

## **Appendix C**

### **Photographic Logs Core Collection and Core Processing**

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NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY  
Seattle, Washington



Photo 1 RSS diver and deck hand with complete core sampler assembly.

Direction: West Date: 4/14/09 Time: 16:28 Taken by: AS

Photographed by: Mark Longtine (ML), Jennifer Schmitz (JS),  
Alex Svendsen – Herrera (AS)



Photo 2 RSS sampling vessel at NS04 location.

Direction: Northwest Date: 4/15/09 Time: 11:50 Taken by: ML



Photo 3 RSS sampling vessel at NS18 location.

Direction: East Date: 4/20/09 Time: 16:25 Taken by: ML

NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY  
Seattle, Washington



Photo 4 RSS sampling vessel at NS35 location.

Direction: Northwest Date: 4/20/09 Time: 14:10 Taken by: ML

Photographed by: Mark Longtine (ML), Jennifer Schmitz (JS),  
Alex Svendsen – Herrera (AS)



Photo 5 RSS personnel delivering NS16 core tube.

Direction: West Date: 4/15/09 Time: 10:30 Taken by: ML



Photo 6 Herrera and RSS personnel cutting NS16 core tube.

Direction: West Date: 4/15/09 Time: 10:30 Taken by: ML



Photo 7 Herrera and RSS personnel capping NS16 core tube.

Direction: West Date: 4/15/09 Time: 10:30 Taken by: ML

NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY  
Seattle, Washington

Photographed by: Mark Longtine (ML), Jennifer Schmitz (JS),  
Alex Svendsen – Herrera (AS)



Photo 8 NS06 core and homogenized samples.

Direction: Down Date: 4/14/09 Time: 11:50 Taken by: ML



Photo 9 E & E personnel logging core NS34.

Direction: West Date: 4/17/09 Time: 17:30 Taken by: JS



Photo 10 Sample preparation, drying, and weighing area.

Direction: Down Date: 4/17/09 Time: 17:30 Taken by: JS



Photo 11 E & E chemist pulverizing dried sample for XRF Analysis.

*Direction: Down Date: 4/17/09 Time: 17:30 Taken by: JS*



Photo 12 NS04 core.

*Direction: Down Date: 4/15/09 Time: 13:01 Taken by: ML*



Photo 13 NS04 core upper interval. Note sandblast grit.

*Direction: Down Date: 4/15/09 Time: 13:01 Taken by: ML*

NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY  
Seattle, Washington

Photographed by: Mark Longtine (ML), Jennifer Schmitz (JS),  
Alex Svendsen – Herrera (AS)



Photo 14 NS04 core lower interval. Note sandblast grit.

Direction: Down Date: 4/15/09 Time: 13:01 Taken by: ML



Photo 15 NS04 core. Note cemented layer sandblast grit.

Direction: Down Date: 4/15/09 Time: 13:01 Taken by: ML



Photo 16 NS01-G core sieved fraction with sandblast (loose and chunks) and paint chips.

Direction: Down Date: 4/20/09 Time: 16:05 Taken by: ML



Photo 17 Coke briquettes and coal from core NS05.

Direction: Down Date: 4/15/09 Time: 15:55 Taken by: ML

NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY  
Seattle, Washington

Photographed by: Mark Longtine (ML), Jennifer Schmitz (JS),  
Alex Svendsen – Herrera (AS)



Photo 18 NS18 core.

Direction: Down Date: 4/16/09 Time: 11:55 Taken by: ML



Photo 19 NS18 core upper interval.

Direction: Down Date: 4/16/09 Time: 12:01 Taken by: ML



Photo 20 NS18 core intermediate interval.

Direction: Down Date: 4/16/09 Time: 12:01 Taken by: ML



Photo 21 NS18 core intermediate interval.

Direction: Down Date: 4/16/09 Time: 12:01 Taken by: ML



NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY  
Seattle, Washington

Photographed by: Mark Longtine (ML), Jennifer Schmitz (JS),  
Alex Svendsen – Herrera (AS)



Photo 22 NS18 core intermediate interval.

Direction: Down Date: 4/16/09 Time: 12:01 Taken by: ML



Photo 23 NS12 core.

Direction: Down Date: 4/14/09 Time: 17:30 Taken by: ML



Photo 24 NS12 core upper interval.

Direction: Down Date: 4/14/09 Time: 17:30 Taken by: ML



Photo 25 NS12 core intermediate interval.

Direction: Down Date: 4/14/09 Time: 17:30 Taken by: ML

NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY  
Seattle, Washington

Photographed by: Mark Longtine (ML), Jennifer Schmitz (JS),  
Alex Svendsen – Herrera (AS)



Photo 26 NS16 core.

Direction: Down Date: 4/15/09 Time: 11:05 Taken by: ML



Photo 27 NS16 core upper interval.

Direction: Down Date: 4/15/09 Time: 11:05 Taken by: ML



Photo 28 NS16 core intermediate interval.

Direction: Down Date: 4/15/09 Time: 11:05 Taken by: ML



Photo 29 NS16 core intermediate interval.

Direction: Down Date: 4/15/09 Time: 11:05 Taken by: ML

NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY  
Seattle, Washington

Photographed by: Mark Longtine (ML), Jennifer Schmitz (JS),  
Alex Svendsen – Herrera (AS)



Photo 30 NS19 core.

Direction: Down Date: 4/16/09 Time: 13:55 Taken by: ML



Photo 31 NS19 core upper interval. Note NAPL.

Direction: Down Date: 4/16/09 Time: 13:58 Taken by: ML



Photo 32 NS19 core intermediate interval. Note lenses of NAPL.

Direction: Down Date: 4/16/09 Time: 13:58 Taken by: ML



Photo 33 NS19 core intermediate interval.

Direction: Down Date: 4/16/09 Time: 13:58 Taken by: ML

NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY  
Seattle, Washington

Photographed by: Mark Longtine (ML), Jennifer Schmitz (JS),  
Alex Svendsen – Herrera (AS)



Photo 34 NS20 core.

Direction: Down Date: 4/16/09 Time: 15:35 Taken by: ML



Photo 35 NS20 core upper interval. Note heavy oil stain.

Direction: Down Date: 4/16/09 Time: 15:35 Taken by: ML



Photo 36 NS20 core intermediate interval. Note heavy oil stain.

Direction: Down Date: 4/16/09 Time: 15:35 Taken by: ML



Photo 37 NS20 core bottom interval. Note heavy oil stain.

Direction: Down Date: 4/16/09 Time: 15:35 Taken by: ML

**Northlake Shipyard Sandblast Grit Study**  
**Core Collection Photographic Log, April 13 - 20, 2009.**

<b>Photo Number</b>	<b>Date</b>	<b>Photographer</b>	<b>Photo Description</b>
3253	4/14/2009	A. Svendsen	Complete core device.
3257	4/14/2009	A. Svendsen	Coring preparation.
3266	4/15/2009	A. Svendsen	Coring preparation.
3267	4/15/2009	A. Svendsen	RSS diver preparation.
3274	4/16/2009	A. Svendsen	Coring preparation.
3323	4/17/2009	A. Svendsen	Collected sediment core.



Photo 3253



Photo 3257



Photo 3266





Photo 3267



Photo 3274



Photo 3323

## **Appendix D**

### **Core Logging Forms and Core Processing Logbook**

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NORTHLAKE SHIPYARD

MONDAY 4/13/09

2530.WDIO

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- 0730 LONGTINE ARRIVE ON SITE, NORTHLAKE SHIPYARD, 1441 NORTHLAKE WAY, SEATTLE. MEET ~~RATE~~, NORTHLAKE SHIPYARD REPRESENTATIVE. DISCUSS PLANNED CORING OPERATIONS.
- 0735 HERRERA ENVIRONMENTAL CONSULTING (HEC) ROB ZISETTE AND ALEX SVENDSEN ARRIVE ON SITE. DISCUSS PLANS.
- 0750 ETE DAVID IKEDA AND JEN SCHMITZ ARRIVE ON SITE. ETE PREPARE CORE PROCESSING LOCATION FOR WORK. CLEANED FLOOR AND TABLE SURFACES. BROUGHT SUPPLIES INTO COVERED AREA.
- 0810 RSS, ERIC PARKER, ANDREW MUTH, AND DON ~~ROBERTS~~ <sup>MC</sup> PETERSEN ARRIVE ON SITE IN CAROLYN DOW, RSS'S CORING VESSEL, RSS LOADING SUPPLIES ONTO BOAT. FROM END OF EAST PIER NEAR CORE PROCESSING AREA.
- 1030 LONGTINE DRIVE TO ETE SEATTLE OFFICE TO PRODUCE COPIES OF UPDATED CORE LOG-FORM AND PICK UP SUPPLIES. PURCHASED ICE FOR SAMPLES. IKEDA AND SCHMITZ SET UP EQUIPMENT.
- 1120 HEALTH AND SAFETY MEETING FOR ETE LED BY SCHMITZ.
- 1130 OVERALL HEALTH AND SAFETY BRIEFING BETWEEN ETE, HEC, AND RSS. ALEX SVENDSEN LED H+S MEETING FOR HEC AND RSS. ETE MEETING TOPICS INCLUDED CHEMICAL HAZARDS (METALS, PAHs, PCBs, PETROLEUM), SLIP-TRIP-FALL, OVERHEAD (ACTIVE SHIPYARD, DOCKWORK, AS WELL AS LOW CEILING IN CORE PROCESSING AREA), COLD STRESS.
- 1150 DISCUSSED CORE COLLECTION PROCEDURES WITH HEC AND RSS.
- 1330 RSS AND HEC ARRIVE AT CORE PROCESSING AREA WITH FIRST CORE, FROM NS01 LOCATION. DIVER DON REPORTED A LOT OF DEBRIS AT CORE LOCATION, AND HARDPAN AT EST. 8" DEPTH, BELOW WHICH MATERIAL WAS SOFTER.
- 1500 JOHN KEELING ARRIVE ON SITE AT CORE PROCESSING AREA. LONGTINE STOWED KEELING CORE PROCESSING STATION.
- 1520 CORE TEAM FINISHED WITH 2<sup>nd</sup> CORE OF DAY COLLECTED AT LOCATION NS02. SAMPLE WAS COLLECTED AT 1450.
- 1635 CORE COLLECTION TEAM ARRIVE CORE PROCESSING STATION WITH CORE NS03
- 1645 JOHN KEELING DEPART SITE.
- 1905 FINISHED JARRING NS03 SAMPLES AND SETTING ASIDE FIELD SCREENING ALIQUOTS TO RESUME XRF, MOISTURE CONTENT, AND GRAIN SIZE ANALYSIS (125µm SIEVE) FOR FIELD SCREENING TOMORROW. CUSTODY SEALING COOLER OF LABORATORY CONFIRMATION SAMPLES.

*[Signature]*

4/13/09

*Always the cleanest*  
ALL-WEATHER WRITING PAPER

NORTLAKE SHIPYARD 4/13/09 (CONT) 2330. WD10

(LATE ENTRY) WEATHER TODAY VARIED FROM CALM AND PARTLY SUNNY TO RAINY. TEMP IN MID 50'S.

