartz, trace shell hash, trace silt, silty pockets & trace shell fragments up to (0.75"x1.25"), white (N-8/0), (SP).		4	Sample #4, Depth = 5.7' Mean (mm): 0.22, Phi Sorting: 0.60 Fines (230): 1.13% (SP)
-26.5	7.8		SAND, fine grained, quartz, little shell hash, trace silt, trace shell fragments & whole shells up to 1.25", white (2.5Y-8/1), (SW).		5	
-27.8	9.1		SAND, fine grained, quartz, trace shell hash, trace silt, silty pockets up to 0.25", trace shell fragments up to 0.75", (0.5"x1.0") silty pocket @ 4.5', white (N-8/0), (SP).		6	Sample #5, Depth = 8.4' Mean (mm): 0.24, Phi Sorting: 0.92 Fines (230): 0.90% (SW)
-28.6	9.9		SAND, fine grained, quartz, little shell hash, trace silt, trace shell fragments & whole shells up to (0.5"x0.75"), (0.75"x1.5") shell fragment @ 8.4', light gray (2.5Y-7/1), (SW).		7	Sample #6, Depth = 9.5' Mean (mm): 0.21, Phi Sorting: 0.60 Fines (230): 1.36% (SP)
-29.7	11.0		SAND, fine grained, quartz, trace shell hash, trace silt, silty pockets up to (0.25"x0.5"), gray (2.5Y-6/1), (SP).			Sample #7, Depth = 10.5' Mean (mm): 0.24, Phi Sorting: 1.33 Fines (230): 3.81% (SW)
			SAND, fine grained, quartz, little shell hash, trace clay, trace shell fragments & whole shells up to 1.25", dark greenish gray (10Y-4/1), (SW).			
-33.3	14.6		Clayey SAND, fine to medium grained, quartz, little shell hash, trace shell fragments up to (0.75"x1.5"), trace whole shells up to 1.25", dark greenish gray (10Y-4/1), (SC).			
-34.6	15.9		Clayey SAND, fine to medium grained, quartz, little shell hash, 0.75" whole shell @ 15.3', (0.5"x1.5") shell fragment @ 15.4', dark greenish gray (10Y-4/1), (SC).			
-35.5	16.8		Shelly SAND, fine to medium grained, quartz, some clay, shells up to 1.25", dark greenish gray (10Y-4/1), (GC).			
-36.1	17.4		SAND, fine grained, quartz, trace shell hash, trace silt, trace shell fragments up to 0.5", gray (2.5Y-6/1), (SP).			
-38.7	20.0		No Recovery.			
			End of Boring			

MEXICO BEACH 2019 VIBRACORES.GPJ 10/1/19

DRILLING LOG		DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS
1. PROJECT Mexico Beach Sand Search Bay County, Florida			9. SIZE AND TYPE OF BIT 2.0 In.	
			10. COORDINATE SYSTEM/DATUM Florida State Plane North	
2. BORING DESIGNATION MBVC-19-16			HORIZONTAL NAD 1983	
LOCATION COORDINATES (ft) X = 1,664,895 Y = 339,807			VERTICAL NAVD 88	
3. DRILLING AGENCY Athena Technologies, Inc.			11. MANUFACTURER'S DESIGNATION OF DRILL Electric	
CONTRACTOR FILE NO.			<input type="checkbox"/> AUTO HAMMER <input type="checkbox"/> MANUAL HAMMER	
4. NAME OF DRILLER Palmer McClellan			12. TOTAL SAMPLES 5	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED			DISTURBED 5	
DEG. FROM VERTICAL			UNDISTURBED (UD)	
BEARING			13. TOTAL NUMBER CORE BOXES	
6. THICKNESS OF OVERBURDEN 0.0 Ft.			14. ELEVATION GROUND WATER	
7. DEPTH DRILLED INTO ROCK 0.0 Ft.			15. DATE BORING 06-18-19 15:08	
8. TOTAL DEPTH OF BORING 21.0 Ft.			STARTED 06-18-19 15:08	
			COMPLETED 06-18-19 15:16	
			16. ELEVATION TOP OF BORING -16.8 Ft.	
			17. TOTAL RECOVERY FOR BORING 19.7 Ft.	
			18. SIGNATURE AND TITLE OF INSPECTOR Kristina McCoy, P.G.	


