

18 Chenell Drive
Concord, New Hampshire 03301

PROJECT

Remedial Design For Operable Unit 01

New Bedford Harbor Superfund Site

CLIKE

FD-101 1 of 10

SHEET FILE NO.

BORING NO.

48138.27 J. Trottier

New Bedford, Massachusetts

CHKD. BY

8. PPM denotes parts per million.

12. R denotes core run number.

9. PP denotes Pocket Penetrometer.

10. FVST denotes field vane shear test.

11. RQD denotes Rock Quality Designation.

Boring Co. Warren George, Inc. **Boring Location** northing 2697418 easting 814321 NGVD Driller S. Laurenza Mudline El. -8.37 Datum Logged By S. Bonis Date Start 1/8/2001 Date End 1/9/2001

Sampler: 2-inch O.D. split-barrel sampler driven 24 inches with a 140 lb. center hole hammer free falling from a height of 30 inches.

Drill Rig: Failing Truck Rig
Drilling Method: 5-inch (PW) flush joint drill casing. 4-inch (HW) flush joint drill casing.

Casing driven with a 300 lb. Center hole hammer free falling from a height of 24 inches.

E P	Casing	SAMPLE INFORMATION SAMPLE DESCRIPTION (ASTM D2488)							
T H	Blows (ft)	Type & No.	PEWREC (inches)	DEPTH (feet)	BLOWS PER 6 INCHES	SPT N-Value		DESCRIPTION	M K S
	(1.)	G 140.	(monoo)	(1001)		11 70.00			3
1	WOC								
2	WOC								
		S-1	24/24	2-4	WOR/24"		Sandy organic soil (OH); 60% organic clay/silt, 40% fine sand, organic odor, gray.		
							Shells noted.		
							Advance PW drill casing to 4 ft.		
3	WOC						Advance 3-7/8 in. roller bit to 4 ft.	ORGANIC	
								CLAY	
4	12								
4	12	S-2	24/18	4-6	WOR/24"		Similar to S-1.		
		0-2	24/10	4-0	VVOIV24		Advance PW drill casing to 6 ft.		
							Advance 3-7/8 in. roller bit to 6 ft.		
5	7						Advance of the first folial pictor of the		
6	5								
		S-3	24/5	6-8	WOR/24"	_	Sandy organic soil (OH); 60% organic clay/silt, 40% fine sand, trace gravel, organic odor,		
	WOH						gray. Shells noted.		
							Advance PW drill casing to 8 ft.		
7	5						Advance 3-7/8 in. roller bit to 8 ft.		
	_								
8	8	0 (0.4/4.0	0.40	0.40.4		Development of the 1/OD) have 750/ fire and 1,000/ malfeword	8.0 ft.	-
		S-4	24/12	8-10	2-4-3-4	7	Poorly graded sand (SP); loose, 75% fine sand, 20% medium sand,	MADINE	
							5% silt, light gray to light brown. Advance PW drill casing to 10 ft.	MARINE SAND	
9	15						Advance PW drill casing to 10 ft. Advance 3-7/8 in. roller bit to 10 ft.	SAIND	
9	10						Advance 3-1/0 iii. Toliel Dit to To It.		
		-			1				
10	19						Perform falling head permeability test at 10 ft.		
GRANULAR SOILS (N-Values) COHESIVE SOILS (I							N-Values) SYMBOL KEY	*	•
	0 to 4 - Very Loose 0 to 2 - Very Soft						1. S denotes split-barrel sampler. 7. PID denotes Photoioniz	ation Detector	

REMARKS:

5 to 10 - Loose

31 to 50 - Dense

11 to 30 - Medium Dense

Over 50 - Very Dense

1) Sample description based on laboratory classification. Refer to GeoTesting Express Report dated March 5, 2001. Laboratory description presented in bold.

2. U denotes 3-inch O.D. undisturbed sample.

4. PEN denotes penetration length of sampler.

REC denotes recovered length of sample.

