



DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CCR-1-88	LOCATION COORDINATES N 374874.9389 E 2321412.559		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 5	DISTURBED 5	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 30.7'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 62.7'		15. DATE BORING 9/26/88		STARTED 9/26/88 COMPLETED 9/26/88
		16. ELEVATION TOP OF BORING -32' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				




ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-32			0': CLAY (CH), high plasticity; fine; dark gray to gray, wet, high plasticity, some sand, and shell fragments, slightly calcareous.		1		USCS		0
			10.5': Trace shell fragments.		2			6	
			16.5': Trace sand.		3			0	
			18.5': Fishtailed		4			0	
-50.5	18.5								
-61.2	29.2								
-62.7	30.7		29.2': SILTY CLAY (CL), high plasticity; light greenish brown, moist, high plasticity, trace sand, calcareous.		5		NOTE: Fishtailed from 50.5' to 61.2'		70

BOTTOM OF BOREHOLE AT -62.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CCR-10-89		LOCATION COORDINATES N 374022.2651 E 2323117.644		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 5
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 5
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 14.9'		14. ELEVATION GROUND WATER NA		15. DATE BORING 6/5/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -39.7' MLLW		STARTED 6/5/89
8. TOTAL DEPTH OF BORING 54.6'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 6/5/89
18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-39.7			0': CLAY (CH), high plasticity; gray, very moist, high plasticity, with sand, and shell fragments.				USCS		0
			2.5': With sand.		1			0	
			3': Some shell fragments.		2			5	
								0	
								5	
			7': With shell fragments, and sand.					4	
-48.7	9.0		9': No recovery						7
-50.0	10.3		10.3': CLAY (CH), high plasticity; gray, very moist, high plasticity, with shell fragments, and sand.				Poor recovery 50.1' to 51.6'		7
					4				12
					5				22
-54.6	14.9								

BOTTOM OF BOREHOLE AT -54.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CCR-11-89		LOCATION COORDINATES N 373300.3516 E 2323486.749		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 3
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING ---
6. THICKNESS OF OVERBURDEN 12.7'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/24/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING 42.2' MLLW		STARTED 5/24/89
8. TOTAL DEPTH OF BORING -29.5'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/24/89
18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.				


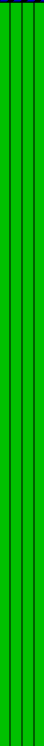
ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-42.2		[Hatched Legend]	0': CLAY (CH), high plasticity; fine to medium; blue green, high plasticity, with shell fragments, and sand.				USCS		0
				1		9			
								2	
								10	
						2		8	
								8	
					10': Wet, soupy.			14	
			11.2': Shells, and shell fragments, some ML "balls" in shoe of splitspoon.		14				
29.5	12.7								

BOTTOM OF BOREHOLE AT 29.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CCR-12-89		LOCATION COORDINATES N 372051.8703 E 2326200.874		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 4
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 12'		14. ELEVATION GROUND WATER NA		15. DATE BORING 6/4/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -43.3' MLLW		STARTED 6/4/89
8. TOTAL DEPTH OF BORING 55.3'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 6/4/89
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-43.3			0': CLAY (CH), soft; high plasticity; dark gray, wet, high plasticity.		1		USCS		0
-45.3	2.0		2': SILT (ML), low plasticity; olive green, moist, low plasticity, calcareous.		2			22	
								30	
								22	
			6': With shell fragments.		3			20	
								14	
								17	
-55.3	12.0				4			20	

BOTTOM OF BOREHOLE AT -55.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CCR-13-90		LOCATION COORDINATES N 373150.6778 E 2325298.721		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 9
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 9
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 13.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 2/11/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41.6' MLLW		STARTED 2/11/90
8. TOTAL DEPTH OF BORING 55.1'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 2/11/01
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.6		•••••	0': SILTY SAND (SM), fine to medium; dark gray, wet, with shell fragments.		1		USCS		0
-44.6	3.0	•••••			2				5
		/ / / / /	3': CLAY (CL), low plasticity; olive green, moist, low plasticity, calcareous.		3				24
		/ / / / /	4.5': Trace sand.		4				18
		/ / / / /	6': Some sand.		5				14
		/ / / / /			6				18
		/ / / / /			7				15
		/ / / / /			8				14
		/ / / / /			9				16
-55.1	13.5	/ / / / /							

BOTTOM OF BOREHOLE AT -55.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CCR-14-90		LOCATION COORDINATES N 372478.8011 E 2325881.814		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 10
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 10
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 15'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 2/11/90 COMPLETED 2/11/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -40.8' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A
8. TOTAL DEPTH OF BORING 55.8'		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		



ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.8		0'	0': CLAYEY SILT (MH), dark gray to black, wet.		1		USCS		0
-43.5	2.7	2.7'	2.7': CLAY (CL), low plasticity; olive green, moist, low plasticity, calcareous.		2				2
		4.5'	4.5': Trace sand.		3				14
		7.5'	7.5': Some sand.		4				19
		5			5				23
		6			6				16
		7			7				15
		8			8				16
		9			9				17
		10			10				21
-55.8	15.0	15.0'							

BOTTOM OF BOREHOLE AT -55.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CCR-15-90		LOCATION COORDINATES N 372088.9397 E 2326594.857		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 9
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 9
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 13.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 2/12/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -42.1' MLLW		STARTED 2/12/90
8. TOTAL DEPTH OF BORING 55.6'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 2/12/90
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-42.1			0': CLAYEY SILT (MH), dark gray to black, wet.		1		USCS		0
-44.7	2.6		2.6': CLAY (CL), low plasticity; olive green, moist, low plasticity, trace sand, calcareous.		2				3
					3				14
					4				19
					5				22
					6				15
					7				16
			10.5': , some sand.		8				15
					9				14
-55.6	13.5								

BOTTOM OF BOREHOLE AT -55.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CCR-16-90		LOCATION COORDINATES N 372360.8684 E 2326239.823		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 10
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 10
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 16.7'		14. ELEVATION GROUND WATER NA		15. DATE BORING 4/8/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -38.4' MLLW		STARTED 4/8/90
8. TOTAL DEPTH OF BORING 55.1'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 4/8/90
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.4		CLAY	0': CLAY (CH), high plasticity; dark gray, high plasticity, soupy.		1		USCS Weight of rods drove splitspoon from 38.4' to 44.6'. Pulled tools, then took next drive. Sample #1 taken off rods.		0
-44.1	5.7	WET SAND	5.2': Wet.		2				0
		SAND	5.7': SAND (ML), low plasticity; l; olive green, moist, low plasticity, with shell fragments, calcareous.		3				0
		SAND			4				18
		SAND			5				20
		SAND			6				14
		SAND			7				14
		SAND			8				14
		SAND			9				15
		SAND			10				14

BOTTOM OF BOREHOLE AT -55.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CCR-17-90		LOCATION COORDINATES N 373621.2238 E 2322817.717		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 9
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 9
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 13.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 4/10/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41.9' MLLW		STARTED 4/10/90
8. TOTAL DEPTH OF BORING 55.4'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 4/10/90
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		



ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.9			0': SAND (SP), fine to medium; light gray, Poorly Graded, wet, with shell fragments.		1		USCS		20
-43.4	1.5		1.5': SILTY SAND (SM), fine; light gray, with shell fragments.		2				51
-44.9	3.0		3': SAND (SP), fine to medium; light gray, Poorly Graded, wet, with shell fragments.		3				64
					4				54
					5				36
-49.4	7.5		7.5': SILT (ML), low plasticity; olive green, moist, low plasticity, calcareous.		6				14
					7				22
					8				24
					9				26
-55.4	13.5								

BOTTOM OF BOREHOLE AT -55.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CCR-18-90		LOCATION COORDINATES N 374214.1966 E 2322762.624		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 8	DISTURBED 8	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 18.2'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 54.5'		15. DATE BORING 4/9/90		STARTED 4/9/90 COMPLETED 4/9/90
		16. ELEVATION TOP OF BORING -36.3' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		





ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-36.3			0': CLAY (CH), high plasticity; dark gray, high plasticity, soupy.		1		USCS		0
			8.2': Fine to medium; gray, moist, quartz.		2				0
			9.2': With shell fragments.		3				2
			12.2': With shell fragments.		4				2
			13.7': With shell fragments, and rock fragments.		5				3
			15.5': Wet, shell fragments, and rock fragments.		6				4
-54.0	17.7					7			
-54.5	18.2			17.7': SAND (SP), fine to medium; light gray, Poorly Graded, wet, with shell fragments.		8			

BOTTOM OF BOREHOLE AT -54.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CCR-2-88	LOCATION COORDINATES N 374525.0291 E 2321865.601		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 3	DISTURBED 3	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 15.6'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 58.8'		15. DATE BORING 9/16/88		STARTED 9/16/88 COMPLETED 9/26/88
		16. ELEVATION TOP OF BORING -43.2' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-43.2			0': CLAY (CH), high plasticity; dark gray to black, wet, high plasticity, trace sand.		1		USCS		0
-52.0	8.8		8.8': CLAYEY SAND (SC), fine to medium; greenish gray, trace shell fragments.		2		NOTE: Fishtailed from 52.4' to 57.3;		0
-52.6	9.4		9.4': Fishtailed.						
-57.3	14.1		14.1': SILTY CLAY (CL), low plasticity; light greenish brown, moist, low plasticity, trace sand, calcareous.		3				33

BOTTOM OF BOREHOLE AT -58.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CCR-3-88		LOCATION COORDINATES N 373472.2678 E 2323041.735		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 4
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 14.4'		14. ELEVATION GROUND WATER NA		15. DATE BORING 9/17/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -42.7' MLLW		STARTED 9/17/88
8. TOTAL DEPTH OF BORING 57.1'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 9/27/88
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-42.7			0': CLAYEY SAND (SC), fine to medium; gray, wet, some shell fragments.		1		USCS		19
-45.7	3.0		3': SILTY SAND (SM), fine; gray to light gray, wet, some shell fragments, slightly calcareous.		2				24
-48.9	6.2		6.2': Fishtailed		3				100/0.9
-55.6	12.9								100/0.5
-57.1	14.4		12.9': CLAYEY GRAVEL SILTY SAND (CL), low plasticity; light greenish brown, moist, low plasticity, some sand, calcareous.		4			100/0.7	41

BOTTOM OF BOREHOLE AT -57.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CCR-4-88		LOCATION COORDINATES N 372496.6974 E 2325302.8271		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5-1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 5
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 5
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 9'		14. ELEVATION GROUND WATER NA		15. DATE BORING 9/27/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41.5' MLLW		COMPLETED 9/27/88
8. TOTAL DEPTH OF BORING 50.5'		17. TOTAL CORE RECOVERY FOR BORING N/A		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.5			0': FAT CLAY (CH), dark gray to black, wet, trace fine sand, and shell fragments.		1		USCS Weight of rods drove splitspoon from 41.5' to 46.0'. BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".		0
-45.5	4.0				2			0	
-46.0	4.5		4': CLAYEY SAND (SC), fine to medium; dark gray, wet, some shell fragments.		3			6	
-49.0	7.5		4.5': FAT CLAY (CH), greenish gray, moist, some fine to medium sand, and shell fragments.					11	
-50.0	8.5		7.3': Light brown, some clay strata or lenses, with sand strata or lenses.		4			6	
-50.5	9.0		7.5': CLAYEY SAND (SC), fine to medium; gray, wet, some shell fragments, slightly calcareous. 8.5': SILTY LEAN CLAY (CL), light greenish brown, moist, trace fine sand, calcareous. BOTTOM OF BOREHOLE AT -50.5 ft		5		6		

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER CCR-5-88		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5-1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 3	DISTURBED 3 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	14. ELEVATION GROUND WATER NA
6. THICKNESS OF OVERBURDEN 7.5'		15. DATE BORING 9/28/88	STARTED 9/28/88 COMPLETED 9/28/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -42.4' MLLW	
8. TOTAL DEPTH OF BORING 49.9'		17. TOTAL CORE RECOVERY FOR BORING N/A	
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist			



ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-42.4		█	0': SILTY LEAN CLAY (CL), light greenish brown, moist, some fine sand, calcareous. 1.5': Trace sand.		1		USCSNOTE: Weight of rods pushed sampler from 42.4' to 43.9'.		0
					2			8	
								28	
								31	
-49.9	7.5							3	

BOTTOM OF BOREHOLE AT -49.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CCR-6-88		LOCATION COORDINATES N 372465.9747 E 2326850.7885		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5-1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 2
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 2
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 10.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 9/28/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -44' MLLW		STARTED 9/28/88
8. TOTAL DEPTH OF BORING 54.5'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 9/28/88
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist				



ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-44			0': CLAYEY FINE SAND (SC), dark gray and light brown, wet.		1		USCSNOTE: weight of rods drove splitspoon from 44.0' to 53.0'.		0
-53.0	9.0		9': SILTY LEAN CLAY (CL), light greenish brown, moist, trace fine sand, calcareous.		2				2

BOTTOM OF BOREHOLE AT -54.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CCR-7-88		LOCATION COORDINATES N 371793.0182 E 2326986.8946		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5-1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 3
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 7.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 9/29/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -42.5' MLLW		STARTED 9/29/88
8. TOTAL DEPTH OF BORING 50'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 9/29/88
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-42.5			0': FAT CLAY (CH), dark gray to brownish black, wet.		1		USCSNOTE: Weight of rods pushed sampler from 42.5' to 45.5'.		0
-45.5	3.0		3': SILTY LEAN CLAY (CL), light greenish brown, moist, trace fine sand, calcareous.		2			5	
								29	
-50.0	7.5				3			30	

BOTTOM OF BOREHOLE AT -50.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CCR-8-88		LOCATION COORDINATES N 372121.135 E 2327689.821		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 3
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 9'		14. ELEVATION GROUND WATER NA		15. DATE BORING 9/28/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41' MLLW		STARTED 9/28/88
8. TOTAL DEPTH OF BORING 50'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 9/28/88
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-41		•••••	0': SILTY SAND (SM), fine to medium; light brown, wet, trace of dark grey clayey sand, calcareous.		1		USCS		0
-44.0	3.0	//	3': SILTY CLAY (CL), low plasticity; light greenish brown, moist, low plasticity, some sand, calcareous.		2			7	
		//	4.5': Trace sand.					20	
		//						18	
-50.0	9.0	//			3			29	

BOTTOM OF BOREHOLE AT -50.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CCR-9-89		LOCATION COORDINATES N 373696.1751 E 2322554.713		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 3
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING ---
6. THICKNESS OF OVERBURDEN 13.6'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/23/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41.4' MLLW		STARTED 5/23/89
8. TOTAL DEPTH OF BORING 55'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/23/89
18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.4			0': CLAYEY SILT (MLo), low plasticity; olive green, low plasticity, with shell fragments.				USCS		0
					1				25
									17
									19
					2				21
									18
			8.7': Some sand.						23
									16
					3				30
-55.0	13.6								

BOTTOM OF BOREHOLE AT -55.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-1-1-88		LOCATION COORDINATES N 364458.4176 E 2328141.068		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore
3. DRILLING AGENCY Ocean Surveys., Inc.		12. TOTAL SAMPLES 4		DISTURBED 4 UNDISTURBED 0
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	14. ELEVATION GROUND WATER NA
6. THICKNESS OF OVERBURDEN 18.5'		15. DATE BORING 8/20/86		STARTED 8/20/86 COMPLETED 8/20/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -36.9' MLLW		
8. TOTAL DEPTH OF BORING 55.4'		17. TOTAL CORE RECOVERY FOR BORING 93%		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-36.9			0': CLAYEY SAND (SC), fine; gray, and shell fragments.				Start Time: 12:45 Stop Time: 12:50		
-38.0	1.1		1.1': CLAYEY SAND (SC-SM), fine; gray, with clay strata or lenses.		1				
-41.5	4.6		4.6': SAND (SP), fine; gray.						
-42.4	5.5		5.5': SILTY SAND (SM), fine to medium; gray, with clay strata or lenses, and sand strata or lenses.		2				
-47.7	10.8		10.8': SAND (SP), fine to medium; gray, with shell fragments.						
-48.9	12.0		12': CLAYEY SAND (SC), medium; gray, with shell fragments, and rock fragments.						
-49.5	12.6		12.6': CLAYEY ORGANIC SILT (MH), gray, with sand strata or lenses.		3				
-53.2	16.3		16.1': Clay strata or lenses, and sand strata or lenses.						
-55.4	18.5		16.3': SILTY SAND (SP-SM), fine; gray.		4				

BOTTOM OF BOREHOLE AT -55.4 ft
Charleston Harbor & Entrance Channel

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-10-1-1-86		LOCATION COORDINATES N 378039.3987 E 2318886.138		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 4	DISTURBED 4	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	13. TOTAL NUMBER CORE BOXES 0
6. THICKNESS OF OVERBURDEN 17.6'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/4/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -26.6' MLLW		STARTED 8/4/86
8. TOTAL DEPTH OF BORING 44.2'		17. TOTAL CORE RECOVERY FOR BORING 87%		COMPLETED 8/4/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-26.6			0': CLAYEY SAND (ML), black, with sand, and organics.		1		Start Time: 8:37 Stop Time: 8:37		
					2		Penetrometer - 0.10 TSF		
-38.8	12.2		12.2': CLAYEY SILT (MH), gray, with organics, and sand.		3		Penetrometer - 0.10 TSF		
					4		Penetrometer - 0.25 TSF		
-43.0	16.4		16.4': SILTY CLAYEY SAND (SC-SM), fine; olive, calcareous (Cooper Marl).						
-44.2	17.6								

BOTTOM OF BOREHOLE AT -44.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-11-1-1-86		LOCATION COORDINATES N 375625.7711 E 2320586.465		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/2/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -35.1' MLLW		STARTED 8/2/86
8. TOTAL DEPTH OF BORING 55.1'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 8/2/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-35.1			0': CLAYEY SILT (MH), gray.		1		USCS Start Time: 10:16 Stop Time: 10:20 Penetrometer - 0.25 TSF		
-37.2	2.1		2.1': SILTY SAND (SP-SM), fine; gray, 1/8" to 1/2" thick lenses of clay occurring at 1/2" to 5" spacing.		2				
-42.9	7.8		7.8': CLAYEY SILT (MH), gray.		3		Penetrometer - 1.75 TSF		
-55.1	20.0				4				

BOTTOM OF BOREHOLE AT -55.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-12-1-1-86		LOCATION COORDINATES N 372898.4155 E 2323781.805		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 5
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 5
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/2/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -42.6' MLLW		STARTED 8/2/86
8. TOTAL DEPTH OF BORING 62.6'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 8/2/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-42.6			0': SAND (SP), medium; black, with shell fragments.		1		USCS Start Time: 8:57 Stop Time: 9:18		
-45.2	2.6		2.6': CLAYEY SILT (MH), gray.		2				
-49.1	6.5		6.5': SILTY SAND (SP-SM), medium; dark gray, with shell fragments.		3				
-51.0	8.4		8.4': SILTY SAND (SP), fine; gray, with organics, and clay.		4				
-53.9	11.3		11.3': SILTY CLAYEY SAND (SM), fine; olive, with rock fragments, calcareous (Cooper Marl).		5				
-62.6	20.0								

BOTTOM OF BOREHOLE AT -62.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-13-1-1-86		LOCATION COORDINATES N 367912.4471 E 2328787.485		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 3
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 12.7'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/2/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -39.2' MLLW		STARTED 8/2/86
8. TOTAL DEPTH OF BORING 51.9'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 8/2/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-39.2		●●●●●●●●●●	0': SILTY SAND (SM), fine; dark gray, with shell fragments.		1		Start Time: 11:10 Stop Time: 11:21 Penetrometer - 0.50 TSF		
-44.2	5.0	●●●●●●●●●●	5': CLAYEY SANDY SILT (MH), olive, calcareous (Cooper Marl).		2		Penetrometer - 2.30 TSF		
-48.4	9.2	●●●●●●●●●●	9.2': CLAYEY SANDY SILT (ML), olive, calcareous (Cooper Marl).		3		Penetrometer - 2.0 TSF		
-51.9	12.7								

BOTTOM OF BOREHOLE AT -51.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER : LOCATION COORDINATES CHDVC-13-A-1-2-86 N 367912.4471 E 2328787.485		10. SIZE AND TYPE OF BIT		
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 2	DISTURBED 2	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL	BEARING	
6. THICKNESS OF OVERBURDEN 12.4'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 62.6'		15. DATE BORING : STARTED : COMPLETED 8/2/86 : 8/2/86		
		16. ELEVATION TOP OF BORING -50.2' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING 100%		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-50.2			0': CLAYEY SANDY SILT (ML), olive, calcareous (Cooper Marl).				Start Time: 11:58 Stop Time: 12:11 Penetrometer - 1.35 TSF		
					1				
					2				
-62.6	12.4								

BOTTOM OF BOREHOLE AT -62.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-2-1-1-86		LOCATION COORDINATES N 391429.4408 E 2321832.907		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 5	DISTURBED 5	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 20'		13. TOTAL NUMBER CORE BOXES 0		14. ELEVATION GROUND WATER NA
7. DEPTH DRILLED INTO ROCK 0'		15. DATE BORING 7/31/86		STARTED 7/31/86
8. TOTAL DEPTH OF BORING 43.8'		16. ELEVATION TOP OF BORING -23.8' MLLW		COMPLETED 7/31/86
		17. TOTAL CORE RECOVERY FOR BORING 100%		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-23.8			0': CLAYEY SILT (MH), gray, with sand, and shale fragments, and organics.		1		USCS Start Time: 10:11 Stop Time: 10:12		
-26.7	2.9		2.9': SILTY SAND (SM), fine; gray, with clay, and organics.		2				
-33.8	10.0		10': SILTY SAND (SP-SM), fine; gray.		3				
-37.0	13.2		13.2': SILTY CLAYEY SAND (SM), fine; gray, lenses of clay.		4				
-40.6	16.8		16.8': CLAYEY SILT (MH), gray.		5		Penetrometer - 1.0 TSF		
-43.8	20.0								

BOTTOM OF BOREHOLE AT -43.8 ft
Charleston Harbor & Entrance Channel

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 1 SHEETS VERTICAL MLLW
2. HOLE NUMBER CHDVC-3-1-1-86	LOCATION COORDINATES N 391830.3102 E 2321179.872		10. SIZE AND TYPE OF BIT	
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 4	DISTURBED 4	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 20'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 63.1'		15. DATE BORING 7/31/86		STARTED 7/31/86 COMPLETED 7/31/86
		16. ELEVATION TOP OF BORING -43.1' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING 100%		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-43.1			0': CLAYEY SANDY SILT (MH), gray, with sand strata or lenses, fine sand strata 1/8" to 2" thick interbedded with silt every 1" to 4"..	100	1		USCS Start Time: 11:31 Stop Time: 11:32 Penetrometer = 0.65 TSF		
-46.7	3.6		3.6': SILTY CLAYEY FINE SAND (SM), gray.	100	2				
-47.7	4.6		4.6': CLAYEY SANDY SILT (MH), gray, with sand strata or lenses, fine sand strata 1/8" to 2" thick interbedded with silt every 1" to 4"..						
-52.7	9.6		9.6': SILTY CLAYEY FINE SAND (SM), gray, with shell fragments.	100	3				
-54.2	11.1		11.1': CLAYEY SANDY SILT (MH), gray, with sand strata or lenses, fine sand strata 1/8" to 2" thick interbedded with silt every 1" to 4"..	100	4		Penetrometer = 0.85 TSF		
-63.1	20.0								

BOTTOM OF BOREHOLE AT -63.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-4-1-1-86		LOCATION COORDINATES N 390371.1256 E 2319802.163		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 0
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 7/31/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41.7' MLLW		STARTED 7/31/86
8. TOTAL DEPTH OF BORING 61.7'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 7/31/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.7			0': CLAYEY SANDY SILT (ML), olive, calcareous (Cooper Marl).				Start Time: 13:45 Stop Time: 12:41 Penetrometer - 1.75 TSF		
-61.7	20.0								

BOTTOM OF BOREHOLE AT -61.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-4A-1-2-86		LOCATION COORDINATES N 390371.1256 E 2319802.163		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 2
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 2
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 10.8'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/5/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -53.7' MLLW		STARTED 8/5/86
8. TOTAL DEPTH OF BORING 64.5'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 8/5/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-53.7			0': CLAYEY SILT (ML), olive, calcareous (Cooper Marl).		1		Start Time: 8:55 Stop Time: 9:22		
					2		Penetrometer - 1.5 TSF		

-66.5 12.8

BOTTOM OF BOREHOLE AT -64.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-5-1-1-86		LOCATION COORDINATES N 389375.0795 E 2318320.34		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 4	DISTURBED 4	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	13. TOTAL NUMBER CORE BOXES 0
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 7/31/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -34.4' MLLW		STARTED 7/31/86
8. TOTAL DEPTH OF BORING 54.4'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 7/31/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-34.4		0'	0': CLAYEY ORGANIC SILT (MH), black.				Start Time: 15:04 Stop Time: 15:53		
					1				
-40.6	6.2	6.2'	6.2': CLAYEY SANDY SILT (MH), olive, calcareous (Cooper Marl).				Penetrometer - 1.5 TSF to 2.75 TSF		
					2				
					3				
					4				
-54.4	20.0								

BOTTOM OF BOREHOLE AT -54.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System



DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-5A-1-2-86		LOCATION COORDINATES N 389378.0784 E 2319314.34		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 2	DISTURBED 2	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 12.8'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 59.5'		15. DATE BORING 8/5/86		STARTED 8/5/86 COMPLETED 8/5/86
		16. ELEVATION TOP OF BORING -46.7' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING 100%		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-46.7			0': CLAYEY SANDY SILT (MH), olive, calcareous (Cooper Marl).				Start Time: 10:01 Stop Time: 10:29 Penetrometer - 1.5 TSF to 2.75 TSF		
					1				
					2				
-59.5	12.8								

BOTTOM OF BOREHOLE AT -59.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-6-1-1-86		LOCATION COORDINATES N 383431.995 E 2317595.34		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 0
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL	BEARING ---	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 15.8'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/1/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -24.2' MLLW		STARTED 8/1/86
8. TOTAL DEPTH OF BORING 40'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 8/1/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-24.2	0.4		0': SILTY SAND (SP-SM), fine; black, with gravel.				Start Time: 11:29 Stop Time: 11:52 Penetrometer - 1.75 TSF to 2.75 TSF		
-24.6			0.4': CLAYEY SANDY SILT (MH), olive, calcareous (Cooper Marl).					Penetrometer - 2.0 TSF to 3.0 TSF	
-40.0	15.8								

BOTTOM OF BOREHOLE AT -40.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-6A-1-1-86		LOCATION COORDINATES N 383475.9999 E 2317632.331		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 2
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 2
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 13.3'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/1/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -24' MLLW		STARTED 8/1/86
8. TOTAL DEPTH OF BORING 37.3'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 8/1/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-24			0': CLAYEY SANDY SILT (MH), olive, calcareous (Cooper Marl).				Start Time: 12:34 Stop Time: Penetrometer - 2.75 TSF		
					1				
					2		Penetrometer - +4.5 TSF		
-37.3	13.3								

BOTTOM OF BOREHOLE AT -37.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-6B-1-2-86		LOCATION COORDINATES N 383475.9999 E 2317632.331		10. SIZE AND TYPE OF BIT 11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore
3. DRILLING AGENCY Ocean Surveys., Inc.		12. TOTAL SAMPLES 3	DISTURBED 3	UNDISTURBED 0
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 13.5'		14. ELEVATION GROUND WATER NA		
7. DEPTH DRILLED INTO ROCK 0'		15. DATE BORING STARTED 8/1/86 COMPLETED 8/1/86		
8. TOTAL DEPTH OF BORING 47.5'		16. ELEVATION TOP OF BORING -34' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING 100%		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-34			0': CLAYEY SANDY SILT (ML), olive, calcareous (Cooper Marl).				Start Time: 15:41 Stop Time: 16:30 Penetrometer - +4.5 TSF		
					1		Penetrometer - 1.5 TSF		
					2				
					3				
-47.5	13.5								

BOTTOM OF BOREHOLE AT -47.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-7-1-1-86		LOCATION COORDINATES N 382458.0233 E 2317565.493		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 13.3'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/4/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -24' MLLW		STARTED 8/4/86
8. TOTAL DEPTH OF BORING 37.3'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 8/4/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-24			0': SILTY SAND (SM), fine; black, with organics, and shells.		1		USCS		
-24.7	0.7		0.7': SAND (SP), fine; gray.		2		Start Time: 14:19 Stop Time: 14:39		
-25.1	1.1		1.1': CLAYEY SANDY SILT (ML), olive, calcareous (Cooper Marl).				Penetrometer - 1.5 TSF to 2.5 TSF		
			6.5': Higher clay content.		3				
					4		Penetrometer - 2.8 TSF		
-37.3	13.3								

BOTTOM OF BOREHOLE AT -37.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-7A-1-2-86		LOCATION COORDINATES N 382458.0233 E 2317565.493		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 5	DISTURBED 5	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	13. TOTAL NUMBER CORE BOXES 0
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/4/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -33' MLLW		STARTED 8/4/86
8. TOTAL DEPTH OF BORING 53'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 8/4/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-33			0': CLAYEY SANDY SILT (ML), olive, calcareous (Cooper Marl).		1		USCS Start Time: 15:09 Stop Time: 15:41 Penetrometer - 1.75 TSF		
					2				
					3				
					4				
					5				
-53.0	20.0								

BOTTOM OF BOREHOLE AT -53.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-8-1-1-86		LOCATION COORDINATES N 381261.0991 E 2317768.672		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 6
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 6
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 17.6'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/4/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -26.3' MLLW		STARTED 8/4/86
8. TOTAL DEPTH OF BORING 43.9'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 8/4/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-26.3			0': SILTY SAND (SP-SM), fine; gray, with organics.		1		USCS Start Time: 11:19 Stop Time: 11:38		
-28.1	1.8		1.8': SILTY SAND (SM), fine; dark brown, with organics.		2				
-29.5	3.2		3.2': SILTY CLAYEY SAND (SC-SM), fine; light brown, with organics, calcareous (Cooper Marl).		3				
-31.3	5.0		5': SILTY SANDY CLAY (CL), tan, calcareous.		4		Penetrometer - 2.0 TSF to 3.75 TSF		
-35.1	8.8		8.8': CLAYEY SANDY SILT (ML), olive, calcareous (Cooper Marl).		5		Penetrometer - 2.0 TSF		
-43.9	17.6					6			

BOTTOM OF BOREHOLE AT -43.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-8A-1-2-86		LOCATION COORDINATES N 381261.0991 E 2317768.672		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 2
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 2
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 10'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/4/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41.3' MLLW		STARTED 8/4/86
8. TOTAL DEPTH OF BORING 51.3'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 8/4/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.3			0': CLAYEY SANDY SILT (ML), olive, calcareous, Cooper Marl.		1		USCS Start Time: 13:34 Stop Time: 13:51 Penetrometer - +4.5 TSF		
-43.8	2.5		2.5': CLAYEY SILTY SAND (SC), fine; olive, calcareous (Cooper Marl).		2		Penetrometer - 1.25 TSF to 2.25 TSF		
-51.3	10.0								

BOTTOM OF BOREHOLE AT -51.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-9-1-1-86		LOCATION COORDINATES N 378911.176 E 2317768.039		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 16.4'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/4/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -25.6' MLLW		STARTED 8/4/86
8. TOTAL DEPTH OF BORING 42'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 8/4/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-26.6	0.5		0': CLAYEY SAND, fine; gray, with shell fragments, and rock fragments.		1		USCS		
			0.5': CLAYEY SANDY SILT (ML), brown and olive, calcareous (Cooper Marl).		2		Start Time: 9:09 Stop Time: 9:26		
					3		Penetrometer - 2.5 TSF		
					4				
			11.4': Last 5' has much lower silt content.						
-42.0	16.4								

BOTTOM OF BOREHOLE AT -42.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System


DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CR-MS-1-00		LOCATION COORDINATES N 392908.004 E 2323143.256		10. SIZE AND TYPE OF BIT N/A
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic		
4. NAME OF DRILLER Y. Me		12. TOTAL SAMPLES 0		DISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 6'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 27.81'		15. DATE BORING 10/25/00		STARTED 10/25/00
		16. ELEVATION TOP OF BORING -21.81' MLLW		COMPLETED 10/25/00
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-21.81			0': SILTY SANDY CLAY (CL-ML), with gravel, and shell fragments.						
-27.8	6.0								


BOTTOM OF BOREHOLE AT -27.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CR-MS-2-00		LOCATION COORDINATES N 393141.737 E 2324061.568		10. SIZE AND TYPE OF BIT N/A
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic		
4. NAME OF DRILLER Y. Me		12. TOTAL SAMPLES 0		DISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 0.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 21.81'		15. DATE BORING 10/26/00		STARTED 10/26/00
		COMPLETED 10/26/00		
		16. ELEVATION TOP OF BORING -21.31' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-21.31 -21.8	0.5		0': SILTY SANDY CLAY (CL-ML), with gravel, and shell fragments. BOTTOM OF BOREHOLE AT -21.8 ft NOTE: Soils visually field classified in accordance with the Unified Soil Classification System						

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CR-MS-3-00		LOCATION COORDINATES N 393155.037 E 2325360.633		10. SIZE AND TYPE OF BIT N/A
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic		
4. NAME OF DRILLER Y. Me		12. TOTAL SAMPLES 0		DISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 0.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 23.31'		15. DATE BORING 10/26/00		STARTED 10/26/00
		COMPLETED 10/26/00		
		16. ELEVATION TOP OF BORING -22.81' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-22.81 -23.3	0.5		0': SILTY SANDY CLAY (CL-ML), with gravel, and shell fragments. BOTTOM OF BOREHOLE AT -23.3 ft NOTE: Soils visually field classified in accordance with the Unified Soil Classification System						

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER DI-38-88		LOCATION COORDINATES N 360342.8943 E 2330257.705		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 5	DISTURBED 5	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 11.2'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 50.2'		15. DATE BORING 2/29/88		STARTED 2/29/88
		16. ELEVATION TOP OF BORING -39' MLLW		COMPLETED 2/29/88
		17. TOTAL CORE RECOVERY FOR BORING N/A		
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-39		0'	SILT (MH), black.				USCS		
-44.2	5.2	5.2'	SAND (SP), fine; gray, Poorly Graded, with silt, calcareous.		1				0
-45.7	6.7	6.7'	SILT (MH), black.		2				10
-47.2	8.2	8.2'	CLAYEY SAND (SC), fine; gray, with shell fragments.		3				1
-48.7	9.7	9.7'	CLAY (CH), high plasticity; green, high plasticity, with sand, calcareous.		4				4
-50.2	11.2	11.2'			5				12

BOTTOM OF BOREHOLE AT -50.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER DI-39-94	LOCATION COORDINATES N 359128.0124 E 2331225.033		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 6	DISTURBED 6	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 34.2'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 56.4'		15. DATE BORING 8/22/94		STARTED 8/22/94
		COMPLETED 8/22/94		
		16. ELEVATION TOP OF BORING -22.2' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value			
-22.2		CLAY	0': CLAY (CH), high plasticity; gray, high plasticity, trace quartz, and shell fragments.		1		USCS		0			
								2		0		
								3		0		
								4		3		
-45.9	23.7			SAND	23.7': CLAYEY SAND (SC), fine to medium; gray, some silt, trace shell fragments.			4		Began using saltwater drilling mud		3
											5	
-50.4	28.2	SAND	28.2': SAND (SP), fine to medium; gray, Poorly Graded, trace shell fragments. 30.8': No shells.		5				20			
							6		23			
-56.4	34.2											

BOTTOM OF BOREHOLE AT -56.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER DI-40-94		LOCATION COORDINATES N 359942.2548 E 2330417.75		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 5
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 5
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 12.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/20/94
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -45.9' MLLW		STARTED 8/20/94
8. TOTAL DEPTH OF BORING 58.4'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 8/20/94
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-45.9			0': CLAY (CH), high plasticity; dark gray to black, high plasticity, trace sand.		1		USCS		0
-50.4	4.5		4.5': SANDY CLAY (CL), low plasticity; fine; olive gray, low plasticity, calcareous.		2				8
			6.5': CLAY, low plasticity; olive gray, low plasticity, trace sand, calcareous.		3				17
-55.4	9.5		9.5': CLAYEY SAND (SC), fine; olive gray, calcareous.		4				15
-58.4	12.5				5				15

BOTTOM OF BOREHOLE AT -58.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER DI-41-95		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 5	DISTURBED 5
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 9'		14. ELEVATION GROUND WATER NA	
7. DEPTH DRILLED INTO ROCK 0'		15. DATE BORING 9/12/95	STARTED 9/12/95
8. TOTAL DEPTH OF BORING 55.4'		COMPLETED 9/12/95	
		16. ELEVATION TOP OF BORING -46.4' MLLW	
		17. TOTAL CORE RECOVERY FOR BORING N/A	
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-46.4		CLAY	0': CLAY (CH), high plasticity; gray, high plasticity, trace shale fragments, and wood.		1		USCS		0
			3.8': No wood.		2				0
					3				0
					4				
					5				
-54.6	8.2	CLAY	8.2': CLAY (CL), low plasticity; olive gray, low plasticity, trace sand.						12

BOTTOM OF BOREHOLE AT -55.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER DI-42-95		LOCATION COORDINATES N 360214.8801 E 2331267.108		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 26
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 26
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 45.3'		14. ELEVATION GROUND WATER NA		15. DATE BORING 9/13/95
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -10.4' MLLW		STARTED 9/13/95
8. TOTAL DEPTH OF BORING 55.7'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 9/13/95
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-10.4			0': SAND (SP), fine to medium; gray, Poorly Graded, trace shell fragments.		1		USCS No sample recovered on first drive from 6.3' to 7.8'. Re-drove to 7.8', then continued drive to 9.3'.		0
-13.7	3.3		3.3': SILTY SAND (SM), fine to medium; dark gray, trace shell fragments.		2			10	
					3			9	
					4			15	
-19.7	9.3		9.3': SAND (SP), fine to medium; gray, Poorly Graded, trace silt, and shell fragments.		5			9	
					6			13	
					7			11	
					8			17	
					9			13	
-27.2	16.8		16.8': No recovery						
-28.7	18.3		18.3': SILTY SAND (SM), fine to medium; dark gray, trace shell fragments.		10			18	
					11			14	
					12			18	
			22.8': Trace clay.		13			20	
					14			22	
			25.8': No clay.		15			15	
-37.7	27.3		27.3': SAND (SP), fine to medium; gray, Poorly Graded, trace silt, and shell fragments.		16			22	
					17		13		

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS	
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW	
LOCATION COORDINATES N 360214.8801 E 2331267.108		ELEVATION TOP OF BORING -10.4'			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.7	30.3	[Red and Yellow pattern]	30.3': SAND (SM), fine to medium; dark gray, some clay, trace shell fragments.		18				14
-43.7	33.3				19			14	
		[Yellow and Green pattern]	33.3': CLAYEY SAND (SC), fine to medium; dark gray, trace shell fragments. 36.3': Dark gray to black.		20				26
					21			13	
					22			6	
-49.7	39.3	[Green pattern]	39.3': CLAY (CL), low plasticity; olive gray, low plasticity.		23				15
					24			19	
					25			21	
					26			19	

BOTTOM OF BOREHOLE AT -55.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER DI-43-95		LOCATION COORDINATES N 359422.9761 E 2332799.113		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 7	DISTURBED 7	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 29'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.1'		15. DATE BORING 9/14/95		STARTED 9/14/95
		COMPLETED 9/14/95		
		16. ELEVATION TOP OF BORING -26.1' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-26.1			0': CLAYEY SILT (MH), dark gray, trace sand.		1		USCS Used BASCO salt water drilling mud at 0.0'		0
-35.8	9.7		9.7': CLAY (CH), high plasticity; dark gray, high plasticity, trace sand, and silt.		2				0
-39.7	13.6		13.6': CLAYEY SAND (SC), fine; dark gray.		3				0
-42.2	16.1		16.1': CLAY (CH), high plasticity; dark gray, high plasticity, some sand.		4				0
-50.6	24.5		24.5': CLAYEY SAND (SC), fine; gray, trace shell fragments.		6				0
-55.1	29.0				7				23

BOTTOM OF BOREHOLE AT -55.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division		INSTALLATION Charleston Harbor		SHEET 1 OF 1 SHEETS	
		1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW	
2. HOLE NUMBER DIB-1-88		LOCATION COORDINATES N 371583.2362 E 2328168.896		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail			
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314					
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 4		DISTURBED 4		UNDISTURBED 0	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING		13. TOTAL NUMBER CORE BOXES 0	
6. THICKNESS OF OVERBURDEN 9'		14. ELEVATION GROUND WATER NA		15. DATE BORING 9/29/88		STARTED 9/29/88	
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41.8' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 9/29/88	
8. TOTAL DEPTH OF BORING 50.8'		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.					

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.8		[Hatched Pattern]	0': SILTY CLAY (CL), low plasticity; light greenish brown, moist, low plasticity, trace sand, and gravel, calcareous.		1		USCS		4
			1.5': Some sand.		2			38	
			4.5': Trace shells, and gravel.		3			33	
-50.8	9.0					4			28

BOTTOM OF BOREHOLE AT -50.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER DIB-2-88		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 3	DISTURBED 3 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	14. ELEVATION GROUND WATER NA
6. THICKNESS OF OVERBURDEN 7.5'		15. DATE BORING 9/29/88	STARTED 9/29/88 COMPLETED 9/29/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -42.5' MLLW	
8. TOTAL DEPTH OF BORING 50'		17. TOTAL CORE RECOVERY FOR BORING N/A	
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.			



ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-42.5		[Hatched Pattern]	0': SILTY CLAY (CL), low plasticity; light greenish brown, moist, low plasticity, some sand, calcareous.		1		USCS		13
			1.5': Trace sand, and shell fragments.		2			17	
					3			33	
-50.0	7.5								

BOTTOM OF BOREHOLE AT -50.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER DIB-3-88		LOCATION COORDINATES N 369296.4063 E 2328764.257		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 4
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 7.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 9/29/88 COMPLETED 9/29/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -43.1' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A
8. TOTAL DEPTH OF BORING 50.6'		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-43.1	0.4		0': CLAY (CH), high plasticity; dark gray to black, wet, high plasticity, trace sand.		1		USCS		0
			0.4': SILTY CLAY (CL), low plasticity; light greenish brown, moist, low plasticity, trace sand, calcareous.		2			4	
			3': Trace shell fragments.		3			33	
			4.5': No sand or shells.		4			21	
								31	
-50.6	7.5								29

BOTTOM OF BOREHOLE AT -50.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER DIB-4-89		LOCATION COORDINATES N 371905.1923 E 2327974.849		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 9
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 9
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 29.8'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/25/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -25.8' MLLW		STARTED 5/25/89
8. TOTAL DEPTH OF BORING 55.6'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/25/89
18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-25.8		Blue hatched	0': CLAY (CH), high plasticity; dark gray, wet, high plasticity, with shell fragments.		1		USCS		0
			4.3': Gray, moist, with gravel, fewer shells.					4	
								9	
						11			
-33.1	7.3	Green	7.3': SILT (ML), low plasticity; olive green, moist, low plasticity, calcareous.		2			7	
								13	
								13	
								19	
				11.5': With gravel.		4			14
								15	
								29	
								17	
						5			22
				18.5': CLAYEY.					31
						23			
					6			28	
					6			28	
								29	
					7			22	
								17	
-55.6	29.8				8			21	

BOTTOM OF BOREHOLE AT -55.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER DIB-5-89		LOCATION COORDINATES N 370929.3443 E 2328667.991		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 4
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 14'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/26/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41.5' MLLW		STARTED 5/26/89
8. TOTAL DEPTH OF BORING 55.5'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/26/89
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.5			0': SILT (ML), low plasticity; olive gray, moist, low plasticity, calcareous.				USCS		0
					1				26
									19
			3.5': With shell fragments.						23
			5': CLAYEY, no shell fragments.		2				32
									27
									18
					3				19
									22
					4				14

BOTTOM OF BOREHOLE AT -55.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER DIB-6-89		LOCATION COORDINATES N 369504.5245 E 2329451.205		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 4
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 14.9'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/31/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -40.1' MLLW		STARTED 5/31/89
8. TOTAL DEPTH OF BORING 55'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/31/89
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.1			0': CLAYEY SILT (ML), low plasticity; olive green, low plasticity, with shell fragments.				USCS		0
					1				48
									12
									24
-45.9	5.8		5.8': SILTY CLAY (CL), low plasticity; olive green, low plasticity, with gravel, and shell fragments, calcareous.						18
					2				22
-49.0	8.9		8.9': CLAYEY SILT (ML), olive green, with gravel, and shell fragments, calcareous.						16
					3				12
									16
					4				15
-55.0	14.9								

BOTTOM OF BOREHOLE AT -55.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER DIB-7-90		LOCATION COORDINATES N 371354.1987 E 2327923.941		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 10	DISTURBED 10	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 15'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.4'		15. DATE BORING 2/10/90		STARTED 2/10/90
		COMPLETED 2/10/90		
		16. ELEVATION TOP OF BORING -40.4' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value		
-40.4		[Hatched Pattern]	0': CLAY (CL), low plasticity; olive green, moist, low plasticity, trace sand, calcareous. 3': Some sand. 6': Trace sand.		1		USCS		8		
								2			20
								3			18
								4			17
								5			25
								6			28
								7			18
								8			15
								9			16
								10			15
-55.4	15.0										

BOTTOM OF BOREHOLE AT -55.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER DIB-8-90		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 10	DISTURBED 10 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	14. ELEVATION GROUND WATER NA
6. THICKNESS OF OVERBURDEN 16.5'		15. DATE BORING 2/10/90	STARTED 2/10/90 COMPLETED 2/10/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -38.8' MLLW	
8. TOTAL DEPTH OF BORING 55.3'		17. TOTAL CORE RECOVERY FOR BORING N/A	
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.8		0'	0': CLAYEY SILT (MH), dark gray to black, wet, some sand, slightly calcareous.		1		USCS		0
-43.0	4.2	4.2'	4.2': CLAY (CL), low plasticity; olive green, wet, low plasticity, some sand, calcareous.		2				3
		9.2'	9.2': Trace sand.		3				22
		16.5'			4				16
		20'			5				20
		19'			6				19
		20'			7				20
		19'			8				19
		13'			9				13
		19'			10				19

BOTTOM OF BOREHOLE AT -55.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER DIB-9-90		LOCATION COORDINATES N 371239.143 E 2327595.969		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 10	DISTURBED 10	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 15'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.9'		15. DATE BORING 4/8/90		STARTED 4/8/90
		COMPLETED 4/8/90		
		16. ELEVATION TOP OF BORING -40.9' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.9			0': SILT (ML), low plasticity; olive green, moist, low plasticity, calcareous.		1		USCS		16
					2				18
					3				16
			4.5': Trace shell fragments.		4				19
					5				20
			7.5': No shell fragments.		6				20
					7				15
			10.5': Trace shell fragments.		8				13
					9				12
					10				12
-55.9	15.0								

BOTTOM OF BOREHOLE AT -55.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER DIR-1-88		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Army Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 3	DISTURBED 3 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	14. ELEVATION GROUND WATER NA
6. THICKNESS OF OVERBURDEN 6'		15. DATE BORING STARTED 9/30/88 COMPLETED 9/30/88	
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -44.1' MLLW	
8. TOTAL DEPTH OF BORING 50.1'		17. TOTAL CORE RECOVERY FOR BORING N/A	
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-44.1	0.5	█	0': CLAY (CH), dark gray to black, wet.		1		USCS		0
-44.6		█	0.5': SILTY CLAY (CL), low plasticity; light greenish brown, moist, low plasticity, trace sand, calcareous.		2			2	
		█						26	
		█						28	
-50.1	6.0	█			3			18	

BOTTOM OF BOREHOLE AT -50.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER DIR-10-90	LOCATION COORDINATES N 364988.5715 E 2329066.96		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 7	DISTURBED 7	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 18'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 54.8'		15. DATE BORING 2/6/90		STARTED 2/6/90 COMPLETED 2/6/90
		16. ELEVATION TOP OF BORING -36.8' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-36.8			0': CLAYEY SILT (MH), dark gray to black, wet.				USCS		
-46.9	10.1				1				0
-47.3	10.5		10.1': SILTY SAND (SM), fine; grayish tan, wet, slightly calcareous.		2				3
			10.5': CLAY (CL), low plasticity; olive green, moist, low plasticity, some sand, calcareous.		3				15
					4				18
					5				19
					6				18
					7				18
-54.8	18.0								

BOTTOM OF BOREHOLE AT -54.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division		INSTALLATION Charleston Harbor		SHEET 1 OF 1 SHEETS	
		1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW	
2. HOLE NUMBER DIR-11-90		LOCATION COORDINATES N 364861.4701 E 2328486.994		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail			
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314					
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 8		DISTURBED 8		UNDISTURBED 0	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING		13. TOTAL NUMBER CORE BOXES 0	
6. THICKNESS OF OVERBURDEN 13.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 2/6/90 COMPLETED 2/6/90			
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41.9' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A			
8. TOTAL DEPTH OF BORING 55.4'		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist					



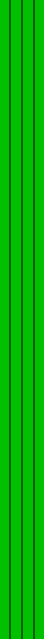
ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.9		0'	0': CLAYEY SILT (MH), dark gray to black, wet, trace shells, and shell fragments.		1		USCS		0
-44.9	3.0	3'	3': CLAY (CH), high plasticity; gray, moist, high plasticity, trace shell fragments.		2				0
		9.7'	9.7': CLAY (CL), low plasticity; olive gray, moist, low plasticity, some sand, calcareous.		3				5
		13.5'			4				0
		13.5'			5				
		13.5'			6				5
		13.5'			7				19
		13.5'			8				14

BOTTOM OF BOREHOLE AT -55.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER DIR-12-90		LOCATION COORDINATES N 367369.4944 E 2328971.57		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 10
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 10
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 16.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 4/7/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -39.1' MLLW		STARTED 4/7/90
8. TOTAL DEPTH OF BORING 55.6'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 4/7/90
18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	R.O.D %	REMARKS	Blows/ 0.5 ft	N-Value
-39.1			0': CLAY (CH), high plasticity; dark gray, saturated, high plasticity, some shell fragments.		1		USCS		0
-43.1	4.0		4': CLAYEY SAND (SC), fine to medium; grayish green, some shell fragments.		2				2
-43.6	4.5		4.5': ORGANIC SILT (ML), low plasticity; olive green, moist, low plasticity, calcareous.		3				13
					4				16
					5				14
					6				15
					7				12
			12': With shell fragments.		8				16
					9				15
					10				16
-55.6	16.5								

BOTTOM OF BOREHOLE AT -55.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER DIR-13-90	LOCATION COORDINATES N 366576.5147 E 2328971.7		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5-1/2" Fishtail	
3. DRILLING AGENCY U.S. Army Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 8	DISTURBED 8	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 12.3'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 54.9'		15. DATE BORING 4/9/90		STARTED 4/9/90 COMPLETED 4/9/90
		16. ELEVATION TOP OF BORING -42.6' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-42.6		FAT CLAY	0': FAT CLAY (CH), dark gray, saturated, "soupy".				USCS		
			4.5': Wet.		1		Weight of rods drove splitspoon from 42.6' to 48.9'. Pulled tools and took Sample #1 from rods.		0
-47.9	5.3	SILTY SAND	5.3': SILTY SAND (SM), fine to medium; light gray, wet, some shell fragments.		2				0
-48.4	5.8	LEAN SILT	5.8': LEAN SILT (ML), olive green, moist, some shell fragments, calcareous, inorganic silt.		3				0
			11': No shell fragments.		4				0
					5				16
					6				14
					7				15
					8				13

BOTTOM OF BOREHOLE AT -54.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER DIR-14-97		LOCATION COORDINATES N 362627.7195 E 2329271.963		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C. Robbins		12. TOTAL SAMPLES 9	DISTURBED 9	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 25.4'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 52.8'		15. DATE BORING 6/21/97		STARTED 6/21/97
		COMPLETED 6/21/97		
		16. ELEVATION TOP OF BORING -27.4' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		



ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-27.4			0': SAND (SP), fine to medium; dark gray, Poorly Graded, some shell fragments, trace silt.		1		USCS		0
-30.3	2.9		2.9': CLAYEY SAND (SC), fine; olive, trace shell fragments, calcareous.		2				0
-31.8	4.4		4.4': CLAY (CL), low plasticity; olive, low plasticity, trace sand, calcareous.		3			0 0 8	8
					4			5 7 9	21
					5			6 6 7	19
-42.3	14.9		14.9': CLAYEY SAND (SC), fine; olive, calcareous.		6			4 6 7	17
					7			12 16 15	43
-46.8	19.4		19.4': CLAY (CL), low plasticity; olive, low plasticity, trace sand, calcareous.		8			10 14 16	40
			22.4': Some sand.		9			4 5 7	16
-52.8	25.4								

BOTTOM OF BOREHOLE AT -52.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER DIR-2-88		LOCATION COORDINATES N 366239.4645 E 2328645.764		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 3
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 11'		14. ELEVATION GROUND WATER NA		15. DATE BORING 10/5/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -40.2' MLLW		STARTED 10/5/88
8. TOTAL DEPTH OF BORING 51.2'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 10/5/88
18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.2			0': CLAY (CH), high plasticity; dark gray, wet, high plasticity, with sand.		1		USCS		6
-48.2	8.0		8': CLAY (CL), low plasticity; olive green, low plasticity, with shell fragments, calcareous.		2				12
-51.2	11.0				3				32

BOTTOM OF BOREHOLE AT -51.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division		INSTALLATION Charleston Harbor		SHEET 1 OF 1 SHEETS	
		1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW	
2. HOLE NUMBER DIR-3-89		LOCATION COORDINATES N 368630.5534 E 2329481.349		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail			
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314					
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 3		DISTURBED 3		UNDISTURBED 0	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING		13. TOTAL NUMBER CORE BOXES 0	
6. THICKNESS OF OVERBURDEN 13'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/31/89		STARTED 5/31/89	
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -42.5' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/31/89	
8. TOTAL DEPTH OF BORING 55.5'		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.					

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-42.5			0': SILT (ML), low plasticity; olive green, low plasticity, calcareous.				USCS		0
					1				31
									33
									16
					2				32
									27
									26
									26
					3				17
-55.5	13.0								

BOTTOM OF BOREHOLE AT -55.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER DIR-4-89	LOCATION COORDINATES N 365763.5642 E 2329132.831		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 6	DISTURBED 6	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 19.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 54.9'		15. DATE BORING 6/1/89		STARTED 6/1/89
		COMPLETED 6/1/89		
		16. ELEVATION TOP OF BORING -35.4' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-35.4		CLAY	0': CLAY (CH), soft; high plasticity; dark gray, wet, high plasticity.				USCS NOTE: Material on outside of rod was fat clay (CH), dark grey, soft, wet.		0
				1	16				
					33				
					16				
				2	23				
					27				
			26						
-45.9	10.5	SILT	10.5': SILT (ML), low plasticity; olive green, moist, low plasticity, calcareous, very uniform.					26	16
				1	19				
				3					
					23				
				2	19				
				23					
-54.9	19.5				3				19

BOTTOM OF BOREHOLE AT -54.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division		INSTALLATION Charleston Harbor		SHEET 1 OF 1 SHEETS	
		1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW	
2. HOLE NUMBER DIR-5-89		LOCATION COORDINATES N 363947.592 E 2329041.133		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail			
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314					
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 3		DISTURBED 3		UNDISTURBED 0	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING		13. TOTAL NUMBER CORE BOXES 0	
6. THICKNESS OF OVERBURDEN 11.2'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 6/1/89 COMPLETED 6/1/89			
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -43.3' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A			
8. TOTAL DEPTH OF BORING 54.5'		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.					

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-43.3			0': SILT (ML), low plasticity; olive green, moist, low plasticity, with shell fragments, calcareous.						
					1				30
					2				20
			8': Some clay.						
					3				18
-54.5	11.2								

BOTTOM OF BOREHOLE AT -54.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER DIR-6-89		LOCATION COORDINATES N 363078.4834 E 2328324.291		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 4
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 13.8'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 6/1/89 COMPLETED 6/1/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A
8. TOTAL DEPTH OF BORING 54.8'		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value	
-41		SILT	0': SILT (ML), low plasticity; olive green, moist, low plasticity, calcareous.		1				17	
							2			19
							3			21
							4			15
-54.8	13.8									

BOTTOM OF BOREHOLE AT -54.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER DIR-7-90		LOCATION COORDINATES N 367099.4565 E 2328722.62		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 8	DISTURBED 8	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 15'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.9'		15. DATE BORING 2/9/90		STARTED 2/9/90
		COMPLETED 2/9/90		
		16. ELEVATION TOP OF BORING -40.9' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.9		[Yellow pattern]	0': SILTY SAND (SM), fine to medium; dark gray to black, wet, trace clay, and shell fragments, slightly calcareous.		1		USCS		0
					2			11	
			4.5': SAND, medium to coarse; some shell fragments.		3			3	
			6': SAND, fine to medium; trace shell fragments.		4			11	
-48.4	7.5	[Red pattern]	7.5': SAND (SP), dark gray, Poorly Graded, wet, some shell fragments, trace silt, slightly calcareous.		5			5	
					6			12	
-51.4	10.5	[Green pattern]	10.5': CLAYEY SAND, fine to medium; dark gray.		7			NOTE: Mixed Zeogel mud at 51.4'.	13
					8				9
-55.0	14.1	[Green pattern]	14.1': CLAY (CL), low plasticity; olive green, moist, low plasticity, some sand, calcareous.						
-55.9	15.0								

BOTTOM OF BOREHOLE AT -55.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER DIR-8-90		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 11	DISTURBED 11 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	14. ELEVATION GROUND WATER NA
6. THICKNESS OF OVERBURDEN 25.5'		15. DATE BORING 2/7/90	STARTED 2/7/90 COMPLETED 2/7/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -29.5' MLLW	
8. TOTAL DEPTH OF BORING 55'		17. TOTAL CORE RECOVERY FOR BORING N/A	
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-29.5		CLAY	0': CLAY (CH), high plasticity; dark gray to gray, high plasticity, with organics.		1		USCS		0
			3': Gray.		2			1	
			4.5': Moist, trace shell fragments, no organics.		3			3	
			7.5': No shells.		4			1	
					5			3	
-46.0	16.5	SAND	16.5': CLAYEY SAND (SC), fine; tan, dry, trace shell fragments, calcareous.		6			5	
-47.5	18.0	CLAY	18': CLAY (CL), low plasticity; tan, low plasticity, trace sand, calcareous.		7			10	
			19.5': Tan to light brown, moist, no sand.		8		18		
			21': CLAY, low plasticity; olive green, moist, low plasticity, trace sand, calcareous.		9		24		
					10		22		
					11		14		

BOTTOM OF BOREHOLE AT -55.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division		INSTALLATION Charleston Harbor		SHEET 1 OF 1 SHEETS	
		1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW	
2. HOLE NUMBER DIR-9-90		LOCATION COORDINATES N 364014.5696 E 2328926.124		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail			
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314					
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 8		DISTURBED 8		UNDISTURBED 0	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING		13. TOTAL NUMBER CORE BOXES 0	
6. THICKNESS OF OVERBURDEN 13.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 2/7/90 COMPLETED 2/7/90		16. ELEVATION TOP OF BORING -42' MLLW	
7. DEPTH DRILLED INTO ROCK 0'		17. TOTAL CORE RECOVERY FOR BORING N/A		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.			
8. TOTAL DEPTH OF BORING 55.5'							

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-42		MH	0': CLAYEY SILT (MH), dark gray to black, wet, trace sand, and shell fragments.		1		USCS		0
-46.0	4.0	CL	4': CLAY (CL), low plasticity; olive green, moist, low plasticity, trace sand, calcareous.		2				12
					3				16
					4				21
					5				24
					6				19
					7				15
					8				14

BOTTOM OF BOREHOLE AT -55.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER FCR-1-88		LOCATION COORDINATES N 384128.991 E 2317712.226		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 7	DISTURBED 7	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 27'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 49.7'		15. DATE BORING 9/20/88		STARTED 9/20/88
		COMPLETED 9/20/88		
		16. ELEVATION TOP OF BORING -22.7' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-22.7			0': CLAYEY SAND (SC), medium; dark gray, wet, slightly calcareous.		1		USCS		0
-24.2	1.5		1.5': SILTY CLAY (CL), low plasticity; light greenish brown, moist, low plasticity, some sand, calcareous.		2			21	
					3			18	
					4			27	
					5			18	
					6			26	
					7			14	
-42.2	19.5		19.5': CLAYEY SAND (SC), fine; light greenish brown, moist, calcareous.						
-49.7	27.0								

BOTTOM OF BOREHOLE AT -49.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER FCR-10-89		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 6	DISTURBED 6 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	14. ELEVATION GROUND WATER NA
6. THICKNESS OF OVERBURDEN 23.3'		15. DATE BORING 5/15/89	STARTED 5/15/89 COMPLETED 5/15/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -32.3' MLLW	
8. TOTAL DEPTH OF BORING 55.6'		17. TOTAL CORE RECOVERY FOR BORING N/A	
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-32.3		[Hatched Pattern]	0': SILTY CLAY (CL), low plasticity; light greenish brown, low plasticity, some sand, trace silt.		1		USCS		16
					2			18	
					3			25	
					4			18	
					5			11	
					6			11	
-55.6	23.3								

BOTTOM OF BOREHOLE AT -55.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER FCR-11-90		LOCATION COORDINATES N 387357.0227 E 2318446.693		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 8
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 8
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING ---
6. THICKNESS OF OVERBURDEN 16.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 1/11/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -38.5' MLLW		STARTED 1/11/90
8. TOTAL DEPTH OF BORING 55'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 1/11/90
18. SIGNATURE AND TITLE OF INSPECTOR David Belville, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.5			0': SILT (MH), high plasticity; dark gray, high plasticity.		1		USCS		0
			7': Olive green.		2				2
					3				20
					4				1
					5				1
					6				14
					7				15
					8				14

BOTTOM OF BOREHOLE AT -55.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER FCR-2-88		LOCATION COORDINATES N 384473.8932 E 2317219.191		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 3
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 7.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 9/20/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -42.9' MLLW		STARTED 9/20/88
8. TOTAL DEPTH OF BORING 50.4'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 9/20/88
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-42.9	0.6		0': CLAYEY SAND (SC), medium; dark gray, wet, some shell fragments, slightly calcareous.		1		USCS		0
-43.5			0.6': CLAY (CH), high plasticity; gray, moist, high plasticity, slightly calcareous.		2			2	
-48.4	5.5		5.3': SAND, medium to coarse; gray, Poorly Graded, wet, with shell fragments, calcareous. 5.5': CLAYEY SAND (SC), fine; light greenish brown, moist, calcareous.		3				21
-50.4	7.5								

BOTTOM OF BOREHOLE AT -50.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER FCR-3-88	LOCATION COORDINATES N 385852.9884 E 2318049.944		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 0	DISTURBED 0	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 19.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 51.1'		15. DATE BORING 9/22/88		STARTED 9/22/88
		COMPLETED 9/22/88		
		16. ELEVATION TOP OF BORING -31.6' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-31.6			0': FAT CLAY (CH), greenish gray, wet, some sand, calcareous.						
-33.1	1.5		1.5': SILTY LEAN CLAY (CL), light greenish brown, moist, some sand, calcareous.						
-37.6	6.0		6': CLAYEY SAND (SC), fine; light greenish brown, moist, trace shell fragments, calcareous.						
-40.6	9.0		9': LEAN CLAY (CL), light greenish brown, wet, some sand, calcareous.						
-42.1	10.5		10.5': CLAYEY SAND (SC), fine; light greenish brown, moist, calcareous.						
-48.1	16.5		16.5': LEAN SILTY CLAY (CL), light greenish brown, moist, trace shell fragments, calcareous.						
-51.1	19.5								

BOTTOM OF BOREHOLE AT -51.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER FCR-4-88		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 3	DISTURBED 3 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	14. ELEVATION GROUND WATER NA
6. THICKNESS OF OVERBURDEN 9'		15. DATE BORING STARTED 9/20/88 COMPLETED 9/20/88	
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41.3' MLLW	
8. TOTAL DEPTH OF BORING 50.3'		17. TOTAL CORE RECOVERY FOR BORING N/A	
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.3			0': CLAYEY SAND (SC), fine; light greenish brown, wet, calcareous.		1		USCS		0
			3': Moist.		2				26
-48.8	7.5		7.5': LEAN SILTY CLAY (CL), light greenish brown, moist, some sand, calcareous.		3				18
-50.3	9.0								

BOTTOM OF BOREHOLE AT -50.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER FCR-5-88		LOCATION COORDINATES N 387781.0337 E 2318714.616		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 10
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 10
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 34.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 9/21/88 COMPLETED 9/21/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -15.6' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A
8. TOTAL DEPTH OF BORING 50.1'		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-15.6			0': No recovery						
-17.1	1.5		1.5': SAND (SP), coarse; gray, Poorly Graded, wet.		1				4
-18.6	3.0		3': SILTY SAND (SM), fine to medium; gray, wet, trace clay.		2				19
					3				12
-27.6	12.0		12': No recovery		4				10
-29.1	13.5		13.5': SILTY SAND (SM), fine; gray, wet, trace clay.						
-30.6	15.0		15': CLAYEY SAND (SC), fine; tannish gray, wet.		5				11
-32.1	16.5		16.5': FAT CLAY (CH), gray, moist.		6				3
					7				4
-38.1	22.5		22.5': CLAYEY SAND (SC), fine; light greenish brown, moist, calcareous.		8				17
					9				26
-50.1	34.5				10				16

BOTTOM OF BOREHOLE AT -50.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER FCR-6-88		LOCATION COORDINATES N 389034.0598 E 2319133.402		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 8
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 8
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 19.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 9/22/88 COMPLETED 9/22/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -30.5' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A
8. TOTAL DEPTH OF BORING 50'		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		



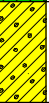


ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-30.5			0': FAT CLAY (CH), dark greenish gray, wet, some sand, slightly calcareous.		1		USCS No recovery first attempt 35.0' to 36.5'. Re-drove, then cont'd. to 38.0'.		0
-33.5	3.0		3': CLAYEY SAND (SC), fine to medium; greenish gray and light brown, wet, some shell fragments, calcareous.		2			20	
-35.0	4.5		4.5': SAND (SP), medium; light greenish brown, Poorly Graded, wet, trace silt, and shell fragments.		3			36	
			7.5': SAND, medium to coarse; light brown.		4			16	
-39.5	9.0		9': SILTY SAND (SM), fine; light gray, with organics.		5			22	
-41.0	10.5		10.5': CLAYEY SAND (SC), fine; light greenish brown, moist, trace shell fragments.		6			21	
					7			28	
-50.0	19.5				8			28	

BOTTOM OF BOREHOLE AT -50.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER FCR-7-89		LOCATION COORDINATES N 388922.908 E 2318238.456		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 6
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 6
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 16.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/3/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING 38.6' MLLW		STARTED 5/3/89
8. TOTAL DEPTH OF BORING -22.1'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/3/89
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.6			0': FAT CLAY (CH), dark gray to black.		1		USCS		0
35.6	3.0		3': LEAN SILTY CLAY (CL), light greenish brown, some sand, calcareous.		2				4
29.6	9.0		9': CLAYEY SAND (SC), fine; light greenish brown, calcareous.		3				20
28.1	10.5		9': CLAYEY SAND (SC), fine; light greenish brown, calcareous.		4				26
			10.5': LEAN SILTY CLAY (CL), light greenish brown, some sand, calcareous.		5				22
22.1	16.5				6				20

BOTTOM OF BOREHOLE AT 22.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER FCR-8-89	LOCATION COORDINATES N 388304.0022 E 2318645.536		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 4	DISTURBED 4	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 14.1'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 54.7'		15. DATE BORING STARTED 5/14/89 COMPLETED 5/14/89		
		16. ELEVATION TOP OF BORING -40.6' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		



ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.6		[Hatched Pattern]	0': LEAN SILTY CLAY (CL), light greenish brown, some sand, calcareous, trace of dark grey to black sandy, clayey silt from 40.6' to 40.9'..		1		USCS Used Zeogel drilling mud.		22
					2				30
					3				20
					4				23

BOTTOM OF BOREHOLE AT -54.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER FCR-9-89		LOCATION COORDINATES N 386311.9833 E 2318115.87		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 4
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 13.6'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/15/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41.6' MLLW		STARTED 5/15/89
8. TOTAL DEPTH OF BORING 55.2'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/15/89
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.6			0': CLAYEY SAND (MH), dark gray to black, some sand, slightly calcareous.		1		USCS		0
-45.9	4.3		4.3': LEAN SILTY CLAY (CL), light greenish brown, some sand, calcareous.		2				0
					3				16
					4				23
-55.2	13.6								

BOTTOM OF BOREHOLE AT -55.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER MB-1-88		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 3	DISTURBED 3 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	14. ELEVATION GROUND WATER NA
6. THICKNESS OF OVERBURDEN 9'		15. DATE BORING 9/30/88	STARTED 9/30/88 COMPLETED 9/30/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41.3' MLLW	
8. TOTAL DEPTH OF BORING 50.3'		17. TOTAL CORE RECOVERY FOR BORING N/A	
18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value	
-41.3		[Hatched Pattern]	0': LEAN SILTY CLAY (CL), olive green, with shell fragments, calcareous.		1		USCS		7	
									16	
									16	
								2		34
					6': SILTY, trace sand.					30
								3		29
-50.3	9.0									

BOTTOM OF BOREHOLE AT -50.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER MB-2-90		LOCATION COORDINATES N 360948.6754 E 2329120.626		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 9
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 9
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 13.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/13/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -42.1' MLLW		STARTED 5/13/90
8. TOTAL DEPTH OF BORING 55.6'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/13/90
18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-42.1			0': LEAN CLAYEY SILT (ML), olive green, moist, calcareous.		1		USCS		2
					2				16
					3				12
					4				12
					5				15
					6				19
			9': Trace shell fragments.		7				19
					8				16
					9				16
-55.6	13.5								

BOTTOM OF BOREHOLE AT -55.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER MB-3-90		LOCATION COORDINATES N 360785.6115 E 2328745.66		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 8	DISTURBED 8	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 12'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 54.7'		15. DATE BORING 4/12/90		STARTED 4/12/90
		COMPLETED 4/12/90		
		16. ELEVATION TOP OF BORING -42.7' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-42.7			0': LEAN SILT (ML), olive green, moist, calcareous.		1		USCS		10
					2				14
					3				22
			4.5': Some shell fragments.		4				14
					5				19
					6				20
			9': CLAYEY, no shell fragments.		7				16
					8				12
-54.7	12.0								

BOTTOM OF BOREHOLE AT -54.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NC-S-C-NORTH-99		LOCATION COORDINATES N 377424.988 E 2318142.589		10. SIZE AND TYPE OF BIT N/A
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic		
4. NAME OF DRILLER T. Pickett		12. TOTAL SAMPLES 0	DISTURBED 0	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 7'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 5.5'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 29.8'		15. DATE BORING 2/10/99		STARTED 2/10/99
		COMPLETED 2/10/99		
		16. ELEVATION TOP OF BORING -17.3' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Trap Puckette		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-17.3	0.3	LEGEND	0': SILT (OH), tan, wet, soft, "puff-mud".						
			0.25': SILTY CLAY (OH), black, wet, soft.						
-19.3	2.0		2': SILTY CLAY (OH), black, semi-soft.						
-22.3	5.0		5': SILTY CLAY (OH), black, firm.						
-24.3	7.0								

BOTTOM OF BOREHOLE AT -29.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER : LOCATION COORDINATES NC-S-G-NORTH-99 N 375561.52 E 2319164.359		10. SIZE AND TYPE OF BIT N/A		
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic		
4. NAME OF DRILLER T. Pickett		12. TOTAL SAMPLES 0	DISTURBED 0	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 8'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 1.5'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 34.8'		15. DATE BORING : STARTED : COMPLETED 2/15/99 : 2/15/99		
		16. ELEVATION TOP OF BORING -25.3' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Trap Puckette		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-25.3	0.3	LEGEND	0': SILT (OH), tan, wet, "puff mud".						
			0.25': SILTY CLAY (OH), black, saturated, "puff mud".						
-27.3	2.0		2': SILTY CLAY (OH), black, moist, semi-soft.						
-30.3	5.0		5': SILTY CLAY (OH), black, firm.						
-33.3	8.0								

BOTTOM OF BOREHOLE AT -34.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 1 SHEETS VERTICAL MLLW
2. HOLE NUMBER NC-S-G-SOUTH-99		LOCATION COORDINATES N 375279.896 E 2319499.851		10. SIZE AND TYPE OF BIT N/A
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic		
4. NAME OF DRILLER T. Pickett		12. TOTAL SAMPLES 0		DISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 7'		13. TOTAL NUMBER CORE BOXES 0		UNDISTURBED 0
7. DEPTH DRILLED INTO ROCK 1'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 2/15/99
8. TOTAL DEPTH OF BORING 34.8'		16. ELEVATION TOP OF BORING -26.8' MLLW		COMPLETED 2/15/99
		17. TOTAL CORE RECOVERY FOR BORING N/A		18. SIGNATURE AND TITLE OF INSPECTOR Trap Puckette

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-27.8	0.3	LEGEND	0': SILT (OH), tan, wet, soft.						
			0.25': SILTY CLAY (OH), black, saturated, soft, "puff mud".						
-28.8	2.0		2': SILTY CLAY (OH), black, moist, semi-soft.						
-30.8	4.0		4': SILTY CLAY (OH), black, moist, firm.						
-33.8	7.0								

BOTTOM OF BOREHOLE AT -34.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 1 SHEETS VERTICAL MLLW
2. HOLE NUMBER NC-S-J-NORTH-99	LOCATION COORDINATES N 374485.944 E 2320142.472		10. SIZE AND TYPE OF BIT N/A	
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic		
4. NAME OF DRILLER T. Pickett		12. TOTAL SAMPLES 0	DISTURBED 0	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 9'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 5'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 34.8'		15. DATE BORING STARTED 2/10/99 COMPLETED 2/10/99		
		16. ELEVATION TOP OF BORING -20.8' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Trap Puckette		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-20.8	0.3	LEGEND	0': SILT (OH), tan, wet, "puff mud".						
			0.25': SILTY CLAY (OH), black, saturated, "puff mud".						
-22.8	2.0		2': SILTY CLAY (OH), black, moist, semi-soft, "puff mud".						
-27.8	7.0		7': SILTY CLAY (OH), black, moist, semi-firm.						
-29.8	9.0								

BOTTOM OF BOREHOLE AT -34.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NC-S-J-SOUTH-99		LOCATION COORDINATES N 374233.974 E 2320411.15		10. SIZE AND TYPE OF BIT N/A
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic		12. TOTAL SAMPLES 0
4. NAME OF DRILLER T. Pickett		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 8'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 2/10/99 COMPLETED 2/10/99
7. DEPTH DRILLED INTO ROCK 5'		16. ELEVATION TOP OF BORING -21.8' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A
8. TOTAL DEPTH OF BORING 34.8'		18. SIGNATURE AND TITLE OF INSPECTOR Trap Puckette		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-21.8	0.3	LEGEND	0': SILT (OH), tan, wet, "puff mud".						
			0.25': SILTY CLAY (OH), black, saturated, "puff mud".						
-24.8	3.0		3': SILTY CLAY (OH), black, moist, semi-soft.						
-27.8	6.0		6': SILTY CLAY (OH), firm.						
-29.8	8.0								

BOTTOM OF BOREHOLE AT -34.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 1 SHEETS VERTICAL MLLW
2. HOLE NUMBER NC-S-K-NORTH-99		LOCATION COORDINATES N 373580.22 E 2321124.05		10. SIZE AND TYPE OF BIT N/A
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic		
4. NAME OF DRILLER T. Pickett		12. TOTAL SAMPLES 0		DISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 6.5'		13. TOTAL NUMBER CORE BOXES 0		UNDISTURBED 0
7. DEPTH DRILLED INTO ROCK 2'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 2/11/99
8. TOTAL DEPTH OF BORING 35.3'		16. ELEVATION TOP OF BORING -26.8' MLLW		COMPLETED 2/11/99
		17. TOTAL CORE RECOVERY FOR BORING N/A		18. SIGNATURE AND TITLE OF INSPECTOR Trap Puckette

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-27.8	0.3	V	0': SILT (OH), tan, wet, "puff mud".						
			0.25': SILTY CLAY (OH), black, saturated, soft, "puff mud".						
-28.3	1.5		1.5': SILTY CLAY (OH), black, moist, soft.						
			3.5': SILTY CLAY (OH), low plasticity; black, low plasticity, firm.						
-30.3	3.5								
-33.3	6.5								

BOTTOM OF BOREHOLE AT -35.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NC-S-K-SOUTH-99		LOCATION COORDINATES N 373479.166 E 2321324.679		10. SIZE AND TYPE OF BIT N/A
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic		
4. NAME OF DRILLER T. Pickett		12. TOTAL SAMPLES 0	DISTURBED 0	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 7'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 1.5'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 34.8'		15. DATE BORING 2/11/99		STARTED 2/11/99
		COMPLETED 2/11/99		
		16. ELEVATION TOP OF BORING -26.3' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Trap Puckette		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-26.3	0.3	LEGEND	0': SILT (OH), tan, wet, soft, "puff mud".						
			0.25': SILTY CLAY (OH), black, saturated, soft, "puff mud".						
-27.8	1.5		1.5': SILTY CLAY (OH), black, moist, semi-soft.						
			4': SILTY CLAY (OH), low plasticity; black, low plasticity, firm.						
-30.3	4.0								
-33.3	7.0								

BOTTOM OF BOREHOLE AT -34.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER : LOCATION COORDINATES NC-S-M-NORTH-99 N 372720.139 E 2322417.434		10. SIZE AND TYPE OF BIT N/A		
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic		
4. NAME OF DRILLER T. Pickett		12. TOTAL SAMPLES 0	DISTURBED 0	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 8'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 6'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 34.8'		15. DATE BORING : STARTED : COMPLETED 2/11/99 : 2/11/99		
		16. ELEVATION TOP OF BORING -20.8' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Trap Puckette		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-20.8	0.3	LEGEND	0': SILT (OH), tan, wet, soft, "puff mud".						
			0.25': SILTY CLAY (OH), black, saturated, soft, "puff mud".						
			2.5': Moist.						
			5.5': SILTY CLAY, and clay.						
-28.8	8.0								

BOTTOM OF BOREHOLE AT -34.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER : LOCATION COORDINATES NC-S-M-SOUTH-99 N 372649.669 E 2322643.353		10. SIZE AND TYPE OF BIT N/A	
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic	
4. NAME OF DRILLER T. Pickett		12. TOTAL SAMPLES 0	DISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	UNDISTURBED 0
DEG FROM VERTICAL ---		14. ELEVATION GROUND WATER NA	
BEARING		15. DATE BORING : STARTED : COMPLETED 2/11/99 : 2/11/99	
6. THICKNESS OF OVERBURDEN 7'		16. ELEVATION TOP OF BORING -22.3' MLLW	
7. DEPTH DRILLED INTO ROCK 4.5'		17. TOTAL CORE RECOVERY FOR BORING N/A	
8. TOTAL DEPTH OF BORING 33.8'		18. SIGNATURE AND TITLE OF INSPECTOR Trap Puckette	

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-22.3	0.3	LEGEND	0': SILT (OH), tan, wet, soft, "puff mud".						
			0.25': SILTY CLAY (OH), black, saturated, soft, "puff mud".						
			2': Moist.						
			5': SILTY CLAY, and clay, firm.						
-29.3	7.0								

BOTTOM OF BOREHOLE AT -33.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 1 SHEETS VERTICAL MLLW
2. HOLE NUMBER NC-S-N-NORTH-99		LOCATION COORDINATES N 372447.789 E 2323065.106		10. SIZE AND TYPE OF BIT N/A
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic		12. TOTAL SAMPLES 0
4. NAME OF DRILLER T. Pickett		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 7'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 2/11/99 COMPLETED 2/11/99
7. DEPTH DRILLED INTO ROCK 3'		16. ELEVATION TOP OF BORING -24.8' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A
8. TOTAL DEPTH OF BORING 34.8'		18. SIGNATURE AND TITLE OF INSPECTOR Trap Puckette		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-24.8	0.3	LEGEND	0': SILT (OH), tan, wet, soft, "puff mud".						
			0.25': SILTY CLAY (OH), black, saturated, soft, "puff mud".						
			2': Moist, semi-soft.						
			5': SILTY CLAY, low plasticity; low plasticity, and clay, firm.						
-31.8	7.0								

BOTTOM OF BOREHOLE AT -34.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 1 SHEETS VERTICAL MLLW
2. HOLE NUMBER NC-S-N-SOUTH-99	LOCATION COORDINATES N 372315.857 E 2323209.762		10. SIZE AND TYPE OF BIT N/A	
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic		
4. NAME OF DRILLER T. Pickett		12. TOTAL SAMPLES 0	DISTURBED 0	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 8'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 4.5'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 34.8'		15. DATE BORING 2/11/99		STARTED 2/11/99
		16. ELEVATION TOP OF BORING -22.3' MLLW		COMPLETED 2/11/99
		17. TOTAL CORE RECOVERY FOR BORING N/A		
18. SIGNATURE AND TITLE OF INSPECTOR Trap Puckette				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-22.3	0.3	LEGEND	0': SILT (OH), tan, wet, soft, "puff mud".						
			0.25': SILTY CLAY (OH), black, saturated, soft, "puff mud".						
			1.5': Moist, semi-soft.						
-26.3	4.0		4': SILTY CLAY (OH), low plasticity; black, low plasticity, and clay, firm.						
-30.3	8.0								

BOTTOM OF BOREHOLE AT -34.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NC-S-Q-North-99		LOCATION COORDINATES N 371610.597 E 2327500.67		10. SIZE AND TYPE OF BIT N/A
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL N/A		12. TOTAL SAMPLES 0
4. NAME OF DRILLER T. Pickett		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 10'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 3/10/99 COMPLETED 3/10/99
7. DEPTH DRILLED INTO ROCK 5'		16. ELEVATION TOP OF BORING -20.5' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A
8. TOTAL DEPTH OF BORING 35.5'		18. SIGNATURE AND TITLE OF INSPECTOR Trap Puckette		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-20.5	0.3	LEGEND	0': SILTY CLAY (OH), black, saturated, very soft "puff mud".		1		USCS		
-23.0	2.5		0.25': SILTY CLAY (OH), black, wet, soft.		2				
-26.0	5.5		2.5': SILTY CLAY (OH), black, moist, soft.		3				
-30.5	10.0		5.5': SILTY CLAY (OH), black, and clay, low plasticity.		4				

BOTTOM OF BOREHOLE AT -35.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NC-S-Q-SOUTH-99		LOCATION COORDINATES N 371934.961 E 2324508.593		10. SIZE AND TYPE OF BIT N/A
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic		
4. NAME OF DRILLER T. Pickett		12. TOTAL SAMPLES 0		DISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 12'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 6.5'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 33.8'		15. DATE BORING 2/12/99		STARTED 2/12/99
		COMPLETED 2/12/99		
		16. ELEVATION TOP OF BORING -15.3' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Trap Puckette		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-15.3	0.3	LEGEND	0': SILT (OH), tan, wet, soft, "puff mud".						
			0.25': SILTY CLAY (OH), black, saturated, soft, "puff mud".						
			2': Semi-soft.						
-21.3	6.0		6': SILTY CLAY (OH), low plasticity; black, moist, low plasticity, and clay, firm.						
-27.3	12.0								

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS	
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW	
LOCATION COORDINATES N 371934.961 E 2324508.593		ELEVATION TOP OF BORING -15.3'			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value

BOTTOM OF BOREHOLE AT -33.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NC-S-R-NORTH-99		LOCATION COORDINATES N 371889.334 E 2324790.571		10. SIZE AND TYPE OF BIT N/A
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic		
4. NAME OF DRILLER T. Pickett		12. TOTAL SAMPLES 0		DISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 9'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 6'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 34.8'		15. DATE BORING 2/12/99		STARTED 2/12/99
		COMPLETED 2/12/99		
		16. ELEVATION TOP OF BORING -19.8' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Trap Puckette		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-19.8	0.3	LEGEND	0': SILT (OH), tan, wet, soft, "puff mud".						
			0.25': SILTY CLAY (OH), black, saturated, soft, "puff mud".						
			2': Moist, semi-soft.						
-24.8	5.0		5': SILTY CLAY (OH), low plasticity; black, moist, low plasticity, and clay, firm.						
-28.8	9.0								

BOTTOM OF BOREHOLE AT -34.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NC-S-R-SOUTH-99		LOCATION COORDINATES N 371873.607 E 2325031.296		10. SIZE AND TYPE OF BIT N/A
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic		
4. NAME OF DRILLER T. Pickett		12. TOTAL SAMPLES 0	DISTURBED 0	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 12'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 4'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 34.8'		15. DATE BORING 2/12/99		STARTED 2/12/99 COMPLETED 2/12/99
		16. ELEVATION TOP OF BORING -18.8' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Trap Puckette		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-18.8	0.3	LEGEND	0': SILT (OH), tan, wet, soft, "puff mud".						
			0.25': SILTY CLAY (OH), black, saturated, soft.						
			2': Moist, semi-soft.						
			5': Firm.						
-26.8	8.0		8': SILTY CLAY (OH), low plasticity; black, moist, low plasticity, and clay, firm.						
-30.8	12.0								

BOTTOM OF BOREHOLE AT -34.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 1 SHEETS
2. HOLE NUMBER NC-S-U-NORTH-99		LOCATION COORDINATES N 371290.532 E 2326711.016		10. SIZE AND TYPE OF BIT N/A
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic		
4. NAME OF DRILLER T. Pickett		12. TOTAL SAMPLES 0	DISTURBED 0	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 12'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 4'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 29.8'		15. DATE BORING 2/15/99		STARTED 2/15/99
		16. ELEVATION TOP OF BORING -13.8' MLLW		COMPLETED 2/15/99
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Trap Puckette		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-14.8	0.3	LEGEND	0': SILT (OH), tan, wet, soft, "puff mud".						
			0.25': SILTY CLAY (OH), black, moist, soft, "puff mud".						
			2': Semi-soft.						
			5': Firm.						
-25.8	12.0								

BOTTOM OF BOREHOLE AT -29.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System


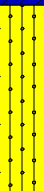
DRILLING LOG	DIVISION South Atlantic Division		INSTALLATION Charleston Harbor		SHEET 1 OF 1 SHEETS	
	1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW	
2. HOLE NUMBER NC-S-U-SOUTH-99		LOCATION COORDINATES N 371170.322 E 2326814.623		10. SIZE AND TYPE OF BIT N/A		
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic			12. TOTAL SAMPLES	
4. NAME OF DRILLER T. Pickett		DEG FROM VERTICAL		BEARING		12. TOTAL SAMPLES 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0		14. ELEVATION GROUND WATER NA		12. TOTAL SAMPLES DISTURBED 0 UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 12'		15. DATE BORING		STARTED 2/15/99		COMPLETED 2/15/99
7. DEPTH DRILLED INTO ROCK 1'		16. ELEVATION TOP OF BORING -21.8' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A		
8. TOTAL DEPTH OF BORING 34.8'		18. SIGNATURE AND TITLE OF INSPECTOR Trap Puckette				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-21.8		0'	0': SILTY CLAY (OH), black, moist, semi-soft.						
			6': Firm.						
-33.8	12.0								

BOTTOM OF BOREHOLE AT -34.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NC-S-X-NORTH-99		LOCATION COORDINATES N 370785.228 E 2327105.23		10. SIZE AND TYPE OF BIT N/A
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic		12. TOTAL SAMPLES 0
4. NAME OF DRILLER T. Pickett		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 12'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 2/12/99 COMPLETED 2/12/99
7. DEPTH DRILLED INTO ROCK 9'		16. ELEVATION TOP OF BORING -12.3' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A
8. TOTAL DEPTH OF BORING 33.3'		18. SIGNATURE AND TITLE OF INSPECTOR Trap Puckette		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sam No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-12.3	0.3		0': SILT (OH), tan, wet, soft, "puff mud".						
			0.25': SILTY CLAY (OH), black, saturated, soft, "puff mud".						
			1.5': Moist, semi-soft.						
			3.5': Firm.						
-21.8	9.5		9.5': CLAYEY SILTY SAND (SM), fine to medium; black.						
-24.3	12.0								

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS	
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW	
LOCATION COORDINATES N 370785.228 E 2327105.23		ELEVATION TOP OF BORING -12.3'			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value

BOTTOM OF BOREHOLE AT -33.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NC-S-X-SOUTH-99		LOCATION COORDINATES N 370646.196 E 2327147.611		10. SIZE AND TYPE OF BIT N/A
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic		
4. NAME OF DRILLER T. Pickett		12. TOTAL SAMPLES 0	DISTURBED 0	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 12'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 6'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 30.8'		15. DATE BORING 2/12/99		STARTED 2/12/99
		16. ELEVATION TOP OF BORING -12.8' MLLW		COMPLETED 2/12/99
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Trap Puckette		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sam No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-12.8	0.3		0': (OH), tan, wet, soft, "puff mud".						
			0.25': SILTY CLAY (OH), black, saturated, soft, "puff mud".						
			1.5': Moist, semi-soft.						
			4.5': Firm.						
-24.3	11.5								
-24.8	12.0		11.5': CLAYEY SILTY SAND (SM), fine to medium; black.						