ELEV. (ft)	DEPTH (ft)	LEGEND	CLASSIFICATION OF MATERIALS Depths and elevations based on measured values	% REC.	BOX OR SAMPLE	REMARKS
-16.8	0.0					
-17.8	1.0		SAND, fine grained, quartz, trace shell hash, trace silt, light gray (2.5Y-7/2), (SP).		VS	
-18.4	1.6		SAND, fine to medium grained, quartz, some shell hash, trace shell fragments, trace silt, trace whole shell, shells up to 0.75", (1.25"x1.75") shell fragment @ 1.2', 0.5" silty pocket @ 1.5', light gray (2.5Y-7/1), (SW).		VC12#1	Sample #1, Depth = 1.3' Mean (mm): 0.62, Phi Sorting: 2.03 Fines (230): 0.59% (SW)
-19.8	3.0		SAND, fine grained, quartz, trace shell fragments, trace shell hash, trace silt, trace whole shell, silty pockets up to 0.25", shell fragments up to (0.5"x0.75"), whole shells up to 0.75", light gray (2.5Y-7/1), (SP).		1	Sample #2, Depth = 2.3' Mean (mm): 0.27, Phi Sorting: 0.57 Fines (230): 0.87% (SP)
-25.3	8.5		SAND, fine grained, quartz, trace shell hash, trace silt, silty pockets up to 0.25", white (N-8/0), (SP).		2	
-28.0	11.2		SAND, fine grained, quartz, trace shell fragments, trace shell hash, trace silt, silty pockets up to (0.25"x0.5"), shell fragments up to 0.5", light gray (2.5Y-7/1), (SP).		3	Sample #3, Depth = 5.8' Mean (mm): 0.23, Phi Sorting: 0.38 Fines (230): 0.92% (SP)
-28.4	11.6		SAND, fine grained, quartz, little shell hash, trace shell fragments, trace silt, trace whole shell, shells up to (0.5"x1.0"), dark greenish gray (10Y-4/1), (SW-SM).		4	Sample #4, Depth = 9.8' Mean (mm): 0.21, Phi Sorting: 0.38 Fines (230): 0.86% (SP)
-29.8	13.0		Clayey SAND, fine to medium grained, quartz, little shell hash, trace shell fragments & whole shells up to 1.0", dark greenish gray (10Y-4/1), (SC).		5	Sample #5, Depth = 11.4' Mean (mm): 0.27, Phi Sorting: 1.42 Fines (230): 7.83% (SW-SM)
-32.2	15.4		Clayey SAND, fine to medium grained, quartz, some shell hash, trace shell fragments & whole shells up to 1.25", (1.75"x2.25") shell fragment @ 15.1", dark greenish gray (10Y-4/1), (GC).			
-33.9	17.1		SAND, fine to medium grained, quartz, some clay, little shell hash, trace shell fragments & whole shells up to 1.0", dark greenish gray (10Y-4/1), (SC).			
-34.8	18.0		Shelly SAND, fine to medium grained, quartz, some clay, trace organics, shells up to 1.5", 2 (0.5"x1.0") wood fragments @ 17.4', dark greenish gray (10Y-4/1), (GC).			
-35.1	18.3		WOOD FRAGMENTS, trace sand, trace shell hash, black (10YR-2/1), (PT).			
-36.5	19.7		SAND, fine grained, quartz, little silt, trace organics, trace shell hash, silty pockets up to 0.75", color mottled light gray (2.5Y-7/1) and, very dark gray (2.5Y-3/1), (SM).			
-37.8	21.0		No Recovery.			
			End of Boring			

