Vibrational Core NJV-641 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 31, 2002
Weather	: Sun, 70's
Contractor	: Alpine Ocean Seismic Sur.
Location	: Long Beach Island, NJ
Northing Coord.	: N 311,610.4 NJ-NAD 83
Easting Coord.	: E 614,842.7 NJ-NAD 83
Uncorrected Depth	: 45.6 feet
Tide	: 0.3 feet
Corrected Depth	: 45.3 feet (1)
Vibration time	: 7'42"
Core penetration	: 9.0 feet
Core recovery	: 9.0 feet
Percent recovery	: 100 %

Depth in Feet: 0, 5, 10, 15, 20, 25
Soil Surf. Elev. (ft) -45.3 (1): -46, -51, -56, -61, -66

USCS	DESCRIPTION	Core interval	Sample No./Interval
SP	Light-brown/gray fine to medium SAND, trace coarse sand, trace gravel, trace shell fragments.	1	1/0-4.9
SP	Gray/light-gray fine to medium SAND, trace silt/clay, trace coarse sand, trace shell fragments.	2	2/4.9-9.0

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 9.0 feet.

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Vibrational Core NJV-641 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 1, 2002
Weather	: Sun, 70's
Contractor	: Alpine Ocean Seismic Sur.
Location	: Long Beach Island, NJ
Northing Coord.	: N 311,623.7 NJ-NAD 83
Easting Coord.	: E 614,807.3 NJ-NAD 83
Uncorrected Depth	: 41.3 feet
Tide	: -2.1 feet
Corrected Depth	: 43.4 feet (1)
Vibration time	: 5'18"
Core penetration	: 11.3 feet
Core recovery	: 13.3 feet
Percent recovery	: 118 % (4) (5)

Depth in Feet: 0, 5, 10, 15, 20, 25
Soil Surf. Elev. (ft) -43.4 (1): -44, -49, -54, -59, -64

USCS	DESCRIPTION	Core interval	Sample No./Interval
	Jet to approximately 7.7 feet, then start vibration.		
SP	Gray/light-gray fine SAND, little medium sand, trace silt/clay, trace shell fragments.	1	1/7.7-12.7
SP	Gray/light-gray fine SAND, trace medium sand, trace silt/clay, trace shell fragments.	2	2/12.7-16.6
SW-SM	Gray/light-brown fine to coarse SAND and gravel, trace medium sand, trace silt/clay, trace shell fragments.	2	3/16.6-17.5
GW	Gray GRAVEL and medium to coarse sand, trace fine sand, trace silt/clay.	3	4/17.9-19.0
ML/CL	Gray SILT/CLAY, little coarse sand, trace gravel.	3	5/19.0-19.8 (NOT TESTED) (Sample predominantly fine-grained)
ML/CL	Gray SILT/CLAY, little fine to coarse sand.	3	6/19.8-21.0 (NOT TESTED) (Sample predominantly fine-grained)

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 7.7 feet to 19.0 feet, total sampled length 11.3 feet. Percent recovery based on this length.
5. Percent recovery reflects "over recovery" of sample possible due to heave in liner and/or difficulty of penetration through dense strata.

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Vibrational Core NJV-642

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 1, 2002
Weather	: Sun, 70's
Contractor	: Alpine Ocean Seismic Sur.
Location	: Long Beach Island, NJ
Northing Coord.	: N 310,285.3 NJ-NAD 83
Easting Coord.	: E 615,434.1 NJ-NAD 83
Uncorrected Depth	: 46.8 feet
Tide	: +0.1 feet
Corrected Depth	: 46.7 feet (1)
Vibration time	: 6'53"
Core penetration	: 17.0 feet
Core recovery	: 19.2 feet
Percent recovery	: 113 % (4)

Depth in Feet: 0, 5, 10, 15, 20, 25
Soil Surf. Elev. (ft) -46.7 (1): -47, -52, -57, -62, -67

USCS	DESCRIPTION	Core interval	Sample No./Interval
SP	Light-brown medium to fine SAND, trace coarse sand, trace shell fragments.	1	1/0.0-5.2
SP	Gray/dark-gray fine SAND, some medium sand, trace coarse sand, trace shell fragments.	2	2/5.2-10.4
SP	Gray fine SAND, some medium sand, trace silt/clay, trace shell fragments.	3	3/10.4-12.3
ML/CL	Gray SILT/CLAY, trace fine sand.	3	4/12.3-14.4 (NOT TESTED) (Predominantly fine-grained)
GM	Gray silty/clayey GRAVEL, little medium sand, trace coarse sand, trace fine sand.	3	5/14.4-15.2
SM	Gray medium SAND, some coarse sand, little gravel, little silt/clay, trace fine sand.	4	6/15.6-18.2
ML/CL	Gray SILT/CLAY, trace fine sand.	4	7/18.2-19.2 (NOT TESTED) (Predominantly fine-grained)

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. Precent 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-643

