Vibrational Core NJV-656

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 2, 2002
Weather	: Sun, 70's
Contractor	: Alpine Ocean Seismic Sur.
Location	: Long Beach Island, NJ
Northing Coord.	: N 306,077.7 NJ–NAD 83
Easting Coord.	: E 606,719.0 NJ–NAD 83

Uncorrected Depth	: 52.0 feet
Tide	: −0.7 feet
Corrected Depth	: 52.7 feet (1)
Vibration time	: 3'31"
Core penetration	: 18.6 feet
Core recovery	: 20.0 feet
Percent recovery	: 108 %

Depth in Feet / Soil Surf. Elev. (ft) −52.7 (1): 0 / −53; 5 / −58; 10 / −63; 15 / −68; 20 / −73; 25

USCS	DESCRIPTION	Core interval	Sample No./Interval
GP	Gray gravel and fine to coarse sand.		
ML/CL	Gray SILT/CLAY, trace fine sand.		1/0.8–5.0
SP	Gray medium SAND, little coarse sand, little fine sand, trace gravel, trace silt/clay, trace shell fragments.	1	
	Gray medium SAND, some fine sand, trace coarse sand, trace gravel, trace silt/clay, trace shell fragments.	2	2/5.0–10.0
	Gray medium to fine SAND, trace coarse sand, trace silt/clay, trace shell fragments.	3	3/10.0–15.0
	Gray medium to fine SAND, trace coarse sand, trace silt/clay, trace shell fragments.		4/15.0–17.1
	Gray fine SAND, some medium sand, trace silt/clay, trace shell fragments.	4	5/17.1–20.0

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.

09–17–2002c:\temp\4766lbi\ njv656.bor

Vibrational Core NJV-657

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 2, 2002
Weather	: Sun, 70's
Contractor	: Alpine Ocean Seismic Sur.
Location	: Long Beach Island, NJ
Northing Coord.	: N 304,476.4 NJ–NAD 83
Easting Coord.	: E 605,470.1 NJ–NAD 83

Uncorrected Depth	: 44.1 feet
Tide	: −0.3 feet
Corrected Depth	: 44.4 feet (1)
Vibration time	: 7'19"
Core penetration	: 18.2 feet
Core recovery	: 17.0 feet
Percent recovery	: 93 %

Depth in Feet / Soil Surf. Elev. (ft) −44.4 (1): 0 / −45; 5 / −50; 10 / −55; 15 / −60; 20 / −65; 25

USCS	DESCRIPTION	Core interval	Sample No./Interval
SP	Light–brown/gray fine SAND, little medium sand, trace silt/clay, trace coarse sand, trace shell fragments.	1	1/0.0–5.0
	Gray fine SAND, some medium sand, trace gravel, trace coarse sand, trace shell fragments.	2	2/5.0–10.0
	Gray fine SAND, trace medium sand, trace silt/clay, trace shell fragments.	3	3/10.0–14.5
	Gray medium SAND, some coarse sand, little gravel, little fine sand, trace silt/clay, trace shell fragments.	4	4/14.5–17.0

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.

09–17–2002c:\temp\4766lbi\ njv657.bor

Vibrational Core NJV-658 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	: June 2, 2002
Weather	: Sun, 70's
Contractor	: Alpine Ocean Seismic Sur.
Location	: Long Beach Island, NJ
Northing Coord.	: N 303,495.7 NJ–NAD 83
Easting Coord.	: E 606,819.2 NJ–NAD 83

Uncorrected Depth	: 33.5 feet
Tide	: +0.8 feet
Corrected Depth	: 32.7 feet (1)
Vibration time	: 2'35"
Core penetration	: 19.3 feet
Core recovery	: 14.5 feet
Percent recovery	: 75 %

Depth in Feet / Soil Surf. Elev. (ft) −32.7 (1): 0 / −33; 5 / −38; 10 / −43; 15 / −48; 20 / −53; 25

USCS	DESCRIPTION	Core interval	Sample No./Interval
SP	Light–brown medium SAND, some fine sand, trace coarse sand, trace gravel, trace shell fragments.	1	1/0.0–1.9
	Light–brown medium SAND, some coarse sand, little fine sand, little gravel, trace shell fragments.		2/1.9–2.4
	Light–brown medium to fine SAND, trace coarse sand, trace gravel, trace shell fragments.		3/2.4–5.0
	Gray medium to fine SAND, trace coarse sand, trace gravel, trace shell fragments.	2	4/5.0–10.0
	Gray medium to fine SAND, trace coarse sand, trace gravel, trace silt/clay, trace shell fragments.	3	5/10.0–14.5

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.

