



Nobis Engineering  
PO Box 2890  
Concord, New Hampshire 03302

**PROJECT**

Remedial Design For Operable Unit 01

New Bedford Harbor Superfund Site

New Bedford, Massachusetts

BORING NO. FD-21  
SHEET 1 of 3  
FILE NO. 48138.07  
CHKD. BY J.Trotter

Boring Co. Atlantic Testing Laboratories, Limited Boring Location northing 2696526.5 easting 814030.9  
Driller R. Pryce Ground Surface El. 10.9 Datum NGVD  
Logged By R. Chase Date Start 8/31/99 Date End 9/1/99

Sampler: 2-inch O.D. split-barrel sampler driven 24 inches with a 140 lb. safety hammer free falling from a height of 30 inches.  
Drill Rig: CME 75 truck mount  
Drilling Method: 4-inch I.D. (HW) flush-joint casing; spin and wash.

Groundwater Readings (from ground surface)				
Date	Time	Depth	Elev.	Stabilization Time
No water levels recorded				

D E P T H	Casing Blows (ft)	SAMPLE INFORMATION					SAMPLE DESCRIPTION (ASTM D2488)	STRATUM DESCRIPTION	R E M A R K S
		Type & No.	PEN/REC (inches)	DEPTH (feet)	BLOWS PER 6 INCHES	SPT N-Value			
1	Spin	S-1	17/11	0-1.4	14-38-50/5*	>50	Poorly graded sand (SP); dry, very dense, 80% fine sand, 5% coarse sand, 5% medium sand, 5% fine gravel, 5% silt, brown. (FILL) Advance HW drill casing to 3 ft.	SP (FILL)	
2	Spin								
3	Spin								
4	Spin	S-2	5/5	3-3.4	50/5*	>50	Similar to S-1, except wet. Advance HW drill casing to 8 ft.	SP (FILL)	
5	Spin								
6	Spin								
7	Spin								
8	Spin								
9	Spin	S-3	24/6	8-10	27-20-6-5	26	Similar to S-2, except medium dense. Advance HW drill casing to 13 ft.	SP (FILL)	
10	Spin								
11	Spin								
12	Spin								
13	Spin								
14	Spin	S-4	3/3	13-13.3	50/3*	>50	Poorly graded sand (SP); wet, 40% coarse sand, 40% medium sand, <5% fine sand, 10% fine gravel, <5% silt, red-brown. Traces of brick noted in sample. (FILL) Advance HW drill casing to 18 ft. Probable boulder from 13.3 to 14.3 ft. Probable boulder from 14.3 to 15.5 ft.	SP (FILL)  Probable Boulders	
15	Spin								
16	Spin								
17	Spin								
18	Spin								
19	Spin	S-5	24/14	18-20	9-6-6-6	12	Organic soil (OL); wet, stiff, 100% organic silt, black. Advance HW drill casing to 23 ft.	OL	
20	Spin								

0 to 4 - Very Loose 5 to 10 - Loose 11 to 30 - Medium Dense 31 to 50 - Dense Over 50 - Very Dense	0 to 2 - Very Soft 3 to 4 - Soft 5 to 8 - Medium Stiff 9 to 15 - Stiff 16 to 30 - Very Stiff Over 30 - Hard	1. S denotes split-barrel sampler. 2. U denotes 3-inch O.D. undisturbed sample. 3. UO denotes 3-inch Osterberg undisturbed sample. 4. PEN denotes penetration length of sampler. 5. REC denotes recovered length of sample. 6. SPT denotes Standard Penetration Test.	7. PID denotes Photoionization Detector 8. PPM denotes parts per million. 9. PP denotes Pocket Penetrometer. 10. FVST denotes field vane shear test. 11. RQD denotes Rock Quality Designation. 12. R denotes core run number.
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REMARKS:  
1) Grout the completed borehole from 0 to 49 ft.  
2)  
3)  
4)



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BORING NO. FD-21

SHEET 2 of 3

FILE NO. 48138.07

CHKD. BY J.Trottier

Boring Co. Atlantic Testing Laboratories, Limited  
Driller R. Pryce  
Logged By R. Chase

Boring Location northing 2696526.5 easting 814030.9  
Ground Surface El. 10.9 Datum NGVD  
Date Start 8/31/99 Date End 9/1/99

Sampler: 2-inch O.D. split-barrel sampler driven 24 inches with a 140 lb. safety hammer free falling from a height of 30 inches.  
Drill Rig: CME 75 truck mount  
Drilling Method: 4-inch I.D. (HW) flush-joint casing; spin and wash.