910 IKEDA PERFORMING ENDING CALIBRATION ON INNOVEX SYSTEMS XRF.

915 DEPART SITE. SECURE CORE PROCESSING AREA WITH COMBINATION LOCK. IKEDA BRING XRF WITH HIM OFFSITE.

4/13/09

TUESDAY 4/14/09 NORTHLAKE SHIPYARD 2330, WD10

0730 ETE IKEDA AND SCHMITZ ON SITE AT CORE PROCESSING AREA. LONGTINE AT OFFICE. IKEDA AND SCHMITZ PERFORM FIELD SCREENING ON SAMPLES COLLECTED YESTERDAY. HEC SVENDSEN ON SITE. LONGTINE REQUESTED SVENDSEN COORDINATE WITH NORTHLAKE SHIPYARD MAC FOR COLLECTION OF CORES AT NS04 AND NS05 LOCATIONS. MAC HAD CALLED LONGTINE AT EST. 0600 THIS MORNING TO ALERT LONGTINE THAT EAST DRYDOCK WILL BE SUNK AGAIN THIS MORNING. LONGTINE TOLD SVENDSEN TO PLAN ON CORING AT NS06 INITIALLY TODAY.

0900 LONGTINE ON SITE. KEELING ON SITE. HEALTH AND SAFETY BRIEFING BY SCHMITZ.

0920 LONGTINE DISCUSSED FIELD CHANGE TO SAP WITH IKEDA AND KEELING. PROPOSED TO PERFORM ~~MOISTURE~~ CORRECTION ON SIEVED FRACTION FOLLOWING SAME PROCEDURE AS FOLLOWING FOR WHOLE SEDIMENT SPECIFIED IN SAP. THIS WILL ALLOW FOR MORE ACCURATE ESTIMATE OF PERCENT  $>125 \mu m$  BY WEIGHT THAN ORIGINALLY PROPOSED (SAP) METHOD OF WEIGHING PARTIALLY DRIED SIEVE FRACTION, PARTIALLY DRIED ONLY BY SHAKING EXCESS WATER FROM SIEVE.

0940 UCL FROM SVENDSEN. FIRST ATTEMPT TO CORE AT NS06 FAILED. DIVER OBSERVED A LOT OF LARGE (LOG, TIRE) AND SMALL DEBRIS AT LOCATION PRIOR TO CORE ATTEMPT. UPON ATTEMPTING TO CORE, GOT ~20" PENETRATION. UPON RETRIEVAL OF CORE, ALL MATERIAL FLUSHED OUT OF BOTTOM OF CORE, APPARENTLY BECAUSE DEBRIS WAS JAMMED IN CORE CATCHER.

0945 FOLLOWING DISCUSSION WITH KEELING, DECIDED TO ATTEMPT NS06 AGAIN ABOUT 20 FEET OUTBOARD OF ORIGINAL LOCATION.

1045 CORE BOAT BACK AT DOCK (CORE PROCESSING AREA) WITH NS06 CORE. DIVER REPORTED HEAVY SHEEN FROM CORE SHEEN AS RETRIEVED CORE ONTO BOAT. SHEEN OBSERVED IN TOP OF CORE WHEN CUT OFF EXTRA TUBE.

1100 LONGTINE TALKED WITH KEELING ABOUT SHEEN IN SAMPLES AND REMINDED JOHN THAT TPH AND OTHER ORGANIC COMPOUNDS ARE NOT PART OF ANALYTICAL PLAN. JOHN KEELING INDICATED HE IS AWARE OF THIS AND AGREED IT MAY BE NECESSARY TO ANALYZE FOR ORGANIC CONSTITUENTS FOR WASTE DISPOSAL. KEELING WILL CONSULT WITH ECOLOGY STAFF REGARDING THIS.



4/14/09



NORTHLAKE SHIPYARD

2330.WD10

4/14/09

1215 CORE BOAT DROP OFF CORE NS07.

1305 CORE BOAT DROP OFF CORE NS08

1530 CORE BOAT DROP OFF CORE NS10

1650 CORE BOAT DROP OFF CORE NS11

1700 ICELING-DEPART SITE.

1830 CORE BOAT DROP OFF CORE NS12

1900 RSS OFF SITE.

1915 SVEINSEN OFF SITE.

2020 FINISH JARRING SAMPLES FROM NS12 AND FIELD SCREENING FOR MOISTURE CONTENT. LEAVE REMAINING FIELD SCREENING FOR NS12 SAMPLES FOR TOMORROW.

2025 SECURE COVERS OF SAMPLES WITH ICE WITH CUSTODY SEALS. WILL LEAVE COVERS IN LOCKED SAMPLE PROCESSING AREA OVERNIGHT.

2030 LOCK CORE PROCESSING AREA. DEPART SITE.

4/14/09

2330. WD10 NORTHLACE SITIPYARD WED 4/15/09

0725 IKEDA ON SITE, SCHMITZ ON SITE 0730. PREP FOR TODAY'S ACTIVITIES AND FINISHING-UP FIELD SCREENING OF YESTERDAY'S SAMPLES.

0730 HEC, SVENDSEN ON SITE.

0745 RSS CREW AT DOCK. THEY MOVED BOAT (CAROLYN POW) AT HARBOR PATROL DOCK LAST NIGHT.

0900 KEELING ON SITE.

0920 LONGTINE ARRIVE ON SITE WITH SUPPLIES (DISTILLED WATER, ICE).

0940 WEATHER: CURRENT CONDITIONS OVERCAST, DRY, LIGHT BREEZE, 50'S. FORECAST IS FOR SUN LATER TODAY.

0945 H + S BRIEFING BY SCHMITZ. NEW HAZARDS DISCUSSED INCLUDE CRANE OPERATIONS ON FIRST PIER.

(LATE ENTRY) RSS LEFT DOCK AT EST. 0830

1001 RSS COLLECTED CORE AT NS16

1035 RSS AT PROCESSING STATION TO DROP OFF CORE NS16

1200 RSS AT PROCESSING STATION WITH NS04.

1330 RSS AT PROCESSING STATION WITH NS05 CORE

1530 RSS AT PROCESSING STATION WITH NS13 CORE

1700 RSS DROP OFF NS14 CORE.

1705 KEELING DEPART SITE.

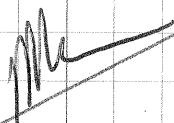
1815 RSS DROP OFF NS15.

1830 HEC, SVENDSEN OFF SITE. RSS MOVE BOAT TO HARBOR PATROL. ETC CONTINUE PROCESSING CORE SAMPLES.

1925 FINISHED FIELD SCREENING FOR DAY. PRE-DRY WEIGHTS OF PERCENT SOLIDS ALIQUOTS MEASURED. TURN OFF OVENS AND INSTRUMENTS. CUSTODY SEALING COOLERS OF SAMPLES.

1935 LOCK PROCESSING CENTER AND DEPART SITE (LONGTINE, IKEDA, AND SCHMITZ).

4/15/09



NORTHLAKE SHIPYARD 2330 W 10 THURSDAY 4/16/09

- 0700 LONGTINE AND IKEDA AT ETE OFFICE.
- 0730 IKEDA AND SCHMITZ AT SITE, AT CORE PROCESSING AREA. WORK ON FIELD SCREENING OF SAMPLES COLLECTED YESTERDAY.
- 0800 LONGTINE CALL SVENDSEN TO DISCUSS TODAY'S PLAN. SVENDSEN TO CALL MAC TO SEE IF VESSELS IN NS09 POSITION ARE PLANNED FOR MOLE TODAY. IF NOT, WILL COLLECT CORE AT POSITION WEST OF PROPOSED POSITION. RSS IS PREPARING FOR TODAY'S WORK.
- 0835 LONGTINE PURCHASING SUPPLIES.
- 0855 LONGTINE AT SITE. ETE CONTINUE TO WORK ON FIELD SCREENING.
- 0900 HEALTH AND SAFETY BRIEFING BY SCHMITZ. NO NEW ISSUES OF CONCERN.
- 0910 WEATHER: COPRNUITY PARTLY CLOUDY, LIGHT BREEZE, 50'S.
- 0930 KEELING ARRIVE ON SITE.
- 1005 RSS AT CORE PROCESSING STATION WITH CORE NS17
- 1000 ECOLOGY STAFF ARRIVE ON SITE TO OBSERVE  
DALE MYERS  
SUNNY  
MAURA OBRIEN  
GRANT YANG
- 1125 RSS BACK AT CORE PROCESSING STATION WITH CORE NS18.
- 1300 RSS AT CORE PROCESSING AREA WITH CORE NS19.
- 1305 ECOLOGY STAFF DEPART SITE.
- 1340 RSS AT CORE PROCESSING AREA, BUT ONLY TO DROP SOMETHING OFF.
- 1510 RSS DROP OFF CORE NS20.
- 1650 RSS DROP OFF CORE NS21.
- 1610 RSS DROP OFF CORE NS29.
- 1910 ETE (IKEDA, SCHMITZ, LONGTINE) STILL PROCESSING CORE SAMPLES.
- 1920 SITE SECURED. COVERS OF SAMPLES SEALED WITH CUSTODY SEALS. INSTRUMENTS AND STORES TURNED OFF. DOOR LOCKED. ETE OFF SITE.

  
4/16/09

NORTLAKE SHIPYARD 2330.WD10 FRIDAY 4/17/09

0630 IKEDA ON SITE TO PERFORM FIELD SCREENING.

0715 SCHMITZ PICK UP DISTILLED WATER,

0735 SCHMITZ ON SITE. ASSIST WITH FIELD SCREENING.

0735 RSS AND HEC / SVEINSEN ON SITE. PREP FOR CORING.

1015 RSS DROP OFF CORE NS28.

1020 LONGTINE ON SITE. H+S BRIEFING BY SCHMITZ. NO NEW H+S ISSUES.

1030 WEATHER: CURRENTLY OVERCAST, LIGHT BREEZE, DRY. RAINED EARLIER THIS MORNING. FORECAST FOR CLEARING THIS AFTERNOON. 50's.

1130 RSS ON SITE WITH CORE NS 27.

1350 RSS ARRIVE AT CORE PROCESSING AREA WITH NS 33.

1330 (LATE ENTRY) HEC / ROB ZISETTE AND CHRIS BRUMMER ON SITE.