MEXICO BEACH 2019 VIBRACORES.GPJ 10/1/19

DRILLING LOG		DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS
1. PROJECT Mexico Beach Sand Search Bay County, Florida			9. SIZE AND TYPE OF BIT 2.0 In.	
			10. COORDINATE SYSTEM/DATUM Florida State Plane North HORIZONTAL: NAD 1983 VERTICAL: NAVD 88	
2. BORING DESIGNATION MBVC-19-17		LOCATION COORDINATES (ft) X = 1,665,626 Y = 340,196		11. MANUFACTURER'S DESIGNATION OF DRILL <input type="checkbox"/> AUTO HAMMER Electric <input type="checkbox"/> MANUAL HAMMER
3. DRILLING AGENCY Athena Technologies, Inc.		CONTRACTOR FILE NO.		
4. NAME OF DRILLER Palmer McClellan			12. TOTAL SAMPLES DISTURBED: 6 UNDISTURBED (UD)	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL DEG. FROM VERTICAL: BEARING: <input type="checkbox"/> INCLINED			13. TOTAL NUMBER CORE BOXES	
6. THICKNESS OF OVERBURDEN 0.0 Ft.			14. ELEVATION GROUND WATER	
7. DEPTH DRILLED INTO ROCK 0.0 Ft.			15. DATE BORING STARTED: 06-18-19 15:40 COMPLETED: 06-18-19 15:46	
8. TOTAL DEPTH OF BORING 21.0 Ft.			16. ELEVATION TOP OF BORING -16.2 Ft.	
			17. TOTAL RECOVERY FOR BORING 20.8 Ft.	
			18. SIGNATURE AND TITLE OF INSPECTOR Kristina McCoy, P.G.	


ELEV. (ft)	DEPTH (ft)	LEGEND	CLASSIFICATION OF MATERIALS Depths and elevations based on measured values	% REC.	BOX OR SAMPLE	REMARKS
-16.2	0.0					
-17.0	0.8		SAND, fine grained, quartz, trace shell hash, trace silt, trace shell fragments & whole shells up to 0.75", light gray (2.5Y-7/2), (SW).		1	Sample #1, Depth = 0.4' Mean (mm): 0.32, Phi Sorting: 1.24 Fines (230): 0.83% (SW)
-18.4	2.2		SAND, fine grained, quartz, some shell hash, silty pockets up to 0.25", trace shell fragments & whole shells up to 0.75", light gray (2.5Y-7/1), (SW).		2	Sample #2, Depth = 1.5' Mean (mm): 0.52, Phi Sorting: 1.93 Fines (230): 0.71% (SW)
-23.2	7.0		SAND, fine grained, quartz, trace shell hash, trace silt, silty pockets & trace whole shells up to 1.25", trace shell fragments up to (1.0"x1.25"), 1.5" silty pocket @ 3.7", light gray (2.5Y-7/1), (SW).		3	Sample #3, Depth = 4.6' Mean (mm): 0.28, Phi Sorting: 1.00 Fines (230): 0.84% (SW)
-25.8	9.6		SAND, fine grained, quartz, trace silt, silty pockets up to 0.25", trace shell fragments up to 0.5", 0.75" whole shell @ 7.5", light greenish gray (10Y-7/1), (SP).		4	Sample #4, Depth = 8.3' Mean (mm): 0.23, Phi Sorting: 0.50 Fines (230): 0.98% (SP)
-26.9	10.7		SAND, fine grained, quartz, trace shell hash, trace silt, silty pockets up to (0.25"x0.5"), trace shell fragments & whole shells up to (0.5"x0.75"), (1.25"x2.0") shell fragment @ 9.8', 2 (1.0") whole shells & 1.25" shell fragment @ 10.2', light gray (2.5Y-7/1), (SW).		5	Sample #5, Depth = 10.2' Mean (mm): 0.33, Phi Sorting: 1.60 Fines (230): 1.66% (SW)
-28.3	12.1		SAND, fine grained, quartz, trace clay, trace shell hash, trace shell fragments up to 0.75", dark greenish gray (10Y-4/1), (SW-SC).		6	Sample #6, Depth = 11.4' Mean (mm): 0.25, Phi Sorting: 1.15 Fines (230): 8.89% (SW-SC)
-31.6	15.4		Clayey SAND, fine to medium grained, quartz, some shell hash, trace shell fragments & whole shells up to 2.0", dark greenish gray (10Y-4/1), (GC).			
-33.2	17.0		SAND, fine to medium grained, quartz, some clay, little shell hash, trace organics, trace shell fragments & whole shells up to 0.75", 1.25" whole shell @ 15.8', (0.25"x0.5") wood fragments @ 16.8' & 16.9', dark greenish gray (10Y-4/1), (SC).			
-34.9	18.7		Shelly SAND, fine to medium grained, quartz, some clay, trace organics, shells up to 2.0", 1.0" wood @ 17.1', 0.75" wood @ 17.7', dark greenish gray (10Y-4/1), (GC).			
-37.0	20.8		SAND, fine grained, quartz, some silt, trace organics, trace shell hash, trace wood fragments, wood up to (1.0"x3.0"), color mottled light gray (2.5Y-7/1), gray (2.5Y-5/1) and, black (2.5Y-2.5/1), (SM).			
-37.2	21.0		No Recovery.			
			End of Boring			