DRILLING LOG (Cont Sheet)	INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS
	PROJECT Charleston Harbor Entrance Channel Deepening	COORDINATE SYSTEM State Plane	HORIZONTAL : VERTICAL NAD83 : MLLW
LOCATION COORDINATES N 370646.196 E 2327147.611	ELEVATION TOP OF BORING -12.8'		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No. R.O.D. %	REMARKS	Blows/ 0.5 ft	N-Value
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BOTTOM OF BOREHOLE AT -30.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NCR-1-88		LOCATION COORDINATES N 380379.168 E 2317996.802		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 8
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 8
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 24'		14. ELEVATION GROUND WATER NA		15. DATE BORING 9/16/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -25.3' MLLW		STARTED 9/16/88
8. TOTAL DEPTH OF BORING 49.3'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 9/16/88
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-25.3		[Yellow diagonal lines]	0': CLAYEY SAND (SC), fine to medium; dark gray, wet, slightly calcareous.		1		USCS		0
					2			5	
				4.5': CLAYEY SAND, fine to medium; light greenish brown, moist, calcareous.		3			21
						18			
						21			
-34.3	9.0	[Green diagonal lines]	9': LEAN SILTY CLAY (CL), light greenish brown, moist, some sand, trace shell fragments, calcareous.		4			25	
-35.8	10.5	[Blue diagonal lines]	10.5': FAT CLAY (CH), light greenish brown, moist, calcareous.		5			22	
				12': Trace sand.				19	
							15		
-40.3	15.0	[Yellow diagonal lines]	15': CLAYEY SAND (SC), fine; light greenish brown, moist, calcareous.		6		20		
							27		
						7		27	
							31		
						8		18	

BOTTOM OF BOREHOLE AT -49.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 1 SHEETS
2. HOLE NUMBER NCR-10-89		LOCATION COORDINATES N 380016.0722 E 2317376.88		VERTICAL MLLW
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail		
4. NAME OF DRILLER C.D. Justiss		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
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 22.6'		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 6
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		UNDISTURBED 0
8. TOTAL DEPTH OF BORING 55'		15. DATE BORING 6/4/89		STARTED 6/4/89
		16. ELEVATION TOP OF BORING -32.4' MLLW		COMPLETED 6/4/89
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-32.4			0': LEAN CLAY (CL), light grayish green, moist, with shell fragments, some silt, calcareous.				USCS		0
				1	5				
					9				
					0				
				2	5				
					13				
-41.5	9.1		9.1': LEAN SAND (ML), olive green, with shell fragments, calcareous.						14
					18				
					19				
				4	16				
					16				
				5	13				
			12						
			10						
			14						
-55.0	22.6								

BOTTOM OF BOREHOLE AT -55.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NCR-11-89		LOCATION COORDINATES N 379846.2082 E 2318126.881		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 5	DISTURBED 5	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 26.6'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 54.8'		15. DATE BORING 5/21/89		STARTED 5/21/89
		COMPLETED 5/21/89		
		16. ELEVATION TOP OF BORING -28.2' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-28.2		Blue hatched pattern	0': FAT CLAY (CH), soft; dark gray, wet.				USCS		0
						1			2
									0
				9.9': Gray.		2			8
									5
								3	
			14.4': Dark gray, with organics.		3			1	
								8	
			17.4': Trace sand.					6	
-47.6	19.4	Green hatched pattern	19.4': SAND (ML), olive green, with shell fragments, calcareous.		4			26	
								20	
								13	
								15	
						5		14	

BOTTOM OF BOREHOLE AT -54.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NCR-12-89		LOCATION COORDINATES N 379409.1434 E 2317672.964		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 6	DISTURBED 6	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 22.8'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.8'		15. DATE BORING 5/22/89		STARTED 5/22/89
		COMPLETED 5/22/89		
		16. ELEVATION TOP OF BORING -33' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-33			0': CLAYEY LEAN SILT (ML), olive green, moist, calcareous.		1		USCS		0
									28
									21
									19
					2				14
									16
									13
					3				17
									18
			12.3': Trace sand.						15
					4				15
									15
									11
					5				13
									14
-55.8	22.8				6				14

BOTTOM OF BOREHOLE AT -55.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 1 SHEETS
2. HOLE NUMBER NCR-13-89		LOCATION COORDINATES N 379348.2455 E 2318247.954		VERTICAL MLLW
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail		
4. NAME OF DRILLER C.D. Justiss		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL	BEARING	---
6. THICKNESS OF OVERBURDEN 19.2'		12. TOTAL SAMPLES 4		DISTURBED 4
7. DEPTH DRILLED INTO ROCK 0'		13. TOTAL NUMBER CORE BOXES 0		UNDISTURBED 0
8. TOTAL DEPTH OF BORING 54.8'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/22/89
		16. ELEVATION TOP OF BORING -35.6' MLLW		STARTED 5/22/89
		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/22/89
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sam No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-35.6		FAT CLAY (CH)	0': FAT CLAY (CH), soft; dark gray.				USCS		0
						1			6
						2			9
						3			0
			14.7': Gray.						4
			16.2': With sand.						3
-53.3	17.7	LEAN SILT (ML)	17.7': LEAN SILT (ML), olive green, with shell fragments.						9
-54.8	19.2					4			

BOTTOM OF BOREHOLE AT -54.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NCR-14-90		LOCATION COORDINATES N 379865.1668 E 2317892.886		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 9	DISTURBED 9	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 15'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.9'		15. DATE BORING 1/18/90		STARTED 1/18/90
		COMPLETED 1/18/90		
		16. ELEVATION TOP OF BORING -40.9' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.9			0': CLAYEY SAND (SC), fine to medium; gray, with organics.		1		USCS NOTE: Wash return had large chunks of wood. Suspect driving through log on bottom of harbor. Wood was very wet and soft.		3
			3': SAND, fine; no organics, slightly calcareous.		2				1
			4.5': SAND, fine to medium; trace gravel, calcareous.		3				11
			5.2': CLAYEY SAND, fine; olive green, trace gravel, calcareous.		4				19
					5				16
					6				9
					7				10
					8				17
					9				21

BOTTOM OF BOREHOLE AT -55.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER NCR-15-90		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 9	DISTURBED 9
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 13.5'		14. ELEVATION GROUND WATER NA	
7. DEPTH DRILLED INTO ROCK 0'		15. DATE BORING 1/18/90	STARTED 1/18/90
8. TOTAL DEPTH OF BORING 55.6'		COMPLETED 1/18/90	
		16. ELEVATION TOP OF BORING -42.1' MLLW	
		17. TOTAL CORE RECOVERY FOR BORING N/A	
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-42.1		CLAYEY SAND (SC)	0': CLAYEY SAND (SC), fine; olive gray, calcareous.		1		USCS		3
					2				22
					3				23
					4				22
					5				17
					6				20
					7				14
					8				19
					9				10
-55.6	13.5								

BOTTOM OF BOREHOLE AT -55.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NCR-16-90		LOCATION COORDINATES N 381840.0116 E 2317377.596		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 11	DISTURBED 11	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 16.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.3'		15. DATE BORING STARTED 1/12/90 COMPLETED 1/12/90		
		16. ELEVATION TOP OF BORING -38.8' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR David Belville, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.8			0': FAT SANDY SILT (MH), fine; olive green.		1		USCS		11
					2				14
					3				16
					4				20
					5				14
					6				13
					7				12
					8				11
					9				13
					10				14
					11				14

BOTTOM OF BOREHOLE AT -55.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NCR-17-90		LOCATION COORDINATES N 382943.9615 E 2317305.426		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 9	DISTURBED 9	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 13.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 54.4'		15. DATE BORING 1/12/90		STARTED 1/12/90
		COMPLETED 1/12/90		
		16. ELEVATION TOP OF BORING -40.9' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR David Belville, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.9			0': FAT SANDY SILT (MH), fine; olive green.		1		USCS		6
					2				18
					3				15
					4				14
					5				12
					6				11
			9': FAT SILT, olive gray.		7				13
					8				11
					9				11

BOTTOM OF BOREHOLE AT -54.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NCR-2-88		LOCATION COORDINATES N 381908.0616 E 2317678.574		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 7	DISTURBED 7	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 24'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 50.1'		15. DATE BORING 9/15/88		STARTED 9/15/88
		16. ELEVATION TOP OF BORING -26.1' MLLW		COMPLETED 9/15/88
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-26.1			0': CLAYEY SAND (SC), fine to medium; dark gray, wet.		1		USCS		12
-27.6	1.5		1.5': LEAN SILTY CLAY (CL), light greenish brown, moist, some sand, calcareous.		2			24	
								17	
								22	
						3			31
									27
					4			20	
							20		
					5		23		
							27		
							33		
							36		
-45.6	19.5		19.5': CLAYEY SAND (SC), fine; light greenish brown, moist, calcareous.		6		22		
							18		
						7		16	

BOTTOM OF BOREHOLE AT -50.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NCR-3-88	LOCATION COORDINATES N 383034.0141 E 2317626.4		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 7	DISTURBED 7	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 27'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 51'		15. DATE BORING 9/19/88		STARTED 9/19/88 COMPLETED 9/19/88
		16. ELEVATION TOP OF BORING -24' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		



ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-24			0': CLAYEY SAND (SC), fine to medium; brown and dark gray, wet, slightly calcareous.		1		USCS		6
-25.5	1.5		1.5': LEAN SILTY CLAY (CL), light greenish brown, moist, some sand, calcareous.		2			31	
			4.5': Trace sand.					20	
								15	
			7.5': No sand.		3			27	
								26	
					4			26	
			12': Some sand.					18	
					5			19	
								25	
-43.5	19.5		19.5': CLAYEY SAND (SC), fine; light greenish brown, moist, calcareous.		6		18		
							19		
			24': Trace shell fragments.				20		
							22		
-49.5	25.5		25.5': LEAN SILTY CLAY (CL), light greenish brown, moist, some sand, trace shell fragments, calcareous.		7		14		
-51.0	27.0						18		

BOTTOM OF BOREHOLE AT -51.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NCR-4-89		LOCATION COORDINATES N 383411.8868 E 2316968.366		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 4	DISTURBED 4	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 14.6'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.4'		15. DATE BORING 5/16/89		STARTED 5/16/89
		COMPLETED 5/16/89		
		16. ELEVATION TOP OF BORING -40.8' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.8			0': FAT CLAY (CH), greenish gray.		1		USCS		12
-44.9	4.1		4.1': LEAN SILTY CLAY (CL), light greenish brown, some sand, calcareous.		2				26
									16
									15
					3				12
			10.1': Trace sand.						15
									15
					4				14
-55.4	14.6								

BOTTOM OF BOREHOLE AT -55.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NCR-5-89		LOCATION COORDINATES N 382619.9065 E 2316924.491		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 4	DISTURBED 4	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 15.3'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 54.8'		15. DATE BORING 5/16/89		STARTED 5/16/89
		COMPLETED 5/16/89		
		16. ELEVATION TOP OF BORING -39.5' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-39.5		0'	FAT CLAY (CH), greenish gray.		1		USCS		0
-44.3	4.8	4.8'	LEAN SILTY CLAY, light greenish brown, some sand, calcareous.		2				15
		9.3'	Trace sand.		3				15
		12'							12
		13'							13
		14'			4				12
		13'							13
		14'							14


-55.3 15.8

BOTTOM OF BOREHOLE AT -54.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NCR-6-89		LOCATION COORDINATES N 381602.0648 E 2317637.623		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 6
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 6
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 27.6'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/16/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -27' MLLW		STARTED 5/16/89
8. TOTAL DEPTH OF BORING 54.6'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/16/89
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-27			0': LEAN SILTY CLAY (CL), light greenish brown, some sand, calcareous.		1		USCS		15
			2.1': Trace sand.						14
						2			14
									27
									26
						3			20
									14
									16
				14.1': Some sand.					25
						4			24
									25
									25
			20.1': Trace sand.				20		
					5		18		
							14		
							15		
							19		
-54.6	27.6				6				

BOTTOM OF BOREHOLE AT -54.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NCR-7-89		LOCATION COORDINATES N 381345.9864 E 2317136.681		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 6	DISTURBED 6	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 23.3'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 54.9'		15. DATE BORING 5/18/89		STARTED 5/18/89
		COMPLETED 5/18/89		
		16. ELEVATION TOP OF BORING -31.6' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-31.6			0': CLAYEY SILT (ML), olive green, with shell fragments, and gravel, calcareous.				USCS		0
					1				14
									16
									15
					2				14
			6.8': Trace sand.						16
									14
					3				18
									19
									18
					4				14
									13
									15
					5				14
									13
									15
					6				15

BOTTOM OF BOREHOLE AT -54.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER NCR-8-89		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
LOCATION COORDINATES N 380816.1262 E 2317839.739		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		12. TOTAL SAMPLES 6	DISTURBED 6
4. NAME OF DRILLER C.D. Justiss		UNDISTURBED 0	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	
DEG FROM VERTICAL ---		14. ELEVATION GROUND WATER NA	
BEARING		15. DATE BORING 5/20/89	
6. THICKNESS OF OVERBURDEN 26.6'		STARTED 5/20/89	
7. DEPTH DRILLED INTO ROCK 0'		COMPLETED 5/20/89	
8. TOTAL DEPTH OF BORING 55.4'		16. ELEVATION TOP OF BORING -28.8' MLLW	
		17. TOTAL CORE RECOVERY FOR BORING N/A	
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.	

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-28.8			0': SAND (MH), olive green, calcareous.				USCS		0
					1				15
									18
									20
					2				22
									17
			8.5': With shell fragments.		3				16
									17
									16
					4				17
									23
									20
									24
					5				17
									15
									17
									14
					6				14

BOTTOM OF BOREHOLE AT -55.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NCR-9-89		LOCATION COORDINATES N 380459.0571 E 2317373.811		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 4	DISTURBED 4	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 17.9'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.8'		15. DATE BORING 6/5/89		STARTED 6/5/89
		COMPLETED 6/5/89		
		16. ELEVATION TOP OF BORING -37.9' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.9			0': LEAN SILT (ML), moist, some sand, calcareous.				USCS		0
					1				21
									21
									16
					2				25
									14
									13
					3				11
			13.5': With shell fragments.						12
									11
					4				11
-55.8	17.9								

BOTTOM OF BOREHOLE AT -55.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 1 SHEETS 1
2. HOLE NUMBER NWS-1-96		LOCATION COORDINATES N 401650 E 2325400		VERTICAL MLLW
3. DRILLING AGENCY U.S. Corps of Engineers - Charleston District		10. SIZE AND TYPE OF BIT 2.5" Drag Bit		
4. NAME OF DRILLER B. Wilson		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	12. TOTAL SAMPLES 10
6. THICKNESS OF OVERBURDEN 15'		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 10
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		UNDISTURBED 0
8. TOTAL DEPTH OF BORING 57'		15. DATE BORING 3/1/96		STARTED 3/1/96
		16. ELEVATION TOP OF BORING -42' MLLW		COMPLETED 3/1/96
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		



ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-42			0': SANDY CLAYEY SILT (ML), gray.		1		USCS	0	0
					2			1	2
					3			1	3
-46.0	4.0		4': CLAYEY SILTY SAND (SM), fine; gray.		4			2	3
					5			1	5
			7': SILTY SAND, gray.		6			3	7
					7			1	5
					8			2	8
					9			4	6
					10			3	6
								2	9
-57.0	15.0							5	9
								4	

BOTTOM OF BOREHOLE AT -57.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NWS-2-96		LOCATION COORDINATES N 401090 E 2326090		10. SIZE AND TYPE OF BIT 2.5" Drag Bit
3. DRILLING AGENCY U.S. Corps of Engineers - Charleston District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		12. TOTAL SAMPLES 9
4. NAME OF DRILLER B. Wilson		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 9
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 15'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 2/29/96 COMPLETED 2/29/96
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -42.1' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A
8. TOTAL DEPTH OF BORING 57.1'		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-42.1			0': CLAY (CL), dark gray.		1		USCS	0	0
			3': SILTY CLAY, dark green, with gravel.		2			1	3
			6.5': SANDY CLAY, gray.		3			2	1
			8': SILTY SANDY CLAY, gray.		4			1	2
			10.5': SILTY CLAYEY SAND (SM), fine; gray, sand clay lenses.		5			2	5
					6			3	4
					7			2	5
-52.6	10.5				8			1	5
					9			2	7
								5	
-57.1	15.0								

BOTTOM OF BOREHOLE AT -57.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NWS-2-99		LOCATION COORDINATES N 392976.904 E 2327495.415		10. SIZE AND TYPE OF BIT N/A
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic		
4. NAME OF DRILLER T. Pickett		12. TOTAL SAMPLES 0		DISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 6'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 1'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 41'		15. DATE BORING 6/14/99		STARTED 6/14/99
		16. ELEVATION TOP OF BORING -34' MLLW		COMPLETED 6/14/99
		17. TOTAL CORE RECOVERY FOR BORING N/A		
18. SIGNATURE AND TITLE OF INSPECTOR Trap Puckette				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-34		0'	0': SILTY CLAY (OH), black to gray, saturated, "puff mud".						
		2'	2': Moist.						
-38.0	4.0	4'	4': SILTY SAND (SM), brown, with silt, firm.						
-40.0	6.0								

BOTTOM OF BOREHOLE AT -41.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NWS-3-96		LOCATION COORDINATES N 402340 E 2325490		10. SIZE AND TYPE OF BIT 2.5" Drag Bit
3. DRILLING AGENCY U.S. Corps of Engineers - Charleston District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		
4. NAME OF DRILLER B. Wilson		12. TOTAL SAMPLES 10	DISTURBED 10	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 15'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.2'		15. DATE BORING STARTED 3/2/96 COMPLETED 3/2/96		
		16. ELEVATION TOP OF BORING -40.2' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.2			0': SILT, dark gray.		1		USCS	0	0
			2': CLAYEY SANDY SILT, gray.		2			0	1
			4': SILTY CLAYEY SAND, gray, with clay lenses.		3			1	2
					4			2	6
					5			3	4
					6			2	8
					7			4	6
					8			3	7
					9			2	9
					10			6	7
-55.2	15.0							3	7
								4	

BOTTOM OF BOREHOLE AT -55.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NWS-3-99		LOCATION COORDINATES N 396393.461 E 2328334.705		10. SIZE AND TYPE OF BIT N/A
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic		
4. NAME OF DRILLER T. Pickett		12. TOTAL SAMPLES 0		DISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 1'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 40.4'		15. DATE BORING 6/15/99		STARTED 6/15/99
		16. ELEVATION TOP OF BORING -34.4' MLLW		COMPLETED 6/15/99
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Trap Puckette		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-34.4		0' 2' 4'	0': SILTY CLAY (OH), black to brown, saturated, "puff mud".						
			2': Moist.						
			4': SILTY CLAY, with sand, firm.						
-39.4	5.0								

BOTTOM OF BOREHOLE AT -40.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 1 SHEETS
2. HOLE NUMBER NWS-4-96		LOCATION COORDINATES N 402025 E 2326070		VERTICAL MLLW
3. DRILLING AGENCY U.S. Corps of Engineers - Charleston District		10. SIZE AND TYPE OF BIT 2.5" Drag Bit		
4. NAME OF DRILLER B. Wilson		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL	BEARING	12. TOTAL SAMPLES 11
6. THICKNESS OF OVERBURDEN 18'		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 11
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		UNDISTURBED 0
8. TOTAL DEPTH OF BORING 57.7'		15. DATE BORING 2/28/96		STARTED 2/28/96
		16. ELEVATION TOP OF BORING -39.7' MLLW		COMPLETED 2/28/96
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-39.7			0': SILT (OL), soft.		1		USCS	0	0
-42.2	2.5		2.5': SILTY CLAYEY SAND (SM), gray.		2			0	1
-44.7	5.0		5': SILTY SANDY CLAY (CL), fine; gray.		3			1	2
-47.2	7.5		7.5': SILTY CLAYEY SAND (SM), gray, with clay seams.		4			1	3
					5			2	4
					6			2	4
					7			2	8
					8			1	6
					9			2	7
					10			4	8
					11			2	9
								4	
								5	
-57.7	18.0								

BOTTOM OF BOREHOLE AT -57.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NWS-4-99		LOCATION COORDINATES N 395513.663 E 2328282.439		10. SIZE AND TYPE OF BIT N/A
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic		
4. NAME OF DRILLER T. Pickett		12. TOTAL SAMPLES 0		DISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 1'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 40.8'		15. DATE BORING 6/15/99		STARTED 6/15/99
		COMPLETED 6/15/99		
		16. ELEVATION TOP OF BORING -34.8' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Trap Puckette		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-34.8		0'	0': SILTY CLAY (OH), black to dark gray, wet, "puff mud".						
			2': Moist.						
			4': Black, firm.						
-39.8	5.0								

BOTTOM OF BOREHOLE AT -40.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NWS-5-96		LOCATION COORDINATES N 402850 E 2325930		10. SIZE AND TYPE OF BIT 2.5" Drag Bit
3. DRILLING AGENCY U.S. Corps of Engineers - Charleston District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		
4. NAME OF DRILLER B. Wilson		12. TOTAL SAMPLES 10	DISTURBED 10	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 15'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.9'		15. DATE BORING STARTED 3/5/96 COMPLETED 3/5/96		
		16. ELEVATION TOP OF BORING -40.9' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.9		[Green Hatched]	0': CLAYEY SILT, black.		1		USCS	0	0
-43.4	2.5				2			0	
		[Green Hatched]	2.5': SILTY SANDY CLAY (CL), gray.		3		1	1	
					4		1		
					5		1		
					6		3		
		[Yellow Dotted]	7.5': CLAYEY SAND (SM), gray.		7		3	2	
					8		2		
					9		4		
					10		4		
							2		
							5		
							3		
							8		
-48.4	7.5						2	4	
							2		
							3	5	
							2		
							4	8	
							4		
							2	11	
							5		
							6	11	
							3		
							3	11	
							8		
							2	8	
							3		
-55.9	15.0						5	8	

BOTTOM OF BOREHOLE AT -55.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NWS-5-99		LOCATION COORDINATES N 402350.549 E 2326217.402		10. SIZE AND TYPE OF BIT N/A
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic		
4. NAME OF DRILLER T. Pickett		12. TOTAL SAMPLES 0		DISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 1'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 41.6'		15. DATE BORING 6/15/99		STARTED 6/15/99
		COMPLETED 6/15/99		
		16. ELEVATION TOP OF BORING -35.6' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Trap Puckette		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-35.6		5.0	0': SILTY CLAY (OH), black to gray, saturated, "puff mud".						
			2': Black, moist.						
			4': With shell fragments.						
-40.6	5.0								

BOTTOM OF BOREHOLE AT -41.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 1 SHEETS
2. HOLE NUMBER NWS-6-96		LOCATION COORDINATES N 401890 E 2326740		VERTICAL MLLW
3. DRILLING AGENCY U.S. Corps of Engineers - Charleston District		10. SIZE AND TYPE OF BIT 2.5" Drag Bit		
4. NAME OF DRILLER B. Wilson		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 15'		12. TOTAL SAMPLES 10		DISTURBED 10
7. DEPTH DRILLED INTO ROCK 0'		13. TOTAL NUMBER CORE BOXES 0		UNDISTURBED 0
8. TOTAL DEPTH OF BORING 52.7'		14. ELEVATION GROUND WATER NA		
		15. DATE BORING 3/2/96		STARTED 3/2/96
		16. ELEVATION TOP OF BORING -37.7' MLLW		COMPLETED 3/2/96
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.7			0': SILTY CLAYEY SAND (SM), fine; dark gray.		1		USCS	0	0
-40.2	2.5		2.5': SILTY CLAY (CL), gray.		2			1	1
					3			0	1
					4			1	4
					5			2	3
					6			2	4
					7			2	5
			9': SILTY SANDY CLAY, gray.		8			1	8
					9			3	4
					10			2	9
-49.7	12.0		12': SILTY SAND, gray, with clay seams.					4	
								1	
								3	
								4	
-52.7	15.0							4	
								5	

BOTTOM OF BOREHOLE AT -52.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER NWS-6-99		10. SIZE AND TYPE OF BIT N/A	
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic	
4. NAME OF DRILLER T. Pickett		12. TOTAL SAMPLES 0	DISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	
6. THICKNESS OF OVERBURDEN 7'		14. ELEVATION GROUND WATER NA	
7. DEPTH DRILLED INTO ROCK 1'		15. DATE BORING STARTED 6/16/99 COMPLETED 6/16/99	
8. TOTAL DEPTH OF BORING 41.5'		16. ELEVATION TOP OF BORING -33.5' MLLW	
		17. TOTAL CORE RECOVERY FOR BORING N/A	
18. SIGNATURE AND TITLE OF INSPECTOR Trap Puckette			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-33.5		[Hatched Legend Box]	0': SILTY CLAY (OH), black to gray, wet, "puff mud".						
			2': Moist.						
			4': Black, firm.						
-40.5	7.0								

BOTTOM OF BOREHOLE AT -41.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 1 SHEETS 1
2. HOLE NUMBER NWS-7-96		10. SIZE AND TYPE OF BIT 2.5" Drag Bit		VERTICAL MLLW
3. DRILLING AGENCY U.S. Corps of Engineers - Charleston District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		
4. NAME OF DRILLER B. Wilson		12. TOTAL SAMPLES 10		DISTURBED 10
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0		UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 15'		14. ELEVATION GROUND WATER NA		
7. DEPTH DRILLED INTO ROCK 0'		15. DATE BORING 2/29/96		STARTED 2/29/96
8. TOTAL DEPTH OF BORING 56.8'		16. ELEVATION TOP OF BORING -41.8' MLLW		COMPLETED 2/29/96
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.8			0': SILTY CLAY (CL), dark.		1		USCS	0	1
-43.8	2.0		2': CLAYEY SILTY SAND, gray.		2			1	2
					3			1	3
					4			2	5
					5			1	4
-49.3	7.5		7.5': SANDY CLAY (CL), gray.		6			3	8
					7			2	5
					8			4	8
					9			3	5
					10			2	7
-56.8	15.0							4	

BOTTOM OF BOREHOLE AT -56.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NWS-7-99		LOCATION COORDINATES N 403035.418 E 2326772.826		10. SIZE AND TYPE OF BIT N/A
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic		
4. NAME OF DRILLER T. Pickett		12. TOTAL SAMPLES 0		DISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 6'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 2'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 39.8'		15. DATE BORING 6/16/99		STARTED 6/16/99
		16. ELEVATION TOP OF BORING -31.8' MLLW		COMPLETED 6/16/99
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Trap Puckette		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
-31.8		0'	0': SILTY CLAY (OH), black to gray, saturated, "puff mud".						
			2': Moist.						
-35.8	4.0	4'	4': SILTY SAND (SM), gray to tannish black, with silt strata or lenses.						
-37.8	6.0								

BOTTOM OF BOREHOLE AT -39.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 1 SHEETS
2. HOLE NUMBER NWS-8-96		LOCATION COORDINATES N 403620 E 2326800		VERTICAL MLLW
3. DRILLING AGENCY U.S. Corps of Engineers - Charleston District		10. SIZE AND TYPE OF BIT 2.5" Drag Bit		
4. NAME OF DRILLER B. Wilson		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 15'		12. TOTAL SAMPLES 10		DISTURBED 10
7. DEPTH DRILLED INTO ROCK 0'		13. TOTAL NUMBER CORE BOXES 0		UNDISTURBED 0
8. TOTAL DEPTH OF BORING 52'		14. ELEVATION GROUND WATER NA		
		15. DATE BORING 3/3/96		STARTED 3/3/96
		16. ELEVATION TOP OF BORING -37' MLLW		COMPLETED 3/3/96
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-37			0': CLAYEY SILT (OL), soft; dark.		1		USCS	0	0
-39.0	2.0		2': CLAYEY SAND (SC), gray, with shells.		2			0	0
					3			0	
					4			1	2
					5			1	
					6			1	1
					7			0	
					8			1	
					9			2	4
					10			2	
								6	14
								8	
								3	11
								4	
								7	7
								4	
								2	
								3	6
								3	
								1	
-52.0	15.0							4	9
								5	

BOTTOM OF BOREHOLE AT -52.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NWS-8-99		LOCATION COORDINATES N 403232.578 E 2328248.552		10. SIZE AND TYPE OF BIT N/A
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic		
4. NAME OF DRILLER T. Pickett		12. TOTAL SAMPLES 0		DISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 3'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 1'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 40.3'		15. DATE BORING 6/16/99		STARTED 6/16/99
		COMPLETED 6/16/99		
		16. ELEVATION TOP OF BORING -36.3' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Trap Puckette		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-36.3		0'	0': SILTY CLAY (OH), black, saturated, "puff mud".						
			1.5': Moist.						
-39.3	3.0								

BOTTOM OF BOREHOLE AT -40.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 1 SHEETS 1
2. HOLE NUMBER NWS-9-96		LOCATION COORDINATES N 402565 E 2327490		VERTICAL MLLW
3. DRILLING AGENCY U.S. Corps of Engineers - Charleston District		10. SIZE AND TYPE OF BIT 2.5" Drag Bit		
4. NAME OF DRILLER B. Wilson		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 15'		12. TOTAL SAMPLES 10		DISTURBED 10
7. DEPTH DRILLED INTO ROCK 0'		13. TOTAL NUMBER CORE BOXES 0		UNDISTURBED 0
8. TOTAL DEPTH OF BORING 56.5'		14. ELEVATION GROUND WATER NA		
		15. DATE BORING 3/2/96		STARTED 3/2/96
		16. ELEVATION TOP OF BORING -41.5' MLLW		COMPLETED 3/2/96
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		




ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.5			0': SANDY CLAY (CL), dark gray.		1		USCS	1	0
			2.5': SILTY SANDY CLAY, dark gray.		2			1	2
					3			1	2
					4			1	3
					5			2	4
					6			2	4
					7			2	5
					8			2	5
					9			2	5
					10			2	6
-56.5	15.0							3	

BOTTOM OF BOREHOLE AT -56.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NYR-1-88		LOCATION COORDINATES N 377526.4698 E 2319201.2086		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 3	DISTURBED 3	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 17.3'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.5'		15. DATE BORING 9/23/88		STARTED 9/23/88
		COMPLETED 9/23/88		
		16. ELEVATION TOP OF BORING -38.2' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.2			0': FAT CLAY (CH), dark gray to gray, wet, calcareous.		1		USCS NOTE: Weight of rods drove splitspoon from 38.2' to 48.0' and from 48.0' to 52.0'		0
			9.8': Gray.		2				4
-52.5	14.3		14.3': (FISHTAILED) see remarks.				May have encountered SC material while fishtail drilling between 53.0' and 53.5'.		NA
-54.0	15.8		15.8': CLAYEY FINE SAND (SC), light greenish brown, moist, trace shell fragments, calcareous.		3				14
-55.5	17.3		BOTTOM OF BOREHOLE AT -55.5 ft						
							NOTE: Soils visually field classified in accordance with the Unified Soil Classification System	BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".	

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NYR-2-88	LOCATION COORDINATES N 378645.1907 E 2317803.0791		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 8	DISTURBED 8	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 30'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 50.6'		15. DATE BORING 9/23/88		STARTED 9/23/88 COMPLETED 9/23/88
		16. ELEVATION TOP OF BORING -20.6' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-20.6	0.7		0': CLAYEY GRAVEL (GC), fine to coarse; dark greenish gray, wet, some fine to medium sand, and shell fragments, calcareous.		1		USCS		0
			0.7': SILTY LEAN CLAY (CL), fine; light greenish brown, moist, some fine sand, calcareous.		2			28	
			3': Trace sand.					10	
								10	
					3			13	
								10	
			9': Some fine sand.					24	
			10.5': Trace shell fragments.		4			17	
							20		
			13.5': Trace shell fragments.				25		
					5		23		
							22		
							19		
			19.5': Some fine sand.		6		14		
							14		
-44.6	24.0		24': FINE SAND (SC), light greenish brown, moist, calcareous.		7		21		
							24		
							20		
-49.1	28.5		28.5': SILTY LEAN CLAY (CL), light greenish brown, moist, some fine sand, trace shell fragments, calcareous.		8		15		
-50.6	30.0								

BOTTOM OF BOREHOLE AT -50.6 ft


NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NYR-3-88		LOCATION COORDINATES N 376412.6199 E 2319861.363		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 3
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 45'		14. ELEVATION GROUND WATER NA		15. DATE BORING 9/23/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -34.8' MLLW		STARTED 9/23/88
8. TOTAL DEPTH OF BORING 79.8'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 9/23/88
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-34.8		(CH)	0': (CH), fine; dark gray to gray, wet, Slightly calcareous.		1		USCS		0
			10.8': Gray.		2				0
-47.6	12.8		12.8': Moist.						9
-50.1	15.3		15.3': Fishtailed from 50.1' to 78.3'						18

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS	
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW	
LOCATION COORDINATES N 376412.6199 E 2319861.363		ELEVATION TOP OF BORING -34.8'			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
			15.3': Fishtailed from 50.1' to 78.3' (continued)						
-78.3	43.5								
-79.8	45.0		43.5': (CH), fine; greenish gray, moist, Moderate calcareous to calcareous.		3				3

BOTTOM OF BOREHOLE AT -79.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NYR-4-88		LOCATION COORDINATES N 375607.7758 E 2320610.467		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 8	DISTURBED 8	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 18'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 51.1'		15. DATE BORING 9/24/88		STARTED 9/24/88
		COMPLETED 9/24/88		
		16. ELEVATION TOP OF BORING -33.1' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		


ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-33.1		Blue diagonal hatching	0': FAT CLAY (CH), gray, wet, some sand, trace shell fragments, slightly calcareous.		1		USCS		0
			6': No sand or shells.		2			4	
-40.6	7.5	Yellow diagonal hatching	7.5': CLAYEY SAND (SC), fine to medium; gray, wet, some shell fragments, slightly calcareous.		3				15
			9': SAND, medium to coarse.		4			9	
-43.6	10.5	Blue diagonal hatching	10.5': FAT CLAY (CH), greenish gray, moist, calcareous.		5				13
						6			14
						7			15
									16
									15

BOTTOM OF BOREHOLE AT -51.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NYR-5-88		LOCATION COORDINATES N 377946.2766 E 2318169.176		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 4
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 13.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 9/24/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -36.7' MLLW		STARTED 9/24/88
8. TOTAL DEPTH OF BORING 50.2'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 9/24/88
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-36.7			0': FAT CLAY (CH), dark gray to black, wet, slightly calcareous.		1		USCS		0
-41.7	5.0		5': LEAN SILTY CLAY (CL), light greenish brown, moist, some sand, calcareous.		2				0
					3				18
					4				34
									28
									31
-50.2	13.5								14

BOTTOM OF BOREHOLE AT -50.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NYR-6-90	LOCATION COORDINATES N 376804.4122 E 2318742.337		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 9
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 9
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 13.5'		14. ELEVATION GROUND WATER NA		UNDISTURBED 0
7. DEPTH DRILLED INTO ROCK 0'		15. DATE BORING 1/17/90		STARTED 1/17/90
8. TOTAL DEPTH OF BORING 55.1'		16. ELEVATION TOP OF BORING -41.6' MLLW		COMPLETED 1/17/90
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.6			0': CLAYEY SAND (SC), fine; gray to greenish gray, calcareous.		1		USCS		7
			1.5': Slight sulfur odor.		2			8	
			4.5': No sulfur odor.		3			9	
					4			9	
					5			10	
					6			10	
					7			13	
					8			20	
					9			16	
-55.1	13.5								

BOTTOM OF BOREHOLE AT -55.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NYR-7-90		LOCATION COORDINATES N 378237.2252 E 2317927.139		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 9	DISTURBED 9	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 23.2'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.8'		15. DATE BORING 1/17/90		STARTED 1/17/90
		16. ELEVATION TOP OF BORING -32.6' MLLW		COMPLETED 1/17/90
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-32.6			0': CLAYEY SILT (MH), dark gray to black.		1		USCS NOTE: Material change at last part of first drive from 43.6' to 43.8'. Sample #1 from 32.6' to 43.6'.		0
-43.6	11.0		11': CLAYEY SAND (SC), fine; olive green, calcareous.		2				15
					3				16
					4				20
					5				15
					6				17
					7				14
					8				12
					9				10

BOTTOM OF BOREHOLE AT -55.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NYR-8-90		LOCATION COORDINATES N 378565.3358 E 2318622.065		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 9	DISTURBED 9	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 23.1'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.3'		15. DATE BORING 1/17/90		STARTED 1/17/90
		16. ELEVATION TOP OF BORING -32.2' MLLW		COMPLETED 1/17/90
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		


ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-32.3			0': CLAYEY SILT (MH), dark gray to black, trace sand, and shell fragments.		1		USCS NOTE: Most of Sample #1 taken from material found on outside of drill rod. Sample #2 taken from inside of splitspoon at change of material from 45.4' to 46.4'. The second drive from 46.4' to 47.9' had change of material at 46.4' to 46.9', Sample #3, & from 46.9' to 47.9', Sample #4.		0
-45.3	13.1				2				0
-46.3	14.1		13.1': FAT CLAY (CH), dark gray to greenish gray, trace sand.		3				0
-47.1	14.9		14.1': SAND (SP), fine; tannish gray, Poorly Graded, trace silt.		4				17
			14.9': CLAYEY SAND (SC), fine; olive green, calcareous.		5				22
					6				14
					7				11
					8				12
					9				11

BOTTOM OF BOREHOLE AT -55.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NYR-9-94	LOCATION COORDINATES N 375955.1012 E 2320008.739		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 6	DISTURBED 6	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 23.2'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 69.9'		15. DATE BORING 8/21/94		STARTED 8/21/94 COMPLETED 8/21/94
		16. ELEVATION TOP OF BORING -46.7' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-46.7			0': FAT CLAY (CH), dark olive gray, trace sand.		1		USCS		0
			3.3': FAT CLAY, dark gray, no sand.		2				0
			6.2': Gray.		3				0
			8.2': Calcareous.		4				10
					5				14
					6				13
								13	11
								13	18
								13	15
								16	16
								18	18
-69.9	23.2								

BOTTOM OF BOREHOLE AT -69.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER OR-1-88		LOCATION COORDINATES N 392594.4414 E 2322097.71		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 10
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 10
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 36.7'		14. ELEVATION GROUND WATER NA		15. DATE BORING 2/2/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -34.4' MLLW		STARTED 2/2/88
8. TOTAL DEPTH OF BORING 71.1'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 2/2/88
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-34.4			0': FAT CLAYEY SILT (MH), dark gray, wet, trace sand.		1		USCS		0
-40.6	6.2		6.2': FAT CLAY (CH), greenish gray, wet, some sand.		2				6
-42.1	7.7		7.7': SILTY SAND (SM), fine to medium; greenish gray, wet, trace clay.		3				16
-45.1	10.7		10.7': CLAYEY SAND (SC), fine to medium; greenish gray, wet.		4				8
-46.6	12.2		12.2': FAT CLAY (CH), greenish gray, moist, trace sand, slightly calcareous.		5				6
-49.6	15.2		15.2': CLAYEY SAND (SC), fine; greenish gray, moist, some clay, slightly calcareous.		6				9
					7				8
					8				8
					9				13
					10				5
-55.6	21.2		21.2': Washed w/ fishtail to 71.1'. Wash return to 71.1' contained fat clay. Wash return at 71.1' contained small particles of yellowish-brown, sandy, silty, lean clay.				Fishtailed from 55.6' to 71.1'		17
			25.5': Wet.						
			28.5': Moist.						
-71.1	36.7								

BOTTOM OF BOREHOLE AT -71.1 ft

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER OR-10-88		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 0	DISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	
DEG FROM VERTICAL ---		14. ELEVATION GROUND WATER NA	
BEARING		15. DATE BORING 2/4/88	
6. THICKNESS OF OVERBURDEN 11.7'		STARTED 2/4/88	
7. DEPTH DRILLED INTO ROCK 0'		COMPLETED 2/4/88	
8. TOTAL DEPTH OF BORING 38.8'		16. ELEVATION TOP OF BORING -27.1' MLLW	
		17. TOTAL CORE RECOVERY FOR BORING N/A	
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.	

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-27.1			0': Washed w/ fishtail to 65.9'. Wash return from 27.1' to 65.9' contained greenish-grey, fat clay w/ occasional return of very fine to fine sand. At 65.9', wash return began with trace of small shell fragments then with small particles of yellowish-brown, sandy, lean clay.						
-38.8	11.7								

BOTTOM OF BOREHOLE AT -38.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER OR-2-88		LOCATION COORDINATES N 391739.528 E 2322396.833		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 15	DISTURBED 15	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 26.8'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 51.7'		15. DATE BORING 2/3/88		STARTED 2/3/88
		COMPLETED 2/3/88		
		16. ELEVATION TOP OF BORING -24.9' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-24.9			0': SILTY SAND (SM), fine to medium; tannish gray, wet, trace shells, and clay.		1		USCS		0
-26.2	1.3		1.3': CLAYEY SAND (SC), fine; dark gray, wet.		2			6	
			2.8': SAND, fine; greenish gray.		3			0 2	
			5.8': Moist, slightly calcareous.		4			0 7	
			8.8': Trace shells.		5			4	
			10.3': No shells.		6			3	
			11.8': Some thick clay layers.		7			4 3	
-39.7	14.8		14.8': FAT CLAY (CH), greenish gray, moist, some sand.		8			5	
			16.3': Occasional very thin lenses & laminae of very fine to fine sand.		9			7	
			17.8': Trace sand.		10			6	
-44.2	19.3		19.3': SILTY SAND (SC), fine; greenish gray, moist.		11			2	
			21.8': SAND, fine to medium; trace shell fragments, slightly calcareous.		12			5	
			23.3': Trace gravel.		13			0 13	
-49.8	24.9		24.9': LEAN SILTY CLAY (CL), yellowish brown, some sand, calcareous.		14				
-51.7	26.8				15			23	

BOTTOM OF BOREHOLE AT -51.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER OR-3-88		LOCATION COORDINATES N 391266.3514 E 2321287.957		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 9	DISTURBED 9	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 49'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 78.4'		15. DATE BORING 2/3/88		STARTED 2/3/88
		COMPLETED 2/3/88		
		16. ELEVATION TOP OF BORING -29.4' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-29.4			0': CLAYEY SILT (MH), dark gray to black, wet.				USCS		
					1				0
-43.5	14.1		14.1': CC FAT CLAY (CH), greenish gray, moist, slightly calcareous.		2				7
			15.6': With shell fragments.		3				8
-46.5	17.1		17.1': CLAYEY SAND (SC), fine; greenish gray, trace shell fragments, several thick, clay layers. Slightly calcareous..		4				3
					5				8
					6				3
					7				3
					8				5
					9				12
-55.5	26.1						Fishtailed from 55.5' to 78.4'.		

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS	
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW	
LOCATION COORDINATES N 391266.3514 E 2321287.957		ELEVATION TOP OF BORING -29.4'			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
-78.4	49.0		26.1': Washed w/ fishtail to 78.4'. Wash return to 78.4' contained fat clay & clayey sand. Wash at 78.4' contained small particles of yellowish-brown, sandy, silty, lean clay. (continued)						

BOTTOM OF BOREHOLE AT -78.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER OR-8-88		LOCATION COORDINATES N 392606.5187 E 2322538.688		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 3	DISTURBED 3	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 9.8'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 43.5'		15. DATE BORING 2/4/88		STARTED 2/4/88
		COMPLETED 2/4/88		
		16. ELEVATION TOP OF BORING -33.7' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-33.7		0'	0': CLAYEY SAND (MH), dark gray to black, some sand, slightly calcareous.		1		USCS		0
-41.3	7.6	7.6'	7.6': FAT CLAY (CH), greenish gray, moist.		2				0
-41.8	8.1	8.1'	8.1': CLAYEY SAND (SC), fine; yellowish brown, dry, some silt.		3				43
-43.5	9.8	9.8'							

BOTTOM OF BOREHOLE AT -43.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER OR-8-88A		LOCATION COORDINATES N 392595.519 E 2322537.69		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 12	DISTURBED 12	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 22'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 58.4'		15. DATE BORING 2/5/88		STARTED 2/5/88
		16. ELEVATION TOP OF BORING -36.4' MLLW		COMPLETED 2/5/88
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		




ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-36.4			0': CLAYEY SILT (MH), dark gray to black, wet, trace sand, slightly calcareous.		1		USCS		0
-42.7	6.3				2				0
-43.2	6.8		6.3': FAT CLAY (CH), greenish gray, moist, slightly calcareous.		3				31
-44.9	8.5		6.8': CLAYEY SAND (SC), fine; yellowish brown, moist, some silt, trace shells, calcareous.		4				38
			8.5': LEAN SILTY CLAY (CL), yellowish brown, moist, some sand, calcareous.		5				25
			11.5': Some sand.		6				20
			14.5': Trace shells.		7				26
			17.5': Trace sand.		8				22
					9				25
					10				40
					11				29
-58.4	22.0				12				54

BOTTOM OF BOREHOLE AT -58.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER PT-10-88		LOCATION COORDINATES N 392793.3905 E 2321853.689		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 2	DISTURBED 2	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 23'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 63.5'		15. DATE BORING 10/6/88		STARTED 10/6/88
		COMPLETED 10/6/88		
		16. ELEVATION TOP OF BORING -40.5' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.5			0': FAT SANDY CLAY (CH), dark gray, wet.				USCS		
			1.5': With shell fragments.				Wash cuttings: Dark grey chunks of very fat, slightly sandy w/ shell fragments just before hitting CL; increased sand content just above CL.		0
									1
									2
						2			11
-51.0	10.5		10.5': Fishtailed						0
									8
-62.0	21.5		21.5': LEAN CLAY (CL), olive green, with gravel, and shell fragments, calcareous.						
-63.5	23.0					3			61

BOTTOM OF BOREHOLE AT -63.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 1 SHEETS
2. HOLE NUMBER PT-11-88		LOCATION COORDINATES N 392247.4082 E 2321830.777		VERTICAL MLLW
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail		
4. NAME OF DRILLER C.D. Justiss		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL	BEARING	12. TOTAL SAMPLES 3
6. THICKNESS OF OVERBURDEN 33.3'		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		UNDISTURBED 0
8. TOTAL DEPTH OF BORING 68.4'		15. DATE BORING 10/6/88		STARTED 10/6/88
		16. ELEVATION TOP OF BORING -35.1' MLLW		COMPLETED 10/6/88
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-35.1		0'	0': FAT CLAY (CH), dark gray, wet, with sand.		1		USCS		0
									8
									10
					2				4
									7
									5
-50.1	15.0	15'	15': Fishtailed from 50.1' to 66.9'						
-66.9	31.8	31.8'	31.8': LEAN SILTY CLAY (CL), olive green, with gravel, calcareous.		3				27
-68.4	33.3	33.3'							

BOTTOM OF BOREHOLE AT -68.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER PT-12-89		LOCATION COORDINATES N 392239.2879 E 2321144.809		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 4
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 13.8'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/11/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -42' MLLW		STARTED 5/11/89
8. TOTAL DEPTH OF BORING 55.8'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/11/89
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-42		LEGEND	0': FAT CLAY (CH), dark gray to greenish black, trace sand, slightly calcareous.		1		USCS		0
			3.3': Grayish green.		2				9
			4.8': Some sand.						2
									17
					3				0
									19
					4				2
									17
-55.8	13.8								

BOTTOM OF BOREHOLE AT -55.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER PT-13-89		LOCATION COORDINATES N 391533.187 E 2320410.953		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 4
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 13.1'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/13/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41.6' MLLW		STARTED 5/13/89
8. TOTAL DEPTH OF BORING 54.7'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/13/89
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.6			0': CLAYEY SILT (MH), dark gray to black, trace sand.		1		USCS		0
-48.2	6.6		6.6': FAT CLAY (CH), grayish green, trace sand, slightly calcareous.		2				0
			8.6': With shell fragments, and sand.		3				0 9
			10.1': Occasional thin lenses.		4				2 9
-54.7	13.1								

BOTTOM OF BOREHOLE AT -54.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division		INSTALLATION Charleston Harbor		SHEET 1 OF 1 SHEETS	
		1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW	
2. HOLE NUMBER PT-14-89		LOCATION COORDINATES N 389792.9967 E 2318937.29		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail			
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314					
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 5		DISTURBED 5		UNDISTURBED 0	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING		13. TOTAL NUMBER CORE BOXES 0	
6. THICKNESS OF OVERBURDEN 12'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/13/89		STARTED 5/13/89	
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -42.8' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/13/89	
8. TOTAL DEPTH OF BORING 54.8'		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.					

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-42.8		CL	0': LEAN SILTY CLAY (CL), light greenish brown, some sand, calcareous.		1		USCS		0 20
-48.8	6.0	SC	6': CLAYEY SAND (SC), fine; light greenish brown, calcareous.		3				19 25
-51.8	9.0	CL	9': LEAN SILTY CLAY (CL), light greenish brown, some sand, calcareous.		4				24
-53.3	10.5	SC	10.5': CLAYEY SAND (SC), fine; light greenish brown, calcareous.		5				20
-54.8	12.0	CL							26

BOTTOM OF BOREHOLE AT -54.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER PT-15-89		LOCATION COORDINATES N 389792.9967 E 2318937.29		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 4
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 13.9'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/12/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -42' MLLW		STARTED 5/12/89
8. TOTAL DEPTH OF BORING 55.9'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/12/89
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-42			0': LEAN SILTY CLAY (CL), fine; light greenish brown, trace sand, calcareous. 1.9': Some sand.		1		USCS		0
									20
									31
								2	
									46
									24
-49.9	7.9		7.9': CLAYEY SAND (SC), fine; light greenish brown.		3				47
									25
									23
							4		24

BOTTOM OF BOREHOLE AT -55.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER PT-16-89		LOCATION COORDINATES N 388663.0269 E 2318864.471		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 17
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 17
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 25.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 1/11/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -30.4' MLLW		STARTED 1/11/90
8. TOTAL DEPTH OF BORING 55.9'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 1/11/90
18. SIGNATURE AND TITLE OF INSPECTOR David Belville, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-30.4		●	0': SILTY SAND (SM), fine; light gray to dark gray.		1		USCS		0
-33.0	2.6	●	2.6': FAT SILT (MH), light gray to dark gray.		2				1
		●	4.6': Olive green.		3				2
		●			4				5
		●			5				12
		●			6				12
		●			7				11
		●			8				12
		●			9				17
		●			10				11
		●			11				27
		●			12				14
		●			13				13
		●	19.1': Olive green, with sand.		14				11
		●			15				12
		●			16				14
		●			17				16

BOTTOM OF BOREHOLE AT -55.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER PT-4-88		LOCATION COORDINATES N 390517.2047 E 2320286.119		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 8	DISTURBED 8	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 31'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 70.5'		15. DATE BORING 2/4/88		STARTED 2/4/88
		COMPLETED 2/4/88		
		16. ELEVATION TOP OF BORING -39.5' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-39.5			0': CLAYEY SILT (MH), dark gray to black, trace sand, slightly calcareous.		1		USCS		0
-44.5	5.0		5': CLAYEY SAND (SC), fine to medium; greenish gray, wet, slightly calcareous. 5.3': FAT CLAY (CH), greenish gray, moist, slightly calcareous. 6.8': Trace shell fragments.		2				0
-44.8	5.3					3			11
						4			3
						5			0
						6			0
			14.3': With shell fragments, trace sand.		7				5
-55.3	15.8		15.8': Fishtailed from 55.3' to 66.7'						8
-66.7	27.2		27.2': FAT CLAY (CH), greenish gray, moist, slightly calcareous. 28.7': Fishtailed from 68.2' to 70.5'		8				4
-68.2	28.7								
-70.5	31.0								

BOTTOM OF BOREHOLE AT -70.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER PT-5-88		LOCATION COORDINATES N 390099.1613 E 2319946.199		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 12
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 12
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 23.6'		14. ELEVATION GROUND WATER NA		15. DATE BORING 2/9/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -38.2' MLLW		STARTED 2/9/88
8. TOTAL DEPTH OF BORING 61.8'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 2/9/88
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.2			0': CLAYEY SILT (MH), dark gray to black, wet, slightly calcareous.		1		USCS		0
-46.5	8.3		8.3': FAT CLAY (CH), greenish gray, moist, slightly calcareous.		2				0
-47.3	9.1		9.1': LEAN SILTY CLAY (CL), yellowish brown, moist, some sand, calcareous.		3				12
			11.6': Trace shell fragments.		4				40
					5				42
					6				28
					7				21
					8				26
					9				20
			19.1': Trace sand.		10				17
					11				17
-61.8	23.6				12				22

BOTTOM OF BOREHOLE AT -61.8 ft


NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER PT-6-88ALT		LOCATION COORDINATES N 390230.1737 E 2320046.175		10. SIZE AND TYPE OF BIT Failing 314
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL James Arthur		
4. NAME OF DRILLER 1-3/8" Splitspoon w/ 5 1/2" Fishtail		12. TOTAL SAMPLES 7	DISTURBED 7	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL	BEARING ---	13. TOTAL NUMBER CORE BOXES 0
6. THICKNESS OF OVERBURDEN 28.7'		14. ELEVATION GROUND WATER NA		
7. DEPTH DRILLED INTO ROCK 0'		15. DATE BORING STARTED 2/9/88 COMPLETED 2/9/88		
8. TOTAL DEPTH OF BORING 63.6'		16. ELEVATION TOP OF BORING -34.9' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-34.9			0': CLAYEY SILT (MH), dark gray to black, wet, slightly calcareous.		1		USCS		0
-46.0	11.1		11.1': FAT CLAY (CH), greenish gray, moist, slightly calcareous.		2				6
					3				10
-52.4	17.5		17.1': Some sand, and shell fragments. 17.5': LEAN SILTY CLAY (CL), yellowish brown, moist, some sand, and gravel. 19': Medium to stiff.		4				20
				100	Box 1		Pull #1 From 53.9' to 57.5' Run 3.6' Rec 3.6' Drilling Time: 5 Min Hyd Pressure: 50 PSI		
				100	Box 1		Pull #2 From 57.5' to 61.0' Run 3.5' Rec 3.5' Drilling Time: 5 Min Hyd Pressure: 50 PSI		
				100	Box 2		Pull #3 From 61.0' to 63.6' Run 2.6' Rec 2.6' Drilling Time: 2 Min. Hyd Pressure: 50 PSI		
-63.6	28.7		22.6': Core badly ground from 57.5' to 59.6' due to coarse gravel fall in..						
			BOTTOM OF BOREHOLE AT -63.6 ft						
			NOTE: Soils visually field classified in accordance with the Unified Soil Classification System	BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".					

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER PT-7-88		LOCATION COORDINATES N 389415.0824 E 2319345.333		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 14
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 14
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 25.4'		14. ELEVATION GROUND WATER NA		15. DATE BORING 2/8/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -37.1' MLLW		STARTED 2/8/88
8. TOTAL DEPTH OF BORING 62.5'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 2/8/88
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.1			0': CLAYEY SILT (MH), dark gray to black, wet, slightly calcareous.		1		USCS		0
-42.6	5.5		5.5': LEAN SILTY CLAY (CL), yellowish brown, moist, some sand, trace shell fragments, calcareous.		2				25
					3				38
					4				24
					5				44
					6				24
					7				28
					8				30
					9				21
					10				20
					11				25
					12				22
					13				19
					14				22

BOTTOM OF BOREHOLE AT -62.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER PT-9-88U	LOCATION COORDINATES N 389269.0633 E 2319204.362		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 2	DISTURBED 2	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 25'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 62.8'		15. DATE BORING 2/10/88		STARTED 2/10/88
		COMPLETED 2/10/88		
		16. ELEVATION TOP OF BORING -37.8' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.8			0': CLAYEY SILT (MH), dark gray to black, wet, slightly calcareous.		1		USCS		0
-46.0	8.2		8.2': LEAN SILTY CLAY (CL), yellowish brown, moist, some sand, calcareous.		2				26
			10.2': Medium to stiff.	100	Box 1 of 2		Pull #1 From 48.0' to 52.8' Run 4.8' Rec 4.8' Drilling Time: 5 Min. Hyd Pressure: 50 PSI		
				94			Pull #2 From 52.8' to 58.1' Run 5.3' Rec 5.0' C.L. 0.3' (Overdrill) Drilling Time: 5 Min. Hyd Pressure: 50 PSI		
				100	Box 2 of 2		Pull #3 From 58.1' to 62.8' Run 4.7' Rec 4.7' Drilling Time: 4 Min. Hyd Pressure: 50 PSI		
-62.8	25.0								

BOTTOM OF BOREHOLE AT -62.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SC-S-1-99		LOCATION COORDINATES N 364152.422 E 2326620.672		10. SIZE AND TYPE OF BIT N/A
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic		
4. NAME OF DRILLER T. Pickett		12. TOTAL SAMPLES 0	DISTURBED 0	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 3.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 4'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 45.3'		15. DATE BORING 1/8/99		STARTED 1/8/99
		COMPLETED 1/8/99		
		16. ELEVATION TOP OF BORING -37.8' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Trap Puckette		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.8		0'	0': SILTY CLAY (OH), black, saturated, soft, "puff mud".						
-41.3	3.5								

BOTTOM OF BOREHOLE AT -45.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SC-S-2-99		LOCATION COORDINATES N 364093.905 E 2326237.3		10. SIZE AND TYPE OF BIT N/A
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic		
4. NAME OF DRILLER T. Pickett		12. TOTAL SAMPLES 0	DISTURBED 0	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 4'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 3.5'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 45.3'		15. DATE BORING 1/8/99		STARTED 1/8/99
		COMPLETED 1/8/99		
		16. ELEVATION TOP OF BORING -37.8' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Trap Puckette		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.8		0'	0': SILTY CLAY (OH), tan, wet, "puff mud".						
			0.25': Black, saturated.						
-41.8	4.0								

BOTTOM OF BOREHOLE AT -45.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SC-S-3-99		LOCATION COORDINATES N 364095.762 E 2325827.708		10. SIZE AND TYPE OF BIT N/A
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic		
4. NAME OF DRILLER T. Pickett		12. TOTAL SAMPLES 0	DISTURBED 0	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 3.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 4'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 45.3'		15. DATE BORING 1/8/99		STARTED 1/8/99
		COMPLETED 1/8/99		
		16. ELEVATION TOP OF BORING -37.8' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Trap Puckette		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.8		3.5'	0': SILTY CLAY (OH), tan, wet, "puff mud". 0.25': Black, saturated, soft.						
-41.3	3.5								

BOTTOM OF BOREHOLE AT -45.3 ft





NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 3 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SD-98-1		LOCATION COORDINATES N 365631.83 E 2327039.57		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 18
4. NAME OF DRILLER C. Robbins		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 18
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 71.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/4/98
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -8.5' MLLW		STARTED 8/4/98
8. TOTAL DEPTH OF BORING 80'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 8/4/98
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-8.5			0': SILTY SAND (SM), fine; dark gray, trace shell fragments, calcareous.		1		USCS Began 5' Centers at 38.4'		0
			3.6': Gray.		2				8
					3				4
					4				5
-16.6	8.1		8.1': CLAYEY SAND (SC), fine; olive gray, calcareous.		5				0
-20.2	11.7		11.7': FAT CLAY (CH), dark gray, trace sand, calcareous.		6				0
						7			0
				20.8': Gray, trace sand, and shell fragments, slightly calcareous.		8			0

DRILLING LOG (Cont Sheet)		INSTALLATION		SHEET					
		Charleston Harbor		2					
PROJECT		COORDINATE SYSTEM		HORIZONTAL					
Charleston Harbor Entrance Channel Deepening		State Plane		VERTICAL					
LOCATION COORDINATES		ELEVATION TOP OF BORING							
N 365631.83 E 2327039.57		-8.5'							
ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
			11.7': FAT CLAY (CH), dark gray, trace sand, calcareous. (continued)						
			26.9': No sand or shell fragments.		9				0
-38.4	29.9		29.9': Wash.						
-40.4	31.9		31.9': FAT CLAY (CH), gray, slightly calcareous.		10				0
-43.4	34.9		34.9': Wash.						
-45.4	36.9		36.9': FAT CLAY (CH), gray, slightly calcareous.		11				0
-48.0	39.5		39.5': Wash.						
-50.4	41.9		41.9': FAT CLAY (CH), gray, slightly calcareous.		12				0
-53.1	44.6		44.6': Wash.						
-55.4	46.9		46.9': FAT CLAY (CH), gray, slightly calcareous.		13				0
-57.8	49.3		49.3': Wash.						
-60.4	51.9		51.9': CLAYEY SAND (SC), fine; light olive gray, slightly calcareous.		14				17
-61.9	53.4		53.4': Wash.						

DRILLING LOG (Cont Sheet)	INSTALLATION Charleston Harbor		SHEET 3 OF 3 SHEETS
	PROJECT Charleston Harbor Entrance Channel Deepening	COORDINATE SYSTEM State Plane	HORIZONTAL : VERTICAL NAD83 : MLLW
LOCATION COORDINATES N 365631.83 E 2327039.57		ELEVATION TOP OF BORING -8.5'	




ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
-65.4	56.9		53.4': Wash. (continued)						
-66.9	58.4		56.9': CLAYEY SAND (SC), fine; light olive gray, slightly calcareous.		15				11
-70.4	61.9		58.4': Wash.						
-71.9	63.4		61.9': CLAYEY SAND (SC), fine; light olive gray, slightly calcareous.		16				12
-75.4	66.9		63.4': Wash.						
-76.9	68.4		66.9': CLAYEY SAND (SC), fine; light olive gray, slightly calcareous.		17				15
-78.5	70.0		68.4': Wash.						
-80.0	71.5		70': CLAYEY SAND (SC), fine; light olive gray, slightly calcareous.		18				11

BOTTOM OF BOREHOLE AT -80.0 ft






NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".


DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 3 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SD-98-2		LOCATION COORDINATES N 365639.24 E 2327265.03		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 11
4. NAME OF DRILLER C. Robbins		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 11
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 63.3'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/5/98
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -15.5' MLLW		STARTED 8/5/98
8. TOTAL DEPTH OF BORING 78.8'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 8/5/98
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-15.5			0': LEAN SILT (ML), dark gray.		1		USCS		0
-28.3	12.8		12.3': Some sand. 12.8': FAT SILT (MH), dark gray to black.		2				0
-33.8	18.3		18.3': FAT CLAY (CH), gray.		3				0
					4				0

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 3 SHEETS
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane	HORIZONTAL NAD83	VERTICAL MLLW
LOCATION COORDINATES N 365639.24 E 2327265.03		ELEVATION TOP OF BORING -15.5'		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
			18.3': FAT CLAY (CH), gray. (continued)						
			30.1': Trace sand, and silt, slightly calcareous.		5				0
			35.4': Trace organics.		6				0
			41.3': Trace shell fragments.		7				0
-59.3	43.8		43.8': Wash.						
-61.8	46.3		46.3': CLAYEY SAND (SC), fine; light olive gray, calcareous.		8				0
-63.3	47.8		47.8': Wash.						
-66.8	51.3		51.3': CLAYEY SAND (SC), fine; light olive gray, with chert, calcareous.		9				12
-68.3	52.8		52.8': Wash.						
-71.8	56.3		56.3':		10				14
-73.3	57.8		57.8':						
-77.3	61.8								

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 3 OF 3 SHEETS	
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW	
LOCATION COORDINATES N 365639.24 E 2327265.03		ELEVATION TOP OF BORING -15.5'			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
-78.8	63.3		61.8' : CLAYEY SAND, fine; light olive gray, calcareous. (<i>continued</i>)		11				24

BOTTOM OF BOREHOLE AT -78.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SD-98-3		LOCATION COORDINATES N 365652.45 E 2327491.06		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 12
4. NAME OF DRILLER C. Robbins		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 12
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 59.2'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/8/98
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -21.1' MLLW		STARTED 8/8/98
8. TOTAL DEPTH OF BORING 80.3'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 8/8/98
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-21.1			0': FAT SILT (MH), dark gray, trace sand, and shell fragments.		1		USCS		0
-31.6	10.5		10.5': FAT CLAY (CH), gray, trace sand, and shell fragments.		2				0
			15.5': Trace silt, slightly calcareous.		3				0
-40.2	19.1		19.1': CLAYEY SAND (SC), fine; gray, slightly calcareous.		4				0
					5				0
-47.9	26.8		26.8': Wash.						
-48.8	27.7		27.7': FAT CLAY, gray, some sand, and silt, slightly calcareous.		6				0
-51.6	30.5		30.5': Wash.						

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane	HORIZONTAL NAD83	VERTICAL MLLW
LOCATION COORDINATES N 365652.45 E 2327491.06		ELEVATION TOP OF BORING -21.1'		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
			30.5': Wash. (continued)						
-53.8	32.7		32.7': CLAYEY SAND (SC), fine; gray, some silt.		7				0
-57.1	36.0		36': Wash.						
-58.8	37.7		37.7': CLAYEY SAND (SC), fine; olive gray, calcareous.		8				16
-60.3	39.2		39.2': Wash.						
-63.8	42.7		42.7': CLAYEY SAND (SC), fine; olive gray, calcareous.		9				21
-65.3	44.2		44.2': Wash.						
-68.8	47.7		47.7': CLAYEY SAND (SC), fine; olive gray, calcareous.		10				8
-70.3	49.2		49.2': Wash.						
-73.8	52.7		52.7': LEAN CLAY (CL), olive gray, some sand, calcareous.		11				15
-75.3	54.2		54.2': Wash.						
-78.8	57.7		57.7': CLAYEY SAND (SC), fine; olive gray, calcareous.		12				19
-80.3	59.2								

BOTTOM OF BOREHOLE AT -80.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SYR-100-88		LOCATION COORDINATES N 363608.422 E 2328053.209		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 2	DISTURBED 2	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 5.8'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 45.7'		15. DATE BORING 8/25/88		STARTED 8/25/88
		COMPLETED 8/25/88		
		16. ELEVATION TOP OF BORING -39.9' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Matthew Delano, Geologist		


ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-39.9		[Hatched Legend]	0': FAT CLAY (CH), high plasticity; greenish brown, high plasticity, calcareous.		1		USCS		0
			2.8': With a slight odor.						24
			4.3': Trace shell fragments.			2			37
-45.7	5.8								

BOTTOM OF BOREHOLE AT -45.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SYR-101-88		LOCATION COORDINATES N 364044.4281 E 2328144.136		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 2
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 2
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 6.8'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/26/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -38.7' MLLW		STARTED 8/26/88
8. TOTAL DEPTH OF BORING 45.5'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 8/26/88
18. SIGNATURE AND TITLE OF INSPECTOR Matthew Delano, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.7			0': FAT CLAY (CH), high plasticity; greenish brown, high plasticity, trace gravel, and clay, calcareous.		1		USCS		0
									12
									16
									18
								2	
-45.5	6.8								

BOTTOM OF BOREHOLE AT -45.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SYR-102-88		LOCATION COORDINATES N 364504.426 E 2328194.059		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 5	DISTURBED 5	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 9'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 46.3'		15. DATE BORING 8/26/88		STARTED 8/26/88 COMPLETED 8/26/88
		16. ELEVATION TOP OF BORING -37.3' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.3			0': SAND (SP), fine to medium; grayish tan, Poorly Graded, wet, trace silt.		1		USCS		0 8
-40.3	3.0		3': SILTY SAND (SM), fine to medium; gray, wet, trace shell fragments.		2				3
-41.8	4.5		4.5': SAND (SP), fine to medium; grayish tan, Poorly Graded, wet, trace silt.		3				6
-43.3	6.0		6': SILTY SAND (SM), fine to medium; tannish gray, wet, some shell fragments.		4				18
-46.3	9.0		7.5': Trace clay.		5				6

BOTTOM OF BOREHOLE AT -46.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SYR-103-88		LOCATION COORDINATES N 363944.2802 E 2327307.17		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 3	DISTURBED 3	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 13.7'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 52.7'		15. DATE BORING 8/26/88		STARTED 8/26/88 COMPLETED 8/26/88
		16. ELEVATION TOP OF BORING -39' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-39		FAT CLAY	0': FAT CLAY (CH), dark gray, wet.		1		USCS		0
		SILTY CLAY	13.2': FAT SILTY CLAY, light greenish brown, moist, trace sand.		2				0
-52.7	13.7	SAND			3				5

BOTTOM OF BOREHOLE AT -52.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER SYR-104-88		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 3	DISTURBED 3 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	14. ELEVATION GROUND WATER NA
6. THICKNESS OF OVERBURDEN 14.1'		15. DATE BORING 8/26/88	STARTED 8/26/88 COMPLETED 8/26/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -37.5' MLLW	
8. TOTAL DEPTH OF BORING 51.6'		17. TOTAL CORE RECOVERY FOR BORING N/A	
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist			




ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.5		0'	FAT CLAY (CH), dark gray, wet.		1		USCS		0
					2				0
			13.1': FAT SILTY CLAY, light greenish brown, moist, trace sand.		3				10
-51.6	14.1								

BOTTOM OF BOREHOLE AT -51.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 1 SHEETS 1
2. HOLE NUMBER SYR-105-88		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail		VERTICAL MLLW
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 3	DISTURBED 3	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 13.8'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 46.5'		15. DATE BORING 9/7/88		STARTED 9/7/88
		16. ELEVATION TOP OF BORING -32.7' MLLW		COMPLETED 9/7/88
		17. TOTAL CORE RECOVERY FOR BORING N/A		
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist				




ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-32.7			0': CLAYEY SILT (MH), dark gray to black, wet.		1		USCS		0
-44.3	11.6		11.6': FAT CLAY (CH), dark gray, wet.		2				0
-45.4	12.7		12.7': LEAN SILTY CLAY (CL), light greenish brown, moist, some sand, calcareous.		3				0
-46.5	13.8								

BOTTOM OF BOREHOLE AT -46.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SYR-106-88		LOCATION COORDINATES N 364078.9258 E 2325343.19		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 5
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 5
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 8.3'		14. ELEVATION GROUND WATER NA		15. DATE BORING 9/7/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -36.5' MLLW		STARTED 9/7/88
8. TOTAL DEPTH OF BORING 44.8'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 9/7/88
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist				




ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-36.5			0': CLAYEY SILT (MH), dark gray to black, wet.		1		USCS		0
-39.3	2.8		2.8': FAT CLAY (CH), dark gray, wet.		2				0
-40.3	3.8		3.8': LEAN SILTY CLAY (CL), light greenish brown, moist, some sand, calcareous.		3				0
					4				25
					5				41
-44.8	8.3								

BOTTOM OF BOREHOLE AT -44.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 1 SHEETS
2. HOLE NUMBER SYR-107-88		LOCATION COORDINATES N 364832.8953 E 2325274.069		VERTICAL MLLW
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail		
4. NAME OF DRILLER C.D. Justiss		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL	BEARING	12. TOTAL SAMPLES 3
6. THICKNESS OF OVERBURDEN 15.6'		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		UNDISTURBED 0
8. TOTAL DEPTH OF BORING 50.6'		15. DATE BORING 9/7/88		STARTED 9/7/88
		16. ELEVATION TOP OF BORING -35' MLLW		COMPLETED 9/7/88
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-35			0': CLAYEY SILT (MH), dark gray to brown, wet.		1		USCS		0
-48.5	13.5		13.5': FAT CLAY (CH), dark gray, wet.		2				0
-49.7	14.7		14.7': LEAN SILTY CLAY (CL), light greenish brown, moist, some sand, calcareous.		3				0
-50.6	15.6								

BOTTOM OF BOREHOLE AT -50.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SYR-108-89		LOCATION COORDINATES N 367407.5291 E 2323576.693		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 4	DISTURBED 4	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 22'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 54.5'		15. DATE BORING 6/2/89		STARTED 6/2/89 COMPLETED 6/2/89
		16. ELEVATION TOP OF BORING -32.5' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-32.5		FAT CLAY	0': FAT CLAY (CH), soft; dark gray, wet.				USCS		0
-42.5	10.0	LEAN SILT	10': LEAN SILT (ML), olive green, moist, calcareous.		1				0
		LEAN SILT			2				20
		LEAN SILT							0
		LEAN SILT							17
		LEAN SILT			3				22
		LEAN SILT	16': M, with sand.						11
		LEAN SILT							15
		LEAN SILT							16
-54.5	22.0	LEAN SILT			4				18

BOTTOM OF BOREHOLE AT -54.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SYR-109-89		LOCATION COORDINATES N 367067.5265 E 2323512.749		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 5	DISTURBED 5	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 20'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.1'		15. DATE BORING 6/2/89		STARTED 6/2/89 COMPLETED 6/2/89
		16. ELEVATION TOP OF BORING -35.1' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-35.1		FAT CLAY	0': FAT CLAY (CH), soft; dark gray, wet.		1		USCS		0
-42.6	7.5	LEAN SILT	7.5': LEAN SILT (ML), olive green, moist, calcareous.		2				22
		LEAN SILT	12.5': With shell fragments.		3				19
		LEAN SILT			4				14
		LEAN SILT			5				8
		LEAN SILT							14
		LEAN SILT							10
		LEAN SILT							13
		LEAN SILT							9
		LEAN SILT							13

BOTTOM OF BOREHOLE AT -55.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 1 SHEETS
2. HOLE NUMBER SYR-110-89		LOCATION COORDINATES N 365964.7443 E 2324582.902		VERTICAL MLLW
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail		
4. NAME OF DRILLER C.D. Justiss		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
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 17.9'		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 5
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		UNDISTURBED 0
8. TOTAL DEPTH OF BORING -19.3'		15. DATE BORING 6/3/89		STARTED 6/3/89
		16. ELEVATION TOP OF BORING 37.2' MLLW		COMPLETED 6/3/89
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.2			0': FAT CLAY (CH), soft; dark gray, wet.				USCS		0
32.3	4.9		4.9': LEAN SILT (ML), olive green, moist, calcareous.		1				0
					2				24
									18
									14
					3				16
									16
									15
					4				20
									20
19.3	17.9				5				19

BOTTOM OF BOREHOLE AT 19.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SYR-111-89		LOCATION COORDINATES N 366775.5644 E 2323684.792		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 3
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 16'		14. ELEVATION GROUND WATER NA		15. DATE BORING 6/3/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -38.7' MLLW		STARTED 6/3/89
8. TOTAL DEPTH OF BORING 54.7'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 6/3/89
18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.				



ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.7		FAT CLAY	0': FAT CLAY (CH), soft; dark gray, wet.		1		USCS NOTE: Sample 1 taken from outside of rods.		0
-51.7	13.0	LEAN SILT	13': LEAN SILT (ML), olive green, moist, calcareous.		2				12
-54.7	16.0	LEAN SILT			3				12

BOTTOM OF BOREHOLE AT -54.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SYR-112-89		LOCATION COORDINATES N 364537.9458 E 2325517.112		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 3	DISTURBED 3	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 13.9'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.8'		15. DATE BORING 6/3/89		STARTED 6/3/89 COMPLETED 6/3/89
		16. ELEVATION TOP OF BORING -41.9' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.9			0': FAT CLAY (CH), soft; dark gray, wet.		1		USCS NOTE: Sample 1 taken from outside of rod and casing.		0
-51.3	9.4		9.4': LEAN SILT (ML), olive green, moist, calcareous.		2				20
					3				14
									17

BOTTOM OF BOREHOLE AT -55.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SYR-113-90		LOCATION COORDINATES N 364468.345 E 2327738.075		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 13	DISTURBED 13	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 24'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.2'		15. DATE BORING 2/21/90		STARTED 2/21/90 COMPLETED 2/21/90
		16. ELEVATION TOP OF BORING -31.2' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-31.2			0': CLAYEY SILT (MH), dark gray to black, wet.				USCS		
					1				0
-38.1	6.9		6.5': Some sand.						
			6.9': LEAN CLAY (CL), olive green, moist, trace sand, calcareous.		2				2
					3				7
					4				15
					5				16
					6				22
					7				13
					8				19
			16.5': Trace sand.		9				19
					10				18
			19.5': Some sand.		11				12
					12				12
					13				14
-55.2	24.0								

SAW FORM 1836-A FEB 12 BOTTOM OF BOREHOLE AT -55.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG (Cont Sheet)	INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS
	PROJECT Charleston Harbor Entrance Channel Deepening	COORDINATE SYSTEM State Plane	HORIZONTAL : VERTICAL NAD83 : MLLW
LOCATION COORDINATES N 364468.345 E 2327738.075	ELEVATION TOP OF BORING -31.2'		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No. R.O.D. %	REMARKS	Blows/ 0.5 ft	N-Value
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BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 1 SHEETS VERTICAL MLLW
2. HOLE NUMBER SYR-114-90	LOCATION COORDINATES N 364371.2535 E 2327215.102		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 12	DISTURBED 12	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 19.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55'		15. DATE BORING 2/22/90		STARTED 2/22/90
		COMPLETED 2/22/90		
		16. ELEVATION TOP OF BORING -35.5' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-35.5		0'	0': CLAYEY SILT (MH), dark gray to black, wet, trace sand.		1		USCS		0
-38.5	3.0	3'	3': LEAN CLAY (CL), olive green, wet, some sand, calcareous.		2				1
		4.5'	4.5': Moist, some sand.		3				10
		10.5'	10.5': Trace sand.		4				16
		18'	18': Some sand.		5				23
					6				15
					7				22
					8				18
					9				17
					10				15
					11				14
					12				15
-55.0	19.5								

BOTTOM OF BOREHOLE AT -55.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SYR-115-90	LOCATION COORDINATES N 364543.0281 E 2325979.101		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 14	DISTURBED 14	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 24'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 28.5'		15. DATE BORING 2/22/90		STARTED 2/22/90
		16. ELEVATION TOP OF BORING -4.5' MLLW		COMPLETED 2/22/90
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		



ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-4.5			0': SILTY SAND (SM), fine to medium; dark gray to black, wet, trace clay, and shell fragments, slightly calcareous.		1		USCS NOTE: Boring terminated at 28.5' due to severe weather warning. See companion log SYR-115A-90 for continuation of boring.		0
-7.5	3.0		3': CLAYEY SAND (SC), fine to medium; dark gray, wet, trace shell fragments, slightly calcareous.					5	
-11.5	7.0				2			0	
			7': FAT CLAY (CH), dark gray, moist, slightly calcareous.		3			3	
					4			0	
					5			4	
					6			0	
					7			4	
-19.5	15.0		13.5': Trace sand, and shell fragments.		8			4	
-21.0	16.5		15': CLAYEY SAND (SC), medium to coarse; dark gray to gray, wet, with shells, and shell fragments, calcareous.		9			3	
-22.5	18.0		16.5': SILTY SAND (SM), fine to coarse; gray and tannish gray, moist, trace shell fragments, and clay, calcareous.		10			20	
-24.0	19.5		18': CLAYEY SAND (SC), fine to medium; tannish gray, wet, with shells, and shell fragments, calcareous.		11			17	
-25.5	21.0		19.5': SILTY SAND (SM), fine to medium; grayish green, moist, trace shell fragments, and clay, calcareous.		12			13	
-27.0	22.5		21': SILTY GRAVEL (GM), fine to coarse; grayish green, wet, some sand, and shell fragments, calcareous.		13			9	
-28.5	24.0		22.5': CLAYEY SAND (SC), fine; olive green, moist, calcareous.		14		8		

BOTTOM OF BOREHOLE AT -28.5 ft



NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 2 SHEETS
2. HOLE NUMBER SYR-115A-90		LOCATION COORDINATES N 364549.0308 E 2325995.1		VERTICAL MLLW
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail		
4. NAME OF DRILLER C.D. Justiss		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL	BEARING	
6. THICKNESS OF OVERBURDEN 51.1'		12. TOTAL SAMPLES 18		DISTURBED 18
7. DEPTH DRILLED INTO ROCK 0'		13. TOTAL NUMBER CORE BOXES 0		UNDISTURBED 0
8. TOTAL DEPTH OF BORING 55.5'		14. ELEVATION GROUND WATER NA		
		15. DATE BORING 2/28/90		STARTED 2/28/90
		16. ELEVATION TOP OF BORING -4.4' MLLW		COMPLETED 2/28/90
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-4.4			0': Fishtailed				NOTE: See companion log SYR-115-90. Fishtailed from 4.4' to 28.5'.		
-28.5	24.1		24.1': SANDY ELASTIC SILT CLAYEY SAND (SC), fine; olive green, moist.		1				15
			25.6': Moist, trace shell fragments, and gravel.		2				18

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS	
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW	
LOCATION COORDINATES N 364549.0308 E 2325995.1		ELEVATION TOP OF BORING -4.4'			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-33.0	28.6		24.1': SANDY ELASTIC SILT CLAYEY SAND (SC), fine; olive green, moist. (continued)		3				17
			28.6': LEAN CLAY (CL), olive green, moist, some sand, calcareous.		4				9
					5				14
					6				11
					7				14
					8				18
					9				27
					10				22
					11				18
					12				20
					13				20
					14				16
					15				13
					16				17
					17				17
			49.6': Trace sand.		18				15

BOTTOM OF BOREHOLE AT -55.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SYR-116-90		LOCATION COORDINATES N 364746.9625 E 2325639.075		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 32	DISTURBED 32	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 57'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.5'		15. DATE BORING 3/1/90		STARTED 3/1/90
		16. ELEVATION TOP OF BORING 1.5' MLLW		COMPLETED 3/1/90
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
1.5		[Yellow with dots pattern]	0': SILTY SAND (SM), fine to medium; dark gray, wet, with shells, and shell fragments, slightly calcareous.		1		USCS NOTE: Top of hole located in tidal zone.		4
-1.5	3.0				2			12	
		[Blue diagonal lines pattern]	3': FAT CLAY (CH), gray, moist, calcareous. 7.5': Trace shell fragments. 10.5': No shell fragments, non-calcareous. 13.5': Trace organics.		3				0
					4		0		
					5		0 3		
					6		0 3		
					7		0 4		
					8		0		
					9		6		
		[Green diagonal lines pattern]	22': LEAN CLAY (CL), olive green, some sand, calcareous.		10			5	
					11		7		
		[Yellow diagonal lines pattern]	25': CLAYEY SAND (SC), fine; olive green, wet, calcareous.		12			5	
					13		6		
					14		8		

DRILLING LOG (Cont Sheet)			INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS				
PROJECT Charleston Harbor Entrance Channel Deepening			COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW				
LOCATION COORDINATES N 364746.9625 E 2325639.075			ELEVATION TOP OF BORING 1.5'						
ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-31.5	33.0	[Diagonal Hatching]	25': CLAYEY SAND (SC), fine; olive green, wet, calcareous. <i>(continued)</i>		15				5
			31.5': Trace shell fragments.		16	8			
-33.0	34.5	[Green Diagonal Hatching]	33': LEAN CLAY (CL), olive green, moist, trace sand, calcareous.		17	9			
-36.0	37.5	[Diagonal Hatching]	34.5': CLAYEY SAND (SC), fine; olive green, moist, calcareous.		18	13			
					19	12			
-37.5	39.0	[Green Diagonal Hatching]	37.5': LEAN CLAY (CL), olive green, moist, some sand, calcareous.		20	9			
-43.5	45.0	[Diagonal Hatching]	39': CLAYEY SAND (SC), fine; olive green, moist, calcareous.		21	17			
					22	15			
					23	14			
					24	15			
					25	17			
-52.5	54.0	[Green Diagonal Hatching]	45': LEAN CLAY (CL), olive green, moist, some sand, calcareous.		26	20			
					27	18			
					28	13			
					29	11			
					30	12			
-55.5	57.0	[Diagonal Hatching]	54': CLAYEY SAND (SC), fine; olive green, moist, calcareous.		31	12			
					32	13			

BOTTOM OF BOREHOLE AT -55.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SYR-117-90		LOCATION COORDINATES N 365032.9385 E 2325544.031		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 34	DISTURBED 34	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 57'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.7'		15. DATE BORING 3/2/90		
		STARTED 3/2/90		
		COMPLETED 3/2/90		
		16. ELEVATION TOP OF BORING 1.3' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
1.3			0': FAT CLAY (CH), dark gray, wet, trace sand, and shell fragments. 1': No sand.		1		USCS		0
			9': Dark brownish gray.		2				1
					3				0
					4				3
-10.7	12.0		11.7': Some sand, and shell fragments.		5				7
-11.7	13.0		12': CLAYEY SAND (SC), medium to coarse; dark gray, wet, with shell fragments.		6				10
			13': FAT CLAY (CH), bluish green, moist, trace shell fragments.		7				6
			15': Grayish green, trace sand, and shell fragments.		8				2
-15.2	16.5		16.5': LEAN CLAY (CL), olive green, moist, some sand, trace shell fragments, calcareous.		9				8
			18': No sand or shell fragments.		10				5
					11				4
-21.2	22.5		22.5': CLAYEY SAND (SC), fine; olive green, moist, calcareous.		12				5
					13				6
					14				5
			27': Trace organics.		15				7
			28.5': Trace shell fragments.		16				12
-28.7	30.0								

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS	
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW	
LOCATION COORDINATES N 365032.9385 E 2325544.031		ELEVATION TOP OF BORING 1.3'			




ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value	
			30': LEAN CLAY (CL), olive green, moist, trace sand, calcareous.		17				7	
			31.5': Some sand.		18				12	
			33': Trace sand.		19				17	
					20				12	
			36': Some sand.		21				9	
					22				13	
					23				18	
					24				18	
			42': Trace sand.		25				18	
					26				21	
					27				16	
					28				11	
					29				17	
			49.5': Some sand.		30				13	
					31				11	
-52.7	54.0			54': CLAYEY SAND (SC), fine; olive green, moist, calcareous.		32				11
						33				14
					34				14	
-55.7	57.0									

BOTTOM OF BOREHOLE AT -55.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SYR-118-90		LOCATION COORDINATES N 365592.8408 E 2325072.951		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 21	DISTURBED 21	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 37.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 54.8'		15. DATE BORING 3/3/90		STARTED 3/3/90 COMPLETED 3/3/90
		16. ELEVATION TOP OF BORING -17.3' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-17.3			0': FAT CLAY (CH), dark gray, wet, slightly calcareous.		1		USCS		0
-26.3	9.0		9': CLAYEY SAND (SC), fine; olive green, moist, calcareous.		3				5
			12': Trace shell fragments.		4				6
			13.5': Trace shell fragments.		5				10
					6				7
-32.3	15.0		15': LEAN CLAY (CL), olive green, moist, some sand, calcareous.		7				11
					8				11
					9				11

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane	HORIZONTAL NAD83	VERTICAL MLLW
LOCATION COORDINATES N 365592.8408 E 2325072.951		ELEVATION TOP OF BORING -17.3'		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
		LEGEND	15': LEAN CLAY (CL), olive green, moist, some sand, calcareous. <i>(continued)</i>		10				15
					11		12		
					12		22		
					13		16		
				25.5': Moist, trace sand.	14		19		
					15		18		
					16		20		
					17		13		
				30': Trace sand.	18		12		
					19		15		
					20		15		
			21			15			

BOTTOM OF BOREHOLE AT -54.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SYR-119-90		LOCATION COORDINATES N 366454.7235 E 2324534.824		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 17
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 16
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 45'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/4/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -10.4' MLLW		STARTED 3/4/90
8. TOTAL DEPTH OF BORING 55.4'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 3/4/90
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value	
-10.4		[Hatched Legend]	0': FAT CLAY (CH), gray, moist, trace shell fragments.		1		USCS		0	
						2			0	
				9': Trace sand, no shell fragments.		3				0
						4				0

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS	
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW	
LOCATION COORDINATES N 366454.7235 E 2324534.824		ELEVATION TOP OF BORING -10.4'			




ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.2	27.8	0'	0': FAT CLAY (CH), gray, moist, trace shell fragments. <i>(continued)</i>		5				0
		27.8'	27.8': LEAN CLAY (CL), olive green, moist, some sand, calcareous.		6				7
					7				19
					8				12
			31.5': Trace sand, and shell fragments.		9				16
					10				21
			34.5': No shell fragments.		11				15
					12				11
			37.5': Trace sand.		13				10
					14				11
			39': Some sand.		15				13
			40.5': Trace gravel.		16				13
					17				15
			42': No gravel.						

BOTTOM OF BOREHOLE AT -55.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER TCU-1-88		LOCATION COORDINATES N 358933.7753 E 2329431.953		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 3
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 22.9'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 10/1/88 COMPLETED 10/1/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -46.6' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A
8. TOTAL DEPTH OF BORING 69.5'		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-46.6			0': FAT CLAY (CH), dark gray, wet, with shell fragments.		1		USCS		17
-48.1	1.5		1.5': No recovery.					12	
-49.6	3.0		3': SILTY SAND (SM), fine; greenish gray, with shell fragments, and gravel, slightly calcareous.		2			17	
-51.1	4.5		4.5': (CL), Fishtailed from 51.1' to 68.0'.						
-68.0	21.4		21.4': LEAN SILTY CLAY (CL), olive green, with shell fragments, calcareous.		3				37

BOTTOM OF BOREHOLE AT -69.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER TCU-5-89		LOCATION COORDINATES N 359728.3308 E 2328891.431		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 3
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 19.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 4/13/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -36.1' MLLW		STARTED 4/13/89
8. TOTAL DEPTH OF BORING 55.6'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 4/13/89
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				




ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-36.1		19.5	0': FAT CLAY (CH), dark gray to black, slightly calcareous.		1		USCS		0
			9.4': Greenish gray.		2				6
			10.5': Trace shell fragments.		3				5
			13.5': Trace sand, no shell fragments.		4				0
-55.6	19.5								

BOTTOM OF BOREHOLE AT -55.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".



DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER VC-5-A-88		LOCATION COORDINATES N 389385.0791 E 2319320.338		10. SIZE AND TYPE OF BIT 5" Shelby Tube w/ 6" fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		12. TOTAL SAMPLES 2
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 14.2'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/22/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -35' MLLW		STARTED 3/22/88
8. TOTAL DEPTH OF BORING 49.2'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 3/22/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-35			0': FAT CLAY (CH), black, trace sand.				NOTE: Boring was discontinued after Tube 3 was left in hole (the screws ripped out of the tube).		
-43.7	8.7		8.7': SANDY LEAN CLAY (CL), olive green, with shell fragments, calcareous.		Tube 1				
-47.2	12.2		12.2': No recovery.		Tube 2				
-49.2	14.2								

BOTTOM OF BOREHOLE AT -49.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER VC-5-B-88		LOCATION COORDINATES N 389393.0741 E 2319293.338		10. SIZE AND TYPE OF BIT 4 x 5 1/2" core bbl w/ dia
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		12. TOTAL SAMPLES 4
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 29.6'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/22/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -36.6' MLLW		STARTED 3/22/88
8. TOTAL DEPTH OF BORING 66.2'		17. TOTAL CORE RECOVERY FOR BORING 98%		COMPLETED 3/22/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-36.6			0': FAT CLAY (CH), black, some sand.						
-43.7	7.1		7.1': SANDY LEAN CLAY (CL), olive green, with shell fragments, calcareous, glauconitic.	100	Box 1		Pull #1 From 43.7' To 48.7' Run 5.0' Rec 4.9' C.L. 0.1' C.D. 48.6' U.L. 0.0'		
				96	Box 2		Pull #2 From 48.7' To 53.7' Run 5.0' Rec 4.9' C.L. 0.1' C.D. 53.7' U.L. 0.2'		
				96	Box 3		Pull #3 From 53.7' To 58.7' Run 5.0' Rec 4.8' C.L. 0.2' C.D. 58.7' U.L. 0.2'		
				100	Box 4		Pull #4 From 58.7' To 63.2' Run 4.5' Rec 3.4' C.L. 1.1' C.D. 62.1' U.L. 0.0' Pull #5 From 63.2' To 66.2' Run 3.0' Rec 4.1' C.G. 1.1'		
-66.2	29.6								

BOTTOM OF BOREHOLE AT -66.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division		INSTALLATION Charleston Harbor		SHEET 1 OF 1 SHEETS	
		1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW	
2. HOLE NUMBER WR-17-88		LOCATION COORDINATES N 358914.5579 E 2333734.882		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail			
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500					
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 5		DISTURBED 5		UNDISTURBED 0	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING		13. TOTAL NUMBER CORE BOXES 0	
6. THICKNESS OF OVERBURDEN 18.9'		14. ELEVATION GROUND WATER NA					
7. DEPTH DRILLED INTO ROCK 0'		15. DATE BORING		STARTED 2/17/88		COMPLETED 2/17/88	
8. TOTAL DEPTH OF BORING 53.7'		16. ELEVATION TOP OF BORING -34.8' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A			
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist							

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-34.8			0': SANDY SILT (MH), dark gray.		1		USCS		0
-49.2	14.4		14.4': SANDY FAT CLAY (CH), dark gray, with shell fragments.		2				0
-51.7	16.9		16.9': SANDY LEAN CLAY (CL), yellowish green.		3				12
-53.7	18.9				4				30
					5				

BOTTOM OF BOREHOLE AT -53.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-19-88		LOCATION COORDINATES N 364926.3148 E 2338566.761		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		12. TOTAL SAMPLES 14
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 14
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 31.2'		14. ELEVATION GROUND WATER NA		15. DATE BORING 2/18/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -23.9' MLLW		STARTED 2/18/88
8. TOTAL DEPTH OF BORING 55.1'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 2/18/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-23.9			0': SANDY SILT (MH), black.		1		USCS		0
-36.8	12.9		12.9': FAT CLAY (CH), dark gray, with sand, and shell fragments.		2				0
			14.9': Lenses of calcareous sand.		3				6
					4				4
					5				
-42.1	18.2		18.2': SANDY LEAN CLAY (CL), gray, calcareous.		6				14
-43.1	19.2		19.2': SANDY FAT CLAY (CH), gray, calcareous.		7				13
					8				16
					9				16
					10				21
					11				15
					12				18
					13				19
					14				23

BOTTOM OF BOREHOLE AT -55.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-20-88		LOCATION COORDINATES N 364793.3931 E 2338990.775		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		12. TOTAL SAMPLES 8
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 8
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 16.3'		14. ELEVATION GROUND WATER NA		15. DATE BORING 2/17/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -34.5' MLLW		STARTED 2/17/88
8. TOTAL DEPTH OF BORING 50.8'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 2/17/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-34.5			0': SANDY SILT (MH), black.		1		USCS		0
-40.3	5.8		5.8': SANDY FAT CLAY (CH), light green, calcareous.		2				22
					3				15
					4				18
					5				19
					6				15
					7				17
					8				15
-50.8	16.3								

BOTTOM OF BOREHOLE AT -50.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-21-90		LOCATION COORDINATES N 366433.6456 E 2340565.455		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		12. TOTAL SAMPLES 13
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 13
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 27.2'		14. ELEVATION GROUND WATER NA		15. DATE BORING 6/15/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -28.5' MLLW		STARTED 6/15/90
8. TOTAL DEPTH OF BORING 55.7'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 6/15/90
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				


ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-28.5		0'	0': CLAYEY SILT (MH), dark gray to black, wet.		1		USCS		0
-37.7	9.2	9.2'	9.2': LEAN CLAY (CL), olive green, moist, some sand, calcareous.		2				12
					3				12
					4				11
					5				11
					6				15
					7				12
					8				12
					9				14
					10				13
					11				20
					12				25
					13				26

BOTTOM OF BOREHOLE AT -55.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-22-90		LOCATION COORDINATES N 366570.5581 E 2340115.442		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 12	DISTURBED 12	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 18'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.3'		15. DATE BORING 6/14/90		STARTED 6/14/90
		COMPLETED 6/14/90		
		16. ELEVATION TOP OF BORING -37.3' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		



ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.3			0': LEAN CLAY (CL), olive green, moist, some sand, calcareous.		1		USCS		0
			1.5': Moist, No fat clay.		2			13	
					3			15	
					4			20	
					5			15	
					6			14	
					7			14	
					8			13	
					9			13	
					10			16	
					11			25	
				16.5': Trace shell fragments.		12			30

BOTTOM OF BOREHOLE AT -55.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-23-90		LOCATION COORDINATES N 367229.5964 E 2340411.32		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		12. TOTAL SAMPLES 18
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 18
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 36.8'		14. ELEVATION GROUND WATER NA		15. DATE BORING 6/16/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -19.2' MLLW		STARTED 6/16/90
8. TOTAL DEPTH OF BORING 56'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 6/16/90
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-19.2			0': FAT CLAY (CH), gray, wet, trace sand.		1		USCS		0
						2			0
						3			0
						4			0
				15.8': Trace sand, and shell fragments.		5			0
-36.5	17.3		17.3': CC LEAN CLAY (CL), olive green, moist, some sand, calcareous.		6				13
						7			12

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane	HORIZONTAL NAD83	VERTICAL MLLW
LOCATION COORDINATES N 367229.5964 E 2340411.32		ELEVATION TOP OF BORING -19.2'		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value		
		LEGEND	17.3': CC LEAN CLAY (CL), olive green, moist, some sand, calcareous. <i>(continued)</i>		8				13		
							9				9
							10				13
							11				18
							12				15
							13				15
					29.3': Trace shell fragments.		14				18
					30.8': No shell fragments.		15				18
							16				18
					33.8': Trace shell fragments.		17				21
							18				25

BOTTOM OF BOREHOLE AT -56.0 ft

 NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

 BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-24-90		LOCATION COORDINATES N 367125.6523 E 2340696.331		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		12. TOTAL SAMPLES 17
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 17
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 47.2'		14. ELEVATION GROUND WATER NA		15. DATE BORING 6/17/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -7.7' MLLW		STARTED 6/17/90
8. TOTAL DEPTH OF BORING 54.9'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 6/17/90
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value	
-7.7		FAT CLAY (CH)	0': FAT CLAY (CH), gray, wet.		1		USCS		0	
						2			0	
				15.9': Trace sand, and shell fragments, slightly calcareous.		3				0
						4				0

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS	
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW	
LOCATION COORDINATES N 367125.6523 E 2340696.331		ELEVATION TOP OF BORING -7.7'			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
		FAT CLAY (CH)	0': FAT CLAY (CH), gray, wet. <i>(continued)</i>		5				0
-36.9	29.2	LEAN CLAY (CL)	29.2': LEAN CLAY (CL), olive green, some sand.		6				4
					7				13
					8				11
					9				12
					10				14
					11				13
					12				14
					13				15
					14				15
					15				16
					16				20
					17				22

BOTTOM OF BOREHOLE AT -54.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-25-90		LOCATION COORDINATES N 367745.6922 E 2340996.216		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		12. TOTAL SAMPLES 18
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 18
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 49.8'		14. ELEVATION GROUND WATER NA		15. DATE BORING 6/18/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -4.8' MLLW		STARTED 6/18/90
8. TOTAL DEPTH OF BORING 54.6'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 6/18/90
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-4.8		[Hatched Legend]	0': FAT CLAY (CH), gray, wet, trace sand, and shell fragments.		1		USCS		0
			3.3': No sand or shell fragments.		2				0
					3				0
					4				0
					5				0

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS	
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW	
LOCATION COORDINATES N 367745.6922 E 2340996.216		ELEVATION TOP OF BORING -4.8'			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
		FAT CLAY	0': FAT CLAY (CH), gray, wet, trace sand, and shell fragments. <i>(continued)</i>		6				0
		FAT CLAY			7				0
-38.1	33.3	CLAYEY GRAVEL LEAN CLAY	33.3': CLAYEY GRAVEL LEAN CLAY (CL), olive green, moist, some sand, calcareous.		8				12
		CLAYEY GRAVEL LEAN CLAY			9				18
		CLAYEY GRAVEL LEAN CLAY			10				9
		CLAYEY GRAVEL LEAN CLAY			11				15
		CLAYEY GRAVEL LEAN CLAY			12				14
		CLAYEY GRAVEL LEAN CLAY			13				12
		CLAYEY GRAVEL LEAN CLAY			14				16
		CLAYEY GRAVEL LEAN CLAY			15				16
		CLAYEY GRAVEL LEAN CLAY			16				18
		CLAYEY GRAVEL LEAN CLAY			17				22
		CLAYEY GRAVEL LEAN CLAY			18				14

BOTTOM OF BOREHOLE AT -54.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-26-90		LOCATION COORDINATES N 367893.612 E 2340587.2		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		12. TOTAL SAMPLES 23
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 23
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 44.9'		14. ELEVATION GROUND WATER NA		15. DATE BORING 6/19/90
7. DEPTH DRILLED INTO FLOOR 0.299999999999997'		16. ELEVATION TOP OF BORING -10.4' MLLW		STARTED 6/19/90
8. TOTAL DEPTH OF BORING 55'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 6/19/90
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-10.4			0': FAT CLAY (CH), gray, wet, trace sand, and shell fragments.		1		USCS		0
-19.8	9.4		9.4': SS CLAYEY SAND (SC), fine; gray, wet, trace shell fragments.		3				0
			14.6': SAND, fine to medium.		4				0
-26.5	16.1		16.1': SILTY SAND (SM), fine to medium; gray, wet, some shell fragments, trace clay.		5				6
-28.0	17.6		17.6': CLAYEY SAND (SC), fine to medium; gray, wet, trace shell fragments.		6				0
-29.5	19.1		19.1': SILTY SAND (SM), medium to coarse; gray, wet, with shell fragments, trace clay, slightly calcareous.		7				6
-31.0	20.6		20.6': CLAYEY SAND (SC), medium to coarse; gray, wet, with shell fragments, slightly calcareous.		8				3
			23.6': CLAYEY SAND, fine to medium; tannish		9				2
									8

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS	
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW	
LOCATION COORDINATES N 367893.612 E 2340587.2		ELEVATION TOP OF BORING -10.4'			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value		
-37.0 -55.0	26.6 44.6	[Yellow Diagonal Hatching]	gray, trace shell fragments, non-calcareous. 20.6' : CLAYEY SAND (SC), medium to coarse; gray, wet, with shell fragments, slightly calcareous. <i>(continued)</i>		10				19		
			25.1' : SAND, medium to coarse; gray, with shell fragments.		11				14		
		[Green Diagonal Hatching]			26.6' : LEAN CLAY (CL), olive green, moist, trace sand, calcareous.		12				30
							13				10
							14				8
							15				12
							16				10
							17				12
							18				14
							19				14
							20				9
							21				16
							22				16
							23				23

BOTTOM OF BOREHOLE AT -55.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-27-94		LOCATION COORDINATES N 359576.601 E 2335353.542		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		12. TOTAL SAMPLES 5
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 5
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 15.4'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/19/94
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -42.2' MLLW		STARTED 8/19/94
8. TOTAL DEPTH OF BORING 57.6'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 8/19/94
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-42.2			0': CLAYEY SILT (MH), dark gray to black.		1		USCS		0
-46.6	4.4		4.4': LEAN CLAY (CL), olive gray, some sand, trace gravel, calcareous. 4.9': SANDY, fine.		2				0
-48.6	6.4		6.4': CLAYEY SAND (SC), fine; olive gray, calcareous.		3				11
									12
									16
									20
					4				30
									25
-56.1	13.9		13.9': LEAN SANDY CLAY (CL), olive gray, trace gravel, calcareous.		5				28
-57.6	15.4								

BOTTOM OF BOREHOLE AT -57.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-28-94		LOCATION COORDINATES N 365007.551 E 2338764.888		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		12. TOTAL SAMPLES 7
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 7
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 22.9'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/23/94
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -33.1' MLLW		STARTED 8/23/94
8. TOTAL DEPTH OF BORING 56'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 8/23/94
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-33.1			0': CLAYEY SILT (MH), dark gray, trace sand, and shell fragments.		1		USCS		0
-39.5	6.4		6.4': FAT CLAY (CH), gray.		2				2
-41.0	7.9		7.9': CLAYEY SAND (SC), fine; olive gray, trace gravel.		3				4
-42.5	9.4		9.4': LEAN CLAY (CL), olive gray, some sand, calcareous.		4				8
									11
									9
					5				11
									12
									12
-51.5	18.4		18.4': CLAYEY SAND (SC), fine; olive gray, calcareous.		6				13
									22
-56.0	22.9				7				22

BOTTOM OF BOREHOLE AT -56.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-29-94		LOCATION COORDINATES N 366126.728 E 2338898.017		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		12. TOTAL SAMPLES 5
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 5
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 12.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/23/94
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -40' MLLW		STARTED 8/23/94
8. TOTAL DEPTH OF BORING 52.5'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 8/23/94
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-40			0': CLAYEY SILT (MH), dark gray to black, some sand.		1		USCS		0
-45.0	5.0		5': SILTY SAND (SM), fine; gray, trace clay.		2				4
-46.5	6.5		6.5': LEAN SANDY CLAY (CL), fine; olive gray, calcareous.		3				9
-49.5	9.5		9.5': CLAYEY SAND (SC), fine; olive gray, calcareous.		4				13
-52.5	12.5				5				14
									20

BOTTOM OF BOREHOLE AT -52.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-30-97		LOCATION COORDINATES N 359595.5101 E 2333502.244		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		12. TOTAL SAMPLES 8
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 8
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 42.9'		14. ELEVATION GROUND WATER NA		15. DATE BORING 6/19/97
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -18' MLLW		STARTED 6/19/97
8. TOTAL DEPTH OF BORING 60.9'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 6/19/97
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-18			0': FAT CLAY (CH), dark gray, trace sand, calcareous.		1		USCS		0
			18.5': Dark gray, some sand.		2				0

DRILLING LOG (Cont Sheet)				INSTALLATION			SHEET 2 OF 2 SHEETS		
PROJECT Charleston Harbor Entrance Channel Deepening				COORDINATE SYSTEM State Plane		HORIZONTAL NAD83	VERTICAL MLLW		
LOCATION COORDINATES N 359595.5101 E 2333502.244				ELEVATION TOP OF BORING -18'					
ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
			0': FAT CLAY (CH), dark gray, trace sand, calcareous. (continued)						
-45.9	27.9								
			27.9': CLAYEY SAND (SC), fine; light olive, calcareous.		3			0	
			29.4': Light olive, trace silt.					2	12
								10	
			30.9': Trace gravel.					4	21
								7	
								14	
-50.4	32.4				4			14	
			32.4': LEAN CLAY (CL), light olive, trace gravel, calcareous.					10	20
								10	
								5	
								9	19
								10	
								10	
								11	25
								14	
								10	
-54.9	36.9							13	27
								14	
			36.9': CLAYEY SAND (SC), fine; light olive, calcareous.					9	
								13	27
								14	
								8	
								9	21
								12	
			39.9': LEAN CLAY (CL), light olive, some sand, calcareous.					6	
								7	16
								9	
								5	
			41.4': CLAYEY SAND (SC), fine; light olive, calcareous.					8	21
								13	
-60.9	42.9				8				
BOTTOM OF BOREHOLE AT -60.9 ft				BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".					
NOTE: Soils visually field classified in accordance with the Unified Soil Classification System									

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-31-97		LOCATION COORDINATES N 360997.2636 E 2334847.857		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		12. TOTAL SAMPLES 10
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 10
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 41.4'		14. ELEVATION GROUND WATER NA		15. DATE BORING 6/19/97
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -15.7' MLLW		STARTED 6/19/97
8. TOTAL DEPTH OF BORING 57.1'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 6/19/97
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-15.7		[Hatched Legend]	0': FAT CLAY (CH), dark gray, trace shale fragments, calcareous.		1		USCS		0
			13.4': No shell fragments, non-calcareous.		2				0
			19.4': Trace wood.						0
			21.2': Some sand, no wood.		3				0

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS	
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW	
LOCATION COORDINATES N 360997.2636 E 2334847.857		ELEVATION TOP OF BORING -15.7'			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-39.1	23.4								
			23.4': SAND (SP), fine; gray, Poorly Graded, trace silt.		4			0	9
-40.6	24.9		24.9': SILTY SAND (SM), fine; gray.		5			3	
								1	
-42.1	26.4		26.4': SAND (SP), fine to medium; gray, Poorly Graded, trace silt.		6			2	4
								3	
-43.6	27.9		27.9': CLAYEY SAND (SC), fine; olive, calcareous.		7			5	13
								8	
			29.4': Trace shell fragments.					5	16
								9	
			30.9': No shell fragments.					7	35
								12	
								14	
								21	
								0	8
								3	
								5	
					8			5	20
								9	
								11	
								7	20
								9	
-51.1	35.4		35.4': LEAN CLAY (CL), olive, some sand, calcareous.		9			11	
								4	22
			36.9': Trace sand.					10	
								12	
			38.4': Some sand.					6	26
								11	
								15	
								7	25
								12	
								13	
			39.9': Trace sand.					6	18
								8	
-57.1	41.4				10			10	

BOTTOM OF BOREHOLE AT -57.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-32-97		LOCATION COORDINATES N 362480.475 E 2336245.397		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		12. TOTAL SAMPLES 9
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 9
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 42.1'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 6/20/97 COMPLETED 6/20/97
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -12.9' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A
8. TOTAL DEPTH OF BORING 55'		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-12.9			0': SILTY SAND (SM), fine to medium; dark gray, some shell fragments, calcareous.		1		USCS		0
-22.3	9.4		9.4': FAT CLAY (CH), dark gray, some sand.		2				0
-29.2	16.3		16.3': SILTY SAND (SM), fine; gray, trace clay.		3				0
-32.3	19.4		19.4': CLAYEY SAND (SC), fine to medium; gray.		4			0	1
								0	
								0	
								1	

DRILLING LOG (Cont Sheet)			INSTALLATION		SHEET 2 OF 2 SHEETS				
PROJECT Charleston Harbor Entrance Channel Deepening			COORDINATE SYSTEM State Plane		HORIZONTAL VERTICAL NAD83 MLLW				
LOCATION COORDINATES N 362480.475 E 2336245.397			ELEVATION TOP OF BORING -12.9'						
ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/0.5 ft	N-Value
-41.5	28.6		19.4': CLAYEY SAND (SC), fine to medium; gray. (continued)						0
-43.0	30.1		28.6': SAND (SP), fine to medium; light gray, Poorly Graded.		5			0 7 16	23
-49.0	36.1		30.1': CLAYEY SAND (SC), fine; olive, calcareous.		6			0 3 0 3 3	3
-49.0	36.1		36.1': LEAN CLAY (CL), light olive, some sand, and silt, calcareous.		7			0 0 3 6 7 5 9 10	3
-55.0	42.1		37.6': Olive, trace sand, and shell fragments.		8			8 11 13	24
-55.0	42.1				9			6 7 10 6 12 14 8 11 14	17 26 25

BOTTOM OF BOREHOLE AT -55.0 ft















NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-33-97		LOCATION COORDINATES N 363882.6031 E 2337710.0225		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		12. TOTAL SAMPLES 10
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 10
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 37.2'		14. ELEVATION GROUND WATER NA		15. DATE BORING 6/21/97
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -15.3' MLLW		STARTED 6/21/97
8. TOTAL DEPTH OF BORING 52.5'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 6/21/97
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-15.3			0': SILTY SAND (SM), fine to medium; dark gray, some shell fragments, calcareous.		1		USCS		0
			6.8': Trace clay.					0	
								0	1
								1	
									0
					2			1	
								2	4
								2	
-26.8	11.5		11.5': CLAYEY SAND (SC), fine to medium; dark gray, calcareous.		3			0	
			13': Some shell fragments.					3	9
								6	
								0	
								1	1
								0	
			15.2': FAT CLAY (CH), dark gray, trace sand, and shell fragments.		4				0

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane	HORIZONTAL NAD83	VERTICAL MLLW
LOCATION COORDINATES N 363882.6031 E 2337710.0225		ELEVATION TOP OF BORING -15.3'		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
			15.2': FAT CLAY (CH), dark gray, trace sand, and shell fragments. <i>(continued)</i>						0
-42.4	27.1		27.1': CLAYEY SAND (SC), fine to medium; dark gray, trace shell fragments.		5				0
-45.0	29.7		29.7': SAND (SP), fine to medium; light gray, Poorly Graded.		6			12	11
-46.0	30.7		30.7': LEAN CLAY (CL), olive, trace sand, and gravel, calcareous.		7			9	
			32.7': Some sand.					11	25
								7	
					8			12	
-49.5	34.2		34.2': CLAYEY SAND (SC), fine; olive, trace gravel, calcareous.		9			13	20
								5	
					10			9	
								10	19
								4	
								8	
-52.5	37.2							16	24

BOTTOM OF BOREHOLE AT -52.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-34-98		LOCATION COORDINATES N 360005.4 E 2334273.17		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		12. TOTAL SAMPLES 14
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 14
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 40.8'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/9/98
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -23.5' MLLW		STARTED 8/9/98
8. TOTAL DEPTH OF BORING 64.3'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 8/9/98
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-23.5		Green	0': LEAN SILT (ML), gray, some shell fragments, trace sand, slightly calcareous.		1		USCS		0
			2.3': Shell fragments.		2			9	
-27.3	3.8	Blue Hatched	3.8': FAT CLAY (CH), gray, some shell fragments.		3			0	
			6.9': Trace shell fragments.		4			4	
					5			0	
					6			0	
					7			0	
					8			0	
				16': Some shell fragments.		9			0
				21.6': Trace shell fragments.		10			0

DRILLING LOG (Cont Sheet)			INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS				
PROJECT Charleston Harbor Entrance Channel Deepening			COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW				
LOCATION COORDINATES N 360005.4 E 2334273.17			ELEVATION TOP OF BORING -23.5'						
ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
-47.8	24.3		3.8': FAT CLAY (CH), gray, some shell fragments. <i>(continued)</i>						
-50.7	27.2		24.3': CLAYEY SAND, fine; gray, trace shell fragments.		11				0
-52.8	29.3		27.2': Wash.						
-54.3	30.8		29.3': CLAYEY SAND (SC), fine; gray, some silt, trace shell fragments.		12				30
-57.8	34.3		30.8': Wash.						
-59.3	35.8		34.3': SILTY SAND (SM), fine; gray, some clay, and shell fragments, slightly calcareous.		13				14
-62.8	39.3		35.8': Wash.						
-64.3	40.8		39.3': CLAYEY SAND, fine; olive gray, calcareous.		14				31

BOTTOM OF BOREHOLE AT -64.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-35-98		LOCATION COORDINATES N 361460.54 E 2335716.41		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		12. TOTAL SAMPLES 12
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 12
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 35.3'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/9/98
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -24.7' MLLW		STARTED 8/9/98
8. TOTAL DEPTH OF BORING 60'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 8/9/98
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-24			0': FAT CLAY (CH), gray, trace silt, and shell fragments.		1		USCS		0
			8.1': No sand or silt.		2				0
-36.9	12.2		12.2': CLAYEY SAND (SC), fine; gray, some wood.		3				0
-38.9	14.2		14.2': SILTY SAND (SM), fine; light gray and gray, some clay.		4				9
					5				8
-41.9	17.2		17.2': SAND (SP), fine; light gray, Poorly Graded, trace silt, and shell fragments.		6				13
-43.4	18.7		18.7': SILTY SAND (SM), fine to medium; light gray, trace clay, and shell fragments.		7				10

DRILLING LOG (Cont Sheet)			INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS				
PROJECT Charleston Harbor Entrance Channel Deepening			COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW				
LOCATION COORDINATES N 361460.54 E 2335716.41			ELEVATION TOP OF BORING -24.7'						
ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-44.9	20.2	[Yellow Diagonal Pattern]	20.2': CLAYEY SAND (SC), fine; olive gray, calcareous.		8				8
					9				12
-47.9	23.2	[Green Diagonal Pattern]	23.2': LEAN CLAY (CL), olive gray, some silt, and sand, calcareous.		10				16
-49.4	24.7								
			24.7': Wash.						
-53.5	28.8	[Yellow Diagonal Pattern]	28.8': CLAYEY SAND (SC), fine; olive gray, calcareous.		11				17
-55.0	30.3								
			30.3': Wash.						
-58.5	33.8	[Green Diagonal Pattern]	33.8': LEAN CLAY (CL), olive gray, some silt, trace sand, calcareous.		12				38
-60.0	35.3								
BOTTOM OF BOREHOLE AT -60.0 ft				BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".					
NOTE: Soils visually field classified in accordance with the Unified Soil Classification System									

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-36-98		LOCATION COORDINATES N 362886.63 E 2337149.28		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		12. TOTAL SAMPLES 9
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 9
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 40.4'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/10/98
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -23.4' MLLW		STARTED 8/10/98
8. TOTAL DEPTH OF BORING 63.8'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 8/10/98
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-23.4			0': SILTY SAND (SM), fine; gray, some shell fragments, slightly calcareous.		1		USCS		0
			3.1': Trace clay, and shell fragments.		2				0
			9': Some clay.		3				0
					4				0
					5				0

DRILLING LOG (Cont Sheet)			INSTALLATION		SHEET 2 OF 2 SHEETS				
PROJECT Charleston Harbor Entrance Channel Deepening			COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW				
LOCATION COORDINATES N 362886.63 E 2337149.28			ELEVATION TOP OF BORING -23.4'						
ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/0.5 ft	N-Value
			0': SILTY SAND (SM), fine; gray, some shell fragments, slightly calcareous. <i>(continued)</i>						
			24.1': Some clay, and shell fragments.		6				11
-49.0	25.6		25.6': Wash.						
			29.1': SAND (SP), medium to coarse; gray, Poorly Graded, some shell fragments.		7				9
-54.0	30.6		30.6': Wash.						
			33.9': LEAN CLAY (CL), olive gray, some silt, and sand, calcareous.		8				26
-57.3	33.9		35.4': Wash.						
-58.8	35.4		38.9': LEAN CLAY (CL), olive gray, some silt, and sand, calcareous.		9				24
-62.3	38.9		38.9': LEAN CLAY (CL), olive gray, some silt, and sand, calcareous.						
-63.8	40.4								

BOTTOM OF BOREHOLE AT -63.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WRB-10-81		LOCATION COORDINATES N 362130.481 E 2337634.587		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		12. TOTAL SAMPLES 1
4. NAME OF DRILLER Perry Roundtree		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 1
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 8.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/14/81
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -45' MLLW		STARTED 5/14/81
8. TOTAL DEPTH OF BORING 53.5'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/14/81
		18. SIGNATURE AND TITLE OF INSPECTOR Thomas W. Scott		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-45		0'	ORGANIC SILT (OH), black.				USCS		0
-50.5	5.5	5.5'	MH SILTY FAT CLAY (MH), green.		1				11
-53.5	8.5	8.5'							12

BOTTOM OF BOREHOLE AT -53.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System
BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WRB-11-81		LOCATION COORDINATES N 362020.508 E 2337764.603		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		12. TOTAL SAMPLES 3
4. NAME OF DRILLER Perry Roundtree		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 8'		14. ELEVATION GROUND WATER NA		UNDISTURBED 0
7. DEPTH DRILLED INTO ROCK 0'		15. DATE BORING 5/18/81		STARTED 5/18/81
8. TOTAL DEPTH OF BORING 46'		16. ELEVATION TOP OF BORING -38' MLLW		COMPLETED 5/18/81
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Thomas W. Scott		




ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-38		0'	0': ORGANIC SILT (OH), black.				USCS		0
-40.0	2.0	2'	2': SILTY FAT CLAY (MH), gray.		1				9
		2'			2				11
		2'							12
		2'			3				11
-46.0	8.0	8'							

BOTTOM OF BOREHOLE AT -46.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WRB-12-81		LOCATION COORDINATES N 362990.562 E 2338184.427		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		12. TOTAL SAMPLES 2
4. NAME OF DRILLER Parden		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 2
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING ---
6. THICKNESS OF OVERBURDEN 5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/20/81
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41.5' MLLW		STARTED 5/20/81
8. TOTAL DEPTH OF BORING 46.5'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/20/81
		18. SIGNATURE AND TITLE OF INSPECTOR Thomas W. Scott		



ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-46.5			0': ORGANIC SILT (CH), black.				USCS		0
-43.5	2.0		2': CLAYEY FAT SILT (MH), green.		1				8
-46.5	5.0				2				12

BOTTOM OF BOREHOLE AT -46.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System
BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WRB-13-81	LOCATION COORDINATES N 362870.589 E 2338314.445		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		
4. NAME OF DRILLER Perry Roundtree		12. TOTAL SAMPLES 2	DISTURBED 2	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 4'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 50'		15. DATE BORING 5/20/81		STARTED 5/20/81 COMPLETED 5/20/81
		16. ELEVATION TOP OF BORING -46' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Thomas W. Scott		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-46			0': SILT (OH), black.				USCS		0
-47.0	1.0		1': CLAYEY FAT SILT (MH), green.		1				9
-50.0	4.0				2				10

BOTTOM OF BOREHOLE AT -50.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WRB-14-81		LOCATION COORDINATES N 362750.614 E 2338434.463		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		12. TOTAL SAMPLES 3
4. NAME OF DRILLER Perry Roundtree		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 7.5'		14. ELEVATION GROUND WATER NA		UNDISTURBED 0
7. DEPTH DRILLED INTO ROCK 0'		15. DATE BORING 5/18/81		STARTED 5/18/81
8. TOTAL DEPTH OF BORING 50.5'		16. ELEVATION TOP OF BORING -43' MLLW		COMPLETED 5/18/81
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Thomas W. Scott		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-43		ORGANIC SILT (OH), black.	0': ORGANIC SILT (OH), black.		1		USCS		0
-47.5	4.5	SILTY FAT CLAY (MH), green.	4.5': SILTY FAT CLAY (MH), green.		2				10
-50.5	7.5	BOTTOM OF BOREHOLE AT -50.5 ft			3				3

BOTTOM OF BOREHOLE AT -50.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WRB-15-81		LOCATION COORDINATES N 363610.697 E 2338999.301		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		12. TOTAL SAMPLES 2
4. NAME OF DRILLER Perry Roundtree		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 2
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 4'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/20/81
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -44' MLLW		STARTED 5/20/81
8. TOTAL DEPTH OF BORING 48'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/20/81
		18. SIGNATURE AND TITLE OF INSPECTOR Thomas W. Scott		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-44			0': No recovery.				USCS		0
-45.0	1.0		1': SILTY SAND (SM), fine to medium; green.		1				13
-46.5	2.5		2.5': CLAYEY FAT SILT (MH), green.		2				17
-48.0	4.0								

BOTTOM OF BOREHOLE AT -48.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 1 SHEETS
2. HOLE NUMBER WRB-16-81		LOCATION COORDINATES N 364455.767 E 2339494.143		VERTICAL MLLW
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail		
4. NAME OF DRILLER Perry Roundtree		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		
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 27'		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 5
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		UNDISTURBED 0
8. TOTAL DEPTH OF BORING 51'		15. DATE BORING 5/20/81		STARTED 5/20/81
		16. ELEVATION TOP OF BORING -24' MLLW		COMPLETED 5/20/81
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Thomas W. Scott		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-24			0': No recovery.				USCS		0
-36.0	12.0		12': CLAYEY FAT SILT (MH), gray.		1				4
					2				7
									17
					3				23
									17
									12
									11
					4				8
									11
-51.0	27.0				5				12

BOTTOM OF BOREHOLE AT -51.0 ft

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30"

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WRB-17-81		LOCATION COORDINATES N 363030.545 E 2338099.422		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		12. TOTAL SAMPLES 5
4. NAME OF DRILLER Perry Roundtree		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 5
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 9.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/20/81
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -36.5' MLLW		STARTED 5/20/81
8. TOTAL DEPTH OF BORING 46'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/20/81
		18. SIGNATURE AND TITLE OF INSPECTOR Thomas W. Scott		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-36.5		0'	0': ORGANIC SILT (OH), black, and sand.		1		USCS		0
-40.0	3.5	3.5'	3.5': CLAYEY FAT SILT (MH), gray.		2				1
					3				7
					4				12
					5				11

BOTTOM OF BOREHOLE AT -46.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
				OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WRB-18-81		LOCATION COORDINATES N 360905.221 E 2336059.83		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		12. TOTAL SAMPLES 3
4. NAME OF DRILLER Perry Roundtree		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 13'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/13/81
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -34.5' MLLW		STARTED 5/13/81
8. TOTAL DEPTH OF BORING 47.5'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/13/81
		18. SIGNATURE AND TITLE OF INSPECTOR Thomas W. Scott		



ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-34.5		0'	0': ORGANIC SILT (OH).		1		USCS		0
-41.5	7.0	7'	7': SILTY SAND (SM), fine to medium; gray.		2				11
					3				15
									15
									18
-47.5	13.0								

BOTTOM OF BOREHOLE AT -47.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".


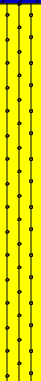
DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WRB-3-81		LOCATION COORDINATES N 359190.055 E 2334935.144		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		12. TOTAL SAMPLES 6
4. NAME OF DRILLER Perry Roundtree		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 6
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING ---
6. THICKNESS OF OVERBURDEN 14.1'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/12/81
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -30.9' MLLW		STARTED 5/12/81
8. TOTAL DEPTH OF BORING 45'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/12/51
18. SIGNATURE AND TITLE OF INSPECTOR Thomas W. Scott				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-30.9			0': No recovery..						
-35.0	4.1		4.1': SILT (OH), black.		1				2
-39.0	8.1		8.1': SILTY FAT CLAY (MH), gray.		2				1
					3				11
					4				12
					5				10
					6				11

BOTTOM OF BOREHOLE AT -45.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WRB-4-81		LOCATION COORDINATES N 359310.029 E 2334810.127		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		12. TOTAL SAMPLES 3
4. NAME OF DRILLER Perry Roundtree		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 17.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/12/81
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -32.5' MLLW		STARTED 5/12/81
8. TOTAL DEPTH OF BORING 50'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/12/81
18. SIGNATURE AND TITLE OF INSPECTOR Thomas W. Scott				



ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-32.5			0': No recovery.				USCS		0
-42.5	10.0		10': SILT (OH), black.		1				5
-44.0	11.5		11.5': SILTY SAND (SM), fine to medium; gray.		2				8
									3
									1
-50.0	17.5				3				7

BOTTOM OF BOREHOLE AT -50.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WRB-5-81		LOCATION COORDINATES N 359920.161 E 2335605.007		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		12. TOTAL SAMPLES 2
4. NAME OF DRILLER Perry Roundtree		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 2
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING ---
6. THICKNESS OF OVERBURDEN 18.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/13/81
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -32.5' MLLW		STARTED 5/13/81
8. TOTAL DEPTH OF BORING 51'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/13/81
18. SIGNATURE AND TITLE OF INSPECTOR Thomas W. Scott				


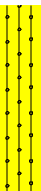
ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sam No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-32.5			0': No recovery.				USCS		0
-48.0	15.5		15.5': SILTY ORGANIC SAND (OH).		1				9
-49.5	17.0		17': SILTY SAND (SM), fine to medium; gray.		2				15
-51.0	18.5								

BOTTOM OF BOREHOLE AT -51.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System
BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WRB-6-81		LOCATION COORDINATES N 360690.269 E 2336294.862		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		12. TOTAL SAMPLES 4
4. NAME OF DRILLER Perry Roundtree		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 18'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/14/81
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -32' MLLW		STARTED 5/14/81
8. TOTAL DEPTH OF BORING 50'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/14/81
		18. SIGNATURE AND TITLE OF INSPECTOR Thomas W. Scott		



ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-32			0': No recovery.				USCS		
-36.5	4.5								0
-42.5	10.5		10.5': ORGANIC SILT (OH), black.		1				2
					2				3
									3
			15': SILTY SAND (SM), fine to medium; gray.		3				5
					4				11
-50.0	18.0								

BOTTOM OF BOREHOLE AT -50.0 ft

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 1 SHEETS VERTICAL MLLW
2. HOLE NUMBER WRB-7-81	LOCATION COORDINATES N 360556.296 E 2336424.88		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		12. TOTAL SAMPLES 5
4. NAME OF DRILLER Perry Roundtree		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 5
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 15.5'		14. ELEVATION GROUND WATER NA		UNDISTURBED 0
7. DEPTH DRILLED INTO ROCK 0'		15. DATE BORING 5/13/81		STARTED 5/13/81
8. TOTAL DEPTH OF BORING 46.5'		16. ELEVATION TOP OF BORING -31' MLLW		COMPLETED 5/13/81
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Thomas W. Scott		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sam No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-31			0': ORGANIC SILT (OH), soft; black.		1		USCS		0
-40.5	9.5		9.5': SILTY FAT CLAY (MH), gray.		2				11
					3				15
					4				9
-46.5	15.5				5				11

BOTTOM OF BOREHOLE AT -46.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System
BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WRB-8-81	LOCATION COORDINATES N 361390.284 E 2336464.739		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		
4. NAME OF DRILLER Perry Roundtree		12. TOTAL SAMPLES 6	DISTURBED 6	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 14'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 51'		15. DATE BORING 5/14/81		STARTED 5/14/81 COMPLETED 5/14/81
		16. ELEVATION TOP OF BORING -37' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Thomas W. Scott		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-37			0': No recovery.				USCS		0
-42.0	5.0		5': SILTY SAND (SM), fine to medium; green.		1				5
-43.5	6.5		6.5': SILTY FAT CLAY, green.		2				11
					3				14
					4				15
					5				15
					6				12

BOTTOM OF BOREHOLE AT -51.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

Boring Designation A-1

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	OF 1 SHEETS VERTICAL MLLW
2. HOLE NUMBER A-1	LOCATION COORDINATES N 341270.916 E 2322705.703	10. SIZE AND TYPE OF BIT Vibracore	
3. DRILLING AGENCY Athena Technologies		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic	
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 0	DISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		UNDISTURBED 0	
DEG FROM VERTICAL ---		BEARING	
6. THICKNESS OF OVERBURDEN 12'		13. TOTAL NUMBER CORE BOXES 0	
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA	
8. TOTAL DEPTH OF BORING 12'		15. DATE BORING 7/19/97	STARTED 7/19/97
		COMPLETED 7/19/97	
		16. ELEVATION TOP OF BORING 0' MLLW	
		17. TOTAL CORE RECOVERY FOR BORING N/A	
		18. SIGNATURE AND TITLE OF INSPECTOR JGM	

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
0		[Green Hatched Legend]	0': CLAY (CL), dark gray mottled with light gray, dry.				Note: Core section from 7-12' interpreted as relict marsh sediments, discarded prior to homogenizing and sampling.		
-2.0	2.0		2': CLAY (CL), dark gray mottled with light gray, dry.						
-7.0	7.0		7': CLAY (CL), dark gray, with plant debris, and rootlets, organic rich, contains burrows, sulfide smell.						
-10.0	10.0		10': CLAY (CL), dark gray, with plant debris, and rootlets, organic rich, contains burrows, sulfide smell.						
-12.0	12.0								

BOTTOM OF BOREHOLE AT -12.0 ft

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-1-1-88		LOCATION COORDINATES N 364458.4176 E 2328141.068		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore
3. DRILLING AGENCY Ocean Surveys., Inc.		12. TOTAL SAMPLES 4		DISTURBED 4 UNDISTURBED 0
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	14. ELEVATION GROUND WATER NA
6. THICKNESS OF OVERBURDEN 18.5'		15. DATE BORING 8/20/86		STARTED 8/20/86 COMPLETED 8/20/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -36.9' MLLW		
8. TOTAL DEPTH OF BORING 55.4'		17. TOTAL CORE RECOVERY FOR BORING 93%		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-36.9			0': CLAYEY SAND (SC), fine; gray, and shell fragments.				Start Time: 12:45 Stop Time: 12:50		
-38.0	1.1		1.1': CLAYEY SAND (SC-SM), fine; gray, with clay strata or lenses.		1				
-41.5	4.6		4.6': SAND (SP), fine; gray.						
-42.4	5.5		5.5': SILTY SAND (SM), fine to medium; gray, with clay strata or lenses, and sand strata or lenses.		2				
-47.7	10.8		10.8': SAND (SP), fine to medium; gray, with shell fragments.						
-48.9	12.0		12': CLAYEY SAND (SC), medium; gray, with shell fragments, and rock fragments.						
-49.5	12.6		12.6': CLAYEY ORGANIC SILT (MH), gray, with sand strata or lenses.		3				
-53.2	16.3		16.1': Clay strata or lenses, and sand strata or lenses.						
-55.4	18.5		16.3': SILTY SAND (SP-SM), fine; gray.		4				

BOTTOM OF BOREHOLE AT -55.4 ft
Charleston Harbor & Entrance Channel

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-13-1-1-86		LOCATION COORDINATES N 367912.4471 E 2328787.485		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 3
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 12.7'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/2/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -39.2' MLLW		STARTED 8/2/86
8. TOTAL DEPTH OF BORING 51.9'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 8/2/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-39.2		●●●●●	0': SILTY SAND (SM), fine; dark gray, with shell fragments.		1		Start Time: 11:10 Stop Time: 11:21 Penetrometer - 0.50 TSF		
-44.2	5.0	●●●●●	5': CLAYEY SANDY SILT (MH), olive, calcareous (Cooper Marl).		2		Penetrometer - 2.30 TSF		
-48.4	9.2	●●●●●	9.2': CLAYEY SANDY SILT (ML), olive, calcareous (Cooper Marl).		3		Penetrometer - 2.0 TSF		
-51.9	12.7								

BOTTOM OF BOREHOLE AT -51.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG	DIVISION South Atlantic Division		INSTALLATION Charleston Harbor		SHEET 1 OF 1 SHEETS
	1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-13-A-1-2-86		LOCATION COORDINATES N 367912.4471 E 2328787.485		10. SIZE AND TYPE OF BIT	
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES	
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES		DISTURBED	UNDISTURBED
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL	BEARING	14. ELEVATION GROUND WATER	
6. THICKNESS OF OVERBURDEN		12.4'	15. DATE BORING		STARTED
7. DEPTH DRILLED INTO ROCK		0'	16. ELEVATION TOP OF BORING		COMPLETED
8. TOTAL DEPTH OF BORING		62.6'	17. TOTAL CORE RECOVERY FOR BORING		100%
			18. SIGNATURE AND TITLE OF INSPECTOR		N/A

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-50.2			0': CLAYEY SANDY SILT (ML), olive, calcareous (Cooper Marl).		1		Start Time: 11:58 Stop Time: 12:11 Penetrometer - 1.35 TSF		
					2				
-62.6	12.4								

BOTTOM OF BOREHOLE AT -62.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-14-1-1-86		LOCATION COORDINATES N 358327.3026 E 2332269.005		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 3
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 17.6'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/2/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -24.2' MLLW		STARTED 8/2/86
8. TOTAL DEPTH OF BORING 41.8'		17. TOTAL CORE RECOVERY FOR BORING 88%		COMPLETED 8/2/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-24.2			0': CLAYEY SILT (MH), gray, with organics, and shell fragments, 3" to 4" zones of shell hash and sand within the first 1.9". After 1.9", to 7", the silt has a few randaon 1/16" thick lenses of sand.		1		Start Time: 14:27 Stop Time: 14:31 Penetrometer - 0.75 TSF		
-31.8	7.6		7.6': SAND, fine; gray and white, and shell fragments.		2				
-38.8	14.6		14.6': SILTY SANDY CLAY, olive, calcareous (Cooper Marl).		3				
-41.8	17.6								

BOTTOM OF BOREHOLE AT -41.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-15-1-1-86		LOCATION COORDINATES N 357646.3895 E 2332669.113		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/2/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -33.3' MLLW		STARTED 8/2/86
8. TOTAL DEPTH OF BORING 53.3'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 8/2/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-33.3			0': SILTY SAND (SP-SM), medium; gray, with shell fragments, and clay.		1		Start Time: 14:56 Stop Time: 15:13 Penetrometer - 1.25 TSF		
			3': Brown.		2				
-39.8	6.5		5.9': Transitional zone - Cooper Marl and shell fragments.		3				
			6.5': CLAYEY SANDY SILT (ML), olive, calcareous (Cooper Marl).		4			Penetrometer - 2.50 TSF	
-53.3	20.0								

BOTTOM OF BOREHOLE AT -53.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System


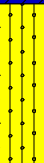

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-16-1-1-86		LOCATION COORDINATES N 357068.749 E 2332940.936		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 18.3'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/2/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -38.4' MLLW		STARTED 8/2/86
8. TOTAL DEPTH OF BORING 56.7'		17. TOTAL CORE RECOVERY FOR BORING 92%		COMPLETED 8/2/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.4		●●●●●	0': SILTY SAND (SM), fine; black, with shell fragments, and organics, and clay.				Start Time: 15:59 Stop Time: 16:15		
-41.7	3.3	●●●●●	3.3': CLAYEY SANDY SILT (ML), olive, calcareous (Cooper Marl).		1		Penetrometer - 1.25 TSF to 1.50 TSF		
					2				
					3				
					4				
-56.7	18.3						Penetrometer - 2.5 TSF to 3.0 TSF		

BOTTOM OF BOREHOLE AT -56.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-17-1-1-86		LOCATION COORDINATES N 357046.825 E 2332931.949		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 4	DISTURBED 4	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	13. TOTAL NUMBER CORE BOXES 0
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 8/2/86 COMPLETED 8/2/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -35.9' MLLW		17. TOTAL CORE RECOVERY FOR BORING 100%
8. TOTAL DEPTH OF BORING 55.9'		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-35.9			0': CLAYEY SANDY SILT (OH), black, organic.	100	1		USCS Start Time: 15:07 Stop Time: 17:21		
-38.3	2.4		2.4': SILTY CLAYEY SAND (SM), fine; olive brown, with shells, and shell fragments, contains fossils (Cooper Marl).				Penetrometer = 0.8 TSF		
-41.3	5.4		5.4': SANDY SILT (MH), olive, calcareous (Cooper Marl).	100	2		Penetrometer = 1.7 TSF		
				100	3		Penetrometer = 2.75 TSF		
				100	4		Penetrometer = 2.75 TSF		
-55.9	20.0								

BOTTOM OF BOREHOLE AT -55.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-18-1-1-86		LOCATION COORDINATES N 352955.9821 E 2329933.934		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 6	DISTURBED 6	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 17.1'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 59.6'		15. DATE BORING 8/3/86	STARTED 8/3/86	COMPLETED 8/3/86
		16. ELEVATION TOP OF BORING -42.5' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING 85%		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-42.5		[Green]	0': SANDY CLAY (CL), brown.		1		USCS Start Time: 11:31 Stop Time: 11:56 Penetrometer - 1.3 TSF to 4.5 TSF		
-43.3	0.8	[Yellow]	0.8': SILTY SAND (SM), fine; brown.						
-44.2	1.7	[Red]	1.7': SAND (SP), medium; brown, with shell fragments, and phosphate nodules.		2				
-45.6	3.1	[Red]			3				
-46.8	4.3	[Yellow]	3.1': CLAYEY SAND (SC), fine; gray, with shell fragments, and rock fragments.		4				
		[Blue]	4.3': CLAYEY SANDY SILT (MH), olive, calcareous (Cooper Marl).						
-59.5	17.0				6				

BOTTOM OF BOREHOLE AT -59.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-19-1-1-86		LOCATION COORDINATES N 352142.1198 E 2330615.061		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/3/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -23.6' MLLW		STARTED 8/3/86
8. TOTAL DEPTH OF BORING 43.6'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 8/3/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-23.6			0': CLAYEY SILT (ML), gray, with organics, and shell fragments.				Start Time: 13:06:00 Stop Time: 13:06:45 Penetrometer - 0.35 TSF		
			2.8': Shell fragments, and sand, and organics.		1				
					2				
					3				
					4				
-43.6	20.0								

BOTTOM OF BOREHOLE AT -43.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

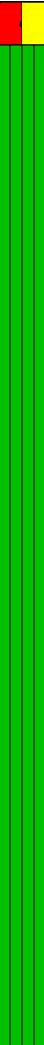
DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-20-1-1-86		LOCATION COORDINATES N 352001.2186 E 2331146.078		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 3
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 19.6'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/3/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -22.2' MLLW		STARTED 8/3/86
8. TOTAL DEPTH OF BORING 41.8'		17. TOTAL CORE RECOVERY FOR BORING 98%		COMPLETED 8/3/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-22.2			0': SILTY CLAY (CL), gray, with sand, and organics, and shell fragments.				Start Time: 14:02 Stop Time: 14:03		
-27.2	5.0		5': CLAYEY SAND (MH), gray, with sand, and organics, and shell fragments.		1		Penetrometer - 0.25 TSF to 0.45 TSF		
					2				
					3				
-41.8	19.6								

BOTTOM OF BOREHOLE AT -41.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-21-1-1-86		LOCATION COORDINATES N 351429.1949 E 2330962.175		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 19.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/3/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -24.9' MLLW		STARTED 8/3/86
8. TOTAL DEPTH OF BORING 44.4'		17. TOTAL CORE RECOVERY FOR BORING 97%		COMPLETED 8/3/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value	
-24.9	0.8		0': SILTY SAND (SP-SM), medium; gray, with shell fragments.		1		USCS			
-25.7			0.8': CLAYEY SANDY SILT (ML), gray, with shell fragments.		2		Start Time: 16:00:14 Stop Time: 16:00:52			
						3		Penetrometer - 0.25 TSF		
						4				
-44.4	19.5									

BOTTOM OF BOREHOLE AT -44.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-22-1-1-86		LOCATION COORDINATES N 351242.2926 E 2331482.2		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/3/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -27.2' MLLW		STARTED 8/3/86
8. TOTAL DEPTH OF BORING 47.2'		17. TOTAL CORE RECOVERY FOR BORING 98%		COMPLETED 8/3/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-27.2			0': CLAYEY SILT (MH), gray, with organics, with 1/8" to 1" thick layers of fine sand or shell hash occurring randomly every 4" to 2'.				Start Time: 15:14 Stop Time: 15:15 Penetrometer - 0.2 TSF		
					1				
					2				
					3				
					4				
-47.2	20.0								

BOTTOM OF BOREHOLE AT -47.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-23-1-1-86		LOCATION COORDINATES N 350691.2638 E 2331273.295		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 3
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 18.7'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/5/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -38.4' MLLW		STARTED 8/5/86
8. TOTAL DEPTH OF BORING 57.1'		17. TOTAL CORE RECOVERY FOR BORING 97%		COMPLETED 8/5/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.4			0': SILTY CLAYEY (ML), gray, with organics, and shell fragments, 1/16" to 2" thick lenses of sand and shell hash occurring randomly throughout the sample.				Start Time: 14:17 Stop Time: 14:18 Penetrometer - 0.25 TSF to 0.30 TSF		
					1				
					2				
					3				
-57.1	18.7								

BOTTOM OF BOREHOLE AT -57.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-24-1-1-86		LOCATION COORDINATES N 350510.3588 E 2331779.319		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/3/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -33.6' MLLW		STARTED 8/3/86
8. TOTAL DEPTH OF BORING 53.6'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 8/3/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-33.6			0': CLAYEY SILT (ML), gray, with organics, 1/8" to 4" zones of sand or shell hash layers at random intervals.				Start Time: 9:22 Stop Time: 9:22 Penetrometer - 0.25 TSF		
					1				
					2				
					3				
					4				
-53.6	20.0								

BOTTOM OF BOREHOLE AT -53.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-25-1-1-86		LOCATION COORDINATES N 348083.3128 E 2331316.729		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 4	DISTURBED 4	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 20'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 61.6'		15. DATE BORING 8/12/86		STARTED 8/12/86 COMPLETED 8/12/86
		16. ELEVATION TOP OF BORING -41.6' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING 100%		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.6			0': SANDY SILTY CLAY (CL), gray, with organics.				Start Time: 10:28 Stop Time: 10:44 Penetrometer - 0.25 TSF		
-47.1	5.5		5.5': CLAYEY SANDY SILT (MH), olive, calcareous.		1				
					2		Penetrometer - 1.25 TSF		
					3		Penetrometer - 3.5 TSF		
					4		Penetrometer - 2.75 TSF		
-61.6	20.0								

BOTTOM OF BOREHOLE AT -61.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System


DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-26-1-1-86		LOCATION COORDINATES N 349621.4806 E 2332369.462		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 4	DISTURBED 4	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 20'		13. TOTAL NUMBER CORE BOXES 0		14. ELEVATION GROUND WATER NA
7. DEPTH DRILLED INTO ROCK 0'		15. DATE BORING 8/3/86		STARTED 8/3/86
8. TOTAL DEPTH OF BORING 61'		16. ELEVATION TOP OF BORING -41' MLLW		COMPLETED 8/3/86
		17. TOTAL CORE RECOVERY FOR BORING 100%		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-41			0': CLAYEY SAND (ML), gray, with organics, with 1/16" to 3/4" thick lenses of fine sand occurring randomly throughout the sample.		1		Start Time: 10:21 Stop Time: 10:21 Penetrometer - 0.35 TSF		
					2				
					3				
					4				
-61.0	20.0								

BOTTOM OF BOREHOLE AT -61.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-27-1-1-86		LOCATION COORDINATES N 346382.3315 E 2331283.012		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 5
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 5
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/5/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -39.1' MLLW		STARTED 8/5/86
8. TOTAL DEPTH OF BORING 59.1'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 8/5/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value	
-39.1	0.8		0': CLAYEY SAND (SC), fine; dark olive, calcareous (Cooper Marl).		1		USCS			
-39.9			0.8': CLAYEY SANDY SILT (MH), olive, calcareous (Cooper Marl).		2		Start Time: 16:13 Stop Time: 16:31 Penetrometer - 1.5 TSF Penetrometer - 1.25 TSF			
						3				
						4				
						5				
-59.1	20.0									

BOTTOM OF BOREHOLE AT -59.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-28-1-1-86		LOCATION COORDINATES N 344715.8231 E 2339267.244		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 3		DISTURBED 3 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 15.8'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 56.1'		15. DATE BORING 8/12/86		STARTED 8/12/86 COMPLETED 8/12/86
		16. ELEVATION TOP OF BORING -40.3' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING 80%		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.3			0': SILTY SAND (SP-SM), fine; light gray.				Start Time: 8:27 Stop Time: 8:29		
					1				
-48.6	8.3		8.3': SAND (SP), fine to medium; gray.						
					2				
			12.2': Shell fragments.						
-56.1	15.8								

BOTTOM OF BOREHOLE AT -56.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-29-1-1-86		LOCATION COORDINATES N 342384.2744 E 2341525.638		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 4	DISTURBED 4	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	13. TOTAL NUMBER CORE BOXES 0
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/8/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -35.2' MLLW		STARTED 8/8/86
8. TOTAL DEPTH OF BORING 55.2'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 8/8/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-35.2			0': CLAYEY SILT (MH), black, with organics.				Start Time: 17:14 Stop Time: 17:15		
-40.4	5.2		5.2': SANDY CLAY (CL), gray, with shell fragments.		1		Penetrometer - 0.2 TSF		
-47.4	12.2		12.2': CLAYEY SAND (SC), fine; gray.		2				
-51.4	16.2		16.2': SILTY SAND (SP-SM), fine; dark olive, calcareous (Cooper Marl).		3				
-55.2	20.0				4			Penetrometer - 1.10 TSF	

BOTTOM OF BOREHOLE AT -55.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-30-1-1-86		LOCATION COORDINATES N 341503.2925 E 2341566.792		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 4	DISTURBED 4	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	13. TOTAL NUMBER CORE BOXES 0
		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 8/11/86 COMPLETED 8/11/86
6. THICKNESS OF OVERBURDEN 18.8'		16. ELEVATION TOP OF BORING -34.2' MLLW		
7. DEPTH DRILLED INTO ROCK 0'		17. TOTAL CORE RECOVERY FOR BORING 94%		
8. TOTAL DEPTH OF BORING 53'		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-34.2			0': CLAYEY SILT (MH), black, with organics.		1		Start Time: 12:46 Stop Time: 12:47		
-39.9	5.7		5.7': SILTY SAND (SM), fine; gray, with 1" to 2" thick lenses of clay about 10" apart.		2				
-47.6	13.4		13.4': CLAYEY SAND (SC), medium; gray, with.		3				
-51.6	17.4		17.4': SILTY CLAYEY SAND (SC-SM), fine; olive, calcareous (Cooper Marl).		4				
-53.0	18.8								

BOTTOM OF BOREHOLE AT -53.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-31-1-1-86		LOCATION COORDINATES N 340743.2598 E 2341346.926		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/11/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -34.7' MLLW		STARTED 8/11/86
8. TOTAL DEPTH OF BORING 54.7'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 8/11/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-34.7			0': CLAYEY SILT (MH), black, with organics.		1		USCS Start Time: 14:11 Stop Time: 14:12		
-39.2	4.5		4.5': SILTY SAND (SP-SM), fine; gray, with 1" to 2" layers of clay every 6-10".		2				
-45.7	11.0		11': CLAYEY SAND, gray, with organics, with 1/16" to 1" layers of sand every 4-5".		3		Penetrometer - 0.25 TSF to 0.50 TSF		
-54.7	20.0				4				

BOTTOM OF BOREHOLE AT -54.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-32-1-1-86		LOCATION COORDINATES N 342519.6489 E 2343525.607		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/11/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -36.4' MLLW		STARTED 8/11/86
8. TOTAL DEPTH OF BORING 56.4'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 8/11/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-36.4			0': CLAYEY SILT (MH), gray, with shell fragments, Alternating layers of gray silty fine sand. Layers vary from 1/4" to 1'.		1		Start Time: 17:08 Sotp Time: 17:09		
					2				
-50.5	14.1		14.1': SILTY SAND (SP-SM), coarse; gray, with shell fragments.		3				
-54.3	17.9		17.9': SANDY CLAY (CL), gray, with 1/2" intervals of medium sand and shell hash every 1" to 5".		4				
-56.4	20.0		BOTTOM OF BOREHOLE AT -56.4 ft						

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-33-1-1-86		LOCATION COORDINATES N 341495.53 E 2342830.79		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/15/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -39.4' MLLW		STARTED 8/15/86
8. TOTAL DEPTH OF BORING 59.4'		17. TOTAL CORE RECOVERY FOR BORING 98%		COMPLETED 8/15/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-39.4			0': CLAYEY SILT (MH), black, with organics.		1		USCS Start Time: 16:29 Stop Time: 16:30		
-42.6	3.2		3.2': SILTY CLAYEY SAND (SC), gray, and shell fragments, Alternating 1/8" to 5" layers of gray silty clay.		2		Penetrometer - 0.25 TSF to 1.25 TSF		
					3				
					4				
-59.4	20.0								

BOTTOM OF BOREHOLE AT -59.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-34-1-1-86		LOCATION COORDINATES N 339591.3823 E 2341934.126		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/15/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -30.5' MLLW		STARTED 8/15/86
8. TOTAL DEPTH OF BORING 50.5'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 8/15/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-30.5			0': CLAYEY SILT (ML), black, with organics.		1		USCS Start Time: 10:13:00 Stop Time: 10:13:51		
-33.7	3.2		3.2': SILTY SAND (SP-SM), fine; gray.		2				
					3				
					4				
-50.5	20.0								

BOTTOM OF BOREHOLE AT -50.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-35-1-1-86		LOCATION COORDINATES N 339740.4255 E 2342172.099		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/15/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -30.3' MLLW		STARTED 8/15/86
8. TOTAL DEPTH OF BORING 50.3'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 8/15/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-30.3			0': SANDY SAND (SM), fine; black, with 1" to 2" thick layers of black organic clayey silt occurring every 2" to 10".		1		Start Time: 10:49 Stop Time: 10:50		
-38.0	7.7		7.7': SILTY SAND (SP-SM), gray.		2				
-45.1	14.8		14.8': CLAYEY SAND (ML), gray, with 1" to 2" thick layers of coarse sand within 1" to 9" of each other.		3				
-50.3	20.0				4				

BOTTOM OF BOREHOLE AT -50.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-36-1-1-86		LOCATION COORDINATES N 340503.5828 E 2343051.964		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 9/14/86 COMPLETED 9/14/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -37.7' MLLW		17. TOTAL CORE RECOVERY FOR BORING 100%
8. TOTAL DEPTH OF BORING 57.7'		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.7			0': CLAYEY SILT (MH), gray, with organics, with 1/16" to 1/4" thick layers of sand every 1/2" to 3".		1		USCS Start Time: 13:42 Stop Time: 13:49 Penetrometer - 1.5 TSF		
-42.5	4.8		4.8': SILTY SAND (SC-SM), fine; olive, calcareous (Cooper Marl).		2		Penetrometer - 1.5 TSF		
-52.7	15.0		15': CLAYEY SANDY SILT (MH), olive, calcareous (Cooper Marl).		3				
-57.7	20.0				4				

BOTTOM OF BOREHOLE AT -57.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-37-1-1-86		LOCATION COORDINATES N 339719.5338 E 2342747.102		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore
3. DRILLING AGENCY Ocean Surveys., Inc.		12. TOTAL SAMPLES 4		DISTURBED 4 UNDISTURBED 0
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	14. ELEVATION GROUND WATER NA
6. THICKNESS OF OVERBURDEN 20'		15. DATE BORING 8/15/86		STARTED 8/15/86 COMPLETED 8/15/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -38' MLLW		
8. TOTAL DEPTH OF BORING 58'		17. TOTAL CORE RECOVERY FOR BORING 96%		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-38			0': CLAYEY SILT (ML), black, with organics.				Start Time: 12:32 Stop Time: 12:32 Penetrometer - 1.5 TSF		
-41.5	3.5		3.5': SILTY SAND (SP-SM), fine; gray, with 1" to 1/8" thick layers of clay 3" to 6" apart.		1				
					2				
					3				
-56.5	18.5		18.5': SILTY CLAYEY SAND (SM), fine; olive, calcareous (Cooper Marl).		4		Penetrometer - 4.0 TSF		
-58.0	20.0								

BOTTOM OF BOREHOLE AT -58.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-38-1-1-86		LOCATION COORDINATES N 339424.5053 E 2342579.154		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 4	DISTURBED 4	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	13. TOTAL NUMBER CORE BOXES 0
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/15/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -31.3' MLLW		STARTED 8/15/86
8. TOTAL DEPTH OF BORING 51.3'		17. TOTAL CORE RECOVERY FOR BORING 98%		COMPLETED 8/15/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-31.3			0': CLAYEY SILT (ML), black, with organics, and sand.		1		USCS Start Time: 11:25 Stop Time: 11:25		
-34.7	3.4		3.4': SILTY SAND (SP-SM), fine; gray, with lenses of clay.		2		Penetrometer - 1.25 TSF		
					3				
					4				
-51.3	20.0								

BOTTOM OF BOREHOLE AT -51.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-39-1-1-86		LOCATION COORDINATES N 339200.4873 E 2342471.194		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 3
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 18.4'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/15/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -27.7' MLLW		STARTED 8/15/86
8. TOTAL DEPTH OF BORING 46.1'		17. TOTAL CORE RECOVERY FOR BORING 92%		COMPLETED 8/15/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-27.7			0': CLAYEY SANDY SILT (MH), black, with organics.				Start Time: 11:54 Stop Time: 11:54 Penetrometer - 0.25 TSF		
			7': At 7', thin 1/4" to 1/2" thick lenses of sand occurring randomly.		1				
			10': At 10', sand lenses occurring every 1" to 4".		2				
			14': At 14', sand lenses are 1/4" to 1/2" thick and occur from 1/4" to 3" apart.		3				
							Penetrometer - 0.25 TSF		
-46.1	18.4								

BOTTOM OF BOREHOLE AT -46.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-40-1-1-86		LOCATION COORDINATES N 338879.474 E 2342383.25		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 3
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 17.2'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/15/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -27.5' MLLW		STARTED 8/15/86
8. TOTAL DEPTH OF BORING 44.7'		17. TOTAL CORE RECOVERY FOR BORING 83%		COMPLETED 8/15/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-27.5			0': CLAYEY SILT (ML), black, with organics, with 1/2" to 1" thick layers of sand with 1" to 1' of clay between.				Start Time: 13:06 Stop Time: 13:06		
					1				
					2				
					3				
-44.7	17.2								

BOTTOM OF BOREHOLE AT -44.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-41A-1-1-86		LOCATION COORDINATES N 340579.7908 E 2344158.948		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/17/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -38' MLLW		COMPLETED 8/17/86
8. TOTAL DEPTH OF BORING 58'		17. TOTAL CORE RECOVERY FOR BORING 100%		18. SIGNATURE AND TITLE OF INSPECTOR N/A

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-38			0': SAND (SM), fine; gray, with shell fragments, Alternating 1" to 3" layers of gray clay and gray fine sand.				Start Time: 9:50 Stop Time: 9:51		
					1		Penetrometer - 0.25 TSF to 0.50 TSF		
					2				
					3				
					4				
-58.0	20.0								

BOTTOM OF BOREHOLE AT -58.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-42-1-1-86		LOCATION COORDINATES N 339148.5843 E 2342984.202		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 3
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 17'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/15/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -30.7' MLLW		STARTED 8/15/86
8. TOTAL DEPTH OF BORING 47.7'		17. TOTAL CORE RECOVERY FOR BORING 86%		COMPLETED 8/15/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-30.7			0': CLAYEY SILT (ML), black, with organics, with 1/16" to 2" layers of sand appearing @ 10.3' with 1" to 3" of clay between.				Start Time: 14:23:30 Stop Time: 14:23:45		
					1				
					2		Penetrometer < 0.25 TSF		
					3				
-47.7	17.0								

BOTTOM OF BOREHOLE AT -47.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER CHDVC-43-1-1-86		10. SIZE AND TYPE OF BIT	
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore	
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 3	DISTURBED 3 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	14. ELEVATION GROUND WATER NA
6. THICKNESS OF OVERBURDEN 16.5'		15. DATE BORING 8/15/86	STARTED 8/15/86 COMPLETED 8/15/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -28.4' MLLW	
8. TOTAL DEPTH OF BORING 44.9'		17. TOTAL CORE RECOVERY FOR BORING 82%	
18. SIGNATURE AND TITLE OF INSPECTOR N/A			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-28.4			0': CLAYEY SILT (ML), black, with organics, with 1/4" to 1" thick lenses of sand occurring within 1/4" to 7" of each other.		1		Start Time: 15:27:45 Stop Time: 15:27:59 Penetrometer - .25 TSF		
					2				
					3				
-44.9	16.5								

BOTTOM OF BOREHOLE AT -44.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-44-1-1-86		LOCATION COORDINATES N 338878.6551 E 2343345.249		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 3
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 18.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/17/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -28.5' MLLW		STARTED 8/17/86
8. TOTAL DEPTH OF BORING 47'		17. TOTAL CORE RECOVERY FOR BORING 92%		COMPLETED 8/17/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-28.5			0': SILTY CLAY (MH), black, with organics, with 1/4" to 1" thick layers of sand from 1/2" to 1" apart.				Start Time: 10:37:05 Stop Time: 10:37:14 Penetrometer < 0.25 TSF		
					1				
					2				
					3				
-47.0	18.5								

BOTTOM OF BOREHOLE AT -47.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-45-1-1-86		LOCATION COORDINATES N 339472.8353 E 2344332.143		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 3
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 17.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/17/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -38.4' MLLW		STARTED 8/17/86
8. TOTAL DEPTH OF BORING 55.9'		17. TOTAL CORE RECOVERY FOR BORING 87%		COMPLETED 8/17/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.4			0': CLAYEY SILT (ML), black, with sand, and organics.				Start Time: 10:13 Stop Time: 10:14		
-42.8	4.4		4.4': SILTY SAND (SM), fine; gray.		1				
-52.3	13.9		13.9': SILTY SAND (SP-SM), fine to medium; gray, with shell fragments.		2				
-55.9	17.5				3				

BOTTOM OF BOREHOLE AT -55.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-46-1-1-86		LOCATION COORDINATES N 339612.4491 E 2347571.113		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/17/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -40.5' MLLW		STARTED 8/17/86
8. TOTAL DEPTH OF BORING 60.5'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 8/17/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.5		[Yellow pattern]	0': CLAYEY SILTY SAND (SC-SM), fine; grayish brown, with shell fragments, phosphate nodules and lumps of Cooper Marl.		1		USCS Start Time: 09:19 Stop Time: 09:22 Penetrometer - 0.25 TSF		
					2		Penetrometer - 1.0 TSF		
					3		Penetrometer - 1.5 TSF		
					4				
-53.0	12.5		12.5': SILTY SAND (SM), fine; olive, calcareous (Cooper Marl).				Penetrometer - 1.5 TSF		
-60.5	20.0								

BOTTOM OF BOREHOLE AT -60.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-48-1-1-86		LOCATION COORDINATES N 338342.5975 E 2348280.341		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 3	DISTURBED 3	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	13. TOTAL NUMBER CORE BOXES 0
6. THICKNESS OF OVERBURDEN 17.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 9/16/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41.2' MLLW		STARTED 9/16/86
8. TOTAL DEPTH OF BORING 58.7'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 9/16/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.2			0': CLAYEY SANDY SILT (ML), dark olive, calcareous, with hard layers of silt in the first 2' (Cooper Marl).				Start Time: 12:59 Stop Time: 13:17		
					1				
					2				
					3		Penetrometer - 1.75 TSF		
-58.7	17.5								

BOTTOM OF BOREHOLE AT -58.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System







DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-48A-1-2-86		LOCATION COORDINATES N 338342.5975 E 2348280.341		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 2
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 2
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 9.1'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/16/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -52.2' MLLW		STARTED 8/16/86
8. TOTAL DEPTH OF BORING 61.3'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 8/16/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-52.2			0': CLAYEY SANDY SILT (ML), dark olive, Cooper marl.				Start Time: 1636 Stop Time: 1720		
					1				
					2		Penetrometer - 2.0 TSF		
-61.3	9.1								

BOTTOM OF BOREHOLE AT -61.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
				OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHR-1-88		LOCATION COORDINATES N 348880.4587 E 2332185.588		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 5	DISTURBED 5	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 21'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 58.1'		15. DATE BORING 10/3/88		STARTED 10/3/88
		16. ELEVATION TOP OF BORING -37.1' MLLW		COMPLETED 10/3/88
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.1			0': CLAYEY SAND (SC), fine to coarse; dark gray, with shell fragments, slightly calcareous.		1		USCS		3
-41.6	4.5		4.5': SILTY SAND (SM), fine to medium; greenish gray, with rock fragments, and shell fragments.						
-43.1	6.0		6': No Recovery		2				4
-46.1	9.0		9': CLAY (CH), high plasticity; dark gray, high plasticity, with sand, and shell fragments.		3				12
-52.1	15.0		15': Fishtailed		4				9
-56.6	19.5		19.5': SILTY CLAY (CL), low plasticity; olive green, low plasticity, calcareous.		5				4
-58.1	21.0						NOTE: Fishtailed from 52.1' to 56.6'	0	18

BOTTOM OF BOREHOLE AT -58.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division		INSTALLATION Charleston Harbor		SHEET 1 OF 1 SHEETS	
		1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW	
2. HOLE NUMBER CHR-2-89		LOCATION COORDINATES N 348657.3655 E 2330884.137		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail			
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314					
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 6		DISTURBED 6		UNDISTURBED 0	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING		13. TOTAL NUMBER CORE BOXES 0	
6. THICKNESS OF OVERBURDEN 16.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 4/12/89		STARTED 4/12/89	
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -38.2' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 4/12/89	
8. TOTAL DEPTH OF BORING 54.7'		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.					