09–17–2002c:\temp\4766lbi\ njv658r1.bor

Vibrational Core NJV-658 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 2, 2002
Weather	: Sun, 70's
Contractor	: Alpine Ocean Seismic Sur.
Location	: Long Beach Island, NJ
Northing Coord.	: N 303,428.0 NJ–NAD 83
Easting Coord.	: E 606,809.8 NJ–NAD 83

Uncorrected Depth	: 33.0 feet
Tide	: +1.0 feet
Corrected Depth	: 32.0 feet (1)
Vibration time	: 1'58"
Core penetration	: 7.9 feet
Core recovery	: 0.0 feet
Percent recovery	: 0 %

Depth in Feet / Soil Surf. Elev. (ft) −32.0 (1): 0 / −32; 5 / −37; 10 / −42; 15 / −47; 20 / −52; 25

USCS | GRAPHIC | DESCRIPTION | Core interval | Sample No./Interval

NO RECOVERY

Notes:
1. Corrected water depth and soil surface elevation datum is NGVD.

09–17–2002c:\temp\4766lbi\ njv658r2.bor

Vibrational Core NJV-658 R3

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 2, 2002
Weather	: Sun, 70's
Contractor	: Alpine Ocean Seismic Sur.
Location	: Long Beach Island, NJ
Northing Coord.	: N 303,516.1 NJ–NAD 83
Easting Coord.	: E 606,774.4 NJ–NAD 83

Uncorrected Depth	: 33.8 feet
Tide	: +1.0 feet
Corrected Depth	: 32.8 feet (1)
Vibration time	: 1'51"
Core penetration	: 8.1 feet
Core recovery	: 3.3 feet
Percent recovery	: 41 % (4)

Depth in Feet / Soil Surf. Elev. (ft) −32.8 (1): 0 / −33; 5 / −38; 10 / −43; 15 / −48; 20 / −53; 25

USCS	DESCRIPTION	Core interval	Sample No./Interval
	Jet to approximately 12.5 feet. Start vibration.		
SP	Gray/light–brown fine to medium SAND, trace coarse sand, trace silt/clay, trace gravel, trace shell fragments.	1	1/12.5–15.8

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 12.5 feet to 20.6 feet, total sampled length 8.1 feet. Percent recovery based on this length.

09–17–2002c:\temp\4766lbi\ njv658r3.bor

Vibrational Core NJV-659

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 2, 2002
Weather	: Sun, 70's
Contractor	: Alpine Ocean Seismic Sur.
Location	: Long Beach Island, NJ
Northing Coord.	: N 304,114.3 NJ–NAD 83
Easting Coord.	: E 601,923.9 NJ–NAD 83

Uncorrected Depth	: 45.7 feet
Tide	: −1.4 feet
Corrected Depth	: 47.1 feet (1)
Vibration time	: 2'25"
Core penetration	: 18.7 feet
Core recovery	: 19.6 feet
Percent recovery	: 105 % (4)

Depth in Feet / Soil Surf. Elev. (ft) −47.1 (1): 0 / −48; 5 / −53; 10 / −58; 15 / −63; 20 / −68; 25

USCS	DESCRIPTION	Core interval	Sample No./Interval
SM	Gray coarse to medium SAND, little silt/clay, trace gravel, trace fine sand.	1	1/0.2–1.0
ML/CL	Gray SILT/CLAY, little coarse sand.		2/1.0–1.6 (NOT TESTED) (Predominantly fine–grained)
SP–SM	Gray coarse to medium SAND, trace silt/clay, trace gravel, trace fine sand.		3/1.6–2.4
ML/CL	Gray SILT/CLAY, little medium sand.		4/2.7–3.7 (NOT TESTED) (Predominantly fine–grained)
SP–SM	Gray medium SAND, little gravel, little silt/clay, little fine sand, trace coarse sand.		5/3.7–5.0
SP	Gray medium SAND, little fine sand, little coarse sand, trace gravel, trace silt/clay.	2	6/5.0–10.0
	Gray medium SAND, some fine sand, trace coarse sand, trace gravel, trace silt/clay.	3	7/10.0–15.0
	Gray medium to fine SAND, trace silt/clay, trace coarse sand.	4	8/15.2–18.8
ML/CL	Dark–gray SILT/CLAY, some fine sand.		
SP	Gray fine to medium SAND, trace silt/clay.		

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.
5. Recovery measured in field, may not be reflected in total sample length.

09–17–2002c:\temp\4766lbi\ njv659.bor

US Army Corps of Engineers
Philadelphia District

Mark	Description	Date	Appr.

Mark	Description	Date	Appr.

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–656 TO NJV–659

Sheet reference number:
XXXXX