6. SPT denotes Standard Penetration Test.

3. UO denotes 3-inch Osterberg undisturbed sample.

- 2) *3-inch O.D. split-barrel sampler driven 24 inches with a 300 lb. center hole hammer free falling from a height of 24 inches.
- 3)
- 4)

3 to 4 - Soft

9 to 15 - Stiff

5 to 8 - Medium Stiff

16 to 30 - Very Stiff

Over 30 - Hard



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New Bedford Harbor Superfund Site

New Bedford, Massachusetts

BORING NO.

FD-101

SHEET FILE NO. 2 of 10 48138.27

CHKD, BY

J. Trottier

	Concord,		ımpshire 0.	3301			New Deale	ord, iviassacriusetts			CHKD. BT		J. Holliei	-
	ing Co.				rren George, Inc			Boring Location	northing 26	97418	easting 81432	1		
Dril	•				S. Laurenza			Mudline El.	-8.37	00	Datum		SVD	-
Log	ged By				S. Bonis			Date Start	1/8/200	1	Date End	1/	9/2001	_
Sam	pler:				driven 24 inches with a	a 140 lb.	center hole				oplicable for Offsho			
Drill I	Rig:		er free fallin Truck Rig	ig from a heigh	nt of 30 inches.			Date	Time	Depth	Elev.	St	abilization Time	
	ng Method:				rill casing. 4-inch (HW free falling from a hei									
D	ng anven v	with a 50			<u>-</u>	grit Or 24	inches.							R
E P	Casing		SAI	MPLE INFO	RMATION			SAMPLE D	ESCRIPTION	(ASTM D2488)			STRATUM	E M
T H	Blows (ft)	Type & No.	PEN/REC (inches)	DEPTH (feet)	BLOWS PER 6 INCHES	SPT N-Value							DESCRIPTION	K S
	()	S-5	24/12	10-12	5-2-4-5	6	Silty sand (SM);	; 58% fine sand, 3%	medium san	d, 1% coarse s	and, 1% gravel,			1
							37% silt, grayisl	h-brown.						
							Advance PW dril	I casing to 12 ft.						
11	23						Advance 3-7/8 in	. roller bit to 12 ft.						
							-							
12	22						1							
		S-6	24/16	12-14	4-3-5-5	8	Poorly graded sa	nd (SP); loose, 60%	fine sand, 40%	6 medium sand,	brown. Iron stain	ing noted		
							Advance PW dril					Ü		
							Advance 3-7/8 in	. roller bit to 14 ft.						
13	6													
14	10													
17	10	S-7	24/11	14-16	3-1-1-5	2	Silty sand (SM):	very loose, 75% fine s	sand. 10% me	dium sand. 15%	6 silt. grav. Iron st	aining		
			_ ,,,,				noted.	,,		,	, g,	g		
							Advance PW dril	I casing to 16 ft.						
15	WOH						Advance 3-7/8 in	. roller bit to 16 ft.					MARINE	
													SAND	
16	13													
10	10	S-8	24/6	16-18	3-1-4-6	5	Silty sand (SM):	; 53% fine sand, 10%	% medium sa	nd. 1% gravel.	36% silt. red and	d grav.		1
							Brown interbedde			., 5 ,	,	3 4		
							Advance PW dril	I casing to 18 ft.						
17	16						Advance 3-7/8 in	. roller bit to 18 ft.						
18	25													
10	25	S-9	24/6	18-20	5-3-5-7	8	Silty sand with	gravel (SM); 29% fir	ne sand. 19%	medium sand.	9% coarse sand	1. 15%		1
			, -				gravel, 28% silt,	•	,,	,		.,		
							Interbedded silt le	enses.						
19	24						Advance PW dril	I casing to 20 ft.						
							Advance 3-7/8 in	. roller bit to 20 ft.						
20	27	-					Estimated atrata	change at 20 ft					20.0 ft.	
		LAR S	OILS (N-	Values)	COHESIVE S	OILS (Estimated strata N-Values)	criange at 20 it.		SYMBOL K	(EY	_	20.0 II.	
	0 to 4 - V		ose	•	0 to 2 - Very S	Soft		denotes split-barrel sar			7. PID denotes			
	5 to 10 - 1 11 to 30 -		ım Dense		3 to 4 - Soft 5 to 8 - Mediu	m Stiff		denotes 3-inch O.D. ur O denotes 3-inch Oster			PPM denotes PP denotes in the second secon			
	31 to 50				9 to 15 - Stiff			EN denotes penetration			10. FVST denot			
	Over 50 -	very D	ense		16 to 30 - Ver Over 30 - Hard			EC denotes recovered I PT denotes Standard P			11. RQD denotes of		uality Designatio umber.	n.
	REMAR				•		•				•			
								Testing Express Repo ter hole hammer free				presente	ed in bold.	
	3)		۵. تا. ی	hur namer 20	ampior universi 24 II	101169	a 500 ib. celli	o. note namine nee	iaming motifi d f	noight of 24 IIICI	100.			
	4)													