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.2		CLAY	0': CLAY (CH), high plasticity; dark gray to black, high plasticity, slightly calcareous.		1		USCS		0
-44.9	6.7	CLAYEY SAND	6.7': CLAYEY SAND (SC), fine to medium; tannish gray, with shell fragments, calcareous.		2		Began using Zeogel drilling mud.		15
-47.2	9.0	SILTY CLAY	9': SILTY CLAY (CL), low plasticity; light greenish brown, low plasticity, some sand, calcareous.		3			22	
		SILTY CLAY			4			16	
		SILTY CLAY						20	
		SILTY CLAY	12': Some sand.		5			17	
		SILTY CLAY			6			37	
-54.7	16.5	SILTY CLAY					57		

BOTTOM OF BOREHOLE AT -54.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 1 SHEETS 1
2. HOLE NUMBER CHR-3-90		LOCATION COORDINATES N 349260.3965 E 2331876.527		VERTICAL MLLW
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail		
4. NAME OF DRILLER C.D. Justiss		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	12. TOTAL SAMPLES 9
6. THICKNESS OF OVERBURDEN 15'		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 9
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		UNDISTURBED 0
8. TOTAL DEPTH OF BORING 55.2'		15. DATE BORING 1/21/90		STARTED 1/21/90
		16. ELEVATION TOP OF BORING -40.2' MLLW		COMPLETED 1/21/90
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.2			0': CLAYEY SILT (MH), dark gray, wet, trace sand, and shell fragments.		1		USCS		0
-43.2	3.0		3': CLAY (CH), high plasticity; dark gray, moist, high plasticity, trace sand, and shell fragments.		2				5
			6': Some sand, and shell fragments.		3				5
-47.7	7.5		7.5': SC CLAYEY SAND (SC), medium to coarse; dark gray, wet, some shell fragments.		4				3
-48.8	8.6		8.6': CLAY (CL), low plasticity; olive green, moist, low plasticity, some sand, calcareous.		5				
			10.5': Slightly damp.		6				14
					7				19
					8				20
					9				25

BOTTOM OF BOREHOLE AT -55.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER CHR-4-90		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 8	DISTURBED 8 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING ---
6. THICKNESS OF OVERBURDEN 15'		13. TOTAL NUMBER CORE BOXES 0	14. ELEVATION GROUND WATER NA
7. DEPTH DRILLED INTO ROCK 0'		15. DATE BORING 1/22/90	STARTED 1/22/90 COMPLETED 1/22/90
8. TOTAL DEPTH OF BORING 55.3'		16. ELEVATION TOP OF BORING -40.3' MLLW	
		17. TOTAL CORE RECOVERY FOR BORING N/A	
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.3		●●●●●	0': SILTY SAND (SM), fine to medium; dark gray, wet, some shell fragments, trace clay.		1		USCS Began using Zeogel drilling mud at 41.8'.		9
		●●●●●	1.5': SAND, medium to coarse.		2			12	
		●●●●●	3': With shell fragments.		3			11	
-46.3	6.0	▨▨▨▨▨	6': CLAY (CH), high plasticity; dark gray, high plasticity, trace sand, slightly calcareous.		4			4	
		▨▨▨▨▨			5			4	
		▨▨▨▨▨			6			1	
		▨▨▨▨▨	13.5': Trace gravel.		7			1	
-55.1	14.8	●●●●●	14.8': CLAYEY SAND (SC), fine; olive green, moist, calcareous.		8				
-55.3	15.0	●●●●●							

BOTTOM OF BOREHOLE AT -55.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHR-5-90	LOCATION COORDINATES N 347756.593 E 2332827.7706		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5-1/2" Fishtail	
3. DRILLING AGENCY U.S. Army Corps of Engineers - Wilmington District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER D.S. Justiss		12. TOTAL SAMPLES 8	DISTURBED 8	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 15'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.1'		15. DATE BORING 1/21/90		STARTED 1/21/90
		COMPLETED 1/21/90		
		16. ELEVATION TOP OF BORING -40.1' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.1			0': CLAYEY FINE SAND (SC), dark gray, wet, some shell fragments, calcareous.	100	1		USCS Set 6" casing to 46.4' by own weight		0
-41.6	1.5		1.5': FAT CLAY (CH), dark gray, moist, trace shell fragments.	100	2		Weight of rods drove splitspoon from 40.1' to 43.2', cont'd drive to 44.6'		3
			4.5': No shell fragments.				Weight of rods drove splitspoon from 44.6' to 46.7', cont'd drive to 47.6'.		6
			10.5': Trace fine sand.	100	4		Weight of rods drove splitspoon from 47.6' to 49.8', cont'd drive to 50.6'		4
				100	5				0
				100	6				0
-53.1	13.0		13': LEAN CLAY (CL), olive green, moist, some fine sand, calcareous.	100	7		Weight of rods drove splitspoon from 50.6' to 52.1'		3
-53.6	13.5		13.5': FINE SAND (SC), olive green, moist, calcareous.	100	8				16

BOTTOM OF BOREHOLE AT -55.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHR-6-94		LOCATION COORDINATES N 347475.5233 E 2333069.277		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 5
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 5
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 22.8'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/7/94
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -26.4' MLLW		STARTED 8/7/94
8. TOTAL DEPTH OF BORING 49.2'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 8/7/94
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-26.4			0': CLAYEY SILT (MH), dark gray to black.		1		USCS		0
-29.7	3.3		3.3': SILTY SAND (SM), fine to medium; dark gray, some shell fragments, and clay.		2				0
-31.0	4.6		4.6': CLAY (CH), high plasticity; gray, high plasticity, trace sand.		3				0
					4				0
					5				0
-49.2	22.8								0

BOTTOM OF BOREHOLE AT -49.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CR-CH-1-94	LOCATION COORDINATES N 341505.375 E 2343166.273		10. SIZE AND TYPE OF BIT Athena Technologies Vibracore System	
3. DRILLING AGENCY Athena Technologies		11. MANUFACTURER'S DESIGNATION OF DRILL N/A		
4. NAME OF DRILLER GWC		12. TOTAL SAMPLES 0	DISTURBED 0	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 13'		13. TOTAL NUMBER CORE BOXES 0		14. ELEVATION GROUND WATER NA
7. DEPTH DRILLED INTO ROCK 0'		15. DATE BORING 8/19/94		STARTED 8/19/94 COMPLETED 8/19/94
8. TOTAL DEPTH OF BORING 53.65'		16. ELEVATION TOP OF BORING -40.65' MLLW		17. TOTAL CORE RECOVERY FOR BORING 69%
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-32			0': SILTY SAND (SM), fine; green to gray, wet, and shell fragments.						
-43.7	3.0		3': FAT CLAY (CH), green to gray, moist, little shell fragments, trace fine sand.						
-45.7	5.0		5': SILT (ML), gray, moist, trace fine sand, no shell fragments.	69	1				
-50.7	10.0		10': SILT (OL), gray, with organics, no shell fragments, "ancient marsh deposit".						
-53.7	13.0								

BOTTOM OF BOREHOLE AT -53.7 ft

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CR-CH-2-94		LOCATION COORDINATES N 341480.377 E 2338086.741		10. SIZE AND TYPE OF BIT Athena Technologies Vibracore System
3. DRILLING AGENCY Athena Technologies		11. MANUFACTURER'S DESIGNATION OF DRILL N/A		12. TOTAL SAMPLES 0
4. NAME OF DRILLER GWC		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/22/94
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -26' MLLW		STARTED 8/22/94
8. TOTAL DEPTH OF BORING 46'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 8/22/94
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-26			0': SANDY SILT (ML), gray, and shell fragments.						
-29.0	3.0		3': SILTY SAND (SM), medium to coarse; gray, and shell fragments, organic odor.						
-33.0	7.0		7': CLAYEY SILTY SAND (SM), fine; black, with organics, and shell fragments.						
-36.0	10.0		10': CLAYEY SILTY SAND (SM), fine; black, with organics, trace shell fragments, some silt strata or lenses.						
-46.0	20.0		20': SILTY SAND (SM), gray, trace shell fragments.						
-53.0	27.0								

BOTTOM OF BOREHOLE AT -46.0 ft

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CR-CH-3-94		LOCATION COORDINATES N 347498.116 E 2332884.34		10. SIZE AND TYPE OF BIT Athena Technologies Vibracore System
3. DRILLING AGENCY Athena Technologies		11. MANUFACTURER'S DESIGNATION OF DRILL N/A		12. TOTAL SAMPLES 0
4. NAME OF DRILLER GWC		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING ---
6. THICKNESS OF OVERBURDEN 12'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/22/94
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -36' MLLW		STARTED 8/22/94
8. TOTAL DEPTH OF BORING 48'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 8/22/94
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
-36		●	0': SILTY SAND (SM), gray, with shell fragments, and shells, trace fine sand.						
-46.0	10.0	●	10': SILTY SAND (SM), gray, with shell fragments.						
-48.0	12.0	●							

BOTTOM OF BOREHOLE AT -48.0 ft

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CR-CH-4-94		LOCATION COORDINATES N 353477.982 E 2332863.359		10. SIZE AND TYPE OF BIT Athena Technologies Vibracore System
3. DRILLING AGENCY Athena Technologies		11. MANUFACTURER'S DESIGNATION OF DRILL N/A		12. TOTAL SAMPLES 0
4. NAME OF DRILLER WJS		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 16'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 8/21/94 COMPLETED 8/21/94
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -33' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A
8. TOTAL DEPTH OF BORING 49'		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-33			0': SILTY CLAYEY SAND (SM), fine to medium; and shell fragments, trace shells, little wood, mixed mud and sand.						
-36.0	3.0		3': SILTY CLAYEY FINE SAND (SM), no shell fragments.						
-39.0	6.0		6': POORLY GRADED FINE SAND (SP-SM), with silt, no shell fragments.						
-45.0	12.0		12': POORLY GRADED SAND (SP), fine to medium; no shell fragments, no silt.						
-49.0	16.0								

BOTTOM OF BOREHOLE AT -49.0 ft

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CTB-100-88		LOCATION COORDINATES N 350125.4341 E 2332158.38		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 3	DISTURBED 3	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 7'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 45.3'		15. DATE BORING 9/7/88		STARTED 9/7/88 COMPLETED 9/7/88
		16. ELEVATION TOP OF BORING -38.3' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.3		[Hatched Legend]	0': CLAY (CH), high plasticity; greenish gray, moist, high plasticity, trace sand, and shells, slightly calcareous.		1		USCS		0
			3.5': No sand or shells.		2				0
						3			9
-45.3	7.0								

BOTTOM OF BOREHOLE AT -45.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CTB-100A-88		LOCATION COORDINATES N 350129.4318 E 2332146.379		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 2	DISTURBED 2	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 13.6'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 50.5'		15. DATE BORING 9/14/88		STARTED 9/14/88 COMPLETED 9/14/88
		16. ELEVATION TOP OF BORING -36.9' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		



ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sam No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-36.9			0': Fishtailed				NOTE: Fishtailed 36.9' to 45.0'		
-45.0	8.1		8.1': CLAY (CH), high plasticity; greenish gray, wet, high plasticity, trace sand, slightly calcareous.		1			0	
-50.5	13.6		11.1': Trace sand.		2			1	

BOTTOM OF BOREHOLE AT -50.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CTB-101-88		LOCATION COORDINATES N 350684.3825 E 2331925.289		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 6
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 6
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 12.6'		14. ELEVATION GROUND WATER NA		15. DATE BORING 9/8/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -37.8' MLLW		STARTED 9/8/88
8. TOTAL DEPTH OF BORING 50.4'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 9/8/88
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.8			0': CLAY (CH), high plasticity; greenish gray, wet, high plasticity, trace shells, and sand.		1		USCS		0
			5.1': No sand or shells.		2			1	
			6.6': With organics, and sand.		3			3	
			8.1': Trace sand, and organics.		4			0	
			9.6': Some sand, no organics.		5			2	
-48.9	11.1			11.1': CLAYEY SAND (SC), fine to medium; greenish gray, wet, slightly calcareous.		6			4
-50.4	12.6								

BOTTOM OF BOREHOLE AT -50.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER CTB-102-88		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 5	DISTURBED 5 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	14. ELEVATION GROUND WATER NA
6. THICKNESS OF OVERBURDEN 22'		15. DATE BORING 9/13/88	STARTED 9/13/88 COMPLETED 9/13/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -29.5' MLLW	
8. TOTAL DEPTH OF BORING 51.5'		17. TOTAL CORE RECOVERY FOR BORING N/A	
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-29.5		CLAY	0': CLAY (CH), high plasticity; greenish gray, wet, high plasticity, some sand, trace shell fragments, slightly calcareous.		1		USCS		0
			5.2': Trace sand, and shells.		2				
			8.2': Small shells.		3			2	
			12.7': Moist, no sand or shells.		4			6	
			19.2': Trace sand, and shell fragments.		5			0	
-51.5	22.0								

BOTTOM OF BOREHOLE AT -51.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CTB-103-88		LOCATION COORDINATES N 351140.3334 E 2331697.215		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 4	DISTURBED 4	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 24.9'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 51.8'		15. DATE BORING 9/13/88		STARTED 9/13/88
		COMPLETED 9/13/88		
		16. ELEVATION TOP OF BORING -26.9' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		


ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-26.9		CLAY	0': CLAY (CH), high plasticity; greenish gray, moist, high plasticity, trace sand, and shell fragments, slightly calcareous.		1		USCS		0
			6': Trace sand, and shell fragments.						
			9': Wet.						
			21': Some sand, trace shell fragments.						
					2				3
					3				2
					4			0 3 0	3
-51.8	24.9								

BOTTOM OF BOREHOLE AT -51.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 1 SHEETS 1
2. HOLE NUMBER CTB-104-88		LOCATION COORDINATES N 351148.2647 E 2331320.218		VERTICAL MLLW
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail		
4. NAME OF DRILLER C.D. Justiss		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL	BEARING	---
6. THICKNESS OF OVERBURDEN 25.7'		12. TOTAL SAMPLES 4		DISTURBED 4
7. DEPTH DRILLED INTO ROCK 0'		13. TOTAL NUMBER CORE BOXES 0		UNDISTURBED 0
8. TOTAL DEPTH OF BORING 50.9'		14. ELEVATION GROUND WATER NA		15. DATE BORING 9/13/88
		16. ELEVATION TOP OF BORING -25.2' MLLW		STARTED 9/13/88
		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 9/13/88
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-25.2			0': CLAY (CH), high plasticity; greenish gray, wet, high plasticity, trace sand, and shell fragments, slightly calcareous.		1		USCS		0
			9.8': Moist, no sand or shells.		2				9
			11.3': Trace sand.						0
						3			0 11 7
									18
									0
									5
									0
									3
			23.3': Trace sand.		4			0 0 1	1
-50.9	25.7								

BOTTOM OF BOREHOLE AT -50.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CTB-105-88		LOCATION COORDINATES N 351632.2927 E 2331519.135		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 6
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 6
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 27'		14. ELEVATION GROUND WATER NA		15. DATE BORING 9/13/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -23.3' MLLW		STARTED 9/13/88
8. TOTAL DEPTH OF BORING 50.3'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 9/13/88
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value	
-23.3		Blue diagonal hatching	0': CLAY (CH), high plasticity; greenish gray, wet, high plasticity, trace sand, and shell fragments, slightly calcareous.		1		USCS		0	
			3': No sand or shells.						0	
						2			0 2 4	6
										0
				12': Trace sand.		3			0 1 3	4
									0 1 5	6
					4		0 0 6	6		
			21': Moist, trace sand, and shells.		5		0 11 10	21		
			24': Some sand, and shell fragments.					7		
-48.8	25.5	Yellow diagonal hatching	25.5': CLAYEY SAND (SC), fine to medium; greenish gray, wet, some shell fragments.		6			58		
-50.3	27.0									

BOTTOM OF BOREHOLE AT -50.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CTB-106-88		LOCATION COORDINATES N 351702.2212 E 2331132.128		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 7
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 7
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 30'		14. ELEVATION GROUND WATER NA		15. DATE BORING 9/10/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -20.5' MLLW		STARTED 9/10/88
8. TOTAL DEPTH OF BORING 50.5'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 9/10/88
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-20.5			0': CLAYEY SAND (SC), fine; greenish gray, wet, trace shell fragments, calcareous.		1		USCS		3
-22.0	1.5		1.5': CLAY (CH), high plasticity; greenish gray, wet, high plasticity, trace sand, and shell fragments.		2				0
			4.5': SAND, fine to medium; and shell fragments.						0
			7.5': Trace sand, slightly calcareous.						0 0 2
			12': No sand.		3				2
			15': Trace sand.		4				0 0 3
			18': Trace sand.						1
					5		No recovery 49.0' to 50.5'	0 0 2	
								5	
-45.0	24.5		24.5': ORGANIC SILT (OL), dark grayish brown, wet, trace clay, and wood, non-calcareous.		6			6 0 8	14
-47.5	27.0		27': CLAYEY SAND (SC), medium to coarse; greenish gray, wet, some shell fragments.		7				25
-49.0	28.5		28.5': No recovery.						3
-50.5	30.0								

BOTTOM OF BOREHOLE AT -50.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 1 SHEETS VERTICAL MLLW
2. HOLE NUMBER CTB-107-88	LOCATION COORDINATES N 351768.1414 E 2330699.122		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 7
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 7
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 26.6'		14. ELEVATION GROUND WATER NA		UNDISTURBED 0
7. DEPTH DRILLED INTO ROCK 0'		15. DATE BORING 9/10/88		STARTED 9/10/88
8. TOTAL DEPTH OF BORING 50.9'		16. ELEVATION TOP OF BORING -24.3' MLLW		COMPLETED 9/10/88
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		



ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-24.3			0': CLAYEY SAND (SC), fine to medium; greenish gray, wet, trace shell fragments, slightly calcareous.		1		USCS		0
			2.6': Some shell fragments, trace organics.					4	
			4.1': With shell fragments, and clay, calcareous.					0	
			5.6': Some shell fragments.					5	
-31.4	7.1		7.1': CLAY (CH), high plasticity; greenish gray, moist, high plasticity, trace sand, and shell fragments, slightly calcareous.		2			1	
								1	
								5	
						4	4		
						3	1		
					4	4			
					5	5			
-46.4	22.1		22.1': CLAYEY SAND (SC), fine to medium; greenish gray, wet, trace shell fragments, calcareous.		6		3		
							4		
						7	3		
-50.9	26.6								

BOTTOM OF BOREHOLE AT -50.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CTB-108-88		LOCATION COORDINATES N 351281.1846 E 2330891.201		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 4
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 24'		14. ELEVATION GROUND WATER NA		15. DATE BORING 9/14/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -26.8' MLLW		STARTED 9/14/88
8. TOTAL DEPTH OF BORING 50.8'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 9/14/88
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-26.8			0': CLAY (CH), high plasticity; greenish gray, wet, high plasticity, trace sand, and shell fragments, slightly calcareous.		1		USCS		3
									0
						2			3
				12': No sand or shells..					1
									5
				15': Trace shell fragments.					
						3			3
				18': No shells.					0
									3
									0
-49.3	22.5		22.5': CLAYEY SAND (SC), fine to medium; greenish gray, wet, trace shell fragments, slightly calcareous.		4				13
-50.8	24.0								

BOTTOM OF BOREHOLE AT -50.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CTB-109-89		LOCATION COORDINATES N 350115.6021 E 2332036.8827		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5-1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 3	DISTURBED 3	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 15'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 50.9'		15. DATE BORING 2/24/89		STARTED 2/24/89
		COMPLETED 2/24/89		
		16. ELEVATION TOP OF BORING -35.9' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Matthew Delano, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-35.9			0': SILTY SAND (SM), fine to medium; gray, little clay, and shells.		1		USCSNOTE: Set 6" casing to bottom of harbor. Mixed Zeogel drilling mud. Weight of tools pushed sampler from 35.9' to 39.9', from 44.4' to 45.7'.		7
-41.4	5.5		5.5': FAT CLAY (CH), gray, trace sand, high plasticity.		2		NOTE: At 45.7' sampler was set, driven initially to 0.5', then sank to 50.9' after 4 hammer blows.		11
			7': No sand.						9
					3				4
-50.9	15.0								

BOTTOM OF BOREHOLE AT -50.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CTB-110-89		LOCATION COORDINATES N 350385.1987 E 2332207.236		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 3	DISTURBED 3	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 14.8'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 51.3'		15. DATE BORING 2/25/89		STARTED 2/25/89
		COMPLETED 2/25/89		
		16. ELEVATION TOP OF BORING -36.5' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Matthew Delano, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-36.5		11	0': SANDY CLAY (Cj), high plasticity; dark gray, high plasticity, trace shells.		1		USCS Mixed Zeogel drilling mud.		11
			4.4': Trace sand, and mica.		2				6
						3			14

BOTTOM OF BOREHOLE AT -51.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER DI-38-88		LOCATION COORDINATES N 360342.8943 E 2330257.705		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 5	DISTURBED 5	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 11.2'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 50.2'		15. DATE BORING 2/29/88		STARTED 2/29/88
		COMPLETED 2/29/88		
		16. ELEVATION TOP OF BORING -39' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-39			0': SILT (MH), black.		1		USCS		0
-44.2	5.2		5.2': SAND (SP), fine; gray, Poorly Graded, with silt, calcareous.		2				10
-45.7	6.7		6.7': SILT (MH), black.		3				1
-47.2	8.2		8.2': CLAYEY SAND (SC), fine; gray, with shell fragments.		4				4
-48.7	9.7		9.7': CLAY (CH), high plasticity; green, high plasticity, with sand, calcareous.		5				12
-50.2	11.2								

BOTTOM OF BOREHOLE AT -50.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER DI-40-94		LOCATION COORDINATES N 359942.2548 E 2330417.75		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 5
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 5
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 12.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/20/94
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -45.9' MLLW		STARTED 8/20/94
8. TOTAL DEPTH OF BORING 58.4'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 8/20/94
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-45.9			0': CLAY (CH), high plasticity; dark gray to black, high plasticity, trace sand.		1		USCS		0
-50.4	4.5		4.5': SANDY CLAY (CL), low plasticity; fine; olive gray, low plasticity, calcareous.		2				8
			6.5': CLAY, low plasticity; olive gray, low plasticity, trace sand, calcareous.		3				17
-55.4	9.5		9.5': CLAYEY SAND (SC), fine; olive gray, calcareous.		4				15
-58.4	12.5				5				15

BOTTOM OF BOREHOLE AT -58.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division		INSTALLATION Charleston Harbor		SHEET 1 OF 1 SHEETS	
		1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW	
2. HOLE NUMBER DI-41-95		LOCATION COORDINATES N 359592.811 E 2330259.929		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail			
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314					
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 5		DISTURBED 5		UNDISTURBED 0	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING		13. TOTAL NUMBER CORE BOXES 0	
6. THICKNESS OF OVERBURDEN 9'		14. ELEVATION GROUND WATER NA		15. DATE BORING 9/12/95		STARTED 9/12/95	
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -46.4' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 9/12/95	
8. TOTAL DEPTH OF BORING 55.4'		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.					

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-46.4		CLAY	0': CLAY (CH), high plasticity; gray, high plasticity, trace shale fragments, and wood.		1		USCS		0
		NO WOOD	3.8': No wood.		2			0	
		NO WOOD			3			0	
		NO WOOD			4				
		NO WOOD			5				
-54.6	8.2	CLAY	8.2': CLAY (CL), low plasticity; olive gray, low plasticity, trace sand.						12

BOTTOM OF BOREHOLE AT -55.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER DI-42-95		LOCATION COORDINATES N 360214.8801 E 2331267.108		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 26
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 26
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 45.3'		14. ELEVATION GROUND WATER NA		15. DATE BORING 9/13/95
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -10.4' MLLW		STARTED 9/13/95
8. TOTAL DEPTH OF BORING 55.7'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 9/13/95
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-10.4			0': SAND (SP), fine to medium; gray, Poorly Graded, trace shell fragments.		1		USCS No sample recovered on first drive from 6.3' to 7.8'. Re-drove to 7.8', then continued drive to 9.3'.		0
-13.7	3.3		3.3': SILTY SAND (SM), fine to medium; dark gray, trace shell fragments.		2			10	
					3			9	
					4			15	
-19.7	9.3		9.3': SAND (SP), fine to medium; gray, Poorly Graded, trace silt, and shell fragments.		5			9	
					6			13	
					7			11	
					8			17	
					9			13	
-27.2	16.8		16.8': No recovery						
-28.7	18.3		18.3': SILTY SAND (SM), fine to medium; dark gray, trace shell fragments.		10			18	
					11			14	
					12			18	
			22.8': Trace clay.		13			20	
					14			22	
			25.8': No clay.		15			15	
-37.7	27.3		27.3': SAND (SP), fine to medium; gray, Poorly Graded, trace silt, and shell fragments.		16			22	
					17		13		

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS	
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW	
LOCATION COORDINATES N 360214.8801 E 2331267.108		ELEVATION TOP OF BORING -10.4'			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.7	30.3	[Red and Yellow pattern]	30.3': SAND (SM), fine to medium; dark gray, some clay, trace shell fragments.		18				14
-43.7	33.3				19				14
		[Yellow and Green pattern]	33.3': CLAYEY SAND (SC), fine to medium; dark gray, trace shell fragments. 36.3': Dark gray to black.		20				26
					21				13
					22				6
-49.7	39.3	[Green pattern]	39.3': CLAY (CL), low plasticity; olive gray, low plasticity.		23				15
					24				19
					25				21
					26				19

BOTTOM OF BOREHOLE AT -55.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER DI-43-95		LOCATION COORDINATES N 359422.9761 E 2332799.113		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 7	DISTURBED 7	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 29'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.1'		15. DATE BORING 9/14/95		STARTED 9/14/95
		COMPLETED 9/14/95		
		16. ELEVATION TOP OF BORING -26.1' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-26.1			0': CLAYEY SILT (MH), dark gray, trace sand.		1		USCS Used BASCO salt water drilling mud at 0.0'		0
-35.8	9.7		9.7': CLAY (CH), high plasticity; dark gray, high plasticity, trace sand, and silt.		2			0	
-39.7	13.6		13.6': CLAYEY SAND (SC), fine; dark gray.		3			0	
-42.2	16.1		16.1': CLAY (CH), high plasticity; dark gray, high plasticity, some sand.		4			0	
-50.6	24.5		24.5': CLAYEY SAND (SC), fine; gray, trace shell fragments.		6			0	
-55.1	29.0				7			23	

BOTTOM OF BOREHOLE AT -55.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division		INSTALLATION Charleston Harbor		SHEET 1 OF 1 SHEETS	
		1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW	
2. HOLE NUMBER DIB-2-88		LOCATION COORDINATES N 370340.4332 E 2329071.077		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail			
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314					
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 3		DISTURBED 3		UNDISTURBED 0	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING		13. TOTAL NUMBER CORE BOXES 0	
6. THICKNESS OF OVERBURDEN 7.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 9/29/88 COMPLETED 9/29/88			
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -42.5' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A			
8. TOTAL DEPTH OF BORING 50'		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.					

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-42.5		[Hatched Pattern]	0': SILTY CLAY (CL), low plasticity; light greenish brown, moist, low plasticity, some sand, calcareous.		1		USCS		13
			1.5': Trace sand, and shell fragments.		2			17	
					3			33	
-50.0	7.5								

BOTTOM OF BOREHOLE AT -50.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER DIB-3-88		LOCATION COORDINATES N 369296.4063 E 2328764.257		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 4
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 7.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 9/29/88 COMPLETED 9/29/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -43.1' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A
8. TOTAL DEPTH OF BORING 50.6'		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-43.1	0.4	0'	0': CLAY (CH), high plasticity; dark gray to black, wet, high plasticity, trace sand.		1		USCS		0
		0.4'	0.4': SILTY CLAY (CL), low plasticity; light greenish brown, moist, low plasticity, trace sand, calcareous.		2			4	
		3'	3': Trace shell fragments.		3			33	
		4.5'	4.5': No sand or shells.		4			21	
		7.5'						31	
-50.6	7.5							29	

BOTTOM OF BOREHOLE AT -50.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER DIB-6-89		LOCATION COORDINATES N 369504.5245 E 2329451.205		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 4
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 14.9'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/31/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -40.1' MLLW		STARTED 5/31/89
8. TOTAL DEPTH OF BORING 55'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/31/89
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.1			0': CLAYEY SILT (ML), low plasticity; olive green, low plasticity, with shell fragments.				USCS		0
					1				48
									12
									24
-45.9	5.8		5.8': SILTY CLAY (CL), low plasticity; olive green, low plasticity, with gravel, and shell fragments, calcareous.						18
					2				22
-49.0	8.9		8.9': CLAYEY SILT (ML), olive green, with gravel, and shell fragments, calcareous.						16
					3				12
									16
					4				15
-55.0	14.9								

BOTTOM OF BOREHOLE AT -55.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER DIB-8-90	LOCATION COORDINATES N 370745.2171 E 2327932.041		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 10	DISTURBED 10	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 16.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.3'		15. DATE BORING 2/10/90	STARTED 2/10/90	COMPLETED 2/10/90
		16. ELEVATION TOP OF BORING -38.8' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	R.O.D %	REMARKS	Blows/ 0.5 ft	N-Value
-38.8		0'	0': CLAYEY SILT (MH), dark gray to black, wet, some sand, slightly calcareous.		1		USCS		0
-43.0	4.2	4.2'	4.2': CLAY (CL), low plasticity; olive green, wet, low plasticity, some sand, calcareous.		2				3
					3				22
					4				16
					5				20
			9.2': Trace sand.		6				19
					7				20
					8				19
					9				13
					10				19

BOTTOM OF BOREHOLE AT -55.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER DIR-1-88		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Army Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 3	DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	
6. THICKNESS OF OVERBURDEN 6'		14. ELEVATION GROUND WATER NA	
7. DEPTH DRILLED INTO ROCK 0'		15. DATE BORING STARTED 9/30/88 COMPLETED 9/30/88	
8. TOTAL DEPTH OF BORING 50.1'		16. ELEVATION TOP OF BORING -44.1' MLLW	
		17. TOTAL CORE RECOVERY FOR BORING N/A	
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist	




ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-44.1	0.5	0'	0': CLAY (CH), dark gray to black, wet.		1		USCS		0
-44.6		0.5'	0.5': SILTY CLAY (CL), low plasticity; light greenish brown, moist, low plasticity, trace sand, calcareous.		2				2
									26
									28
					3				18
-50.1	6.0								

BOTTOM OF BOREHOLE AT -50.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 1 SHEETS VERTICAL MLLW
2. HOLE NUMBER DIR-10-90	LOCATION COORDINATES N 364988.5715 E 2329066.96		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 7	DISTURBED 7	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 18'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 54.8'		15. DATE BORING 2/6/90		STARTED 2/6/90
		16. ELEVATION TOP OF BORING -36.8' MLLW		COMPLETED 2/6/90
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-36.8			0': CLAYEY SILT (MH), dark gray to black, wet.		1		USCS		0
-46.9	10.1		10.1': SILTY SAND (SM), fine; grayish tan, wet, slightly calcareous.		2				3
-47.3	10.5		10.5': CLAY (CL), low plasticity; olive green, moist, low plasticity, some sand, calcareous.		3				15
					4				18
					5				19
					6				18
					7				18
-54.8	18.0								

BOTTOM OF BOREHOLE AT -54.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
				OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER DIR-11-90		LOCATION COORDINATES N 364861.4701 E 2328486.994		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 8	DISTURBED 8	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 13.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.4'		15. DATE BORING 2/6/90		STARTED 2/6/90
		16. ELEVATION TOP OF BORING -41.9' MLLW		COMPLETED 2/6/90
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		



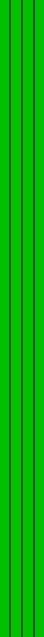
ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.9		MH	0': CLAYEY SILT (MH), dark gray to black, wet, trace shells, and shell fragments.		1		USCS		0
-44.9	3.0	CH	3': CLAY (CH), high plasticity; gray, moist, high plasticity, trace shell fragments.		2				0
		CH			3				5
		CH			4				0
		CH			5				
-51.6	9.7	CL	9.7': CLAY (CL), low plasticity; olive gray, moist, low plasticity, some sand, calcareous.		6				5
		CL			7				19
-55.4	13.5	CL			8				14

BOTTOM OF BOREHOLE AT -55.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER DIR-12-90		LOCATION COORDINATES N 367369.4944 E 2328971.57		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 10
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 10
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 16.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 4/7/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -39.1' MLLW		STARTED 4/7/90
8. TOTAL DEPTH OF BORING 55.6'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 4/7/90
18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	R.O.D %	REMARKS	Blows/ 0.5 ft	N-Value
-39.1			0': CLAY (CH), high plasticity; dark gray, saturated, high plasticity, some shell fragments.		1		USCS		0
-43.1	4.0		4': CLAYEY SAND (SC), fine to medium; grayish green, some shell fragments.		2				2
-43.6	4.5		4.5': ORGANIC SILT (ML), low plasticity; olive green, moist, low plasticity, calcareous.		3				13
					4				16
					5				14
					6				15
					7				12
			12': With shell fragments.		8				16
					9				15
					10				16
-55.6	16.5								

BOTTOM OF BOREHOLE AT -55.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER DIR-13-90	LOCATION COORDINATES N 366576.5147 E 2328971.7		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5-1/2" Fishtail	
3. DRILLING AGENCY U.S. Army Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 8	DISTURBED 8	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 12.3'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 54.9'		15. DATE BORING 4/9/90		STARTED 4/9/90 COMPLETED 4/9/90
		16. ELEVATION TOP OF BORING -42.6' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-42.6		FAT CLAY	0': FAT CLAY (CH), dark gray, saturated, "soupy".				USCS		
			4.5': Wet.		1		Weight of rods drove splitspoon from 42.6' to 48.9'. Pulled tools and took Sample #1 from rods.		0
-47.9	5.3	SILTY SAND	5.3': SILTY SAND (SM), fine to medium; light gray, wet, some shell fragments.		2				0
-48.4	5.8	LEAN SILT	5.8': LEAN SILT (ML), olive green, moist, some shell fragments, calcareous, inorganic silt.		3				0
			11': No shell fragments.		4				0
					5				16
					6				14
					7				15
					8				13

BOTTOM OF BOREHOLE AT -54.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER DIR-14-97		LOCATION COORDINATES N 362627.7195 E 2329271.963		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C. Robbins		12. TOTAL SAMPLES 9	DISTURBED 9	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 25.4'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 52.8'		15. DATE BORING 6/21/97		STARTED 6/21/97
		COMPLETED 6/21/97		
		16. ELEVATION TOP OF BORING -27.4' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		



ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-27.4			0': SAND (SP), fine to medium; dark gray, Poorly Graded, some shell fragments, trace silt.		1		USCS		0
-30.3	2.9		2.9': CLAYEY SAND (SC), fine; olive, trace shell fragments, calcareous.		2				0
-31.8	4.4		4.4': CLAY (CL), low plasticity; olive, low plasticity, trace sand, calcareous.		3			0 0 8	8
					4			5 7 9	21
-42.3	14.9		14.9': CLAYEY SAND (SC), fine; olive, calcareous.		6			6 6 7	19
					7			4 6 7	17
-46.8	19.4		19.4': CLAY (CL), low plasticity; olive, low plasticity, trace sand, calcareous.		8			12 16 15	43
					9			10 14 16	40
			22.4': Some sand.						
-52.8	25.4							4 5 7	16

BOTTOM OF BOREHOLE AT -52.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER DIR-2-88		LOCATION COORDINATES N 366239.4645 E 2328645.764		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 3
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 11'		14. ELEVATION GROUND WATER NA		15. DATE BORING 10/5/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -40.2' MLLW		STARTED 10/5/88
8. TOTAL DEPTH OF BORING 51.2'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 10/5/88
18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.2			0': CLAY (CH), high plasticity; dark gray, wet, high plasticity, with sand.		1		USCS		6
-48.2	8.0		8': CLAY (CL), low plasticity; olive green, low plasticity, with shell fragments, calcareous.		2				12
-51.2	11.0				3				32

BOTTOM OF BOREHOLE AT -51.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER DIR-3-89		LOCATION COORDINATES N 368630.5534 E 2329481.349		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 3
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 13'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/31/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -42.5' MLLW		STARTED 5/31/89
8. TOTAL DEPTH OF BORING 55.5'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/31/89
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-42.5			0': SILT (ML), low plasticity; olive green, low plasticity, calcareous.				USCS		0
					1				31
									33
									16
					2				32
									27
									26
									26
					3				17
-55.5	13.0								

BOTTOM OF BOREHOLE AT -55.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	
2. HOLE NUMBER DIR-4-89		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 6	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	
6. THICKNESS OF OVERBURDEN 19.5'		14. ELEVATION GROUND WATER NA	
7. DEPTH DRILLED INTO ROCK 0'		15. DATE BORING 6/1/89	
8. TOTAL DEPTH OF BORING 54.9'		16. ELEVATION TOP OF BORING -35.4' MLLW	
		17. TOTAL CORE RECOVERY FOR BORING N/A	
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.	

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-35.4		CLAY	0': CLAY (CH), soft; high plasticity; dark gray, wet, high plasticity.				USCS		0
					1		NOTE: Material on outside of rod was fat clay (CH), dark grey, soft, wet.		16
								33	
								16	
					2			23	
								27	
								26	
-45.9	10.5	SILT	10.5': SILT (ML), low plasticity; olive green, moist, low plasticity, calcareous, very uniform.		1			26	16
					3				19
					2				23
-54.9	19.5				3				19

BOTTOM OF BOREHOLE AT -54.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER DIR-5-89		LOCATION COORDINATES N 363947.592 E 2329041.133		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 3	DISTURBED 3	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 11.2'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 54.5'		15. DATE BORING 6/1/89		STARTED 6/1/89
		COMPLETED 6/1/89		
		16. ELEVATION TOP OF BORING -43.3' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-43.3			0': SILT (ML), low plasticity; olive green, moist, low plasticity, with shell fragments, calcareous.						
					1				30
					2				20
			8': Some clay.						
					3				18
-54.5	11.2								

BOTTOM OF BOREHOLE AT -54.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER DIR-6-89		LOCATION COORDINATES N 363078.4834 E 2328324.291		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 4
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 13.8'		14. ELEVATION GROUND WATER NA		15. DATE BORING 6/1/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41' MLLW		STARTED 6/1/89
8. TOTAL DEPTH OF BORING 54.8'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 6/1/89
18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-41			0': SILT (ML), low plasticity; olive green, moist, low plasticity, calcareous.		1				17
					2				19
			7.6': With shell fragments.		3				21
					4				15
-54.8	13.8								

BOTTOM OF BOREHOLE AT -54.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER DIR-7-90		LOCATION COORDINATES N 367099.4565 E 2328722.62		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 8
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 8
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 15'		14. ELEVATION GROUND WATER NA		15. DATE BORING 2/9/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -40.9' MLLW		STARTED 2/9/90
8. TOTAL DEPTH OF BORING 55.9'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 2/9/90
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.9			0': SILTY SAND (SM), fine to medium; dark gray to black, wet, trace clay, and shell fragments, slightly calcareous.		1		USCS		0
					2			11	
			4.5': SAND, medium to coarse; some shell fragments.		3			3	
			6': SAND, fine to medium; trace shell fragments.		4			11	
-48.4	7.5		7.5': SAND (SP), dark gray, Poorly Graded, wet, some shell fragments, trace silt, slightly calcareous.		5			5	
					6			12	
-51.4	10.5		10.5': CLAYEY SAND, fine to medium; dark gray.		7			NOTE: Mixed Zeogel mud at 51.4'.	13
					8				9
-55.0	14.1		14.1': CLAY (CL), low plasticity; olive green, moist, low plasticity, some sand, calcareous.						
-55.9	15.0								

BOTTOM OF BOREHOLE AT -55.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER DIR-8-90	LOCATION COORDINATES N 366611.573 E 2329299.687	10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 11	DISTURBED 11 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	
DEG FROM VERTICAL ---		14. ELEVATION GROUND WATER NA	
6. THICKNESS OF OVERBURDEN 25.5'		15. DATE BORING 2/7/90	STARTED 2/7/90 COMPLETED 2/7/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -29.5' MLLW	
8. TOTAL DEPTH OF BORING 55'		17. TOTAL CORE RECOVERY FOR BORING N/A	
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-29.5		CLAY	0': CLAY (CH), high plasticity; dark gray to gray, high plasticity, with organics.		1		USCS		0
			3': Gray.		2			1	
			4.5': Moist, trace shell fragments, no organics.		3			3	
			7.5': No shells.		4			1	
					5			3	
-46.0	16.5	SAND	16.5': CLAYEY SAND (SC), fine; tan, dry, trace shell fragments, calcareous.		6			5	
-47.5	18.0	CLAY	18': CLAY (CL), low plasticity; tan, low plasticity, trace sand, calcareous.		7			10	
			19.5': Tan to light brown, moist, no sand.		8			18	
			21': CLAY, low plasticity; olive green, moist, low plasticity, trace sand, calcareous.		9			24	
					10			22	
					11			14	

BOTTOM OF BOREHOLE AT -55.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division		INSTALLATION Charleston Harbor		SHEET 1 OF 1 SHEETS	
		1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW	
2. HOLE NUMBER DIR-9-90		LOCATION COORDINATES N 364014.5696 E 2328926.124		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail			
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314					
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 8		DISTURBED 8		UNDISTURBED 0	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING		13. TOTAL NUMBER CORE BOXES 0	
6. THICKNESS OF OVERBURDEN 13.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 2/7/90 COMPLETED 2/7/90			
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -42' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A			
8. TOTAL DEPTH OF BORING 55.5'		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.					

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-42		MH	0': CLAYEY SILT (MH), dark gray to black, wet, trace sand, and shell fragments.		1		USCS		0
-46.0	4.0	CL	4': CLAY (CL), low plasticity; olive green, moist, low plasticity, trace sand, calcareous.		2				12
					3				16
					4				21
					5				24
					6				19
					7				15
					8				14

BOTTOM OF BOREHOLE AT -55.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER FCR-10-89		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 6	DISTURBED 6 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	14. ELEVATION GROUND WATER NA
6. THICKNESS OF OVERBURDEN 23.3'		15. DATE BORING 5/15/89	STARTED 5/15/89 COMPLETED 5/15/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -32.3' MLLW	
8. TOTAL DEPTH OF BORING 55.6'		17. TOTAL CORE RECOVERY FOR BORING N/A	
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-32.3		[Green Hatched Legend]	0': SILTY CLAY (CL), low plasticity; light greenish brown, low plasticity, some sand, trace silt.		1		USCS		16
					2			18	
					3			25	
					4			18	
					5			11	
					6			11	
-55.6	23.3								

BOTTOM OF BOREHOLE AT -55.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER FR-1-97	LOCATION COORDINATES N 344832.6955 E 2338043.209		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 12
4. NAME OF DRILLER C. Robbins		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 12
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 44.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 6/10/97
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -19.1' MLLW		STARTED 6/10/97
8. TOTAL DEPTH OF BORING 63.6'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 6/10/97
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value	
-19.1			0': FAT CLAY (CH), dark gray, trace shale fragments, calcareous.		1		USCS		0	
-28.3	9.2		9.2': CLAYEY SAND (SC), fine; gray, trace shale fragments, calcareous.		2				0	
-32.1	13.0		13':		3			2	8	
			14.5': Light gray.		4		3	3		
-35.1	16.0		16': SAND (SM), fine; light gray, Poorly Graded, trace shale fragments, calcareous.		5		2	2		
			17.5': SAND, fine to medium; non-calcareous.		6		3	4	11	
						5		5		6
						6		3		3
			22': Some shell fragments.					5	5	11
								7	8	
			23.5': Light gray and dark gray.					8	3	6
							2	2		
							4	4	11	
							5	4		
							6	6		

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS	
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW	
LOCATION COORDINATES N 344832.6955 E 2338043.209		ELEVATION TOP OF BORING -19.1'			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value		
			16': SAND (SM), fine; light gray, Poorly Graded, trace shale fragments, calcareous. (continued)		7			4	10		
										5	
										5	
					28': SILTY SAND, fine to medium; light gray, some shale fragments, calcareous.					6	13
										7	
										8	
					29.5': Trace shell fragments.		8			10	20
										10	
										8	
					34': Some shell fragments.		9			8	19
										9	
										5	
					35.5': Trace shell fragments.					10	18
										8	
										8	
			38.5': Some shell fragments.		10			9	19		
								10			
								7			
			41.5': CLAYEY SAND (SC), fine; olive gray, calcareous.		11			7	17		
								8			
								9			
								5	13		
								5			
								8			
								7	19		
								8			
								11			
					10			7	21		
								10			
								11			
								8	25		
								12			
								13			
-60.6	41.5				11			8	24		
								12			
								12			
					12			12	30		
								15			
								15			

BOTTOM OF BOREHOLE AT -63.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER FR-2-97		LOCATION COORDINATES N 346475.6841 E 2336777.508		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C. Robbins		12. TOTAL SAMPLES 12	DISTURBED 12	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 29.6'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 52.6'		15. DATE BORING 6/11/97		STARTED 6/11/97
		COMPLETED 6/11/97		
		16. ELEVATION TOP OF BORING -23' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		




ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-23			0': SILTY SAND (SM), fine; dark gray, trace shell fragments, calcareous.		1		USCS		0
-25.6	2.6		2.6': SAND (SP), fine; gray, Poorly Graded, trace shell fragments, calcareous. 4.1': No shell fragments. 5.6': Light gray, no shell fragments, non-calcareous.		2			4 5 3 5 9 15 24	8 24
			10.1': SAND, fine to medium. 11.6': SAND, medium to coarse. 13.1': SAND, coarse; trace silt.		3			12 4 8 11 4 4 3 4	19 12 7
			14.6': SANDY SAND (SM), fine to medium; gray.		4			4 4 6 6 4 4 3	12 7
			16.1': SAND (SP), medium; light gray, Poorly Graded, with shells, and shell fragments, calcareous. 17.6': Fine to medium; gray, trace shell fragments.		5			17 19 3 14 7	36 21
-37.6	14.6		14.6': SANDY SAND (SM), fine to medium; gray.		6			3 1 2	3
-39.1	16.1		16.1': SAND (SP), medium; light gray, Poorly Graded, with shells, and shell fragments, calcareous. 17.6': Fine to medium; gray, trace shell fragments.		7			2 4 8 5 7 10 7	12 17
			20.6': No recovery					9 9 5 8 12	18 20
-43.6	20.6		22.1': SILTY SAND (SM), fine to coarse; gray, some shell fragments, calcareous.		8			6 10 12	22
-45.1	22.1		23.6': CLAYEY SAND (SC), fine to medium; dark gray, some shell fragments, calcareous.		9			3 4 4	8
-46.6	23.6		25.1': LEAN SANDY CLAY (CL), olive gray.		10			4 4 6	10
-48.1	25.1		26.6': CLAYEY SAND (SC), fine; olive gray, calcareous.		11			2 4 6	10
-49.6	26.6				12			7 7	14
-52.6	29.6							7	

BOTTOM OF BOREHOLE AT -52.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER HI-35-88		LOCATION COORDINATES N 352465.5587 E 2333057.978		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 4
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING ---
6. THICKNESS OF OVERBURDEN 10.7'		14. ELEVATION GROUND WATER NA		15. DATE BORING 2/28/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -39.7' MLLW		STARTED 2/28/88
8. TOTAL DEPTH OF BORING 50.4'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 2/28/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-39.7			0': SILT (MH), black, inorganic, calcareous.		1		USCS		0
-45.9	6.2		6.2': LEAN SANDY CLAY (CL), green, with shell fragments, glauconitic, calcareous.		2				10
-47.4	7.7		7.7': FAT SANDY CLAY (CH), green, calcareous.		3				8
-50.4	10.7				4				12

BOTTOM OF BOREHOLE AT -50.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER HI-36-88		LOCATION COORDINATES N 354612.5837 E 2333407.612		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 6
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 6
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 10.7'		14. ELEVATION GROUND WATER NA		15. DATE BORING 2/28/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -39.3' MLLW		STARTED 2/28/88
8. TOTAL DEPTH OF BORING 50'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 2/28/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				



ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-39.3		0'	0': FAT SANDY CLAY (CH), dark gray, with shell fragments.		1		USCS		0
-42.5	3.2	3.2'	3.2': LEAN SANDY CLAY (CL), green, with gravel, and shell fragments, calcareous.		2				14
-44.0	4.7	4.7'	4.7': FAT SANDY CLAY (CH), gray, calcareous.		3				16
					4				11
					5				13
					6				12
-50.0	10.7								

BOTTOM OF BOREHOLE AT -50.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER HI-37-88		LOCATION COORDINATES N 356026.5079 E 2333140.378		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 5
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 5
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 7.7'		14. ELEVATION GROUND WATER NA		15. DATE BORING 2/28/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -42.2' MLLW		STARTED 2/28/88
8. TOTAL DEPTH OF BORING 49.9'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 2/28/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-42.2			0': SANDY SAND (SM), fine; dark gray, trace clay, and shell fragments.		1		USCS		0
					2			5	
-45.4	3.2		3.2': CLAYEY FAT SAND (SC), fine; dark gray, with shell fragments.		3			0	
					4			11	
					5			12	
-49.9	7.7								

BOTTOM OF BOREHOLE AT -49.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER HI-38-94		LOCATION COORDINATES N 349479.8773 E 2332613.767		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 6	DISTURBED 6	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 29.1'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 74.6'		15. DATE BORING 8/6/94	STARTED 8/6/94	COMPLETED 8/6/94
		16. ELEVATION TOP OF BORING -45.5' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-45.5		[Blue Hatched Legend]	0': FAT CLAY (CH), gray, trace sand.		1		USCS Used salt water drilling mud.	0	
						2		0	
				15.6': Trace shells, and shell fragments.		3		5	
-64.1	18.6	[Yellow Hatched Legend]	18.6': CLAYEY SAND (SC), fine; olive gray, calcareous.		4			8	
						5		9	
						6		12	
								22	
								9	
								9	
-74.6	29.1				6			8	

BOTTOM OF BOREHOLE AT -74.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER HI-39-94		LOCATION COORDINATES N 356174.5195 E 2333501.418		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 6
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 6
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 16.9'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/22/94
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -46.4' MLLW		STARTED 8/22/94
8. TOTAL DEPTH OF BORING 63.3'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 8/22/94
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-46.4			0': SILTY SAND (SM), fine to medium; dark gray to black, trace shells, and shell fragments.		1		USCS		0
-49.8	3.4		3.4': FAT CLAY (CH), dark gray, trace sand, and shell fragments.		2				0
-51.3	4.9		4.9': CLAYEY SAND (SC), fine to medium; dark gray, trace shell fragments.		3				5
			7.9': Some shell fragments, trace gravel.						1
									7
-55.8	9.4		9.4': SAND (SP), fine to medium; gray, Poorly Graded, some shell fragments, trace silt.		4				6
			10.9': Trace clay, and shells.						6
			12.4': No clay.						28
					5				31
					6				26

BOTTOM OF BOREHOLE AT -63.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER HI-40-94		LOCATION COORDINATES N 351161.5556 E 2332997.395		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 6
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 6
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 18.9'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/5/94
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -30.3' MLLW		STARTED 8/5/94
8. TOTAL DEPTH OF BORING 49.2'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 8/5/94
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-30.3		0'	0': CLAYEY SILT (MH), dark gray to black, trace sand, and shell fragments.		1		USCS Used salt water drilling mud.		0
		2.4'	2.4': Some sand, and shell fragments.						1
-34.2	3.9	3.9'	3.9': SAND (SP), medium to coarse; gray, Poorly Graded, and shell fragments.		2				9
		6.9'	6.9': FAT CLAY (CH), dark gray, trace sand, and shell fragments.		3				2
		9.9'	9.9': Some sand, and shell fragments.						3
-41.7	11.4	11.4'	11.4': CLAYEY SAND (SC), fine; olive gray, calcareous.		4				5
		15.9'	15.9': Shell fragments.		5				5
		18.9'			6				8
-49.2	18.9	18.9'							10

BOTTOM OF BOREHOLE AT -49.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER HI-41-94		LOCATION COORDINATES N 353768.7164 E 2333068.266		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 7
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 7
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 22.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/7/94
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -44.8' MLLW		STARTED 8/7/94
8. TOTAL DEPTH OF BORING 67.3'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 8/7/94
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-44.8	0.3		0': CLAYEY SILT (MH), dark gray to black.		1		USCS		
			0.3': CLAYEY SAND (SC), fine; olive gray, calcareous.		2		No drilling mud used.		2
									5
									10
					3				14
									21
									13
-53.8	9.0		9': LEAN CLAY (CL), olive gray, some sand, calcareous.		4				22
									20
-56.8	12.0		12': CLAYEY SAND (SC), fine; olive gray, calcareous.		5				17
									16
									12
					6				15
									16
									23
					7				20

BOTTOM OF BOREHOLE AT -67.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER HI-42-97		LOCATION COORDINATES N 349864.5374 E 2333539.411		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 6
4. NAME OF DRILLER C. Robbins		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 6
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 32.3'		14. ELEVATION GROUND WATER NA		UNDISTURBED 0
7. DEPTH DRILLED INTO ROCK 0'		15. DATE BORING 6/11/97		STARTED 6/11/97
8. TOTAL DEPTH OF BORING 53.2'		16. ELEVATION TOP OF BORING -20.9' MLLW		COMPLETED 6/11/97
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-20.9			0': No recovery.				USCS		0
-23.3	2.4		2.4': SILTY SAND (SM), fine to medium; gray and d gray, trace shell fragments, calcareous.		1				0
			11.3': Dark gray.					6 16 8	24
			14.3': Gray.		2			14 28 17	45
								5 5 5	10
					3			3 2 2	4
								2 3 5 3 4 4	8
					4			2 2 3 4 5	5
								4 5 7	12
					5			2 5 6 2	11
								5 7 3 5 7	12
-51.7	30.8							4 4 6	10
-53.2	32.3		30.8': CLAYEY SAND (SC), fine; olive gray, calcareous.		6			2 4 6	10

BOTTOM OF BOREHOLE AT -53.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

Boring Designation HR-1

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER HR-1		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 2	DISTURBED 2 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	14. ELEVATION GROUND WATER NA
6. THICKNESS OF OVERBURDEN 8.3'		15. DATE BORING 3/30/89	STARTED 3/30/89 COMPLETED 3/30/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -44.1' MLLW	
8. TOTAL DEPTH OF BORING 52.4'		17. TOTAL CORE RECOVERY FOR BORING N/A	
18. SIGNATURE AND TITLE OF INSPECTOR Matthew Delano, Geologist			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-44.1		●●●●●	0': SILTY SAND (SM), fine; gray, some clay, trace shell fragments.		1		USCS		21
									0
					2				11
-52.4	8.3								

BOTTOM OF BOREHOLE AT -52.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER HR-2		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 3	DISTURBED 3 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	14. ELEVATION GROUND WATER NA
6. THICKNESS OF OVERBURDEN 11.7'		15. DATE BORING 3/30/89	STARTED 3/30/89 COMPLETED 3/30/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -44.7' MLLW	
8. TOTAL DEPTH OF BORING 56.4'		17. TOTAL CORE RECOVERY FOR BORING N/A	
18. SIGNATURE AND TITLE OF INSPECTOR Matthew Delano, Geologist			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value	
-44.7		[Hatched Pattern]	0': CH FAT CLAY (CH), high plasticity; gray, high plasticity, calcareous, with lenses of black watery fat clay and grey silty sand.		1		USCS		1	
										7
								2		
					3				7	
-56.4	11.7									

BOTTOM OF BOREHOLE AT -56.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER HR-3		LOCATION COORDINATES N 347222.2499 E 2333588.454		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 3
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 11.1'		14. ELEVATION GROUND WATER NA		15. DATE BORING 4/11/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -44.6' MLLW		STARTED 4/11/89
8. TOTAL DEPTH OF BORING 55.7'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 4/11/89
18. SIGNATURE AND TITLE OF INSPECTOR Matthew Delano, Geologist				




ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value	
-44.6			0': FAT CLAY (CH), gray, slightly calcareous.		1		USCS		6	
									0	
				6': Trace shell fragments, trace sand.		2				4
				9': No shell fragments.		3				6
-55.7	11.1								0	

BOTTOM OF BOREHOLE AT -55.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER HR-34-88		LOCATION COORDINATES N 347094.9141 E 2334528.869		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 7	DISTURBED 7	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 9'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING -32.1'		15. DATE BORING 2/27/88		STARTED 2/27/88
		16. ELEVATION TOP OF BORING 41.1' MLLW		COMPLETED 2/27/88
		17. TOTAL CORE RECOVERY FOR BORING N/A		
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

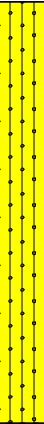

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.1			0': CLAYEY FAT SILT (SC), fine; dark gray, with shell fragments.		1		USCS		8
40.1	1.0		1': SANDY LEAN CLAY (CL), green, with shell fragments, calcareous.		2				
39.6	1.5		1.5': SANDY FAT CLAY (CH), gray, some shell fragments, calcareous.		3				15
					4				14
					5				9
					6				9
					7				14
32.1	9.0								

BOTTOM OF BOREHOLE AT 32.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER HR-5-94		LOCATION COORDINATES N 348561.2728 E 2333967.135		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 2	DISTURBED 2	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 8.6'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 45.8'		15. DATE BORING 8/8/94		STARTED 8/8/94 COMPLETED 8/8/94
		16. ELEVATION TOP OF BORING -37.2' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.2			0': SILTY SAND (SM), fine to medium; gray, some shell fragments.		1		USCS Used salt water drilling mud		34
-41.9	4.7		4.7': FAT CLAY (CH), gray.		3				6
-45.8	8.6								0

BOTTOM OF BOREHOLE AT -45.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER HR-5A-94		LOCATION COORDINATES N 348592.1 E 2334015.475		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 7	DISTURBED 7	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 35.6'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 52.4'		15. DATE BORING 8/8/94		STARTED 8/8/94
		COMPLETED 8/8/94		
		16. ELEVATION TOP OF BORING -16.8' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value	
-16.8			0': SILTY SAND (SM), fine; dark gray, trace clay, and shell fragments.		1		USCS Used salt water drilling mud		3	
									21	
									10	
								2		12
									20	
									10	
								3		14
							6			
							24			
-30.3	13.5		13.5': No recovery					2		
-31.8	15.0		15': SILTY SAND (SM), fine; dark gray, trace clay, and shell fragments.		4			9		
-33.0	16.2									
			16.2': FAT CLAY (CH), dark gray, some sand, and shell fragments.		5			0		
					23.7': Trace sand, and shell fragments.		6			0
					7			0		
-52.4	35.6									

BOTTOM OF BOREHOLE AT -52.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER LTC-3	LOCATION COORDINATES N 347746.5 E 2331114		10. SIZE AND TYPE OF BIT Athena Technologies Vibracore System	
3. DRILLING AGENCY Athena Technologies		11. MANUFACTURER'S DESIGNATION OF DRILL N/A		12. TOTAL SAMPLES 0
4. NAME OF DRILLER Sexton, W.		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 10'		14. ELEVATION GROUND WATER NA		15. DATE BORING 6/10/04
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -40.65' MLLW		STARTED 6/10/04
8. TOTAL DEPTH OF BORING 50.65'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 6/10/04
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.65		0'	CLAY (OH), black, with organics, "black harbor mud".				USCS Water level corrected using data from Customhouse Wharf, Charleston Harbor, SC. Six cores collected to obtain required sediment volume.		
-45.7	5.0	5'	WELL GRADED SAND (SP), fine to coarse; and shell fragments.						
-46.2	5.5	5.5'	LEAN SILT (ML), dry, (Cooper Marl).						
-50.7	10.0								

BOTTOM OF BOREHOLE AT -50.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER MB-1-88		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 3	DISTURBED 3 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	14. ELEVATION GROUND WATER NA
6. THICKNESS OF OVERBURDEN 9'		15. DATE BORING 9/30/88	STARTED 9/30/88 COMPLETED 9/30/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41.3' MLLW	
8. TOTAL DEPTH OF BORING 50.3'		17. TOTAL CORE RECOVERY FOR BORING N/A	
18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.3		[Hatched Pattern]	0': LEAN SILTY CLAY (CL), olive green, with shell fragments, calcareous.		1		USCS		7
								16	
								16	
					2			34	
			6': SILTY, trace sand.					30	
					3			29	
-50.3	9.0								

BOTTOM OF BOREHOLE AT -50.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER MB-2-90		LOCATION COORDINATES N 360948.6754 E 2329120.626		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 9
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 9
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING ---
6. THICKNESS OF OVERBURDEN 13.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/13/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -42.1' MLLW		STARTED 5/13/90
8. TOTAL DEPTH OF BORING 55.6'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/13/90
18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-42.1			0': LEAN CLAYEY SILT (ML), olive green, moist, calcareous.		1		USCS		2
					2				16
					3				12
					4				12
					5				15
					6				19
			9': Trace shell fragments.		7				19
					8				16
					9				16
-55.6	13.5								

BOTTOM OF BOREHOLE AT -55.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER MB-3-90		LOCATION COORDINATES N 360785.6115 E 2328745.66		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 8	DISTURBED 8	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 12'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 54.7'		15. DATE BORING 4/12/90		STARTED 4/12/90
		COMPLETED 4/12/90		
		16. ELEVATION TOP OF BORING -42.7' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		


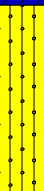
ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-42.7			0': LEAN SILT (ML), olive green, moist, calcareous.		1		USCS		10
					2				14
					3				22
			4.5': Some shell fragments.		4				14
					5				19
					6				20
			9': CLAYEY, no shell fragments.		7				16
					8				12
-54.7	12.0								

BOTTOM OF BOREHOLE AT -54.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NC-S-X-NORTH-99		LOCATION COORDINATES N 370785.228 E 2327105.23		10. SIZE AND TYPE OF BIT N/A
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic		12. TOTAL SAMPLES 0
4. NAME OF DRILLER T. Pickett		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 12'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 2/12/99 COMPLETED 2/12/99
7. DEPTH DRILLED INTO ROCK 9'		16. ELEVATION TOP OF BORING -12.3' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A
8. TOTAL DEPTH OF BORING 33.3'		18. SIGNATURE AND TITLE OF INSPECTOR Trap Puckette		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sam No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-12.3	0.3		0': SILT (OH), tan, wet, soft, "puff mud".						
			0.25': SILTY CLAY (OH), black, saturated, soft, "puff mud".						
			1.5': Moist, semi-soft.						
			3.5': Firm.						
-21.8	9.5		9.5': CLAYEY SILTY SAND (SM), fine to medium; black.						
-24.3	12.0								

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS	
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW	
LOCATION COORDINATES N 370785.228 E 2327105.23		ELEVATION TOP OF BORING -12.3'			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value

BOTTOM OF BOREHOLE AT -33.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER NC-S-X-SOUTH-99		LOCATION COORDINATES N 370646.196 E 2327147.611		10. SIZE AND TYPE OF BIT N/A
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic		
4. NAME OF DRILLER T. Pickett		12. TOTAL SAMPLES 0		DISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 12'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 6'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 30.8'		15. DATE BORING 2/12/99		STARTED 2/12/99
		COMPLETED 2/12/99		
		16. ELEVATION TOP OF BORING -12.8' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Trap Puckette		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sam No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-12.8	0.3		0': (OH), tan, wet, soft, "puff mud".						
			0.25': SILTY CLAY (OH), black, saturated, soft, "puff mud".						
			1.5': Moist, semi-soft.						
			4.5': Firm.						
-24.3	11.5								
-24.8	12.0		11.5': CLAYEY SILTY SAND (SM), fine to medium; black.						



DRILLING LOG (Cont Sheet)	INSTALLATION		SHEET 2
	Charleston Harbor		OF 2 SHEETS
PROJECT	COORDINATE SYSTEM	HORIZONTAL	VERTICAL
Charleston Harbor Entrance Channel Deepening	State Plane	NAD83	MLLW
LOCATION COORDINATES	ELEVATION TOP OF BORING		
N 370646.196 E 2327147.611	-12.8'		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No. R.O.D. %	REMARKS	Blows/ 0.5 ft	N-Value
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BOTTOM OF BOREHOLE AT -30.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER RR-11-88		LOCATION COORDINATES N 339480.2969 E 2346765.138		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 7	DISTURBED 7	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 9'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 50.6'		15. DATE BORING 2/13/88		STARTED 2/13/88
		COMPLETED 2/13/88		
		16. ELEVATION TOP OF BORING -41.6' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value		
-41.6			0': CLAY (CH), high plasticity; olive green, high plasticity, with shell fragments, glauconitic, w/ pockets of sand. 4': Dark green, slightly micaceous.		1		USCS		30		
					2			34			
					3			22			
					4			29			
-47.1	5.5				5.5': CLAYEY SAND (SC), fine; olive green, glauconitic, slightly micaceous.			5			
-47.6	6.0				6': CLAY (CH), high plasticity; dark green, high plasticity, micaceous w/ pockets of sand.			6			20
								7			26
-50.6	9.0										

BOTTOM OF BOREHOLE AT -50.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER RR-12-88		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 6	DISTURBED 6 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	14. ELEVATION GROUND WATER NA
6. THICKNESS OF OVERBURDEN 9'		15. DATE BORING 2/13/88	STARTED 2/13/88 COMPLETED 2/13/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41.4' MLLW	
8. TOTAL DEPTH OF BORING 50.4'		17. TOTAL CORE RECOVERY FOR BORING N/A	
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.4		[Hatched Legend Box]	0': CLAY (CH), high plasticity; olive green, high plasticity, glauconitic, slightly sandy, w/ lenses of dark grey, very loose sand.		1		USCS		36
			1.5': Sandy.		2			28	
					3			23	
					4			24	
				5.5': Dark green and olive green.		5			21
						6			17
-50.4	9.0								

BOTTOM OF BOREHOLE AT -50.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER RR-13-88		LOCATION COORDINATES N 338487.5636 E 2348110.315		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 6
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 6
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 10.3'		14. ELEVATION GROUND WATER NA		15. DATE BORING 2/13/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -40.2' MLLW		STARTED 2/13/88
8. TOTAL DEPTH OF BORING 50.5'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 2/13/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.2			0': No sample recovered.						
-41.5	1.3		1.3': CLAY (CH), high plasticity; olive green, high plasticity, glauconitic, sandy, w/ lenses of dark grey, sand.		1				36
					2				33
					3				26
			5.8': Interlayered dark green and olive green.		4				22
					5				17
					6				24
-50.5	10.3								

BOTTOM OF BOREHOLE AT -50.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER RR-14-88		LOCATION COORDINATES N 340364.225 E 2346436.981		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 7
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 7
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 10.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 2/14/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -39.6' MLLW		STARTED 2/14/88
8. TOTAL DEPTH OF BORING 50.1'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 2/14/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				



ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-39.6		[Hatched Pattern]	0': CLAY (CH), high plasticity; olive green, high plasticity, glauconitic, slightly sandy. 0.5': Lenses of black, fat clay w/ shell fragments.		1		USCS		28
			1.5': SANDY.		2			15	
					3			19	
			4.5': Dark green and olive green.		4			14	
					5			14	
					6			13	
					7			22	
-50.1	10.5								

BOTTOM OF BOREHOLE AT -50.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER RR-15-88		LOCATION COORDINATES N 341935.6253 E 2343363.711		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 4
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 7.2'		14. ELEVATION GROUND WATER NA		15. DATE BORING 2/14/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -42.8' MLLW		STARTED 2/14/88
8. TOTAL DEPTH OF BORING 50'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 2/14/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				




ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-42.8			0': CLAY (CH), high plasticity; gray, high plasticity, with shell fragments, slightly glauconitic.		1		USCS		0
-45.5	2.7		2.7': CLAYEY SAND (SC), fine; dark gray, with shell fragments, glauconitic, strong sulpher odor..		2				5
					3				0
					4				7
-50.0	7.2								

BOTTOM OF BOREHOLE AT -50.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER RR-16-88	LOCATION COORDINATES N 343345.4057 E 2342287.467		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 7	DISTURBED 7	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 13.2'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 50.3'		15. DATE BORING 2/14/88		STARTED 2/14/88 COMPLETED 2/14/88
		16. ELEVATION TOP OF BORING -37.1' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.1			0': CLAY (CH), high plasticity; gray, high plasticity, with shell fragments, interlayered w/ poorly graded sand.		1		USCS		0
			7.2': End of sand layers.		2				6
					3				0
					4				20
-48.3	11.2		11.2': SAND (SP), fine to medium; gray, Poorly Graded, with shell fragments, slightly clayey.		5				
					6				14
-49.8	12.7		12.7': CLAYEY SAND (SC), fine; gray.		7				
-50.3	13.2								

BOTTOM OF BOREHOLE AT -50.3 ft




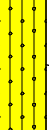
NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER RR-19-97		LOCATION COORDINATES N 344162.919 E 2339490.779		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 9
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 9
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 44.8'		14. ELEVATION GROUND WATER NA		15. DATE BORING 6/5/97
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -11.4' MLLW		STARTED 6/5/97
8. TOTAL DEPTH OF BORING 56.2'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 6/5/97
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-11.4			0': CLAYEY SILT (MH), high plasticity; gray, high plasticity, some sand, trace shells, calcareous.		1		USCS		0
-17.8	6.4		6.4': CLAY (CH), high plasticity; gray, high plasticity.		2				0
			21.2': Trace sand, and silt, shell fragments.		3				0
			27.1': Trace organics.						

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS	
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW	
LOCATION COORDINATES N 344162.919 E 2339490.779		ELEVATION TOP OF BORING -11.4'			



ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
			6.4': CLAY (CH), high plasticity; gray, high plasticity. <i>(continued)</i>						
			32.3': CLAY, high plasticity; gray, high plasticity, trace organics.		4				0
			35.5': Brownish gray.		5				0
-50.2	38.8		38.8': SILT (OL), dark grayish brown and dark brown, some organics, and clay, some sand.		6			0 0 8	8
-51.7	40.3			40.3': SAND (SP), fine to medium; gray, Poorly Graded.		7			3 10
-53.2	41.8			41.8': SILTY SAND (SM), fine to medium; dark brownish gray, trace clay.		8			8 0 6
			43.3': SILTY SAND, medium to coarse; dark gray, trace clay.		9			8 4 3	13
-56.2	44.8							6	

BOTTOM OF BOREHOLE AT -56.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SC-1-94	LOCATION COORDINATES N 338624.0551 E 2343574.82		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 3	DISTURBED 3	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 22.4'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 52'		15. DATE BORING 8/17/94		STARTED 8/17/94 COMPLETED 8/17/94
		16. ELEVATION TOP OF BORING -29.6' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-29.6			0': CLAYEY SILT (MH), dark gray to black, some sand.		1		USCS		0
-47.5	17.9		17.9': WELL GRADED GRAVEL CLAYEY SAND (SC), fine; dark gray to black, some silt.		2				4
			20.9': Fine to medium; shell fragments.		3				0
-52.0	22.4								8

BOTTOM OF BOREHOLE AT -52.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SC-S-1-99		LOCATION COORDINATES N 364152.422 E 2326620.672		10. SIZE AND TYPE OF BIT N/A
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic		12. TOTAL SAMPLES 0
4. NAME OF DRILLER T. Pickett		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 3.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 1/8/99
7. DEPTH DRILLED INTO ROCK 4'		16. ELEVATION TOP OF BORING -37.8' MLLW		STARTED 1/8/99
8. TOTAL DEPTH OF BORING 45.3'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 1/8/99
18. SIGNATURE AND TITLE OF INSPECTOR Trap Puckette				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.8		0'	0': SILTY CLAY (OH), black, saturated, soft, "puff mud".						
-41.3	3.5								

BOTTOM OF BOREHOLE AT -45.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SC-S-2-99		LOCATION COORDINATES N 364093.905 E 2326237.3		10. SIZE AND TYPE OF BIT N/A
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic		12. TOTAL SAMPLES 0
4. NAME OF DRILLER T. Pickett		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 4'		14. ELEVATION GROUND WATER NA		15. DATE BORING 1/8/99
7. DEPTH DRILLED INTO ROCK 3.5'		16. ELEVATION TOP OF BORING -37.8' MLLW		STARTED 1/8/99
8. TOTAL DEPTH OF BORING 45.3'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 1/8/99
18. SIGNATURE AND TITLE OF INSPECTOR Trap Puckette				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.8		0'	0': SILTY CLAY (OH), tan, wet, "puff mud".						
			0.25': Black, saturated.						
-41.8	4.0								

BOTTOM OF BOREHOLE AT -45.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SC-S-3-99		LOCATION COORDINATES N 364095.762 E 2325827.708		10. SIZE AND TYPE OF BIT N/A
3. DRILLING AGENCY General Engineering		11. MANUFACTURER'S DESIGNATION OF DRILL Vibracore Generic		
4. NAME OF DRILLER T. Pickett		12. TOTAL SAMPLES 0		DISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 3.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 4'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 45.3'		15. DATE BORING 1/8/99		STARTED 1/8/99
		16. ELEVATION TOP OF BORING -37.8' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Trap Puckette		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.8		3.5'	0': SILTY CLAY (OH), tan, wet, "puff mud". 0.25': Black, saturated, soft.						
-41.3	3.5								

BOTTOM OF BOREHOLE AT -45.3 ft





NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 3 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SD-98-1		LOCATION COORDINATES N 365631.83 E 2327039.57		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 18
4. NAME OF DRILLER C. Robbins		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 18
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 71.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/4/98
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -8.5' MLLW		STARTED 8/4/98
8. TOTAL DEPTH OF BORING 80'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 8/4/98
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-8.5			0': SILTY SAND (SM), fine; dark gray, trace shell fragments, calcareous.		1		USCS Began 5' Centers at 38.4'		0
			3.6': Gray.		2				8
					3				4
					4				5
-16.6	8.1		8.1': CLAYEY SAND (SC), fine; olive gray, calcareous.		5				0
-20.2	11.7		11.7': FAT CLAY (CH), dark gray, trace sand, calcareous.		6				0
					7				0
				20.8': Gray, trace sand, and shell fragments, slightly calcareous.		8			

DRILLING LOG (Cont Sheet)		INSTALLATION		SHEET					
		Charleston Harbor		2					
PROJECT		COORDINATE SYSTEM		HORIZONTAL					
Charleston Harbor Entrance Channel Deepening		State Plane		VERTICAL					
LOCATION COORDINATES		ELEVATION TOP OF BORING							
N 365631.83 E 2327039.57		-8.5'							
ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
			11.7': FAT CLAY (CH), dark gray, trace sand, calcareous. (continued)						
			26.9': No sand or shell fragments.		9				0
-38.4	29.9		29.9': Wash.						
-40.4	31.9		31.9': FAT CLAY (CH), gray, slightly calcareous.		10				0
-43.4	34.9		34.9': Wash.						
-45.4	36.9		36.9': FAT CLAY (CH), gray, slightly calcareous.		11				0
-48.0	39.5		39.5': Wash.						
-50.4	41.9		41.9': FAT CLAY (CH), gray, slightly calcareous.		12				0
-53.1	44.6		44.6': Wash.						
-55.4	46.9		46.9': FAT CLAY (CH), gray, slightly calcareous.		13				0
-57.8	49.3		49.3': Wash.						
-60.4	51.9		51.9': CLAYEY SAND (SC), fine; light olive gray, slightly calcareous.		14				17
-61.9	53.4		53.4': Wash.						

DRILLING LOG (Cont Sheet)	INSTALLATION Charleston Harbor		SHEET 3 OF 3 SHEETS
	PROJECT Charleston Harbor Entrance Channel Deepening	COORDINATE SYSTEM State Plane	HORIZONTAL : VERTICAL NAD83 : MLLW
LOCATION COORDINATES N 365631.83 E 2327039.57		ELEVATION TOP OF BORING -8.5'	




ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
-65.4	56.9		53.4': Wash. (continued)						
-66.9	58.4		56.9': CLAYEY SAND (SC), fine; light olive gray, slightly calcareous.		15				11
-70.4	61.9		58.4': Wash.						
-71.9	63.4		61.9': CLAYEY SAND (SC), fine; light olive gray, slightly calcareous.		16				12
-75.4	66.9		63.4': Wash.						
-76.9	68.4		66.9': CLAYEY SAND (SC), fine; light olive gray, slightly calcareous.		17				15
-78.5	70.0		68.4': Wash.						
-80.0	71.5		70': CLAYEY SAND (SC), fine; light olive gray, slightly calcareous.		18				11

BOTTOM OF BOREHOLE AT -80.0 ft






NOTE: Soils visually field classified in accordance with the Unified Soil Classification System


BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 3 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SD-98-2		LOCATION COORDINATES N 365639.24 E 2327265.03		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 11
4. NAME OF DRILLER C. Robbins		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 11
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 63.3'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/5/98
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -15.5' MLLW		STARTED 8/5/98
8. TOTAL DEPTH OF BORING 78.8'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 8/5/98
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-15.5			0': LEAN SILT (ML), dark gray.		1		USCS		0
-28.3	12.8		12.3': Some sand. 12.8': FAT SILT (MH), dark gray to black.		2				0
-33.8	18.3		18.3': FAT CLAY (CH), gray.		3				0
					4				0

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 3 SHEETS	
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane		HORIZONTAL VERTICAL NAD83 MLLW	
LOCATION COORDINATES N 365639.24 E 2327265.03		ELEVATION TOP OF BORING -15.5'			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
			18.3': FAT CLAY (CH), gray. (continued)						
			30.1': Trace sand, and silt, slightly calcareous.		5				0
			35.4': Trace organics.		6				0
			41.3': Trace shell fragments.		7				0
-59.3	43.8		43.8': Wash.						
-61.8	46.3		46.3': CLAYEY SAND (SC), fine; light olive gray, calcareous.		8				0
-63.3	47.8		47.8': Wash.						
-66.8	51.3		51.3': CLAYEY SAND (SC), fine; light olive gray, with chert, calcareous.		9				12
-68.3	52.8		52.8': Wash.						
-71.8	56.3		56.3':		10				14
-73.3	57.8		57.8':						
-77.3	61.8								

DRILLING LOG (Cont Sheet)				INSTALLATION			SHEET 3		
				Charleston Harbor			OF 3 SHEETS		
PROJECT				COORDINATE SYSTEM		HORIZONTAL	VERTICAL		
Charleston Harbor Entrance Channel Deepening				State Plane		NAD83	MLLW		
LOCATION COORDINATES				ELEVATION TOP OF BORING					
N 365639.24 E 2327265.03				-15.5'					
ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
-78.8	63.3		61.8' : CLAYEY SAND, fine; light olive gray, calcareous. (<i>continued</i>)		11				24
BOTTOM OF BOREHOLE AT -78.8 ft				BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".					
NOTE: Soils visually field classified in accordance with the Unified Soil Classification System									

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SD-98-3		LOCATION COORDINATES N 365652.45 E 2327491.06		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 12
4. NAME OF DRILLER C. Robbins		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 12
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 59.2'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/8/98
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -21.1' MLLW		STARTED 8/8/98
8. TOTAL DEPTH OF BORING 80.3'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 8/8/98
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-21.1			0': FAT SILT (MH), dark gray, trace sand, and shell fragments.		1		USCS		0
-31.6	10.5		10.5': FAT CLAY (CH), gray, trace sand, and shell fragments.		2				0
			15.5': Trace silt, slightly calcareous.		3				0
-40.2	19.1		19.1': CLAYEY SAND (SC), fine; gray, slightly calcareous.		4				0
					5				0
-47.9	26.8		26.8': Wash.						
-48.8	27.7		27.7': FAT CLAY, gray, some sand, and silt, slightly calcareous.		6				0
-51.6	30.5		30.5': Wash.						

