

DRILLING LOG		DIVISION	Hole No. SM-9	
1. PROJECT Cumberland Shoals Project		SHEET 1 OF 1		
2. LOCATION (Coordinates or Station) X=512131.400 Y=2319785.600		10. SIZE AND TYPE OF BIT 4" VIBRACORE		
3. DRILLING AGENCY AOSS/Olsen & Associates, Inc.		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW		
4. HOLE NO. (As shown on drawing title and file number) SM-9		12. MANUFACTURER'S DESIGNATION OF DRILL ALPINE PNEUMATIC VIBRACORE		
5. NAME OF DRILLER E. Olsen		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN disturbed: 8 undisturbed: 0		
6. DIRECTION OF HOLE <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		14. TOTAL NUMBER OF CORE BOXES 2		
7. THICKNESS OF BURDEN 0 Ft.		15. ELEVATION GROUND WATER		
8. DEPTH DRILLED INTO ROCK 0 Ft.		16. DATE HOLE STARTED COMPLETED 4-4-02 4-4-02		
9. TOTAL DEPTH OF HOLE 13.5 Ft.		17. ELEVATION TOP OF HOLE -16.9 Ft.		
		18. TOTAL CORE RECOVERY FOR BORING 100 %		
		19. SIGNATURE OF G. Zarillo, SEA, Inc.		

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	SAMPLE NUMBER	REMARKS
-16.9	.0					-16.9
-17.8	.9		Gray to light gray medium to fine quartz sand, gray to light gray whole shells and shell fragments. 10 YR 7/0.5-7/1 (SP)		0.5	
-18.8	1.9		Gray to light gray fine quartz sand, abundant whole shells and shell fragments in fine to medium gravel range. 10 YR 7/1 (SP)	100	1.5	
-20.9	4.0		Gray fine quartz sand, interbedded with dark gray plastic clay. 10 YR 7/1 (SM)		3.0	
-21.3	4.4		Light gray to gray medium to fine quartz sand, trace of dark minerals and plastic clay. 10 YR 7/1 (SP)		5.0	-21.9
-22.1	5.2		Dark gray plastic clay, thin layers of fine gray quartz sand. 10 YR 3/1 (CL)		6.0	
-22.6	5.7		Light gray to gray fine quartz sand, mixed with gray shell fragments and whole shells in fine to medium gravel range. 10 YR 7/1-6/1 (SP)	100	8.0	
-23.7	6.8		Gray fine quartz sand mixed with thin layers of dark plastic clay, gray to brown whole shells and shell fragments in medium to fine gravel range. 10 YR 6/1 (SM)		10.0	-26.9
-24.1	7.2		Gray to light gray medium to fine quartz sand, very abundant light brown to gray whole shells and shell fragments in fine to coarse gravel range. 10 YR 6.5/1 (SW)	100	12.0	
-30.4	13.5		Gray to light brownish gray fine quartz sand, interbedded with thin layers of gray plastic clay. 10 YR 7/1-7/0.5 (SP)			-30.4
			Gray to light gray fine quartz sand, very abundant layers of gray to light gray shell fragments in fine to coarse gravel range, scattered thin layers of gray plastic clay. 10 YR 7/0.5-7/1 (SW)			

Composite-1 0-5.0 ft.