1450 LOST POWER. LONGTINE CALL MUC, NLSY

1515 POWER RESTORED (BROKEN MAIN).

1515 RSS BACK ON SITE AT NS34.

1230 (LATE ENTRY) RSS ARRIVE CORE PROCESSING WITH NS26

1635 RSS ARRIVE WITH NS23 CORE.

1800 RSS ARRIVE WITH NS24 CORE

1810 SVEINSEN OFF SITE. RSS PREPARE FOR MONDAY'S CORING. ETC CONTINUE TO PROCESS CORES, SAMPLES.

1950 LONGTINE, SCHMITZ, AND IKEDA FINISHING UP CORE SAMPLE PROCESSING FOR THE DAY. CUSTODY SEAL COVERS. SECURE SITE

1955 ETC DEPART SITE.

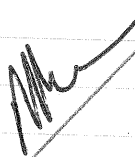
*Mu* 4/17/09

NORTHLAKE SHIPYARD 2330 W/D 10 SATURDAY 4/18/09

0700 IKEDA AT CORE PROCESSING AREA TO PROCESS CORE SAMPLES  
COLLECTED ON 4/07/09. LONGTIME NOT ON SITE TODAY.

0940 SCHMITZ AT CORE PROCESSING AREA TO ASSIST WITH FIELD  
SCREENING. NO CORES COLLECTED.

1300 IKEDA AND SCHMITZ FINISHED ~~COLLECTING~~ <sup>(AND)</sup> PROCESSING  
SAMPLES FOR GRAIN SIZE, PERCENT MOISTURE, AND XRF.  
SECURE SITE AND DEPART SITE.

 4/20/09

NORTHLAKE SHIPYARD 2330.WD10 TUESDAY 4/21/09

- 0730 LONGTINE, IKEDA, AND SCHMITZ MEET AT ETE SENTRY OFFICE. UNLOAD VAN OF EQUIPMENT AND SUPPLIES, BRING UP TO OFFICE. LONGTINE SELECT SAMPLES FOR LAB CONFIRMATION ANALYSIS FOR GRAIN SIZE (ARI) AND TOTAL METALS (MANCHESTER) AND TCLP METALS (MANCHESTER). SAMPLES TO BE SENT TO MANCHESTER WILL ALSO BE SELECTED IN PART BASED ON OBSERVATIONS DURING CORE PROCESSING OF HYDROCARBONS.
- 0800 LONGTINE SPOKE WITH NANCY ROSENBAUER AT MANCHESTER LAB (MANCHESTER PROJECT MANAGER FOR NORTHLAKE). REITERATED THAT ETE WILL BE HAND DELIVERING SAMPLES TO LAB TODAY. CONFIRMED MANCHESTER LAB IDENTIFICATION SCHEME. EACH SAMPLE (ALL ALIQUOTS) TO BE NUMBERED AS FOLLOWS:  
7 CHARACTERS = PROJECT NUMBER = 0904 048  
2 CHARACTERS = SEQUENTIAL NUMBERS = 01, 02, 03, ...
- 0905 LONGTINE SPOKE WITH MAC AND INFORMED AM THAT CORING WORK IS COMPLETE AND ETE WILL CONTINUE WORKING ON SAMPLE PROCESSING TODAY.
- 1000 ARI (LABORATORY) REPRESENTATIVE RICH HULSON ARRIVE AT CORE PROCESSING AREA TO PICK UP SAMPLES SELECTED FOR PSEP GRAIN SIZE LABORATORY CONFIRMATION ANALYSIS AND GEOTECHNICAL CORES. TRANSFER CUSTODY TO HULSON AT 1015.
- 1305 IKEDA, SCHMITZ, AND LONGTINE FINISHED SELECTING SAMPLES FOR LAB ANALYSIS AT ELODGY MANCHESTER LABORATORY. LOAD UP VAN. SCHMITZ DEPART SITE, DRIVE TO MANCHESTER TO HAND DELIVER SAMPLES.
- 1550 LONGTINE AND IKEDA FINISHED PACKING EQUIPMENT, THROWING AWAY GARBAGE AND IAW INTO NLSY PUMPSER, CLEANING UP CORE PROCESSING AREA.

NORTHLAKE SHIPYARD 2330. W010 MONDAY 4/20/09

0700 LONGTINE AT OFFICE REVIEWING FIELD DATA. IKEDA AT OFFICE.

0730 SCHMITZ ON SITE AT CORE PROCESSING AREA.

0745 IKEDA ARRIVE CORE PROCESSING AREA. IKEDA AND SCHMITZ PERFORM DATA ENTRY. RSS AND ITEL, SVEINSEN, ON SITE.

0845 LONGTINE ARRIVE ON SITE. HTS BRIEFING BY SCHMITZ. NO NEW ISSUES.

WEATHER: CLEAR, ~60°, STILL. FORECAST FOR 70°, SUNNY.

0905 RSS COLLECT CORE NS09.

1005 LONGTINE CALL KEELING TO DISCUSS PLAN FOR TODAY, INCORPORATING FIELD SCREENING RESULTS TO DATE. DISCUSSED APPARENT STEEP DROPOFF IN GRIT FROM NS04 TO NS10 AND NS11, POSSIBLY DUE TO REDISTRIBUTION OF GRIT BY PROP WASH. ALSO DISCUSSED NS33 AND NS34 RESULTS, WHICH SHOW APPARENT GRIT (XRF) TO WEST — HAVE NOT REACHED EXTENT OF GRIT YET TO WEST. LONGTINE AND KEELING AGREED TO COLLECT CORE AT LOCATION AS CLOSE TO CENTER OF NS03-NS04-NS10-NS11 AS POSSIBLE GIVEN SHIPYARD ACTIVITIES. LONGTINE'S EARLIER CONVERSATION TODAY WITH NLSY MRC INDICATES THAT WEST DRYDOCK WILL BE LOWERED AT ~10:30 THIS MORNING AND RAISED AT ~3-4 PM. WATER RAISE IT, IT WILL BE DISCHARGING PUMPED WATER OUT EAST SIDE OF DRYDOCK. EAST DRYDOCK WILL BE LOWERED AT EST NOON OR 1300 TODAY.

1100 FIRST ATTEMPT BY RSS TO COLLECT GEOTECH CORE AT NS01 STATION. FAILED DUE TO LITTLE PENETRATION AND 0" RECOVERY. ATTEMPT AGAIN.

1205 2nd ATTEMPT AT NS01 TO COLLECT GEOTECH CORE SUCCESSFUL, ~~1305~~ HOWEVER, INADEQUATE RECOVERY FOR GEOTECH ANALYSIS. WILL ABANDON NS01 LOCATION FOR GEOTECH CORE.

1305 RSS COLLECT GEOTECH CORE AT NS05 LOCATION

1400 RSS COLLECT GRIT CHARACTERIZATION CORE AT NS35 LOCATION AT POSITION POUGHLY BETWEEN NS03, NS04, NS10, AND NS11.

1505 RSS COLLECT GEOTECH CORE NS12.

1620 RSS COLLECT GEOTECH CORE NS18

1740 RSS ARRIVE AT CORE PROCESSING AREA WITH GEOTECH CORE NS06 PREPARE GEOTECH CORES FOR PICKUP BY LAB. IKEDA AND SCHMITZ BREAK DOWN FIELD LAB, PACK SUPPLIES, DISPOSE OF USED CORE TUBES, GLOVES, SPOONS, BOWLS, AND OTHER WASTE AT NORTHLAKE SHIPYARD DUMPSTER.