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane	HORIZONTAL NAD83	VERTICAL MLLW
LOCATION COORDINATES N 365652.45 E 2327491.06		ELEVATION TOP OF BORING -21.1'		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
			30.5': Wash. (continued)						
-53.8	32.7		32.7': CLAYEY SAND (SC), fine; gray, some silt.		7				0
-57.1	36.0		36': Wash.						
-58.8	37.7		37.7': CLAYEY SAND (SC), fine; olive gray, calcareous.		8				16
-60.3	39.2		39.2': Wash.						
-63.8	42.7		42.7': CLAYEY SAND (SC), fine; olive gray, calcareous.		9				21
-65.3	44.2		44.2': Wash.						
-68.8	47.7		47.7': CLAYEY SAND (SC), fine; olive gray, calcareous.		10				8
-70.3	49.2		49.2': Wash.						
-73.8	52.7		52.7': LEAN CLAY (CL), olive gray, some sand, calcareous.		11				15
-75.3	54.2		54.2': Wash.						
-78.8	57.7		57.7': CLAYEY SAND (SC), fine; olive gray, calcareous.		12				19
-80.3	59.2								

BOTTOM OF BOREHOLE AT -80.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SR-1-89		LOCATION COORDINATES N 346123.6893 E 2334645.032		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 2
4. NAME OF DRILLER C. Robbins		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 2
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 13.3'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/29/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -38.9' MLLW		STARTED 3/29/89
8. TOTAL DEPTH OF BORING 52.2'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 3/29/89
18. SIGNATURE AND TITLE OF INSPECTOR Matthew Delano, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.9		13.3'	0': FAT CLAY (CH), black, wet, with sand.		1		USCS		0
			11.8': FAT CLAY, high plasticity; dark bluish gray, high plasticity, trace sand, slightly calcareous.		2				12
-52.2	13.3								

BOTTOM OF BOREHOLE AT -52.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER SR-2-89		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 2	DISTURBED 2
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	
DEG FROM VERTICAL ---		14. ELEVATION GROUND WATER NA	
BEARING		15. DATE BORING 3/29/89	
6. THICKNESS OF OVERBURDEN 7.5'		16. ELEVATION TOP OF BORING -43.2' MLLW	
7. DEPTH DRILLED INTO ROCK 0'		17. TOTAL CORE RECOVERY FOR BORING N/A	
8. TOTAL DEPTH OF BORING 50.7'		18. SIGNATURE AND TITLE OF INSPECTOR Matthew Delano, Geologist	

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-43.2		FAT CLAY	0': FAT CLAY (CH), dark brownish gray, calcareous.		1		USCS NOTE: Set 6" casing. Cleaned hole using clear water.		0
									11
									23
									19
					2				12
-50.7	7.5								

BOTTOM OF BOREHOLE AT -50.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SR-3-94	LOCATION COORDINATES N 346803.8566 E 2335317.483		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 9
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 9
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 34.5'		14. ELEVATION GROUND WATER NA		UNDISTURBED 0
7. DEPTH DRILLED INTO ROCK 0'		15. DATE BORING 8/9/94		STARTED 8/9/94
8. TOTAL DEPTH OF BORING 61'		16. ELEVATION TOP OF BORING -26.5' MLLW		COMPLETED 8/9/94
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	R.O.D. %	REMARKS	Blows/ 0.5 ft	N-Value
-26.5			0': CLAYEY SAND (SC), fine; gray and dark olive gray, trace shell fragments.		1		USCS NOTE: Set 6" diameter casing to 27.6'. Used saltwater drilling mud.		10
-28.0	1.5		1.5': LEAN CLAY (CL), dark olive gray, trace sand.		2			19	
								14	
-32.5	6.0		6': CLAYEY SAND (CH), fine; dark olive gray, calcareous.		3			15	
								11	
-35.5	9.0		9': CLAYEY SAND (SC), fine; dark olive gray, calcareous.		4			8	
								9	
			12.5': Olive gray, trace gravel.		5			10	
								10	
					6			18	
							17		
							13		
					7		9		
-50.5	24.0		24': LEAN SANDY CLAY (CL), fine; olive gray, calcareous.		8		12		
							11		
							17		
-55.0	28.5		29.5': CLAYEY SAND (SC), fine; olive gray, calcareous.		9		13		
							14		
							13		
-59.5	33.0		33': LEAN SANDY CLAY (CL), fine; olive gray, calcareous.				27		
-61.0	34.5						25		

BOTTOM OF BOREHOLE AT -61.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SYR-100-88		LOCATION COORDINATES N 363608.422 E 2328053.209		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 2	DISTURBED 2	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 5.8'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 45.7'		15. DATE BORING 8/25/88		STARTED 8/25/88
		COMPLETED 8/25/88		
		16. ELEVATION TOP OF BORING -39.9' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Matthew Delano, Geologist		


ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-39.9		[Hatched Pattern]	0': FAT CLAY (CH), high plasticity; greenish brown, high plasticity, calcareous.		1		USCS		0
			2.8': With a slight odor.						24
			4.3': Trace shell fragments.			2			37
-45.7	5.8								

BOTTOM OF BOREHOLE AT -45.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SYR-101-88		LOCATION COORDINATES N 364044.4281 E 2328144.136		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 2
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 2
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 6.8'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/26/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -38.7' MLLW		STARTED 8/26/88
8. TOTAL DEPTH OF BORING 45.5'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 8/26/88
18. SIGNATURE AND TITLE OF INSPECTOR Matthew Delano, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.7			0': FAT CLAY (CH), high plasticity; greenish brown, high plasticity, trace gravel, and clay, calcareous.		1		USCS		0
									12
									16
									18
								2	
-45.5	6.8								

BOTTOM OF BOREHOLE AT -45.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SYR-102-88		LOCATION COORDINATES N 364504.426 E 2328194.059		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 5	DISTURBED 5	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 9'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 46.3'		15. DATE BORING 8/26/88		STARTED 8/26/88 COMPLETED 8/26/88
		16. ELEVATION TOP OF BORING -37.3' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.3			0': SAND (SP), fine to medium; grayish tan, Poorly Graded, wet, trace silt.		1		USCS		0 8
-40.3	3.0		3': SILTY SAND (SM), fine to medium; gray, wet, trace shell fragments.		2				3
-41.8	4.5		4.5': SAND (SP), fine to medium; grayish tan, Poorly Graded, wet, trace silt.		3				6
-43.3	6.0		6': SILTY SAND (SM), fine to medium; tannish gray, wet, some shell fragments.		4				18
-46.3	9.0		7.5': Trace clay.		5				6

BOTTOM OF BOREHOLE AT -46.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SYR-103-88		LOCATION COORDINATES N 363944.2802 E 2327307.17		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 3
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 13.7'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/26/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -39' MLLW		STARTED 8/26/88
8. TOTAL DEPTH OF BORING 52.7'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 8/26/88
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-39		FAT CLAY	0': FAT CLAY (CH), dark gray, wet.		1		USCS		0
		SILTY CLAY	13.2': FAT SILTY CLAY, light greenish brown, moist, trace sand.		2				0
-52.7	13.7	SAND			3				5

BOTTOM OF BOREHOLE AT -52.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SYR-104-88		LOCATION COORDINATES N 364381.1282 E 2326517.116		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 3
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING ---
6. THICKNESS OF OVERBURDEN 14.1'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/26/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -37.5' MLLW		STARTED 8/26/88
8. TOTAL DEPTH OF BORING 51.6'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 8/26/88
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist				




ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.5		0'	0': FAT CLAY (CH), dark gray, wet.		1		USCS		0
						2			0
				13.1': FAT SILTY CLAY, light greenish brown, moist, trace sand.		3			10
-51.6	14.1								

BOTTOM OF BOREHOLE AT -51.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SYR-105-88		LOCATION COORDINATES N 364416.0117 E 2325870.124		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 3
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 13.8'		14. ELEVATION GROUND WATER NA		15. DATE BORING 9/7/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -32.7' MLLW		STARTED 9/7/88
8. TOTAL DEPTH OF BORING 46.5'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 9/7/88
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-32.7			0': CLAYEY SILT (MH), dark gray to black, wet.		1		USCS		0
-44.3	11.6		11.6': FAT CLAY (CH), dark gray, wet.		2				0
-45.4	12.7		12.7': LEAN SILTY CLAY (CL), light greenish brown, moist, some sand, calcareous.		3				0
-46.5	13.8								

BOTTOM OF BOREHOLE AT -46.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SYR-106-88		LOCATION COORDINATES N 364078.9258 E 2325343.19		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 5	DISTURBED 5	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 8.3'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 44.8'		15. DATE BORING 9/7/88		STARTED 9/7/88 COMPLETED 9/7/88
		16. ELEVATION TOP OF BORING -36.5' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-36.5			0': CLAYEY SILT (MH), dark gray to black, wet.		1		USCS		0
-39.3	2.8		2.8': FAT CLAY (CH), dark gray, wet.		2				0
-40.3	3.8		3.8': LEAN SILTY CLAY (CL), light greenish brown, moist, some sand, calcareous.		3				0
					4				25
					5				41
-44.8	8.3								

BOTTOM OF BOREHOLE AT -44.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SYR-107-88	LOCATION COORDINATES N 364832.8953 E 2325274.069		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 3	DISTURBED 3	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 15.6'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 50.6'		15. DATE BORING 9/7/88		STARTED 9/7/88 COMPLETED 9/7/88
		16. ELEVATION TOP OF BORING -35' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-35			0': CLAYEY SILT (MH), dark gray to brown, wet.				USCS		
					1				0
-48.5	13.5		13.5': FAT CLAY (CH), dark gray, wet.		2				0
-49.7	14.7		14.7': LEAN SILTY CLAY (CL), light greenish brown, moist, some sand, calcareous.		3				0
-50.6	15.6								

BOTTOM OF BOREHOLE AT -50.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SYR-108-89		LOCATION COORDINATES N 367407.5291 E 2323576.693		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 4	DISTURBED 4	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 22'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 54.5'		15. DATE BORING 6/2/89		STARTED 6/2/89 COMPLETED 6/2/89
		16. ELEVATION TOP OF BORING -32.5' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		


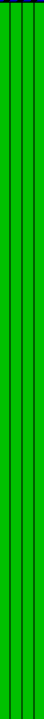
ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-32.5		FAT CLAY	0': FAT CLAY (CH), soft; dark gray, wet.				USCS		0
-42.5	10.0	LEAN SILT	10': LEAN SILT (ML), olive green, moist, calcareous.		1				0
		LEAN SILT			2				20
		LEAN SILT							0
		LEAN SILT							17
		LEAN SILT			3				22
		LEAN SILT	16': M, with sand.						11
		LEAN SILT							15
		LEAN SILT							16
-54.5	22.0	LEAN SILT			4				18

BOTTOM OF BOREHOLE AT -54.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SYR-109-89		LOCATION COORDINATES N 367067.5265 E 2323512.749		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 5	DISTURBED 5	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 20'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.1'		15. DATE BORING 6/2/89		STARTED 6/2/89 COMPLETED 6/2/89
		16. ELEVATION TOP OF BORING -35.1' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-35.1			0': FAT CLAY (CH), soft; dark gray, wet.		1		USCS		0
-42.6	7.5		7.5': LEAN SILT (ML), olive green, moist, calcareous.		2				22
									19
					3				14
			12.5': With shell fragments.						8
									14
					4				10
									13
									9
					5				13

BOTTOM OF BOREHOLE AT -55.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 1 SHEETS
2. HOLE NUMBER SYR-110-89		LOCATION COORDINATES N 365964.7443 E 2324582.902		VERTICAL MLLW
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail		
4. NAME OF DRILLER C.D. Justiss		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
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 17.9'		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 5
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		UNDISTURBED 0
8. TOTAL DEPTH OF BORING -19.3'		15. DATE BORING 6/3/89		STARTED 6/3/89
		16. ELEVATION TOP OF BORING 37.2' MLLW		COMPLETED 6/3/89
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		


ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.2		FAT CLAY	0': FAT CLAY (CH), soft; dark gray, wet.				USCS		0
32.3	4.9	LEAN SILT	4.9': LEAN SILT (ML), olive green, moist, calcareous.		1				0
					2				24
									18
									14
					3				16
									16
									15
					4				20
									20
19.3	17.9				5				19

BOTTOM OF BOREHOLE AT 19.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SYR-111-89		LOCATION COORDINATES N 366775.5644 E 2323684.792		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 3
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 16'		14. ELEVATION GROUND WATER NA		15. DATE BORING 6/3/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -38.7' MLLW		STARTED 6/3/89
8. TOTAL DEPTH OF BORING 54.7'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 6/3/89
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		


ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.7			0': FAT CLAY (CH), soft; dark gray, wet.		1		USCS NOTE: Sample 1 taken from outside of rods.		0
-51.7	13.0		13': LEAN SILT (ML), olive green, moist, calcareous.		2				12
-54.7	16.0				3				12

BOTTOM OF BOREHOLE AT -54.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 1 SHEETS VERTICAL MLLW
2. HOLE NUMBER SYR-112-89	LOCATION COORDINATES N 364537.9458 E 2325517.112		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 3	DISTURBED 3	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 13.9'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.8'		15. DATE BORING 6/3/89		STARTED 6/3/89 COMPLETED 6/3/89
		16. ELEVATION TOP OF BORING -41.9' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sam No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.9			0': FAT CLAY (CH), soft; dark gray, wet.		1		USCS NOTE: Sample 1 taken from outside of rod and casing.		0
-51.3	9.4		9.4': LEAN SILT (ML), olive green, moist, calcareous.		2				20
					3				14
									17

BOTTOM OF BOREHOLE AT -55.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SYR-113-90	LOCATION COORDINATES N 364468.345 E 2327738.075		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 13	DISTURBED 13	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 24'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.2'		15. DATE BORING 2/21/90		STARTED 2/21/90 COMPLETED 2/21/90
		16. ELEVATION TOP OF BORING -31.2' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-31.2			0': CLAYEY SILT (MH), dark gray to black, wet.				USCS		
					1				0
-38.1	6.9		6.5': Some sand.						
			6.9': LEAN CLAY (CL), olive green, moist, trace sand, calcareous.		2				2
					3				7
					4				15
					5				16
					6				22
					7				13
					8				19
			16.5': Trace sand.		9				19
					10				18
			19.5': Some sand.		11				12
					12				12
					13				14
-55.2	24.0								

SAW FORM 1836-A FEB 12 BOTTOM OF BOREHOLE AT -55.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG (Cont Sheet)	INSTALLATION		SHEET 2
	Charleston Harbor		OF 2 SHEETS
PROJECT	COORDINATE SYSTEM	HORIZONTAL	VERTICAL
Charleston Harbor Entrance Channel Deepening	State Plane	NAD83	MLLW
LOCATION COORDINATES	ELEVATION TOP OF BORING		
N 364468.345 E 2327738.075	-31.2'		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	R.O.D. %	REMARKS	Blows/ 0.5 ft	N-Value
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							BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".		
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DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SYR-114-90		LOCATION COORDINATES N 364371.2535 E 2327215.102		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 12	DISTURBED 12	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 19.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55'		15. DATE BORING 2/22/90		STARTED 2/22/90
		COMPLETED 2/22/90		
		16. ELEVATION TOP OF BORING -35.5' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-35.5		0'	0': CLAYEY SILT (MH), dark gray to black, wet, trace sand.		1		USCS		0
-38.5	3.0	3'	3': LEAN CLAY (CL), olive green, wet, some sand, calcareous.		2				1
		4.5'	4.5': Moist, some sand.		3				10
		10.5'	10.5': Trace sand.		4				16
		18'	18': Some sand.		5				23
					6				15
					7				22
					8				18
					9				17
					10				15
					11				14
					12				15
-55.0	19.5								

BOTTOM OF BOREHOLE AT -55.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SYR-115-90	LOCATION COORDINATES N 364543.0281 E 2325979.101		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 14	DISTURBED 14	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 24'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 28.5'		15. DATE BORING 2/22/90		STARTED 2/22/90 COMPLETED 2/22/90
		16. ELEVATION TOP OF BORING -4.5' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		



ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-4.5			0': SILTY SAND (SM), fine to medium; dark gray to black, wet, trace clay, and shell fragments, slightly calcareous.		1		USCS NOTE: Boring terminated at 28.5' due to severe weather warning. See companion log SYR-115A-90 for continuation of boring.		0
-7.5	3.0		3': CLAYEY SAND (SC), fine to medium; dark gray, wet, trace shell fragments, slightly calcareous.					5	
-11.5	7.0		7': FAT CLAY (CH), dark gray, moist, slightly calcareous.		2			0	
					3			3	
					4			0	
					5			4	
					6			0	
					7			4	
			13.5': Trace sand, and shell fragments.		8			4	
-19.5	15.0		15': CLAYEY SAND (SC), medium to coarse; dark gray to gray, wet, with shells, and shell fragments, calcareous.		9			3	
-21.0	16.5		16.5': SILTY SAND (SM), fine to coarse; gray and tannish gray, moist, trace shell fragments, and clay, calcareous.		10			20	
-22.5	18.0		18': CLAYEY SAND (SC), fine to medium; tannish gray, wet, with shells, and shell fragments, calcareous.		11			17	
-24.0	19.5		19.5': SILTY SAND (SM), fine to medium; grayish green, moist, trace shell fragments, and clay, calcareous.		12			13	
-25.5	21.0		21': SILTY GRAVEL (GM), fine to coarse; grayish green, wet, some sand, and shell fragments, calcareous.		13			9	
-27.0	22.5		22.5': CLAYEY SAND (SC), fine; olive green, moist, calcareous.		14		8		

BOTTOM OF BOREHOLE AT -28.5 ft



NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SYR-115A-90		LOCATION COORDINATES N 364549.0308 E 2325995.1		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 18
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 18
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 51.1'		14. ELEVATION GROUND WATER NA		15. DATE BORING 2/28/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -4.4' MLLW		STARTED 2/28/90
8. TOTAL DEPTH OF BORING 55.5'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 2/28/90
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-4.4			0': Fishtailed				NOTE: See companion log SYR-115-90. Fishtailed from 4.4' to 28.5'.		
-28.5	24.1		24.1': SANDY ELASTIC SILT CLAYEY SAND (SC), fine; olive green, moist.		1				15
			25.6': Moist, trace shell fragments, and gravel.		2				18

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS	
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW	
LOCATION COORDINATES N 364549.0308 E 2325995.1		ELEVATION TOP OF BORING -4.4'			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-33.0	28.6		24.1': SANDY ELASTIC SILT CLAYEY SAND (SC), fine; olive green, moist. (continued)		3				17
			28.6': LEAN CLAY (CL), olive green, moist, some sand, calcareous.		4				9
					5				14
					6				11
					7				14
					8				18
					9				27
					10				22
					11				18
					12				20
					13				20
					14				16
					15				13
					16				17
					17				17
			49.6': Trace sand.		18				15

BOTTOM OF BOREHOLE AT -55.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SYR-116-90		LOCATION COORDINATES N 364746.9625 E 2325639.075		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 32	DISTURBED 32	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 57'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.5'		15. DATE BORING 3/1/90		STARTED 3/1/90
		16. ELEVATION TOP OF BORING 1.5' MLLW		COMPLETED 3/1/90
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
1.5		[Yellow with dots pattern]	0': SILTY SAND (SM), fine to medium; dark gray, wet, with shells, and shell fragments, slightly calcareous.		1		USCS NOTE: Top of hole located in tidal zone.		4
-1.5	3.0				2			12	
		[Blue diagonal lines pattern]	3': FAT CLAY (CH), gray, moist, calcareous. 7.5': Trace shell fragments. 10.5': No shell fragments, non-calcareous. 13.5': Trace organics.		3				0
					4		0		
					5		0 3		
					6		0 3		
					7		0 4		
					8		0		
					9		6		
		[Green diagonal lines pattern]	22': LEAN CLAY (CL), olive green, some sand, calcareous.		10			5	
					11		7		
		[Yellow diagonal lines pattern]	25': CLAYEY SAND (SC), fine; olive green, wet, calcareous.		12			5	
					13		6		
					14		8		

DRILLING LOG (Cont Sheet)			INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS				
PROJECT Charleston Harbor Entrance Channel Deepening			COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW				
LOCATION COORDINATES N 364746.9625 E 2325639.075			ELEVATION TOP OF BORING 1.5'						
ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-31.5	33.0	[Diagonal Hatching]	25': CLAYEY SAND (SC), fine; olive green, wet, calcareous. <i>(continued)</i>		15				5
			31.5': Trace shell fragments.		16			8	
-33.0	34.5	[Green Diagonal Hatching]	33': LEAN CLAY (CL), olive green, moist, trace sand, calcareous.		17			9	
-36.0	37.5	[Diagonal Hatching]	34.5': CLAYEY SAND (SC), fine; olive green, moist, calcareous.		18			13	
					19			12	
-37.5	39.0	[Green Diagonal Hatching]	37.5': LEAN CLAY (CL), olive green, moist, some sand, calcareous.		20			9	
-43.5	45.0	[Diagonal Hatching]	39': CLAYEY SAND (SC), fine; olive green, moist, calcareous.		21			17	
					22			15	
					23			14	
					24			15	
-52.5	54.0	[Green Diagonal Hatching]	45': LEAN CLAY (CL), olive green, moist, some sand, calcareous.		25			17	
					26			20	
					27			18	
					28			13	
					29			11	
					30			12	
-55.5	57.0	[Diagonal Hatching]	54': CLAYEY SAND (SC), fine; olive green, moist, calcareous.		31			12	
					32			13	

BOTTOM OF BOREHOLE AT -55.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SYR-117-90		LOCATION COORDINATES N 365032.9385 E 2325544.031		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 34	DISTURBED 34	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 57'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.7'		15. DATE BORING 3/2/90		
		STARTED 3/2/90		
		COMPLETED 3/2/90		
		16. ELEVATION TOP OF BORING 1.3' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
1.3			0': FAT CLAY (CH), dark gray, wet, trace sand, and shell fragments. 1': No sand.		1		USCS		0
			9': Dark brownish gray.		2				1
					3				0
					4				3
-10.7	12.0		11.7': Some sand, and shell fragments.		5				7
-11.7	13.0		12': CLAYEY SAND (SC), medium to coarse; dark gray, wet, with shell fragments.		6				10
			13': FAT CLAY (CH), bluish green, moist, trace shell fragments.		7				6
			15': Grayish green, trace sand, and shell fragments.		8				2
-15.2	16.5		16.5': LEAN CLAY (CL), olive green, moist, some sand, trace shell fragments, calcareous.		9				8
			18': No sand or shell fragments.		10				5
					11				4
					12				5
			22.5': CLAYEY SAND (SC), fine; olive green, moist, calcareous.		13				6
					14				5
			27': Trace organics.		15				7
			28.5': Trace shell fragments.		16				12
-28.7	30.0								

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS	
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW	
LOCATION COORDINATES N 365032.9385 E 2325544.031		ELEVATION TOP OF BORING 1.3'			


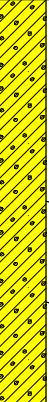

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
			30': LEAN CLAY (CL), olive green, moist, trace sand, calcareous.		17				7
			31.5': Some sand.		18				12
			33': Trace sand.		19				17
					20				12
			36': Some sand.		21				9
					22				13
					23				18
					24				18
			42': Trace sand.		25				18
					26				21
					27				16
					28				11
					29				17
			49.5': Some sand.		30				13
					31				11
-52.7	54.0				32				11
				54': CLAYEY SAND (SC), fine; olive green, moist, calcareous.		33			
-55.7	57.0				34				14

BOTTOM OF BOREHOLE AT -55.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SYR-118-90		LOCATION COORDINATES N 365592.8408 E 2325072.951		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 21
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 21
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 37.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/3/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -17.3' MLLW		STARTED 3/3/90
8. TOTAL DEPTH OF BORING 54.8'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 3/3/90
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-17.3			0': FAT CLAY (CH), dark gray, wet, slightly calcareous.		1		USCS		0
-26.3	9.0		9': CLAYEY SAND (SC), fine; olive green, moist, calcareous.		3				5
			12': Trace shell fragments.		4				6
			13.5': Trace shell fragments.		5				10
					6				7
-32.3	15.0		15': LEAN CLAY (CL), olive green, moist, some sand, calcareous.		7				11
					8				11
					9				11

DRILLING LOG (Cont Sheet)	INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS
	PROJECT Charleston Harbor Entrance Channel Deepening	COORDINATE SYSTEM State Plane	HORIZONTAL : VERTICAL NAD83 : MLLW
LOCATION COORDINATES N 365592.8408 E 2325072.951		ELEVATION TOP OF BORING -17.3'	



ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value		
		LEGEND	15': LEAN CLAY (CL), olive green, moist, some sand, calcareous. <i>(continued)</i>		10				15		
							11			12	
							12			22	
							13			16	
					25.5': Moist, trace sand.		14			19	
								15			18
								16			20
						30': Trace sand.		17			13
									18		
								19			15
							20			15	
						21			15		
-54.8	37.5			BOTTOM OF BOREHOLE AT -54.8 ft		BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".					

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division		INSTALLATION Charleston Harbor		SHEET 1 OF 2 SHEETS	
		1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW	
2. HOLE NUMBER SYR-119-90		LOCATION COORDINATES N 366454.7235 E 2324534.824		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail			
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314					
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 17		DISTURBED 16		UNDISTURBED 1	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING		13. TOTAL NUMBER CORE BOXES 0	
6. THICKNESS OF OVERBURDEN 45'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 3/4/90 COMPLETED 3/4/90			
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -10.4' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A			
8. TOTAL DEPTH OF BORING 55.4'		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.					

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-10.4		FAT CLAY	0': FAT CLAY (CH), gray, moist, trace shell fragments.		1		USCS		0
					2				0
			9': Trace sand, no shell fragments.		3				0
					4				0

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS	
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW	
LOCATION COORDINATES N 366454.7235 E 2324534.824		ELEVATION TOP OF BORING -10.4'			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.2	27.8		0': FAT CLAY (CH), gray, moist, trace shell fragments. <i>(continued)</i>		5				0
			27.8': LEAN CLAY (CL), olive green, moist, some sand, calcareous.		6				7
			31.5': Trace sand, and shell fragments.		7				19
			34.5': No shell fragments.		8				12
			37.5': Trace sand.		9				16
			39': Some sand.		10				21
			40.5': Trace gravel.		11				15
			42': No gravel.		12				11
					13				10
					14				11
					15				13
					16				13
					17				15

BOTTOM OF BOREHOLE AT -55.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER TCL-1-88		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 4	DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 10.5'		14. ELEVATION GROUND WATER NA	
7. DEPTH DRILLED INTO ROCK 0'		15. DATE BORING 10/3/88	STARTED 10/3/88
8. TOTAL DEPTH OF BORING 50.7'		COMPLETED 10/3/88	
		16. ELEVATION TOP OF BORING -40.2' MLLW	
		17. TOTAL CORE RECOVERY FOR BORING N/A	
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.	

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.2		0'	FAT CLAY (CH), dark black to black, wet.		1		USCS		0
-45.2	5.0	5'	CLAYEY SAND (SC), fine; green to gray, wet, with shell fragments.		2				7
-49.2	9.0	9'	LEAN SILT (ML), olive green, trace sand, calcareous.		3				0
-50.7	10.5	10.5'			4				32

BOTTOM OF BOREHOLE AT -50.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER TCL-2-90		LOCATION COORDINATES N 353534.8176 E 2329080.849		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 4
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 15'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 2/1/90 COMPLETED 2/1/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -40.1' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A
8. TOTAL DEPTH OF BORING 55.1'		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.1		+	0': SILTY SAND (SM), medium to coarse; gray, wet, with shell fragments.		1		USCS NOTE: No recovery from 43.1' to 44.6'. Wash return had large amount of small shells, shell fragments & some fine gravel size fossil particles. Took double drives from 44.6' to 47.6' to insure recovery.		1
-43.1	3.0		3': No recovery.						11
-44.6	4.5		4.5': FAT CLAY (CH), gray, wet, with shell fragments.		2				2
			7.5': Trace sand, and shell fragments.		3				5
					4			0	
								2	
-55.1	15.0								

BOTTOM OF BOREHOLE AT -55.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER TCL-3-90	LOCATION COORDINATES N 352417.9281 E 2329583.027		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 5	DISTURBED 5	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 13'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 56.2'		15. DATE BORING 2/5/90		STARTED 2/5/90 COMPLETED 2/5/90
		16. ELEVATION TOP OF BORING -43.2' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-43.5		0'	0': CLAYEY SILT (MH), dark brownish gray to black, moist, trace shell fragments.		1		USCS		0
-49.7	6.5	6.5'	6.5': FAT CLAY (CH), dark gray to gray, moist, trace shell fragments.		2				2
		8'	8': Gray, no shell fragments.		3				0
		11'	11': Trace shell fragments.		4				0
		13.0'			5				2

BOTTOM OF BOREHOLE AT -56.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER TCL-4-90	LOCATION COORDINATES N 351880.0672 E 2330300.108		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 7	DISTURBED 7	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 16.8'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.3'		15. DATE BORING 1/19/90		STARTED 1/19/90 COMPLETED 1/19/90
		16. ELEVATION TOP OF BORING -38.5' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.5		0'	0': CLAYEY SILT (MH), dark gray to black, trace sand, and shell fragments.		1		USCS		0
-45.3	6.8	6.8'	6.8': FAT CLAY (CH), greenish gray, trace sand, and shell fragments.		2				0
		10.8'			3				0 4
-49.3	10.8	10.8'	10.8': CLAYEY SAND (SC), fine to medium; gray, some gravel.		4				0
		12.3'	12.3': CLAYEY SAND, fine; olive green, calcareous.		5				28
-52.3	13.8				6				20
					7				26

BOTTOM OF BOREHOLE AT -55.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER TCL-5-90		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 8	DISTURBED 8 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	14. ELEVATION GROUND WATER NA
6. THICKNESS OF OVERBURDEN 18'		15. DATE BORING 1/31/90	STARTED 1/31/90 COMPLETED 1/31/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -38.1' MLLW	
8. TOTAL DEPTH OF BORING 56.1'		17. TOTAL CORE RECOVERY FOR BORING N/A	
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.1		0'	0': CLAYEY SILT (MH), dark gray to black, wet.		1		USCS		0
-45.6	7.5	7.5'	7.5': FAT CLAY (CH), gray, wet, trace sand.		2				1
		9'	9': Trace sand, and shell fragments.		3				2
		10.5'	10.5': Trace sand, and shell fragments.		4				0
		18.0'			5				4
		18.0'			6				0
		18.0'			7				6
		18.0'			8				1

BOTTOM OF BOREHOLE AT -56.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER TCL-6-90	LOCATION COORDINATES N 349920.1589 E 2330626.429		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 7	DISTURBED 7	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 18'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.4'		15. DATE BORING 1/30/90		STARTED 1/30/90
		16. ELEVATION TOP OF BORING -37.4' MLLW		COMPLETED 1/30/90
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.4			0': CLAYEY SILT (MH), dark greenish gray to gray, wet.		1		USCS		0
-47.9	10.5		10.5': FAT CLAY (CH), greenish gray, wet.		2				1
					3				1
-51.9	14.5		14.5': CLAYEY GRAVEL (GC), fine; greenish gray, wet, some sand, trace shell fragments.		4				10
-52.4	15.0		15': SAND (SP), coarse; gray, Poorly Graded, wet, some gravel, trace clay.		5				2
-53.9	16.5		16.5': CLAYEY SAND (SC), fine; gray, wet.		6				10
-54.9	17.5		17.5': LEAN CLAY (CL), olive green, moist, some sand, calcareous.		7				
-55.4	18.0		BOTTOM OF BOREHOLE AT -55.4 ft						
							BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".		
NOTE: Soils visually field classified in accordance with the Unified Soil Classification System									

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	
2. HOLE NUMBER TCL-7-90		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 9	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	
6. THICKNESS OF OVERBURDEN 13.5'		14. ELEVATION GROUND WATER NA	
7. DEPTH DRILLED INTO ROCK 0'		15. DATE BORING STARTED 1/30/90 COMPLETED 1/30/90	
8. TOTAL DEPTH OF BORING 55.6'		16. ELEVATION TOP OF BORING -42.1' MLLW	
		17. TOTAL CORE RECOVERY FOR BORING N/A	
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.	

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-42.1		0'	0': CLAYEY SILT (MH), dark gray to black, wet.		1		USCS		0
-43.6	1.5	1.5'	1.5': FAT CLAY (CH), greenish gray, wet.		2			1	
-46.3	4.2	4.2'	4.2': LEAN CLAY (CL), olive green, moist, trace sand, calcareous.		3				
		6'	6': Some sand.		4			11	
		5'			5			9	
		6'			6			12	
		7'			7			13	
		8'			8			23	
		9'			9			12	

BOTTOM OF BOREHOLE AT -55.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 1 SHEETS VERTICAL MLLW
2. HOLE NUMBER TCL-8-90	LOCATION COORDINATES N 349816.342 E 2331625.437		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 8	DISTURBED 8	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 15'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.7'		15. DATE BORING 1/21/90		STARTED 1/21/90
		16. ELEVATION TOP OF BORING -40.7' MLLW		COMPLETED 1/21/90
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		




ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.7			0': SILTY SAND (SM), fine to medium; dark gray, wet, with shell fragments, trace clay.		1		USCS		0
-43.7	3.0		3': FAT CLAY (CH), dark gray, moist, trace sand, and shell fragments.		2			0	
-45.2	4.5		4.5': CLAYEY SAND (SC), fine to medium; dark gray, trace shell fragments.		3			3	
					4			4	
-48.2	7.5		7.5': SAND (SP), medium to coarse; gray, Poorly Graded, wet, trace shell fragments, and silt.		5			9	
					6			2 14	
-52.7	12.0		12': LEAN CLAY (CL), olive green, moist, some sand, trace gravel, calcareous.		7			25	
-54.2	13.5		13.5': CLAYEY SAND (SC), fine; olive green, moist, calcareous.		8			32	
-55.7	15.0								

BOTTOM OF BOREHOLE AT -55.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER TCU-1-88		LOCATION COORDINATES N 358933.7753 E 2329431.953		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 3
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 22.9'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 10/1/88 COMPLETED 10/1/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -46.6' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A
8. TOTAL DEPTH OF BORING 69.5'		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-46.6			0': FAT CLAY (CH), dark gray, wet, with shell fragments.		1		USCS		17
-48.1	1.5		1.5': No recovery.					12	
-49.6	3.0		3': SILTY SAND (SM), fine; greenish gray, with shell fragments, and gravel, slightly calcareous.		2			17	
-51.1	4.5		4.5': (CL), Fishtailed from 51.1' to 68.0'.						
-68.0	21.4		21.4': LEAN SILTY CLAY (CL), olive green, with shell fragments, calcareous.		3				37

BOTTOM OF BOREHOLE AT -69.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER TCU-2-88		LOCATION COORDINATES N 357731.6345 E 2328513.166		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 4
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 7.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 10/1/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -42.5' MLLW		STARTED 10/1/88
8. TOTAL DEPTH OF BORING 50'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 10/1/88
18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-42.5			0': CLAYEY SAND (SC), fine to coarse; dark gray to black, with shell fragments, and gravel.		1		USCS		
-43.0	0.5		0.5': LEAN SILTY CLAY (CL), olive green, calcareous.		2			10	
								21	
								30	
			4.5': With gravel.		3			25	
			6': Trace sand.		4		47		
-50.0	7.5								

BOTTOM OF BOREHOLE AT -50.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER TCU-3-88		LOCATION COORDINATES N 356831.6655 E 2328584.313		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 3
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 32.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 10/2/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -32.6' MLLW		STARTED 10/2/88
8. TOTAL DEPTH OF BORING 65.1'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 10/2/88
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-32.6		0'	0': FAT CLAY (CH), dark gray to black, wet.		1		USCS		0
			13': Dark gray, wet.						
			19': Fishtailed from 51.6' to 63.6'.			2	Wash cuttings: Dark grey, very fat clay (CH)		2
-51.6	19.0								

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS	
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW	
LOCATION COORDINATES N 356831.6655 E 2328584.313		ELEVATION TOP OF BORING -32.6'			


ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
			19': Fishtailed from 51.6' to 63.6'. (continued)						
-63.6	31.0						Wash cuttings: Dark grey, very fat clay (CH)		
-65.1	32.5		31': CLAYEY LEAN SILT (ML), olive green, with gravel, calcareous.		3				27

BOTTOM OF BOREHOLE AT -65.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER TCU-4-88		LOCATION COORDINATES N 355561.6833 E 2328545.523		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 5
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 5
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING ---
6. THICKNESS OF OVERBURDEN 33.2'		14. ELEVATION GROUND WATER NA		15. DATE BORING 10/2/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -27.2' MLLW		STARTED 10/2/88
8. TOTAL DEPTH OF BORING 60.4'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 10/2/88
18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-27.2			0': FAT CLAY (CH), black, wet, \.		1		USCS		0
			12': Dark gray to black, with sand, and shell fragments, slightly calcareous.		2				0
						3			0

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS	
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW	
LOCATION COORDINATES N 355561.6833 E 2328545.523		ELEVATION TOP OF BORING -27.2'			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
		0'	0': FAT CLAY (CH), black, wet, . (continued)						2
									1
					4				0 1
-51.2	24.0		24': Fishtailed from 51.2' to 58.9'.						
									0
-58.9	31.7		31.7': LEAN CLAYEY SILT (ML), olive green, calcareous.						
					5				17
-60.4	33.2								

BOTTOM OF BOREHOLE AT -60.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER TCU-5-89		LOCATION COORDINATES N 359728.3308 E 2328891.431		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 3
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 19.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 4/13/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -36.1' MLLW		STARTED 4/13/89
8. TOTAL DEPTH OF BORING 55.6'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 4/13/89
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-36.1		[Hatched Legend]	0': FAT CLAY (CH), dark gray to black, slightly calcareous.		1		USCS		0
			9.4': Greenish gray.		2				6
			10.5': Trace shell fragments.		3				5
			13.5': Trace sand, no shell fragments.		4				0
-55.6	19.5								

BOTTOM OF BOREHOLE AT -55.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER TCU-6-89		LOCATION COORDINATES N 358873.624 E 2328919.071		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 5
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 5
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 13.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 4/13/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41.9' MLLW		STARTED 4/13/89
8. TOTAL DEPTH OF BORING 55.4'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 4/13/89
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.9			0': FAT CLAY (CH), dark greenish gray, trace sand, calcareous.		1		USCS		4
-42.9	1.0		1': LEAN SILTY CLAY (CL), light greenish brown, some sand, calcareous.		2				19
					3				17
					4				43
					5				37
									38
									28
									38
									34
-55.4	13.5								

BOTTOM OF BOREHOLE AT -55.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER TCU-7-94	LOCATION COORDINATES N 357088.4638 E 2328588.477		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 5
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 5 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	14. ELEVATION GROUND WATER NA	
6. THICKNESS OF OVERBURDEN 12'		15. DATE BORING 8/18/94		STARTED 8/18/94 COMPLETED 8/18/94
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -42.6' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A
8. TOTAL DEPTH OF BORING 54.6'		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		



ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-42.6			0': SC CLAYEY SAND (SC), fine; olive gray, trace gravel, slightly calcareous.		1		USCS		1
-44.1	1.5		1.5': LEAN SANDY CLAY (CL), fine; olive gray, calcareous.		2				12
-47.1	4.5		4.5': CLAYEY SAND (SC), fine; olive gray, trace gravel, slightly calcareous.		3				11
			7.5': Trace silt, and gravel.		4				16
			9': No gravel.		5				18
-54.6	12.0								17
									25
									27

BOTTOM OF BOREHOLE AT -54.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 1 SHEETS 1
2. HOLE NUMBER TWR-1-88		LOCATION COORDINATES N 349143.3218 E 2331455.551		VERTICAL MLLW
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail		
4. NAME OF DRILLER C.D. Justiss		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	12. TOTAL SAMPLES 4
6. THICKNESS OF OVERBURDEN 12'		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		UNDISTURBED 0
8. TOTAL DEPTH OF BORING 50.9'		15. DATE BORING 10/4/88		STARTED 10/4/88
		16. ELEVATION TOP OF BORING -38.9' MLLW		COMPLETED 10/4/88
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.9			0': FAT CLAY (CH), dark gray, with shell fragments.		1		USCS		0
-46.9	8.0		8': SILTY LEAN CLAY (CL), olive gray, calcareous.		2				4
					3				6
					4				21
-50.9	12.0								27

BOTTOM OF BOREHOLE AT -50.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER TWR-10-90		LOCATION COORDINATES N 346565.2756 E 2330989.984		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 9	DISTURBED 9	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 16.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.5'		15. DATE BORING 1/25/90	STARTED 1/25/90	COMPLETED 1/25/90
		16. ELEVATION TOP OF BORING -39' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-39			0': CLAYEY SILT (MH), dark gray to black, wet.				USCS Note: Most of sample #1 material was taken from side of drill rod from 39.0' to 45.3'.		
-45.3	6.3		6.3': SANDY ELASTIC SILT SAND (SC), fine to medium; dark gray and greenish gray, wet, trace shell fragments, slightly calcareous.		1				0
-46.3	7.3		7.3': LEAN CLAY (CL), olive green, moist, some sand, trace shell fragments, calcareous.		2				0
			9': No shell fragments.		3				
					4				2
					5				9
			12': Trace gravel.		6				12
					7				9
			13.5': No gravel.		8				13
					9				21

BOTTOM OF BOREHOLE AT -55.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER TWR-11-90		LOCATION COORDINATES N 345863.3364 E 2331270.099		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 9	DISTURBED 9	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 21'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 58.7'		15. DATE BORING 1/30/90		STARTED 1/30/90
		COMPLETED 1/30/90		
		16. ELEVATION TOP OF BORING -37.7' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.7			0': CLAYEY SILT (MH), dark gray to black, wet.		1		USCS		0
-43.7	6.0		6': SILTY SAND (SM), fine to medium; dark gray to black, wet, trace clay.		2				5
			7.5': SAND, fine; dark gray, trace shell fragments.		3				0
			9': SAND, medium to coarse; with shell fragments, and wood.		4				4
-49.7	12.0				5				9
			12': CLAYEY SAND (SC), fine; dark gray, wet, some shell fragments.		6				0
-51.2	13.5		13.5': FAT CLAY (CH), dark gray, wet, some sand.		7				0
			15': Trace shell fragments.		8				5
			16.5': No shell fragments.		9				0
-58.7	21.0								4

BOTTOM OF BOREHOLE AT -58.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER TWR-12-90		LOCATION COORDINATES N 345449.3842 E 2331502.166		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 7	DISTURBED 7	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 22.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.4'		15. DATE BORING 1/26/90		STARTED 1/26/90
		COMPLETED 1/26/90		
		16. ELEVATION TOP OF BORING -32.9' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-32.9			0': CLAYEY SILT (MH), dark gray to black, wet.		1		USCS NOTE: Part of sample #1 taken from drill rod.		0
-46.2	13.3		13.3': SILTY SAND (SM), fine; dark gray, wet, some shell fragments, trace clay.		2				2
-49.4	16.5		16.5': SAND (SP), medium; gray, Poorly Graded, wet, with shell fragments, trace silt.		3				09
-50.9	18.0		18': SILTY SAND (SM), fine to medium; dark gray, wet, with shell fragments.		4				0
-53.9	21.0		21': CLAYEY SAND (SC), fine to medium; dark gray, wet, trace shell fragments.		5				9
-55.4	22.5				6				2
					7				11

BOTTOM OF BOREHOLE AT -55.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER TWR-13-90		LOCATION COORDINATES N 345439.3017 E 2331047.171		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 8	DISTURBED 8	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 16.4'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.5'		15. DATE BORING 1/26/90		STARTED 1/26/90
		COMPLETED 1/26/90		
		16. ELEVATION TOP OF BORING -39.1' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-39.1			0': CLAYEY SILT (MH), dark gray to black, wet.		1		USCS		0
-48.4	9.3		9.3': SILTY SAND (SM), fine; dark gray, wet, some shell fragments, trace clay. 9.5': Trace shell fragments.		2				2
-50.1	11.0		11': SAND (SP), fine; gray, Poorly Graded, wet, trace shell fragments.		3				10
			12.5': No shell fragments.		4				5
					5				11
					6				12
					7				23
-55.3	16.2		16.2': LEAN CLAY (CL), olive green, moist, some sand, trace shell fragments, calcareous.		8				
-55.5	16.4		BOTTOM OF BOREHOLE AT -55.5 ft						

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER TWR-2-88		LOCATION COORDINATES N 347448.3594 E 2331520.833		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 3
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 12'		14. ELEVATION GROUND WATER NA		15. DATE BORING 10/4/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -38.3' MLLW		STARTED 10/4/88
8. TOTAL DEPTH OF BORING 50.3'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 10/4/88
18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.3		FAT CLAY (CH)	0': FAT CLAY (CH), dark gray to black, wet, with shell fragments.		1		USCS		0
			7.5': With sand.						4
-47.3	9.0	SILTY LEAN CLAY (CL)	9': SILTY LEAN CLAY (CL), olive green, with shell fragments, calcareous.		2				15
					3				13
-50.3	12.0								

BOTTOM OF BOREHOLE AT -50.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER TWR-3-88		LOCATION COORDINATES N 346900.2983 E 2331140.927		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 4
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 12'		14. ELEVATION GROUND WATER NA		15. DATE BORING 10/5/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -38.6' MLLW		STARTED 10/5/88
8. TOTAL DEPTH OF BORING 50.6'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 10/5/88
18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.6		FAT CLAY	0': FAT CLAY (CH), dark gray, wet.		1		USCS		0
-44.0	5.4	LEAN SILTY CLAY	5.4': LEAN SILTY CLAY (CL), olive green, calcareous.		2				0
		SHELL FRAGMENTS	7.4': With shell fragments.						6
		NO SHELL FRAGMENTS	8.9': No shell fragments.		3				12
		NO SHELL FRAGMENTS			4				19
-50.6	12.0	NO SHELL FRAGMENTS							14

BOTTOM OF BOREHOLE AT -50.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER TWR-4-88		LOCATION COORDINATES N 346245.3121 E 2331166.036		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 4
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 13.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 10/5/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -37.4' MLLW		STARTED 10/5/88
8. TOTAL DEPTH OF BORING 50.9'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 10/5/88
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.4		FAT CLAY	0': FAT CLAY (CH), dark gray to black, wet.		1		USCS		0
-43.4	6.0	LEAN CLAY	6': LEAN CLAY (CL), olive green, calcareous.		2				2
			9.1': With shell fragments.		3				7
					4				12
-50.9	13.5								12

BOTTOM OF BOREHOLE AT -50.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 1 SHEETS VERTICAL MLLW
2. HOLE NUMBER TWR-5-89	LOCATION COORDINATES N 347726.9922 E 2331119.19		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 6
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 6
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 15'		14. ELEVATION GROUND WATER NA		UNDISTURBED 0
7. DEPTH DRILLED INTO ROCK 0'		15. DATE BORING 4/12/89		STARTED 4/12/89
8. TOTAL DEPTH OF BORING 54.4'		16. ELEVATION TOP OF BORING -39.4' MLLW		COMPLETED 4/12/89
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-39.4		FAT CLAY	0': FAT CLAY (CH), dark gray to black, slightly calcareous.		1		USCS NOTE: Began using Zeogel drilling mud at 45.4'.		0
-44.8	5.4	CLAYEY SAND	5.4': CLAYEY SAND (SC), fine to medium; tannish gray, some shell fragments, calcareous.		2			10	
					3			5	
-46.9	7.5	LEAN SILTY CLAY	7.5': LEAN SILTY CLAY (CL), light greenish brown, some sand, trace shell fragments, calcareous.		4			22	
			9': No shell fragments.					23	
					5			23	
					6		17		
-54.4	15.0						23		

BOTTOM OF BOREHOLE AT -54.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER TWR-6-90		LOCATION COORDINATES N 348500.3266 E 2331427.658		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 6
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 6
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 21'		14. ELEVATION GROUND WATER NA		15. DATE BORING 1/22/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -34.8' MLLW		STARTED 1/22/90
8. TOTAL DEPTH OF BORING 55.8'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 1/22/90
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-34.8			0': CLAYEY SILT (MH), dark gray to black, wet, trace shell fragments.		1		USCS		0
-48.8	14.0		14': FAT CLAY (CH), dark greenish gray, moist, trace sand, and shell fragments.		2				0
-49.8	15.0		15': LEAN CLAY (CL), olive green, moist, some sand.		3				9
-52.8	18.0		18': CLAYEY SAND (SC), fine; olive green, moist, calcareous.		4				8
-55.8	21.0				5				13
					6				14

BOTTOM OF BOREHOLE AT -55.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER TWR-7-90		LOCATION COORDINATES N 348260.4309 E 2331980.693		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 11	DISTURBED 11	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 18'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 54.9'		15. DATE BORING 1/20/90		STARTED 1/20/90
		COMPLETED 1/20/90		
		16. ELEVATION TOP OF BORING -36.9' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-36.9			0': CLAYEY SILT (MH), dark gray to black, wet.		1		USCS		0
-38.9	2.0		2': SILTY SAND (SM), medium to coarse; dark gray, wet, with shell fragments, trace clay.		2				10
					3				18
					4				15
-42.9	6.0		6': CLAYEY SAND (SC), medium to coarse; dark gray, wet, with shell fragments.		5				1
									2
-45.9	9.0		9': FAT CLAY (CH), dark gray, wet, trace gravel.		6				0
-48.0	11.1		11.1': LEAN CLAY (CL), olive green, moist, some sand, trace gravel, calcareous.		7				9
					8				18
			13.5': No gravel.		9				18
					10				13
-53.4	16.5		16.5': CLAYEY SAND (SC), fine; olive green, moist, calcareous.		11				14
-54.9	18.0								

BOTTOM OF BOREHOLE AT -54.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER TWR-8-90		LOCATION COORDINATES N 347269.2613 E 2330966.867		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 8	DISTURBED 8	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 16.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 56'		15. DATE BORING 1/22/90		STARTED 1/22/90
		COMPLETED 1/22/90		
		16. ELEVATION TOP OF BORING -39.5' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-39.5		0'	0': CLAYEY SILT (MH), dark gray to black, wet.				USCS		
					1				0
					2				0
-47.5	8.0	8'	8': CLAYEY SAND (SC), fine to medium; dark gray, wet, some shell fragments, slightly calcareous.		3				5
-48.5	9.0	9'	9': LEAN CLAY (CL), olive green, moist, some sand, trace gravel, calcareous.		4				5
					5				8
			12': No gravel.		6				9
-53.0	13.5	13.5'	13.5': CLAYEY SAND (SC), fine; olive green, moist, calcareous.		7				14
					8				24

BOTTOM OF BOREHOLE AT -56.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 1 SHEETS VERTICAL MLLW
2. HOLE NUMBER TWR-9-90	LOCATION COORDINATES N 346968.366 E 2331518.913		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 10	DISTURBED 10	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 19.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.3'		15. DATE BORING 1/22/90		STARTED 1/22/90
		COMPLETED 1/22/90		
		16. ELEVATION TOP OF BORING -35.8' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-35.8			0': CLAYEY SILT (MH), dark gray to black, wet, trace shell fragments.		1		USCS		0
-44.6	8.8		8.8': CLAYEY SAND (SC), fine to medium; olive green and dark gray, moist, trace shell fragments, calcareous.		2				0
			9': CLAYEY SAND, fine; olive green, trace gravel, calcareous.		3				0
					4				5
-47.8	12.0		12': LEAN CLAY (CL), olive green, moist, some sand, trace gravel, calcareous.		5				8
			13.5': No gravel.		6				12
					7				11
-50.8	15.0		15': CLAYEY SAND (SC), fine; olive green, moist, calcareous.		8				12
					9				15
					10				22

BOTTOM OF BOREHOLE AT -55.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-17-88		LOCATION COORDINATES N 358914.5579 E 2333734.882		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 5	DISTURBED 5	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 18.9'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 53.7'		15. DATE BORING 2/17/88		STARTED 2/17/88
		COMPLETED 2/17/88		
		16. ELEVATION TOP OF BORING -34.8' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-34.8			0': SANDY SILT (MH), dark gray.		1		USCS		0
-49.2	14.4		14.4': SANDY FAT CLAY (CH), dark gray, with shell fragments.		2				0
-51.7	16.9		16.9': SANDY LEAN CLAY (CL), yellowish green.		3				12
-53.7	18.9				4				30
					5				

BOTTOM OF BOREHOLE AT -53.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-18-88		LOCATION COORDINATES N 358196.7032 E 2334445.991		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		12. TOTAL SAMPLES 7
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 7
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING ---
6. THICKNESS OF OVERBURDEN 15.7'		14. ELEVATION GROUND WATER NA		15. DATE BORING 2/17/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -35.5' MLLW		STARTED 2/17/88
8. TOTAL DEPTH OF BORING 51.2'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 2/17/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-35.5			0': SANDY SILT (MH), black.		1		USCS		0
-42.2	6.7		6.7': SANDY FAT CLAY (CH), light green, calcareous.		2				19
					3				13
					4				10
					5				14
					6				16
					7				20
-51.2	15.7								

BOTTOM OF BOREHOLE AT -51.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-19-88		LOCATION COORDINATES N 364926.3148 E 2338566.761		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		12. TOTAL SAMPLES 14
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 14
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 31.2'		14. ELEVATION GROUND WATER NA		15. DATE BORING 2/18/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -23.9' MLLW		STARTED 2/18/88
8. TOTAL DEPTH OF BORING 55.1'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 2/18/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-23.9			0': SANDY SILT (MH), black.				USCS		
					1				0
-36.8	12.9		12.9': FAT CLAY (CH), dark gray, with sand, and shell fragments.		2				0
			14.9': Lenses of calcareous sand.		3				6
					4				4
					5				
-42.1	18.2		18.2': SANDY LEAN CLAY (CL), gray, calcareous.		6				14
-43.1	19.2		19.2': SANDY FAT CLAY (CH), gray, calcareous.		7				13
					8				16
					9				16
					10				21
					11				15
					12				18
					13				19
					14				23

BOTTOM OF BOREHOLE AT -55.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-20-88		LOCATION COORDINATES N 364793.3931 E 2338990.775		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		12. TOTAL SAMPLES 8
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 8
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 16.3'		14. ELEVATION GROUND WATER NA		15. DATE BORING 2/17/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -34.5' MLLW		STARTED 2/17/88
8. TOTAL DEPTH OF BORING 50.8'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 2/17/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-34.5			0': SANDY SILT (MH), black.		1		USCS		0
-40.3	5.8		5.8': SANDY FAT CLAY (CH), light green, calcareous.		2				22
					3				15
					4				18
					5				19
					6				15
					7				17
					8				15
-50.8	16.3								

BOTTOM OF BOREHOLE AT -50.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-21-90		LOCATION COORDINATES N 366433.6456 E 2340565.455		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		12. TOTAL SAMPLES 13
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 13
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 27.2'		14. ELEVATION GROUND WATER NA		15. DATE BORING 6/15/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -28.5' MLLW		STARTED 6/15/90
8. TOTAL DEPTH OF BORING 55.7'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 6/15/90
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				


ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-28.5		0'	0': CLAYEY SILT (MH), dark gray to black, wet.		1		USCS		0
-37.7	9.2	9.2'	9.2': LEAN CLAY (CL), olive green, moist, some sand, calcareous.		2				12
					3				12
					4				11
					5				11
					6				15
					7				12
					8				12
					9				14
					10				13
					11				20
					12				25
					13				26

BOTTOM OF BOREHOLE AT -55.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-22-90		LOCATION COORDINATES N 366570.5581 E 2340115.442		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 12	DISTURBED 12	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 18'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.3'		15. DATE BORING 6/14/90		STARTED 6/14/90
		COMPLETED 6/14/90		
		16. ELEVATION TOP OF BORING -37.3' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.3			0': LEAN CLAY (CL), olive green, moist, some sand, calcareous.		1		USCS		0
			1.5': Moist, No fat clay.		2			13	
					3			15	
					4			20	
					5			15	
					6			14	
					7			14	
					8			13	
					9			13	
					10			16	
					11			25	
				16.5': Trace shell fragments.		12			30

BOTTOM OF BOREHOLE AT -55.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-23-90		LOCATION COORDINATES N 367229.5964 E 2340411.32		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 18	DISTURBED 18	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 36.8'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 56'		15. DATE BORING 6/16/90		STARTED 6/16/90
		COMPLETED 6/16/90		
		16. ELEVATION TOP OF BORING -19.2' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-19.2			0': FAT CLAY (CH), gray, wet, trace sand.		1		USCS		0
						2			0
						3			0
						4			0
				15.8': Trace sand, and shell fragments.		5			0
-36.5	17.3		17.3': CC LEAN CLAY (CL), olive green, moist, some sand, calcareous.		6				13
						7			12

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS	
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW	
LOCATION COORDINATES N 367229.5964 E 2340411.32		ELEVATION TOP OF BORING -19.2'			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value	
		LEGEND	17.3': CC LEAN CLAY (CL), olive green, moist, some sand, calcareous. <i>(continued)</i>		8				13	
							9			9
							10			13
							11			18
							12			15
							13			15
					29.3': Trace shell fragments.		14			18
					30.8': No shell fragments.		15			18
							16			18
					33.8': Trace shell fragments.		17			21
							18			25

BOTTOM OF BOREHOLE AT -56.0 ft
BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-24-90		LOCATION COORDINATES N 367125.6523 E 2340696.331		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		12. TOTAL SAMPLES 17
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 17
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 47.2'		14. ELEVATION GROUND WATER NA		15. DATE BORING 6/17/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -7.7' MLLW		STARTED 6/17/90
8. TOTAL DEPTH OF BORING 54.9'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 6/17/90
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value	
-7.7		FAT CLAY (CH)	0': FAT CLAY (CH), gray, wet.		1		USCS		0	
						2			0	
				15.9': Trace sand, and shell fragments, slightly calcareous.		3				0
						4				0

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS	
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW	
LOCATION COORDINATES N 367125.6523 E 2340696.331		ELEVATION TOP OF BORING -7.7'			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
		FAT CLAY (CH)	0': FAT CLAY (CH), gray, wet. <i>(continued)</i>		5				0
-36.9	29.2	LEAN CLAY (CL)	29.2': LEAN CLAY (CL), olive green, some sand.		6				4
					7				13
					8				11
					9				12
					10				14
					11				13
					12				14
					13				15
					14				15
					15				16
					16				20
					17				22

BOTTOM OF BOREHOLE AT -54.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-25-90		LOCATION COORDINATES N 367745.6922 E 2340996.216		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		12. TOTAL SAMPLES 18
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 18
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 49.8'		14. ELEVATION GROUND WATER NA		15. DATE BORING 6/18/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -4.8' MLLW		STARTED 6/18/90
8. TOTAL DEPTH OF BORING 54.6'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 6/18/90
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-4.8		[Hatched Legend]	0': FAT CLAY (CH), gray, wet, trace sand, and shell fragments.		1		USCS		0
			3.3': No sand or shell fragments.		2				0
					3				0
					4				0
					5				0

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS	
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW	
LOCATION COORDINATES N 367745.6922 E 2340996.216		ELEVATION TOP OF BORING -4.8'			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
		FAT CLAY	0': FAT CLAY (CH), gray, wet, trace sand, and shell fragments. <i>(continued)</i>		6				0
		FAT CLAY			7				0
-38.1	33.3	CLAYEY GRAVEL LEAN CLAY	33.3': CLAYEY GRAVEL LEAN CLAY (CL), olive green, moist, some sand, calcareous.		8				12
		CLAYEY GRAVEL LEAN CLAY			9				18
		CLAYEY GRAVEL LEAN CLAY			10				9
		CLAYEY GRAVEL LEAN CLAY			11				15
		CLAYEY GRAVEL LEAN CLAY			12				14
		CLAYEY GRAVEL LEAN CLAY			13				12
		CLAYEY GRAVEL LEAN CLAY			14				16
		CLAYEY GRAVEL LEAN CLAY			15				16
		CLAYEY GRAVEL LEAN CLAY			16				18
		CLAYEY GRAVEL LEAN CLAY			17				22
		CLAYEY GRAVEL LEAN CLAY			18				14

BOTTOM OF BOREHOLE AT -54.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-26-90		LOCATION COORDINATES N 367893.612 E 2340587.2		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		12. TOTAL SAMPLES 23
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 23
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 44.9'		14. ELEVATION GROUND WATER NA		15. DATE BORING 6/19/90
7. DEPTH DRILLED INTO FIDUCIAL 0.299999999999997'		16. ELEVATION TOP OF BORING -10.4' MLLW		STARTED 6/19/90
8. TOTAL DEPTH OF BORING 55'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 6/19/90
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-10.4			0': FAT CLAY (CH), gray, wet, trace sand, and shell fragments.		1		USCS		0
-19.8	9.4		9.4': SS CLAYEY SAND (SC), fine; gray, wet, trace shell fragments.		3				0
			14.6': SAND, fine to medium.		4				0
-26.5	16.1		16.1': SILTY SAND (SM), fine to medium; gray, wet, some shell fragments, trace clay.		5				6
-28.0	17.6		17.6': CLAYEY SAND (SC), fine to medium; gray, wet, trace shell fragments.		6				0
-29.5	19.1		19.1': SILTY SAND (SM), medium to coarse; gray, wet, with shell fragments, trace clay, slightly calcareous.		7				6
-31.0	20.6		20.6': CLAYEY SAND (SC), medium to coarse; gray, wet, with shell fragments, slightly calcareous.		8				3
			23.6': CLAYEY SAND, fine to medium; tannish		9				2
									8

DRILLING LOG (Cont Sheet)			INSTALLATION		SHEET 2 OF 2 SHEETS						
PROJECT			COORDINATE SYSTEM		HORIZONTAL VERTICAL						
Charleston Harbor Entrance Channel Deepening			State Plane		NAD83 MLLW						
LOCATION COORDINATES			ELEVATION TOP OF BORING								
N 367893.612 E 2340587.2			-10.4'								
ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value		
-37.0 -55.0	26.6 44.6	[Yellow Diagonal Pattern]	gray, trace shell fragments, non-calcareous. 20.6' : CLAYEY SAND (SC), medium to coarse; gray, wet, with shell fragments, slightly calcareous. <i>(continued)</i>		10				19		
			25.1' : SAND, medium to coarse; gray, with shell fragments.		11				14		
		[Green Diagonal Pattern]			26.6' : LEAN CLAY (CL), olive green, moist, trace sand, calcareous.		12				30
							13				10
							14				8
							15				12
							16				10
							17				12
							18				14
							19				14
							20				9
							21				16
							22				16
							23				23

BOTTOM OF BOREHOLE AT -55.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-27-94		LOCATION COORDINATES N 359576.601 E 2335353.542		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		12. TOTAL SAMPLES 5
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 5
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 15.4'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/19/94
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -42.2' MLLW		STARTED 8/19/94
8. TOTAL DEPTH OF BORING 57.6'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 8/19/94
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-42.2			0': CLAYEY SILT (MH), dark gray to black.		1		USCS		0
-46.6	4.4		4.4': LEAN CLAY (CL), olive gray, some sand, trace gravel, calcareous. 4.9': SANDY, fine.		2				0
-48.6	6.4		6.4': CLAYEY SAND (SC), fine; olive gray, calcareous.		3				11
									12
									16
									20
					4				30
									25
-56.1	13.9		13.9': LEAN SANDY CLAY (CL), olive gray, trace gravel, calcareous.		5				28
-57.6	15.4								

BOTTOM OF BOREHOLE AT -57.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-28-94		LOCATION COORDINATES N 365007.551 E 2338764.888		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		12. TOTAL SAMPLES 7
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 7
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 22.9'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/23/94
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -33.1' MLLW		STARTED 8/23/94
8. TOTAL DEPTH OF BORING 56'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 8/23/94
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-33.1			0': CLAYEY SILT (MH), dark gray, trace sand, and shell fragments.		1		USCS		0
-39.5	6.4		6.4': FAT CLAY (CH), gray.		2				2
-41.0	7.9		7.9': CLAYEY SAND (SC), fine; olive gray, trace gravel.		3				4
-42.5	9.4		9.4': LEAN CLAY (CL), olive gray, some sand, calcareous.		4				8
									11
									9
					5				11
									12
									12
-51.5	18.4		18.4': CLAYEY SAND (SC), fine; olive gray, calcareous.		6				13
									22
-56.0	22.9				7				22

BOTTOM OF BOREHOLE AT -56.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-29-94		LOCATION COORDINATES N 366126.728 E 2338898.017		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		12. TOTAL SAMPLES 5
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 5
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 12.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/23/94
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -40' MLLW		STARTED 8/23/94
8. TOTAL DEPTH OF BORING 52.5'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 8/23/94
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-40			0': CLAYEY SILT (MH), dark gray to black, some sand.		1		USCS		0
-45.0	5.0		5': SILTY SAND (SM), fine; gray, trace clay.		2				4
-46.5	6.5		6.5': LEAN SANDY CLAY (CL), fine; olive gray, calcareous.		3				9
-49.5	9.5		9.5': CLAYEY SAND (SC), fine; olive gray, calcareous.		4				13
-52.5	12.5				5				14
									20

BOTTOM OF BOREHOLE AT -52.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-30-97		LOCATION COORDINATES N 359595.5101 E 2333502.244		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		12. TOTAL SAMPLES 8
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 8
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 42.9'		14. ELEVATION GROUND WATER NA		15. DATE BORING 6/19/97
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -18' MLLW		STARTED 6/19/97
8. TOTAL DEPTH OF BORING 60.9'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 6/19/97
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-18		[Hatched Legend]	0': FAT CLAY (CH), dark gray, trace sand, calcareous.		1		USCS		0
			18.5': Dark gray, some sand.		2				0

DRILLING LOG (Cont Sheet)		INSTALLATION		SHEET 2					
PROJECT		COORDINATE SYSTEM		HORIZONTAL					
Charleston Harbor Entrance Channel Deepening		State Plane		NAD83					
LOCATION COORDINATES		ELEVATION TOP OF BORING		VERTICAL					
N 359595.5101 E 2333502.244		-18'		MLLW					
ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
-45.9	27.9		0': FAT CLAY (CH), dark gray, trace sand, calcareous. (continued)						
-50.4	32.4		27.9': CLAYEY SAND (SC), fine; light olive, calcareous. 29.4': Light olive, trace silt. 30.9': Trace gravel.		3			0 2 10 4 7 14	12 21
-54.9	36.9		32.4': LEAN CLAY (CL), light olive, trace gravel, calcareous.		4			14 10 10	20
-57.9	39.9		36.9': CLAYEY SAND (SC), fine; light olive, calcareous.		5			5 9 10 10 11 14 10 13 14	19 25 27
-59.4	41.4		39.9': LEAN CLAY (CL), light olive, some sand, calcareous.		6			9 13 14	27
-60.9	42.9		41.4': CLAYEY SAND (SC), fine; light olive, calcareous.		7			8 9 12	21
					8			6 7 9 5 8 13	16 21

BOTTOM OF BOREHOLE AT -60.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-31-97		LOCATION COORDINATES N 360997.2636 E 2334847.857		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		12. TOTAL SAMPLES 10
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 10
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 41.4'		14. ELEVATION GROUND WATER NA		15. DATE BORING 6/19/97
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -15.7' MLLW		STARTED 6/19/97
8. TOTAL DEPTH OF BORING 57.1'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 6/19/97
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-15.7		[Hatched Legend]	0': FAT CLAY (CH), dark gray, trace shale fragments, calcareous.		1		USCS		0
			13.4': No shell fragments, non-calcareous.		2				0
			19.4': Trace wood.						0
			21.2': Some sand, no wood.		3				0

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS	
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW	
LOCATION COORDINATES N 360997.2636 E 2334847.857		ELEVATION TOP OF BORING -15.7'			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-39.1	23.4							0	
			23.4': SAND (SP), fine; gray, Poorly Graded, trace silt.		4			6	9
-40.6	24.9		24.9': SILTY SAND (SM), fine; gray.					3	
					5			1	
-42.1	26.4							2	4
								2	
-43.6	27.9		26.4': SAND (SP), fine to medium; gray, Poorly Graded, trace silt.		6			3	
								5	13
								8	
			27.9': CLAYEY SAND (SC), fine; olive, calcareous.		7			5	
								9	16
			29.4': Trace shell fragments.					7	
								12	
								14	35
			30.9': No shell fragments.					21	
								0	
								3	8
								5	
					8			5	
								9	20
								11	
-51.1	35.4							7	
								9	20
								11	
			35.4': LEAN CLAY (CL), olive, some sand, calcareous.		9			4	
								10	22
			36.9': Trace sand.					12	
								6	
								11	26
			38.4': Some sand.					15	
								7	
								12	25
								13	
			39.9': Trace sand.					6	
-57.1	41.4				10			8	18
								10	

BOTTOM OF BOREHOLE AT -57.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-32-97		LOCATION COORDINATES N 362480.475 E 2336245.397		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		12. TOTAL SAMPLES 9
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 9
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 42.1'		14. ELEVATION GROUND WATER NA		15. DATE BORING 6/20/97
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -12.9' MLLW		STARTED 6/20/97
8. TOTAL DEPTH OF BORING 55'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 6/20/97
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-12.9			0': SILTY SAND (SM), fine to medium; dark gray, some shell fragments, calcareous.		1		USCS		0
-22.3	9.4		9.4': FAT CLAY (CH), dark gray, some sand.		2				0
-29.2	16.3		16.3': SILTY SAND (SM), fine; gray, trace clay.		3				0
-32.3	19.4		19.4': CLAYEY SAND (SC), fine to medium; gray.		4			0	1
								0	
								0	
								1	

DRILLING LOG (Cont Sheet)		INSTALLATION		SHEET 2 OF 2 SHEETS					
PROJECT		COORDINATE SYSTEM		HORIZONTAL VERTICAL					
Charleston Harbor Entrance Channel Deepening		State Plane		NAD83 MLLW					
LOCATION COORDINATES		ELEVATION TOP OF BORING							
N 362480.475 E 2336245.397		-12.9'							
ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.5	28.6		19.4': CLAYEY SAND (SC), fine to medium; gray. (continued)						0
-43.0	30.1		28.6': SAND (SP), fine to medium; light gray, Poorly Graded.		5			0 7 16	23
-49.0	36.1		30.1': CLAYEY SAND (SC), fine; olive, calcareous.		6			0 3 0 3 3	3
-49.0	36.1		36.1': LEAN CLAY (CL), light olive, some sand, and silt, calcareous.		7			0 0 3 6 7 5 9 10	3
-55.0	42.1		37.6': Olive, trace sand, and shell fragments.		8			8 11 13 6 7 10 6 12 14 8 11 14	24
-55.0	42.1				9			6 7 10 6 12 14 8 11 14	17
-55.0	42.1							12 14 8 11 14	26
-55.0	42.1							8 11 14	25

BOTTOM OF BOREHOLE AT -55.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-33-97		LOCATION COORDINATES N 363882.6031 E 2337710.0225		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		12. TOTAL SAMPLES 10
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 10
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 37.2'		14. ELEVATION GROUND WATER NA		15. DATE BORING 6/21/97
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -15.3' MLLW		STARTED 6/21/97
8. TOTAL DEPTH OF BORING 52.5'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 6/21/97
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-15.3		[Yellow pattern]	0': SILTY SAND (SM), fine to medium; dark gray, some shell fragments, calcareous.		1		USCS		0
			6.8': Trace clay.					0	1
					2			1	0
-26.8	11.5	[Diagonal pattern]	11.5': CLAYEY SAND (SC), fine to medium; dark gray, calcareous.		3			2	4
			13': Some shell fragments.					0	9
								3	1
								6	1
								0	1
								1	0
-30.5	15.2	[Blue diagonal pattern]	15.2': FAT CLAY (CH), dark gray, trace sand, and shell fragments.		4			0	0

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS	
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW	
LOCATION COORDINATES N 363882.6031 E 2337710.0225		ELEVATION TOP OF BORING -15.3'			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
			15.2': FAT CLAY (CH), dark gray, trace sand, and shell fragments. <i>(continued)</i>						0
-42.4	27.1		27.1': CLAYEY SAND (SC), fine to medium; dark gray, trace shell fragments.		5				0
-45.0	29.7		29.7': SAND (SP), fine to medium; light gray, Poorly Graded.		6			12	11
-46.0	30.7		30.7': LEAN CLAY (CL), olive, trace sand, and gravel, calcareous.		7			9	
			32.7': Some sand.					11	25
								7	
					8			12	
-49.5	34.2		34.2': CLAYEY SAND (SC), fine; olive, trace gravel, calcareous.					13	20
					9			5	
					10			9	
								10	19
								4	
								8	
-52.5	37.2							16	24

BOTTOM OF BOREHOLE AT -52.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-34-98	LOCATION COORDINATES N 360005.4 E 2334273.17		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		12. TOTAL SAMPLES 14	DISTURBED 14	UNDISTURBED 0
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	14. ELEVATION GROUND WATER NA	
		15. DATE BORING 8/9/98		STARTED 8/9/98
6. THICKNESS OF OVERBURDEN 40.8'		16. ELEVATION TOP OF BORING -23.5' MLLW		
7. DEPTH DRILLED INTO ROCK 0'		17. TOTAL CORE RECOVERY FOR BORING N/A		
8. TOTAL DEPTH OF BORING 64.3'		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-23.5		Green	0': LEAN SILT (ML), gray, some shell fragments, trace sand, slightly calcareous.		1		USCS		0
			2.3': Shell fragments.		2			9	
-27.3	3.8	Blue Hatched	3.8': FAT CLAY (CH), gray, some shell fragments.		3			0	
					4			4	
			6.9': Trace shell fragments.		5			0	
					6			0	
					7			0	
					8			0	
			16': Some shell fragments.		9			0	
		21.6': Trace shell fragments.		10		0			

DRILLING LOG (Cont Sheet)			INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS				
PROJECT Charleston Harbor Entrance Channel Deepening			COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW				
LOCATION COORDINATES N 360005.4 E 2334273.17			ELEVATION TOP OF BORING -23.5'						
ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
-47.8	24.3		3.8': FAT CLAY (CH), gray, some shell fragments. <i>(continued)</i>						
-50.7	27.2		24.3': CLAYEY SAND, fine; gray, trace shell fragments.		11				0
-52.8	29.3		27.2': Wash.						
-54.3	30.8		29.3': CLAYEY SAND (SC), fine; gray, some silt, trace shell fragments.		12				30
-57.8	34.3		30.8': Wash.						
-59.3	35.8		34.3': SILTY SAND (SM), fine; gray, some clay, and shell fragments, slightly calcareous.		13				14
-62.8	39.3		35.8': Wash.						
-64.3	40.8		39.3': CLAYEY SAND, fine; olive gray, calcareous.		14				31

BOTTOM OF BOREHOLE AT -64.3 ft





NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-35-98		LOCATION COORDINATES N 361460.54 E 2335716.41		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 12	DISTURBED 12	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 35.3'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 60'		15. DATE BORING 8/9/98		STARTED 8/9/98 COMPLETED 8/9/98
		16. ELEVATION TOP OF BORING -24.7' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-24			0': FAT CLAY (CH), gray, trace silt, and shell fragments.		1		USCS		0
			8.1': No sand or silt.		2				0
-36.9	12.2		12.2': CLAYEY SAND (SC), fine; gray, some wood.		3				0
-38.9	14.2		14.2': SILTY SAND (SM), fine; light gray and gray, some clay.		4				9
					5				8
-41.9	17.2		17.2': SAND (SP), fine; light gray, Poorly Graded, trace silt, and shell fragments.		6				13
-43.4	18.7		18.7': SILTY SAND (SM), fine to medium; light gray, trace clay, and shell fragments.		7				10

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane	HORIZONTAL NAD83	VERTICAL MLLW
LOCATION COORDINATES N 361460.54 E 2335716.41		ELEVATION TOP OF BORING -24.7'		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
-44.9	20.2		20.2': CLAYEY SAND (SC), fine; olive gray, calcareous.		8				8
-47.9	23.2		23.2': LEAN CLAY (CL), olive gray, some silt, and sand, calcareous.		9				12
-49.4	24.7		24.7': Wash.		10				16
-53.5	28.8		28.8': CLAYEY SAND (SC), fine; olive gray, calcareous.						
-55.0	30.3		30.3': Wash.		11				17
-58.5	33.8		33.8': LEAN CLAY (CL), olive gray, some silt, trace sand, calcareous.		12				38
-60.0	35.3								

BOTTOM OF BOREHOLE AT -60.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WR-36-98		LOCATION COORDINATES N 362886.63 E 2337149.28		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		12. TOTAL SAMPLES 9
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 9
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 40.4'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/10/98
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -23.4' MLLW		STARTED 8/10/98
8. TOTAL DEPTH OF BORING 63.8'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 8/10/98
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-23.4			0': SILTY SAND (SM), fine; gray, some shell fragments, slightly calcareous.		1		USCS		0
			3.1': Trace clay, and shell fragments.		2				0
			9': Some clay.		3				0
					4				0
					5				0

DRILLING LOG (Cont Sheet)			INSTALLATION		SHEET 2 OF 2 SHEETS				
PROJECT			COORDINATE SYSTEM		HORIZONTAL VERTICAL				
Charleston Harbor Entrance Channel Deepening			State Plane		NAD83 MLLW				
LOCATION COORDINATES			ELEVATION TOP OF BORING						
N 362886.63 E 2337149.28			-23.4'						
ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
			0': SILTY SAND (SM), fine; gray, some shell fragments, slightly calcareous. <i>(continued)</i>						
			24.1': Some clay, and shell fragments.		6				11
-49.0	25.6		25.6': Wash.						
			29.1': SAND (SP), medium to coarse; gray, Poorly Graded, some shell fragments.		7				9
-52.5	29.1		30.6': Wash.						
-54.0	30.6		33.9': LEAN CLAY (CL), olive gray, some silt, and sand, calcareous.		8				26
-57.3	33.9		35.4': Wash.						
-58.8	35.4		38.9': LEAN CLAY (CL), olive gray, some silt, and sand, calcareous.		9				24
-62.3	38.9		38.9': LEAN CLAY (CL), olive gray, some silt, and sand, calcareous.						
-63.8	40.4								

BOTTOM OF BOREHOLE AT -63.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WRB-1-81		LOCATION COORDINATES N 358479.862 E 2333795.286		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		12. TOTAL SAMPLES 5
4. NAME OF DRILLER Perry Roundtree		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 5
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 23.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/11/81
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -35' MLLW		STARTED 5/11/81
8. TOTAL DEPTH OF BORING 58.5'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/11/81
		18. SIGNATURE AND TITLE OF INSPECTOR Thomas W. Scott		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-35			0': No recovery.						
-45.0	10.0		10': SILTY SAND (SM), fine to medium; black.		1				3
-46.5	11.5		11.5': LEAN SILT (ML), gray, with sand.		2				3
-49.5	14.5		14.5': SILTY FAT CLAY (MH), gray.		3				3
					4				11
					5				12
-58.5	23.5								

BOTTOM OF BOREHOLE AT -58.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WRB-10-81		LOCATION COORDINATES N 362130.481 E 2337634.587		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		12. TOTAL SAMPLES 1
4. NAME OF DRILLER Perry Roundtree		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 1
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING ---
6. THICKNESS OF OVERBURDEN 8.5'		14. ELEVATION GROUND WATER NA		UNDISTURBED 0
7. DEPTH DRILLED INTO ROCK 0'		15. DATE BORING 5/14/81		STARTED 5/14/81
8. TOTAL DEPTH OF BORING 53.5'		16. ELEVATION TOP OF BORING -45' MLLW		COMPLETED 5/14/81
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Thomas W. Scott		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-45		0'	0': ORGANIC SILT (OH), black.				USCS		0
-50.5	5.5	5.5'	5.5': MH SILTY FAT CLAY (MH), green.		1				11
-53.5	8.5	8.5'							12

BOTTOM OF BOREHOLE AT -53.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System
BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WRB-11-81		LOCATION COORDINATES N 362020.508 E 2337764.603		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		12. TOTAL SAMPLES 3
4. NAME OF DRILLER Perry Roundtree		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 8'		14. ELEVATION GROUND WATER NA		UNDISTURBED 0
7. DEPTH DRILLED INTO ROCK 0'		15. DATE BORING 5/18/81		STARTED 5/18/81
8. TOTAL DEPTH OF BORING 46'		16. ELEVATION TOP OF BORING -38' MLLW		COMPLETED 5/18/81
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Thomas W. Scott		



ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-38		0'	0': ORGANIC SILT (OH), black.				USCS		0
-40.0	2.0	2'	2': SILTY FAT CLAY (MH), gray.		1				9
		3'			2				11
		4'							12
		5'							
		6'							
		7'							
		8'			3				11
-46.0	8.0	8'							

BOTTOM OF BOREHOLE AT -46.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System
BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WRB-12-81		LOCATION COORDINATES N 362990.562 E 2338184.427		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		12. TOTAL SAMPLES 2
4. NAME OF DRILLER Parden		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 2
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING ---
6. THICKNESS OF OVERBURDEN 5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/20/81
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41.5' MLLW		STARTED 5/20/81
8. TOTAL DEPTH OF BORING 46.5'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/20/81
		18. SIGNATURE AND TITLE OF INSPECTOR Thomas W. Scott		



ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-46.5			0': ORGANIC SILT (CH), black.				USCS		0
-43.5	2.0		2': CLAYEY FAT SILT (MH), green.		1				8
-46.5	5.0				2				12

BOTTOM OF BOREHOLE AT -46.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System
BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WRB-13-81		LOCATION COORDINATES N 362870.589 E 2338314.445		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		
4. NAME OF DRILLER Perry Roundtree		12. TOTAL SAMPLES 2	DISTURBED 2	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 4'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 50'		15. DATE BORING 5/20/81		STARTED 5/20/81
		16. ELEVATION TOP OF BORING -46' MLLW		COMPLETED 5/20/81
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Thomas W. Scott		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-46			0': SILT (OH), black.				USCS		0
-47.0	1.0		1': CLAYEY FAT SILT (MH), green.		1				9
-50.0	4.0				2				10

BOTTOM OF BOREHOLE AT -50.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WRB-14-81		LOCATION COORDINATES N 362750.614 E 2338434.463		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		12. TOTAL SAMPLES 3
4. NAME OF DRILLER Perry Roundtree		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 7.5'		14. ELEVATION GROUND WATER NA		UNDISTURBED 0
7. DEPTH DRILLED INTO ROCK 0'		15. DATE BORING 5/18/81		STARTED 5/18/81
8. TOTAL DEPTH OF BORING 50.5'		16. ELEVATION TOP OF BORING -43' MLLW		COMPLETED 5/18/81
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Thomas W. Scott		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-43		OH	0': ORGANIC SILT (OH), black.		1		USCS		0
-47.5	4.5	MH	4.5': SILTY FAT CLAY (MH), green.		2				10
-50.5	7.5	MH			3				3

BOTTOM OF BOREHOLE AT -50.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division		INSTALLATION Charleston Harbor		SHEET 1 OF 1 SHEETS	
		1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW	
2. HOLE NUMBER WRB-15-81		LOCATION COORDINATES N 363610.697 E 2338999.301		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail			
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45					
4. NAME OF DRILLER Perry Roundtree		12. TOTAL SAMPLES 2		DISTURBED 2		UNDISTURBED 0	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING		13. TOTAL NUMBER CORE BOXES 0	
6. THICKNESS OF OVERBURDEN 4'		14. ELEVATION GROUND WATER NA					
7. DEPTH DRILLED INTO ROCK 0'		15. DATE BORING 5/20/81		STARTED 5/20/81		COMPLETED 5/20/81	
8. TOTAL DEPTH OF BORING 48'		16. ELEVATION TOP OF BORING -44' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A			
18. SIGNATURE AND TITLE OF INSPECTOR Thomas W. Scott							

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-44		0'	0': No recovery.				USCS		0
-45.0	1.0	1'	1': SILTY SAND (SM), fine to medium; green.		1				13
-46.5	2.5	2.5'	2.5': CLAYEY FAT SILT (MH), green.		2				17
-48.0	4.0								

BOTTOM OF BOREHOLE AT -48.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 1 SHEETS VERTICAL MLLW
2. HOLE NUMBER WRB-16-81	LOCATION COORDINATES N 364455.767 E 2339494.143		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		12. TOTAL SAMPLES 5
4. NAME OF DRILLER Perry Roundtree		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 5
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 27'		14. ELEVATION GROUND WATER NA		UNDISTURBED 0
7. DEPTH DRILLED INTO ROCK 0'		15. DATE BORING 5/20/81		STARTED 5/20/81
8. TOTAL DEPTH OF BORING 51'		16. ELEVATION TOP OF BORING -24' MLLW		COMPLETED 5/20/81
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Thomas W. Scott		



ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-24			0': No recovery.				USCS		0
-36.0	12.0		12': CLAYEY FAT SILT (MH), gray.		1				4
					2				7
									17
					3				23
									17
									12
									11
					4				8
									11
-51.0	27.0				5				12

BOTTOM OF BOREHOLE AT -51.0 ft

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30"

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 1 SHEETS
2. HOLE NUMBER WRB-17-81		LOCATION COORDINATES N 363030.545 E 2338099.422		VERTICAL MLLW
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail		
4. NAME OF DRILLER Perry Roundtree		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		
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 9.5'		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 5
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		UNDISTURBED 0
8. TOTAL DEPTH OF BORING 46'		15. DATE BORING 5/20/81		STARTED 5/20/81
		16. ELEVATION TOP OF BORING -36.5' MLLW		COMPLETED 5/20/81
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Thomas W. Scott		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-36.5			0': ORGANIC SILT (OH), black, and sand.		1		USCS		0
-40.0	3.5		3.5': CLAYEY FAT SILT (MH), gray.		2				1
					3				7
					4				12
					5				11

BOTTOM OF BOREHOLE AT -46.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WRB-18-81		LOCATION COORDINATES N 360905.221 E 2336059.83		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		12. TOTAL SAMPLES 3
4. NAME OF DRILLER Perry Roundtree		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 13'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/13/81
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -34.5' MLLW		STARTED 5/13/81
8. TOTAL DEPTH OF BORING 47.5'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/13/81
		18. SIGNATURE AND TITLE OF INSPECTOR Thomas W. Scott		


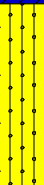
ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-34.5		OH	0': ORGANIC SILT (OH).		1		USCS		0
-41.5	7.0	SM	7': SILTY SAND (SM), fine to medium; gray.		2				11
					3				15
									15
									18
-47.5	13.0								

BOTTOM OF BOREHOLE AT -47.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WRB-2-81	LOCATION COORDINATES N 358849.876 E 2333920.222		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		12. TOTAL SAMPLES 2
4. NAME OF DRILLER Perry Roundtree		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 2
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 18.5'		14. ELEVATION GROUND WATER NA		UNDISTURBED 0
7. DEPTH DRILLED INTO ROCK 0'		15. DATE BORING 5/12/81		STARTED 5/12/81
8. TOTAL DEPTH OF BORING 51.5'		16. ELEVATION TOP OF BORING -33' MLLW		COMPLETED 5/12/81
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Thomas W. Scott		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-33			0': ORGANIC SILT (OH), black.		1		USCS		0
-48.5	15.5		15.5': SILTY SAND (SM), fine to medium; gray.		2				7
-51.5	18.5								11

BOTTOM OF BOREHOLE AT -51.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System
BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WRB-20-81		LOCATION COORDINATES N 337031.463 E 2340488.892		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		12. TOTAL SAMPLES 6
4. NAME OF DRILLER Perry Roundtree		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 6
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 36'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/22/81
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -14' MLLW		STARTED 5/22/81
8. TOTAL DEPTH OF BORING 50'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/22/81
		18. SIGNATURE AND TITLE OF INSPECTOR Thomas W. Scott		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-14		ORGANIC SILT (OH), black.	0': ORGANIC SILT (OH), black.				USCS		0
-30.0	16.0	CLAYEY FAT SILT (MH), green.	16': CLAYEY FAT SILT (MH), green.		1				2
									14
									14

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS	
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW	
LOCATION COORDINATES N 337031.463 E 2340488.892		ELEVATION TOP OF BORING -14'			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
			16': CLAYEY FAT SILT (MH), green. (continued)		2				12
			22': With gravel.		3				10
			23.5': CLAYEY FAT SILT.		4				17
									16
									17
									18
									23
									17
					5				16
					6				18



-50.0 | 36.0

BOTTOM OF BOREHOLE AT -50.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".