MEXICO BEACH 2019 VIBRACORES.GPJ 10/1/19

DRILLING LOG		DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS
1. PROJECT Mexico Beach Sand Search Bay County, Florida			9. SIZE AND TYPE OF BIT 2.0 In.	
			10. COORDINATE SYSTEM/DATUM Florida State Plane North	
2. BORING DESIGNATION MBVC-19-18			HORIZONTAL NAD 1983 VERTICAL NAVD 88	
3. DRILLING AGENCY Athena Technologies, Inc.			11. MANUFACTURER'S DESIGNATION OF DRILL Electric	
4. NAME OF DRILLER Palmer McClellan			<input type="checkbox"/> AUTO HAMMER <input type="checkbox"/> MANUAL HAMMER	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED			12. TOTAL SAMPLES 6 DISTURBED UNDISTURBED (UD)	
6. THICKNESS OF OVERBURDEN 0.0 Ft.			13. TOTAL NUMBER CORE BOXES	
7. DEPTH DRILLED INTO ROCK 0.0 Ft.			14. ELEVATION GROUND WATER	
8. TOTAL DEPTH OF BORING 22.0 Ft.			15. DATE BORING STARTED 06-18-19 16:09 COMPLETED 06-18-19 16:16	
			16. ELEVATION TOP OF BORING -17.4 Ft.	
			17. TOTAL RECOVERY FOR BORING 21 Ft.	
			18. SIGNATURE AND TITLE OF INSPECTOR Kristina McCoy, P.G.	

ELEV. (ft)	DEPTH (ft)	LEGEND	CLASSIFICATION OF MATERIALS Depths and elevations based on measured values	% REC.	BOX OR SAMPLE	REMARKS
-17.4	0.0					
-18.2	0.8		SAND, fine grained, quartz, trace organics, trace shell hash, trace silt, silty pockets & trace shell fragments up to (0.25"x0.5"), color mottled light gray (2.5Y-7/2) and, gray (2.5Y-5/1), (SP).		1	Sample #1, Depth = 0.4'
-18.6	1.2				2	Mean (mm): 0.22, Phi Sorting: 0.47 Fines (230): 1.16% (SP)
-19.7	2.3				3	Sample #2, Depth = 1.0'
			SAND, fine to medium grained, quartz, some shell hash, trace silt, trace shell fragments & whole shells up to 0.75", 1.25" whole shell @ 1.1', light gray (2.5Y-7/1), (SW).			Mean (mm): 0.49, Phi Sorting: 1.90 Fines (230): 0.94% (SW)
			SAND, fine grained, quartz, little shell hash, trace silt, silty pockets up to 0.25", trace shell fragments up to (0.5"x0.75"), white (N-8/0), (SP).		4	Sample #3, Depth = 1.7'
			SAND, fine grained, quartz, trace shell hash, trace silt, silty pockets up to 0.25", trace shell fragments up to (0.5"x1.0"), 1.0" whole shell @ 6.2', (2.0"x2.5") shell hash pocket @ 6.3', (0.75"x2.0") shell hash pocket @ 6.8', (1.5"x2.0") shell fragment @ 8.0', white (N-8/0), (SP).			Mean (mm): 0.28, Phi Sorting: 0.84 Fines (230): 1.09% (SP)
-25.8	8.4				4	Sample #4, Depth = 5.3'
			SAND, fine grained, quartz, trace shell fragments, trace silt, silty pockets & shell fragments up to (0.25"x0.5"), silty lamina @ 8.5', gray (2.5Y-6/1), (SP).		5	Mean (mm): 0.22, Phi Sorting: 0.56 Fines (230): 1.11% (SP)
-27.7	10.3				5	Sample #5, Depth = 9.4'
-28.6	11.2				6	Mean (mm): 0.20, Phi Sorting: 0.51 Fines (230): 1.60% (SP)
			SAND, fine to coarse grained, quartz, little clay, trace shell fragments, trace shell hash, trace whole shell, shells up to 0.75", 2.0" some shell hash pocket @ 11.1', dark greenish gray (10Y-4/1), (SW-SC).			Sample #6, Depth = 10.8'
			Clayey SAND, fine to medium grained, quartz, some shell hash, trace shell fragments & whole shells up to 1.25", dark greenish gray (10Y-4/1), (GC).			Mean (mm): 0.24, Phi Sorting: 1.21 Fines (230): 11.35% (SW-SC)
-33.2	15.8					
			Shelly SAND, fine to medium grained, quartz, some clay, shell components: shell hash, shell fragments & whole shells up to 1.5", dark greenish gray (10Y-4/1), (GC).			
-35.4	18.0					
			Silty SAND, fine grained, quartz, little shell hash, trace clay, trace organics, trace shell fragments up to 0.5", color mottled light gray (2.5Y-7/1) and, gray (2.5Y-5/1), (SM).			
-36.7	19.3					
			Silty SAND, fine grained, quartz, trace clay, trace organics, trace shell hash, (1.5"x9.0") wood fragment @19.7', color mottled light gray (2.5Y-7/1) and, gray (2.5Y-5/1), (SM).			
-38.4	21.0					
-39.4	22.0		No Recovery.			
			End of Boring			