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Concord. New Hampshire 03301

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New Bedford, Massachusetts

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FILE NO.

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SHEET

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J. Trottier

Bor	ing Co		tumpsmre (arren George, Inc			Boring Location	northing 26	97418	easting 81432	 21		
Dril	-				S. Laurenza			Mudline El.	-8.37		Datum		GVD	
Log	ged B	y			S, Bonis			Date Start	1/8/200)1	Date End	1.	/9/2001	
Sam	pler:	2-inch	O.D. split-	barrel sample	er driven 24 inches wi	th a 140	lb. center hole		Groundwate	er Readings Not Ap	plicable for Offsho	re Borings		
D=:11	D:a.				ight of 30 inches.			Date	Time	Depth	Elev.	St	abilization Time	
Drill Drilli	rig: ng Meth		Truck Rig 5-inch (P		drill casing. 4-inch (F	HW) flus	sh joint drill casing.							
Casi D	ng drive	n with a	300 lb. Ce	enter hole har	mmer free falling from	a heigh	nt of 24 inches.							В
E			SAI	MPLE INFO	DRMATION			SAMPLE I	DESCRIPTION	(ASTM D2488)			STRATUM	E
Р	Casing									,				М
T H	Blows (ft)	Type & No.	PEN/REC (inches)	DEPTH (feet)	BLOWS PER 6 INCHES	SPT N-Value							DESCRIPTION	K S
		S-10	24/14	20-22	4-4-3-7	7*	Poorly graded	sand with gravel (S	SP); 16% fine s	and, 23% mediι	ım sand, 17%			1,2
							coarse sand, 4	12% gravel, 2% silt,	brown.					
							Subrounded to	subangular sand and	d gravel.					
21	28						Advance PW dr	rill casing to 22 ft.						
							Advance 3-7/8 i	in. roller bit to 22 ft.						
22	30													
		S-11	24/0"	22-24	4-6-6-6	12*	Washed sample	e.						2
							Advance PW dr	rill casing to 27 ft.						
							Advance 3-7/8 i	in. roller bit to 27 ft.						
23	24						Mix bentonite di	rilling mud, specific g	ravity = 1.07.				GLACIO	
													FLUVIAL	
24	31													
25	46													
26	43													
27	70													
		S-12	24/0"	27-29	15-4-3-3	7	Washed sample	e.						
								rill casing to 32 ft.						
							Advance 3-7/8 i	in. roller bit to 32 ft.						
28	53						_							
							_							
							_							
							_							
29	57													
							_							
							4							
30			011 0 (11	Malara N	00115011/5 0	011 0 /	NI Walana			OVMPOL K	FV			_
Ġ	0 to 4 -			-Values)	0 to 2 - Very S			S denotes split-barrel sa	mpler.	SYMBOL K	7. PID denotes	Photoioniz	ation Detector	
	5 to 10				3 to 4 - Soft			U denotes 3-inch O.D. ur		э.	8. PPM denotes			
			um Dense		5 to 8 - Mediur	n Stiff	3. l	JO denotes 3-inch Oster	berg undisturbed	sample.	9. PP denotes I	Pocket Pen	etrometer.	
	31 to 50				9 to 15 - Stiff	C+iff		PEN denotes penetration			10. FVST deno			
	Over 50	, - very	Delige		16 to 30 - Very Over 30 - Hard			REC denotes recovered SPT denotes Standard P	-		11. RQD denot		uality Designation mber.	
	REMA	RKS:			2.3.00 .100		10. 0							
								oTesting Express Re nter hole hammer fre				n present	ted in bold.	
	(۷	0-1110	ט.ט. אווע. א	Piit-pallel S	ampiei uliveli 24 l	1101162	with a 500 lb. Ce	inei noie namme ne	e iaiiiiy iioiii a	Height of 24 mc	163.			