NORTHLAKE SHIPYARD 2330 .WD10

4/20/09

1935 RSS DEPART SITE.

1940 SVEINSEN DEPART SITE.

1955 ETE SECURE SAMPLE PROCESSING AREA . LOCK . DEPART SITE.

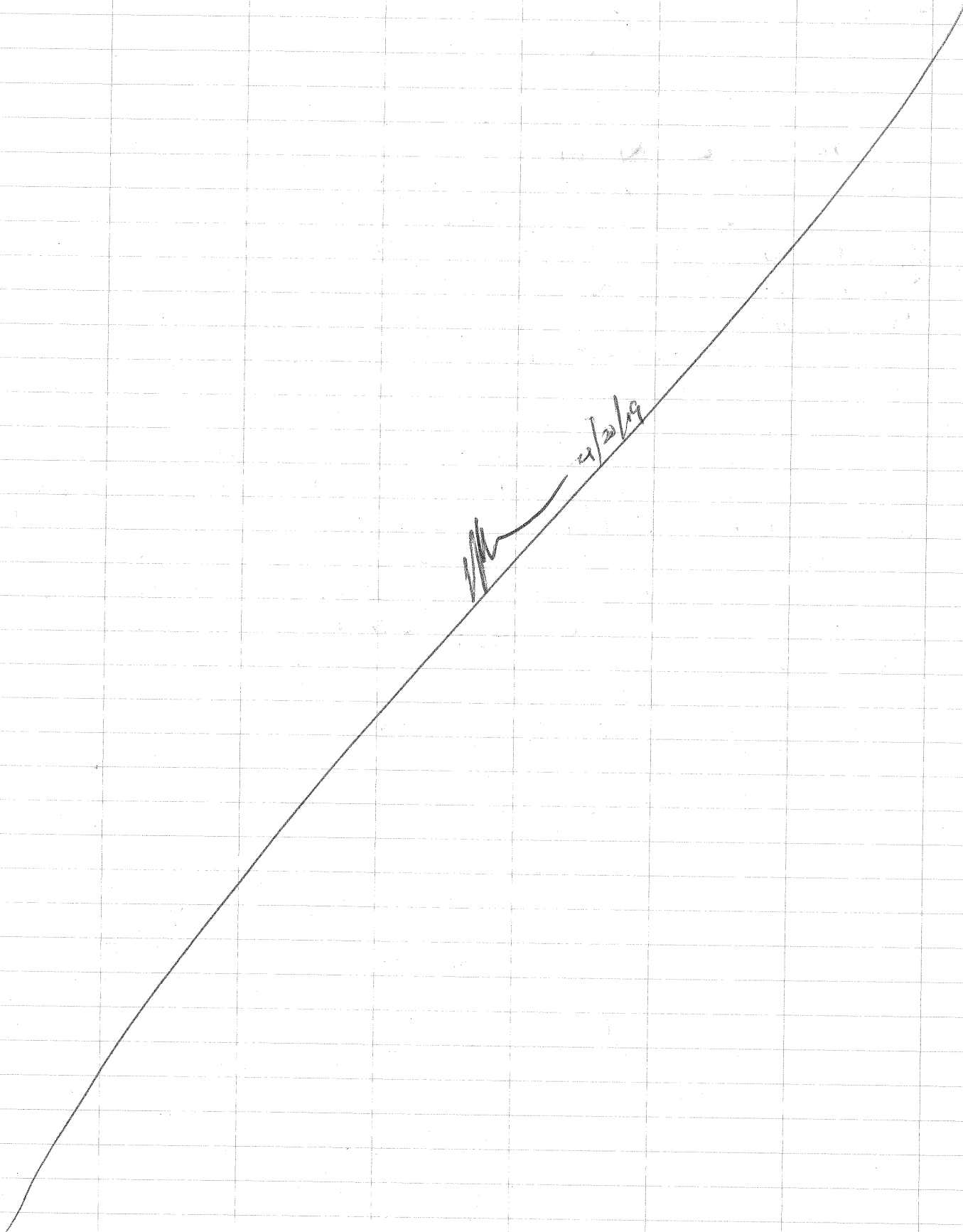




PHOTO LOG

PHOTO ID	DATE	TIME	PHOTO-GRAPHER	DESCRIPTION
1	4/13/09		ML	NS02 CORE AT CORE PROCESSING AREA
2	4/13/09	1747	DAI	NS03 CORE AT CORE PROCESSING AREA
3	4/14/09	1150	ML	NS06 CORE
4	4/14/09	1312	DI	NS07 CORE
5	4/14/09	1425	ML	NS08 CORE
6	4/14/09	1426	ML	NS08 CORE, UPPER INTERVAL.
7	4/14/09	1605	ML	NS10 CORE
8	4/14/09	1610	ML	NS10 CORE UPPER INTERVAL
9	"	"	"	NS10 CORE INTERMEDIATE INTERVAL
10	"	"	"	" "
11	"	"	"	" "
12	"	"	"	" "
13	"	"	"	" "
14	"	"	"	NS10 LOWER MOST INTERVAL
15	"	1650	ML	NS11 CORE, MATERIAL IN BOWLS.
16	"	1730	ML	NS12, ENTIRE CORE (RE-DO. SEE 19)
17	"	"	"	NS12, UPPER INTERVAL
18	"	"	"	NS12, INTERVAL BELOW PREVIOUS PHOTO
19	"	"	"	NS12, ENTIRE CORE
20	4/15/09	1030	ML	HEL AND PSS PERSONNEL WITH CORE TUBE FEEL
21	"	"	"	NS16 LOCATION
22	"	"	"	" "
23	"	"	"	" "
24	"	"	"	" "
25	"	1105	ML	NS16 CORE, FULL LENGTH
26	"	"	ML	NS16 TOP INTERVAL
27	"	"	ML	" INTERMEDIATE INTERVAL
28	"	"	ML	" "
29	"	"	ML	" "
30	"	"	ML	" BOTTOM INTERVAL
31	"	1150	"	CORE VESSEL (CARBON DOW) AT NS04 LOCATION
32	"	"	"	" "
33	"	"	"	" "
34	"	1301	ML	CORE NS04, ENTIRE CORE
35	"	"	"	" UPPER INTERVAL
36	"	"	"	" LOWER INTERVAL
37	"	"	JS	" UPPER INTERVAL w/ concretion
38	"	"	ML	CORE NS04, LOWER INTERVAL. NOTE BROWN ORGANIC MUCK FROM CORE SITE.

MLL

PHOTO LOG (CONT)

PHOTO ID	DATE	TIME	PHOTOGRAPHER	DIRECTION	DESCRIPTION
39	4/15/09	1425	ML		CORE NS05
40	"	1555	ML	DOWN	SITOT OF 2 BRIQUETTES AND PIECE OF COAL FROM CORE NS05
41	"	1655	ML		NS13 CORE, ENTIRE CORE
42	"	1655	ML		NS13 CORE, UPPER INTERVAL
43	"	"	"	"	INTERMEDIATE INTERVAL
44	"	"	"	"	"
45	"	"	"	"	"
46	"	"	"	"	"
47	"	"	"	"	BOTTOM INTERVAL
48	"	<del>1638</del> <sup>ML</sup> 1738	"		NS14 CORE, ENTIRE CORE
49	"	1638	"		NS15 CORE, ENTIRE CORE
50	"	"	"	"	" UPPER INTERVAL
51	"	"	"	"	" INTERVAL BELOW UPPER INTERVAL
52	4/16/09	10:07 (amercative)	JS		Sampling operations at NS18
53	"	10:08 (")	JS		Sampling operations at NS18 (above)
54	"	"	"		"
55	"	1045	ML		CORE NS17, ENTIRE CORE
56	"	1046	"		CORE NS17, UPPER INTERVAL
57	"	"	"	"	" INTERMEDIATE INTERVAL
58	"	"	"	"	"
59	"	"	"	"	"
60	"	"	"	"	"
61	"	"	"	"	LOWER INTERVAL
62	"	1100	"	DOWN	NS17 10"-20" INTERVAL
63	"	1155	ML		CORE NS18, ENTIRE CORE
64	"	1201	ML	DOWN	CORE NS18, UPPER INTERVAL, RED WORN
65	"	"	"	"	" INTERMEDIATE INTERVAL
66	"	"	"	"	"
67	"	"	"	"	"
68	"	"	"	"	"
69	"	"	"	"	"
70	"	"	"	"	BOTTOM INTERVAL
71	"	1210	ML	DOWN	NS18 ANOTHER SITOT OF FRESHLY EXPOSED INTERVAL 6-21"
72	"	1355	ML	DOWN	NS19 CORE, ENTIRE CORE

*ML*  
4/16/09

PHOTO LOG (CONT)

PHOTO ID	DATE	TIME	PHOTO GRABBER	DIRECTION	DESCRIPTION
73	4/16/09	1358	ML	DOWN	CORE NS19, UPPER INTERVAL
74	↓	↓	↓	↓	" " INTERMEDIATE INTERVAL, NAPL BETWEEN FINGERS
75	↓	↓	↓	↓	" " "
76	↓	↓	↓	↓	" " "
77	↓	↓	↓	↓	" " "
78	↓	↓	↓	↓	" " BOTTOM INTERVAL
79	"	1535	ML	DOWN	CORE NS20, ENTIRE CORE
80	"	"	"	"	" " TOP INTERVAL, FINGER AT
81	"	"	"	"	" " INTERMEDIATE INTERVAL <sup>GRAY CLAY</sup>
82	"	"	"	"	" " BOTTOM INTERVAL
83	"	1708	ML	DOWN	CORE NS21, ENTIRE CORE
84	"	"	"	"	" " UPPER INTERVAL
85	"	"	"	"	" " BOTTOM INTERVAL
86	"	1830	ML	DOWN	CORE NS29, ENTIRE CORE
87	"	"	"	"	" " TOP INTERVAL
88	"	"	"	"	" " INTERMEDIATE INTERVAL, FINGER
89	"	"	"	"	" " INTERMEDIATE INTERVAL <sup>AT LOWEST GRAY CLAY</sup>
90	"	"	"	"	" " INTERMEDIATE INTERVAL <sup>BEARING-INTERVAL</sup>
91	"	"	"	"	" " "
92	"	"	"	"	" " BOTTOM INTERVAL
93	4/17/09	1050	ML	DOWN	CORE NS28, ENTIRE CORE
94	↓	↓	↓	↓	" " TOP INTERVAL (RE-SHOT - SEE 101)
95	↓	↓	↓	↓	" " INTERMEDIATE INTERVAL <sup>+102</sup>
96	↓	↓	↓	↓	" " "
97	↓	↓	↓	↓	" " "
98	↓	↓	↓	↓	" " "
99	↓	↓	↓	↓	" " "
100	↓	↓	↓	↓	" " BOTTOM INTERVAL
101	"	"	"	"	" " TOP INTERVAL
102	"	"	"	"	" " "
103	"	1208	ML	DOWN	CORE NS27, FULL CORE
104	"	"	"	"	" " UPPER INTERVAL
105	"	"	"	"	" " INTERMEDIATE INTERVAL

SWITCH MEMORY CARDS IN CAMERA

106	"	1210	"	"	CORE NS27	UPPER INTERVAL
107	"	"	"	"	"	INTERMEDIATE INTERVAL
108	"	"	"	"	"	"
109	"	"	"	"	"	"
110	"	"	"	"	"	"
111	"	"	"	"	"	BOTTOM INTERVAL

# PHOTO LOG (CONT)

PHOTO ID	DATE	TIME	PHOTO GRAPHER	DIRECTION	DESCRIPTION
112	4/17/09	1400	ML	DOWN	CORE NS26, WHOLE CORE
113	4/17/09	1400	ML	DOWN	CORE NS26, UPPER INTERVAL
114	"	"	"	"	" " INTERMEDIATE INTERVAL
115	"	"	"	"	" " " "
116	"	"	"	"	" " " "
117	"	"	"	"	" " " "
118	"	"	"	"	" " " BOTTOM INTERVAL
119	4/17/09	1600	ML	DOWN	CORE NS33, WHOLE CORE
120					INTERMEDIATE INTERVAL
121					INTERMEDIATE " "
122					" " " "
123					BOTTOM INTERVAL
124	4/17/09	1715	ML	DOWN	CORE NS34, WHOLE CORE
125					UPPER INTERVAL
126					INTERMEDIATE INTERVAL
127					" " " "
128					" " " "
129					" " " "
130					BOTTOM INTERVAL
131	4/17/09	1730	JS	Down	D. Ikeda and sample prep area
132	"	"	"	"	D. Ikeda pulverizing sample
133	"	"	"	"	Sample prep/drying area
134	"	"	"	"	M. Longline logging core NS34
135	"	"	"	"	M. Longline characterizing NS34 sediment
136	4/17/09	1810	ML	DOWN	CORE NS23, WHOLE CORE
137					CORE NS23, TOP INTERVAL
138					INTERMEDIATE INTERVAL
139					" " " "
140					" " " "
141					" " " "
142					" " " "
143					BOTTOM
144	4/17/09	1900	ML	DOWN	CORE NS24, WHOLE CORE
145					INTERMEDIATE TOP INTERVAL
146					INTERMEDIATE INTERVAL
147					" " " "
148					" " " "
149					BOTTOM

ML 4/18/09

PHOTO LOG (CONT)

PHOTO ID	DATE	TIME	PHOTO-GRAPHER	DIRECTION	DESCRIPTION
150	4/20/09	1055	ML	DOWN	NS09 CORE, ENTIRE CORE
151					NS09, UPPER INTERVAL
152					NS09, INTERMEDIATE INTERVAL
153					"
154					"
155					NS09, BOTTOM INTERVAL
156	4/20	1410	ML	NW	CORE VESSEL AT NS35 POSITION
157					
158					
159					
160					
161	4/20/09	1445	ML	DOWN	CORE NS35 WHOLE CORE
162					" " CONTENTS IN BOWL
163	4/20/09	1520	ML	SW	EAST PIER
164				SW	WEST PIER
165				S	WEST PIER
166				S	WEST PIER
167				SE	WEST PIER
168				SE	WEST PIER
169				DOWN, SE	NEAR SHORE WEST OF WEST PIER
170				"	"
171				"	"
172				SE <sup>ML</sup> SW	WEST PIER
173				SE <sup>ML</sup> SW	WEST DRY DOCK WITH "BLUEFIN"
174				SE <sup>ML</sup> SW	WEST PIER
175	4/20/09	1605	ML	DOWN	NS01 CORE (RETRIEVED) SIEVED MATERIAL
176					"
177	4/20/09	1625	ML	EAST	RSS CORE VESSEL AT NS18 LOCATION
178					
179					
180					
181	4/21/09	1530	ML		CORE PROCESSING AREA
182					
183					
184					
185					

NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY

Sediment Core Log

Station ID: NS01

Date: 4/13/09

Time:

Logged By: M LONGTINE

RECOVERY = 25" AS MEASURED FROM BASE OF CUTTING SITE TO TOP OF SEDIMENT IN 4" POLYCARBONATE CORE TUBE.