MEXICO BEACH 2019 VIBRACORES.GPJ 10/1/19

DRILLING LOG		DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS
1. PROJECT Mexico Beach Sand Search Bay County, Florida			9. SIZE AND TYPE OF BIT 2.0 In.	
			10. COORDINATE SYSTEM/DATUM Florida State Plane North HORIZONTAL: NAD 1983 VERTICAL: NAVD 88	
2. BORING DESIGNATION MBVC-19-19		LOCATION COORDINATES (ft) X = 1,664,063 Y = 340,958		11. MANUFACTURER'S DESIGNATION OF DRILL <input type="checkbox"/> AUTO HAMMER Electric <input type="checkbox"/> MANUAL HAMMER
3. DRILLING AGENCY Athena Technologies, Inc.		CONTRACTOR FILE NO.		
4. NAME OF DRILLER Palmer McClellan			12. TOTAL SAMPLES DISTURBED UNDISTURBED (UD) 6 6 0	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL DEG. FROM VERTICAL <input type="checkbox"/> INCLINED BEARING			13. TOTAL NUMBER CORE BOXES	
6. THICKNESS OF OVERBURDEN 0.0 Ft.			14. ELEVATION GROUND WATER	
7. DEPTH DRILLED INTO ROCK 0.0 Ft.			15. DATE BORING STARTED COMPLETED 06-23-19 07:45 06-23-19 07:52	
8. TOTAL DEPTH OF BORING 21.0 Ft.			16. ELEVATION TOP OF BORING -17.2 Ft.	
			17. TOTAL RECOVERY FOR BORING 19 Ft.	
			18. SIGNATURE AND TITLE OF INSPECTOR Kristina McCoy, P.G.	