Nobis Engineering 18 Chenell Drive Concord, New Hampshire 03301 Remedial Design For Operable Unit 01

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SHEET FILE NO.

48138.27 J. Trottier

Boring Co	. Warren George, Inc.	Boring Location	northing 2697418	easting 814321	
Driller	S. Laurenza	Mudline El.	-8.37	Datum	NGVD
Logged B	S. Bonis	Date Start	1/8/2001	Date End	1/9/2001
Samanlar.	2 inch O.D. split housel complex drives 24 inches with a 440 lb. contex halo		Croundwater Deadings N	at Applicable for Offshore	Daringa

Sampler: 2-inch O.D. split-barrel sampler driven 24 inches with a 140 lb. center hole hammer free falling from a height of 30 inches.

Drill Rig: Failing Truck Rig
Drill method: 5-inch (PW) flush joint drill casing. 4-inch (HW) flush joint drill casing.

Casing driven with a 300 lb. Center hole hammer free falling from a height of 24 inches.

D D	ng driven	en with a 300 lb. Center hole hammer free falling from a he					t of 24 inches.						1	1	<u> </u>
E P	Casing		SAI	MPLE INFO	RMATION		SAMPLE DESCRIPTION (ASTM D2488)							STRATUM	
T H	Blows (ft)	Type & No.	PEN/REC (inches)	DEPTH (feet)	BLOWS PER 6 INCHES	SPT N-Value								DESCRIPTION	I
				` ′											T
1	164													GLACIO FLUVIAL	
'	104													FLOVIAL	
32	106						Tan of bades	1 -4 00	0.4					32.0 ft.	-
							Top of bedro		บ แ. er bit to 32.8 f	t.				BEDROCK	
							1		asing to 32.8						
3							Begin HQ ro								
							(boring log o	continued	on next page)					
34															
5															
6															
37															
8															
							-								
9							1								
10							-								
	RANU	LAR S	OILS (N	-Values)	COHESIVE SO	OILS (I	N-Values)				SYMBOL KE	Y			
	0 to 4 - Very Loose 0 to 2 - Very Soft						1. S deno	tes split-barrel s	ampler.		7. PID denote	s Photoioniza	ation Detector		

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

- S denotes split-barrel sampler.
 U denotes 3-inch O.D. undisturbed sample.
- UO denotes 3-inch Osterberg undisturbed sample.
- PEN denotes penetration length of sampler.
 REC denotes recovered length of sample.
 SPT denotes Standard Penetration Test.
- 7. PID denotes Photoionization Detect8. 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.

- 1) Sample description based on laboratory classification. Refer to GeoTesting Express Report dated March 5, 2001. Laboratory description presented in bold.
- 2) *3-inch O.D. split-barrel sampler driven 24 inches with a 300 lb. center hole hammer free falling from a height of 24 inches.
- 3)
- 4)



18 Chenell Drive

PROJECT Remedial Design For Operable Unit 01

New Bedford Harbor Superfund Site

New Bedford, Massachusetts

BORING NO. FD-101 SHEET 5 10 of FILE NO. 48138.27

CHKD. BY

J. Trottier

Concord, New	v Hampshire 03301					
Boring Co.	Warren	George, Inc.	Boring Location	northing 2697418	easting 814321	
Driller	S.	_aurenza	Mudline El.	-8.37	Datum	NGVD
Logged By	S	. Bonis	Date Start	1/8/2001	Date End	1/9/2001

2-inch O.D. split-barrel sampler driven 24 inches with a 140 lb. center hole Groundwater Readings Not Applicable for Offshore Borings hammer free falling from a height of 30 inches. Stabilization Time Date Depth Elev. Time Drill Rig: Failing Truck Rig
Drilling Method: 5-inch (PW) flush joint drill casing. 4-inch (HW) flush joint drill casing. Casing driven with a 300 lb. Center hole hammer free falling from a height of 24 inches.