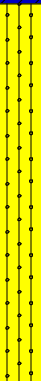
DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WRB-3-81		LOCATION COORDINATES N 359190.055 E 2334935.144		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		12. TOTAL SAMPLES 6
4. NAME OF DRILLER Perry Roundtree		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 6
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING ---
6. THICKNESS OF OVERBURDEN 14.1'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/12/81
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -30.9' MLLW		STARTED 5/12/81
8. TOTAL DEPTH OF BORING 45'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/12/51
18. SIGNATURE AND TITLE OF INSPECTOR Thomas W. Scott				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-30.9			0': No recovery..						
-35.0	4.1		4.1': SILT (OH), black.		1			2	2
-39.0	8.1		8.1': SILTY FAT CLAY (MH), gray.		2			1	1
					3			11	11
					4			12	12
					5			10	10
					6			11	11

BOTTOM OF BOREHOLE AT -45.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WRB-4-81		LOCATION COORDINATES N 359310.029 E 2334810.127		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		12. TOTAL SAMPLES 3
4. NAME OF DRILLER Perry Roundtree		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 17.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/12/81
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -32.5' MLLW		STARTED 5/12/81
8. TOTAL DEPTH OF BORING 50'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/12/81
		18. SIGNATURE AND TITLE OF INSPECTOR Thomas W. Scott		



ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-32.5			0': No recovery.				USCS		0
-42.5	10.0		10': SILT (OH), black.		1				5
-44.0	11.5		11.5': SILTY SAND (SM), fine to medium; gray.		2				8
									3
									1
-50.0	17.5				3				7

BOTTOM OF BOREHOLE AT -50.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WRB-5-81		LOCATION COORDINATES N 359920.161 E 2335605.007		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		12. TOTAL SAMPLES 2
4. NAME OF DRILLER Perry Roundtree		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 2
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING ---
6. THICKNESS OF OVERBURDEN 18.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/13/81
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -32.5' MLLW		COMPLETED 5/13/81
8. TOTAL DEPTH OF BORING 51'		17. TOTAL CORE RECOVERY FOR BORING N/A		18. SIGNATURE AND TITLE OF INSPECTOR Thomas W. Scott


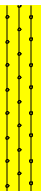
ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sam No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-32.5			0': No recovery.				USCS		0
-48.0	15.5		15.5': SILTY ORGANIC SAND (OH).		1				9
-49.5	17.0		17': SILTY SAND (SM), fine to medium; gray.		2				15
-51.0	18.5								

BOTTOM OF BOREHOLE AT -51.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System
BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WRB-6-81		LOCATION COORDINATES N 360690.269 E 2336294.862		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		12. TOTAL SAMPLES 4
4. NAME OF DRILLER Perry Roundtree		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 18'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/14/81
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -32' MLLW		STARTED 5/14/81
8. TOTAL DEPTH OF BORING 50'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/14/81
		18. SIGNATURE AND TITLE OF INSPECTOR Thomas W. Scott		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-32			0': No recovery.				USCS		
-36.5	4.5								0
-42.5	10.5		10.5': ORGANIC SILT (OH), black.		1				2
					2				3
									3
			15': SILTY SAND (SM), fine to medium; gray.		3				5
					4				11
-50.0	18.0								

BOTTOM OF BOREHOLE AT -50.0 ft

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WRB-7-81		LOCATION COORDINATES N 360556.296 E 2336424.88		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		12. TOTAL SAMPLES 5
4. NAME OF DRILLER Perry Roundtree		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 5
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 15.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/13/81
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -31' MLLW		STARTED 5/13/81
8. TOTAL DEPTH OF BORING 46.5'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/13/81
18. SIGNATURE AND TITLE OF INSPECTOR Thomas W. Scott				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-31		ORGANIC SILT (OH), soft; black.	0': ORGANIC SILT (OH), soft; black.		1		USCS		0
-40.5	9.5	SILTY FAT CLAY (MH), gray.	9.5': SILTY FAT CLAY (MH), gray.		2				11
		SILTY FAT CLAY (MH), gray.			3				15
		SILTY FAT CLAY (MH), gray.			4				9
-46.5	15.5	SILTY FAT CLAY (MH), gray.			5				11

BOTTOM OF BOREHOLE AT -46.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System
BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WRB-8-81	LOCATION COORDINATES N 361390.284 E 2336464.739		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		
4. NAME OF DRILLER Perry Roundtree		12. TOTAL SAMPLES 6	DISTURBED 6	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 14'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 51'		15. DATE BORING 5/14/81		STARTED 5/14/81 COMPLETED 5/14/81
		16. ELEVATION TOP OF BORING -37' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Thomas W. Scott		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-37			0': No recovery.				USCS		0
-42.0	5.0		5': SILTY SAND (SM), fine to medium; green.		1				5
-43.5	6.5		6.5': SILTY FAT CLAY, green.		2				11
					3				14
					4				15
					5				15
					6				12
-51.0	14.0								

BOTTOM OF BOREHOLE AT -51.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-28-1-1-86		LOCATION COORDINATES N 344715.8231 E 2339267.244		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 3		DISTURBED 3 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 15.8'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 56.1'		15. DATE BORING 8/12/86		STARTED 8/12/86 COMPLETED 8/12/86
		16. ELEVATION TOP OF BORING -40.3' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING 80%		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.3			0': SILTY SAND (SP-SM), fine; light gray.				Start Time: 8:27 Stop Time: 8:29		
					1				
-48.6	8.3		8.3': SAND (SP), fine to medium; gray.						
					2				
			12.2': Shell fragments.						
-56.1	15.8								

BOTTOM OF BOREHOLE AT -56.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-29-1-1-86		LOCATION COORDINATES N 342384.2744 E 2341525.638		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/8/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -35.2' MLLW		STARTED 8/8/86
8. TOTAL DEPTH OF BORING 55.2'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 8/8/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-35.2			0': CLAYEY SILT (MH), black, with organics.				Start Time: 17:14 Stop Time: 17:15		
-40.4	5.2		5.2': SANDY CLAY (CL), gray, with shell fragments.		1		Penetrometer - 0.2 TSF		
-47.4	12.2		12.2': CLAYEY SAND (SC), fine; gray.		2				
-51.4	16.2		16.2': SILTY SAND (SP-SM), fine; dark olive, calcareous (Cooper Marl).		3				
-55.2	20.0				4			Penetrometer - 1.10 TSF	

BOTTOM OF BOREHOLE AT -55.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-30-1-1-86		LOCATION COORDINATES N 341503.2925 E 2341566.792		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 4	DISTURBED 4	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	13. TOTAL NUMBER CORE BOXES 0
		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/11/86
		16. ELEVATION TOP OF BORING -34.2' MLLW		COMPLETED 8/11/86
6. THICKNESS OF OVERBURDEN 18.8'		17. TOTAL CORE RECOVERY FOR BORING 94%		
7. DEPTH DRILLED INTO ROCK 0'		18. SIGNATURE AND TITLE OF INSPECTOR N/A		
8. TOTAL DEPTH OF BORING 53'				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-34.2			0': CLAYEY SILT (MH), black, with organics.		1		Start Time: 12:46 Stop Time: 12:47		
-39.9	5.7		5.7': SILTY SAND (SM), fine; gray, with 1" to 2" thick lenses of clay about 10" apart.		2				
-47.6	13.4		13.4': CLAYEY SAND (SC), medium; gray, with.		3				
-51.6	17.4		17.4': SILTY CLAYEY SAND (SC-SM), fine; olive, calcareous (Cooper Marl).		4				
-53.0	18.8								

BOTTOM OF BOREHOLE AT -53.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-31-1-1-86		LOCATION COORDINATES N 340743.2598 E 2341346.926		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/11/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -34.7' MLLW		STARTED 8/11/86
8. TOTAL DEPTH OF BORING 54.7'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 8/11/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-34.7			0': CLAYEY SILT (MH), black, with organics.		1		USCS Start Time: 14:11 Stop Time: 14:12		
-39.2	4.5		4.5': SILTY SAND (SP-SM), fine; gray, with 1" to 2" layers of clay every 6-10".		2				
-45.7	11.0		11': CLAYEY SAND, gray, with organics, with 1/16" to 1" layers of sand every 4-5".		3		Penetrometer - 0.25 TSF to 0.50 TSF		
-54.7	20.0				4				

BOTTOM OF BOREHOLE AT -54.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-32-1-1-86		LOCATION COORDINATES N 342519.6489 E 2343525.607		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/11/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -36.4' MLLW		STARTED 8/11/86
8. TOTAL DEPTH OF BORING 56.4'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 8/11/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-36.4			0': CLAYEY SILT (MH), gray, with shell fragments, Alternating layers of gray silty fine sand. Layers vary from 1/4" to 1'.		1		Start Time: 17:08 Sotp Time: 17:09		
-50.5	14.1		14.1': SILTY SAND (SP-SM), coarse; gray, with shell fragments.		2				
-54.3	17.9		17.9': SANDY CLAY (CL), gray, with 1/2" intervals of medium sand and shell hash every 1" to 5".		3				
-56.4	20.0				4				

BOTTOM OF BOREHOLE AT -56.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-33-1-1-86		LOCATION COORDINATES N 341495.53 E 2342830.79		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/15/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -39.4' MLLW		STARTED 8/15/86
8. TOTAL DEPTH OF BORING 59.4'		17. TOTAL CORE RECOVERY FOR BORING 98%		COMPLETED 8/15/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-39.4			0': CLAYEY SILT (MH), black, with organics.		1		USCS Start Time: 16:29 Stop Time: 16:30		
-42.6	3.2		3.2': SILTY CLAYEY SAND (SC), gray, and shell fragments, Alternating 1/8" to 5" layers of gray silty clay.		2		Penetrometer - 0.25 TSF to 1.25 TSF		
					3				
					4				
-59.4	20.0								

BOTTOM OF BOREHOLE AT -59.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-34-1-1-86		LOCATION COORDINATES N 339591.3823 E 2341934.126		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/15/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -30.5' MLLW		STARTED 8/15/86
8. TOTAL DEPTH OF BORING 50.5'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 8/15/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-30.5			0': CLAYEY SILT (ML), black, with organics.		1		USCS Start Time: 10:13:00 Stop Time: 10:13:51		
-33.7	3.2		3.2': SILTY SAND (SP-SM), fine; gray.		2				
					3				
					4				
-50.5	20.0								

BOTTOM OF BOREHOLE AT -50.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-35-1-1-86		LOCATION COORDINATES N 339740.4255 E 2342172.099		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/15/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -30.3' MLLW		STARTED 8/15/86
8. TOTAL DEPTH OF BORING 50.3'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 8/15/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-30.3			0': SANDY SAND (SM), fine; black, with 1" to 2" thick layers of black organic clayey silt occurring every 2" to 10".		1		Start Time: 10:49 Stop Time: 10:50		
-38.0	7.7		7.7': SILTY SAND (SP-SM), gray.		2				
-45.1	14.8		14.8': CLAYEY SAND (ML), gray, with 1" to 2" thick layers of coarse sand within 1" to 9" of each other.		3				
-50.3	20.0				4				

BOTTOM OF BOREHOLE AT -50.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-36-1-1-86		LOCATION COORDINATES N 340503.5828 E 2343051.964		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 9/14/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -37.7' MLLW		STARTED 9/14/86
8. TOTAL DEPTH OF BORING 57.7'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 9/14/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.7			0': CLAYEY SILT (MH), gray, with organics, with 1/16" to 1/4" thick layers of sand every 1/2" to 3".		1		USCS Start Time: 13:42 Stop Time: 13:49 Penetrometer - 1.5 TSF		
-42.5	4.8		4.8': SILTY SAND (SC-SM), fine; olive, calcareous (Cooper Marl).		2		Penetrometer - 1.5 TSF		
-52.7	15.0		15': CLAYEY SANDY SILT (MH), olive, calcareous (Cooper Marl).		3				
-57.7	20.0				4				

BOTTOM OF BOREHOLE AT -57.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-37-1-1-86		LOCATION COORDINATES N 339719.5338 E 2342747.102		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore
3. DRILLING AGENCY Ocean Surveys., Inc.		12. TOTAL SAMPLES 4		DISTURBED 4 UNDISTURBED 0
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	14. ELEVATION GROUND WATER NA
6. THICKNESS OF OVERBURDEN 20'		15. DATE BORING 8/15/86		STARTED 8/15/86 COMPLETED 8/15/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -38' MLLW		
8. TOTAL DEPTH OF BORING 58'		17. TOTAL CORE RECOVERY FOR BORING 96%		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-38			0': CLAYEY SILT (ML), black, with organics.				Start Time: 12:32 Stop Time: 12:32		
-41.5	3.5		3.5': SILTY SAND (SP-SM), fine; gray, with 1" to 1/8" thick layers of clay 3" to 6" apart.		1		Penetrometer - 1.5 TSF		
					2				
					3				
					4				
-56.5	18.5		18.5': SILTY CLAYEY SAND (SM), fine; olive, calcareous (Cooper Marl).				Penetrometer - 4.0 TSF		
-58.0	20.0								

BOTTOM OF BOREHOLE AT -58.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-38-1-1-86		LOCATION COORDINATES N 339424.5053 E 2342579.154		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 4	DISTURBED 4	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	13. TOTAL NUMBER CORE BOXES 0
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 8/15/86 COMPLETED 8/15/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -31.3' MLLW		17. TOTAL CORE RECOVERY FOR BORING 98%
8. TOTAL DEPTH OF BORING 51.3'		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-31.3			0': CLAYEY SILT (ML), black, with organics, and sand.		1		USCS Start Time: 11:25 Stop Time: 11:25		
-34.7	3.4		3.4': SILTY SAND (SP-SM), fine; gray, with lenses of clay.		2		Penetrometer - 1.25 TSF		
					3				
					4				
-51.3	20.0								

BOTTOM OF BOREHOLE AT -51.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-39-1-1-86		LOCATION COORDINATES N 339200.4873 E 2342471.194		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 3
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 18.4'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/15/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -27.7' MLLW		STARTED 8/15/86
8. TOTAL DEPTH OF BORING 46.1'		17. TOTAL CORE RECOVERY FOR BORING 92%		COMPLETED 8/15/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-27.7			0': CLAYEY SANDY SILT (MH), black, with organics.				Start Time: 11:54 Stop Time: 11:54 Penetrometer - 0.25 TSF		
			7': At 7', thin 1/4" to 1/2" thick lenses of sand occurring randomly.		1				
			10': At 10', sand lenses occurring every 1" to 4".		2				
			14': At 14', sand lenses are 1/4" to 1/2" thick and occur from 1/4" to 3" apart.		3				
							Penetrometer - 0.25 TSF		
-46.1	18.4								

BOTTOM OF BOREHOLE AT -46.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-40-1-1-86		LOCATION COORDINATES N 338879.474 E 2342383.25		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 3
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 17.2'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/15/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -27.5' MLLW		STARTED 8/15/86
8. TOTAL DEPTH OF BORING 44.7'		17. TOTAL CORE RECOVERY FOR BORING 83%		COMPLETED 8/15/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-27.5			0': CLAYEY SILT (ML), black, with organics, with 1/2" to 1" thick layers of sand with 1" to 1' of clay between.				Start Time: 13:06 Stop Time: 13:06		
					1				
					2				
					3				
-44.7	17.2								

BOTTOM OF BOREHOLE AT -44.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-41A-1-1-86		LOCATION COORDINATES N 340579.7908 E 2344158.948		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/17/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -38' MLLW		STARTED 8/17/86
8. TOTAL DEPTH OF BORING 58'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 8/17/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-38			0': SAND (SM), fine; gray, with shell fragments, Alternating 1" to 3" layers of gray clay and gray fine sand.				Start Time: 9:50 Stop Time: 9:51		
					1		Penetrometer - 0.25 TSF to 0.50 TSF		
					2				
					3				
					4				
-58.0	20.0								

BOTTOM OF BOREHOLE AT -58.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-42-1-1-86		LOCATION COORDINATES N 339148.5843 E 2342984.202		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 3
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 17'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/15/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -30.7' MLLW		STARTED 8/15/86
8. TOTAL DEPTH OF BORING 47.7'		17. TOTAL CORE RECOVERY FOR BORING 86%		COMPLETED 8/15/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-30.7			0': CLAYEY SILT (ML), black, with organics, with 1/16" to 2" layers of sand appearing @ 10.3' with 1" to 3" of clay between.				Start Time: 14:23:30 Stop Time: 14:23:45		
					1				
					2		Penetrometer < 0.25 TSF		
					3				
-47.7	17.0								

BOTTOM OF BOREHOLE AT -47.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-43-1-1-86		LOCATION COORDINATES N 338846.5853 E 2342973.255		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 3
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 16.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/15/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -28.4' MLLW		STARTED 8/15/86
8. TOTAL DEPTH OF BORING 44.9'		17. TOTAL CORE RECOVERY FOR BORING 82%		COMPLETED 8/15/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-28.4			0': CLAYEY SILT (ML), black, with organics, with 1/4" to 1" thick lenses of sand occurring within 1/4" to 7" of each other.				Start Time: 15:27:45 Stop Time: 15:27:59		
					1				
					2		Penetrometer - .25 TSF		
					3				
-44.9	16.5								

BOTTOM OF BOREHOLE AT -44.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-44-1-1-86		LOCATION COORDINATES N 338878.6551 E 2343345.249		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 3
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 18.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/17/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -28.5' MLLW		STARTED 8/17/86
8. TOTAL DEPTH OF BORING 47'		17. TOTAL CORE RECOVERY FOR BORING 92%		COMPLETED 8/17/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-28.5			0': SILTY CLAY (MH), black, with organics, with 1/4" to 1" thick layers of sand from 1/2" to 1" apart.				Start Time: 10:37:05 Stop Time: 10:37:14 Penetrometer < 0.25 TSF		
					1				
					2				
					3				
-47.0	18.5								

BOTTOM OF BOREHOLE AT -47.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-45-1-1-86		LOCATION COORDINATES N 339472.8353 E 2344332.143		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 3
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 17.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/17/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -38.4' MLLW		STARTED 8/17/86
8. TOTAL DEPTH OF BORING 55.9'		17. TOTAL CORE RECOVERY FOR BORING 87%		COMPLETED 8/17/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.4			0': CLAYEY SILT (ML), black, with sand, and organics.				Start Time: 10:13 Stop Time: 10:14		
					1				
-42.8	4.4		4.4': SILTY SAND (SM), fine; gray.						
					2				
-52.3	13.9		13.9': SILTY SAND (SP-SM), fine to medium; gray, with shell fragments.						
					3				
-55.9	17.5								

BOTTOM OF BOREHOLE AT -55.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-46-1-1-86		LOCATION COORDINATES N 339612.4491 E 2347571.113		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/17/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -40.5' MLLW		STARTED 8/17/86
8. TOTAL DEPTH OF BORING 60.5'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 8/17/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.5			0': CLAYEY SILTY SAND (SC-SM), fine; grayish brown, with shell fragments, phosphate nodules and lumps of Cooper Marl.		1		USCS Start Time: 09:19 Stop Time: 09:22 Penetrometer - 0.25 TSF		
					2		Penetrometer - 1.0 TSF		
					3				
					4				
-53.0	12.5		12.5': SILTY SAND (SM), fine; olive, calcareous (Cooper Marl).				Penetrometer - 1.5 TSF		
-60.5	20.0								

BOTTOM OF BOREHOLE AT -60.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-48-1-1-86		LOCATION COORDINATES N 338342.5975 E 2348280.341		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 3	DISTURBED 3	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 17.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 58.7'		15. DATE BORING 9/16/86		STARTED 9/16/86 COMPLETED 9/16/86
		16. ELEVATION TOP OF BORING -41.2' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING 100%		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.2			0': CLAYEY SANDY SILT (ML), dark olive, calcareous, with hard layers of silt in the first 2' (Cooper Marl).				Start Time: 12:59 Stop Time: 13:17		
					1				
					2				
					3		Penetrometer - 1.75 TSF		
-58.7	17.5								

BOTTOM OF BOREHOLE AT -58.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-48A-1-2-86		LOCATION COORDINATES N 338342.5975 E 2348280.341		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 2
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 2
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 9.1'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/16/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -52.2' MLLW		STARTED 8/16/86
8. TOTAL DEPTH OF BORING 61.3'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 8/16/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-52.2			0': CLAYEY SANDY SILT (ML), dark olive, Cooper marl.				Start Time: 1636 Stop Time: 1720		
					1				
					2		Penetrometer - 2.0 TSF		
-61.3	9.1								

BOTTOM OF BOREHOLE AT -61.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-49-1-1-86		LOCATION COORDINATES N 333310.7374 E 2353900.292		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 8/16/86 COMPLETED 8/16/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41.4' MLLW		17. TOTAL CORE RECOVERY FOR BORING 100%
8. TOTAL DEPTH OF BORING 61.4'		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.4		[Yellow Diagonal Pattern]	0': SILTY SAND (SM), fine; dark olive, Calcareous (Cooper Marl).		1		USCS Start Time: 10:54 Stop Time: 11:08		
-43.1	1.7		1.7': CLAYEY SILTY SAND (SC), fine; dark olive, Calcareous (Cooper Marl).		2		Penetrometer = 1.25 TSF		
-48.8	7.4	[Green Vertical Pattern]	7.4': CLAYEY SANDY SILT (ML), dark olive, Calcareous (Cooper Marl).		3		Penetrometer = 2.0 TSF		
-61.4	20.0				4		Penetrometer = 1.5 TSF		

BOTTOM OF BOREHOLE AT -61.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-49A-1-1-86		LOCATION COORDINATES N 333310.7374 E 2353900.292		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 1		DISTURBED 1 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 14'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 8.4'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 63.8'		15. DATE BORING 8/16/86		STARTED 8/16/86 COMPLETED 8/16/86
		16. ELEVATION TOP OF BORING -41.4' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING 100%		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.4			0': Jet to 14'				Start Time: 11:48 Stop Time: 12:05		
-55.4	14.0		14': CLAYEY SANDY SILT (ML), dark olive, Calcareous (Cooper Marl).		1				
-63.8	22.4								

BOTTOM OF BOREHOLE AT -63.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-50-1-1-86		LOCATION COORDINATES N 331100.9902 E 2355055.729		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 4	DISTURBED 4	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 20'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 61.7'		15. DATE BORING 8/16/86		STARTED 8/16/86 COMPLETED 8/16/86
		16. ELEVATION TOP OF BORING -41.7' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING 100%		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.7		●	0': SILTY CLAYEY SAND (SM), fine; dark olive, Calcareous (Cooper Marl).		1		Start Time: 10:04 Stop Time: 10:21 Penetrometer = 1.0 TSF		
-44.0	2.3	●	2.3': CLAYEY SANDY SILT (ML), dark olive, Calcareous (Cooper Marl).		2		Penetrometer = 1.5 TSF		
		●			3		Penetrometer = 2.5 TSF		
		●			4		Penetrometer = 1.5 TSF		
-61.7	20.0								

BOTTOM OF BOREHOLE AT -61.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System


DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-51-1-1-86		LOCATION COORDINATES N 331103.3213 E 2356748.736		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/16/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -34.1' MLLW		STARTED 8/16/86
8. TOTAL DEPTH OF BORING 54.1'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 8/16/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-34.1			0': SILTY CLAYEY SAND (SM), fine; dark olive, Calcareous (Cooper Marl).		1		Start Time: 08:56 Stop Time: 09:00 Penetrometer = 0.75 TSF		
			10': 10.2' to 12.2' lenses of cemented marl.		2				
						3			
						4			
-54.1	20.0								

BOTTOM OF BOREHOLE AT -54.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-53-1-1-86		LOCATION COORDINATES N 329149.1012 E 2360591.142		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 4	DISTURBED 4	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	13. TOTAL NUMBER CORE BOXES 0
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/9/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -31.6' MLLW		STARTED 8/9/86
8. TOTAL DEPTH OF BORING 51.6'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 8/9/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-31.6			0': SILTY CLAYEY SAND (SC), fine; dark olive.				Start Time: 11:03 Stop Time: 11:11 Penetrometer = 1.5 TSF		
					1				
					2		Penetrometer = 0.5 TSF		
					3				
					4				
-51.6	20.0								

BOTTOM OF BOREHOLE AT -51.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER : LOCATION COORDINATES CHDVC-54A-1-1-86 N 327743.2332 E 2361368.426		10. SIZE AND TYPE OF BIT		
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 1	DISTURBED 1	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 17'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 3'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 57.1'		15. DATE BORING : STARTED : COMPLETED 8/7/86 : 8/7/86		
		16. ELEVATION TOP OF BORING -37.1' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING 100%		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sam No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.1			0': Jet to 17'				Start Time: 15:30 Stop Time: 15:33		
-54.1	17.0		17': SANDY CLAYEY SILT (ML), dark green, Calcareous (Copper Marl).		1				
-57.1	20.0								

BOTTOM OF BOREHOLE AT -57.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-55-1-1-86		LOCATION COORDINATES N 327575.2718 E 2361368.46		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/7/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -32.1' MLLW		STARTED 8/7/86
8. TOTAL DEPTH OF BORING 52.1'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 8/7/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-32.1			0': SILTY SAND (SM), fine; gray, and shell fragments, (Coquina).				Start Time: 11:13 Stop Time: 11:33		
-37.0	4.9		4.9': SILTY CLAYEY SAND (SC), dark olive, Calcareous(Cooper Marl).		1				
					2				
					3				
					4				
-52.1	20.0								

BOTTOM OF BOREHOLE AT -52.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-55A-1-1-86		LOCATION COORDINATES N 327575.2718 E 2361368.46		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 1	DISTURBED 1	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 16'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 4'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 52.1'		15. DATE BORING 8/7/86		STARTED 8/7/86 COMPLETED 8/7/86
		16. ELEVATION TOP OF BORING -32.1' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING 60%		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sam No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-32.1			0': Jet to 17'				Start Time: 12:02 Stop Time: 12:16		
-49.1	17.0		17': SANDY CLAYEY SILT (ML), dark green, Calcareous (Cooper Marl).		1				
-50.9	18.8								

BOTTOM OF BOREHOLE AT -52.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER CHDVC-56-1-1-86		10. SIZE AND TYPE OF BIT	
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore	
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 4	DISTURBED 4 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	14. ELEVATION GROUND WATER NA
DEG FROM VERTICAL ---		15. DATE BORING 8/6/86	STARTED 8/6/86 COMPLETED 8/6/86
6. THICKNESS OF OVERBURDEN 20'		16. ELEVATION TOP OF BORING -33.3' MLLW	
7. DEPTH DRILLED INTO ROCK 0'		17. TOTAL CORE RECOVERY FOR BORING 100%	
8. TOTAL DEPTH OF BORING 53.3'		18. SIGNATURE AND TITLE OF INSPECTOR N/A	

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-33.3			0': SILTY SAND (SP-SM), fine; gray, with shell fragments, (Coquina).		1		Start Time: 10:41 Stop Time: 10:55		
					2		Penetrometer = 1.5 TSF		
					3				
-52.3	19.0		19': SILTY CLAYEY SAND (SM), dark olive, Calcareous (Cooper Marl).		4				
-53.3	20.0								

BOTTOM OF BOREHOLE AT -53.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER : LOCATION COORDINATES CHDVC-56A-1-1-86 N 325956.8706 E 2364292.804		10. SIZE AND TYPE OF BIT	
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore	
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES : DISTURBED : UNDISTURBED 2 : 2 : 0	
5. DIRECTION OF BORING : DEG FROM : BEARING <input checked="" type="checkbox"/> VERTICAL : VERTICAL : --- <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES : 0	
6. THICKNESS OF OVERBURDEN : 16'		14. ELEVATION GROUND WATER : NA	
7. DEPTH DRILLED INTO ROCK : 4'		15. DATE BORING : STARTED : COMPLETED 8/6/86 : 8/6/86	
8. TOTAL DEPTH OF BORING : 53.3'		16. ELEVATION TOP OF BORING : -33.3' MLLW	
		17. TOTAL CORE RECOVERY FOR BORING : 100%	
		18. SIGNATURE AND TITLE OF INSPECTOR N/A	

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-33.3			0': Jet to 16'				Start Time: 11:19 Stop Time: 11:24 Penetrometer = 0.75 TSF		
-49.3	16.0		16': SAND (SP), fine; gray, and shell fragments, (Coquina).		1				
-50.3	17.0		17': CLAYEY SANDY SILT (ML), dark green, Calcareous (Cooper Marl).						
-53.3	20.0				2				

BOTTOM OF BOREHOLE AT -53.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER CHDVC-57-1-1-86		10. SIZE AND TYPE OF BIT	
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore	
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 4	DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA	
7. DEPTH DRILLED INTO ROCK 0'		15. DATE BORING 9/10/86	STARTED 9/10/86
8. TOTAL DEPTH OF BORING 53.8'		COMPLETED 9/10/86	
		16. ELEVATION TOP OF BORING -33.8' MLLW	
		17. TOTAL CORE RECOVERY FOR BORING 100%	
		18. SIGNATURE AND TITLE OF INSPECTOR N/A	

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-33.8		+	0': SILTY SAND (SM), fine; light gray, and shell fragments, Calcareous (coguina).		1		USCS Start Time: 13:30 Stop Time: 13:34		
-36.1	2.3	+	2.3': CLAYEY SANDY SILT (ML), dark olive, Calcareous (Cooper Marl).		2				
		+			3				
		+			4				
-53.8	20.0	+							

BOTTOM OF BOREHOLE AT -53.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-58-1-1-86		LOCATION COORDINATES N 324652.386 E 2366800.087		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 4	DISTURBED 4	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	13. TOTAL NUMBER CORE BOXES 0
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 9/10/86 COMPLETED 9/10/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -37.7' MLLW		17. TOTAL CORE RECOVERY FOR BORING 100%
8. TOTAL DEPTH OF BORING 57.7'		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.7			0': CLAYEY SANDY SILT (ML), dark olive, Calcareous (Cooper marl).		1		USCS Start Time: 14:23 Stop Time: 14:35		
					2				
					3		Penetrometer = 1.25 TSF		
					4				
-57.7	20.0								

BOTTOM OF BOREHOLE AT -57.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-60-1-1-86		LOCATION COORDINATES N 323596.7441 E 2368529.315		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 9/10/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -35.2' MLLW		STARTED 9/10/86
8. TOTAL DEPTH OF BORING 55.2'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 9/10/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-35.2		●●●●●	0': SANDY SAND (SM), fine; light gray, and shell fragments, Calcareous (coquina).		1		USCS Start Time: 18:20 Stop Time: 18:30		
-41.9	6.7	●●●●●	6.7': CLAYEY SANDY SILT (ML), olive, Calcareous (Cooper marl).		2		Penetrometer = 0.75 TSF		
-44.2	9.0	●●●●●	9': CLAYEY SILTY SAND (SM), fine; olive, Calcareous (Cooper marl).		3				
		●●●●●			4				
-55.2	20.0	●●●●●							

BOTTOM OF BOREHOLE AT -55.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-61-1-1-86		LOCATION COORDINATES N 323703.075 E 2370162.307		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 4		DISTURBED 4 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 20'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 59.5'		15. DATE BORING 9/11/86		STARTED 9/11/86 COMPLETED 9/11/86
		16. ELEVATION TOP OF BORING -39.5' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING 100%		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-39.5			0': CLAYEY SANDY SILT (ML), dark olive, Calcareous (Cooper marl).		1		USCS Start Time: 10:39 Stop Time: 10:46 Penetrometer = 1.5 TSF		
					2				
					3				
					4				
-59.5	20.0								

BOTTOM OF BOREHOLE AT -59.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-62-1-1-86		LOCATION COORDINATES N 322729.1109 E 2370302.508		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 4	DISTURBED 4	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 20'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 57.9'		15. DATE BORING 9/11/86		STARTED 9/11/86 COMPLETED 9/11/86
		16. ELEVATION TOP OF BORING -37.9' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING 100%		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.9		[Red and Yellow Legend]	0': SAND (SP-SM), fine; gray and green, and shell fragments, Calcareous (coquina).		1		USCS Start Time: 11:32 Stop Time: 11:45		
					2				
-45.2	7.3	[Yellow Legend]	7.3': CLAYEY SANDY SILT (SM), dark olive, Calcareous (Cooper Marl).		3				
					4				
-57.9	20.0								

BOTTOM OF BOREHOLE AT -57.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-63-1-1-86		LOCATION COORDINATES N 322904.4507 E 2371973.487		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 4	DISTURBED 4	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	13. TOTAL NUMBER CORE BOXES 0
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 9/11/86 COMPLETED 9/11/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -27.3' MLLW		17. TOTAL CORE RECOVERY FOR BORING 100%
8. TOTAL DEPTH OF BORING 47.3'		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-27.3			0': SILTY SAND (SM), fine; bluish gray, with shell fragments, and organics.		1		Start Time: 13:04 Stop Time: 13:07		
					2				
					3				
					4				
-47.3	20.0		11': SILTY SAND, fine; light green, and shell fragments, Calcareous (coquina).						

BOTTOM OF BOREHOLE AT -47.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-64-1-1-86		LOCATION COORDINATES N 321719.4726 E 2372039.731		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 9/11/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -33.1' MLLW		STARTED 9/11/86
8. TOTAL DEPTH OF BORING 53.1'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 9/11/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-33.1			0': SAND (SP-SM), fine; dark gray, and shell fragments, Calcareous.				Start Time: 13:40 Stop Time: 13:54		
					1				
					2				
					3				
-51.6	18.5		18.5': CLAYEY SANDY SILT (ML), dark olive, Calcareous.						
-53.1	20.0				4				

BOTTOM OF BOREHOLE AT -53.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System



DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-65-1-1-86		LOCATION COORDINATES N 321847.8124 E 2373700.72		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 19.2'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 9/11/86 COMPLETED 9/11/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -34.4' MLLW		17. TOTAL CORE RECOVERY FOR BORING 96%
8. TOTAL DEPTH OF BORING 53.6'		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-34.4			0': SILTY SAND (SP-SM), fine; dark brown, with organics.		1		USCS Start Time: 14:44 Stop Time: 14:48		
-37.6	3.2		3.2': CLAYEY SAND (SC), fine; gray and brown.		2				
-39.3	4.9		4.9': SILTY SAND (SM), fine; light gray, and shell fragments, Calcareous (coquina).		3				
			13.6': Light green.		4				
-53.6	19.2								

BOTTOM OF BOREHOLE AT -53.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-66-1-1-86		LOCATION COORDINATES N 320852.8482 E 2373842.927		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 18.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 9/11/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -39.1' MLLW		STARTED 9/11/86
8. TOTAL DEPTH OF BORING 57.6'		17. TOTAL CORE RECOVERY FOR BORING 93%		COMPLETED 9/11/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-39.1			0': CLAYEY SANDY SILT (MH), black, with organics.		1		USCS Start Time: 15:31 Stop Time: 15:34		
-42.6	3.5		3.5': SAND (SP), fine; and shell fragments, Calcareous Cemented.		2				
					3				
					4				
-57.6	18.5								

BOTTOM OF BOREHOLE AT -57.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-67-1-1-86		LOCATION COORDINATES N 320959.1933 E 2375520.922		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 4		DISTURBED 4 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 20'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 50.2'		15. DATE BORING 9/11/86		STARTED 9/11/86 COMPLETED 9/11/86
		16. ELEVATION TOP OF BORING -30.2' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING 100%		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-30.2			0': SILTY SAND (SP-SM), fine; gray, with shell fragments.		1		USCS		
-33.4	3.2		3.2': CLAYEY SANDY SILT (ML), gray.		2				
-46.0	15.8		15.8': SAND, fine; white, and shell fragments, Calcareous.		3				
-50.2	20.0				4				

BOTTOM OF BOREHOLE AT -50.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System


DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-68-1-1-86		LOCATION COORDINATES N 319768.2001 E 2375519.168		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 18.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 9/11/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -36' MLLW		STARTED 9/11/86
8. TOTAL DEPTH OF BORING 54.5'		17. TOTAL CORE RECOVERY FOR BORING 92%		COMPLETED 9/11/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-36			0': CLAYEY ORGANIC SILT (MH), gray, with.				Start Time: 08:19 Stop Time: 08:42 Penetrometer - 0.5 TSF		
-39.5	3.5		3.5': SILTY SAND (SP-SM), fine; with shell fragments, cemented.		1				
					2				
					3				
					4				
-54.5	18.5		16.8': SILTY SAND, fine; gray, cemented.						

BOTTOM OF BOREHOLE AT -54.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-69-1-1-86		LOCATION COORDINATES N 319879.5479 E 2377202.163		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 4		DISTURBED 4 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 20'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 56.5'		15. DATE BORING 9/11/86		STARTED 9/11/86 COMPLETED 9/11/86
		16. ELEVATION TOP OF BORING -36.5' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING 100%		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-36.5			0': SILTY CLAY (CL), dark gray, with shells.		1		USCS Start Time: 17:01 Stop Time: 17:02 Penetrometer - 0.75 TSF		
					2				
					3				
					4				
-56.5	20.0								

BOTTOM OF BOREHOLE AT -56.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System


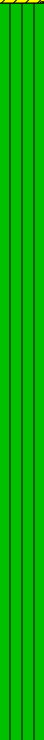
DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-70-1-1-86		LOCATION COORDINATES N 318893.5905 E 2377381.37		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 4	DISTURBED 4	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 20'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 57.3'		15. DATE BORING 9/11/86		STARTED 9/11/86 COMPLETED 9/11/86
		16. ELEVATION TOP OF BORING -37.3' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING 100%		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sam No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.3			0': CLAYEY SILT (MH), gray, with organics, 1/16" thick sand layers 1/2" apart..				Start Time: 17:56 Stop Time: 18:02 Penetrometer = 0.25 TSF		
-43.3	6.0		6': SANDY SILT (ML), light gray, with shell fragments, Calcareous.		1				
-45.8	8.5		8.5': SILTY SAND, fine; light gray, and shell fragments, Calcareous (coquina).		2				
-57.3	20.0				3				
					4				

BOTTOM OF BOREHOLE AT -57.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-71-1-1-86		LOCATION COORDINATES N 319018.931 E 2379021.362		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 4	DISTURBED 4	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 20'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.1'		15. DATE BORING 9/12/86		STARTED 9/12/86 COMPLETED 9/12/86
		16. ELEVATION TOP OF BORING -35.1' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING 100%		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-35.1			0': CLAYEY SAND (SC), fine; gray, with shell fragments.		1		USCS Start Time: 08:40 Stop Time: 08:41		
-41.3	6.2		6.2': CLAYEY SANDY SILT (ML), gray.		2				
					3				
					4				
-55.1	20.0								

BOTTOM OF BOREHOLE AT -55.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-72-1-1-86		LOCATION COORDINATES N 317859.9423 E 2379047.605		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN		14. ELEVATION GROUND WATER NA		15. DATE BORING 9/12/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -38.6' MLLW		STARTED 9/12/86
8. TOTAL DEPTH OF BORING 58.6'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 9/12/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.6			0': SILTY CLAYEY SAND (SM), fine; gray, with shell fragments, Shell fragments in first 1'.		1		USCS Start Time: 09:43 Stop Time: 0950		
-49.0	10.4		10.4': SAND (SP), fine; light gray, and shell fragments, Calcareous (coquina) Cemented.		2				
-58.6	20.0				3				
					4				

BOTTOM OF BOREHOLE AT -58.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System



DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-73-1-1-86		LOCATION COORDINATES N 318202.2101 E 2380337.548		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 9/12/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -38.5' MLLW		STARTED 9/12/86
8. TOTAL DEPTH OF BORING 58.5'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 9/12/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.5			0': CLAYEY SANDY SILT (ML), gray.		1		Start Time: 10:42 Stop Time: 10:44		
					2				
					3				
					4				
-50.5	12.0		12': CLAYEY SAND (SC), fine; gray, with shell fragments.						
-58.5	20.0								

BOTTOM OF BOREHOLE AT -58.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-74-1-1-86		LOCATION COORDINATES N 316988.3241 E 2380855.809		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 4	DISTURBED 4	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 20'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 61.5'		15. DATE BORING 9/12/86		STARTED 9/12/86 COMPLETED 9/12/86
		16. ELEVATION TOP OF BORING -41.5' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING 100%		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.5			0': CLAYEY SILTY SAND (SC), fine; gray.		1		Start Time: 11:39 Stop Time: 11:45		
-49.2	7.7		7.7': SILTY SAND (SP-SM), fine; grayish green, with shell fragments, Calcareous, cemented.		2				
					3				
-61.5	20.0				4				

BOTTOM OF BOREHOLE AT -61.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-75-1-1-86		LOCATION COORDINATES N 316869.735 E 2382809.858		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 4	DISTURBED 4	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 20'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 60.6'		15. DATE BORING 9/12/86		STARTED 9/12/86 COMPLETED 9/12/86
		16. ELEVATION TOP OF BORING -40.6' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING 100%		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.6			0': SILTY SANDY CLAY (CL), gray, with shell fragments, and organics.		1		Start Time: 13:21 Stop Time: 13:29		
					2				
-48.0	7.4		7.4': SILTY SAND, fine; light gray, and shell fragments, Calcareous Cemented.		3				
					4				
-60.6	20.0								

BOTTOM OF BOREHOLE AT -60.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-76-1-1-86		LOCATION COORDINATES N 315361.9575 E 2383838.19		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 9/12/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41.3' MLLW		STARTED 9/12/86
8. TOTAL DEPTH OF BORING 61.3'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 9/12/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.3			0': CLAYEY SILT (ML), gray, with shell fragments, and sand, Sand in the first 1.5'.		1		Start Time: 14:17 Stop Time: 14:24		
-49.7	8.4		8.4': SILTY SAND (SP-SM), fine; light gray, and shell fragments, Calcareous (coquina).		2				
					3				
-61.3	20.0				4				

BOTTOM OF BOREHOLE AT -61.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-77-1-1-86		LOCATION COORDINATES N 314988.4949 E 2386375.316		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 3
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 15'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 9/12/86 COMPLETED 9/12/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -40.6' MLLW		17. TOTAL CORE RECOVERY FOR BORING 81%
8. TOTAL DEPTH OF BORING 55.6'		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.6			0': SILTY SAND (SP-SM), fine; gray, and sand, Alternating 4" layers of gray silty fine sand and gray sand..		1		USCS Start Time: 15:19 Stop Time: 15:26		
-43.2	2.6		2.6': SAND (SP), fine; light gray, and shell fragments, Calcareous (coquina) Loosely cemented.		2				
-55.6	15.0				3				

BOTTOM OF BOREHOLE AT -55.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-78-1-1-86		LOCATION COORDINATES N 313489.6502 E 2387088.65		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 4	DISTURBED 4	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	13. TOTAL NUMBER CORE BOXES 0
6. THICKNESS OF OVERBURDEN 18'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 9/12/86 COMPLETED 9/12/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41.7' MLLW		17. TOTAL CORE RECOVERY FOR BORING 90%
8. TOTAL DEPTH OF BORING 59.7'		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.7		0'	0': SILTY SAND (SP-SM), fine; gray.		1		USCS Start Time: 16:00 Stop Time: 16:16		
			2': SILTY SAND, fine; tan, and shell fragments, Calcareous (coquina) Loosely cementd.		2				
			9.5': Gray.		3				
					4				
-59.7	18.0								

BOTTOM OF BOREHOLE AT -59.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-79-1-1-86		LOCATION COORDINATES N 313262.1215 E 2389300.746		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 4	DISTURBED 4	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 20'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 57.8'		15. DATE BORING 9/12/86		STARTED 9/12/86 COMPLETED 9/12/86
		16. ELEVATION TOP OF BORING -37.8' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING 100%		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.8			0': SILTY SAND (SP-SM), fine; gray, with shell fragments.		1		USCS Start Time: 17:35 Stop Time: 17:39		
			3.2': Red-Iron stained.		2				
			9.3': SILTY SAND, gray, with chert, 1/8" to 1/2" thick layers of clay 1" to 3" apart..		3				
					4				
-57.8	20.0								

BOTTOM OF BOREHOLE AT -57.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System




DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-80-1-1-86		LOCATION COORDINATES N 311800.3416 E 2390318.082		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 4	DISTURBED 4	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	13. TOTAL NUMBER CORE BOXES 0
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 9/13/86 COMPLETED 9/13/83
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -39.7' MLLW		17. TOTAL CORE RECOVERY FOR BORING 100%
8. TOTAL DEPTH OF BORING 59.7'		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-39.7			0': SAND (SP), fine; gray, with shell fragments, Shell in top 4".		1		USCS Start Time: 10:02 Stop Time: 10:04		
-41.9	2.2		2.2': SILTY SAND (CL), gray, with shell fragments, 3 random layers of shell fragments..		2				
-47.9	8.2		8.2': SANDY CLAY (SM), fine; gray, with silt, and shell fragments.		3				
-52.7	13.0		13': SAND (SP), white, and shell fragments, Calcareous (coquina) Loosely cemented.		4				
-59.7	20.0								

BOTTOM OF BOREHOLE AT -59.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System




DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-81-1-1-86		LOCATION COORDINATES N 311708.7211 E 2392086.141		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 4	DISTURBED 4	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	13. TOTAL NUMBER CORE BOXES 0
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 9/13/86 COMPLETED 9/13/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -39.9' MLLW		17. TOTAL CORE RECOVERY FOR BORING 100%
8. TOTAL DEPTH OF BORING 59.9'		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-39.9			0': SAND, fine; gray.		1		USCS Start Time: 10:39 Stop Time: 10:42		
-42.0	2.1		2.1': SANDY CLAY, gray.		2				
-47.7	7.8		7.8': SILTY SAND, fine; light gray, and shell fragments, Calcareous (coquina).		3				
-59.9	20.0				4				

BOTTOM OF BOREHOLE AT -59.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-82-1-1-86		LOCATION COORDINATES N 309940.0092 E 2393416.555		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 4	DISTURBED 4	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 20'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 60.7'		15. DATE BORING 9/13/86		STARTED 9/13/86 COMPLETED 9/13/86
		16. ELEVATION TOP OF BORING -40.7' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING 100%		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.7			0': SILTY SAND (SP), fine; gray.		1		USCS Start Time: 11:20 Stop Time: 11:24		
-44.2	3.5		3.5': SANDY CLAY, gray, with shell fragments.		2				
-48.6	7.9		7.9': CLAYEY SILT (MH), gray.		3				
-60.7	20.0				4				

BOTTOM OF BOREHOLE AT -60.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-83-1-1-86		LOCATION COORDINATES N 309814.4868 E 2395622.633		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 3	DISTURBED 3	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 18'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 58.7'		15. DATE BORING 9/13/86		STARTED 9/13/86 COMPLETED 9/13/86
		16. ELEVATION TOP OF BORING -40.7' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING 90%		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.7		SAND	0': SAND (SP), fine; gray, with shell fragments.				Start Time: 12:00 Stop Time: 12:10		
			4': SAND, fine; white, and shell fragments, Calcarous (coquina) Loosly Cemented.		1				
					2				
					3				
-58.7	18.0								

BOTTOM OF BOREHOLE AT -58.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-84-1-1-86		LOCATION COORDINATES N 307571.0104 E 2398030.182		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 3		DISTURBED 3 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	13. TOTAL NUMBER CORE BOXES 0
6. THICKNESS OF OVERBURDEN 18'		14. ELEVATION GROUND WATER NA		15. DATE BORING 9/13/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -43.2' MLLW		STARTED 9/13/86 COMPLETED 9/13/86
8. TOTAL DEPTH OF BORING 61.2'		17. TOTAL CORE RECOVERY FOR BORING 88%		18. SIGNATURE AND TITLE OF INSPECTOR N/A

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-43.2			0': SILTY SAND (SM), fine; light gray, with shell fragments.				Start Time: 15:32 Stop Time: 16:10		
-45.8	2.6		2.6': SILTY SAND (SP-SM), fine; light gray, and shell fragments, Calcareous (coquina).		1				
					2				
					3				
-61.2	18.0								

BOTTOM OF BOREHOLE AT -61.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division		INSTALLATION Charleston Harbor		SHEET 1 OF 1 SHEETS	
1. PROJECT Charleston Harbor Entrance Channel Deepening				9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW	
2. HOLE NUMBER CHDVC-85-1-1-86		LOCATION COORDINATES N 307675.3747 E 2399694.2		10. SIZE AND TYPE OF BIT			
3. DRILLING AGENCY Ocean Surveys., Inc.				11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore			
4. NAME OF DRILLER DMB				12. TOTAL SAMPLES 4		DISTURBED 4	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED				DEG FROM VERTICAL ---	BEARING		13. TOTAL NUMBER CORE BOXES 0
6. THICKNESS OF OVERBURDEN 20'				14. ELEVATION GROUND WATER NA			
7. DEPTH DRILLED INTO ROCK 0'				15. DATE BORING 9/13/86		STARTED 9/13/86	
8. TOTAL DEPTH OF BORING 61.9'				16. ELEVATION TOP OF BORING -41.9' MLLW			
				17. TOTAL CORE RECOVERY FOR BORING 100%			
				18. SIGNATURE AND TITLE OF INSPECTOR N/A			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.9			0': SILTY SAND (SM), fine; light gray, with shell fragments.		1		USCS Start Time: 13:31 Stop Time: 17:51		
			4': SILTY SAND, with shell fragments, Calcareous (coquina).		2				
					3				
					4				
-61.9	20.0								

BOTTOM OF BOREHOLE AT -61.9 ft
NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-86-1-1-86		LOCATION COORDINATES N 305474.8066 E 2401671.735		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 9/13/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -39' MLLW		STARTED 9/13/86
8. TOTAL DEPTH OF BORING 59'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 9/13/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-39			0': SILTY SAND (SP-SM), fine; gray, and shell fragments, Calcareous.		1		USCS Start Time: 18:32 Stop Time: 18:45		
					2				
-46.5	7.5		7.5': SAND (SP), gray, and shell fragments, Calcareous Cemented (coquina).		3				
					4				
-59.0	20.0								

BOTTOM OF BOREHOLE AT -59.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-87-1-1-86		LOCATION COORDINATES N 305854.1116 E 2403049.687		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 4
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 20'		14. ELEVATION GROUND WATER NA		15. DATE BORING 9/14/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -39.7' MLLW		STARTED 9/14/86
8. TOTAL DEPTH OF BORING 59.7'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 9/14/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-39.7			0': SANDY SAND (SP-SM), gray, with shell fragments, Calcareous.		1		USCS Start Time: 8:25 Stop Time: 8:41		
					2				
					3				
					4				
-48.6	8.9		8.9': SAND (SP), fine; with shell fragments, Calcareous Cemented.						
-59.7	20.0								

BOTTOM OF BOREHOLE AT -59.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System



DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-88-1-1-89		LOCATION COORDINATES N 304182.5517 E 2405050.111		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		12. TOTAL SAMPLES 2
4. NAME OF DRILLER DMB		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 2
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 10'		14. ELEVATION GROUND WATER NA		15. DATE BORING 9/14/86
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -38.8' MLLW		STARTED 9/14/86
8. TOTAL DEPTH OF BORING 48.8'		17. TOTAL CORE RECOVERY FOR BORING 100%		COMPLETED 9/14/86
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.8			0': SAND (SP), fine; gray.		1		Start Time: 9:26 Stop Time: 9:34		
			8.9': SAND, fine; whitish gray, with shell fragments, Calcareous.		2				
-48.8	10.0								

BOTTOM OF BOREHOLE AT -48.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CHDVC-89-1-1-86		LOCATION COORDINATES N 303850.8722 E 2406493.224		10. SIZE AND TYPE OF BIT
3. DRILLING AGENCY Ocean Surveys., Inc.		11. MANUFACTURER'S DESIGNATION OF DRILL OSI Model 1500 Vibracore		
4. NAME OF DRILLER DMB		12. TOTAL SAMPLES 2	DISTURBED 2	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 7.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 47.4'		15. DATE BORING 9/14/86		STARTED 9/14/86 COMPLETED 9/14/86
		16. ELEVATION TOP OF BORING -39.9' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING 100%		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-39.9			0': SAND (SP), fine; gray, with shell fragments.				Start Time: 11:08 Stop Time: 11:12		
-45.3	5.4		5.4': SANDY SAND (SP-SM), fine; gray, with shell fragments, Calcareous.		1				
-47.4	7.5				2				

BOTTOM OF BOREHOLE AT -47.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		OF 1 SHEETS VERTICAL MLLW
2. HOLE NUMBER CR-CH-1-94	LOCATION COORDINATES N 341505.375 E 2343166.273		10. SIZE AND TYPE OF BIT Athena Technologies Vibracore System	
3. DRILLING AGENCY Athena Technologies		11. MANUFACTURER'S DESIGNATION OF DRILL N/A		
4. NAME OF DRILLER GWC		12. TOTAL SAMPLES 0	DISTURBED 0	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 13'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 53.65'		15. DATE BORING 8/19/94		STARTED 8/19/94
		16. ELEVATION TOP OF BORING -40.65' MLLW		COMPLETED 8/19/94
		17. TOTAL CORE RECOVERY FOR BORING 69%		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-32			0': SILTY SAND (SM), fine; green to gray, wet, and shell fragments.						
-43.7	3.0		3': FAT CLAY (CH), green to gray, moist, little shell fragments, trace fine sand.						
-45.7	5.0		5': SILT (ML), gray, moist, trace fine sand, no shell fragments.	69	1				
-50.7	10.0		10': SILT (OL), gray, with organics, no shell fragments, "ancient marsh deposit".						
-53.7	13.0								

BOTTOM OF BOREHOLE AT -53.7 ft

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER CR-CH-2-94	LOCATION COORDINATES N 341480.377 E 2338086.741		10. SIZE AND TYPE OF BIT Athena Technologies Vibracore System	
3. DRILLING AGENCY Athena Technologies		11. MANUFACTURER'S DESIGNATION OF DRILL N/A		
4. NAME OF DRILLER GWC		12. TOTAL SAMPLES 0	DISTURBED 0	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 20'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 46'		15. DATE BORING 8/22/94		STARTED 8/22/94 COMPLETED 8/22/94
		16. ELEVATION TOP OF BORING -26' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR N/A		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-26			0': SANDY SILT (ML), gray, and shell fragments.						
-29.0	3.0		3': SILTY SAND (SM), medium to coarse; gray, and shell fragments, organic odor.						
-33.0	7.0		7': CLAYEY SILTY SAND (SM), fine; black, with organics, and shell fragments.						
-36.0	10.0		10': CLAYEY SILTY SAND (SM), fine; black, with organics, trace shell fragments, some silt strata or lenses.						
-46.0	20.0		20': SILTY SAND (SM), gray, trace shell fragments.						
-53.0	27.0								

BOTTOM OF BOREHOLE AT -46.0 ft

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-100-90		LOCATION COORDINATES N 308333.6665 E 2396449.976		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 6	DISTURBED 6	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 9'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.9'		15. DATE BORING 3/6/90		STARTED 3/6/90
		16. ELEVATION TOP OF BORING -46.9' MLLW		COMPLETED 3/6/90
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-46.9		[Pattern]	0': SILTY GRAVEL (GM), medium to coarse; light gray, wet, some sand, and shell fragments, Calcareous.		1		USCS NOTE: Suspect thin limestone layers from 46.9' to 55.9' w/ large amount of shell fragments		14
			1.5': Shell fragments.		2		Set 6" casing by own weight at 47.3'. Mixed Zeogel drilling mud at 46.9'.		3
			3': Some shell fragments.		3		Weight of rods drove split spoon from 46.9' to 47.6', cont'd to 48.4'.		21
			4.5': Shell fragments, trace clay.		4				2
					5				1
-55.9	9.0					6			

BOTTOM OF BOREHOLE AT -55.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-101-90		LOCATION COORDINATES N 309963.4578 E 2395489.598		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 10
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 10
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 15'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/9/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -40.2' MLLW		STARTED 3/9/90
8. TOTAL DEPTH OF BORING 55.2'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 3/9/90
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.2			0': SILTY SAND (SM), fine to medium; brown, wet, some shell fragments, Calcareous.		1		USCS Set 6" casing by own weight to 41.2'. Weight of rods drove splitspoon from 40.2' to 40.6', cont'd drive to 41.7'.		20
			1.5': Gray.		2		NOTE: Suspect thin limestone layers from 46.2' to 55.2'.		24
			4.5': Trace shell fragments.		3				25
			6': SAND, medium to coarse; gray and light gray, some shell fragments, trace gravel, (Limestone gravel).		4				28
			7.5': Light gray.		5				65
			9': Trace clay, and shell fragments.		6				30
			10.5': No clay.		7				28
			12': Trace gravel, (Limestone gravel).		8				28
					9				26
					10				27
-55.2	15.0								

BOTTOM OF BOREHOLE AT -55.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-102-90		LOCATION COORDINATES N 309188.3225 E 2394864.752		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 7
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 7
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 10.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/10/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -45.3' MLLW		STARTED 3/10/90
8. TOTAL DEPTH OF BORING 55.8'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 3/10/90
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-45.3			0': SAND (SP), medium to coarse; tannish gray, Poorly Graded, wet, with shell fragments, Calcareous.		1		USCS Set 6" casing by own weight to 46.3'. Weight of rods drove splitspoon from 45.3' to 45.9'.		10
-46.8	1.5		1.5': SAND (SM), medium to coarse; light gray, wet, with shell fragments, Calcareous.		2		Mixed new Zeogel mud at 48.3'.		31
			3': Shell fragments, with gravel, (Quartz gravel).		3		NOTE: Suspect thin limestone layers from 49.8' to 55.8'.		47
-49.8	4.5		4.5': SILTY GRAVEL (GM), fine to coarse; light gray, wet, some coarse sand, trace shell fragments, Calcareous.		4				43
-51.3	6.0		6': SILTY SAND (SM), medium to coarse; light gray, wet, some gravel, trace shell fragments, Calcareous (Limestone gravel).		5				62
			7.5': Trace gravel, (Limestone gravel).		6				51
					7				53

BOTTOM OF BOREHOLE AT -55.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-103-90		LOCATION COORDINATES N 310993.0609 E 2393659.332		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 5	DISTURBED 5	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 9'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55'		15. DATE BORING 3/10/90		STARTED 3/10/90
		16. ELEVATION TOP OF BORING -46' MLLW		COMPLETED 3/10/90
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-46		[Red dotted pattern]	0': SAND (SP), fine to medium; gray, Poorly Graded, wet, trace silt, with shell fragments, Slightly calcareous..		1		USCS Set 6" casing by own weight to 49.9'. Mixed Zeogel mud at 46.0'. Weight of hammer drove splitspoon from 46.0' to 46.9', cont'd drive to 48.2' w/ one hammer blow, con't drive to 49.0' w/ 8 blows. Weight of hammer drove splitspoon from 49.0' to 50.5', cont'd to 51.0' w/ 8 blows then from 51.0' to 52.0' w/ 19 blows. NOTE: Suspect thin limestone layers from 50.5' to 55.0'.		9
-49.0	3.0		3': CLAY (CH), high plasticity; dark gray, wet, high plasticity, trace sand, and shell fragments.		2			0	8
-50.5	4.5	[Yellow dotted pattern]	4.5': SILTY SAND (SM), medium to coarse; light gray, wet, some gravel, trace shell fragments, Calcareous (Limestone gravel).		3			8	19
			6': Trace gravel, (Limestone gravel).		4				23
					5				18
-55.0	9.0								

BOTTOM OF BOREHOLE AT -55.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-104-90		LOCATION COORDINATES N 310642.7595 E 2392259.376		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 9	DISTURBED 9	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 13.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.2'		15. DATE BORING 3/10/90		STARTED 3/10/90
		COMPLETED 3/10/90		
		16. ELEVATION TOP OF BORING -41.7' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.7			0': SAND (SP), fine to medium; gray, Poorly Graded, wet, trace silt, and shell fragments, Slightly Calcareous.		1		USCS Set 6" casing by own weight to 43.7'. Weight of rods drove splitspoon from 41.7', cont'd to 43.2' w/ 3 blows, to 43.7' w/ 5 blows & to 44.7' w/ 27 blows. Mixed new Zeogel mud at 44.7'. Sample #4 taken from 45.7' to 46.2'. Weight of hammer drove splitspoon from 46.2' to 48.5', cont'd drive to 49.2' w/ 5 blows. NOTE: Suspect thin Limestone later from 49.2'-55.2'.		3
					2			32	
-44.7	3.0					3			
			3': SILTY SAND (SM), fine to medium; gray, wet, trace clay, and shell fragments.		4				15
-46.2	4.5								
			4.5': CLAY (CH), high plasticity; fine to medium; dark gray, moist, high plasticity, trace sand, and shell fragments.		5				5
-49.2	7.5								
					7.5': SILTY SAND (SM), medium to coarse; light gray, wet, trace gravel, and shell fragments, Calcareous (Limestone gravel). 9': Yellow and light gray, trace shell fragments, and gravel, (Limestone gravel). 12': Tan.			6	
			7					26	
			8				19		
			9				16		
-55.2	13.5								

BOTTOM OF BOREHOLE AT -55.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-105-90	LOCATION COORDINATES N 312032.6449 E 2391734.063		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 12	DISTURBED 12	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 19.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 54.7'		15. DATE BORING 3/11/90		STARTED 3/11/90
		16. ELEVATION TOP OF BORING -35.2' MLLW		COMPLETED 3/11/90
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-35.2			0': SAND (SP), fine to medium; gray, Poorly Graded, wet, trace silt, some shell fragments, Calcareous. 3': Trace shell fragments.		1		USCS Set 6" casing by own weight to 37.8'. Weight of rods drove splitspoon from 35.2' to 37.0', ocnt'd drive to 38.2'. Weight of rods drove splitspoon from 44.2' to 46.0' & 47.2' to 48.7', cont'd to 50.2'. NOTE: Suspect thin limestone layers from 48.7' to 54.7'. LAB CLASSIFICATION Sample No.3 - SP-SM		9
					2			27	
					3			36	
					4			31	
					5			33	
-44.2	9.0		9': CLAY (CH), high plasticity; dark greenish gray, moist, high plasticity, and shell fragments.		6				0
					7			5	
					8			0	
-48.7	13.5		13.5': SILTY GRAVEL (GM), fine to coarse; light gray, wet, some sand, trace shell fragments, Calcareous (Limestone gravel). 15': Trace clay. 16.5': No clay..		9				25
					10			5	
					11			18	
					12			29	

BOTTOM OF BOREHOLE AT -54.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-106-90		LOCATION COORDINATES N 311612.3806 E 2390499.127		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 10	DISTURBED 10	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 15'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.8'		15. DATE BORING 3/11/90		STARTED 3/11/90
		COMPLETED 3/11/90		
		16. ELEVATION TOP OF BORING -40.8' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.8			0': SAND (SP), fine to medium; gray, Poorly Graded, wet, with shell fragments, trace silt, Calcareous.		1		USCS Set 6" casing by own weight to 45..1'. Weight of hammer drove splitspoon from 49.8' to 51.3', & 52.8' to 54.3'. NOTE: Suspect thin limestone layers from 54.3' to 55.8'.		7
					2				13
-43.8	3.0		3': CLAY (CH), high plasticity; gray, moist, high plasticity, trace sand, and shale fragments.		3				5
					4				5
					5				2
					6				6
					7				0
					8				6
					9				0
					10				14
-52.8	12.0		12': CLAYEY SAND (SC), fine to medium; gray, wet, with shells, and shell fragments, Calcareous.						
-54.3	13.5		13.5': SILTY GRAVEL (GM), fine to coarse; light gray, wet, some sand, and shell fragments, Calcareous (Limestone gravel)..						
-55.8	15.0								

BOTTOM OF BOREHOLE AT -55.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-107-90		LOCATION COORDINATES N 312882.3068 E 2390163.846		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 9
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 9
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 16.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 3/11/90 COMPLETED 3/11/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -39.2' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A
8. TOTAL DEPTH OF BORING 55.7'		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-39.2		+	0': SILTY SAND (SM), fine to medium; gray, wet, with shell fragments, trace clay, Slightly calcareous.		1		USCS Set 6" casing by own weight to 40.4'. Weight of rods drove splitspoon from 39.2' to 39.5', 42.2' to 44.1', 45.2' to 47.2', & 48.2' to 50.7'.		13
		+			2		Mixed new Zeogel at 48.2'.		29
-42.2	3.0	/	3': CLAY (CH), high plasticity; gray, wet, high plasticity, with shell fragments, trace sand.		3		LAB CLASSIFICATION Sample No 1 - SM		5
		/			4				2
		/	9': Some sand, and shell fragments.		5				0
-49.7	10.5	+	10.5': CLAYEY SAND (SC), fine to medium; gray, wet, some shell fragments.		6				0
		+			7				11
		+			8				5
		+	15': SAND, medium to coarse.		6				24
-55.7	16.5	+							

BOTTOM OF BOREHOLE AT -55.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-108-90	LOCATION COORDINATES N 312342.0696 E 2389048.938		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 10	DISTURBED 10	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 15'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 56'		15. DATE BORING 3/19/90		STARTED 3/19/90 COMPLETED 3/19/90
		16. ELEVATION TOP OF BORING -41' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value		
-41			0': SAND (SP), fine to medium; gray, Poorly Graded, wet, trace silt, with shell fragments, Calcareous.		1		USCS Set 6" casing by own weight to 41.3'. Mixed Zeogel mud at 44.0'. Weight of rods drove splitspoon from 44.0' to 45.5' & 45.5' to 46.5'. Had poor recovery from 50.0' to 53.0' & very poor recovery from 54.5' to 56.0'.		7		
						2				13	
-44.0	3.0			3': CLAY (CH), high plasticity; gray, moist, high plasticity, with shell fragments, trace sand, Slightly calcareous.		3					0
-45.5	4.5			4.5': CLAYEY SAND (SC), fine; gray, moist, trace shell fragments, Slightly calcareous.		4					2
				6': SAND, fine to medium; gray, wet, with shell fragments, Calcareous.		5					13
-48.5	7.5			7.5': SILTY SAND (SM), medium to coarse; gray, with shell fragments, Calcareous.		6					26
				9': SAND, fine to medium; trace shell fragments.		7					7
				10.5': Trace shell fragments.		8					19
-53.0	12.0			12': SAND (SP), medium to coarse; gray, Poorly Graded, some shell fragments, trace silt, Calcareous.		9					18
-54.5	13.5			13.5': GRAVEL (GP), fine to coarse; gray, trace sand, and sand, (Quartz gravel).		10					3

BOTTOM OF BOREHOLE AT -56.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-109-90		LOCATION COORDINATES N 313851.9299 E 2388408.601		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 8	DISTURBED 8	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 15'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55'		15. DATE BORING 3/22/90		STARTED 3/22/90
		16. ELEVATION TOP OF BORING -40' MLLW		COMPLETED 3/22/90
		17. TOTAL CORE RECOVERY FOR BORING N/A		
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist				


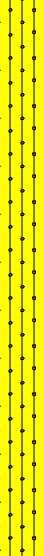
ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-40		+	0': SILTY SAND (SM), fine; brown, wet, some shell fragments, trace clay, Slightly calcareous..		1		USCS Set 6" casing by own weight to 40.8'. Mixed new batch of Zeogeldrilling mud at 40.0'.		18
			1.5': SILTY SAND, fine; gray, wet, Calcareous..		2		NOTE: No splitspoon recovery on first attempt from 43.0' to 44.5' & 44.5' to 46.0', did not wash out hole, re-drove from 43.0' to 47.5' & recovered large amount of small shell fragments. Sample #3 taken from 43.0' to 47.5'. Wash return contained large amount of shell fragments. 53.5' to 55.0' suspect thin limestone layers.		20
			3': Shell fragments, See remarks..		3		LAB CLASSIFICATION Sample No. 2 - SP-SM		31
-47.5	7.5	+	7.5': CLAYEY SAND (SC), medium to coarse; gray, wet, with shell fragments, trace gravel, Slightly calcarous. (Limestone gravel)..		4				5
			10.5': SAND, fine; trace shell fragments, No gravel..		5				12
			12': SAND, fine to medium; gray to light gray, trace shell fragments, and gravel, Calcareous. (Limestone gravel)..		6				3
			13.5': SAND, fine to medium; gray to light gray, trace shell fragments, and gravel, Calcareous. (Limestone gravel)..		7				18
-53.5	13.5	+	13.5': SILTY SAND (SM), medium to coarse; light gray to white, wet, trace gravel, (Limestone gravel)..		8				24
-55.0	15.0								

BOTTOM OF BOREHOLE AT -55.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-110-90		LOCATION COORDINATES N 313351.6972 E 2387308.684		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 9	DISTURBED 9	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 13.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 54.7'		15. DATE BORING 3/22/90		STARTED 3/22/90
		COMPLETED 3/22/90		
		16. ELEVATION TOP OF BORING -41.2' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.2			0': CLAY (CH), high plasticity; greenish gray, wet, high plasticity, some sand, trace shell fragments, Slightly calcareous..		1		USCS Used Zeogel drilling mud.		0
			3': Some shell fragments.		2		Set 6" casing by own weight to 46.1'. Weight of rods drove splitspoon from 41.2' to 44.3'. Pulled tools from hole & cleaned to 44.2'. Weight of rods from 44.2' to 46.2'.		0
			4.5': Trace shell fragments.		3		NOTE: Suspect thin limestone layers starting at 47.2'.		0
					4				5
-47.2	6.0			6': SILTY SAND (SM), fine to medium; light gray, wet, trace shell fragments, and gravel, Calcareous (Limestone gravel)..		5			
		9': SILTY SAND, fine to medium; yellowish brown, moist, Calcareous.			6				17
		10.5': Trace gravel.			7				14
					8				14
-54.7	13.5					9			

BOTTOM OF BOREHOLE AT -54.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-111-90		LOCATION COORDINATES N 314626.6268 E 2386992.405		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 10	DISTURBED 10	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 15'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.5'		15. DATE BORING 3/22/90		STARTED 3/22/90
		COMPLETED 3/22/90		
		16. ELEVATION TOP OF BORING -40.5' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.5			0': SILTY SAND (SM), fine; gray, wet, Calcareous.		1		USCS Used Zeogel drilling mud. Set 6" casing by own weight to 41.3'.		17
-42.0	1.5		1.5': SAND (SP), medium to coarse; gray, wet, trace silt, and gravel, Calcareous.		2		NOTE: Large amount of small to large shell fragments from 42.0' to 43.5' & small shell fragments from 43.5' to 45.0', trace of small shell fragments from 48.0' to 51.0' & some from 57.0' to 55.5'. Suspect thin limestone layers from 49.5' to 55.5'.		2
-43.5	3.0		3': CLAYEY SAND (SC), fine to medium; gray yellowish brown, wet, with shells, Calcareous.		3			10	
-45.0	4.5		4.5': SILTY SAND (SM), fine to medium; yellowish brown, moist, trace gravel, Calcareous.		4			19	
			7.5': Yellowish brown to light gray, with shells.		6			34	
			9': SILTY SAND, medium to coarse; light gray, wet, trace gravel, with shells, Calcareous (Limestone gravel).		7			30	
-51.0	10.5		10.5': SILTY SAND (GM), medium to coarse; gray, some gravel, with shells, (Limestone gravel).		8			20	
-52.5	12.0		12': SILTY SAND (SM), medium to coarse; gray, wet, some gravel, with shells, (Limestone gravel).		9			11	
					10			21	
-55.5	15.0								

BOTTOM OF BOREHOLE AT -55.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-112-90		LOCATION COORDINATES N 315322.3543 E 2385716.231		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 12
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 12
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 19.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/23/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -35.7' MLLW		COMPLETED 3/23/90
8. TOTAL DEPTH OF BORING 55.2'		17. TOTAL CORE RECOVERY FOR BORING N/A		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-35.7			0': SAND (SP), fine; tannish gray, Poorly Graded, wet, trace silt, Slightly calcareous..		1		USCS Used Zeogel drilling mud.		50
-37.2	1.5		1.5': SILTY SAND (SM), fine to medium; gray, wet, some shell fragments, Calcareous..		2		Set 6" casing by own weight to 37.1'. Weight of rods drove splitspoon from 39.2' to 40.6', cont'd drive to 41.7'. Weight of rods drove splitspoon from 41.7' to 43.3', cont'd drive to 43.7' w/ 4 blows & to 44.7' w/ 4 blows.		33
-38.7	3.0		3': CLAY (CH), high plasticity; fine; gray, high plasticity, trace sand, and shell fragments.		3		NOTE: Suspect thin Limstone layers from 45.4' to 55.2'. LAB CLASSIFICATION Sample No. 1 - SP-SM		7
-44.7	9.0		6': Some sand, and shell fragments.		4				4
-45.4	9.7		9': CLAYEY SAND (SC), medium to coarse; tannish gray, wet, some shell fragments, trace gravel, Calcareous (Limestone gravel).		5				
-46.2	10.5		9.7': SILTY GRAVEL (GM), fine to coarse; light gray, wet, some sand, and shell fragments, Calcareous (Limestone gravel)..		6				20
			10.5': SILTY SAND (SM), medium to coarse; light gray, wet, some gravel, and shell fragments, Calcareous (Limestone gravel).		7				27
			13.5': SAND, fine to medium; trace gravel, and shell fragments, Calcareous (Limestone gravel).		8				24
			15': SAND, medium to coarse; some gravel, and shell fragments, (Limestone gravel).		9				16
					10				30
					11				15
					12				19

BOTTOM OF BOREHOLE AT -55.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-112A-90		LOCATION COORDINATES N 315322.3543 E 2385716.231		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 8
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 1		DISTURBED 8
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 12.3'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/24/90
7. DEPTH DRILLED INTO ROCK 1.3'		16. ELEVATION TOP OF BORING -35.8' MLLW		STARTED 3/24/90
8. TOTAL DEPTH OF BORING 49.4'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 3/24/90
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist				


ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-35.8			0': SAND (SP), fine; tannish gray, Poorly Graded, wet, trace silt, Slightly calcareous.		1		USCS Set 6" casing by own weight to 38.0'. Made new batch of Zeogel mud at 44.8'.		14
			3': Greenish gray.		2			44	
						3			21
-40.3	4.5		4.5': SAND (SM), fine to medium; gray, wet, with shell fragments, Calcareous.		4				3
-41.8	6.0			6': SAND (SP), fine to medium; gray, Poorly Graded, wet, with shell fragments, Calcareous.		5			20
-43.3	7.5		7.5': CLAYEY SAND (SC), medium to coarse; dark gray, wet, some gravel, and shell fragments, Calcareous (Limestone gravel).		6		Pull #1 From 46.3' to 48.8' Run 2.5' Rec 0.0' C.L. 2.5' Taped 47.2' Drilling Time: 4 min. Hyd. Pressure: 150 PSI Water Return: 0%		3
-44.8	9.0			9': SILTY GRAVEL (GM), fine to coarse; light gray to white, wet, some sand, and shell fragments, Calcareous (Limestone gravel).		7			18
-46.3	10.5		10.5': Core loss.				Pull #2 From 48.8' to 49.4' Run 0.6' Rec 1.3' C.G. 0.7' Taped 49.4' Drilling Time: 4 min. Hyd. Pressure: 150 PSI Water Return: 0%		
-48.1	12.3			12.3': CLAYEY SANDY, medium to coarse; light gray, Fossiliferous, poorly cemented, friable, soft badly broken.		Box 1			
-49.4	13.6		49.1' - 49.4' fine to medium grained..						