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 1, 2002
Weather	: Sun, 70's
Contractor	: Alpine Ocean Seismic Sur.
Location	: Long Beach Island, NJ
Northing Coord.	: N 309,085.1 NJ-NAD 83
Easting Coord.	: E 616,339.9 NJ-NAD 83
Uncorrected Depth	: 48.2 feet
Tide	: -0.4 feet
Corrected Depth	: 48.6 feet (1)
Vibration time	: 7'06"
Core penetration	: 16.5 feet
Core recovery	: 19.0 feet
Percent recovery	: 115 % (4)

Depth in Feet: 0, 5, 10, 15, 20, 25
Soil Surf. Elev. (ft) -48.6 (1): -49, -54, -59, -64, -69

USCS	DESCRIPTION	Core interval	Sample No./Interval
SP	Light-brown/gray fine SAND, some medium sand, trace shell fragments.	1	1/0.0-5.0
SP	Light-gray fine SAND, trace medium sand, trace silt/clay, trace coarse sand, trace shell fragments.	2	2/5.0-10.1
SP	Light-gray fine SAND, trace medium sand, trace silt/clay, trace coarse sand, trace shell fragments.	3	3/10.1-13.6
ML/CL	Gray SILT/CLAY and medium to coarse sand, little gravel, trace fine sand.	3	4/13.6-15.9
SP	Gray/brown medium SAND, some fine sand, little coarse sand, trace gravel, trace silt/clay, trace shell fragments.	4	5/15.9-19.0

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-644

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 1, 2002
Weather	: Sun, 70's
Contractor	: Alpine Ocean Seismic Sur.
Location	: Long Beach Island, NJ
Northing Coord.	: N 308,821.9 NJ-NAD 83
Easting Coord.	: E 614,541.2 NJ-NAD 83
Uncorrected Depth	: 45.4 feet
Tide	: 0.0 feet
Corrected Depth	: 45.4 feet (1)
Vibration time	: 9'51"
Core penetration	: 18.5 feet
Core recovery	: 18.6 feet
Percent recovery	: 100 %

Depth in Feet: 0, 5, 10, 15, 20, 25
Soil Surf. Elev. (ft) -45.3 (1): -47, -52, -57, -62, -67

USCS	DESCRIPTION	Core interval	Sample No./Interval
SP	Light-brown medium to fine SAND, trace coarse sand, trace gravel, trace silt/clay, trace shell fragments.	1	1/0.0-0.5
SP	Light-brown fine to medium SAND, trace coarse sand, trace gravel, trace shell fragments.	1	2/0.5-5.2
SP	Gray/dark-gray fine SAND, some medium sand, trace silt/clay, trace shell fragments.	2	3/5.2-10.3
SP	Gray/brown fine SAND, some medium sand, trace silt/clay, trace coarse sand, trace shell fragments.	3	4/10.3-15.4
SP	Gray/brown fine SAND, some medium sand, little silt/clay, trace gravel, trace shell fragments.	4	5/15.4-16.2
ML/CL	Interlayered Gray SILT/CLAY, trace fine to medium sand, trace gravel, trace coarse sand.	4	6/16.2-17.9 (NOT TESTED) (Predominantly fine-grained)
SM	Gray medium SAND, some coarse sand, little silt/clay, little fine sand, trace gravel.	4	6/17.9-18.6

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.

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Vibrational Core NJV-645 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 307,397.0 NJ-NAD 83
Easting Coord.	: E 615,025.9 NJ-NAD 83
Uncorrected Depth	: 49.5 feet
Tide	: +0.9 feet
Corrected Depth	: 48.6 feet (1)
Vibration time	: 11'17"
Core penetration	: 13.0 feet
Core recovery	: 12.2 feet
Percent recovery	: 94 %

Depth in Feet: 0, 5, 10, 15, 20, 25
Soil Surf. Elev. (ft) -48.6 (1): -49, -54, -59, -64, -69

USCS	DESCRIPTION	Core interval	Sample No./Interval
SP	Brown fine to medium SAND, trace coarse sand, trace silt/clay, trace gravel, trace shell fragments.	1	1/0.0-5.1
SP	Gray/dark-gray fine to medium SAND, trace coarse sand, trace gravel, trace silt/clay, trace shell fragments.	2	2/5.1-10.1
SP	Light-brown/gray fine SAND, some medium sand, trace silt/clay, trace shell fragments.	3	3/10.1-12.2

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 13.0 feet.

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US Army Corps of Engineers
Philadelphia District

Mark | Date | Appr. | Description

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

FEASIBILITY STUDY PLANS

Designed by: LAM
Dwn by: LAM
Ckd by: DCL
Reviewed by: CPC
Submitted by: ATR
Chief, Arch. Branch
Date: OCT/31/2006
Rev.
IFB W912BU-06-B-0000
Drawing code:
File name: LBIVIBCORES
Plot date:
Plot scale: 1in to 1 ft

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

VIBRACORE LOGS NJV-641 TO NJV-645

Sheet reference number:
XXXXX
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