Casing driv	en with a 300 lb. (Jenter hole	hammer free falling	from a r	leight of 24 inches.						R
		CORE INFORMATION				ROO	CK CORE DE	SCRIPTIO	N		E
DEPTH (feet)	VISUAL REPRESENTATION	CORE RUN	CORE INTERVAL	CORE TIME							M K S
(1227)		R1	32.8-33.8		Begin R1 at 32.8 ft.						
				min.	Fresh, hard to very hard, fine	e to medium (grained GNE	ISS. Low a	ngle foliation	(approx. 10 to 20	
					degrees).						
33.3					REC. = 100%; RQD = 100%						
					Water return color: milky wh	ite.					
00.0											
33.8			33.8-34.8	5.25							
			33.0-34.0	min.							
34.3											
34.8											
			34.8-35.8	7							
				min.							
35.3											
33.3											
35.8											
			35.8-36.8	6							
				min.							
36.3											
36.8											
			36.8-37.8	6							
				min.							
37.3											
	2										
					07.5% 14						
27.0					37.5 ft.: Mechanical break in	rock core.					
37.8					End R1 at 37.8 ft.						

GRANULAR SOILS (N-Values) 0 to 4 - Very Loose 0 to 2 - Very Soft S denotes split-barrel sampler. 7. PID denotes Photoionization Detector 5 to 10 - Loose 3 to 4 - Soft 2. U denotes 3-inch O.D. undisturbed sample. 8. PPM denotes parts per million. 11 to 30 - Medium Dense 5 to 8 - Medium Stiff 3. UO denotes 3-inch Osterberg undisturbed sample. 9. PP denotes Pocket Penetrometer. 31 to 50 - Dense 9 to 15 - Stiff

4. PEN denotes penetration length of sampler. Over 50 - Very Dense 16 to 30 - Very Stiff REC denotes recovered length of sample. Over 30 - Hard 6. SPT denotes Standard Penetration Test

COHESIVE SOILS (N-Values)

10. FVST denotes field vane shear test.

SYMBOL KEY

11. RQD denotes Rock Quality Designation. 12. R denotes core run number.

- 1) Sample description based on laboratory classification. Refer to GeoTesting Express Report dated March 5, 2001. Laboratory description presented in bold.
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BORING NO. FD-101 SHEET 6 of 10 FILE NO. 48138.27

18 Che	Engineering nell Drive d, New Hampshire	: 03301			New B	Bedford, Massachusetts				CHKD. BY	J. Trottier	
Boring Co Driller .ogged B		S	en George, In . Laurenza S. Bonis	C.		Boring Location Mudline El. Date Start		-8.37		easting 81432 Datum Date End	NGVD 1/9/2001	_ _ _
rill Rig: Filling Meth	hammer free fallir Failing Truck Rig nod: 5-inch (PV	ng from a heigh V) flush joint dr Center hole han	nt of 30 inches. rill casing. 4-inch	n (HW) fl from a h	40 lb. center hole lush joint drill casi neight of 24 inches	ing.	Date	Time	Depth	Elev.	Offshore Borings Stabilization Time	R
DEDTU	VISUAL		INFORMATIO	CORE	-		RO	CK CORE DE	SCRIPTION	ON		E M
DEPTH (feet)	REPRESENTATION	R2	37.8-38.8	5.5 min	Begin R2 at 3 Fresh, hard to degrees).		to medium	grained GNEI	SS. Low	angle foliation (approx. 10 to 20	KS
38.3					REC. = 100% Water return o		-					
38.8												
e e			38.8-39.8	5 min	38.9 ft.: Mecha	anical break in	rock core.					
39.3					39.4 to 40.5 ft.	.: Zone of red o	coloration, no	o change in gr	ain size o	r texture noted.		
39.8					Water return o	color: pink to ru	sty.					
			39.8-40.8	6 min	39.8 and 40.1	ft.: Mechanica	l breaks in r	ock core.				
40.3												
40.8												
			40.8-41.8	6.5 min	40.8 and 40.9	ft.: Mechanica	l breaks in r	ock core. Core	grinding	noted.		
41.3					41.3 ft.: Mecha	anical break in	rock core. C	Core grinding r	noted.			
41.8	<u> </u>		41.8-42.8	6.25	-							
			41.0-42.0	min	41.9 ft.: Mecha	anical break in	rock core.					
42.3					42.2 ft.: Mecha	anical break in	rock core.					
42.8	AD COLLO (1)	Values	COUFORE		End R2 at 42.	8 ft.			VMDOL	/EV		
0 to 4 - 5 to 10 11 to 3 31 to 5 Over 5	Very Loose Loose - Loose - Medium Dens - Dense - Very Dense - Very Dense		OHESIVE S 0 to 2 - Very S 3 to 4 - Soft 5 to 8 - Mediur 9 to 15 - Stiff 16 to 30 - Very Over 30 - Hard	oft m Stiff / Stiff	1. 2 3 4 5.	. S denotes split- . U denotes 3-inc . UO denotes 3-in . PEN denotes pr . REC denotes re . SPT denotes St	h O.D. undistonch Osterbergenetration lengecovered lengt	r. urbed sample. undisturbed san oth of sampler. th of sample.	mple.	7. PID denotes 8. PPM denotes 9. PP denotes I 10. FVST deno 11. RQD denot	Photoionization Detector s parts per million. Pocket Penetrometer. tes field vane shear test. es Rock Quality Designati core run number.	ion.