BOTTOM OF BOREHOLE AT -49.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-113-90		LOCATION COORDINATES N 314641.1837 E 2384898.359		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 7
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 7
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 12'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/23/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -43.3' MLLW		STARTED 3/23/90
8. TOTAL DEPTH OF BORING 55.3'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 3/23/90
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-43.3			0': CLAY (CH), high plasticity; gray, wet, high plasticity, trace sand.		1		USCS Used Zeogel drilling mud. Set 6" casing by own weight to 48.3'. Weight of rods drove splitspoon from 43.3' to 46.3', 49.3' to 51.8', & 52.3' to 54.8'.		0
			4.5': Trace shell fragments.		2				2
			6': Some sand, and shell fragments.		3				6
			7.5': No sand or shell fragments..		4				0
					5				2
					6				0
					7				2
-55.3	12.0								

BOTTOM OF BOREHOLE AT -55.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-114-90		LOCATION COORDINATES N 316169.0227 E 2384160.023		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 8	DISTURBED 8	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 15'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55'		15. DATE BORING 3/24/90		STARTED 3/24/90
		COMPLETED 3/24/90		
		16. ELEVATION TOP OF BORING -40' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value	
-40			0': CLAYEY SAND (SC), fine to medium; gray, wet, trace shell fragments.		1		USCS	0	9	
-41.5	1.5		1.5': SILTY SAND (SM), fine to medium; gray, wet, trace shell fragments, Slightly calcareous.		2		Zeogel drilling mud		0	
-43.0	3.0		3': CLAY (CH), high plasticity; gray, moist, high plasticity, trace sand, and shell fragments.		3		Set 6" csg by own weight to 46.5'. Weight of rods drove splitspoon from 40.0' to 40.5'. One hammer blow drove splitspoon from 41.5' to 43.0'. Weight of rods drove splitspoon from 44.5' to 46.6', cont'd to 47.5' w/ 4 blows. Weight of rods drove splitspoon from 50.5' to 55.0'.		11	
			4.5': Trace sand, and shell fragments.		4					0
			6': No shell fragments..		5					4
-47.5	7.5		7.5': CLAYEY SAND (SC), fine; gray, wet, with shell fragments.		6					0
			10.5': SAND, medium to coarse.		7				3	
-55.0	15.0				8				0	

BOTTOM OF BOREHOLE AT -55.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-115-90		LOCATION COORDINATES N 315605.8096 E 2383141.13		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Army Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 11	DISTURBED 11	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 15'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 54.6'		15. DATE BORING 3/24/90		STARTED 3/24/90
		COMPLETED 3/24/90		
		16. ELEVATION TOP OF BORING -39.6' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James A. Biddle, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-39.6			0': CLAYEY SAND (SC), medium to coarse; gray, wet, with shell fragments, Slightly calcareous..		1		USCS Used Zeogel drilling mud.		0
			3': SAND, fine to medium; some shell fragments.		2		St 6" casing by own weight to 40.7'. Weight of rods drove splitspoon from 39.6' to 41.1', cont'd drive to 41.6' w/ 2 blows, to 42.6' w/ 1 blow. Weight of rods drove splitspoon from 42.6' to 44.6', cont'd drive to 45.6' w/ 3 blows. Weight of rods drove splitspoon from 45.6' to 47.2', cont'd to 47.6' w/ 2 blows. Weight of rods drove splitspoon from 48.6' to 49.6', cont'd to 50.1' w/ 12 blows.		3
					3				0
-44.1	4.5		4.5': CLAY (CH), high plasticity; gray, moist, high plasticity, trace sand, and shell fragments.		4		NOTE: Suspect thin limestone layers from 49.6' to 54.6'.		3
						5	LAB CLASSIFICATION Sample No. 2 - SM-SC		0
						6			6
-48.6	9.0		9': CLAYEY SAND (SC), fine; gray, moist, trace gravel.		7				0
-49.6	10.0			10': SILTY GRAVEL (GM), fine to coarse; light gray, wet, some sand, and shell fragments, Calcareous (Limestone gravel).		8			12
-50.1	10.5		10.5': SILTY SAND (SM), medium to coarse; light gray, wet, some gravel, trace shell fragments, Calcareous (Limestone gravel).		9				22
						10			22
						11			23

BOTTOM OF BOREHOLE AT -54.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-116-90		LOCATION COORDINATES N 316890.5452 E 2381907.843		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 8
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 8
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 10.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/26/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -45.3' MLLW		STARTED 3/26/90
8. TOTAL DEPTH OF BORING 55.8'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 3/26/90
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist				


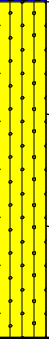
ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-45.3			0': CLAY (CH), high plasticity; gray, wet, high plasticity, trace sand, Slightly calcareous..		1		USCS Used Zeogel drilling mud.		0
					2				10
					3				0
					4				5
					5				0
-52.8	7.5		7.5': CLAYEY SAND (SC), medium to coarse; gray, wet, trace shell fragments, Slightly calcareous..		6				5
					7				28
-55.5	10.2		10.2': SAND (SP), coarse; light gray, wet, trace gravel, Quartz.		8				0
-55.8	10.5								

BOTTOM OF BOREHOLE AT -55.8 ft



NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-117-90		LOCATION COORDINATES N 317335.5757 E 2382061.751		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 11	DISTURBED 11	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 16.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.2'		15. DATE BORING 3/25/90		STARTED 3/25/90
		COMPLETED 3/25/90		
		16. ELEVATION TOP OF BORING -38.7' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.7			0': CLAY (CH), high plasticity; gray, moist, high plasticity, some sand, and shell fragments.		1		USCS Used Zeogel drilling mud.		7
			1.5': Trace sand, and shell fragments.		2			11	
					3			0	
					4			3	
					5			0	
					6			4	
					7			0	
				10.5': Trace gravel.		8			7
-50.7	12.0		12': SILTY SAND (SM), medium to coarse; gray to light gray, wet, some gravel, trace shell fragments, Limestone gravel..		9		NOTE: Suspect thin limestone layers between 50.7' and 55.2'.		34
			13.5': Light gray.		10			38	
			15': Trace gravel, Limestone gravel..		11			39	
-55.2	16.5		BOTTOM OF BOREHOLE AT -55.2 ft		BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".				
NOTE: Soils visually field classified in accordance with the Unified Soil Classification System									

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-118-90		LOCATION COORDINATES N 316734.3815 E 2381124.866		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 6	DISTURBED 6	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 15'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.8'		15. DATE BORING 3/24/90		STARTED 3/24/90
		16. ELEVATION TOP OF BORING -40.8' MLLW		COMPLETED 3/24/90
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.8			0': CLAYEY SAND (SC), fine; gray, wet, trace shell fragments, Slightly calcareous..		1		USCS Used Zeogel drilling mud.		0
-49.8	9.0		9': SILTY SAND (SM), medium to coarse; light gray, wet, trace gravel, and shell fragments, Calcareous (Limestone gravel)..		2				5
			10.5': Some gravel, (Limestone).		3				36
			12': Trace gravel, (Limestone).		4				24
					5				30
					6				24
-55.8	15.0								

BOTTOM OF BOREHOLE AT -55.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-119-90		LOCATION COORDINATES N 317594.0566 E 2379589.667		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 9
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 9
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 12'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/25/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -43.6' MLLW		STARTED 3/25/90
8. TOTAL DEPTH OF BORING 55.6'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 3/25/90
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-43.6			0': CLAYEY SAND (SC), fine; gray, wet, trace shell fragments.		1		USCS Used Zeogel drilling mud.		0
					2		NOTE: Suspect thin limestone layers from 48.7' to 55.6'.		1
					3				7
-48.1	4.5		4.5': CLAY (CH), high plasticity; gray, moist, high plasticity, some sand, and shell fragments.		4				
-48.7	5.1		5.1': SILTY GRAVEL (GM), fine to coarse; light gray to gray, wet, some sand, and shell fragments, Calcareous Limestone.		5				25
-49.6	6.0		6': SILTY SAND (SM), medium to coarse; light gray, wet, some gravel, and shell fragments, Calcareous Limestone.		6				26
			7.5': SAND, trace gravel, Limestone.		7				36
					8				40
			10.5': Some gravel, Limestone.		9				27
-55.6	12.0								

BOTTOM OF BOREHOLE AT -55.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-120-90		LOCATION COORDINATES N 318742.0272 E 2379475.425		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 11	DISTURBED 11	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 16.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 54.5'		15. DATE BORING 3/25/90		STARTED 3/25/90 COMPLETED 3/25/90
		16. ELEVATION TOP OF BORING -38' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-38		CLAY	0': CLAY (CH), high plasticity; gray, moist, high plasticity, some sand, trace shell fragments.		1		USCS Used Zeogel drilling mud.		1
						2			3
						3			6
				4.5': Trace sand.		4			0
						5			4
						6			0
						7			8
						8			0
						9			6
						10			0
						11			7

BOTTOM OF BOREHOLE AT -54.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER EC-121-90		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 6	DISTURBED 6 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	14. ELEVATION GROUND WATER NA
6. THICKNESS OF OVERBURDEN 9'		15. DATE BORING 3/26/90	STARTED 3/26/90 COMPLETED 3/26/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -46.1' MLLW	
8. TOTAL DEPTH OF BORING 55.1'		17. TOTAL CORE RECOVERY FOR BORING N/A	
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-46.1			0': CLAY (CH), high plasticity; gray, moist, high plasticity, trace sand.		1		USCS Used Zeogel drilling mud		0
					2			5	
					3			0	
					4			6	
					5			0	
					6			0	
-55.1	9.0								

BOTTOM OF BOREHOLE AT -55.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-122-90	LOCATION COORDINATES N 318208.815 E 2378444.525		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 10
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 10 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	14. ELEVATION GROUND WATER NA	
6. THICKNESS OF OVERBURDEN 16.5'		15. DATE BORING 4/2/90		STARTED 4/2/90 COMPLETED 4/2/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -39.2' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A
8. TOTAL DEPTH OF BORING 55.7'		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	R/D %	REMARKS	Blows/ 0.5 ft	N-Value
-39.2			0': SILTY SAND (SM), fine; gray, wet, trace shell fragments, Slightly calcareous..		1		USCS Used Zeogel drilling mud.		5
			3': With shell fragments, Calcareous..		2		LAB CLASSIFICATION Sample No. 1 - SC		12
					3			7	
-45.2	6.0		6': CLAYEY SAND (SC), fine to medium; gray, some gravel, and shell fragments, Calcareous. Limestone.		4			2	
-46.7	7.5		7.5': SILTY SAND (SM), fine to medium; light gray, wet, trace gravel, Calcareous. Limestone..		5			36	
			9': Trace gravel, Fine limestone gravel.		6			40	
					7			47	
			12': Trace gravel, Fine to coarse limestone gravel.		8			39	
					9			34	
			15': Trace gravel, Fine limestone gravel..		10			45	
-55.7	16.5								

BOTTOM OF BOREHOLE AT -55.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-123-90		LOCATION COORDINATES N 319689.6622 E 2377747.208		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 12
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 12
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 21'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 4/3/60 COMPLETED 4/3/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -33.9' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A
8. TOTAL DEPTH OF BORING 54.9'		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sam No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value	
-33.9		[Yellow diagonal lines]	0': SILTY SAND (SM), fine; gray, wet, trace shale fragments, slightly calcareous.		1		USCS Used Zeogel drilling mud.		8	
-36.9	3.0				2				12	
					3				0	
		[Yellow diagonal lines]	3': CLAYEY SAND (SC), fine to medium; light gray to gray, wet, some shell fragments, calcareous.		4		LAB CLASSIFICATION No. Class. LL PL PI 3 SC 49 15 34		3	
					4					3
					5					3
					6					7
-42.9	9.0	[Blue diagonal lines]	9': CLAY (CH), high plasticity; gray, moist, high plasticity, trace shell fragments.		7				0	
					8				2	
					9				1	
					10				5	
					11				6	
					12				3	

BOTTOM OF BOREHOLE AT -54.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-124-90		LOCATION COORDINATES N 319059.4788 E 2376847.33		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 1500		12. TOTAL SAMPLES 12
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 12
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 18'		14. ELEVATION GROUND WATER NA		15. DATE BORING 4/3/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -36.7' MLLW		STARTED 4/3/90
8. TOTAL DEPTH OF BORING 54.7'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 4/3/90
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-36.7			0': SILTY SAND (SM), fine; gray, wet, trace shell fragments, and clay, Slightly Calcareous.		1		USCS Used Zeogel drilling mud.		2
-39.7	3.0		3': CLAYEY SAND (SC), fine; gray, wet, some shell fragments, Slightly Calcareous.		2		NOTE: Suspect thin layers from 47.2' to 54.7'.		6
-41.2	4.5		4.5': CLAY (CH), high plasticity; gray, moist, high plasticity, trace shell fragments, and sand.		3				3
			6': Some sand, and shell fragments.		4				5
			7.5': Some sand, and shell fragments.		5				0
-45.7	9.0		9': CLAYEY SAND (SC), fine to medium; gray, wet, trace shell fragments.		6				9
-47.2	10.5		10.5': SILTY SAND (SM), medium to coarse; light gray, wet, some gravel, Limestone gravel Calcareous.		7				1
			13.5': Trace gravel, Limestone.		8				13
			15': Some gravel, Fine to coarse limestone gravel..		9				31
			16.5': Trace gravel, Fine to coarse limestone gravel..		10				41
					11				49
					12				37

BOTTOM OF BOREHOLE AT -54.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-125-90		LOCATION COORDINATES N 319639.4736 E 2376837.209		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 7
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 7
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 9'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/4/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -46.4' MLLW		STARTED 5/4/90
8. TOTAL DEPTH OF BORING 55.4'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/4/90
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-46.4	0.5		0': CLAY (CH), high plasticity; dark gray, saturated, high plasticity, some shell fragments, and sand.		1		USCS		
-46.9			0.5': SILTY SAND (SM), fine, soft; light gray, wet, with gravel, and shell fragments, Limestone chunks..		2		Mixed Zeogel drilling mud.		11
					3				21
					4				33
					5				37
					6				37
					7				36
-55.4	9.0								

BOTTOM OF BOREHOLE AT -55.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-126-90		LOCATION COORDINATES N 320638.2929 E 2375992.993		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 12
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 12
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 21'		14. ELEVATION GROUND WATER NA		15. DATE BORING 4/4/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -33.7' MLLW		STARTED 4/4/90
8. TOTAL DEPTH OF BORING 54.7'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 4/4/90
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value	
-33.7			0': CLAYEY SAND (SC), fine; gray, wet, Slightly calcareous..		1		USCS		5	
					2				13	
			3': Shell fragments.		3			1	4	
			4.5': Some shell fragments.		4			2	4	
-39.7	6.0		6': CLAY (CH), high plasticity; gray, moist, high plasticity, trace silt, and sand, Slightly calcareous..		5				2	0
					6				6	
					7				2	
					8				4	
			12': No shells or sand..		9			LAB CLASSIFICATION Sample No. 2 - SM Specific Gravity - 2.69	0	5
								1		
								4		
-48.7	15.0		15': CLAYEY SAND (SC), fine to medium; grayish green, moist, trace shell fragments, and wood, Slightly calcareous..		10				3	
					11			12		
-51.7	18.0		18': CLAY (CH), high plasticity; gray, high plasticity, trace silt.		12				16	

BOTTOM OF BOREHOLE AT -54.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-127-90		LOCATION COORDINATES N 320029.1115 E 2375097.11		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 9	DISTURBED 9	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 15.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 54.4'		15. DATE BORING 4/4/90		STARTED 4/4/90 COMPLETED 4/4/90
		16. ELEVATION TOP OF BORING -38.9' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.9			0': CLAYEY SAND (SC), fine; dark gray, wet, trace shell fragments, Calcareous..		1		USCS Used Zeogel drilling mud.		0
-41.9	3.0		3': SILTY SAND (SM), medium to coarse; light gray, wet, some gravel, trace shell fragments, Calcareous Limestone gravel..		2		NOTE: Inadvertantly washed hole from 43.4' to 45.4'. Wash return same material as from 41.9' to 43.4', but hard material to fishtail.		17
			4.5': See note in remarks..		3			43	
			6.5': Trace gravel, Limestone gravel. No shell fragments..		4			44	
			9': Trace gravel, Trace of fine limestone gravel..		5			46	
			10.5': Trace gravel, Fine to coarse limestone gravel..		6			29	
					7			43	
					8			28	
					9			35	
-54.4	15.5								

BOTTOM OF BOREHOLE AT -54.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-128-90		LOCATION COORDINATES N 320607.1 E 2375047.99		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 7
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 7
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 10.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/22/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -44.2' MLLW		STARTED 5/22/90
8. TOTAL DEPTH OF BORING 54.7'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/22/90
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				



ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-44.2			0': SANDY SAND (SM), medium to coarse; light gray, wet, trace shale fragments, and limestone fragments, calcareous.		1		USCS		24
			1.5': SAND, fine to medium; trace limestone fragments.		2		Mixed new batch of Zeogel mud at 45.7',		40
			3': SAND, medium to coarse; gray.		3				30
					4				23
			6': Trace limestone fragments.		5				24
					6				27
					7				25
-54.7	10.5								

BOTTOM OF BOREHOLE AT -54.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-129-90		LOCATION COORDINATES N 320502.8388 E 2373786.996		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 12	DISTURBED 12	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 19.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 53'		15. DATE BORING 4/5/90		STARTED 4/5/90 COMPLETED 4/5/90
		16. ELEVATION TOP OF BORING -33.5' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-35.5			0': SANDY ELASTIC SILT CLAYEY SAND (SC), fine; dark gray, wet, trace shell fragments, and gravel.		1		USCS Used Zeogel drilling mud.		0
-36.5	3.0		3': SILTY SAND (SM), medium to coarse; light gray, wet, trace gravel, Calcareous Limestone gravel..		2				15
					3				14
					4				15
					5				20
					6				19
					7		LAB CLASSIFICATION Sample No. 2 - SM		23
					8		Specific Gravity - 2.76		22
					9				28
			15': Trace gravel, Limestone gravel..		10				24
					11				18
			18': SAND, medium; gray.		12				13

BOTTOM OF BOREHOLE AT -53.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-130-90		LOCATION COORDINATES N 321624.9289 E 2374259.771		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 16
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 16
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 24'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 4/5/90 COMPLETED 4/5/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -30.8' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A
8. TOTAL DEPTH OF BORING 54.8'		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

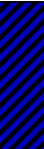

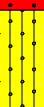


ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value	
-30.8			0': SILTY SAND (SM), fine; gray, wet.		1		USCS Used Zeogel drilling mud.		17	
						2				30
				3': SAND, medium to coarse; with shell fragments, Slightly calcareous.		3				5
-35.3	4.5			4.5': CLAYEY SAND (SC), fine to medium; gray, moist, some shell fragments, Slightly calcareous.		4				28
				6': Trace shell fragments.		5		LAB CLASSIFICATION Sample No. 2 - SM Specific Gravity - 2.70		2
				9': SAND, medium to coarse; grayish green, Non-calcareous.		6		Sample 4 - SC Specific Gravity - 2.69		10
						7				6
-41.3	10.5			10.5': SILTY SAND (SM), medium to coarse; light gray, wet, trace gravel, Calcareous Limestone.		8				16
						9				8
-44.3	13.5			13.5': SILTY GRAVEL (GM), fine to coarse; light gray, wet, trace sand, Limestone.		10				23
-45.8	15.0			15': SILTY SAND (SM), fine to medium; light gray, wet, trace gravel, Calcareous Limestone.		11				12
						12				17
						13				22
						14				23
						15				23
						16				21

BOTTOM OF BOREHOLE AT -54.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-131-90		LOCATION COORDINATES N 321648.703 E 2373161.756		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 6
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 6
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 9'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/8/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING 45.5' MLLW		STARTED 5/8/90
8. TOTAL DEPTH OF BORING -36.5'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/8/90
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		



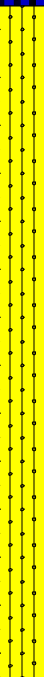
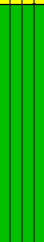
ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-45.5			0': CLAY (CH), high plasticity; dark greenish gray, saturated, high plasticity.		1		USCS Mixed Zeogel drilling mud.		0
43.5	2.0		2': SAND (SP), fine to medium; gray, Poorly Graded, some shell fragments.		2				12
42.0	3.5		3.5': SILTY SAND (SM), fine; gray, some shell fragments.		3				37
39.5	6.0		6': CLAYEY SILTY SAND (SC), fine; light greenish tan, trace shell fragments, and rock fragments, calcareous.		4				18
36.5	9.0				5				12
					6				10

BOTTOM OF BOREHOLE AT 36.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-132-90	LOCATION COORDINATES N 321487.5659 E 2372487.783		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 15	DISTURBED 15	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 22.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.8'		15. DATE BORING 5/1/90	STARTED 5/1/90	COMPLETED 5/1/90
		16. ELEVATION TOP OF BORING -33.3' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	R.O.D %	REMARKS	Blows/ 0.5 ft	N-Value
-33.3			0': CLAY (CH), high plasticity; very dark gray, high plasticity, soupy.		1		USCS Mixed Zeogel drilling mud.		0
-36.3	3.0		3': SILT (MH), high plasticity; very dark gray, high plasticity, with shell fragments, soupy.		2				0
-37.3	4.0		4': SILTY SAND (SM), fine to medium; very light gray, moist, with limestone fragments, calcareous. 4.5': Fine; gray, slightly clayey, calcareous.		3				7
					4				45
					5		LAB CLASSIFICATION Sample No. 5 - SM Specific Gravity - 2.72		40
					6				31
					7				34
					8				28
					9				31
					10				20
					11				28
			16.5': Greenish gray, with limestone fragments.		12				25
-51.3	18.0		18': SILT (ML), low plasticity; olive green, low plasticity, trace shell fragments, calcareous, with thin limestone lenses. 19.5': Dark olive green, trace shell fragments, slightly calcareous.		13				15
					14				9
					15				10

BOTTOM OF BOREHOLE AT -55.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-132A-90		LOCATION COORDINATES N 321499.5636 E 2372476.78		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 6	DISTURBED 6	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 5.2'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 10'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 50.6'		15. DATE BORING 5/22/90		STARTED 5/22/90
		COMPLETED 5/22/90		
		16. ELEVATION TOP OF BORING -35.4' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-35.1			0': CLAYEY SILT (MH), dark gray to black, wet, trace sand, Slightly calcareous.		1		USCS		0
-38.4	3.0		3': SILTY SAND (SM), medium to coarse; light gray, wet, trace gravel, and shell fragments, Calcareous Limestone.		2		Pull #1 From 39.6' to 44.3' Run 4.7' Rec 0.9' C.L. 3.8' Taped 42.8' Drilling Time: 9 Min Hyd. Pressure: 100 PSI Water Return: Lost all water at approx. 41.1'. Pull #2 From 44.3' to 46.3' Run 2.0' Rec. 0.0' C.L. 2.0' Taped 45.1' Drilling Time: 1 Min Hyd. Pressure: 250 PSI Water Return: 100% Pull #3 From 46.3' to 48.8' Run 2.5' Rec. 0.0' C.L. 2.5' Taped 47.4' Drilling Time: 28 Min Hyd. Pressure: 75 PSI Water Return: 100%		37
-40.6	5.2		5.2': Limestone		Box 1				
-40.8	5.4		5.4': No Recovery.	17					
-44.6	9.2		9.2': No Recovery.	0	Box 1				
-46.5	11.1		11.1': No Recovery.	0	Box 1				
-49.1	13.7		13.7': SAND (SM), medium to coarse; gray, wet, trace gravel, Calcareous Soft, friable limestone gravel.		3				28

BOTTOM OF BOREHOLE AT -50.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-133-90		LOCATION COORDINATES N 322579.5628 E 2372509.558		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 18
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 18
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 27'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/2/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -27.7' MLLW		STARTED 5/2/90
8. TOTAL DEPTH OF BORING 54.7'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/2/90
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-27.7			0': SILTY SAND, fine; greenish gray, trace shell fragments, glauconitic, calcareous.		1		USCS		19
					2		LAB CLASSIFICATION Sample No. 2 - SP-SM Sample No 9 - SM		30
					3			11	
			4.5': Gray.		4			5	
-33.7	6.0		6': CLAYEY SAND (SC), fine; dark gray, with shell fragments, calcareous.		5			5	5
					6			5	5
-36.7	9.0		9': SILTY SAND (SM), fine; gray, some shell fragments, calcareous.		7			10	10
			10.5': Light gray, trace shell fragments.		8			19	19
			12': Gray.		9			36	36
					10			24	24
			15': Light tannish gray, some shell fragments.		11			15	15
					12			14	14
			18': Fine; light greenish tan, with shell fragments, and limestone fragments, very calcareous.		13			6	6
					14			7	7
			21': Fewer limestone fragments.		15			8	8
-50.2	22.5		22.5': CLAYEY SAND (SC), fine; light greenish tan, with limestone fragments, and shell fragments, very calcareous.		16			13	13
-51.7	24.0		24': SILT (ML), low plasticity; dark olive green, low plasticity, trace shell fragments, calcareous.		17			9	9
-54.7	27.0				18			12	12

BOTTOM OF BOREHOLE AT -54.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-134-90		LOCATION COORDINATES N 322385.1892 E 2370674.581		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 15	DISTURBED 15	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 22.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.3'		15. DATE BORING 1/31/90		STARTED 1/31/90
		16. ELEVATION TOP OF BORING -32.8' MLLW		COMPLETED 1/31/90
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-32.8			0': CLAYEY SILT (MH), dark gray, wet, some sand.		1		USCS		0
-34.9	2.1		2.1': SILTY GRAVEL (GM), fine to coarse; light gray, wet, some sand, and shell fragments, calcareous, limestone gravel.		2		NOTE: Suspect occasional thin limestone layers from 34.9' to 46.3'.		26
-35.8	3.0		3': SILTY SAND (SM), fine to medium; gray, wet, calcareous.		3			44	
			4.5': SAND, medium to coarse; wet, trace limestone fragments, and shell fragments.		4			35	
			6': SAND, fine to medium.		5			31	
					6			31	
					7			43	
					8			31	
					9			35	
-46.3	13.5		13.5': CLAYEY SAND (SC), fine to medium; light gray, wet, some shell fragments, calcareous.		10			17	
			15': Large amount of shell fragments.		11			7	
-49.3	16.5		16.5': CLAY (CH), high plasticity; dark greenish brown, moist, high plasticity.		12		25		
					13		16		
					14		16		
-55.3	22.5				15		15		

BOTTOM OF BOREHOLE AT -55.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-134A-90	LOCATION COORDINATES N 322392.1873 E 2370665.58		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 6	DISTURBED 6	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 3'		13. TOTAL NUMBER CORE BOXES 1		
7. DEPTH DRILLED INTO ROCK 13.8'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 50.3'		15. DATE BORING 5/19/90		STARTED 5/19/90 COMPLETED 5/19/90
		16. ELEVATION TOP OF BORING -33.5' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-33.5			0': CLAYEY SILT (MH), dark gray, wet, some sand, and shell fragments, slightly calcareous, trace coarse limestone gravel.		1		USCS		6
-35.0	1.5		1.5': SILTY SAND (SM), medium to coarse; light gray and gray, wet, trace limestone fragments, and shell fragments, calcareous.		2				62
-36.5	3.0		3': Limestone	76	Box 1	Pull #1 From 36.5' to 40.7' Run 4.2' Rec 3.2' C.L. 1.0' Taped 40.2' Drilling Time: 7 Min. Hyd. Pressure: 0 PSI Water Return: 100%			
-40.8	7.3		7.3': SILTY SAND (SM), medium to coarse; gray, moist, trace limestone fragments.	38	Box 1	Pull #2 From 40.7' to 47.3' Run 6.6' Rec 2.5' C.L. 4.1' Taped 46.7' Drilling Time: 15 Min. Hyd. Pressure: 125 PSI Water Return: 100%			
-47.3	13.8		13.8': No recovery	0	Box 1	Pull #3 From 47.3' to 50.0' Run 2.7' Rec 0.0' C.L. 2.7' Taped 48.6' Drilling Time: 3 Min. Hyd. Pressure: 100 PSI Water Return: 10			
-49.3	15.8		15.8': CLAY (CH), high plasticity; dark greenish brown, moist, high plasticity, some sand, slightly calcareous, soft to stiff.						
-50.3	16.8								
BOTTOM OF BOREHOLE AT -50.3 ft							BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".		
NOTE: Soils visually field classified in accordance with the Unified Soil Classification System									

DRILLING LOG (Cont Sheet)	INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS
	PROJECT Charleston Harbor Entrance Channel Deepening	COORDINATE SYSTEM State Plane	HORIZONTAL : VERTICAL NAD83 : MLLW
LOCATION COORDINATES N 322392.1873 E 2370665.58	ELEVATION TOP OF BORING -33.5'		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No. RCD %	REMARKS	Blows/ 0.5 ft	N-Value
					3			2

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-135-90		LOCATION COORDINATES N 323238.0977 E 2370256.403		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 7	DISTURBED 7	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 12.1'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 54.9'		15. DATE BORING 5/12/90		STARTED 5/12/90
		COMPLETED 5/12/90		
		16. ELEVATION TOP OF BORING -42.8' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-42.8		Blue hatched	0': CLAY (CH), high plasticity; dark olive green, high plasticity, soupy.		1		USCS NOTE: Sample #1 taken off of the rods.		0
			4.7': Dark gray, wet.		2			0	
-48.4	5.6	Green	5.6': SILT (ML), low plasticity; dark olive green, moist, low plasticity, calcareous.		3			0	
					4			19	
					5			13	
					6			12	
					7			11	
-54.9	12.1								

BOTTOM OF BOREHOLE AT -54.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-136-90		LOCATION COORDINATES N 325237.3398 E 2366595.967		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 7
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 7
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 10.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/12/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -44.9' MLLW		STARTED 5/12/90
8. TOTAL DEPTH OF BORING 55.4'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/12/90
18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-44.9			0': SILT (ML), low plasticity; dark olive green, moist, low plasticity, calcareous.		1		USCS		9
					2			12	
					3			10	
			4.5': With sand, phosphate grains.		4			8	
					5			9	
					6			6	
					7			7	
-55.4	10.5								

BOTTOM OF BOREHOLE AT -55.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-137-90		LOCATION COORDINATES N 326986.7774 E 2363875.594		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 5
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 5
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 7.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/12/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -47.4' MLLW		STARTED 5/12/90
8. TOTAL DEPTH OF BORING 54.9'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/12/90
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-47.4			0': No recovery.						
-48.9	1.5		1.5': SAND (SP), fine to medium; gray, Poorly Graded, wet, with shell fragments.		1				3
-49.9	2.5		2.5': SILT (ML), low plasticity; dark olive green, moist, low plasticity, some sand, calcareous.		2				12
					3				7
					4				7
					5				7
-54.9	7.5								

BOTTOM OF BOREHOLE AT -54.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-138-90	LOCATION COORDINATES N 321643.6083 E 2372699.753		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 2
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 1		DISTURBED 2 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	14. ELEVATION GROUND WATER NA	
6. THICKNESS OF OVERBURDEN 1.5'		15. DATE BORING		STARTED 6/13/90 COMPLETED 6/13/90
7. DEPTH DRILLED INTO ROCK 6.6'		16. ELEVATION TOP OF BORING -41.5' MLLW		17. TOTAL CORE RECOVERY FOR BORING 100%
8. TOTAL DEPTH OF BORING 49.6'		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/0.5 ft	N-Value
-41.5			0': SILTY GRAVEL (GM), fine to coarse, medium hard; light gray, wet, some sand, calcareous, limestone gravel.		1		USCS		21
-43.0	1.5		1.5': CLAYEY SANDY, gray, fossiliferous, porous, some small to large vugs, intensely to highly jointed.				Made new batch of Zeogel mud. Pull #1 From 43.0' to 47.5' Run 4.5' Rec 4.5' Taped 47.0' Drilling Time: 9 Min. Hyd. Pressure: 50 PSI Water Return: 70% (Driller suspects loss of water at casing seat) Waxed sample from 44.6' to 45.0' for lab test Pull #2 From 47.5' to 47.8' (Blocked) Run 0.3' Rec 0.3' Taped 47.7' Drilling Time: 4 Min. Hyd. Pressure: 100 PSI Water Return: 100%		
-47.1	5.6		5.6': SAND (SM), medium to coarse; gray, wet, trace shell fragments, and gravel, calcareous, friable, sandy limestone gravel.		Box 1				
-48.4	6.9		6.9': SANDY, grayish tan, fossiliferous, soft to mod. hard, proous, some small to large vugs, badly broken.						
-48.8	7.3		7.3':						
-49.6	8.1								

BOTTOM OF BOREHOLE AT -49.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

Pull #3
From 47.8' to 49.6' (Blocked)
Run 1.0' Rec 1.0'
C.L. 0.8'
Taped 49.4'
Drilling Time: 4 Min.
Hyd. Pressure: 100 PSI
Water Return: 100%
BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-139-90		LOCATION COORDINATES N 320600.9858 E 2372699.753		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 3	DISTURBED 3	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 5.8'		13. TOTAL NUMBER CORE BOXES 1		
7. DEPTH DRILLED INTO ROCK 2.8'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 49.8'		15. DATE BORING 6/6/90		STARTED 6/6/90
		COMPLETED 6/6/90		
		16. ELEVATION TOP OF BORING -41.2' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING 100%		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.2			0': CLAYEY SILT (MH), soft; gray, wet, trace sand, calcareous.		1		USCS Made new batch of Zeogel mud.		0
-45.5	4.3		4.3': SILTY SAND (SM), medium to coarse; light gray, trace limestone fragments.		2				36
-47.0	5.8		5.8': SANDY, medium hard; light tannish gray, porous & pitted w/ small to large vugs.	100	Box 1		Pull #1 From 47.0' to 49.8' Run 2.3' Rec 2.8' Taped 49.5' Drilling Time: 9 Min Hyd. Pressure: 50 PSI Water Return: 100%		
-49.8	8.6								

BOTTOM OF BOREHOLE AT -49.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-140-90		LOCATION COORDINATES N 319928.1513 E 2375287.133		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 6
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 2		DISTURBED 6
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 4.7'		14. ELEVATION GROUND WATER NA		15. DATE BORING 6/6/90
7. DEPTH DRILLED INTO ROCK 10.1'		16. ELEVATION TOP OF BORING -35.9' MLLW		COMPLETED 6/6/90
8. TOTAL DEPTH OF BORING 50.7'		17. TOTAL CORE RECOVERY FOR BORING N/A		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-35.9			0': CLAYEY SAND (MH), gray to dark gray, wet, trace sand, Slightly calcareous..		1		USCS		0
-38.6	2.7		2.7': CH CLAY (CH), high plasticity; greenish gray, moist, high plasticity, Slightly calcareous..		2				0
-39.6	3.7				3				0
-40.6	4.7		3.7': SANDY CLAYEY GRAVEL (GC), fine to coarse, soft; light gray, wet, some sand, with shell fragments, Calcareous Limestone Gravel.		4				7
			4.7': CLAYEY GRAVEL, medium to coarse, soft; light tannish gray, 41.3'-Fossiliferous, porous & pitted, some small to large vugs, intensely to highly jointed. 41.3'-41.6'-Very soft to hard, sandy, clayey, badly broken. 41.6'-45.3'-Mod hard to hard. Near horizontal open joints at 41.6', 42.1', 42.7', 42.9', 43.5', 43.8', 44.7', 45.0' & 45.3'. C.L. from 45.3' to 45.9'. Some soft zones & badly broken from 45.9' to 46.0', 46.6' to 46.7', 47.4' to 47.6', 48.0' to 48.1', 49.6' to 49.8', & 50.1' to 50.4'. Near horizontal open joints at 46.0', 46.6', 46.7', 47.4', 47.6', 47.6', 48.0', 48.1', 48.6', 48.8', 49.6', 49*.8', 50.1', & 50.4'..		Box 1 of 2		Pull #1 From 40.6' to 41.3' (Blocked) Run 0.7' Rec 0.7' Taped 40.3' Drilling Time: 5 Min. Hyd. Pressure: 50 PSI Water Return: 100% Pull #2 From 41.3' to 45.9'. Run 4.6' Rec 4.0 C.L. 0.6' Taped 45.6' Drilling Time: 6 Min. Hyd. Pressure: 90 PSI Water Return: 100% Waxed sample from 42.1' to 42.7' & 43.3' to 44.7' for lab test Pull #3 From 45.9' to 50.7' (Blocked) Run 4.8' Rec 4.8' Taped 50.7' Drilling Time: 8 Min. Hyd. Pressure: 90 PSI Water Return: 100%		
-50.7	14.8				Box 2 of 2				

BOTTOM OF BOREHOLE AT -50.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-141-97		LOCATION COORDINATES N 291755.1339 E 2428819.34		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 2
4. NAME OF DRILLER C. Robbins		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 2
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 3'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/31/97
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -47' MLLW		STARTED 5/31/97
8. TOTAL DEPTH OF BORING 50'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/31/97
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-47			0': SAND (SP), fine to medium; light brownish gray, some shell fragments, Calcareous.		1		USCS	0	14
				4					
				10					
				9	43				
				13					
-50.0	3.0				2		21		

BOTTOM OF BOREHOLE AT -50.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-141A-97		LOCATION COORDINATES N 291729.8138 E 2428815.405		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 4
4. NAME OF DRILLER C. Robbins		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 12'		14. ELEVATION GROUND WATER NA		15. DATE BORING 6/1/97
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -46.3' MLLW		STARTED 6/1/97
8. TOTAL DEPTH OF BORING 58.3'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 6/1/97
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value	
-46.3			0': SAND (SP), fine to medium; brownish gray, with shell fragments, Calcareous.		1		USCS	1		
								5	11	
								5		
								11		
								16	43	
								16		
				3': Gray, some shell fragments.		2			7	
								13	32	
								12		
								10		
							11	32		
							11			
			6': Light gray, trace shell fragments.		3			14		
							17	48		
							17			
			7.5': Some shell fragments.					17	42	
							17			
							8			
			9': Gray, shell fragments.					2	2	
							0			
							0			
			10.5': Some shell fragments.		4			6		
							10	23		
							7			
-58.3	12.0									

BOTTOM OF BOREHOLE AT -58.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division		INSTALLATION Charleston Harbor		SHEET 1 OF 1 SHEETS	
		1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW	
2. HOLE NUMBER EC-142-97		LOCATION COORDINATES N 291216.7643 E 2428092.711		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail			
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314					
4. NAME OF DRILLER C. Robbins		12. TOTAL SAMPLES 2		DISTURBED 2		UNDISTURBED 0	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING		13. TOTAL NUMBER CORE BOXES 0	
6. THICKNESS OF OVERBURDEN 3'		14. ELEVATION GROUND WATER NA					
7. DEPTH DRILLED INTO ROCK 0'		15. DATE BORING 5/31/97		STARTED 5/31/97		COMPLETED 5/31/97	
8. TOTAL DEPTH OF BORING 53.8'		16. ELEVATION TOP OF BORING -50.8' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A			
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist							

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-50.8		●	0': SAND (SP), fine to medium; light brownish gray, some shell fragments, Calcareous.		1		USCS	0	22
			1.5': Gray, trace shell fragments.		2			10	
								12	
								25	99
								34	
-53.8	3.0						40		

BOTTOM OF BOREHOLE AT -53.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	
2. HOLE NUMBER EC-143-97		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C. Robbins		12. TOTAL SAMPLES 3	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	
6. THICKNESS OF OVERBURDEN 9'		14. ELEVATION GROUND WATER NA	
7. DEPTH DRILLED INTO ROCK 0'		15. DATE BORING 6/1/97	
8. TOTAL DEPTH OF BORING 55.6'		16. ELEVATION TOP OF BORING -46.6' MLLW	
		17. TOTAL CORE RECOVERY FOR BORING N/A	
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist	

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-46.6		●●●●●	0': SAND (SP), fine to medium; light brownish gray and gray, some shell fragments, Calcareous.		1		USCS	4	37
				8					
				25					
					2			27	120
				64					
				29					
								10	40
				13					
				17					
								5	28
				10					
				13					
								20	71
		29							
		22							
					1	4			
		1							
		2							
-55.6	9.0				3				

BOTTOM OF BOREHOLE AT -55.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-144-97		LOCATION COORDINATES N 292767.6577 E 2425719.77		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 3
4. NAME OF DRILLER C. Robbins		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 17'		14. ELEVATION GROUND WATER NA		15. DATE BORING 6/12/97
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -45.7' MLLW		STARTED 6/12/97
8. TOTAL DEPTH OF BORING 62.7'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 6/12/97
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-45.7			0': SAND (SP), fine to medium; grayish brown, some shell fragments, Calcareous.		1		USCS	2	17
			1.2': Fine; gray, trace silt.			5			
					10				
					6	66			
					21				
					39				
					11	43			
					15				
					17				
					27	107			
				40					
				40	37				
				12					
				15					
-53.2	7.5		7.5': (CH), dark gray.		3			10	0
						0			
						0			
-62.7	17.0							0	

BOTTOM OF BOREHOLE AT -62.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	
2. HOLE NUMBER EC-145-97		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C. Robbins		12. TOTAL SAMPLES 2	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	
6. THICKNESS OF OVERBURDEN 9.7'		14. ELEVATION GROUND WATER NA	
7. DEPTH DRILLED INTO ROCK 0'		15. DATE BORING 6/18/97	
8. TOTAL DEPTH OF BORING 54.2'		16. ELEVATION TOP OF BORING -44.5' MLLW	
		17. TOTAL CORE RECOVERY FOR BORING N/A	
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist	

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-44.5		(CH)	0': (CH), high plasticity; gray, high plasticity, trace shell fragments.		1		USCS	0	0
-54.2	9.7				2			0	0

BOTTOM OF BOREHOLE AT -54.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-146-97		LOCATION COORDINATES N 300968.7041 E 2412009.23		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C. Robbins		12. TOTAL SAMPLES 4	DISTURBED 4	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 10.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 54.6'		15. DATE BORING 6/18/97		STARTED 6/18/97
		COMPLETED 6/18/97		
		16. ELEVATION TOP OF BORING -44.1' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-44.1		[Red dotted pattern]	0': SAND (SP), fine to medium; gray, Poorly Graded, some, shell fragments, Calcareous.		1		USCS	0	7
			1.5': SAND, fine; trace, shell fragments, Calcareous.					7	
								19	
		[Yellow dotted pattern]	4.5': SILTY SAND (SM), fine to medium; gray, some, shell fragments.		2			19	74
								19	
								36	
								4	
-48.6	4.5				3			15	38
								19	
								6	
								11	30
								13	
								11	
								13	43
								19	
								9	
								19	50
								22	
			9': Trace, shell fragments.					15	
					4			18	51
								18	

BOTTOM OF BOREHOLE AT -54.6 ft

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 5 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-147-97		LOCATION COORDINATES N 300617.4359 E 2410871.394		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 4
4. NAME OF DRILLER C. Robbins		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 10.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 6/4/97
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -46.2' MLLW		STARTED 6/4/97
8. TOTAL DEPTH OF BORING 56.7'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 6/4/97
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value	
-46.2		[Red pattern]	0': SAND (SP), fine to medium; gray, some shell fragments, Calcareous.		1		USCS	2	61	
-47.7	1.5		1.5': SILTY SAND (SM), fine to medium; light gray, trace shell fragments, Calcareous.		2			27		
		[Yellow pattern]	7.5': Fine to medium; gray, shell fragments.		3			27	92	
							4		23	75
									26	
								10	36	
								12		
								14		
								9	45	
								14		
								22		
-56.7	10.5									

BOTTOM OF BOREHOLE AT -56.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG (Cont Sheet)	INSTALLATION Charleston Harbor		SHEET 2 OF 5 SHEETS
	PROJECT Charleston Harbor Entrance Channel Deepening	COORDINATE SYSTEM State Plane	HORIZONTAL : VERTICAL NAD83 : MLLW
LOCATION COORDINATES N 300617.4359 E 2410871.394	ELEVATION TOP OF BORING -46.2'		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
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DRILLING LOG (Cont Sheet)	INSTALLATION Charleston Harbor		SHEET 3 OF 5 SHEETS
	PROJECT Charleston Harbor Entrance Channel Deepening	COORDINATE SYSTEM State Plane	HORIZONTAL : VERTICAL : NAD83 : MLLW
LOCATION COORDINATES N 300617.4359 E 2410871.394	ELEVATION TOP OF BORING -46.2'		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No. RQD %	REMARKS	Blows/ 0.5 ft	N-Value
							15	
							22	
							23	
								60

DRILLING LOG (Cont Sheet)	INSTALLATION Charleston Harbor		SHEET 4 OF 5 SHEETS
	PROJECT Charleston Harbor Entrance Channel Deepening	COORDINATE SYSTEM State Plane	HORIZONTAL : VERTICAL NAD83 : MLLW
LOCATION COORDINATES N 300617.4359 E 2410871.394	ELEVATION TOP OF BORING -46.2'		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
								12	
								14	
								20	
									46

DRILLING LOG (Cont Sheet)	INSTALLATION Charleston Harbor		SHEET 5 OF 5 SHEETS
	PROJECT Charleston Harbor Entrance Channel Deepening	COORDINATE SYSTEM State Plane	HORIZONTAL : VERTICAL NAD83 : MLLW
LOCATION COORDINATES N 300617.4359 E 2410871.394	ELEVATION TOP OF BORING -46.2'		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No. RQD %	REMARKS	Blows/ 0.5 ft	N-Value

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-148-97		LOCATION COORDINATES N 302451.8696 E 2409151.325		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C. Robbins		12. TOTAL SAMPLES 5	DISTURBED 5	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 7.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 54.9'		15. DATE BORING 6/4/97		STARTED 6/4/97
		COMPLETED 6/4/97		
		16. ELEVATION TOP OF BORING -47.4' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-47.4	0.3		0': SAND (SP), fine to medium; gray, some shell fragments, Calcareous.		1		USCS		
			0.3': SILTY SAND (SM), fine to medium; light gray to gray, with shell fragments, Calcareous.		2			5	45
								20	
								20	46
								15	
								22	49
								12	
								18	
								19	42
								14	
						17	59		
						21			
						15			
-54.9	7.5				5			23	
								21	

BOTTOM OF BOREHOLE AT -54.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER EC-149-97		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C. Robbins		12. TOTAL SAMPLES 5	DISTURBED 5 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	14. ELEVATION GROUND WATER NA
6. THICKNESS OF OVERBURDEN 7.5'		15. DATE BORING 6/3/97	STARTED 6/3/97 COMPLETED 6/3/97
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -49' MLLW	
8. TOTAL DEPTH OF BORING 56.5'		17. TOTAL CORE RECOVERY FOR BORING N/A	
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-49		●●●●●	0': SAND (SP), fine to medium; light brownish gray, some shell fragments, Calcareous.	100	1		USCS	2	19
-50.2	1.2	●●●●●				17			
		●●●●●	1.2': SILTY SAND (SM), fine to medium; light gray, some shell fragments, trace fine gravel, Calcareous.	100	2			46	49
		●●●●●			3			14	41
		●●●●●						13	
		●●●●●						11	
		●●●●●						14	40
		●●●●●						15	
		●●●●●	4.5': Gray, trace shell fragments.		4			15	
		●●●●●						17	53
		●●●●●					21		
		●●●●●			5		17		
-56.5	7.5	●●●●●					18	52	
		●●●●●					17		

BOTTOM OF BOREHOLE AT -56.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	
2. HOLE NUMBER EC-150-97		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C. Robbins		12. TOTAL SAMPLES 4	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	
6. THICKNESS OF OVERBURDEN 7.5'		14. ELEVATION GROUND WATER NA	
7. DEPTH DRILLED INTO ROCK 0'		15. DATE BORING 6/2/97	
8. TOTAL DEPTH OF BORING 56.9'		16. ELEVATION TOP OF BORING -49.4' MLLW	
		17. TOTAL CORE RECOVERY FOR BORING N/A	
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist	

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-49.4		●●●●●	0': SILTY SAND (SM), fine; light gray and gray, trace fine gravel, Calcareous.		1		USCS	2	68
						33			
						33			
						18			
			3': Gray, trace shell fragments.		2		21	72	
							33		
							20		
			4.5': Trace fine to coarse gravel.		3		27	81	
							34		
							18		
					4		16	47	
							13		
							19		
-56.9	7.5						18	70	
							33		

BOTTOM OF BOREHOLE AT -56.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER EC-151-98		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C. Robbins		12. TOTAL SAMPLES 2	DISTURBED 2 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	14. ELEVATION GROUND WATER NA
6. THICKNESS OF OVERBURDEN 4'		15. DATE BORING 8/8/98	STARTED 8/8/98 COMPLETED 8/8/98
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -50.9' MLLW	
8. TOTAL DEPTH OF BORING 54.9'		17. TOTAL CORE RECOVERY FOR BORING N/A	
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.			



ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-50.9		CLAY	0': CLAY (CH), high plasticity; gray, high plasticity, some sand, and shell fragments, slightly calcareous.		1		USCS		1
-53.4	2.5	SAND	2.5': CLAYEY SAND (SC), fine; olive gray, partially indurated, calcareous.		2				80
-54.9	4.0								

BOTTOM OF BOREHOLE AT -54.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-152-98	LOCATION COORDINATES N 329026.29 E 2360015.82		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C. Robbins		12. TOTAL SAMPLES 4	DISTURBED 4	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 6.3'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 62.3'		15. DATE BORING 8/10/98		STARTED 8/10/98 COMPLETED 8/10/98
		16. ELEVATION TOP OF BORING -56' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-56			0': CLAY (CH), high plasticity; gray, high plasticity, some sand, and shell fragments, calcareous.		1		USCS Change of material at 58.3'. Jar #2 from 58.3' to 58.9'		0
-58.3	2.3		2.3': CLAYEY SAND (SC), fine; olive gray, trace shell fragments, calcareous.		2				0
					3				0
					4				0
-62.3	6.3								

BOTTOM OF BOREHOLE AT -62.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-153-98		LOCATION COORDINATES N 328766.43 E 2359580.54		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 2
4. NAME OF DRILLER C. Robbins		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 2
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 6.6'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/11/98
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -49.3' MLLW		STARTED 8/11/98
8. TOTAL DEPTH OF BORING 55.9'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 8/11/98
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				


ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-49.3			0': SILTY SAND (SM), medium to coarse; light gray, some shell fragments, and limestone fragments.		1		USCS		0
-54.4	5.1		5.1': CLAY (CL), low plasticity; olive gray, low plasticity, some silt, calcareous.		2				33

BOTTOM OF BOREHOLE AT -55.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-155-98		LOCATION COORDINATES N 328222.58 E 2361833.16		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 2
4. NAME OF DRILLER C. Robbins		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 2
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 4.1'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/13/98
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -52.7' MLLW		STARTED 8/13/98
8. TOTAL DEPTH OF BORING 56.8'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 8/13/98
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sam No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-52.7			0': CLAYEY SAND (SC), fine; olive gray, trace shell fragments, moderately calcareous.		1		USCS		0
					2			11	
-56.8	4.1								

BOTTOM OF BOREHOLE AT -56.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-156-98		LOCATION COORDINATES N 328131.03 E 2361889.62		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C. Robbins		12. TOTAL SAMPLES 3	DISTURBED 3	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 4.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 61.2'		15. DATE BORING 8/13/98		STARTED 8/13/98
		16. ELEVATION TOP OF BORING -56.7' MLLW		COMPLETED 8/13/98
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	R.O.D %	REMARKS	Blows/ 0.5 ft	N-Value
-56.7			0': SILTY GRAVEL (GM), fine to coarse; light gray, some shell fragments, calcareous, limestone gravel.		1		USCS		0
-58.4	1.7		1.7': CLAYEY SAND (SC), light olive gray and dark olive gray, slightly calcareous, partially indurated.		2			0	
-61.2	4.5					3			35

BOTTOM OF BOREHOLE AT -61.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-157-99		LOCATION COORDINATES N 309420 E 2396317		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER J. Picket		12. TOTAL SAMPLES 13	DISTURBED 13	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 20.3'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 65.1'		15. DATE BORING 7/29/99		STARTED 7/29/99
		16. ELEVATION TOP OF BORING -44.8' MLLW		COMPLETED 7/29/99
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James A. Biddle, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-44.8			0': SILTY SAND (SM), fine; brown, saturated, trace shell fragments.		1		USCS Placed 6" I.D. casing to -45.8'. Bored with Florigel drilling fluid from surface. Boring location determined from buoy set by Great Lakes Dredging survey boat. Actual location offset by 20' at N 59.5° E. Proposed Location: 79° 42' 43.28432" W 32° 40' 36.04837" N N: 2396300, E: 309410 Weight of tools pushed drill string from -44.8' to -45.6'.		82
			0.8': Fine to medium; light gray, with shell fragments, Calcareous.		2			95	
			2': Shell fragments.		3			100/0.7	
			3.5': Fine to coarse.		4			74	
			5': Fine to coarse; light gray, with gravel, (Quartz).		5			91	
			6.5': Minor cementation.		6			63	
			8': Light gray.		7			51	
			9.5': Fine; with silt, Borderline SM/ML.		8			38	
			11': Some gravel.		9			38	
			12.5': Fine to medium; wet, trace coarse sand.		10			36	
			14': Moist, with shell fragments.		11			37	
			15.5': Shell fragments, with silt.		12			44	
			17':		13			59	

-64.8 20.0
-65.1 20.3

20': SANDY SILT (ML), low plasticity; light brownish gray to gray, low plasticity.
BOTTOM OF BOREHOLE AT -65.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-158A-99		LOCATION COORDINATES N 310331 E 2394659		10. SIZE AND TYPE OF BIT 4"x 5 1/2" x 5" Core Barrel
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER J. Picket		12. TOTAL SAMPLES 2	DISTURBED 2	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 2.5'		13. TOTAL NUMBER CORE BOXES 1		
7. DEPTH DRILLED INTO ROCK 9'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 54.9'		15. DATE BORING 8/1/99		STARTED 8/1/99 COMPLETED 8/1/99
		16. ELEVATION TOP OF BORING -43.4' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James A. Biddle, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
-43.4			0': (SP-SM).				Cleaned soft material to 45.9' by washing through core barrel Pull-1 Time: 16:50 to 16:55 (5 min) From 45.9' to 50.4'. Ran 4.5', Rec. 3.2' (71%), C/L 1.3', U/L 1.3' (Core loss appears to have occurred at all fractures). RQD=9">4"/54"-16.66% Drill pressure: Weight of tools Water loss: <25%		
-45.9	2.5		2.5': Medium soft; greenish gray to dark greenish gray, shells, Limestone Intensely fractured Moderately hard: 45.9'-46.6', 49.3'-50.4' Moderately soft: 46.6'-47.6'..	71	1		Tape would not advance past fall-in. Open Pull-2 Time: 16:08 to 16:26 (18 min) From 50.4' to 54.9'. Ran 4.5', Rec. 2.0' (44%), C/L 2.5', U/L 2.5' RQD=0">4"/54"-0% Drill pressure: Weight of tools Water loss: Approx. 30%.		
-54.9	11.5		7': Medium soft; light gray to brownish gray, Mechanical fracture at Pull No. 1-Pull No. 2 juntion. All fractures are open and show evidence of core loss. Soft sandy material appears to have been washed away..	43	1		Tape would not advance past 51.4', Fall-In?		

BOTTOM OF BOREHOLE AT -54.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-21-88		LOCATION COORDINATES N 316602 E 2384486		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 6	DISTURBED 6	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN -8.6'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 18.2'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 50.1'		15. DATE BORING 2/23/88		STARTED 2/23/88
		COMPLETED 2/23/88		
		16. ELEVATION TOP OF BORING -40.5' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.5			0': CLAYEY SAND (SC), fine; gray, with shell fragments.		1		USCS NOTE: The weight of the rods drove the splitspoon from 40.5' to 44.1'.		0
					2				5
					3				2
-47.1	6.6		6.6': SANDY CLAY (CH), high plasticity; dark gray, high plasticity, with shell fragments.		4				4
-48.1	7.6		7.6': CLAYEY SAND (SC), fine; dark gray, with shell fragments, and gravel.		5				0
-49.1	8.6		8.6': Top of Rock 49.1'		6				79

BOTTOM OF BOREHOLE AT -50.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-22-88		LOCATION COORDINATES N 314392.3293 E 2385584.426		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 6
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 1		DISTURBED 6
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 5.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/16/88
7. DEPTH DRILLED INTO ROCK 2'		16. ELEVATION TOP OF BORING -43' MLLW		STARTED 3/16/88
8. TOTAL DEPTH OF BORING 50.5'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 3/16/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-43		CLAY	0': CLAY (CH), high plasticity; dark gray, high plasticity, with shell fragments.		1		USCS NOTE: The weight of the rods drove the splitspoon from 43.0' to 44.5'. Top of Rock		0
-44.5	1.5	SAND	1.5': SAND (SC), fine; dark gray, with shell fragments.		2			4	
-46.0	3.0	CLAY	3': CLAY (CH), high plasticity; dark gray, high plasticity, with organics.		3			3	
-48.5	5.5	CLAY			4 5			8	
		CLAY							
-50.5	7.5	CLAY	5.5': SILTY SAND, fine; light gray, with shell fragments, Calcareous.		6			32	

BOTTOM OF BOREHOLE AT -50.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-23-88		LOCATION COORDINATES N 314078.8376 E 2387977.543		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 6
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 1		DISTURBED 6
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 3'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/16/88
7. DEPTH DRILLED INTO ROCK 6'		16. ELEVATION TOP OF BORING -41.2' MLLW		STARTED 3/16/88
8. TOTAL DEPTH OF BORING 50.2'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 3/16/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.2			0': SILTY SAND (SM), fine; dark gray, with shell fragments, Calcareous..		1		USCS		22
-42.7	1.5		1.5': CLAYEY SAND (SC), fine; dark greenish gray, with shell fragments.		2				3
-44.2	3.0		3': SILTY SAND, fine; light tan, some gravel, and clay, Calcareous Broken.		3		Top of Rock		34
					4				18
					5				11
					6				22
-50.2	9.0								

BOTTOM OF BOREHOLE AT -50.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-23A-90		LOCATION COORDINATES N 314077.8391 E 2387984.543		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 7
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 7
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 10.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 6/6/90
7. DEPTH DRILLED IN 90.99999999999999 6E-02'		16. ELEVATION TOP OF BORING -40.3' MLLW		STARTED 6/6/90
8. TOTAL DEPTH OF BORING 50.9'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 6/6/90
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.3		●	0': SAND (SP), fine to medium; gray, Poorly Graded, wet, trace shells, and silt.		1		USCS Made new batch of Zeogel mud.		20
-41.8	1.5	●	1.5': SAND (SM), medium to coarse; tan, wet, with gravel, trace shell fragments, Calcareous (Limestone gravel)..		2		NOTE: From 41.8' soil was mostly loose but w/ occasional indurated areas supplying gravel size particles.		24
		●	3': Tan and light gray, trace gravel, (Limestone gravel)..		3			25	
		●	4.5': Tan.		4			12	
		●	6': Tan and light gray.		5			18	
		●	7.5': Light gray.		6			18	
		●			7			24	
-50.8	10.5	●							

BOTTOM OF BOREHOLE AT -50.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-24-88	LOCATION COORDINATES N 312654.0078 E 2388761.865		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 7
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 1		DISTURBED 7 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 6'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/16/88
7. DEPTH DRILLED INTO ROCK 6'		16. ELEVATION TOP OF BORING -39.3' MLLW		STARTED 3/16/88 COMPLETED 3/16/88
8. TOTAL DEPTH OF BORING 51.3'		17. TOTAL CORE RECOVERY FOR BORING N/A		18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-39.3			0': CLAYEY SAND (SP), fine; greenish gray, with shell fragments.		1		USCS		6
-40.8	1.5		1.5': CLAYEY SAND (SC), fine; greenish gray, with shell fragments.		2			10	
					3			6	
-43.8	4.5		4.5': No sample recovered..						
-45.3	6.0		6': SILTY SAND, fine; greenish gray, trace clay, Calcareous (Limestone) Brokeyn while sampling..		4			15	
					5			50	
					6			49	
-51.3	12.0				7		26		

BOTTOM OF BOREHOLE AT -51.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-24-88A		LOCATION COORDINATES N 312676.0101 E 2388772.86		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 0
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 1		DISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 10.8'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/27/88
7. DEPTH DRILLED INTO ROCK 2.8'		16. ELEVATION TOP OF BORING -42.2' MLLW		STARTED 3/27/88
8. TOTAL DEPTH OF BORING 55.8'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 3/27/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-42.2			0': No samples were taken from 42.2' to 49.0'. Cuttings showed boy (CH) & (SC). See remarks..				See boring log EC-24-88 for additional overburden & top of rock information		
-49.0	6.8		6.8': No sample recovered..	0	1		Pull #1 From 49.0' to 53.0' Run 4.0' Rec 0.0' C.L. 4.0' U.L. 4.0' C.D. 53.0'		
-53.0	10.8		10.8': SANDY, fine, very soft; grayish white.	61	1		Pull #2 From 53.0' to 55.8' Run 2.8' Rec 1.7' C.L. 1.1'		

BOTTOM OF BOREHOLE AT -55.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-25-88		LOCATION COORDINATES N 312539.419 E 2390684.931		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 5
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 5
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 15.1'		14. ELEVATION GROUND WATER NA		15. DATE BORING 2/25/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -35.5' MLLW		STARTED 2/25/88
8. TOTAL DEPTH OF BORING 50.6'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 2/25/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-35.5			0': No sample was recovered from 35.5' to 43.1'..				NOTE: 0 means the weight of the rods drove the splitspoon through the sample.		
-43.1	7.6		7.5': CLAY (CH), high plasticity; gray, dry, high plasticity, with shell fragments.		1			14	
-44.6	9.1		9.1': SAND (SP), fine; gray, Poorly Graded, trace silt, and shell fragments.		2			25	
-46.1	10.6		10.6': CLAYEY SAND (SC), fine; gray, dry, with shell fragments.		3			0	
-50.6	15.1				4			6	
					5			23	

BOTTOM OF BOREHOLE AT -50.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-26-88		LOCATION COORDINATES N 310919.6893 E 2391934.308		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 8	DISTURBED 8	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 14.1'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 56.2'		15. DATE BORING 2/25/88		STARTED 2/25/88
		COMPLETED 2/25/88		
		16. ELEVATION TOP OF BORING -42.1' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist		




ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-42.1		CLAY	0': CLAY (CH), high plasticity; dark gray, high plasticity, little shell fragments.		1		USCS NOTE: 0 means the weight of the rods drove the splitspoon through the sample.		0
					2			4	
					3			0	
					4			5	
					5			1	
					6			4	
					7			0	
					8			5	
-56.2	14.1								

BOTTOM OF BOREHOLE AT -56.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-27-88		LOCATION COORDINATES N 310776.0991 E 2393835.383		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 3	DISTURBED 3	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 6'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 51.3'		15. DATE BORING 2/25/88		STARTED 2/25/88
		16. ELEVATION TOP OF BORING -45.3' MLLW		COMPLETED 2/25/98
		17. TOTAL CORE RECOVERY FOR BORING N/A		
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-45.3			0': No sample was recovered from 45.3' to 46.8'..						
-46.8	1.5		1.5': CLAY (SC), high plasticity; fine; dark gray, high plasticity, with shell fragments.		1				8
-49.8	4.5		4.5': SANDY, fine, soft; grayish white, with shell fragments.		2				11
-51.3	6.0				3		Top of Rock		48

BOTTOM OF BOREHOLE AT -51.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	
2. HOLE NUMBER EC-28-88		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 4	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 1	
6. THICKNESS OF OVERBURDEN 2'		14. ELEVATION GROUND WATER NA	
7. DEPTH DRILLED INTO ROCK 2.5'		15. DATE BORING 2/25/88	
8. TOTAL DEPTH OF BORING 49.9'		16. ELEVATION TOP OF BORING -45.4' MLLW	
		17. TOTAL CORE RECOVERY FOR BORING N/A	
		18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist	

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-45.4		●	0': SILTY SAND (SM), fine; gray, with shell fragments.		1		USCS		32
-47.4	2.0	●			2		Top of Rock 47.4'		
-47.9	2.5	●	2': SANDY, fine, very soft; grayish white, with shell fragments.		3				67
		●			4				53

BOTTOM OF BOREHOLE AT -49.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER EC-29-88		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 4	DISTURBED 4 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 1	14. ELEVATION GROUND WATER NA
6. THICKNESS OF OVERBURDEN 6'		15. DATE BORING 2/24/88	STARTED 2/24/88 COMPLETED 2/24/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -43.9' MLLW	
8. TOTAL DEPTH OF BORING 49.9'		17. TOTAL CORE RECOVERY FOR BORING N/A	
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-43.9			0': SANDY, fine, very soft; grayish white, with shell fragments, Limestone.		1		USCS		78
					2			46	
					3			24	
					4			60	
-49.9	6.0								

BOTTOM OF BOREHOLE AT -49.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	
2. HOLE NUMBER EC-29-88A		10. SIZE AND TYPE OF BIT 4x5 1/2" Core BBL w/ Diamond	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 0	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 1	
6. THICKNESS OF OVERBURDEN 7.6'		14. ELEVATION GROUND WATER NA	
7. DEPTH DRILLED INTO ROCK 0'		15. DATE BORING 3/27/88	
8. TOTAL DEPTH OF BORING 51.5'		16. ELEVATION TOP OF BORING -43.9' MLLW	
		17. TOTAL CORE RECOVERY FOR BORING N/A	
		18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist	

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-44.2	0.3		0': Shell Fragments						
			0.3': SANDY, fine to coarse, very soft; grayish white, with shell fragments, Limestone.	89	1		NOTE: Samples were waxed immediately after each Pull. NOTE: See boring log EC-29-88 for additional information. Pull #1 From 44.2' to 48.1' Run 3.9' Rec 0.3' C.L. 3.6' U.L. 2.3' TD: 46.8' Pull #2 From 48.1' to 51.5' Run 3.4' Rec 4.2' C.L. 0.5'		
-51.5	7.6								

BOTTOM OF BOREHOLE AT -51.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-29B-90		LOCATION COORDINATES N 308665.9433 E 2397719.934		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 1
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 1
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 7.6'		14. ELEVATION GROUND WATER NA		15. DATE BORING 6/5/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -44.5' MLLW		COMPLETED 6/5/90
8. TOTAL DEPTH OF BORING 52.1'		17. TOTAL CORE RECOVERY FOR BORING N/A		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-44.5		SP	0': SAND (SP), fine to medium; gray, wet, with shell fragments, trace silt, Slightly calcareous.		1		USCS Set 6" casing by own weight to 52.2'. Made new batch of Zeogel mud at 47.5. Weight of rods drove splitspoon from 44.5' to 45.3', cont'd drive to 46.0' but had no recovery. Re-drove to 46.0' then cont'd drive to 47.5' w/ two blows from 46.5' to 47.5'. Sample #1 from 44.5' to 47.5'. Weight of rods drove splitspoon from 47.5' to 50.4', cont'd drive w/ one blow from 50.4' to 52.1'. Sample #2 from 47.5' to 52.1'.		17
-47.5	3.0	SC	3': CLAYEY SAND (SC), fine to medium; gray, wet, with shell fragments, Slightly calcareous.		2				1

BOTTOM OF BOREHOLE AT -52.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER EC-30-88		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 6	DISTURBED 6 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 1	14. ELEVATION GROUND WATER NA
6. THICKNESS OF OVERBURDEN 10'		15. DATE BORING 2/24/88	STARTED 2/24/88 COMPLETED 2/24/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41.1' MLLW	
8. TOTAL DEPTH OF BORING 51.1'		17. TOTAL CORE RECOVERY FOR BORING N/A	
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.1		0'	0': No sample was recovered from 41.1' to 43.6'..						
-43.6	2.5	2.5'	2.5': SAND (SP), fine; gray, Poorly Graded, trace silt, with shell fragments.		1				29
-46.6	5.5	5.5'	5.5': SILTY SAND (SM), fine; gray, with shell fragments, Calcareous.		2				32
-48.6	7.5	7.5'	7.5': SANDY, fine, very soft; grayish white, with shell fragments.		3				35
		7.5'			4				50
		7.5'			5				50
		7.5'			6				49
-51.1	10.0	10.0'							

BOTTOM OF BOREHOLE AT -51.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-31-88		LOCATION COORDINATES N 306644.7406 E 2401363.469		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 0
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 1		DISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 7.2'		14. ELEVATION GROUND WATER NA		15. DATE BORING 2/24/88
7. DEPTH DRILLED INTO ROCK 3'		16. ELEVATION TOP OF BORING -40.8' MLLW		STARTED 2/24/88
8. TOTAL DEPTH OF BORING 51'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 2/24/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.8			0': No sample was recovered from 40.8' to 43.5'..				NOTE: The weight of the rods drove the splitspoon from 40.8' to 42.0'. Top of Rock 48.0'		
-43.5	2.7		2.7': SAND (SP), fine; light gray, Poorly Graded, with shell fragments, and clay strata or lenses.						
-48.0	7.2		7.2': SANDY, fine, very soft; grayish white, with shell fragments.						
-51.0	10.2								

BOTTOM OF BOREHOLE AT -51.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-32-88		LOCATION COORDINATES N 304798.4847 E 2404741.965		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 7
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 1		DISTURBED 7
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 7.1'		14. ELEVATION GROUND WATER NA		15. DATE BORING 2/23/88
7. DEPTH DRILLED INTO ROCK 3'		16. ELEVATION TOP OF BORING -40.8' MLLW		STARTED 2/23/88
8. TOTAL DEPTH OF BORING 50.9'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 2/23/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				


ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.8			0': SANDY SILT (MH), dark gray, with shell fragments.		1		USCS		0
-41.9	1.1		1.1': SILTY SAND (SM), fine; dark gray, with shell fragments, and gravel.		2		NOTE: The weight of the rods drove the splitspoon from 41.1' to 42.2'.		30
					3			26	
					4			25	
-46.4	5.6		5.6': SAND (SP), fine; gray, with shell fragments.		5			100	
-47.9	7.1		7.1': SANDY GRAVEL, fine; grayish white, with shell fragments.		6		38		
-50.9	10.1				7		25		

BOTTOM OF BOREHOLE AT -50.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-33-88		LOCATION COORDINATES N 316217.6217 E 2382258.989		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 6
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 6
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 10.3'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/24/88
7. DEPTH DRILLED INTO ROCK 0.5'		16. ELEVATION TOP OF BORING -39.9' MLLW		STARTED 3/24/88
8. TOTAL DEPTH OF BORING 50.7'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 3/25/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-39.9			0': CLAY (CH), high plasticity; gray, high plasticity, with shell fragments, and sand, Lenses of calcareous sand..		1		USCS NOTE: The weight of the rods drove the splitspoon from 39.9' to 44.7' 46.2' to 47.7' 49.2' to 50.2'		0
					2			6	
					3			0	
				7.8': Slightly sandy, slightly calcareous..	4			5	
					5			0	
					6			9	
-50.2	10.3		10.3': SILTY SAND, fine; grayish white, Calcareous. Slightly clayey & slightly calcareous..						
-50.7	10.8								

BOTTOM OF BOREHOLE AT -50.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-41-88		LOCATION COORDINATES N 330390.2658 E 2356422.875		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 6
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 6
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 8.2'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/3/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -43.5' MLLW		STARTED 3/3/88
8. TOTAL DEPTH OF BORING 51.7'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 3/3/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-43.5			0': SANDY CLAY (CH), high plasticity; dark green, high plasticity, with shell fragments.		1		USCS		0
-44.2	0.7		0.7': CLAYEY SAND (SC), fine; green and dark green.		2			18	
-45.7	2.2		2.2': SANDY CLAY (CH), high plasticity; gray, high plasticity, glauconitic.		3			2	
-48.7	5.2		5.2': CLAYEY SAND (SC), fine; green, glauconitic, calcareous.		4			10	
			7.2': Slightly calcareous.		5			0	
-51.7	8.2				6			13	

BOTTOM OF BOREHOLE AT -51.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-42-88		LOCATION COORDINATES N 330136.6692 E 2358460.935		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 4
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 7.7'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/3/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -44' MLLW		STARTED 3/3/88
8. TOTAL DEPTH OF BORING 51.7'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 3/3/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-44			0': SANDY SILT (MH), black.		1		USCS		0
-47.2	3.2		3.2': SANDY CLAY (CL), low plasticity; gray, low plasticity.		2				19
-48.7	4.7		4.7': CLAYEY SAND (SC), fine; green, glauconitic.		3				6
-51.7	7.7				4				7

BOTTOM OF BOREHOLE AT -51.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-43-88		LOCATION COORDINATES N 328733.8703 E 2359402.218		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 6
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 5
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 8.7'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/3/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41.3' MLLW		STARTED 3/3/88
8. TOTAL DEPTH OF BORING 50'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 3/3/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.3		8.7	0': CLAY (CH), high plasticity; gray, high plasticity, with shell fragments.		1		USCS		0
					2			8	
					3			8	
				3.7': Calcareous, slightly sandy.		4			9
						5			9
				6.7': No longer calcareous.		6			7
-50.0	8.7		7.2': Lenses of calcareous (SP).						

BOTTOM OF BOREHOLE AT -50.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-44-88		LOCATION COORDINATES N 327915.4928 E 2362496.399		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 9	DISTURBED 9	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 12.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 50.2'		15. DATE BORING 3/3/88		STARTED 3/3/88
		COMPLETED 3/3/88		
		16. ELEVATION TOP OF BORING -37.7' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				


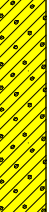

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.7	0.5		0': CLAY (CH), high plasticity; gray, high plasticity, some sand, with shell fragments.		1		USCS		0
-38.2			0.5': SILTY SAND (SM), fine to coarse; gray, with clay, and shell fragments.		2			15	
			1.5': Greenish gray.		3			13	
					4			14	
					5			7	
					6			4	
-45.7	8.0		8': SANDY CLAY (CL), low plasticity; dark green, low plasticity.		7			9	
					8			13	
-48.7	11.0		11': CLAYEY SAND (SC), fine; dark green.		9			6	
-50.2	12.5								

BOTTOM OF BOREHOLE AT -50.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-45-88		LOCATION COORDINATES N 326790.5927 E 2362941.628		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 3
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 4.1'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/5/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -48.4' MLLW		STARTED 3/5/88
8. TOTAL DEPTH OF BORING 52.5'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 3/5/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				




ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-48.4			0': SAND (SP), fine; gray, Poorly Graded, with shell fragments, shell comprising 50%-60% of the sample.		1		USCS		0
-49.5	1.1		1.1': CLAYEY SAND (SC), fine; green, with shell fragments, and sand, lenses of grey (SP).		2				14
-52.5	4.1				3				5

BOTTOM OF BOREHOLE AT -52.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-46-88		LOCATION COORDINATES N 326638.9691 E 2364815.671		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 6
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 6
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 9'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/7/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41' MLLW		STARTED 3/7/88
8. TOTAL DEPTH OF BORING 50'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 3/7/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				





ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-41			0': SANDY CLAY (CL), low plasticity; dark green, low plasticity, calcareous.		1		USCS		37
-42.5	1.5		1.5': SANDY CLAY (CH), high plasticity; dark green, high plasticity, micaceous.		2			15	
					3			14	
			4.5': Calcareous.		4			11	
					5			12	
-48.5	7.5		7.5': CLAYEY SAND (SC), fine; dark gray, calcareous.		6			16	
-50.0	9.0								

BOTTOM OF BOREHOLE AT -50.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-47-88		LOCATION COORDINATES N 325399.1234 E 2365527.926		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 4
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 5.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/8/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -45.1' MLLW		STARTED 3/8/88
8. TOTAL DEPTH OF BORING 50.6'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 3/8/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				




ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-45.1			0': SILTY SAND (SM), fine; gray, with shell fragments.		1		USCS		0
-46.1	1.0		1': SANDY CLAY, low plasticity; dark green, low plasticity.		2			11	
-49.1	4.0				3			14	
-50.6	5.5		4': SANDY CLAY, high plasticity; dark greenish, high plasticity.		4			12	

BOTTOM OF BOREHOLE AT -50.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-48-88		LOCATION COORDINATES N 325179.5234 E 2367502.985		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 5	DISTURBED 5	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 8.1'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 50.8'		15. DATE BORING 3/7/88		STARTED 3/7/88
		COMPLETED 3/7/88		
		16. ELEVATION TOP OF BORING -42.7' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist		




ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-42.7			0': CLAYEY SAND (SC), fine; green and light green, with shell fragments.		1		USCS		0
-44.8	2.1		2.1': SANDY CLAY (CL), low plasticity; dark green, low plasticity.		2				14
-46.3	3.6		3.6': SANDY CLAY (CL), high plasticity; dark green, high plasticity, with lenses of SP.		3				14
					4				10
					5				16
-50.8	8.1								

BOTTOM OF BOREHOLE AT -50.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-49-88		LOCATION COORDINATES N 324226.565 E 2367669.18		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 5
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 5
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 8.7'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/7/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -42.3' MLLW		STARTED 3/7/88
8. TOTAL DEPTH OF BORING 51'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 3/7/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-42.3			0': SANDY SILT (MH), black, with shell fragments.		1		USCS		0
-45.0	2.7		2.7': SANDY CLAY (CL), low plasticity; green, low plasticity, slightly calcareous.		2				32
-48.0	5.7		5.7': SANDY CLAY (CH), high plasticity; dark green, high plasticity, slightly micaceous.		3				16
-51.0	8.7				4				12
					5				15

BOTTOM OF BOREHOLE AT -51.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-50-88		LOCATION COORDINATES N 324260.8792 E 2369221.186		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 7
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 7
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 11.4'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/8/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -38.5' MLLW		STARTED 3/8/88
8. TOTAL DEPTH OF BORING 49.9'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 3/8/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.5			0': No sample recovered						
-39.4	0.9		0.9': SILTY SAND (SM), fine; dark gray, with shell fragments. 1.5': Light gray, calcareous.		1				23
					2				10
					3				7
-43.9	5.4		5.4': CLAYEY SAND (SC), fine; light gray, with shell fragments, calcareous.		4				9
			6.9': Dark green.		5				6
-46.5	8.0		8': SANDY CLAY (CL), low plasticity; dark green, low plasticity.		6				11
-48.4	9.9		9.9': SANDY CLAY, high plasticity; dark green, high plasticity.		7				13
-49.9	11.4								

BOTTOM OF BOREHOLE AT -49.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-51-88	LOCATION COORDINATES N 323209.9488 E 2369503.402		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 7	DISTURBED 7	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 11.4'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 50.6'		15. DATE BORING 3/8/88		STARTED 3/8/88 COMPLETED 3/8/88
		16. ELEVATION TOP OF BORING -39.2' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-39.2			0': SILTY SAND (SM), fine; light gray, with shell fragments, calcareous, slightly clayey.		1		USCS		0
					2			13	
					3			12	
					4			9	
			6.9': Predominantly shell fragments.		5			3	
-47.6	8.4		8.4': SANDY CLAY (CL), low plasticity; dark gray, low plasticity.		6			15	
-49.1	9.9		9.9': SANDY CLAY (CH), high plasticity; dark gray, high plasticity, slightly calcareous.		7			17	

BOTTOM OF BOREHOLE AT -50.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER EC-52-88		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 4	DISTURBED 4 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	14. ELEVATION GROUND WATER NA
6. THICKNESS OF OVERBURDEN 5.8'		15. DATE BORING 3/14/88	STARTED 3/14/88 COMPLETED 3/14/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -44.1' MLLW	
8. TOTAL DEPTH OF BORING 49.9'		17. TOTAL CORE RECOVERY FOR BORING N/A	
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-44.1		CLAY	0': CLAY (CH), high plasticity; black, high plasticity, slightly sandy.		1		USCS		0
-45.4	1.3	SAND	1.3': CLAYEY SAND (SC), fine; pale green, calcareous, slightly silty.		2			13	
		SAND	2.8': Shell fragments.		3			6	
-49.9	5.8	SAND			4			16	

BOTTOM OF BOREHOLE AT -49.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER EC-53-88		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 6	DISTURBED 6 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	14. ELEVATION GROUND WATER NA
6. THICKNESS OF OVERBURDEN 8.5'		15. DATE BORING 3/15/88	STARTED 3/15/88 COMPLETED 3/15/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41.6' MLLW	
8. TOTAL DEPTH OF BORING 50.1'		17. TOTAL CORE RECOVERY FOR BORING N/A	
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.6			0': CLAYEY SAND (SC), fine; dark gray, with shell fragments.		1		USCS		0
-42.6	1.0		1': SILTY SAND (SM), fine; light gray, calcareous.		2			25	
					3			37	
					4			25	
					5			31	
					6			30	
-50.1	8.5		7': Pale green.						

BOTTOM OF BOREHOLE AT -50.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-54-88	LOCATION COORDINATES N 322302.6242 E 2372799.618		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 5	DISTURBED 5	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 11.3'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 50.2'		15. DATE BORING 3/15/88		STARTED 3/15/88 COMPLETED 3/15/88
		16. ELEVATION TOP OF BORING -38.9' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sam No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.9		CLAY	0': CLAY (CH), high plasticity; black, high plasticity, with sand, calcareous.		1		USCS		0
-44.2	5.3	SAND	5.3': CLAYEY SILTY SAND (SM), fine; gray, with shell fragments, calcareous.		2				26
		SAND	6.8': Pale greenish gray.		3				26
		SAND			4				11
		SAND			5				32
-50.2	11.3								

BOTTOM OF BOREHOLE AT -50.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-55-88		LOCATION COORDINATES N 321334.659 E 2372936.818		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 5
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 5
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 8.4'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/15/88
7. DEPTH DRILLED INTO ROCK 1.5'		16. ELEVATION TOP OF BORING -40.1' MLLW		STARTED 3/15/88
8. TOTAL DEPTH OF BORING 50'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 3/15/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.1			0': CLAY (CH), black, with sand, Calcareous.		1		USCS		0
-44.0	3.9		3.9': SAND (SP), fine; gray, Poorly Graded, with shell fragments, Calcareous Lenses of brown silty sand.		2				38
					3				33
					4				47
-48.5	8.4		8.4': SILTY SAND, fine; light gray, Calcareous.		5				34
-50.0	9.9								

BOTTOM OF BOREHOLE AT -50.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-56-88		LOCATION COORDINATES N 321334.9895 E 2374544.834		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 4
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 8.8'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/18/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41.4' MLLW		STARTED 3/18/88
8. TOTAL DEPTH OF BORING 50.2'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 3/18/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.4			0': CLAYEY SAND (SC), fine; dark gray, with shell fragments.		1		USCS		0
			4.8': Lens of fat clay..		2				6
-47.2	5.8		5.8': CLAY (CH), high plasticity; dark gray, high plasticity, with sand, Calcareous sand..		3				4
-48.7	7.3		7.3': SILTY SAND (SM), fine; dark gray, Calcareous..		4				15
-50.2	8.8								

BOTTOM OF BOREHOLE AT -50.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-57-88		LOCATION COORDINATES N 320379.0166 E 2374647.033		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 7	DISTURBED 7	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 2.9'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 9'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 50.4'		15. DATE BORING 3/27/88		STARTED 3/27/88
		16. ELEVATION TOP OF BORING -38.5' MLLW		COMPLETED 3/27/88
		17. TOTAL CORE RECOVERY FOR BORING N/A		
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.5		CLAY	0': CLAY (CH), high plasticity; black, high plasticity, with sand.		1		USCS		0
-41.4	2.9	LIMESTONE	2.9': LIMESTONE, fine, Slightly Clayey.		2				33
		LIMESTONE			3				46
		LIMESTONE			4				39
		LIMESTONE			5				34
		LIMESTONE			6				34
		LIMESTONE			7				30
-50.4	11.9								

BOTTOM OF BOREHOLE AT -50.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-57A-90		LOCATION COORDINATES N 320380.0139 E 2374634.032		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 2
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 2
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 6'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/20/90
7. DEPTH DRILLED INTO ROCK 4.2'		16. ELEVATION TOP OF BORING -40' MLLW		STARTED 5/20/90
8. TOTAL DEPTH OF BORING 50.2'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/20/90
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sam No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-40			0': CLAYEY SILT (MH), dark gray, wet, trace sand, and shell fragments, Slightly calcareous..				USCS		
-44.5	4.5		4.5': SILTY SAND (SM), fine to medium; light gray, wet, trace gravel, Limestone gravel.		1		Pull #1 From 46.0' to 47.8' Run 1.8' (Blocked off) Rec. 0.0' C.D. 1.8' Taped 46.6' Drilling Time: 13 Min Hyd. Pressure: 100 PSI Water Return: 100%		0
-45.4	5.4		5.4': No Recovery.		2				50
-47.8	7.8		7.8': SANDY, medium to coarse, soft; light gray, Limestone.				Top of Rock 47.8'		
-50.2	10.2				Box 1		Pull #2 From 47.8' to 50.2' Run 2.4' Rec 2.4' Drilling Time: 13 Min Taped 50.2'		

BOTTOM OF BOREHOLE AT -50.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division		INSTALLATION Charleston Harbor		SHEET 1 OF 1 SHEETS	
		1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW	
2. HOLE NUMBER EC-58-88		LOCATION COORDINATES N 320373.3495 E 2376259.051		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail			
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314					
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 5		DISTURBED 5		UNDISTURBED 0	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING		13. TOTAL NUMBER CORE BOXES 0	
6. THICKNESS OF OVERBURDEN 10.2'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/24/88		STARTED 3/24/88	
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41.3' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 3/24/88	
8. TOTAL DEPTH OF BORING 51.5'		18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist					

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.3			0': CLAY (CH), high plasticity; gray, high plasticity, with shell fragments, and sand.		1		USCS		0
						2			9
						3			2
				7.2': Thin lenses of calcareous sand..		4			6
				8.7': Lenses of calcareous, poorly graded sand..		5			3
-51.5	10.2								

BOTTOM OF BOREHOLE AT -51.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-59-88		LOCATION COORDINATES N 319393.3906 E 2376430.256		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 10
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 10
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 6'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/28/88
7. DEPTH DRILLED INTO ROCK 7.5'		16. ELEVATION TOP OF BORING -36.6' MLLW		STARTED 3/28/88
8. TOTAL DEPTH OF BORING 50.1'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 3/28/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-36.6			0': SANDY CLAY (CH), high plasticity; black, high plasticity, with shell fragments.		1		USCS		7
-38.1	1.5		1.5': SILTY SAND (SM), fine; dark gray, Calcareous.		2			18	
-39.1	2.5		2.5': SANDY ELASTIC SILT CLAYEY SAND (SC), fine; light gray, Slightly calcareous..		3				
			3': Bluish green gray.		4			16	
					5			4	
-42.6	6.0		6': SILTY SAND, fine; grayish white, Calcareous, slightly indurated.		6			15	
					7			26	
					8			3	
					9			49	
					10			58	

BOTTOM OF BOREHOLE AT -50.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-59A-90		LOCATION COORDINATES N 319263 E 2376390		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 3
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 1		DISTURBED 3
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 3'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/20/90
7. DEPTH DRILLED INTO ROCK 3.8'		16. ELEVATION TOP OF BORING -43' MLLW		STARTED 5/20/90
8. TOTAL DEPTH OF BORING 49.8'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/20/90
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist				


ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-43			0': CLAYEY SILT (MH), dark gray, wet, trace sand, and shell fragments, Slightly calcareous..		1		USCS		0
-45.8	2.8		2.8': SILTY GRAVEL (GM), fine to coarse; light gray, wet, some sand, and shell fragments, Calcareous Limestone gravel.		2		Pull #1 From 46.0' to 49.8' Run 3.8' Rec 3.6' C.L. 0.2' Drilling Time: 6 min Hyd. Pressure: 100 PSI Water Return: Lost all water at 48.5'.		2
-46.0	3.0		3': SANDY GRAVEL, medium to coarse; light gray, Porous Badly broken from 46.0' to 46.3' & 48.2' to 49.1'. Intensely to highly jointed w/ near horizontal open joints at 46.3', 46.7', 47.5', 47.9', 48.2', 49.1', & 49.6'. Core losses from 49.6' to 49.8'..		Box 1				
-49.8	6.8								

BOTTOM OF BOREHOLE AT -49.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-60-88		LOCATION COORDINATES N 319408.7196 E 2378016.27		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 7
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 7
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 9.7'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/19/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41.6' MLLW		STARTED 3/19/88
8. TOTAL DEPTH OF BORING 51.3'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 3/19/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				


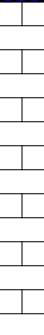
ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.6			0': CLAY (CH), high plasticity; dark gray, high plasticity, with shale fragments, and sand.		1		USCS		0
			0.7': Gray.		2			12	
					3			2	
					4			7	
					5			4	
					6			8	
					7			3	
-51.3	9.7								

BOTTOM OF BOREHOLE AT -51.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-61-88		LOCATION COORDINATES N 318481.7599 E 2378186.465		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 4
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 3.4'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/25/88
7. DEPTH DRILLED INTO ROCK 4.5'		16. ELEVATION TOP OF BORING -42.1' MLLW		STARTED 3/25/88
8. TOTAL DEPTH OF BORING 50'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 3/25/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-42.1			0': SANDY CLAY (CH), high plasticity; black, high plasticity.		1		USCS		0
-45.5	3.4		3.4': SILTY SAND, fine; grayish white, Calcareous Limestone Slightly Clayey.		2				32
					3				27
					4				41
-50.0	7.9								

BOTTOM OF BOREHOLE AT -50.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-62-88		LOCATION COORDINATES N 318512.0783 E 2379714.476		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 7
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 7
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING ---
6. THICKNESS OF OVERBURDEN 9.6'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/25/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41.6' MLLW		STARTED 3/25/88
8. TOTAL DEPTH OF BORING 51.2'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 3/25/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				



ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.6			0': CLAY (CH), high plasticity; gray, high plasticity, with shell fragments.		1		USCS NOTE: 0 means the weight of the rods drove the splitspoon through the sample.		0
-42.2	0.6		0.6': SILTY SAND (SM), fine; dark gray to black, Calcareous.		2			4	
-43.7	2.1		2.1': CLAY (CH), high plasticity; dark gray, high plasticity, with shell fragments.		3			0	
					4			5	
					5			6	
					6			2	
					7			8	
-51.2	9.6								

BOTTOM OF BOREHOLE AT -51.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-63-88		LOCATION COORDINATES N 317506.1272 E 2379925.69		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 6
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 6
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 8.3'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/25/88
7. DEPTH DRILLED INTO ROCK 2.5'		16. ELEVATION TOP OF BORING -40' MLLW		STARTED 3/25/88
8. TOTAL DEPTH OF BORING 50.8'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 3/25/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-40			0': CLAYEY SAND (SC), high plasticity; fine; dark gray, high plasticity, with shell fragments, Slightly calcareous..		1		USCS NOTE: The weight of the rods drove the splitspoon from 40.0' to 44.8'.		0
					2				6
					3				4
-48.3	8.3		8.3': SILTY SAND, fine; grayish white, Calcareous, slightly indurated..		4				
					5				38
					6				30

BOTTOM OF BOREHOLE AT -50.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-64-88		LOCATION COORDINATES N 317459.4776 E 2381597.719		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 5
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 5
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 13.2'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/25/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -37.9' MLLW		STARTED 3/25/88
8. TOTAL DEPTH OF BORING 51.1'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 3/25/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.9			0': SILTY SAND (SM), fine; dark gray, with shell fragments, Calcareous, slightly clayey..		1		USCS NOTE: 0 means the weight of the rods drove the splitspoon through the sample.		0
-46.6	8.7		8.7': CLAYEY SAND (SC), fine; dark gray, with shell fragments, Calcareous.		2				4
-48.1	10.2		10.2': CLAY (CH), high plasticity; dark gray, high plasticity, with shell fragments.		3				9
-51.1	13.2				4				0
					5				3

BOTTOM OF BOREHOLE AT -51.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-65-89		LOCATION COORDINATES N 312713.0424 E 2388924.856		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 5
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 5
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 9'		14. ELEVATION GROUND WATER NA		15. DATE BORING 4/14/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -45.7' MLLW		STARTED 4/14/89
8. TOTAL DEPTH OF BORING 54.7'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 4/14/89
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-45.9	0.2		0': CLAY (CH), soft; high plasticity; greenish gray, high plasticity, Calcareous.		1		USCS		
			0.2': SAND (SM), fine to medium; light brown to tan, some shell fragments, and gravel, Calcareous Gravel (cemented sand. Light grey to white streaks)..		2		NOTE: Set 6" casing to -46.7'. MLW by own weight.		32
			1.5': No white streaks..		3				59
			4.5': No gravel..		4				43
			6': No shells..		5				56
									29
-54.7	9.0								

BOTTOM OF BOREHOLE AT -54.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-65A-89		LOCATION COORDINATES N 333956.6528 E 2353509.165		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 16
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 16
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 24'		14. ELEVATION GROUND WATER NA		15. DATE BORING 12/10/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -30.9' MLLW		STARTED 12/10/89
8. TOTAL DEPTH OF BORING 54.9'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 12/10/89
18. SIGNATURE AND TITLE OF INSPECTOR David Belville, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-30.9		●	0': SILTY SAND (SM), fine; gray.		1		USCS NOTE: Set 6" casing to bottom of channel.		3
-34.0	3.1	●	3.1': SILT (MH), high plasticity; gray, high plasticity.		2		Mixed Zeogel mud.		9
		●	7.4': Olive.		3				2
		●	9.6': SANDY, fine; olive green.		4				4
		●	10.5': SANDY, fine; dark green.		5				3
		●	15.6': Olive.		6				15
		●	18': Dark green.		7				10
		●	19.5': Olive.		8				2
		●			9				5
		●			10				4
		●			11				8
		●			12				12
		●			13				12
		●			14				18
		●			15				21
		●			16				19

BOTTOM OF BOREHOLE AT -54.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-66-89		LOCATION COORDINATES N 313122.5056 E 2389010		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 4
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 7.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 4/16/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -47.9' MLLW		STARTED 4/16/89
8. TOTAL DEPTH OF BORING 55.4'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 4/16/89
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-47.9			0': SILTY SAND (SM), fine to medium; light brown to tan, some shell fragments, trace limestone fragments, some light grey to white streaks.		1		USCS		92
			1.5': Light tannish gray, trace gravel, and shell fragments.						30
			4.5': Light gray, some shell fragments.		2				24
			6': Light gray to gray, trace gravel.		3				21
					4				60
-55.4	7.5								

BOTTOM OF BOREHOLE AT -55.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-66A-89		LOCATION COORDINATES N 332933.5739 E 2353033.363		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 11
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 11
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 16.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 12/5/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -38.4' MLLW		STARTED 12/5/89
8. TOTAL DEPTH OF BORING 54.9'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 12/5/89
18. SIGNATURE AND TITLE OF INSPECTOR David Belville, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.4			0': SILT (ML), low plasticity; dark green and black, low plasticity.		1		USCS		0
			1.6': SILT, low plasticity; dark green, low plasticity.		2			4	
			3.1': SANDY SILT, low plasticity; fine; dark green, low plasticity.		3			0	
					4			7	
					5			0	
-45.9	7.5		7.5': CLAY (CH), high plasticity; dark green, high plasticity.		6			15	
			10.6': SANDY, fine; dark green.		7			12	
					8			9	
-50.5	12.1		12.1': SILT (MH), high plasticity; dark green, high plasticity.		9			16	
					10			23	
					11			19	

BOTTOM OF BOREHOLE AT -54.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-67-89		LOCATION COORDINATES N 313747.7863 E 2387732.609		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 6
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 6
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 9'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 4/16/89 COMPLETED 4/16/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -46.4' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A
8. TOTAL DEPTH OF BORING 55.4'		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-46.4			0': CLAY (CH), soft; high plasticity; green, high plasticity, trace shell fragments, Slightly calcareous..		1		USCS NOTE: Set 6" casing to -46.4' MLW by own weight.		0
-48.5	2.1		2.1': SILTY SAND (SM), fine to medium; brown to tan, l, some shell fragments, trace gravel, (Cemented sand gravel)..		2		NOTE: Splitspoon w/ 20' rods dropped inside casing to bottom of harbor. Weight caused splitspoon to penetrate soil from 46.4' to 47.9', cont'd drive to 49.4'.		32
					3			27	
					4			30	
					5			50	
					6			100	
-55.4	9.0		7.5': SILTY SAND, fine to medium; gray, some shell fragments, Calcareous..						