Groundwater Readings (from ground surface)					
Date	Time	Depth	Elev.	Stabilization Time	
No water levels recorded					

DEPTH	Casing Blows (ft)	SAMPLE INFORMATION					SAMPLE DESCRIPTION (ASTM D2486)	STRATUM DESCRIPTION	REMARKS
		Type & No.	PENREC (inches)	DEPTH (ft)	BLOWS PER 6 INCHES	SPT N-Value			
21	Spin								
22	Spin								
23	Spin						Inferred strata change at 23 ft.		
24	Spin	S-6	24/10	23-25	14-9-10-14	19	Silty sand (SM); wet, medium dense, 85% fine sand, 15% silt, gray. Advance HW drill casing to 28 ft.	SM	
25	Spin								
26	Spin								
27	Spin								
28	Spin								
29	Spin	S-7	24/10	28-30	8-9-11-10	20	Similar to S-6. Advance HW drill casing to 33 ft.	SM	
30	Spin								
31	Spin								
32	Spin								
33	Spin								
34	Spin	S-8	24/6	33-35	11-14-13-13	27	Poorly graded sand (SP); wet, medium dense, 95% fine sand, 5% silt, gray. Advance HW drill casing to 38 ft.	SP	
35	Spin								
36	Spin								
37	Spin								
38	Spin								
39	Spin	S-9	10/6	38-38.9	18-50/4*	>50	Well-graded sand with gravel (SW); wet, 35% coarse sand, 30% medium sand, 15% fine sand, 15% fine gravel, 5% silt. Advance HW drill casing to 43 ft.	SW	
40	Spin								

0 to 4 - Very Loose  
5 to 10 - Loose  
11 to 30 - Medium Dense  
31 to 50 - Dense  
Over 50 - Very Dense

0 to 2 - Very Soft  
3 to 4 - Soft  
5 to 8 - Medium Stiff  
9 to 15 - Stiff  
16 to 30 - Very Stiff  
Over 30 - Hard

1. S denotes split-barrel sampler.  
2. U denotes 3-inch O.D. undisturbed sample.  
3. UO denotes 3-inch Osterberg undisturbed sample.  
4. PEN denotes penetration length of sampler.  
5. REC denotes recovered length of sample.  
6. SPT denotes Standard Penetration Test.

7. PID denotes Photoionization Detector  
8. PPM denotes parts per million.  
9. PP denotes Pocket Penetrometer.  
10. FVST denotes field vane shear test.  
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DEPTH	Casing Blows (ft)	SAMPLE INFORMATION					SAMPLE DESCRIPTION (ASTM D2488)	STRATUM DESCRIPTION	REMARKS
		Type & No.	PEN/REC (inches)	DEPTH (feet)	BLOWS PER 6 INCHES	SPT N-Value			
41	Spin								
42	Spin								
43	Spin								
44	Spin	S-10	24/4	43-45	14-11-12-25	23	Poorly graded sand (SP); wet, medium dense, 50% coarse sand, 35% medium sand, 5% fine sand, <5% fine gravel, <5% silt, gray. Advance HW drill casing to 46.5 ft. Top of bedrock at 46.5 ft. Advance 3-7/8 in. roller bit to 49.0 ft. to confirm bedrock.	SP	
45	Spin								
46	Spin								
47									
48									
49									
50							Bottom of exploration at 49 ft.; boring terminated in probable bedrock.		
51									
52									
53									
54									
55									
56									
57									
58									
59									
60									

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