ELEV. (ft)	DEPTH (ft)	LEGEND	CLASSIFICATION OF MATERIALS Depths and elevations based on measured values	% REC.	BOX OR SAMPLE	REMARKS
-17.2	0.0					
-17.8	0.6		SAND, fine grained, quartz, trace shell hash, trace silt, color mottled light gray (2.5Y-7/1) and, gray (N-5/0), (SP).		1	Sample #1, Depth = 0.3' Mean (mm): 0.24, Phi Sorting: 0.56 Fines (230): 1.17% (SP)
-19.2	2.0		SAND, fine to medium grained, quartz, some shell hash, trace silt, trace shell fragments up to (0.75"x2.0"), trace whole shells up to 1.0", light gray (2.5Y-7/1), (SW).		2	Sample #2, Depth = 1.3' Mean (mm): 0.39, Phi Sorting: 1.49 Fines (230): 0.78% (SW)
-21.1	3.9		SAND, fine grained, quartz, trace shell fragments, trace shell hash, trace silt, trace whole shell, shells up to (0.5"x0.75"), light greenish gray (10Y-8/1), (SW).		3	Sample #3, Depth = 3.0' Mean (mm): 0.29, Phi Sorting: 1.08 Fines (230): 1.09% (SW)
-24.2	7.0		SAND, fine grained, quartz, trace shell hash, trace silt, trace shell fragments up to (1.0"x1.5"), light greenish gray (10Y-8/1), (SW).		4	Sample #4, Depth = 5.2' Mean (mm): 0.31, Phi Sorting: 1.26 Fines (230): 0.95% (SW)
-26.6	9.4		SAND, fine grained, quartz, trace shell hash, trace silt, trace shell fragments up to 0.75", trace whole shells up to (0.25"x0.5"), (0.75"x1.75") shell fragment @ 8.0', light gray (2.5Y-7/1), (SP).		5	Sample #5, Depth = 8.2' Mean (mm): 0.23, Phi Sorting: 0.63 Fines (230): 0.94% (SP)
-27.2	10.0		SAND, fine grained, quartz, trace shell hash, trace silt, silty pockets up to (0.25"x0.5"), 0.75" shell fragment & (1.0"x2.0") whole shell @ 9.5', greenish gray (10Y-6/1), (SP).		6	Sample #6, Depth = 9.7' Mean (mm): 0.20, Phi Sorting: 0.46 Fines (230): 2.12% (SP)
-29.0	11.8		SAND, fine grained, quartz, little clay, trace shell fragments, trace shell hash, trace whole shell, shells up to (0.75"x1.0"), (1.0"x2.0") some shell hash pocket with organics @ 11.1', dark greenish gray (10Y-4/1), (SW-SC).		VS VC18#6	
-32.5	15.3		Clayey SAND, fine to medium grained, quartz, some shell hash, trace shell fragments & whole shells up to 2.0", (0.25"x0.5") coral @ 14.8', dark greenish gray (10Y-4/1), (GC).			
-34.0	16.8		Clayey SAND, fine to medium grained, quartz, trace shell hash, trace shell fragments & whole shells up to (0.25"x0.5"), dark greenish gray (10Y-4/1), (SC).			
-35.4	18.2		Shelly SAND, fine to medium grained, quartz, trace organics, shell components: shell hash, shell fragments & whole shells up to 1.5", (1.0"x1.5") wood fragment @ 18.1', dark greenish gray (10Y-4/1), (GC).			
-36.2	19.0		SAND, fine grained, quartz, some silt, trace clay, trace organics, trace shell hash, trace wood fragments, wood fragments up to 1.5", very dark grayish brown (10YR-3/2), (SM).			
-38.2	21.0		No Recovery.			
			End of Boring			

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DRILLING LOG		DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS
1. PROJECT Mexico Beach Sand Search Bay County, Florida			9. SIZE AND TYPE OF BIT 2.0 In.	
2. BORING DESIGNATION MBVC-19-20			10. COORDINATE SYSTEM/DATUM Florida State Plane North	
3. DRILLING AGENCY Athena Technologies, Inc.			HORIZONTAL NAD 1983	
4. NAME OF DRILLER Palmer McClellan			VERTICAL NAVD 88	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		LOCATION COORDINATES (ft) X = 1,665,053 Y = 340,834	11. MANUFACTURER'S DESIGNATION OF DRILL Electric	
6. THICKNESS OF OVERBURDEN 0.0 Ft.		CONTRACTOR FILE NO.	<input type="checkbox"/> AUTO HAMMER <input type="checkbox"/> MANUAL HAMMER	
7. DEPTH DRILLED INTO ROCK 0.0 Ft.		12. TOTAL SAMPLES	DISTURBED 5	UNDISTURBED (UD)
8. TOTAL DEPTH OF BORING 21.0 Ft.		13. TOTAL NUMBER CORE BOXES		
		14. ELEVATION GROUND WATER		
		15. DATE BORING		
		STARTED 06-23-19 08:14		
		COMPLETED 06-23-19 08:21		
		16. ELEVATION TOP OF BORING -17.1 Ft.		
		17. TOTAL RECOVERY FOR BORING 19.7 Ft.		
		18. SIGNATURE AND TITLE OF INSPECTOR Kristina McCoy, P.G.		