Depth (ft.)	Depth (in.)	Sample ID	Comments
1	1	NS01GC10 SIEVED FRACTION: BUTTA ANGULAR SAND (LIKE GRIT) GS, TOTAL M <sup>+</sup> , TELP M <sup>+</sup> 1-2 AND 8oz 8oz	0 TO 7" BELOW MUDLINE SAND, FINE TO V. COARSE SAND WITH EST. 20% DARK BROWN FINES. SAND CONSISTS OF ANGULAR GREENISH BLACK AND BLACK FRAGMENTS AND RED AND BLUE PAINT CHIPS (GRIT, APPARENTLY). MODERATE PETROLEUM ODOR AND SHEEN. WOOD PIECES TO 1 1/2" AND SEVERAL PEBBLES.
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3	24	NS01GC10 GS, TOTAL M <sup>+</sup> , TELP M <sup>+</sup> (NO TELP M <sup>+</sup> )	(NS01GC10 SAMPLE COLLECTED FROM INTERVAL 12" TO 18". BELOW 18" WAS CORE CUTTER.)
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NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY

Sediment Core Log

Station ID: NS02

Date: 4/13/09

Time: 1450

Logged By: M LONGTINE

48" PENETR <sup>ED</sup> RECOVERY MEASURED FROM TOP OF SEDIMENT TO BOTTOM OF SH02 SITE PLUS CORE CUTTER IS EST 7" LONG

Depth (ft)	Depth (in.)	Sample ID	Comments
NO OBVIOUS (VISUAL) GRIT	1	NS02G-C10 TOTAL M+ 8oz TCLP M+ 8oz + 1L PSEP G5 8oz	0 - 5" DARK BROWN TO BLACK ORGANIC MUCK, VERY HIGH MOISTURE, VERY SOFT, PETROLEUM ODOOR. BIVALVE SHELL AND WOOD PIECES TO 1".
	2		
	3		
	4		
	5		5-12" GRAYISH BROWN CLAY WITH MINOR SAND AND SILT. VERY SOFT.
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	10		
	11		
	1		12
SAND ("SILT & PENETR")	13	NS02G-C20 TOTAL M+ 8oz TCLP M+ 8oz + 1L PSEP G5 8oz	12-20" SAND, V. FINE TO COARSE, MINOR BROWN FINES, QUARTZ AND BLACK AND GREEN LITHICS VISIBLE. OVERALL GREENISH BROWNISH GRAY COLOR
	14		
	15		
	16		
	17		
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	19		
	20		20-24" BROWN MUCK, APPARENTLY MOSTLY ORGANIC WITH SOME SILT AND CLAY, VERY SOFT.
	21		
	22		
	23		
	2		24
SAND	25	NS02G-C30 TOTAL M+ 8oz TCLP M+ 8oz + 1L PSEP G5 8oz	
	26		
	27		
	28		
	29		
	30		29-35" SAND AS DESCRIBED FOR INTERVAL 12-20"
	31		
	32		
	33		
	34		
	35		35-48" BROWN ORGANIC-RICH MUCK WITH SOME SILT AND CLAY AS SEEN IN 20-24"
	3		36
PLANT MATERIAL + SAND	37	NS02G-C40 TOTAL M+ 8oz PSEP G5 8oz	
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NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY

Sediment Core Log

Station ID: NS03

RECOVERY = 60%

Date: 4/13/09

Time: 1610

Logged By: M LONGTINE

Depth (ft.)	Depth (in.)	Sample ID	Comments
1 2 3 4 5 6 7 8 9 10 11 12 FRIABLE BLUE MUD NO OBVIOUS GRIT	1	NS03GC10 TOTAL M+ 802 TCLP M+ 802 + 1L PSEP 65 802	0-4" DARK GRAY TO BLACK MUCK WITH PIECES OF WOOD, BIVALVE, AND SAND. PETROLEUM ODOR AND SHEEN
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	12		
13 14 15 16 17 18 19 20 21 22 23 24 SOME BLACK ANOMALY SAND (GRIT?)	13	NS03GC20 TOTAL M+ 802 TCLP M+ 802 + 1L PSEP 65 802	
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25 26 27 28 29 30 31 32 33 34 35 36 PLANT MATTER	25	NS03GC30 TOTAL M+ 802 TCLP M+ 802 + 1L PSEP 65 802	29-60" BROWN ORGANIC RICH MUCK. PETROLEUM ODOR. MINOR SAND AND TRACE SAND, UFG.
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37 38 39 40 41 42 43 44 45 46 47 48 PLANT MATTER	37	NS03GC40 TOTAL M+ 802 TCLP 802 + 1L PSEP 65 802	
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49 50 51 52 53 54 55 56 57 58 59 60 PLANT MATTER	49	NS03GC45 TOTAL M+ 802 PSEP 65 802	
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NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY

Sediment Core Log

Station ID: N504

Date: 4/15/09

Time: 1140

Logged By: M LONGTINE

RECOVERY = 28" MEASURED FROM BASE OF SHOE

Depth (ft.)	Depth (in.)	Sample ID	Comments
1	1	N 504 GC 10 TOTAL M+ TELP M+ GS	0-6" SAND, BLACK, ANGULAR FINE TO V. COARSE (GRIT), LOOSE (POSSIBLY DISTURBED BY LORING OPERATIONS). CHUNKS OF CEMENTED GRIT TO 1" BY 1/4" THICK MIXED WITH LOOSE GRIT. SOME BLACK FINES MIXED WITH SAND. PETROLEUM ODOR AND SHEEN
	2		6-8" LAYER OF BLACK SAND (GRIT) HEAVILY CEMENTED. VERY HARD. ABUNDANT PAINT CHIPS MIXED WITH BLACK SAND.
	3		8-10" GRAYISH BROWN TO BROWNISH GRAY SILT-CLAY WITH SOME BLACK SAND (GRIT), VERY SOFT, WET.
	4		10-18" FINELY INTERLAYERED ORGANIC MUCK, BROWN AND GRAYISH BROWN AND LIGHT GRAY CLAY (1/4" TO 2" LAYERS). VERY SOFT. PETROLEUM ODOR.
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2	12	N 504 GC 20 TOTAL M+ TELP M+ GS	18-23" BROWNISH GRAY SILT, CLAY, AND ORGANIC MATERIAL, SOFT.
	13		23-28" BROWN ORGANIC MUCK, V. SOFT
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FRAGILE  
BLACK ANGULAR SAND (GRIT)

PLANT MATTER & SOME COARSE SAND. NOT OBVIOUS GRIT

NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY

Sediment Core Log

Station ID: NS05

Date: 1312 ML 4/15/09

Time: 1312

Logged By: M LONGTINE

58" RECOVERY MEASURED FROM BOTTOM OF SHOE

Depth (ft.)	Depth (in.)	Sample ID	Comments
SEELED STATION MOSTLY DARK ORGANIC MATERIAL, SOME FINE BLACK GRAINS (GRAT?)	1	NS05GC10 TOTAL MT TCLP MT GS	0-12" BLACK SILT-CLAY AND FINE OR V. FINE SAND MIXTURE. PETROLEUM STAINING AND ODOR. VERY SOUPY, DISTURBED SEDIMENT (FROM GRIND). MUSSEL SHELLS.
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1	12		
COARSE BLACK SAND (POSSIBLY GRAT)	13	NS05GC20 TOTAL MT TCLP MT GS	12-24" BLACK AND DARK BROWN SILT-CLAY AND ORGANIC MUCK WITH HEAVY PETROLEUM STAIN (BLACK) AND ODOR. VERY SOFT.
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	24		
2	24		
PLANT MATERIAL SAND, NO BRUISES GRAT	25	NS05GC30 TOTAL MT TCLP MT GS	24-36" MOTTLED BLACK AND DARK BROWN ORGANIC MUCK. BROWN MATERIAL APPEARS IN BLENDS TO 3" IN OVERALL BLACK "MATRIX." PETROLEUM AND POSSIBLE NAPHTHALENE ODOR. VERY SOFT. BLACK APPEARS TO INCLUDE PETROLEUM STAINING. ABUNDANT PLANT MATTER (FIBROUS)
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3	36		
PLANT MATERIAL NO GRAT	37	NS05GC40 TOTAL MT TCLP MT GS	36-45" AS ABOVE, ALSO INCLUDED A PIECE OF TAP 1/4 TO 1/2" THICK BY 4" BY 7", FIRM BUT MALLEABLE WITH FINGERS.
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	49		48-52" BROWNISH GRAY SILT-CLAY, VERY SOFT, NAPHTHALENE ODOR
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5	60		52-58" (MATERIAL IN SHOE): MIX OF BROWN ORGANIC MUCK (SIMILAR TO THAT SEEN BELOW GRAT CLAY ELSEWHERE IN PREVIOUS CORES). ALSO OF NOTE: IN SITE BELOW CORE CUTTER FINGERS 2 BRIOUETTES (OF COKE, POSSIBLY) 2 1/2" x 2" x 1 1/2", AND 1 PIECE OF COAL 1". SEE PHOTOS (40) THESE OBJECTS MAY HAVE BEEN DRAGGED DOWN FROM (HIGHER) INTERVAL IN SEDIMENT THROUGH VERY SOFT SEDIMENT.

NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY

Sediment Core Log

Station ID: N506

26" RECOVERY

Date: 4/14/09

Time: 1015

Logged By: M LONGTINE

Depth (ft.)	Depth (in.)	Sample ID	Comments
1	1	NS06GC10 TOTAL MT 80Z TOP MT 80Z + 7L PSEP GS 160Z	0-24" DARK BROWN TO BLACK MUCK WITH SAND TO V. COARSE AND DEBRIS, INCLUDING BRICK FRAGMENTS, GLASS TAR FRAGMENTS AND WOOD. SANDY MATERIAL APPEARS TO INCLUDE GRIT.
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1	12		
2	13	NS06GC20 TOTAL MT 80Z TOP MT 80Z + 7L PSEP GS 160Z	
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BLACK ANOVULAR FIBERS SAND CORE

LOTS OF WOODY DEBRIS BARK + POSSIBLE GRIT

NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY

Sediment Core Log

Station ID: NS07

Date: 4/14/09

Time: 1142

Logged By: M LONGTINE

59" RECOVERY MEASURED FROM BASE OF SHOE

Depth (ft.)	Depth (in.)	Sample ID	Comments
1	1	NS07GL10 TOTAL M+ 8oz TCLP M+ 8oz+1L GS 16oz	0-4" BROWNISH GRAY TO BLACK SILT-CLAY MIXTURE WITH FINE SAND TO EST 10-20%. VERY SOFT (SAMPLE DISTURBED). BIVALVE SHELL. PETROLEUM ODOR.  4" TO 52" BROWN ORGANIC MUCK. ALL MATERIAL IN INTERVAL IS GELATINOUS, COHESIVE, WITH NO CLASTIC MATERIAL VISIBLE OR DETECTABLE BY TOUCH. MINOR WOODY FRAGMENTS TO 1/4" LONG. VERY SOFT. <del>NAPHTHALENE ODOR IN 12-24" INTERVAL. (NL)</del> <del>NAPHTHALENE ODOR IN 24-30" INTERVAL. (NL)</del> <del>NAPHTHALENE ODOR IN 36-48" AND 48-60" INTERVALS</del>
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	12		
2	13	NS07GC20 TOTAL M+ 8oz TCLP M+ 8oz+1L GS 16oz	
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3	25	NS07GC30 TOTAL M+ 8oz TCLP M+ 8oz+1L GS 16oz	
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	36		
4	37	NS07GC40 TOTAL M+ 8oz TCLP M+ 8oz+1L PSEP GS 16oz	
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SIEVED THROUGH

