Vibrational Core NJV-645 R2

U.S. Army Corps of Engineers
Vibrational Cores-Long Beach Island
Contract Number DACW61-02-D-0004
Task Order 09
Long Beach Island PED

Date	: May 30, 2002
Weather	: Sun, 70's
Contractor	: Alpine Ocean Seismic Sur.
Location	: Long Beach Island, NJ
Northing Coord.	: N 307,440.9 NJ-NAD 83
Easting Coord.	: E 614,988.2 NJ-NAD 83
Uncorrected Depth	: 49.2 feet
Tide	: +0.4 feet
Corrected Depth	: 48.8 feet (1)
Vibration time	: 9'41"
Core penetration	: 8.9 feet
Core recovery	: 5.6 feet
Percent recovery	: 63 % (4)

Soil Surf. Elev. (ft) -48.8 (1)

Depth in Feet	USCS	DESCRIPTION	Core Interval	Sample No./Interval
0 (-49)				
5 (-54)				
10 (-59)		Jet to 10.6 feet. Start vibration.		
	SP	Light-gray/gray fine SAND, some medium sand, trace silt/clay, trace shell fragments.	1	1/10.6-16.2
15 (-64)				
20 (-69)				
25				

Notes:
1. Corrected water depth and soil surface elevation datum is NGVD.
2. Sample depths are based on core recovery lengths.
3. Soil descriptions & USCS classifications according to Visual-Manual Procedure (ASTM D 2488) and/or mechanical sieve analysis if analysis performed.
4. Actual sample collection from 10.6 feet to 19.5 feet, total sampled length 8.9 feet. Percent recovery based on that length.

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U.S. Army Corps of Engineers
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Contract Number DACW61-02-D-0004
Task Order 09
Long Beach Island PED

Date	: May 30, 2002
Weather	: Sun, 70's
Contractor	: Alpine Ocean Seismic Sur.
Location	: Long Beach Island, NJ
Northing Coord.	: N 307,999.5 NJ-NAD 83
Easting Coord.	: E 613,095.1 NJ-NAD 83
Uncorrected Depth	: 46.4 feet
Tide	: -1.0 feet
Corrected Depth	: 47.4 feet (1)
Vibration time	: 5'14"
Core penetration	: 18.0 feet
Core recovery	: 19.5 feet
Percent recovery	: 109 % (4)

Soil Surf. Elev. (ft) -47.4 (1)

Depth in Feet	USCS	DESCRIPTION	Core Interval	Sample No./Interval
0 (-48)				
	SP	Light-brown/gray fine SAND, some medium sand, trace silt/clay, trace shell fragments.	1	1/0.0-5.0
5 (-53)				
		Light-brown/gray fine SAND, little medium sand, trace coarse sand, trace shell fragments.	2	2/5.0-10.1
10 (-58)				
		Gray fine SAND, little medium sand, trace silt/clay, trace coarse sand, trace shell fragments.		3/10.1-11.3
	ML/CL	Gray SILT/CLAY, little medium sand, trace coarse sand, trace fine sand.	3	4/11.3-14.4 (NOT TESTED) (Predominantly fine-grained)
15 (-63)				
		Gray SILT/CLAY, little medium sand, trace coarse sand, trace fine sand.	4	5/14.4-17.1
		SAME.		6/17.1-19.5 (NOT TESTED) (Predominantly fine-grained)
20 (-68)				
25				

Notes:
1. Corrected water depth and soil surface elevation datum is NGVD.
2. Sample depths are based on core recovery lengths.
3. Soil descriptions & USCS classifications according to Visual-Manual Procedure (ASTM D 2488) and/or mechanical sieve analysis if analysis performed.
4. Percent recovery reflects "over recovery" of sample possibly due to sample heave in liner and/or difficulty of penetration through dense strata.