- 1) Sample description based on laboratory classification. Refer to GeoTesting Express Report dated March 5, 2001. Laboratory description presented in bold.
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48138.27 Nobis Engineering New Bedford, Massachusetts CHKD. BY J. Trottier 18 Chenell Drive Concord, New Hampshire 03301 Warren George, Inc **Boring Location** Boring Co. northing 2697418 easting 814321 Driller S. Laurenza Mudline El. -8.37 Datum NGVD Logged By S. Bonis Date Start 1/8/2001 Date End 1/9/2001 2-inch O.D. split-barrel sampler driven 24 inches with a 140 lb. center hole Groundwater Readings Not Applicable for Offshore Borings hammer free falling from a height of 30 inches. Date Stabilization Time Time Depth Failing Truck Rig Drilling Method: 5-inch (PW) flush joint drill casing. 4-inch (HW) flush joint drill casing. Casing driven with a 300 lb. Center hole hammer free falling from a height of 24 inches **CORE INFORMATION ROCK CORE DESCRIPTION** Е CORE INTERVAL CORE CORE DEPTH VISUAL REPRESENTATIO R3 42.8-43.8 Begin R3 at 42.8 ft. 5.5 Fresh, hard to very hard, fine grained GNEISS. Low angle foliation (approx. 10 to 20 degrees). min. REC. = 100%; RQD = 100% (excellent). Water return color: milky white. 43.3 43.8 43.8-44.8 5.75 min 44.3 44.8 44.8-45.8 5 min. 45.3 45.8 45.8-46.8 4.5 min. 46.3 46.8 46.8-47.8 6.75 min 47.1 ft.: Mechanical break in rock core. 47.3 End R3 at 47.8 ft. Bottom of exploration at 47.8 ft. Boring terminated in bedrock. Grout completed borehole to mudline with cement/bentonite grout, specific gravity = 1.44. 47.8 **GRANULAR SOILS (N-Values) COHESIVE SOILS (N-Values)** SYMBOL KEY 0 to 4 - Very Loose 0 to 2 - Very Soft S denotes split-barrel sampler. 7. PID denotes Photoionization Detector

5 to 10 - Loose

31 to 50 - Dense

Over 50 - Very Dense

11 to 30 - Medium Dense

1) Sample description based on laboratory classification. Refer to GeoTesting Express Report dated March 5, 2001. Laboratory description presented in bold.

2. U denotes 3-inch O.D. undisturbed sample.

4. PEN denotes penetration length of sampler.

5. REC denotes recovered length of sample.

6. SPT denotes Standard Penetration Test

3. UO denotes 3-inch Osterberg undisturbed sample.

- *3-inch O.D. split-barrel sampler driven 24 inches with a 300 lb. center hole hammer free falling from a height of 24 inches. 2)
- 3)
- 4)

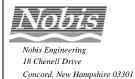
3 to 4 - Soft

9 to 15 - Stiff

Over 30 - Hard

5 to 8 - Medium Stiff

16 to 30 - Very Stiff



Drill Rig: Failing Truck Rig
Drill Rig: Failing Truck Rig
Drilling Method: 5-inch (PW) flush joint drill casing. 4-inch (HW) flush joint drill casing.
Casing driven with a 300 lb. Center hole hammer free falling from a height of 24 inches.