MOSTLY ORGANIC MATTER W/ SOME FINE BLACK SAND

ORGANIC MATTER

ORGANIC MATTER

ORGANIC MATTER

NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY

Sediment Core Log

Station ID: NS08

Date: 4/14/89

Time: 1255

Logged By: M LONGTINE

72" RECOVERY MEASURED FROM  
BASE OF CORE SITE

Depth (ft.)	Depth (in.)	Sample ID	Comments
ORGANIC	1	NS08GC10 TOTAL M+ 8oz TZLP M+ 8oz + 1L TZLP M+ 8oz GS	0-4" <sup>LIGHT @</sup> GRAY TO BLACK FINES, WITH MINOR SAND, VERY SOFT AND WET (DISTURBED). PETROLEUM ODOR.
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	12		
ORGANIC	13	NS08GC20 TOTAL M+ 8oz TZLP M+ 8oz + 1L TZLP M+ 8oz GS	
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	23		
	24		
ORGANIC	25	NS08GC30 TOTAL M+ 8oz TZLP M+ 8oz + 1L TZLP M+ 8oz GS	
	26		
	27		
	28		
	29		
	30		
	31		
	32		
	33		
	34		
	35		
	36		
ORGANIC	37	NS08GC40 TOTAL M+ 8oz TZLP M+ 8oz + 1L TZLP M+ 8oz GS	
	38		
	39		
	40		
	41		
	42		
	43		
	44		
	45		
	46		
	47		
	48		
ORGANIC	49	NS08GC50 TOTAL M+ 8oz TZLP M+ 8oz + 1L TZLP M+ 8oz GS	
	50		
	51		
	52		
	53		
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	59		
	60		

NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY

Sediment Core Log

Station ID: N309

Date: 4/20/09

Time: 0905

Logged By: M LONGTINE

RECOVERY = 45"

Depth (ft.)	Depth (in.)	Sample ID	Comments
1	1	NS09G602 * XRF CUM  NS09G610 TOTAL MT TCLP MT 65	0-4" SOOPY VERY DARK GRAYISH BROWN FINES AND ORGANIC MUCK WITH TRACE F OF SAND. PETRO HYDROCARBON SPUR.
	2		
	3		
	4		4-6 1/2" BROWN ORGANIC MUCK AND SOME FINES WITH THIN (1/4-1/2") LAYERS OF VARYING COLOR, REDDISH BROWN, DARK GRAYISH BROWN.
	5		
	6		
	7		6 1/2-8" SOFT LIGHT GRAY WITH THIN BROWN LAYERS AT 6 3/4" AND 7 3/4"
	8		
	9		8-10" GRAY BROWNISH ORGANIC MATTER (FIBROUS PLANT MATERIAL) AND GRAY FINES
	10		
	11		10-12" ORGANIC MUCK AND FINES GRADING UP FROM BROWN TO BROWNISH GRAY
	2		12
	13		
	14	12"-38" BROWN ORGANIC MUCK	
	15		
	16		
	17		
	18		
	19		
	20		
	21		
	22		
	23		
3	24	NS09G630	
	25		
	26		
	27		
	28		
	29		
	30		
	31		
	32		
	33		
	34		
	35		
4	36		
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	59		
5	60		

NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY

Sediment Core Log

Station ID: NS10

Date: 4/14/09

Time: 1440

Logged By: M LONGTINE

72" RECOVERY MEASURED FROM  
BASE OF SHOBE

Depth (ft.)	Depth (in.)	Sample ID	Comments
ORGANIC	1	NS10GC10 TOTAL Mt 8oz TCLP Mt 8oz+1L GS 16oz	0-5" GRAY CLAY WITH SILT AND MINOR SAND. VERY SOFT AND WET. SLIGHT PETROLEUM ODOR. THIN (EST 1/4") DARK GRAY AAA LAMINA AT 2" IN OTHERWISE LIGHT GRAY MATERIAL.  5-8" GRADATION FROM GRAY CLAY WITH SILT PER ABOVE TO BROWNISH GRAY THEN GRAYISH BROWN ORGANIC MUCK. SLIGHT PETROLEUM ODOR  8"-65" BROWN ORGANIC MUCK. GELATINOUS. MINOR ORGANIC DEBRIS (PLANT MATTER). VERY SOFT. NO OBVIOUS CHEMICAL ODORS.
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
	11		
1	12		
ORGANIC	13	NS10GC20 TOTAL Mt 8oz TCLP Mt 8oz+1L GS 16oz	
	14		
	15		
	16		
	17		
	18		
	19		
	20		
	21		
	22		
	23		
2	24		
	25	NS10GC30 TOTAL Mt 8oz TCLP Mt 8oz+1L GS 16oz	
	26		
	27		
	28		
	29		
	30		
	31		
	32		
	33		
	34		
	35		
3	36		
	37	NS10GC40 TOTAL Mt 8oz TCLP Mt 8oz+1L GS 16oz	
	38		
	39		
	40		
	41		
	42		
	43		
	44		
	45		
	46		
	47		
4	48		
	49	NS10GC50 TOTAL Mt 8oz TCLP Mt 8oz+1L GS 16oz	
	50		
	51		
	52		
	53		
	54		
	55		
	56		
	57		
	58		
	59		
5	60		

PREVIOUS  
PETROLEUM

Comments

NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY

Sediment Core Log

Station ID: NS11

Date: 4/14/09

Time: 1618

Logged By: M LONGTINE

46" RECOVERY MEASURED FROM  
BOTTOM OF SHOE

SIEVE FRACTION	Depth (ft.)	Depth (in.)	Sample ID	Comments
ORGANIC	1	1	NS11 GC 10 TOTAL MT TCLP MT PSEP GS	0"-5" LIGHT GRAY CLAY AND SILT, VERY SOFT WET SLIGHT PETROLEUM ODOR. THIN DARK GRAY LAYER (EST 1/4") AT 2" (NOT DISTURBED MATERIAL)
	2			
	3			
	4			
	5			
	6			
	7			
	8			
	9			
	10			
	11			
1	12			
ORGANIC	13		NS11 GC 20 TOTAL MT TCLP MT PSEP GS	
	14			
	15			
	16			
	17			
	18			
	19			
	20			
	21			
	22			
	23			
	24			
2	24			
ORGANIC	25		NS11 GC 30 TOTAL MT TCLP MT PSEP GS	
	26			
	27			
	28			
	29			
	30			
	31			
	32			
	33			
	34			
	35			
3	36			
	37			
	38			
	39			
	40			
	41			
	42			
	43			
	44			
	45			
	46			
	47			
	4	48		
	49			
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	58			
	59			
	5	60		



NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY

Sediment Core Log

Station ID: NS12

75" OF CORE RECOVERED

Date: 4/14/09

Time: 1752

Logged By: M LONGTINE

Depth (ft.)	Depth (in.)	Sample ID	Comments
SEVEN FRACTIONS  ORGANIC	1	NS12GC 10 TOTAL MT TELP MT GS	0-6" DARK GRAY TO BLACK SILT, CLAY, AND SAND (F+VF). SOOPY, PETROLEUM ODR.
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
	11		
	12		
ORGANIC	13	NS12GC 20 TOTAL MT TELP MT GS	6-9" LIGHT GRAY CLAY, VERY SOFT, WITH INTERLAYERED GRAYISH BROWN TO BROWNISH GRAY ORGANIC RICH MUCK (GELATINOUS, SIMILAR TO THAT OBSERVED BELOW).
	14		
	15		
	16		
	17		
	18		
	19		
	20		
	21		
	22		
	23		
	24		
ORGANIC	25	NS12GC 30 TOTAL MT TELP MT GS	9-19" GRAYISH BROWN ORGANIC RICH MUCK. ABUNDANT PLANT FIBERS.
	26		
	27		
	28		
	29		
	30		
	31		
	32		
	33		
	34		
	35		
	36		
ORGANIC	37	NS12GC 40 TOTAL MT TELP MT GS	19-22" GRAY CLAY, VERY SOFT
	38		
	39		
	40		
	41		
	42		
	43		
	44		
	45		
	46		
	47		
	48		
ORGANIC	49	NS12GC 50 TOTAL MT TELP MT GS	22-28" ORGANIC MUCK GRADING DOWN FROM BROWNISH GRAY TO GRAYISH BROWN. GELATINOUS.
	50		
	51		
	52		
	53		
	54		
	55		
	56		
	57		
	58		
	59		
	60		

NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY

Sediment Core Log

Station ID: NS13

Date: 4/15/09

Time: 1502

Logged By: M LONGTINE

62" RECOVERY

Depth (ft.)	Depth (in.)	Sample ID	Comments
Sieved MOSTLY ORGANIC. NO OBVIOUS GRIT FLUTATION	1	NS13GC10 TOTAL MT TELP MT GS	0-11" BLACK SILT-CLAY, SOUPY (DISTURBED?).
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
	11		
1	12		11-22" GRAYISH BROWN FINES AND ORGANIC MUCK, V. SOFT. SOME V. FINE SAND.
ORGANIC	13	NS13GC20 TOTAL MT TELP MT GS	
	14		
	15		
	16		
	17		
	18		
	19		
	20		
	21		
	22		
	23		
2	24		22-30" INTERLAYERED LIGHT GRAY CLAY AND BROWNISH GRAY FINES (SILT-CLAY) AND ORGANIC MUCK.
ORGANIC	25	NS13GC30 TOTAL MT TELP MT GS	
	26		
	27		
	28		
	29		
	30		
	31		
	32		
	33		
	34		
	35		
3	36		30-33" BROWNISH GRAY FINES AND ORGANIC MUCK. V. SOFT
ORGANIC	37	NS13GC40 TOTAL MT TELP MT GS	33-62" BROWN ORGANIC MUCK, V. SOFT
	38		
	39		
	40		
	41		
	42		
	43		
	44		
	45		
	46		
	47		
4	48		
	49		
	50		
	51		
	52		
	53		
	54		
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	56		
	57		
	58		
	59		
5	60		

NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY

Sediment Core Log

Station ID: NS14

62" RECOVERY

Date: 4/15/09

Time: 1625

Logged By: M LOWME

Depth (ft.) Depth (in.)	Sample ID	Comments	
1	NS14GC10 TOTAL MT TCLP MT GS	0-11 BROWNISH GRAY ORGANIC MUCK AND FINES AND MINOR VF SAND. SOOPY AT TOP 4"	
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
1	12	11-13" GRAY CLAY, LIGHT, V. SOFT	
ORGANIC	NS14GC20 TOTAL MT TCLP MT GS	13-17" BROWNISH GRAY FINES AND ORGANIC MUCK. V. SOFT  17-20" BROWNISH GRAY ORGANIC MUCK AND FINES. V. SOFT. GRADES TO BROWN DOWNWARD.  20-62" BROWN ORGANIC MUCK. V. SOFT, GELATINOUS.	
			13
			14
			15
			16
			17
			18
			19
			20
			21
			22
2	23		
2	24		
ORGANIC	NS14GC30 TOTAL MT TCLP MT GS		
			25
			26
			27
			28
			29
			30
			31
			32
			33
			34
3	35		
3	36		
ORGANIC	NS14GC40 TOTAL MT TCLP MT GS		
			37
			38
			39
			40
			41
			42
			43
			44
			45
			46
4	47		
4	48		
			49
			50
			51
			52
			53
			54
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			56
			57
			58
5	59		
5	60		

NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY

Sediment Core Log

Station ID: NS15

Date: 4/15/09

Time: 1745

Logged By: M LONGTINE

56" RECOVERY

Depth (ft.)	Depth (in.)	Sample ID	Comments
SIEVED MOSTLY ORGANIC W/ SOME MINOR BUCKET SAND	1	NS15GC10 TOTAL MT TCLP MT GS	0-2" DARK GRAY SILTY FINES
	2		2-3" LIGHT GRAY CLAY, VERY SOFT
	3		3-6" GRAYISH BROWN FINES, VERY SOFT
	4		
	5		
	6		
	7		6-9" GRAYISH BROWN ORGANIC MUCK AND FINES, SOFT.
	8		
	9		9-56" BROWN ORGANIC MUCK <sup>VERY M (AW)</sup> SOFT, GELATINOUS
	10		NO OBVIOUS CHEMICAL ODOR
	11		
1	12		
ORGANIC	13	NS15GC20 TOTAL MT TCLP MT GS	
	14		
	15		
	16		
	17		
	18		
	19		
	20		
	21		
	22		
	23		
	2		24
ORGANIC	25	NS15GC30 TOTAL MT TCLP MT GS	
	26		
	27		
	28		
	29		
	30		
	31		
	32		
	33		
	34		
	35		
3	36		
ORGANIC	37	NS15GC40 TOTAL MT TCLP MT GS	
	38		
	39		
	40		
	41		
	42		
	43		
	44		
	45		
	46		
	47		
	4		48
	49		
	50		
	51		
	52		
	53		
	54		
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	59		
	5	60	

NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY

Sediment Core Log

Station ID: NS16

Date: 4/15/09

Time: 1001

Logged By: M LONGTINE

70" RECOVERY MEASURED FROM  
BOTTOM OF CORE SITE

Depth (ft.)	Depth (in.)	Sample ID	Comments
Sieved MOSTLY ORGANIC NO OBVIOUS GRIT	1	NS16GC10 TOTAL MT TCLP MT GS	0-14" MIXED SILT, CLAY, AND SAND (VF) AND ORGANIC MUCK, RANGING IN COLOR FROM DARK BROWN TO <sup>(10)</sup> (0-5") TO DARK GRAYISH BROWN (5-8") TO <sup>(11)</sup> BROWN (8-11") TO BROWNISH GRAY (11-14"). VERY SOFT, WET. PETROLEUM ODOR. THIN GRAY CLAY LAYER AT ~3"
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
	11		
	1		
ORGANIC	13	NS16GC20 TOTAL MT TCLP MT GS	14-17" LIGHT GRAY CLAY, VERY SOFT, WITH SOME ORGANIC MATERIAL IN 16-17" INTERVAL 17-19" ORGANIC MUCK WITH SOME CLAY, BROWNISH GRAY 19" - 63" <sup>(19)</sup> BROWN ORGANIC MUCK, GRADIENT DOWN FROM GRAYISH BROWN TO BROWN (24-63") (19-24")
	14		
	15		
	16		
	17		
	18		
	19		
	20		
	21		
	22		
	23		
	2		
ORGANIC	25	NS16GC30 TOTAL MT TCLP MT GS	
	26		
	27		
	28		
	29		
	30		
	31		
	32		
	33		
	34		
	35		
	3		
ORGANIC	37	NS16GC40 TOTAL MT TCLP MT GS	
	38		
	39		
	40		
	41		
	42		
	43		
	44		
	45		
	46		
	47		
	4		
ORGANIC	49	NS16GC50 TOTAL MT TCLP MT GS	
	50		
	51		
	52		
	53		
	54		
	55		
	56		
	57		
	58		
	59		
	5		
	60		

NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY

Sediment Core Log

Station ID: NS17

Date: 4/16/09

Time: 0933

Logged By: M LONGTINE

62 1/2" RECOVERY

Depth (ft.)	Depth (in.)	Sample ID	Comments
ORGANIC	1	NS17GC10 TOTAL MT TELP MT GS	0-3" DARK BROWNISH GRAY FINES AND ORGANIC MUCK.
	2		PETROLEUM ODOR. V. SOFT. TRACE SAND, VF.
	3		3"-3 3/8" THIN (1/2") GRAY CLAY LAYER
	4		3 1/2" - 12" DARK GRAYISH BROWN ORGANIC MUCK AND FINES.
	5		PETROLEUM ODOR. V. SOFT. TRACE SAND, VF.
	6		SEVERAL VERY THIN GRAY CLAY LAYERS < 1/4".
	7		<del>12" (112)</del>
	8		
	9		
	10		
	11		
1	12		12"-12 1/2" SOFT LIGHT GRAY CLAY LAYER
ORGANIC	13	NS17GC20 TOTAL MT TELP MT GS	12 1/2"-13" BROWNISH GRAY FINES AND MUCK WITH BROWN LIQUID IN PORES (NAPLES)
	14		13-13 1/2" SOFT LIGHT GRAY CLAY. 13 1/2"-16" BROWNISH GRAY FINES AND MUCK.
	15		16-16.5" THIN LIGHT GRAY CLAY
	16		16.5-18" GRAYISH BROWN ORGANIC MUCK
	17		
	18		
	19		18-56" BROWN ORGANIC MUCK
	20		
	21		
	22		
	23		
2	24		
ORGANIC	25	NS17GC30 TOTAL MT TELP MT GS	
	26		
	27		
	28		
	29		
	30		
	31		
	32		
	33		
	34		
	35		
3	36		
ORGANIC	37	NS17GC40	
	38		
	39		
	40		
	41		
	42		
	43		
	44		
	45		
	46		
	47		
4	48		
	49		
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	59		
5	60		

NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY

Sediment Core Log

Station ID: NS18

Date: 4/16/09

Time: 1055

Logged By: M LONGTINE

75" RECOVERY

Depth (ft.)	Depth (in.)	Sample ID	Comments
ORGANIC	1	NS18GC10 TOTAL MT TCLP MT GS	0-6" DARK GRAYISH BROWN MUCK, TRACE SAND, VERY SCOOPY. PETROCEUM ODOR.
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
	11		
	12		
ORGANIC	13	NS18GC20 TOTAL MT TCLP MT GS	13-15" BROWN ORGANIC MUCK WITH ABUNDANT FIBROUS PLANT MATERIAL
	14		15-18 1/2" FINELY INTERLAYERED THIN (2 1/4") GRAY CLAY LAYERS AND GRAYISH BROWN ORGANIC MUCK LAYERS. PETROCEUM ODOR.
	15		
	16		
	17		
	18		
	19		
	20		
	21		
	22		
	23		
	24		
ORGANIC	25	NS18GC30 TOTAL MT TCLP MT GS	
	26		
	27		
	28		
	29		
	30		
	31		
	32		
	33		
	34		
	35		
	36		
ORGANIC	37	NS18GC40	
	38		
	39		
	40		
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NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY

Sediment Core Log

Station ID: NS19

Date: 4/16/09

Time: 12:27

Logged By: M LONGWINE

63" RECOVERY

Depth (ft.)	Depth (in.)	Sample ID	Comments
1	1	NS19GC10 * NO FIELD SCREENING TOTAL MT TCLP MT GS	0-4" SOOPY DARK BROWN TO BLACK MUCK W/ TRACE OF SAND
	2		
	3		
	4		4-4 1/4" THIN GRAY CLAY
	5		4-7" DARK BROWN MUCK, TRACE OF SAND. BROWN NAPL.
	6		
	7		7-9 1/2" REDISH BROWN ORGANIC MUCK, BROWN NAPL.
	8		
	9		9 1/2-13" DARK BROWNISH GRAY MUCK WITH BROWN NAPL & STRONG-NAPHTHALENE ODOR.
	10		
	11		
2	13	NS19GC20 * NO FIELD SCREENING TOTAL MT TCLP MT GS	13-13 1/2" LIGHT GRAY CLAY
	14		13 1/2-16 1/2" BROWNISH GRAY MUCK WITH BIGGS OF BROWN NAPL & STRONG-NAPHTHALENE ODOR.
	15		
	16		
	17		16 1/2-17" LIGHT GRAY CLAY
	18		17-24" ORGANIC MUCK GRADING IN COLOR FROM BROWN AT BOTTOM UP TO GRAYISH BROWN, BROWN NAPL AT 17-17 1/2" (JUST BELOW GRAY CLAY)
	19		
	20		
	21		
	22		
	23		
3	24	NS19GC30	24-57" BROWN ORGANIC MUCK
	25		
	26		
	27		
	28		
	29		
	30		
	31		
	32		
	33		
	34		
4	36		
	37		
	38		
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NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY

Sediment Core Log

Station ID: NS20

Date: 4/16/09

Time: 1420

Logged By: M LONGTINE

38" RECOVERY

Depth (ft.)	Depth (in.)	Sample ID	Comments
Sieve Flashed DARK ORGANIC NO OBVIOUS GRIT	1	NS20 GC 10 TOTAL MT TELP MT GS	0-11" VERY SOFT, DARK BROWN TO BLACK MUCK WITH MINOR FINE TO VF SAND. PETROLEUM ODOR
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
	11		
1	12		11-11 1/2" THIN GRAY CLAY LAYER, LIGHT, SOFT
DARK ORGANIC	13	NS20 GC 20 TOTAL MT TELP MT GS	11 1/2 - 26" ORGANIC MUCK WITH SOME FINES AND MINOR SAND (FTOUP). ABUNDANT FIBROUS PLANT MATTER (APPEAR AS INDIVIDUAL HAIR-WIDTH STRANDS). DARK BROWN STAINING. STRONG NAPHTHALENE ODOR (NOT OBSERVED ABOVE 11"). STAINING IS HYDROCARBON. SIEEN DEVELOPS WHEN SAMPLE IS HOMOGENIZED.
	14		
	15		
	16		
	17		
	18		
	19		
	20		
	21		
	22		
	23		
	24		
2	24		
DARK ORGANIC	25	NS20 GC 30 TOTAL MT TELP MT GS	26-32" ORGANIC MUCK, BROWN AND DARK BROWN (WHERE STAINED). STRONG NAPHTHALENE ODOR. VERY SOFT. FIBROUS PLANT MATERIAL AS DESCRIBED ABOVE. SIEEN IS HYDROCARBON. SIEEN DEVELOPS WHEN SAMPLE IS HOMOGENIZED. PIECE OF BARK 1"x3".
	26		
	27		
	28		
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	31		
	32		
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	36		
3	36		
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	48		
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5	60		

NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY

Sediment Core Log

Station ID: NS21

Date: 4/16/09

Time: 1622

Logged By: M LONGTINE

25" (ML) 21" RECOVERY

Depth (ft.)	Depth (in.)	Sample ID	Comments
Sieved SAND (SAG + PAPER) / Filtered	1	NS21GC10 TOTAL MT TCLP MT GS	0-16" SAND WITH OTHER MATERIAL AS NOTED, OVERALL COLOR IS DARK BROWNISH GRAY, GRAPES DOWNWARD FROM NF-1F TO COARSE (POSSIBLE SETTLING OF DISTURBED CORE?), UPPER 4-5" INCLUDES FINES, LOWER 4" INCLUDES WOOD DEBRIS, CLOD (1" x 1/2") OF TAR-LIKE MATERIAL. 10-14" INTERVAL INCLUDES MANY WHITISH FLECKS OF MATERIAL (PAINT) TO 2mm WIDE, WOOD MATERIAL HEAVILY DECAYED, SUB-ROUNDED PEBBLES TO 3/4" (SEVERAL). STRONG HYDROCARBON ODOR THROUGHOUT.
	2		
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NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY

Sediment Core Log

Station ID: NS23

Date: 4/17/09

Time: 1607

74% RECOVERY

Logged By: M LONGTINE

Depth (ft.) <i>SEVERE</i>	Depth (in.)	Sample ID	Comments		
<i>ORGANIC</i>	1	NS23GC10 TOTAL MT TELP MT GS	0-5" SOOPY VERY DARK BROWN TO BLACK MUCK AND FINES, TRACE VF OR F SAND, PETROCEUM ODOR		
	2				
	3				
	4				
	5		5-9" DARK BRNISH BROWN ORGANIC MUCK AND FINES AND TRACE VF SAND. THIN (<1/4") GRAY CLAY AT 6 1/2"		
	6				
	7				
	8				
	9				
	10		9-13 1/2" BROWN MUCK ORGANIC WITH THIN (<1/4") GRAY CLAY LAYERS AT 11" AND 12 1/2"		
	11				
	1		12		
<i>ORGANIC</i>	13	NS23GC20 TOTAL MT TELP MT GS	13 1/2-14" SOFT GRAY CLAY, 14-14 1/2" BROWN ORGANIC MUCK		
	14		14 1/2-15" SOFT GRAY CLAY		
	15		15-16" GRAY CLAY AND ORGANIC MUCK		
	16				
	17		16-16 1/2" SOFT LIGHT GRAY CLAY		
	18		16 1/2-20" (AND) 21" ORGANIC MUCK AND FINES, GRADING UP FROM BROWN TO BROWNISH GRAY.		
	19				
	20				
	21				
	22		21-66" BROWN ORGANIC MUCK		
	2		23		
	24				
3	25	NS23GC30			
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4	37	<del>NS23GC40</del>			
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NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY

Sediment Core Log

Station ID: NS24

Date: 4/17/09

Time: 1725

Logged By: M LONGTINE

419" RECOVERY

Depth (ft.) Depth (in.)	Sample ID	Comments
1	NS24GC10 TOTAL MT TCLP MT GS	0-3" STUPEY DARK GRAYISH BROWN TO BLACK MUCK WITH FINES AND TRACE FORTS SAND, LIVE CHIRONOMID. 3" AT 3" THIN (<math>2/3</math>") GRAY CLAY 3-6" DARK GRAYISH BROWN ORGANIC MUCK (WITH PLANT FIBERS).  6 1/2-8" REDDISH BROWN ORGANIC MUCK  8-10" BROWN ORGANIC MUCK WITH SOME FINES  10-11" GRAY (LIGHT) CLAY LAYER WITH THIN BROWN LAYER IN MIDDLE
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13	NS24GC20 TOTAL MT TCLP MT GS	11-14" ORGANIC MUCK AND FINES, GRADING UP FROM BROWN TO BROWNISH GRAY  14-42" BROWN ORGANIC MUCK
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25	NS24GC30	
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SIZED

Depth (ft.)  
Depth (in.)

ORGANIC

ORGANIC

ORGANIC

Comments

NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY

Sediment Core Log

Station ID: NS26

Date: 4/17/09

Time: 1215

Logged By: M LONGTINE

46" RECOVERY

Depth (ft.)	Depth (in.)	Sample ID	Comments
1 2 3 4 5 6 7 8 9 10 11	1	NS26G00 TOTAL MT TCEP MT GS	0-4" SOOPY DARK GRAYISH BROWN FINES AND TRACE SAND, F-M PETROLEUM ODOR
	2		
	3		
	4		
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1	12		11-13" GRAYISH BROWN TO BROWNISH GRAY ORGANIC MUCK + FINES
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	13	NS26G020	13-46" BROWN ORGANIC MUCK
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3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36	25	NS26G030	
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ORGANIC SECTION  
 SOME QTZ SAND, FRAGMENT  
 POSS. BEE BUNK SAND (?)

ORGANIC  
 NS26G020

ORGANIC  
 NS26G030

NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY

Sediment Core Log

Station ID: NS27

RECOVERY = 53"

Date: 4/17/09

Time: 1100

Logged By: M LONGTINE

SEVED Depth (ft.) ACTION	Depth (in.)	Sample ID	Comments
ORGANICS + RED FRAGMENTS (F)	1	NS276C10 TOTAL M# TEEP M# GS	0-2" SOUPY DARK GRAYISH BROWN FINES, MUCK, TRICE SAND VF-F
	2		2" THIN (1/4") GRAY CLAY
	3		2-6" BROWN <sup>(M)</sup> INTERLAMINATED REDDISH BROWN, BROWN, GRAY
	4		MUCK
	5		6-7 1/2" LIGHT GRAY CLAY WITH THIN LAMINAE OF DARK
	6		GRAY (6 3/4") AND BROWN (6 1/2")
	7		7 1/2-8 1/2" GRAY CLAY (DARKER THAN THIN LIGHT CLAY LAYERS SEEN ELSEW <sup>HERE</sup> )
	8		WITH FIBROUS PLANT MATTER
	9		8 1/2-14" ORGANIC MUCK AND FINES (BASED ON COLOR) GRADING
	10		UP FROM BROWN TO GRAYISH BROWN TO BROWNISH GRAY
	11		
	1		12
ORGANIC	13	NS276C20	14"-48" BROWN ORGANIC MUCK
	14		
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	2		24
ORGANIC	25	NS276C30	
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NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY

Sediment Core Log

Station ID: N528

Date: 4/17/09

Time: 0940

Logged By: M LONGANE

61" RECOVERY

Depth (ft.)	Depth (in.)	Sample ID	Comments
1	1	N528 GC 10 TOTAL MT TLLP MT ALSO XRF 2-2" INTERVAL	0-1 1/2" DARK GRAYISH BROWN MUCK AND FINES
2	2		1 1/2-1 3/4" THIN GRAY CLAY
3	3		1 3/4-3" BROWN MUCK
4	4		3-8" FINELY INTERLAYERED LIGHT GRAY CLAY LAYERS (2 1/4" AT 6-8" LIGHT GRAY CLAY WITH THIN LAMINAE OF UNIDENTIFIED BROWN MATERIAL (6 3/4") AND DARK GRAY LAYERS. (SEE PHOTO 101) 8-8 1/2" LIGHT GRAY CLAY 8 1/2-13" ORGANIC MUCK WITH FINES (BASED ON COLOR), GRADING UP FROM BROWN TO GRAYISH BROWN TO BROWNISH GRAY.
5	5		
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	13	N528 GC 20	13-54" BROWN ORGANIC MUCK
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	21		5 1/2" (4 3/4", 4 1/4", 3 1/2") IN BROWN AND GRAYISH BROWN MUCK.
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	25	N528 GC 30	
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NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY

Sediment Core Log

Station ID: NS33

Date: 4/17/09

Time: 1330

RECOVERY 43%

Logged By: M. CONNORS

Depth (ft.)	Sample ID	Comments
1	NS33GC10 TOTAL Mt TCLP Mt 65	0-6" SLURRY DARK BROWN TO BLACK MUCK, WITH FINES AND TRACE TO MINOR SAND VF TO F. PETROLEUM OXYL
2		
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6		6-8 1/2" BROWN ORGANIC MUCK
7		
8		8 1/2 - 14 1/2" INTERLAYERED GRAY CLAYS AND REDDISH BROWN AND DARK BROWNISH GRAY ORGANIC MUCK LAYERS. LOWEST CLAY 13-14 1/2" ORGANIC MUCK INCLUDES PLANT FIBERS.
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13	NS33GC20	
14		14 1/2 - 18" ORGANIC MUCK AND FINES (CLAY + SILT) GRADING UP FROM REDDISH BROWN TO BROWNISH GRAY
15		
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18		18-35" BROWN ORGANIC MUCK
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25	NS33GC30	
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STAGED  
 Depth (ft.)  
 No. of Vials Grab  
 Some Fine Block  
 Fractions

ORGANIC

ORGANIC

NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY

Sediment Core Log

Station ID: NS 34

Date: 4/17/09

Time: 1452

Logged By: M LONGTINE

RECOVERY = 50"

SAVED Depth (ft.) Flowmeter	Depth (in.)	Sample ID	Comments
MUCKY ORGANIC w/ SOME VF BLACK FRAGMENTS of SAND or GRIT	1	NL34GC10 TOTAL MT TELP MT 65	0-2" XRF
	2		ALLOQUOT
	3		
	4		
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	7		0-6" SOOPY DARK GRAYISH BROWN MUCK, SOME PLANT FIBERS, FINES, AND SAND VF + FINE, PETROCEUM ODOR.
	8		6-13" ORGANIC MUCK WITH VARYING AMOUNTS OF FINES, INDIVIDUAL LAYERS 1/4" TO 2" HAVE DIFFERENT COLORS, 6-8" DARK GRAYISH BRN.
	9		8-10" SLIGHTLY LESS DARK GRAYISH BROWN. AT 10", 1/4" GRAY CLAY. 10-11" REDDISH BROWN. 11-12 1/2" DARK BROWNISH GRAY, 12 1/2-13" REDDISH BROWN.
	10		
	11		
	1		12
ORGANIC	13	NL34GC20 TOTAL MT TELP MT 65	13-14 1/2" LIGHT GRAY CLAY WITH THIN BROWN LAYER IN MIDDLE
	14		
	15		14 1/2-17" GRAY CLAY WITH ORGANIC MATERIAL VS OFT
	16		
	17		17-23" ORGANIC MUCK WITH FINES GRADING UP FROM BROWN THROUGH GRAYISH BROWN TO RED
	18		
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	23		23-44 BROWN ORGANIC MUCK
	2		24
NO MATERIAL	25	NL34GC30	
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NORTHLAKE SHIPYARD SANDBLAST GRIT STUDY

Sediment Core Log

Station ID: N335

Date: 4/20/09

Time: 1400

11" RECOVERY

Logged By: M LONGTINE

Depth (ft.)	Depth (in.)	Sample ID	Comments
STEEL GRAV N335G10	1	N335G10	0-11" SOOPY BLACK FINES AND SAND. SAND IS BLACK, POSSIBLY OXID. HYDROCARBON ODDOR.
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