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Vibrational Core NJV-648 R1

U.S. Army Corps of Engineers
Vibrational Cores-Long Beach Island
Contract Number DACW61-02-D-0004
Task Order 09
Long Beach Island PED

Date	: May 30, 2002
Weather	: Sun, 70's
Contractor	: Alpine Ocean Seismic Sur.
Location	: Long Beach Island, NJ
Northing Coord.	: N 308,430.3 NJ-NAD 83
Easting Coord.	: E 611,576.0 NJ-NAD 83
Uncorrected Depth	: 45.6 feet
Tide	: -0.6 feet
Corrected Depth	: 46.2 feet (1)
Vibration time	: 4'52"
Core penetration	: 8.3 feet
Core recovery	: 0.0 feet
Percent recovery	: 0 %

Soil Surf. Elev. (ft) -46.2 (1)

Depth in Feet	USCS	DESCRIPTION	Core Interval	Sample No./Interval
0 (-47)				
		NO RECOVERY		
5 (-52)				
10 (-57)				
15 (-62)				
20 (-67)				
25				

Notes:
1. Corrected water depth and soil surface elevation datum is NGVD.
2. Core rig malfunction, lost all sample.

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Vibrational Core NJV-648 R2

U.S. Army Corps of Engineers
Vibrational Cores-Long Beach Island
Contract Number DACW61-02-D-0004
Task Order 09
Long Beach Island PED

Date	: June 3, 2002
Weather	: Sun, 70's
Contractor	: Alpine Ocean Seismic Sur.
Location	: Long Beach Island, NJ
Northing Coord.	: N 308,418.4 NJ-NAD 83
Easting Coord.	: E 611,636.0 NJ-NAD 83
Uncorrected Depth	: 43.9 feet
Tide	: -0.9 feet
Corrected Depth	: 44.8 feet (1)
Vibration time	: 5'31"
Core penetration	: 18.3 feet
Core recovery	: 17.7 feet
Percent recovery	: 97 %

Soil Surf. Elev. (ft) -44.8 (1)

Depth in Feet	USCS	DESCRIPTION	Core Interval	Sample No./Interval
0 (-45)				
		Gray fine to medium SAND, trace coarse sand, trace shell fragments.	1	1/0.0-5.0
5 (-50)				
		Gray fine SAND, some medium sand, trace coarse sand, trace silt/clay, trace shell fragments.	2	2/5.0-10.0
	SP			
10 (-55)				
		Gray fine SAND, little medium sand, trace silt/clay, trace coarse sand, trace shell fragments.	3	3/10.0-15.0
15 (-60)				
		Gray fine SAND, some medium sand, trace silt/clay, trace gravel, trace coarse sand, trace shell fragments.	4	4/15.0-17.7
20 (-65)				
25				

Notes:
1. Corrected water depth and soil surface elevation datum is NGVD.
2. Sample depths are based on core recovery lengths.
3. Soil descriptions & USCS classifications according to Visual-Manual Procedure (ASTM D 2488) and/or mechanical sieve analysis if analysis performed.
4. No sample recovered from NJV-648 R1.

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Vibrational Core NJV-649

U.S. Army Corps of Engineers
Vibrational Cores-Long Beach Island
Contract Number DACW61-02-D-0004
Task Order 09
Long Beach Island PED

Date	: May 30, 2002
Weather	: Sun, 70's
Contractor	: Alpine Ocean Seismic Sur.
Location	: Long Beach Island, NJ
Northing Coord.	: N 306,710.7 NJ-NAD 83
Easting Coord.	: E 612,015.2 NJ-NAD 83
Uncorrected Depth	: 46.0 feet
Tide	: +1.6 feet
Corrected Depth	: 44.4 feet (1)
Vibration time	: 3'51"
Core penetration	: 19.2 feet
Core recovery	: 20.0 feet
Percent recovery	: 104 % (4)

Soil Surf. Elev. (ft) -44.4 (1)