ELEV. (ft)	DEPTH (ft)	LEGEND	CLASSIFICATION OF MATERIALS Depths and elevations based on measured values	% REC.	BOX OR SAMPLE	REMARKS
-17.1	0.0					
-18.0	0.9		SAND, fine grained, quartz, trace shell hash, trace silt, light gray (2.5Y-7/2), (SP).		VS	
-18.5	1.4		SAND, fine to medium grained, quartz, little shell hash, trace silt, trace shell fragments & whole shells up to (0.5"x0.75"), 2.0" whole shell @ 1.3', light gray (2.5Y-7/1), (SW).		VC12#1	Sample #1, Depth = 1.2' Mean (mm): 0.46, Phi Sorting: 1.72 Fines (230): 0.52% (SW)
-19.5	2.4		SAND, fine grained, quartz, trace shell hash, trace silt, trace shell fragments up to 0.5", 1.5" shell fragment @ 1.8', 0.75" whole shell @ 2.2', light gray (2.5Y-7/1), (SW).		1	Sample #2, Depth = 1.9' Mean (mm): 0.31, Phi Sorting: 0.96 Fines (230): 0.58% (SW)
-24.4	7.3		SAND, fine grained, quartz, trace shell fragments, trace shell hash, trace silt, silty pockets up to (0.25"x0.5"), shell fragments up to 1.0", 0.5" whole shell @ 4.7', light greenish gray (10Y-8/1), (SP).		2	Sample #3, Depth = 4.9' Mean (mm): 0.22, Phi Sorting: 0.56 Fines (230): 1.11% (SP)
-27.4	10.3		SAND, fine grained, quartz, trace shell hash, trace silt, silty pockets up to (0.25"x0.5"), trace shell fragments up to (0.75"x1.0"), (1.5"x2.0") shell fragment @ 8.6', (0.75"x1.0") whole shell @ 9.7', light greenish gray (10Y-7/1), (SP).		3	Sample #4, Depth = 8.8' Mean (mm): 0.23, Phi Sorting: 0.84 Fines (230): 1.03% (SP)
-27.9	10.8		SAND, fine grained, quartz, trace shell hash, trace silt, silty pockets up to (0.25"x0.5"), (1.0"x1.5") whole shell @ 10.7', greenish gray (10Y-6/1), (SW).		4	Sample #5, Depth = 10.5' Mean (mm): 0.25, Phi Sorting: 0.87 Fines (230): 1.35% (SW)
-29.3	12.2		SAND, fine grained, quartz, little clay, trace shell hash, trace shell fragments & whole shells up to (1.0"x1.25"), (1.5"x3.0") shell fragment @ 11.5', (0.25"x0.5") wood fragment @ 12.1', dark greenish gray (10Y-4/1), (SW-SC).		5	
-32.5	15.4		Clayey SAND, fine to medium grained, quartz, some shell hash, trace shell fragments up to 1.5", trace whole shells up to 1.25", dark greenish gray (10Y-4/1), (GC).		VS	
-34.1	17.0		SAND, fine to medium grained, quartz, some clay, little shell hash, trace shell fragments & whole shells up to 1.0", dark greenish gray (10Y-4/1), (SC).		VC18#6	
-35.2	18.1		Shelly SAND, fine to medium grained, quartz, some clay, trace organics, shell components: shell hash, shell fragments & whole shells up to 1.25", 0.5" wood fragment @ 17.4', dark greenish gray (10Y-4/1), (GC).			
-36.3	19.2		Silty SAND, fine grained, quartz, little shell hash, trace organics, trace wood fragments, wood fragments up to (1.0"x2.0"), dark gray (2.5Y-4/1), (SM).			
-36.8	19.7		SAND, fine grained, quartz, little silt, trace organics, trace wood fragments, wood fragments up to 2.0", gray (2.5Y-6/1), (SM).			
-38.1	21.0		No Recovery.			

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