BOTTOM OF BOREHOLE AT -55.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-67A-89		LOCATION COORDINATES N 332816.8834 E 2354617.391		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 18	DISTURBED 18	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 27'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.4'		15. DATE BORING 12/10/89		STARTED 12/10/89
		16. ELEVATION TOP OF BORING -28.4' MLLW		COMPLETED 12/10/89
		17. TOTAL CORE RECOVERY FOR BORING N/A		
18. SIGNATURE AND TITLE OF INSPECTOR David Belville, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-28.4			0': SILTY SAND (SM), fine to medium; gray, dry, some shell fragments.		1		USCS Weight of rods & hammer drove splitspoon from: 28.4' to 28.9' 29.9' to 31.4' 34.4' to 34.9' 41.9' to 42.9' Set 6" casing to bottom of channel. Mixed Zeogel mud.		5
-29.9	1.5		1.5': No recovery..		2			0	
					3			8	
-32.9	4.5		4.5': SANDY SILT (MH), high plasticity; fine; dark green, high plasticity.		4			3	
					5			4	
					6			6	
					7			5	
			10.5': SILT, high plasticity; olive green, high plasticity, Stiff nodules..		8			24	
					9			14	
			13.5': SILT, high plasticity; dark green, high plasticity.		10			3	
					11			7	
					12			9	
-47.9	19.5		19.5': CLAY (CH), high plasticity; olive green, high plasticity.		13			10	
					14			10	
-50.0	21.6		21.6': SILT, high plasticity; dark green, high plasticity.		15			9	
					16			16	
					17			17	
-55.4	27.0				18			15	

BOTTOM OF BOREHOLE AT -55.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-68-89		LOCATION COORDINATES N 331694.7895 E 2354062.609		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 17	DISTURBED 17	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 25.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 54.7'		15. DATE BORING 12/11/89		STARTED 12/11/89
		COMPLETED 12/11/89		
		16. ELEVATION TOP OF BORING -29.2' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
18. SIGNATURE AND TITLE OF INSPECTOR David Belville, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-29.2			0': SANDY SILT (MH), high plasticity; fine; dark gray, high plasticity, with shell fragments.		1		USCS		0
-30.7	1.5		1.5': CLAY (CH), high plasticity; dark gray, high plasticity.		2			4	
					3			5	
-33.7	4.5		4.5': CLAYEY SAND (SC), fine; green.		4			12	
					5			18	
-36.7	7.5		7.5': SILTY SAND, fine to medium; green and dark gray.		6			33	
					7			23	
-39.7	10.5		10.5': SANDY SILT (MH), high plasticity; fine; olive green, high plasticity, cemented silt nodules up to 1/2" dia..		8			15	
					9			8	
-42.7	13.5		13.5': SANDY SILT (ML), low plasticity; fine; dark green, low plasticity.		10			0	
					11			3	
-44.2	15.0		15': SANDY SILT (MH), high plasticity; fine; dark green, high plasticity.		12			0	
					13			12	
					14			12	
					15			10	
					16			13	
					17			20	

BOTTOM OF BOREHOLE AT -54.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-69-89		LOCATION COORDINATES N 331810.1498 E 2355916.593		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 25	DISTURBED 25	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 37.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.1'		15. DATE BORING 12/6/89		STARTED 12/6/89
		COMPLETED 12/6/89		
		16. ELEVATION TOP OF BORING -17.6' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR David Belville, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-17.6			0': CLAYEY SILTY SAND (SM), fine; dark gray, with shell fragments.		1		USCS		0
-20.6	3.0				2			15	
-22.0	4.4		3': CLAYEY SAND (SC), fine to medium; with shell fragments.		3			12	
			4.4': SILTY SAND (SM), fine; dark gray, with shell fragments.		4			20	
-25.0	7.4				5			4	
-26.5	8.9		7.4': SILT (MH), high plasticity; dark green, high plasticity, with shell fragments.		6			15	
			8.9': CLAYEY SAND (SC), fine; dark gray and brown.		7			12	
-30.0	12.4		10.9': Shell fragments.		8			5	
-31.5	13.9		12.4': Core loss.		9			6	
			13.9': CLAYEY SAND (SC), fine; dark green.		10			7	
					11			8	
					12			3	
					13			3	
					14			7	
					15			8	
-41.6	24.0				16			6	
			24': SANDY SILT (ML), low plasticity; fine; dark green, low plasticity.		17			8	
			25.5': SANDY SILT, low plasticity; fine; olive green, low plasticity.		18			16	
			27': SANDY SILT, low plasticity; fine; dark green, low plasticity.		19			2	
					20			5	
-49.1	31.5				21			4	
			31.5': SANDY SILT (MH), high plasticity; fine; dark gray, high plasticity.		22			11	
					23			15	
					24			12	
-55.1	37.5				25			10	

BOTTOM OF BOREHOLE AT -55.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-70-89		LOCATION COORDINATES N 330563.1198 E 2355686.837		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 17	DISTURBED 17	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 25.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55'		15. DATE BORING 12/11/89		STARTED 12/11/89
		COMPLETED 12/11/89		
		16. ELEVATION TOP OF BORING -29.5' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
18. SIGNATURE AND TITLE OF INSPECTOR David Belville, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-29.5			0': SILT (MH), high plasticity; dark green, high plasticity, with shell fragments.		1		USCS		0
-31.0	1.5		1.5': CLAYEY SAND (SC), medium; gray, with shell fragments.		2			6	
-32.5	3.0		3': CLAY (MH), high plasticity; gray, high plasticity, with shell fragments.		3			0	
					4			0	
-35.5	6.0		6': CLAYEY SAND (SC), fine; dark green, with shell fragments.		5			1	
					6			4	
					7			4	
-40.0	10.5		10.5': SANDY SILT (MH), high plasticity; fine; dark green to olive green, high plasticity.		8			5	
			12.5': SILT, high plasticity; olive green, high plasticity, with cemented nodules.		9			4	
					10			6	
					11			19	
			16.5': SANDY SILT, fine; dark green, with cemented nodules.		12			18	
					13			4	
					14			5	
					15			14	
			22.5': SILT, high plasticity; dark green, high plasticity.		16			11	
					17			8	

BOTTOM OF BOREHOLE AT -55.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-72-89		LOCATION COORDINATES N 328932.7184 E 2358643.174		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 16
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 16
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 24'		14. ELEVATION GROUND WATER NA		15. DATE BORING 12/5/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -31.6' MLLW		STARTED 12/5/89
8. TOTAL DEPTH OF BORING 55.6'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 12/5/89
18. SIGNATURE AND TITLE OF INSPECTOR David Belville, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-31.6			0': CLAYEY SAND (SC), fine to medium; dark gray, with shell fragments.		1		USCS		6
-33.0	1.4		1.4': SANDY SILT (MH), high plasticity; fine; dark green, high plasticity, with shell fragments.		2			3	
					3			9	
					4			10	
					5			14	
					6			6	
					7			3	
					8			6	
-43.6	12.0		12': CLAYEY SAND (SC), fine; dark green.		9			2	
					10			8	
-46.6	15.0		15': SANDY SILT (MH), high plasticity; fine; dark gray, high plasticity.		11			7	
			16.4': Lenses of mo. cemented silt, nodules of 1/2" dia..		12			13	
			18': SILT, high plasticity; dark green, high plasticity.		13			13	
-51.1	19.5		19.5': SILT (ML), low plasticity; dark green, low plasticity.		14			2	
					15			6	
					16			3	

BOTTOM OF BOREHOLE AT -55.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-73-89		LOCATION COORDINATES N 329766.8881 E 2359549.014		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 23	DISTURBED 23	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 34.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.5'		15. DATE BORING 12/4/89		STARTED 12/4/89
		COMPLETED 12/4/89		
		16. ELEVATION TOP OF BORING -21' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR David Belville, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-21			0': SILTY SAND (SM), fine to medium; gray, with shell fragments.		1		USCS		26
-24.0	3.0				2			6	
			3': CLAYEY SAND (SC), fine to medium; with shell fragments.		3			12	
-27.0	6.0				4			13	
-28.5	7.5		6': SILT (MH), high plasticity; dark gray, high plasticity, with shell fragments.		5			10	
-30.0	9.0		7.5': CLAYEY SAND (SC), fine to medium; with shell fragments.		6			0	
-31.5	10.5		9': SILT (ML), low plasticity; dark green, low plasticity.		7			9	
			10.5': SANDY SILT (MH), high plasticity; fine; dark green, high plasticity.		8			10	
					9			11	
					10			9	
					11			11	
					12			14	
					13			12	
					14			8	
					15			6	
					16			5	
					17			7	
					18			8	
					19			8	
					20			26	
-52.5	31.5				21			8	
			31.5': SANDY SILT (ML), low plasticity; fine; olive green, low plasticity.		22			10	
-55.5	34.5				23			8	

BOTTOM OF BOREHOLE AT -55.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-74-89		LOCATION COORDINATES N 327955.0819 E 2360430.379		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 17	DISTURBED 17	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 25.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55'		15. DATE BORING 12/2/89		STARTED 12/2/89
		16. ELEVATION TOP OF BORING -29.5' MLLW		COMPLETED 12/2/89
		17. TOTAL CORE RECOVERY FOR BORING N/A		
18. SIGNATURE AND TITLE OF INSPECTOR David Belville, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-29.5			0': SILTY SAND (SM), fine to medium; dark gray, with shell fragments.		1		USCS		10
-31.0	1.5		1.5': Core loss.		2			7	
-32.5	3.0		3': SANDY SILT (MH), high plasticity; fine; dark green, high plasticity, with shell fragments.		3			8	
-34.0	4.5		4.5': CLAYEY SAND (SC), fine; dark green.		4			15	
-35.5	6.0		6': SANDY SILT (MH), high plasticity; fine; dark green, high plasticity.		5			10	
					6			12	
					7			9	
					8			8	
					9			10	
					10			7	
					11			5	
-46.0	16.5		16.5': CLAYEY SAND (SC), fine; dark green.		12			5	
					13			4	
					14			7	
					15			8	
					16			7	
-53.5	24.0		24': SILT (MH), high plasticity; olive green, high plasticity, nodules of 1/2" diameter.		17			32	
-55.0	25.5								

BOTTOM OF BOREHOLE AT -55.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-75-89		LOCATION COORDINATES N 328378.3924 E 2362016.304		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 17	DISTURBED 17	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 25.6'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.7'		15. DATE BORING 12/2/89		STARTED 12/2/89
		COMPLETED 12/2/89		
		16. ELEVATION TOP OF BORING -30.1' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR David Belville, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-30.1			0': CLAYEY SAND (SM), fine to coarse; gray, with shell fragments, cemented sandy nodules up to 1/2" dia..		1		USCS		24
					2			28	
					3			27	
					4			36	
					5			30	
					6			25	
					7			17	
					8			4	
-42.0	11.9		11.9': SANDY SILT, high plasticity; fine; dark green, high plasticity.		9			35	
-44.0	13.9		13.9': CLAYEY SAND (SC), fine; dark green.		10			14	
					11		16		
					12		8		
					13		7		
					14		8		
					15		7		
					16		9		
					17		8		
-55.7	25.6								

BOTTOM OF BOREHOLE AT -55.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-75A-90	LOCATION COORDINATES N 328390.3915 E 2362012.301		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 5	DISTURBED 5	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 3'		13. TOTAL NUMBER CORE BOXES 1		
7. DEPTH DRILLED INTO ROCK 17.1'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 50.2'		15. DATE BORING 5/31/90		STARTED 5/31/90 COMPLETED 5/31/90
		16. ELEVATION TOP OF BORING -30.1' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-30.1			0': SILTY SAND (SM), fine to medium; dark gray and brown, wet, some shell fragments, trace clay, slightly calcareous.		1		USCS		5
-33.1	3.0		1.5': Light gray, some limestone fragments, and shell fragments.		2		Zeogel drilling mud used Pull #1 From 33.1' to 34.5' Run 1.4' Rec 1.4' Taped 34.5'		21
-37.1	7.0		3': Limestone	100	Box 1		Drilling Time: 2 Min. Hyd. Pressure: 100 PSI Water Return: 100%		
-38.0	7.9		7': SILTY SAND (SM), fine to medium; gray, moist, some shell fragments, calcareous, dense, stiff.	24	Box 1		Pull #2 From 34.5' to 39.0' Run 4.5' Rec 1.1' C.L. 3.4' Taped 30.9'		
-39.9	9.8		7.9': Core loss.	0	Box 1		Drilling Time: 7 Min. Hyd. Pressure: 100 PSI Water Return: 100%		
-40.5	10.4		9.8': Limestone				NOTE: Recovered 2.3' of core loss during Pull #3		
-41.5	11.4		10.4': SILTY SAND (SM), fine to medium; gray, moist, some shell fragments, calcareous, dense, mod. stiff.	59	Box 1		Pull #3 From 39.0' to 39.9' Run 0.9' Rec 2.3' C.G. 1.4' Taped 35.3'		
-45.7	15.6		11.4': Core loss.	0	Box 1		Blocked at 39.9' Drilling Time: 3 Min. Hyd. Pressure: 100 PSI Water Return: 100%		
			15.6': CLAYEY SAND (SC), fine; olive green.		3		NOTE: Core recovery of 2.3' probably core left in hole from Pull #2		
					4		Pull #4 From 39.9' to 42.6' Run 2.7' Rec 1.6' C.L. 1.1' Taped 42.6'		12
					5		Blocked at 42.6' Drilling Time: 7 Min. Hyd. Pressure: 120 PSI Water Return: 100%		6
-50.2	20.1		18.6': SAND, fine to medium; dark brown to greenish brown.				Pull #5 From 42.6' to 45.7' Run 3.1' Rec 0.0' C.L. 3.1' Taped 34.5'		5

BOTTOM OF BOREHOLE AT -50.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-76-89		LOCATION COORDINATES N 327103.4042 E 2362010.559		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 16
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 16
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 24'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 12/1/89 COMPLETED 12/1/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -31.1' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A
8. TOTAL DEPTH OF BORING 55.1'		18. SIGNATURE AND TITLE OF INSPECTOR David Belville		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-31.1		[Diagonal Hatching]	0': CLAYEY SAND (SC), fine to medium; dark green, with shell fragments.		1		USCS		15
-34.0	2.9				2			11	
		[Yellow with dots]	2.9': SILTY SAND (SM), fine to medium; gray, with shell fragments, calcareous.		3			24	
					4			30	
					5			17	
					6			12	
					7			14	
					8			16	
					9			8	
		[Yellow with dots]	4.5': Cemented sand nodules up to 3/4" diameter.		10			12	
					11			15	
					12			11	
					13			13	
		[Diagonal Hatching]	10.9': Cemented sand nodules up to 3/4" diameter, slightly clayey.		14			17	
-52.0	20.9				15			12	
		[Diagonal Hatching]	20.9': CLAYEY SAND (SC), fine; dark green, calcareous.		16				
-53.5	22.4								
		[Green]	22.4': SANDY SILT (ML), low plasticity; fine; dark green, low plasticity.		17				
-55.1	24.0						9		

BOTTOM OF BOREHOLE AT -55.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-77-90		LOCATION COORDINATES N 327686.6546 E 2363295.45		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 15
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 15
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 22.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 1/28/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -33' MLLW		STARTED 1/28/90
8. TOTAL DEPTH OF BORING 55.5'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 1/28/90
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-33			0': SILTY SAND (SM), fine to medium; gray to tannish green, wet, some shell fragments, calcareous.		1		USCS		22
			1.5': (1.5), gray, trace shell fragments.		2			31	
			3': With shell fragments.		3			15	
			4.5': SILTY SAND, fine to medium; greenish gray, some shell fragments.		4			8	
-39.0	6.0			6': CLAY (CH), high plasticity; dark greenish brown, moist, high plasticity, some sand, slightly calcareous.		5			15
					6			15	
					7			10	
					8			11	
					9			11	
					10			11	
					11			10	
					12			4	
				16.5': CLAYEY SAND (SC), fine to medium; dark greenish brown, moist.		13			4
						14			5
					15			9	
-49.5	16.5		21': Partially indurated & several coarse size gravel particles at 55.0'.		15				
-55.5	22.5								

BOTTOM OF BOREHOLE AT -55.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-78-90		LOCATION COORDINATES N 326075.7859 E 2363874.777		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 15	DISTURBED 15	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 22.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.1'		15. DATE BORING 2/1/90		STARTED 2/1/90
		COMPLETED 2/1/90		
		16. ELEVATION TOP OF BORING -32.6' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-32.6			0': SILTY SAND (SM), fine to medium; gray and light gray, wet, some limestone fragments, and shell fragments, calcareous.		1		USCS NOTE: Suspect thin limestone layers from 32.6' to 47.6'.		19
			1.5': SILTY SAND, fine to medium; light gray, calcareous.		2			40	
			3': Gray, trace limestone fragments.		3			36	
					4			32	
			6': No gravel.		5			22	
			7.5': Trace limestone fragments.		6			20	
			9': Trace clay.		7			15	
					8			14	
			12': Trace shell fragments, no limestone fragments.		9			13	
			13.5': Some shell fragments, trace limestone fragments, trace clay.		10			14	
-47.6	15.0			15': CLAYEY SAND (SC), fine to medium; greenish gray, wet, trace shell fragments.		11			7
						12			9
				18': CLAYEY SAND, fine; dark greenish brown, moist.		13			11
						14			8
						15			5

BOTTOM OF BOREHOLE AT -55.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-78A-90		LOCATION COORDINATES N 326074.7863 E 2363876.778		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 3	DISTURBED 3	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 4.5'		13. TOTAL NUMBER CORE BOXES 2		
7. DEPTH DRILLED INTO ROCK 17.5'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 50.4'		15. DATE BORING 5/21/90		STARTED 5/21/90
		COMPLETED 5/21/90		
		16. ELEVATION TOP OF BORING -28.4' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value	
-28.4		[Yellow with dots pattern]	0': SILTY SAND (SM), fine to medium; gray, wet, with shell fragments, calcareous.		1		USCS	0	16	
			3': Light gray to gray, trace shell fragments, and limestone fragments.		2			4		
-32.9	4.5	[White with horizontal lines pattern]	4.5': Limestone	100	Box 1		4			
			6.6': Light gray to gray.		64	Box 1	8			
-39.4	11.0	[Yellow with diagonal lines pattern]	11': CLAYEY SAND (SC), fine to medium; gray to greenish gray, wet, trace shell fragments, calcareous, medium stiff & dense.		63	Box 1	Top of Rock Pull #1 From 32.9' to 35.0' Run 2.1' Rec 2.1' Drilling Time: 16 Min. Hyd Pressure: 100 PSI Water Return: 100% Taped 35.0' Pull #2 From 35.0' to 39.4' Run 4.4' Rec 2.8' C.L. 1.6' Taped 38.5' Drilling Time: 17 Min. Hyd. Pressure: 150 PSI Water Return: 100%			
						58	Box 2	Pull #3 From 39.4' to 44.6' Run 5.2' Rec 3.3' C.L. 1.9' Taped 39.5' Drilling Time: 16 Min. Hyd. Pressure: 150 PSI Water Return: 100%		
						3		Pull #4 From 44.6' to 48.9' Run 4.3' Rec 2.5' C.L. 1.8' Taped 48.7' Drilling Time: 14 Min. Hyd. Pressure: 150 PSI Water Return: 100%		
-50.4	22.0								10	

BOTTOM OF BOREHOLE AT -50.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-79-90		LOCATION COORDINATES N 326926.9302 E 2364635.612		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 4
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 6'		14. ELEVATION GROUND WATER NA		15. DATE BORING 1/28/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -31.7' MLLW		STARTED 1/28/90
8. TOTAL DEPTH OF BORING 37.7'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 1/28/90
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-31.7			0': SILTY SAND (SM), fine to medium; brown and light gray, wet, calcareous.		1		USCS NOTE: Boring terminated at 37.7' due to strong currents causing casing to lean too much.		0
			1.5': Light gray.		2			16	
					3			15	
					4			16	
-37.7	6.0								

BOTTOM OF BOREHOLE AT -37.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-79A-90		LOCATION COORDINATES N 326920.9325 E 2364646.613		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 15	DISTURBED 15	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 22.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 54.9'		15. DATE BORING 1/29/90		STARTED 1/29/90
		COMPLETED 1/29/90		
		16. ELEVATION TOP OF BORING -32.4' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-32.4			0': SILTY SAND (SM), fine to medium; gray to light gray, wet, trace shell fragments. 1.5': Light gray.		1		USCS		17
					2			23	
					3			19	
					4			13	
					5			8	
-39.9	7.5		7.5': CLAY (CH), high plasticity; fine; dark greenish brown, moist, high plasticity, some sand, slightly calcareous.		6				29
					7			16	
					8			13	
					9			17	
-45.9	13.5		13.5': CLAYEY SAND (SC), fine to medium; dark greenish brown, moist.		10				7
					11			12	
					12			9	
					13			9	
					14			5	
					15			3	

BOTTOM OF BOREHOLE AT -54.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-80-90		LOCATION COORDINATES N 326191.1768 E 2365828.768		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 17	DISTURBED 17	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 24.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55'		15. DATE BORING 5/15/90		STARTED 5/15/90
		COMPLETED 5/15/90		
		16. ELEVATION TOP OF BORING -30.5' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value	
-30.5			0': SILTY SAND (SM), fine to medium; gray and light gray, wet, with shell fragments, calcareous.		1		USCS NOTE: Limestone gravel at 33.5' appears to be from occasional nodules rather than layers.		16	
			1.5': Light gray, trace shell fragments.		2			36		
			3': Trace limestone fragments.		3			32		
			4.5': Gray.		4			37		
					5			27		
					6			12		
					7			6		
-40.5	10.0		9': Some shell fragments, trace clay.		8					
			10': CLAYEY SAND (SC), fine to medium; olive green, wet, trace shell fragments, slightly calcareous.		9			15		
-42.5	12.0		12': CLAY (CL), low plasticity; olive green to grayish brown, moist, low plasticity, some fine sand, slightly calcareous.		10					15
					11			11		
					12			8		
					13			9		
			16.5': CLAYEY SAND (SC), fine; olive green to grayish brown, moist, slightly calcareous.		14					11
					15			9		
					16			9		
					17			9		
							9			
-55.0	24.5									

BOTTOM OF BOREHOLE AT -55.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-81-90	LOCATION COORDINATES N 325189.153 E 2365665.969		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 15	DISTURBED 15	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 21'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.5'		15. DATE BORING 5/15/90		STARTED 5/15/90
		16. ELEVATION TOP OF BORING -34.5' MLLW		COMPLETED 5/15/90
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-34.5		[Yellow with dots pattern]	0': SILTY SAND (SM), fine to medium; gray, wet, trace shell fragments, calcareous.		1		USCS		20
						2		Made new batch of Zeogel mud at 36.0'	27
				3': Trace shell fragments.		3			20
				4.5': No large shell fragments.		4			15
				6': Trace shell fragments.		5			9
				7.5': With shell fragments, trace clay.		6			4
						7			
-43.2	8.7	[Yellow with diagonal lines pattern]	8.7': CLAYEY SAND (SC), fine; olive green to grayish brown, dry, slightly calcareous.		8				18
				10.5': Moist.		9			11
						10			13
						11			10
						12			11
						13			9
						14			8
						15			6

BOTTOM OF BOREHOLE AT -55.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-82-90		LOCATION COORDINATES N 325399.4871 E 2367332.939		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 17
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 17
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 24'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 5/14/90 COMPLETED 5/14/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -31.4' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A
8. TOTAL DEPTH OF BORING 55.4'		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-31.4			0': CLAYEY SILTY SAND (SM), fine; dark gray, saturated, with shell fragments.		1		USCS Mixed Zeogel drilling mud.		7
-32.9	1.5		1.5': SAND (SP), fine to medium; light gray, Poorly Graded, wet, with shell fragments, very calcareous, with hard zones.		2				32
-34.4	3.0		3': SILTY SAND (SM), fine to medium; light gray to gray, wet, trace shell fragments, very calcareous, with hard zones. 4.5': Fine; more silt.		3		LAB CLASSIFICATION Sample No. 4 - SM Specific Gravity - 2.70		31
			6': Fine; gray, more calcareous.		4				34
					5				25
					6				16
					7				13
-42.9	11.5		10.5': Fine; greenish gray, with shell fragments.		8				3
			11.5': SILT (ML), low plasticity; dark olive green, moist, low plasticity, trace shell fragments, calcareous, glauconitic, slightly sandy. 12': Less sandy.		9				11
					10				13
					11				15
					12				14
					13				11
					14				12
					15				9
					16				9
-55.4	24.0				17				9

BOTTOM OF BOREHOLE AT -55.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-82A-90		LOCATION COORDINATES N 325402.4842 E 2367318.939		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 11	DISTURBED 11	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 16.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 50'		15. DATE BORING 6/1/90		STARTED 6/1/90
		COMPLETED 6/1/90		
		16. ELEVATION TOP OF BORING -33.5' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value	
-33.5			0': SILTY SAND (SM), medium to coarse; light gray, wet, some shell fragments, and limestone fragments, calcareous.		1		USCS		26	
			1.5': Gray, trace shell fragments, and limestone fragments.		2		New batch of Zeogel mud at 35.0'.		15	
			3': SAND, fine to medium; trace shell fragments, and limestone fragments.		3				25	
			6': Trace limestone fragments, no shell fragments.		4				20	
			7.5': Light gray, with shell fragments, some limestone fragments.		5				17	
					6				7	
-42.5	9.0			9': CLAYEY SAND (SC), fine; dark greenish brown, moist, non-calcareous.		7				4
						8				17
						9				14
						10				9
						11				12

BOTTOM OF BOREHOLE AT -50.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-83-90		LOCATION COORDINATES N 323751.6809 E 2368223.281		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 14
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 14
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 19.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/11/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -35' MLLW		STARTED 5/11/90
8. TOTAL DEPTH OF BORING 54.5'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/11/90
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-35			0': CLAYEY SILTY SAND (SM), fine; gray, wet, some shell fragments, calcareous.		1		USCS		9
-36.5	1.5		1.5': No recovery		2		Mixed Zeogel drilling mud LAB CLASSIFICATION Sample No. 2 - SM Specific Gravity - 2.71		25
-38.0	3.0		3': CLAYEY SILTY SAND (SM), fine; greenish gray, with shell fragments, glauconitic.		3				52
					4				18
					5				16
					6				13
					7				8
					8				5
-46.5	11.5		11.5': SILT (ML), low plasticity; dark olive green, moist, low plasticity, trace sand. 12': Small phosphate nodules..		9				
					10				10
					11				18
			15': Very little sand, no phosphate nodules.		12				15
					13				14
					14				13

BOTTOM OF BOREHOLE AT -54.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-83A-90		LOCATION COORDINATES N 323746.6828 E 2368232.282		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 11	DISTURBED 11	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 15'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 49.5'		15. DATE BORING 5/20/90		STARTED 5/20/90
		COMPLETED 5/20/90		
		16. ELEVATION TOP OF BORING -34.5' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-34.5			0': SILTY SAND (SM), gray, wet, some shell fragments, calcareous.		1		USCS		18
			1.5': Trace shell fragments.		2		Made new batch of Zeogel mud.		24
			3': Grey to greenish green, some shell fragments, trace clay.		3				16
			4.5': Trace limestone fragments.		4				16
			6': No limestone fragments.		5				14
					6				11
					7				9
-45.0	10.5		10.5': CLAYEY SAND (SC), light grayish green, wet, with shell fragments, calcareous.		8				7
-46.0	11.5		11.5': CLAY (CH), high plasticity; dark greenish brown, moist, high plasticity, some sand, slightly calcareous.		9				
			13.5': Trace sand.		10				14
					11				23
-49.5	15.0								

BOTTOM OF BOREHOLE AT -49.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-84-90		LOCATION COORDINATES N 324559.8071 E 2368878.122		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 16	DISTURBED 16	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 22.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.5'		15. DATE BORING 5/7/90		STARTED 5/7/90
		COMPLETED 5/7/90		
		16. ELEVATION TOP OF BORING -33' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR Toni Nicholson, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-33			0': SILTY SAND (SM), fine; dark gray, wet, some shell fragments, calcareous.		1		USCS		24
			1.5': With limestone fragments.		2		LAB CLASSIFICATION Sample No. 2 - SM Specific Gravity - 2.71		44
			3': Fine; gray.		3			40	
					4			32	
			6': Slightly clayey, trace shell fragments.		5			24	
					6			19	
					7			11	
					8			11	
					9				
-45.0	12.0				10			3	
-45.5	12.5		12': CLAYEY SAND (SC), fine; gray, with shell fragments, calcareous.		11			14	
			12.5': SILT (ML), low plasticity; dark olive green, low plasticity, trace shell fragments, calcareous.		12			19	
					13			14	
					14			15	
					15			12	
					16			11	

BOTTOM OF BOREHOLE AT -55.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-84A-90	LOCATION COORDINATES N 324558.8053 E 2368869.122		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 5	DISTURBED 5	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 3'		13. TOTAL NUMBER CORE BOXES 1		
7. DEPTH DRILLED INTO ROCK 13.6'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 49.7'		15. DATE BORING 5/31/90		STARTED 5/31/90
		COMPLETED 5/31/90		
		16. ELEVATION TOP OF BORING -33.1' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING 82%		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	R.O.D %	REMARKS	Blows/ 0.5 ft	N-Value
-33.1			0': SILTY SAND (SM), fine to medium; brown and light tannish gray, wet, trace shell fragments, and limestone fragments, calcareous.		1		USCS Made new batch of Zeogel mud.		18
			1.5': SILTY SAND, medium to coarse; gray, trace limestone fragments, and shell fragments.		2				24
-36.1	3.0		3': CLAYEY SANDY, gray, soft to mod. hard, friable, badly broken.		Box 1		Pull #1 From 36.1' to 37.8' Run 1.7' Rec 1.4' C.L. 0.3' Taped 37.8' Drilling Time: 10 Min. Hyd. Pressure: 100 PSI Water Return: 100 % Pull #2 From 37.8' to 42.3' Run 4.5' Rec 4.5' Taped 35.6' Drilling Time: 8 Min. Hyd. Pressure: 50 PSI Water Return: 100% Pull #3 From 42.3' to 46.7' Run 4.4' Rec 0.0' C.L. 4.4' Taped 36.8' Drilling Time: 2 Min. Hyd. Pressure: 50 PSI Water Return: 100%		
-42.3	9.2		9.2': No recovery						
-46.7	13.6		13.6': CLAY (CL), low plasticity; olive green, moist, low plasticity, with sand, slightly calcareous.			3			
-49.7	16.6				4				16

BOTTOM OF BOREHOLE AT -49.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-85-89		LOCATION COORDINATES N 303506.0959 E 2407498.328		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 11
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 10
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 15'		14. ELEVATION GROUND WATER NA		15. DATE BORING 12/12/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -40.1' MLLW		COMPLETED 12/12/90
8. TOTAL DEPTH OF BORING 55.1'		17. TOTAL CORE RECOVERY FOR BORING N/A		18. SIGNATURE AND TITLE OF INSPECTOR David Bellville, Geologist

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.1			0': SILTY SAND (SM), fine; gray, trace shell fragments.		1		USCS		64
					2				38
					3				30
-47.6	7.5		7.5': SAND (SP), light gray, with some clay, Cemented calcareous rock fragments..		4				34
					5				30
					6				74
					7				66
-55.1	15.0								

BOTTOM OF BOREHOLE AT -55.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG (Cont Sheet)	INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS
	PROJECT Charleston Harbor Entrance Channel Deepening	COORDINATE SYSTEM State Plane	HORIZONTAL : VERTICAL : NAD83 : MLLW
LOCATION COORDINATES N 303506.0959 E 2407498.328	ELEVATION TOP OF BORING -40.1'		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No. ROD %	REMARKS	Blows/ 0.5 ft	N-Value
					9			63
					10			43

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1
1. PROJECT Charleston Harbor Entrance Channel Deepening			9. COORDINATE SYSTEM State Plane - South Carolina NAD83	OF 2 SHEETS VERTICAL MLLW
2. HOLE NUMBER EC-85A-90	LOCATION COORDINATES N 305188.9015 E 2402104.81		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District			11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	12. TOTAL SAMPLES 8
4. NAME OF DRILLER C.D. Justiss			13. TOTAL NUMBER CORE BOXES 0	DISTURBED 8
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED			14. ELEVATION GROUND WATER NA	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 12'			15. DATE BORING 5/30/90	STARTED 5/30/90
7. DEPTH DRILLED INTO ROCK 0'			16. ELEVATION TOP OF BORING -38.8' MLLW	COMPLETED 5/30/90
8. TOTAL DEPTH OF BORING 50.8'			17. TOTAL CORE RECOVERY FOR BORING N/A	
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.8		[Red pattern]	0': SAND (SP), fine to medium; brown, wet, some shell fragments, trace silt, Calcareous.		1		USCS		1
			1.5': Gray and brown, trace shell fragments.						
-41.8	3.0	[Yellow pattern]	3': SILTY SAND (SM), fine to medium; gray, wet, trace shell fragments, Slightly Calcareous.		2				100
						3			40
-44.8	6.0	[Red pattern]	6': SAND (SP), fine; gray, wet, trace silt, and shell fragments, Slightly Calcareous.						
			7.5': SAND, fine to medium.		4			38	
-47.8	9.0	[Yellow pattern]	9': SILTY SAND (SM), medium to coarse; light gray and tan, wet, trace gravel, and shell fragments, Calcareous.		5				40
						6			45
			BOTTOM OF BOREHOLE AT -50.8 ft				BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".		
			NOTE: Soils visually field classified in accordance with the Unified Soil Classification System						
					7				61
					8				78

DRILLING LOG (Cont Sheet)	INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS
	PROJECT Charleston Harbor Entrance Channel Deepening	COORDINATE SYSTEM State Plane	HORIZONTAL : VERTICAL NAD83 : MLLW
LOCATION COORDINATES N 305188.9015 E 2402104.81	ELEVATION TOP OF BORING -38.8'		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sample No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-86-89		LOCATION COORDINATES N 304470.7151 E 2405781.066		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 7
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 1		DISTURBED 7
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 10.1'		14. ELEVATION GROUND WATER NA		15. DATE BORING 12/13/89
7. DEPTH DRILLED INTO ROCK 4.9'		16. ELEVATION TOP OF BORING -40.1' MLLW		STARTED 12/13/89
8. TOTAL DEPTH OF BORING 55.1'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 12/13/89
18. SIGNATURE AND TITLE OF INSPECTOR David Bellville, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.1		[Yellow pattern]	0': SILTY SAND (SM), fine to medium; dark green, with shell fragments.		1		USCS		9
			3': Gray.		2			40	
			6': Greenish gray.		3			36	
-47.6	7.5	[Red pattern]	7.5': SAND (SP), fine to coarse; light gray, with rock fragments.		4			43	
			9': Dark gray, Top of rock..		5		72		
-50.2	10.1	[White pattern]	10.1': SANDY, fine to coarse; dark gray, with shell fragments.		7			100	
					8		100		
-55.1	15.0								

BOTTOM OF BOREHOLE AT -55.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

Box
1

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-87-89		LOCATION COORDINATES N 304085.3406 E 2404101.108		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 5
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 1		DISTURBED 5
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 7.2'		14. ELEVATION GROUND WATER NA		15. DATE BORING 12/15/89
7. DEPTH DRILLED INTO ROCK 6.3'		16. ELEVATION TOP OF BORING -41.3' MLLW		STARTED 12/15/89
8. TOTAL DEPTH OF BORING 54.8'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 12/15/89
18. SIGNATURE AND TITLE OF INSPECTOR David Bellville, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.3			0': SILTY SAND (SM), fine; dark gray, with shell fragments.		1		USCS		53
-47.3	6.0		6': CLAYEY SAND (SP), fine to coarse; gray, and gravel.		2				38
-48.5	7.2		7.2': SANDY GRAVEL, fine to coarse; gray, with shell fragments.		3				35
					4				24
					5				100
-54.8	13.5								

BOTTOM OF BOREHOLE AT -54.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

Box
1

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG (Cont Sheet)	INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS
	PROJECT Charleston Harbor Entrance Channel Deepening	COORDINATE SYSTEM State Plane	HORIZONTAL : VERTICAL NAD83 : MLLW
LOCATION COORDINATES N 304085.3406 E 2404101.108	ELEVATION TOP OF BORING -41.3'		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No. RQD %	REMARKS	Blows/ 0.5 ft	N-Value
Empty table body for data entry								

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-87A-90		LOCATION COORDINATES N 304078.3433 E 2404113.109		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 6	DISTURBED 6	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 7.5'		13. TOTAL NUMBER CORE BOXES 1		
7. DEPTH DRILLED INTO ROCK 2.4'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 50.4'		15. DATE BORING 6/3/90		STARTED 6/3/90
		COMPLETED 6/3/90		
		16. ELEVATION TOP OF BORING -40.5' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.5		[Red dotted pattern]	0': SAND (SP), fine to medium; gray, wet, trace shell fragments, and silt, Slightly calcareous..		1		USCS		8
			4.5': Calcareous.		2			103	
-46.5	6.0					3			32
		[Yellow dotted pattern]	6': SAND (SM), medium to coarse; green, wet, with silt, trace gravel, and shell fragments.						
-48.0	7.5					4			24
		[White brick pattern]	7.5': GRAVELLY, hard; tannish gray, Fossiliferous, porous, large amount of small to large vugs intensely to highly jointed w/ low open joints at 48.8', 48.8', 48.9', 49.1', 49.3', 49.5', & 49.9'..						
-50.4	9.9					5			94

BOTTOM OF BOREHOLE AT -50.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

Box
1

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-88-89		LOCATION COORDINATES N 305365.338 E 2404075.822		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 10	DISTURBED 10	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 15'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.4'		15. DATE BORING 12/15/89		STARTED 12/15/89
		COMPLETED 12/15/89		
		16. ELEVATION TOP OF BORING -40.4' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR David Belville, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.4		[Yellow background with vertical lines]	0': SILTY SAND (SM), fine; dark gray.		1		USCS		0
			1.5': Some shell fragments.		2			10	
					3			33	
					4			30	
					5			26	
					6			24	
-49.4	9.0	[Red background with dots]	9': SAND (SP), light gray, Poorly Graded, and gravel, with clay, and shell fragments, Calcareous.		7				27
			9.5': Rock fragments, (Limestone).		8			48	
					9			34	
					10			64	

BOTTOM OF BOREHOLE AT -55.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-89-90		LOCATION COORDINATES N 305174.905 E 2402120.813		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 9
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 9
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 13.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 1/24/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41.9' MLLW		STARTED 1/24/90
8. TOTAL DEPTH OF BORING 55.4'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 1/24/90
18. SIGNATURE AND TITLE OF INSPECTOR David Belville, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.9		[Red dotted pattern]	0': SAND (SP), fine to medium; greenish gray, Poorly Graded, wet, some shell fragments, trace silt, Slightly Calcareous.		1		USCS Set 6" casing by own weight to 42.7'. NOTE: Suspect thin limestone layers from 47.9' to 55.4'.		12
			1.5': Gray.		2			74	
-44.9	3.0	[Yellow dotted pattern]	3': SILTY SAND (SM), gray, wet, some shell fragments, Calcareous.		3			40	
			4.5': SAND, fine; trace shell fragments.		4			23	
			6': SAND, medium to coarse; gray to light gray, trace gravel, (Limestone).		5			42	
			7.5': No Gravel.		6			74	
			9': Trace gravel, (Limestone).		7			56	
					8			50	
			12': Dark gray.		9			58	
-55.4	13.5								

BOTTOM OF BOREHOLE AT -55.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-89A-90		LOCATION COORDINATES N 305188.9015 E 2402104.81		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 7	DISTURBED 7	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 9'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 49.8'		15. DATE BORING 6/2/90		STARTED 6/2/90
		COMPLETED 6/2/90		
		16. ELEVATION TOP OF BORING -40.8' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value		
-40.8			0': SAND (SP), fine to medium; gray, Poorly Graded, wet, trace silt, and shell fragments, Slightly Calcareous.		1		USCS Made new batch of Zeogel mud at 42.3'		26		
					2			34			
					3			36			
					4			28			
-47.3	6.5				6': SAND, medium to coarse; some gravel, trace shell fragments. 6.5': SAND (SM), medium to coarse; light gray and gray, some shell fragments, trace gravel, Calcareous (Limestone). 7.5': Light gray, some gravel, (Limestone).			5			
								6		61	
								7		55	
-49.8	9.0										

BOTTOM OF BOREHOLE AT -49.8 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-90-90		LOCATION COORDINATES N 306214.9919 E 2402505.593		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 11	DISTURBED 11	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 16.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.7'		15. DATE BORING 1/24/90		STARTED 1/24/90
		COMPLETED 1/24/90		
		16. ELEVATION TOP OF BORING -39.2' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-39.2		SAND (SP)	0': SAND (SP), fine to medium; greenish gray, Poorly Graded, wet, some shell fragments, trace silt, Slightly Calcareous.		1		USCS Set 6: casing by own weight to 40.1'. Weight of rods drove splitspoon to 39.5', cont'd drive to 40.7'.		23
			1.5': Gray.		2			70	
			3': SAND, fine; trace shell fragments.		3			25	
-43.7	4.5	SILTY SAND (SM)	4.5': SILTY SAND (SM), fine to medium; gray, wet, trace shell fragments.		4			30	
			5'		5			42	
-46.7	7.5	SAND (SP)	7.5': SAND (SP), fine; green, Poorly Graded, wet, trace silt, Calcareous.		6			49	
-48.2	9.0		SILTY SAND (SM)	9': SILTY SAND (SM), fine to medium; gray to dark gray, wet, trace shell fragments, Calcareous.		7			16
		10.5': SAND, medium to coarse; with shell fragments.			8			20	
		12': Light gray, some fine to coarse gravel, trace shell fragments.			9			76	
		13.5': Trace gravel, (Limestone).			10			62	
					11			59	

BOTTOM OF BOREHOLE AT -55.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-90A-90		LOCATION COORDINATES N 306230.9913 E 2402502.589		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 9	DISTURBED 9	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 12'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 50'		15. DATE BORING 5/24/90		STARTED 5/24/90
		COMPLETED 5/24/90		
		16. ELEVATION TOP OF BORING -38' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-38			0': SAND (SP), fine to medium; greenish gray, Poorly Graded, wet, some shell fragments, trace silt, Slightly Calcareous.		1		USCS		39
						2		Set 6" casing by own weight to 39.2'.	40
				3': SAND, fine; trace shell fragments, Calcareous.		3		Made new batch of Zeogel mud at 39.5'	17
				4.5': SAND, fine to medium; gray to greenish gray, some shell fragments.		4			26
				6': SAND, fine.		5			43
						6			35
				9': SAND, fine to medium; trace shell fragments.		7			19
-48.5	10.5					8			
-48.7	10.7			10.5': CLAY (CH), high plasticity; green, damp, high plasticity.					
			10.7': SAND (SP), medium to coarse; gray to dark gray, Poorly Graded, wet, with shell fragments, trace silt, Calcareous.		9			20	

BOTTOM OF BOREHOLE AT -50.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-91-90		LOCATION COORDINATES N 305694.7252 E 2401300.677		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 9
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 9
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 13.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 1/27/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41.8' MLLW		STARTED 1/27/90
8. TOTAL DEPTH OF BORING 55.3'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 1/27/90
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.8		[Red dotted pattern]	0': SAND (SP), fine to medium; gray, Poorly Graded, wet, trace shell fragments, and silt, Slightly Calcareous.		1		USCS		6
			3': Trace shell fragments.		2		Set 6" casing by own weight to 43.6'.		72
					3		NOTE: Suspect thin limestone layers from 46.3' to 55.3'.		30
-46.3	4.5	[Yellow dotted pattern]	4.5': SILTY SAND (SM), fine to medium; gray, wet, some shell fragments, trace gravel, Calcareous (Limesonte).		4				74
			6': SAND, medium to coarse; light gray, trace shell fragments.		5				52
					6				38
					7				46
					8				30
				12':	9				62

BOTTOM OF BOREHOLE AT -55.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-91A-90		LOCATION COORDINATES N 305694.7252 E 2401300.677		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 5	DISTURBED 5	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 9.7'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 50.4'		15. DATE BORING 5/30/90		STARTED 5/30/90
		COMPLETED 5/30/90		
		16. ELEVATION TOP OF BORING -40.7' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.7		●●●●●	0': SAND (SP), fine; gray, Poorly Graded, wet, trace shell fragments, and silt, Slightly Calcareous.		1		USCS Weight of rods drove splitspoon to 41.2', cont'd drive to 42.2' w/ one hammer blow. No recovery on initial drive to 42.2'. Re-drove to 42.2' then cont'd drive to 43.7' w/ five blows from 42.2' to 42.7'. Then fifteen blows to 42.7' to 43.7'. Used Zeogel mud. Pull #1 From 48.2' to 50.4' Run 2.2' Rec 0.0' C.L. 2.2' Taped 33.9' Drilling Time: 5 min Hyd. Pressure: 100 psi.		1
		●●●●●	3': SAND, fine to medium.		2			15	
		●●●●●			3			40	
		●●●●●			4			33	
		●●●●●			5			72	
-46.7	6.0	●●●●●	6': SILTY SAND (SM), fine to medium; light gray, wet, trace gravel, Calcareous (Limestone).						
-48.2	7.5	●●●●●	7.5': No Recover.						
-50.4	9.7	●●●●●							

BOTTOM OF BOREHOLE AT -50.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-92-90	LOCATION COORDINATES N 306829.7379 E 2401350.427		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 12	DISTURBED 12	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 18'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 56'		15. DATE BORING 1/27/90	STARTED 1/27/90	COMPLETED 1/27/90
		16. ELEVATION TOP OF BORING -38' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-38			0': SAND (SP), fine to medium; gray, Poorly Graded, wet, trace silt, and shell fragments, Slightly Calcareous.		1		USCS		35
-39.5	1.5		1.5': SILTY SAND (SM), fine to medium; gray, wet, some shell fragments, Slightly Calcareous.		2		Set 6" casing by own weight to 38.8'.		24
-41.0	3.0		3': SAND (SP), fine to medium; gray, Poorly Graded, wet, trace silt, and shell fragments, Slightly Calcareous.		3		NOTE: Suspect thin limestone layers from 48.5' to 56.0'.		19
-44.0	6.0		6': SILTY SAND (SM), fine; gray, wet, Calcareous.		4				27
			7.5': SAND, fine to medium; trace shell fragments.		5				13
			9': SAND, fine.		6				18
			10.5': SILTY SAND, fine to medium; light gray, trace gravel, and shell fragments, Calcareous (Limestone gravel).		7			42	
-50.0	12.0		12': SILTY GRAVEL, fine to coarse; light gray, wet, some sand, trace shell fragments, (Limestone gravel).		8			36	
-51.5	13.5		13.5': SILTY SAND (SM), fine to medium; light gray, trace gravel, and shell fragments, Calcareous (Limestone gravel).		9			57	
					10			78	
					11			50	
-56.0	18.0				12			54	

BOTTOM OF BOREHOLE AT -56.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-93-90		LOCATION COORDINATES N 306244.5039 E 2400290.53		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 10	DISTURBED 10	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 15'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.9'		15. DATE BORING 2/8/90		STARTED 2/8/90
		COMPLETED 2/8/90		
		16. ELEVATION TOP OF BORING -40.9' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.9		+	0': SILTY SAND (SM), fine; gray, wet, trace shell fragments, Calcareous.		1		USCS		4
						2		Set 6" casing by own weight to 42.5'. Mixed Zeogel mud at 40.9' Weight of rods drove splitspoon from 40.9' to 41.6', cont'd drive to 42.4'	51
						3		NOTE: Suspect thin limestone layers from 48.4' to 55.9'.	22
						4			38
				6': SAND, fine to medium; gray and light gray, trace shell fragments.		5			45
				7.5': SAND, medium to coarse; light gray, trace gravel, (Limestone).		6			51
				9': Some gravel, (Fine to coarse limestone).		7			44
						8			53
						9			41
						10			45
-55.9	15.0								

BOTTOM OF BOREHOLE AT -55.9 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-93A-90		LOCATION COORDINATES N 306224.5061 E 2400300.535		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 6	DISTURBED 6	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 9'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 50.5'		15. DATE BORING 6/4/90		STARTED 6/4/90
		COMPLETED 6/4/90		
		16. ELEVATION TOP OF BORING -41.5' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.5			0': SAND (SP), fine to medium; gray, Poorly Graded, wet, with shell fragments, trace silt, Calcareous.		1		USCS		25
			1.5': Trace shell fragments.		2		Made new batch of Zeogel mud.		46
					3		Set 6" casing by own weight to 43.3'.		29
					4				28
-47.5	6.0		6': SAND (SM), fine to medium; gray to light gray, wet, trace gravel, with clay, and shell fragments, Calcareous (Limestone gravel).		5				19
-49.0	7.5		7.5': GRAVEL (GM), fine to coarse; light gray, wet, trace clay, and shell fragments, Calcareous (Limestone gravel).		6				7
-50.5	9.0								

BOTTOM OF BOREHOLE AT -50.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-94-90		LOCATION COORDINATES N 307294.5316 E 2400410.301		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 12	DISTURBED 12	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 18'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 56'		15. DATE BORING 2/13/90		STARTED 2/13/90
		16. ELEVATION TOP OF BORING -38' MLLW		COMPLETED 2/13/90
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-38		●	0': SAND (SP), fine to medium; gray, Poorly Graded, wet, and shell fragments, trace silt, Calcareous.		1		USCS		28
-39.5	1.5	●	1.5': SAND (SM), fine to medium; gray, wet, trace shell fragments, Calcareous.		2		6" casing by own weight to 38.3'		28
		●			3		NOTE: Suspect thin limestone layers from 48.5' to 56.0'. Mixed Zeogel mud at 39.5'		31
		●			4				26
		●			5				28
		●	7.5': Trace shell fragments.		6				25
		●	9': Gray and light gray.		7				61
		●	10.5': SAND, medium to coarse; light gray, trace gravel, trace shell fragments, (Limestone gravel).		8				50
		●			9				66
		●			10				51
		●			11				67
		●			12				48
-56.0	18.0	●							

SAW FORM 1836-A FEB 12 BOTTOM OF BOREHOLE AT -56.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG (Cont Sheet)	INSTALLATION		SHEET 2
	Charleston Harbor		OF 2 SHEETS
PROJECT	COORDINATE SYSTEM	HORIZONTAL	VERTICAL
Charleston Harbor Entrance Channel Deepening	State Plane	NAD83	MLLW
LOCATION COORDINATES	ELEVATION TOP OF BORING		
N 307294.5316 E 2400410.301	-38'		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	R.O.D. %	REMARKS	Blows/ 0.5 ft	N-Value
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BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-95-90		LOCATION COORDINATES N 306714.3202 E 2399450.405		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 10	DISTURBED 10	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 15'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.7'		15. DATE BORING 2/13/90		STARTED 2/13/90
		COMPLETED 2/13/90		
		16. ELEVATION TOP OF BORING -40.7' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.7			0': SAND (SP), fine to medium; gray, Poorly Graded, wet, trace silt, with shell fragments, Calcareous.		1		USCS Set 6" casing by own weight to 42.0'. Weight of rods drove splitspoon from 40.7' to 41.3', cont'd drive to 42.2'. Mixed Zeogel mud at 46.7'. NOTE: Suspect thin limestone layers from 48.2' to 55.7'.		20
-42.2	1.5		1.5': SILTY SAND (SM), fine; gray, wet, trace shell fragments, Calcareous.		2			26	
					3			30	
					4			37	
			6': SAND, fine to medium; gray to light gray.		5			83	
			7.5': SAND, medium to coarse; light gray, trace gravel, (Limestone gravel).		6			42	
-49.7	9.0		9': SILTY GRAVEL (GM), fine to coarse; light gray, some sand, trace shell fragments, Calcareous (Limestone gravel).		7			48	
					8			63	
-52.7	12.0		12': SILTY SAND (SM), medium to coarse; light gray, some gravel, trace shell fragments, Calcareous (Limestone gravel).		9			64	
					10			31	

BOTTOM OF BOREHOLE AT -55.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-96-90		LOCATION COORDINATES N 307864.3027 E 2399365.15		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 9
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 9
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 13.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 2/14/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41.2' MLLW		STARTED 2/14/90
8. TOTAL DEPTH OF BORING 54.7'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 2/14/90
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.2		[Red dotted pattern]	0': SAND (SP), fine to medium; gray, Poorly Graded, wet, trace shell fragments, and silt, Calcareous.		1		USCS		12
					2		Set 6" casing by own weight to 41.8'. Weight of rods drove splitspoon from 41.2' to 41.6', cont'd to 42.7'. Mixed Zeogel mud at 44.2'.		34
					3		NOTE: Suspect thin limestone layers from 45.7' to 51.7'.		17
-45.7	4.5	[Yellow dotted pattern]	4.5': SILTY SAND (SM), medium to coarse; gray to light gray, with shell fragments, some gravel, Calcareous (Limestone gravel).		4				10
			6': Some gravel, (Limestone gravel).		5				5
			7.5': Some shell fragments.		6				16
			9': SILTY SAND, medium to coarse; light gray, wet, trace gravel, and shale fragments, Calcareous (Limestone gravel).		7				23
			10.5': No gravel.		8				66
					9				91

BOTTOM OF BOREHOLE AT -54.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-97-90		LOCATION COORDINATES N 307315.0512 E 2398218.242		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 9
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 9
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 13.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING STARTED 2/14/90 COMPLETED 2/14/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41.8' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A
8. TOTAL DEPTH OF BORING 55.3'		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.8			0': SAND (SP), fine to medium; tannish gray, Poorly Graded, wet, with shell fragments, trace silt, Calcareous.		1		USCS Mixed Zeogel mud at 41.8'. Set 6" casing by own weight to 42.5'. NOTE: Suspect thin limestone layers from 47.8' to 55.3'.		30
			1.5': Gray, trace shell fragments.		2			27	
-44.8	3.0		3': SAND (SM), fine to medium; gray, wet, with shell fragments, Calcareous.		3			15	
-46.3	4.5		4.5': CLAYEY SAND (SC), fine to medium; gray, wet, some shell fragments, Calcareous.		4			21	
-47.8	6.0		6': CLAYEY SAND (SM), medium to coarse; gray, wet, with shell fragments, trace gravel, Calcareous (Limestone gravel).		5			17	
					6			18	
-50.8	9.0		9': SILTY GRAVEL (GM), fine to coarse; gray, wet, some shell fragments, trace clay, Calcareous (Limestone gravel).		7			3	
					8			2	
-53.8	12.0		12': SILTY SAND (SM), medium to coarse; light gray, wet, some gravel, Calcareous (Limestone gravel).		9			11	
-55.3	13.5								

BOTTOM OF BOREHOLE AT -55.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG	DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83	VERTICAL MLLW
2. HOLE NUMBER EC-98-90		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314	
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 6	DISTURBED 6 UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		13. TOTAL NUMBER CORE BOXES 0	14. ELEVATION GROUND WATER NA
6. THICKNESS OF OVERBURDEN 9'		15. DATE BORING 2/15/90	STARTED 2/15/90 COMPLETED 2/15/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -46.6' MLLW	
8. TOTAL DEPTH OF BORING 55.6'		17. TOTAL CORE RECOVERY FOR BORING N/A	
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-46.6		+	0': SILTY SAND (SM), medium to coarse; tannish gray and light gray, wet, some shell fragments, trace limestone fragments, calcareous.		1		USCS		36
		+	1.5': Light gray, trace shell fragments, and limestone fragments.		2			32	
		+	3': Trace clay.		3			30	
		+	3.5': No clay.		4			38	
		+			5			49	
		+			6			60	
-55.6	9.0	+							

BOTTOM OF BOREHOLE AT -55.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER EC-99-90		LOCATION COORDINATES N 308983.8757 E 2397409.857		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 6
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 6
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 9'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/6/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -47.1' MLLW		STARTED 3/6/90
8. TOTAL DEPTH OF BORING 56.1'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 3/6/90
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, Geologist		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-47.1			0': SILTY SAND (SM), medium to coarse; light gray, wet, some gravel, Calcareous (Limestone gravel).		1		USCS Set 6" casing to 47.1'.		26
			1.5': Trace gravel, (Limestone gravel).		2				52
					3				52
					4				68
					5				64
					6				42
-56.1	9.0								

BOTTOM OF BOREHOLE AT -56.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER FR-1-97		LOCATION COORDINATES N 344832.6955 E 2338043.209		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 12
4. NAME OF DRILLER C. Robbins		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 12
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 44.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 6/10/97
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -19.1' MLLW		STARTED 6/10/97
8. TOTAL DEPTH OF BORING 63.6'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 6/10/97
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value	
-19.1			0': FAT CLAY (CH), dark gray, trace shale fragments, calcareous.		1		USCS		0	
-28.3	9.2		9.2': CLAYEY SAND (SC), fine; gray, trace shale fragments, calcareous.		2				0	
-32.1	13.0		13':		3			2	8	
			14.5': Light gray.		4		3	3		
-35.1	16.0		16': SAND (SM), fine; light gray, Poorly Graded, trace shale fragments, calcareous.		5		2	2		
			17.5': SAND, fine to medium; non-calcareous.		6		3	4	11	
						5		5		6
						6		3		3
			22': Some shell fragments.			7		5	5	11
						8		2	3	
			23.5': Light gray and dark gray.			9		4	4	6
					10		4	4		
					11		5	5	11	
					12		6	6		

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS	
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW	
LOCATION COORDINATES N 344832.6955 E 2338043.209		ELEVATION TOP OF BORING -19.1'			




ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value		
			16': SAND (SM), fine; light gray, Poorly Graded, trace shale fragments, calcareous. (continued)		7			4	10		
										5	
										5	
					28': SILTY SAND, fine to medium; light gray, some shale fragments, calcareous.					6	13
										7	
										8	
					29.5': Trace shell fragments.		8			10	20
										10	
										8	
					34': Some shell fragments.		9			8	19
										9	
										5	
					35.5': Trace shell fragments.					10	18
										8	
										8	
			38.5': Some shell fragments.		10			9	19		
								7			
								8			
			41.5': CLAYEY SAND (SC), fine; olive gray, calcareous.		11			7	17		
								8			
								9			
								5	13		
								5			
								8			
								7	19		
								8			
								11			
					10			7	21		
								10			
								11			
								8	25		
								12			
								13			
-60.6	41.5				11			8	24		
								12			
								12			
					12			12	30		
								15			
								15			

BOTTOM OF BOREHOLE AT -63.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER MP-39-88		LOCATION COORDINATES N 332660.6572 E 2353444.418		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 6
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 6
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING ---
6. THICKNESS OF OVERBURDEN 10.3'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/2/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -51.2' MLLW		STARTED 3/2/88
8. TOTAL DEPTH OF BORING 61.5'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 3/2/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.8			0': CLAYEY SAND (SC), fine; green, calcareous.		1		USCS		0
-55.5	4.3		4.3': SANDY CLAY (CL), low plasticity; gray, low plasticity, with shell fragments.		2				6
-57.0	5.8		5.8': SANDY CLAY (CH), high plasticity; gray, high plasticity, with shell fragments, calcareous.		3				9
					4				11
					5				16
					6				14

BOTTOM OF BOREHOLE AT -61.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER MP-40-88		LOCATION COORDINATES N 332196.9801 E 2355072.514		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 11	DISTURBED 11	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 15.6'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 51.3'		15. DATE BORING 3/2/88		STARTED 3/2/88
		16. ELEVATION TOP OF BORING -35.7' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-35.7	0.6		0': SANDY CLAY (CH), high plasticity; green, high plasticity, glauconitic.		1		USCS		0
			0.6': SILTY SAND (SM), fine; dark gray, with shell fragments.		2			20	
-37.8	2.1		2.1': CLAYEY SAND (SC), fine; dark green.		3			7	
-39.3	3.6		3.6': SANDY CLAY (CH), high plasticity; green, high plasticity, with lenses of light green clayey sand.		4			18	
					5			13	
-42.3	6.6		6.6': CLAYEY SAND (SC), fine; green.		6			5	
					7			7	
					8			3	
-46.8	11.1		11.1': SANDY CLAY (CL), low plasticity; green, low plasticity, glauconitic.		9			5	
-48.3	12.6		12.6': CLAY (CH), green, with shell fragments, glauconitic.		10			12	
-51.3	15.6				11			10	

BOTTOM OF BOREHOLE AT -51.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER MP-41-94	LOCATION COORDINATES N 331869.1668 E 2354454.213		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 6	DISTURBED 6	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 19.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 68.2'		15. DATE BORING 8/21/94		STARTED 8/21/94 COMPLETED 8/21/94
		16. ELEVATION TOP OF BORING -48.7' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-48.7			0': SANDY CLAY (CL), low plasticity; fine; olive gray, low plasticity, calcareous.		1		USCS		4
-51.7	3.0		3': CLAYEY SAND (SC), fine; dark olive gray, calcareous.		2			13	
-56.2	7.5		7.5': SANDY CLAY (CL), low plasticity; fine; dark olive gray, low plasticity, calcareous.		3			22	
								22	
								23	
								19	
								9	
								11	
					4			14	
								12	
-65.2	16.5		16.5': CLAYEY SAND (SC), fine to medium; dark olive gray, calcareous.		5		15		
							14		
-68.2	19.5				6		9		

BOTTOM OF BOREHOLE AT -68.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division		INSTALLATION Charleston Harbor		SHEET 1 OF 1 SHEETS	
		1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW	
2. HOLE NUMBER RR-11-88		LOCATION COORDINATES N 339480.2969 E 2346765.138		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail			
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314					
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 7		DISTURBED 7		UNDISTURBED 0	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING		13. TOTAL NUMBER CORE BOXES 0	
6. THICKNESS OF OVERBURDEN 9'		14. ELEVATION GROUND WATER NA					
7. DEPTH DRILLED INTO ROCK 0'		15. DATE BORING 2/13/88		STARTED 2/13/88		COMPLETED 2/13/88	
8. TOTAL DEPTH OF BORING 50.6'		16. ELEVATION TOP OF BORING -41.6' MLLW		17. TOTAL CORE RECOVERY FOR BORING N/A			
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist							

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value	
-41.6		CLAY	0': CLAY (CH), high plasticity; olive green, high plasticity, with shell fragments, glauconitic, w/ pockets of sand.		1		USCS		30	
						2			34	
						3			22	
				4': Dark green, slightly micaceous.		4			29	
-47.1	5.5		SAND	5.5': CLAYEY SAND (SC), fine; olive green, glauconitic, slightly micaceous.		5				
-47.6	6.0				6': CLAY (CH), high plasticity; dark green, high plasticity, micaceous w/ pockets of sand.			6		20
								7		26
-50.6	9.0									

BOTTOM OF BOREHOLE AT -50.6 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER RR-12-88		LOCATION COORDINATES N 338914.4521 E 2347549.239		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 6
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 6
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 9'		14. ELEVATION GROUND WATER NA		15. DATE BORING 2/13/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -41.4' MLLW		STARTED 2/13/88
8. TOTAL DEPTH OF BORING 50.4'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 2/13/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-41.4		[Hatched Legend]	0': CLAY (CH), high plasticity; olive green, high plasticity, glauconitic, slightly sandy, w/ lenses of dark grey, very loose sand.		1		USCS		36
			1.5': Sandy.		2			28	
					3			23	
					4			24	
					5			21	
					6			17	
-50.4	9.0								

BOTTOM OF BOREHOLE AT -50.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER RR-13-88		LOCATION COORDINATES N 338487.5636 E 2348110.315		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 6	DISTURBED 6	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 10.3'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 50.5'		15. DATE BORING 2/13/88		STARTED 2/13/88
		COMPLETED 2/13/88		
		16. ELEVATION TOP OF BORING -40.2' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-40.2		0'	0': No sample recovered.						
-41.5	1.3	1.3'	1.3': CLAY (CH), high plasticity; olive green, high plasticity, glauconitic, sandy, w/ lenses of dark grey, sand.		1				36
		2.0'			2				33
		3.0'			3				26
		4.8'	5.8': Interlayered dark green and olive green.		4				22
		5.0'			5				17
		6.0'			6				24
-50.5	10.3	10.3'							

BOTTOM OF BOREHOLE AT -50.5 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER RR-14-88		LOCATION COORDINATES N 340364.225 E 2346436.981		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 7	DISTURBED 7	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 10.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 50.1'		15. DATE BORING 2/14/88		STARTED 2/14/88
		COMPLETED 2/14/88		
		16. ELEVATION TOP OF BORING -39.6' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				



ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-39.6		[Hatched Legend]	0': CLAY (CH), high plasticity; olive green, high plasticity, glauconitic, slightly sandy. 0.5': Lenses of black, fat clay w/ shell fragments.		1		USCS		28
			1.5': SANDY.		2			15	
					3			19	
			4.5': Dark green and olive green.		4			14	
					5			14	
					6			13	
					7			22	
-50.1	10.5								

BOTTOM OF BOREHOLE AT -50.1 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER RR-15-88		LOCATION COORDINATES N 341935.6253 E 2343363.711		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 4
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 4
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 7.2'		14. ELEVATION GROUND WATER NA		15. DATE BORING 2/14/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -42.8' MLLW		STARTED 2/14/88
8. TOTAL DEPTH OF BORING 50'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 2/14/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				




ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-42.8			0': CLAY (CH), high plasticity; gray, high plasticity, with shell fragments, slightly glauconitic.		1		USCS		0
-45.5	2.7		2.7': CLAYEY SAND (SC), fine; dark gray, with shell fragments, glauconitic, strong sulpher odor..		2				5
					3				0
					4				7
-50.0	7.2								

BOTTOM OF BOREHOLE AT -50.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER RR-16-88	LOCATION COORDINATES N 343345.4057 E 2342287.467		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 7
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 7
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	UNDISTURBED 0
6. THICKNESS OF OVERBURDEN 13.2'		14. ELEVATION GROUND WATER NA		15. DATE BORING 2/14/88
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -37.1' MLLW		STARTED 2/14/88
8. TOTAL DEPTH OF BORING 50.3'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 2/14/88
18. SIGNATURE AND TITLE OF INSPECTOR Bob Green, Geologist				


ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.1			0': CLAY (CH), high plasticity; gray, high plasticity, with shell fragments, interlayered w/ poorly graded sand.		1		USCS		0
			7.2': End of sand layers.		2				6
					3				0
					4				20
-48.3	11.2		11.2': SAND (SP), fine to medium; gray, Poorly Graded, with shell fragments, slightly clayey.		5				
					6				14
-49.8	12.7		12.7': CLAYEY SAND (SC), fine; gray.		7				
-50.3	13.2								

BOTTOM OF BOREHOLE AT -50.3 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER RR-17-94		LOCATION COORDINATES N 336023.0262 E 2344820.825		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 2
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 2
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 13.5'		14. ELEVATION GROUND WATER NA		15. DATE BORING 8/17/94
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -38.4' MLLW		STARTED 8/17/94
8. TOTAL DEPTH OF BORING 51.9'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 8/17/94
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.4			0': CLAYEY SAND (SC), fine; dark gray, some silt, trace shell fragments.		1		USCS		0
							Used saltwater drilling mud beginning at 47.9'		0
-51.9	13.5				2				5

BOTTOM OF BOREHOLE AT -51.9 ft




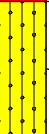
NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER RR-19-97		LOCATION COORDINATES N 344162.919 E 2339490.779		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 9
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 9
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING ---
6. THICKNESS OF OVERBURDEN 44.8'		14. ELEVATION GROUND WATER NA		15. DATE BORING 6/5/97
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -11.4' MLLW		STARTED 6/5/97
8. TOTAL DEPTH OF BORING 56.2'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 6/5/97
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-11.4			0': CLAYEY SILT (MH), high plasticity; gray, high plasticity, some sand, trace shells, calcareous.		1		USCS		0
-17.8	6.4		6.4': CLAY (CH), high plasticity; gray, high plasticity.		2				0
			21.2': Trace sand, and silt, shell fragments.		3				0
			27.1': Trace organics.						

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS	
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW	
LOCATION COORDINATES N 344162.919 E 2339490.779		ELEVATION TOP OF BORING -11.4'			



ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RQD %	REMARKS	Blows/ 0.5 ft	N-Value
			6.4': CLAY (CH), high plasticity; gray, high plasticity. <i>(continued)</i>						
			32.3': CLAY, high plasticity; gray, high plasticity, trace organics.		4				0
			35.5': Brownish gray.		5				0
-50.2	38.8		38.8': SILT (OL), dark grayish brown and dark brown, some organics, and clay, some sand.		6			0	8
-51.7	40.3		40.3': SAND (SP), fine to medium; gray, Poorly Graded.		7			0	21
-53.2	41.8		41.8': SILTY SAND (SM), fine to medium; dark brownish gray, trace clay.		8			0	14
			43.3': SILTY SAND, medium to coarse; dark gray, trace clay.		9			0	13
-56.2	44.8							6	

BOTTOM OF BOREHOLE AT -56.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SC-1-94	LOCATION COORDINATES N 338624.0551 E 2343574.82		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail	
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 3	DISTURBED 3	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 22.4'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 52'		15. DATE BORING 8/17/94		STARTED 8/17/94 COMPLETED 8/17/94
		16. ELEVATION TOP OF BORING -29.6' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-29.6			0': CLAYEY SILT (MH), dark gray to black, some sand.		1		USCS		0
-47.5	17.9		17.9': WELL GRADED GRAVEL CLAYEY SAND (SC), fine; dark gray to black, some silt.		2				4
			20.9': Fine to medium; shell fragments.		3				0
-52.0	22.4								8

BOTTOM OF BOREHOLE AT -52.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER SR-1-89		LOCATION COORDINATES N 346123.6893 E 2334645.032		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 2
4. NAME OF DRILLER C. Robbins		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 2
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 13.3'		14. ELEVATION GROUND WATER NA		15. DATE BORING 3/29/89
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -38.9' MLLW		STARTED 3/29/89
8. TOTAL DEPTH OF BORING 52.2'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 3/29/89
18. SIGNATURE AND TITLE OF INSPECTOR Matthew Delano, Geologist				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-38.9		13.3	0': FAT CLAY (CH), black, wet, with sand.		1		USCS		0
			11.8': FAT CLAY, high plasticity; dark bluish gray, high plasticity, trace sand, slightly calcareous.		2				12
-52.2	13.3								

BOTTOM OF BOREHOLE AT -52.2 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER TWR-11-90		LOCATION COORDINATES N 345863.3364 E 2331270.099		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 9	DISTURBED 9	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 21'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 58.7'		15. DATE BORING 1/30/90		STARTED 1/30/90
		COMPLETED 1/30/90		
		16. ELEVATION TOP OF BORING -37.7' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Samp No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-37.7			0': CLAYEY SILT (MH), dark gray to black, wet.		1		USCS		0
-43.7	6.0		6': SILTY SAND (SM), fine to medium; dark gray to black, wet, trace clay.		2				5
			7.5': SAND, fine; dark gray, trace shell fragments.		3				0
			9': SAND, medium to coarse; with shell fragments, and wood.		4				4
-49.7	12.0				5				9
			12': CLAYEY SAND (SC), fine; dark gray, wet, some shell fragments.		6				0
-51.2	13.5		13.5': FAT CLAY (CH), dark gray, wet, some sand.		7				0
			15': Trace shell fragments.		8				5
			16.5': No shell fragments.		9				0
-58.7	21.0								4

BOTTOM OF BOREHOLE AT -58.7 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER TWR-12-90		LOCATION COORDINATES N 345449.3842 E 2331502.166		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		
4. NAME OF DRILLER C.D. Justiss		12. TOTAL SAMPLES 7	DISTURBED 7	UNDISTURBED 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---	BEARING	
6. THICKNESS OF OVERBURDEN 22.5'		13. TOTAL NUMBER CORE BOXES 0		
7. DEPTH DRILLED INTO ROCK 0'		14. ELEVATION GROUND WATER NA		
8. TOTAL DEPTH OF BORING 55.4'		15. DATE BORING 1/26/90		STARTED 1/26/90
		COMPLETED 1/26/90		
		16. ELEVATION TOP OF BORING -32.9' MLLW		
		17. TOTAL CORE RECOVERY FOR BORING N/A		
		18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	ROD %	REMARKS	Blows/ 0.5 ft	N-Value
-32.9			0': CLAYEY SILT (MH), dark gray to black, wet.		1		USCS NOTE: Part of sample #1 taken from drill rod.		0
-46.2	13.3		13.3': SILTY SAND (SM), fine; dark gray, wet, some shell fragments, trace clay.		2				2
-49.4	16.5		16.5': SAND (SP), medium; gray, Poorly Graded, wet, with shell fragments, trace silt.		3				09
-50.9	18.0		18': SILTY SAND (SM), fine to medium; dark gray, wet, with shell fragments.		4				0
-53.9	21.0		21': CLAYEY SAND (SC), fine to medium; dark gray, wet, trace shell fragments.		5				9
-55.4	22.5				6				2
					7				11

BOTTOM OF BOREHOLE AT -55.4 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 1 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER TWR-13-90		LOCATION COORDINATES N 345439.3017 E 2331047.171		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL Failing 314		12. TOTAL SAMPLES 8
4. NAME OF DRILLER C.D. Justiss		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 8
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 16.4'		14. ELEVATION GROUND WATER NA		15. DATE BORING 1/26/90
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -39.1' MLLW		STARTED 1/26/90
8. TOTAL DEPTH OF BORING 55.5'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 1/26/90
18. SIGNATURE AND TITLE OF INSPECTOR James Arthur, P.G.				

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-39.1			0': CLAYEY SILT (MH), dark gray to black, wet.		1		USCS		0
-48.4	9.3		9.3': SILTY SAND (SM), fine; dark gray, wet, some shell fragments, trace clay. 9.5': Trace shell fragments.		2				2
-50.1	11.0		11': SAND (SP), fine; gray, Poorly Graded, wet, trace shell fragments.		3				10
			12.5': No shell fragments.		4				5
					5				11
					6				12
					7				23
-55.3	16.2		16.2': LEAN CLAY (CL), olive green, moist, some sand, trace shell fragments, calcareous.		8				
-55.5	16.4		BOTTOM OF BOREHOLE AT -55.5 ft						

BLOWS PER FOOT: Number required to drive 1-3/8" ID splitspoon w/140 lb. hammer falling 30".

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System

DRILLING LOG		DIVISION South Atlantic Division	INSTALLATION Charleston Harbor	SHEET 1 OF 2 SHEETS
1. PROJECT Charleston Harbor Entrance Channel Deepening		9. COORDINATE SYSTEM State Plane - South Carolina NAD83		VERTICAL MLLW
2. HOLE NUMBER WRB-20-81		LOCATION COORDINATES N 337031.463 E 2340488.892		10. SIZE AND TYPE OF BIT 1-3/8" Splitspoon w/ 5 1/2" Fishtail
3. DRILLING AGENCY U.S. Corps of Engineers - Savannah District		11. MANUFACTURER'S DESIGNATION OF DRILL CME 45		12. TOTAL SAMPLES 6
4. NAME OF DRILLER Perry Roundtree		13. TOTAL NUMBER CORE BOXES 0		DISTURBED 6
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG FROM VERTICAL ---		BEARING
6. THICKNESS OF OVERBURDEN 36'		14. ELEVATION GROUND WATER NA		15. DATE BORING 5/22/81
7. DEPTH DRILLED INTO ROCK 0'		16. ELEVATION TOP OF BORING -14' MLLW		STARTED 5/22/81
8. TOTAL DEPTH OF BORING 50'		17. TOTAL CORE RECOVERY FOR BORING N/A		COMPLETED 5/22/81
		18. SIGNATURE AND TITLE OF INSPECTOR Thomas W. Scott		

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
-14		ORGANIC SILT (OH), black.	0': ORGANIC SILT (OH), black.				USCS		0
-30.0	16.0	CLAYEY FAT SILT (MH), green.	16': CLAYEY FAT SILT (MH), green.		1				2
		CLAYEY FAT SILT (MH), green.							14
		CLAYEY FAT SILT (MH), green.							14

DRILLING LOG (Cont Sheet)		INSTALLATION Charleston Harbor		SHEET 2 OF 2 SHEETS	
PROJECT Charleston Harbor Entrance Channel Deepening		COORDINATE SYSTEM State Plane		HORIZONTAL : VERTICAL NAD83 : MLLW	
LOCATION COORDINATES N 337031.463 E 2340488.892		ELEVATION TOP OF BORING -14'			

ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	% REC	Sampl No.	RCD %	REMARKS	Blows/ 0.5 ft	N-Value
			16': CLAYEY FAT SILT (MH), green. <i>(continued)</i>		2				12
			22': With gravel.		3				10
			23.5': CLAYEY FAT SILT.		4				17
									16
									17
									18
									23
									17
					5				16
					6				18

BOTTOM OF BOREHOLE AT -50.0 ft

NOTE: Soils visually field classified in accordance with the Unified Soil Classification System BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".

BLOWS PER FOOT: Number required to drive 1-3/8"ID splitspoon w/140 lb. hammer falling 30".