Depth in Feet	USCS	DESCRIPTION	Core Interval	Sample No./Interval
0 (-45)				
		Light-brown/gray fine SAND, some medium sand, trace gravel, trace coarse sand, trace shell fragments.	1	1/0.0-5.0
5 (-50)				
		Light-brown/gray fine SAND, trace medium sand, trace coarse sand, trace silt/clay, trace shell fragments.	2	2/5.0-10.0
	SP			
10 (-55)				
		Light-brown/gray fine SAND, little medium sand, trace gravel, trace coarse sand, trace silt/clay, trace shell fragments.	3	3/10.0-14.0
15 (-60)				
		Gray SILT/CLAY, trace fine sand.		4/14.0-16.7 (NOT TESTED) (predominantly fine-grained)
	ML/CL			
		Gray SILT/CLAY, little coarse sand, little medium sand, trace fine sand, trace gravel.	4	5/17.0-20.0
20 (-65)				
25				

Notes:
1. Corrected water depth and soil surface elevation datum is NGVD.
2. Sample depths are based on core recovery lengths.
3. Soil descriptions & USCS classifications according to Visual-Manual Procedure (ASTM D 2488) and/or mechanical sieve analysis if analysis performed.
4. Percent recovery reflects "over recovery" of sample possibly due to heave in liner and/or difficulty of penetration through dense strata.

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Vibrational Core NJV-650 R1

U.S. Army Corps of Engineers
Vibrational Cores-Long Beach Island
Contract Number DACW61-02-D-0004
Task Order 09
Long Beach Island PED

Date	: May 30, 2002
Weather	: Sun, 70's
Contractor	: Alpine Ocean Seismic Sur.
Location	: Long Beach Island, NJ
Northing Coord.	: N 305,587.1 NJ-NAD 83
Easting Coord.	: E 612,894.7 NJ-NAD 83
Uncorrected Depth	: 55.6 feet
Tide	: +1.6 feet
Corrected Depth	: 54.0 feet (1)
Vibration time	: 10'20"
Core penetration	: 14.9 feet
Core recovery	: 12.5 feet
Percent recovery	: 84 %

Soil Surf. Elev. (ft) -54.0 (1)

Depth in Feet	USCS	DESCRIPTION	Core Interval	Sample No./Interval
0 (-54)				
		Light-brown/gray fine SAND, some medium sand, trace coarse sand, trace silt/clay, trace shell fragments.	1	1/0.0-5.0
5 (-59)				
	SP	Light-brown/gray fine SAND, trace medium sand, trace silt/clay, trace shell fragements.	2	2/5.0-10.0
10 (-64)				
		Gray fine SAND, trace medium sand, trace silt/clay, trace gravel, trace shell fragments.	3	3/10.0-11.2
		Gray medium to fine SAND, trace gravel, trace coarse sand, trace silt/clay.		4/11.2-12.5
15 (-69)				
20 (-74)				
25				

Notes:
1. Corrected water depth and soil surface elevation datum is NGVD.
2. Sample depths are based on core recovery lengths.
3. Soil descriptions & USCS classifications according to Visual-Manual Procedure (ASTM D 2488) and/or mechanical sieve analysis if analysis performed.
4. Practical refusal met at approximately 14.9 feet.

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US Army Corps of Engineers
Philadelphia District

Mark	Description	Date	Appr.	Mark	Description	Date	Appr.

Designed by: LAM
Dwn by: LAM
Ckd by: DCL
Reviewed by: CPC
Submitted by: AJT
Chief, Arch. Branch
Date: OCT/01/2006
Rev.
FILE NUMBER: 06-B8-0000
Drawing code:
File name: LBNBCORES
Plot date:
Plot scale: 1in to 1 ft

U.S. ARMY ENGINEER DISTRICT, PHILADELPHIA
CORPS OF ENGINEERS
PHILADELPHIA, PENNSYLVANIA

FEASIBILITY STUDY PLANS

BARNEGAT INLET TO LITTLE EGG INLET
OCEAN COUNTY, NEW JERSEY
BEACHFILL

VIBRACORE LOGS
NJV-645 TO NJV-650

Sheet reference number:
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