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BORING NO.

FD-101

SHEET FILE NO.

of 10 48138.27

CHKD. BY

J. Trottier

Warren George, Inc. northing 2697418 easting 814321 Boring Co. **Boring Location** Driller S. Laurenza Mudline El. -8.37 Datum NGVD Logged By Date Start 1/8/2001 Date End 1/9/2001 S. Bonis 2-inch O.D. split-barrel sampler driven 24 inches with a 140 lb. center hole hammer free falling from a height of 30 inches. Groundwater Readings Not Applicable for Offshore Borings Date Time Depth Elev. Stabilization Time

ROCK CORE PICTURES

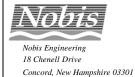


Core Runs R1 through R3



Core Runs R1 through R3

- 1) Sample description based on laboratory classification. Refer to GeoTesting Express Report dated March 5, 2001. Laboratory description presented in bold.
- 2) *3-inch O.D. split-barrel sampler driven 24 inches with a 300 lb. center hole hammer free falling from a height of 24 inches.
- 3)
- 4)



PROJECT

Remedial Design For Operable Unit 01 New Bedford Harbor Superfund Site

New Bedford, Massachusetts

BORING NO.

FD-101

SHEET FILE NO.

of 10 48138.27

CHKD. BY

J. Trottier

Warren George, Inc. Boring Co. Driller S. Laurenza Logged By S. Bonis

Boring Location Mudline El. Date Start

northing 2697418 -8.37 1/8/2001

easting 814321 Datum Date End

NGVD 1/9/2001

2-inch O.D. split-barrel sampler driven 24 inches with a 140 lb. center hole hammer free falling from a height of 30 inches.

Drill Rig: Failing Truck Rig
Drill Rig: Failing Truck Rig
Drilling Method: 5-inch (PW) flush joint drill casing. 4-inch (HW) flush joint drill casing.
Casing driven with a 300 lb. Center hole hammer free falling from a height of 24 inches.

Groundwater Readings Not Applicable for Offshore Borings Date Time Depth Elev. Stabilization Time

ROCK CORE PICTURES



Core Runs R1 through R3



Core Runs R1 through R3

- 1) Sample description based on laboratory classification. Refer to GeoTesting Express Report dated March 5, 2001. Laboratory description presented in bold.
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- 3)
- 4)



Concord, New Hampshire 03301

Drill Rig: Failing Truck Rig
Drill Rig: Failing Truck Rig
Drilling Method: 5-inch (PW) flush joint drill casing. 4-inch (HW) flush joint drill casing.
Casing driven with a 300 lb. Center hole hammer free falling from a height of 24 inches.

PROJECT

Remedial Design For Operable Unit 01

New Bedford Harbor Superfund Site New Bedford, Massachusetts

BORING NO.

FD-101 10

SHEET FILE NO.

of 10 48138.27

CHKD. BY

J. Trottier

Warren George, Inc. northing 2697418 easting 814321 Boring Co. **Boring Location** Driller S. Laurenza Mudline El. -8.37 Datum NGVD Date Start Date End Logged By S. Bonis 1/8/2001 1/9/2001 2-inch O.D. split-barrel sampler driven 24 inches with a 140 lb. center hole hammer free falling from a height of 30 inches. Groundwater Readings Not Applicable for Offshore Borings Date Time Depth Elev. Stabilization Time

ROCK CORE PICTURES



Core Runs R1 through R3



Reddish discoloration noted in R2

- 1) Sample description based on laboratory classification. Refer to GeoTesting Express Report dated March 5, 2001. Laboratory description presented in bold.
- 2) *3-inch O.D. split-barrel sampler driven 24 inches with a 300 lb. center hole hammer free falling from a height of 24 inches.
- 3)
- 4)