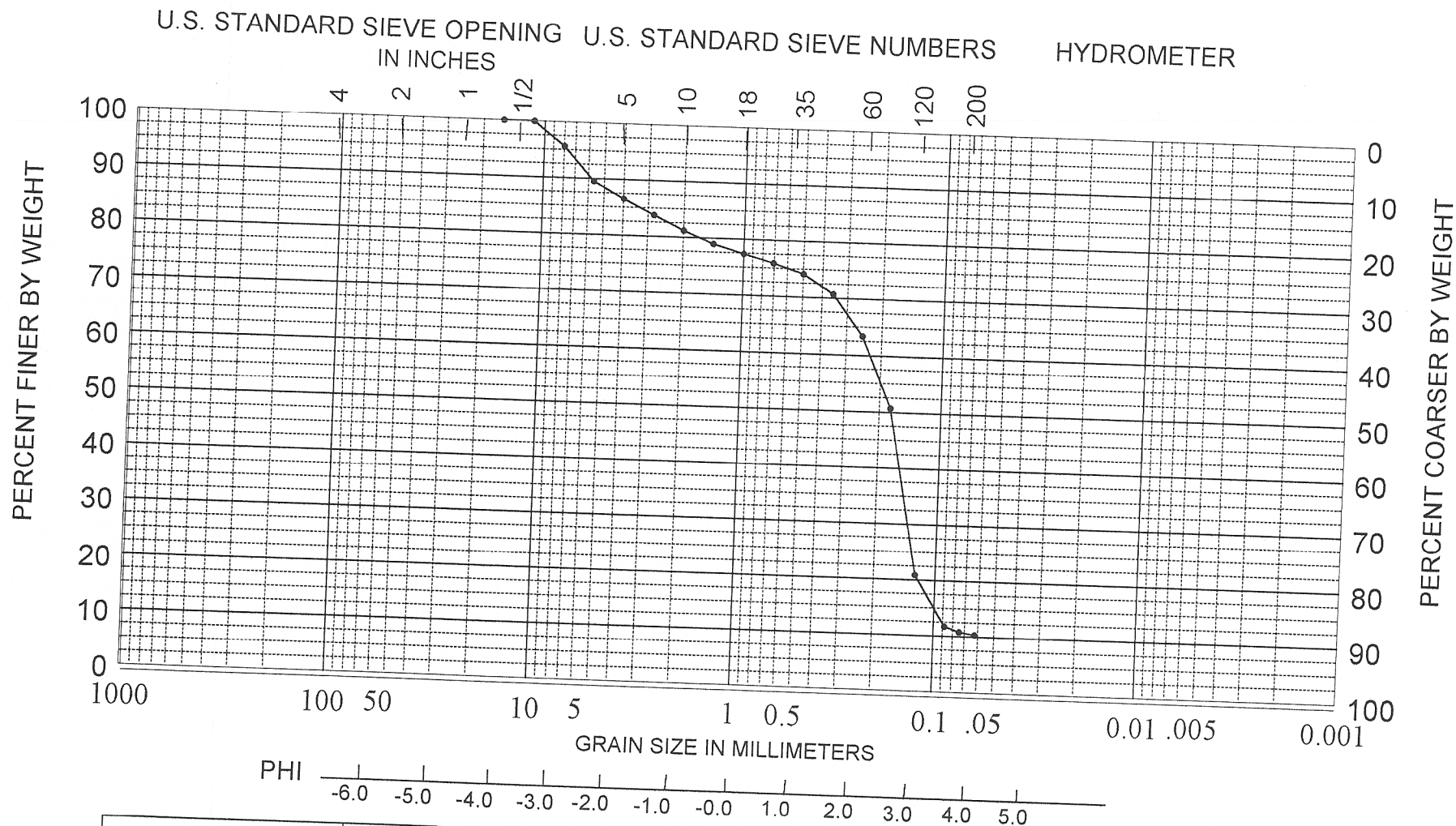
Composite-2 0-12.0 ft.

Revised 7/29/02

Sediment Analysis Data Sheet

Sample SM-9-1.5

Sieve	Size (mm)	Phi size	Wt	Wt %	Cuml %	Folk	Statistics	
							phi	mm
5/8	16.00	-4.00	0.00	0.00	0.00			
1/2	11.31	-3.50	0.00	0.00	0.00			
5/16	8.00	-3.00	1.45	4.30	4.30			
1/4	5.66	-2.50	2.08	6.19	10.49	5% :	-2.94	7.69
5	4.00	-2.00	1.00	2.96	13.45	16% :	-1.54	2.91
7	2.83	-1.50	0.94	2.78	16.23	25% :	0.77	0.59
10	2.00	-1.00	0.86	2.56	18.79	50% :	2.51	0.18
14	1.41	-0.50	0.74	2.20	20.99	75% :	2.93	0.13
18	1.00	0.00	0.53	1.56	22.55	84% :	3.27	0.10
25	0.71	0.50	0.50	1.50	24.05	95% :	4.50	0.04
35	0.50	1.00	0.59	1.76	25.81			
45	0.35	1.50	1.15	3.43	29.24	Med.	2.51	0.18
60	0.25	2.00	2.45	7.27	36.50	Mean	1.41	0.38
80	0.18	2.50	4.32	12.83	49.33	St Dev.	2.33	
120	0.13	3.00	10.02	29.76	79.09	Skew	-0.58	
170	0.09	3.50	3.08	9.14	88.24	Kurt.	1.41	
200	0.07	3.75	0.32	0.96	89.20			
230	0.06	4.00	0.13	0.40	89.59			
Pan			0.04	0.11	89.70			
Total			30.19	89.70	89.70			
						Moment	Statistics	
							Phi	mm
Cu =	0.23	Gravel			12	Mean	1.30	0.41
		Coarse Sand			7	St. Dev.	2.12	0.23
		Med. Sand			9	Skewness	-1.06	
Cc =	0.08	Fine Sand			62	Kurtosis	2.57	
		Silt/Clay			10			



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

SAMPLE NO.	ELEV.	CLASSIFICATION	PROJECT Olsen & Associates, Inc. - Cumberland Shoals
1.5	-18.4'	Silty fine quartz sand mixed with carbonate gravel (SM)	AREA St. Mary's Inlet, FL
			BORING NO. SM-9
			DATE July 2002