ORIGINAL
FILE COPY
ANNOTATED LOGS

ATLANTIC TESTING LAB

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February 14, 1994
~~December 28, 1993~~

U.S. Army Corps of Engineers
New England Division
424 Trapelo Road
Waltham, MA 02254-9149

Attn: Mr. Yuri Yatsevitch

Re: Borings and Probes
Hyannis Harbor
Hyannis, Massachusetts
Contract No. DACW33-93-D-0004
Delivery Order No. 0007
ATL Final Report No. CD0044-1-12-93

Ladies/Gentlemen:

In accordance with Delivery Order No. 0007 dated November 3, 1993, enclosed are three copies of our final report for the subsurface investigation performed at Hyannis Harbor, Hyannis, Massachusetts.

If you have any questions or comments, please do not hesitate to contact our office.

Respectfully submitted,

Spencer F. Thew/dc

Spencer F. Thew, P.E.
President

SFT/dc

Encs.

SECTION 1

BORINGS AND PROBES

HYANNIS HARBOR

HYANNIS, MA

Contract No. DACW33-93-D-0004

Contracting/Ordering Officer:

Charles W. Coe

Delivery Order No. 0007

PREPARED FOR: U.S. Army Corps of Engineers
New England Division
424 Trapelo Road
Waltham, MA 02254-9149

PREPARED BY: Atlantic Testing Laboratories, Limited
P.O. Box 29
Canton, NY 13617

ATL FINAL REPORT NO. CD0044-1-12-93

DECEMBER 28, 1993

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SCOPE OF INVESTIGATION

A. DELIVERY ORDER NO. 0007

orig: Job Folder
cc: T. Wiggins 11/9/93 BF

CD0044

ORDER FOR SUPPLIES OR SERVICES

(Contractor must submit four copies of Invoice)

Form Approved
OMB No. 0704-0187
Expires Aug 31, 1992

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0187), Washington, DC 20503. Please DO NOT RETURN your form to either of these addresses. Send your completed form to the procurement official identified in item 6.

1. CONTRACT/PURCH ORDER NO.: DACW33-93-D-0004
2. DELIVERY ORDER NO.: 0007
3. DATE OF ORDER: 11/3/93
4. REQUISITION/PURCH REQUEST NO.: 961316-23B6-0004
5. PRIORITY:

6. ISSUED BY — CODE 961316
Dept. of the Army
N. E. Division, Corps of Engrs
424 Trapelo Road
Waltham, MA 02254-9149
Dorothy Moebius S01 (617)-647-8419

7. ADMINISTERED BY — CODE EMPTY

8. DELIVERY FOB
[ ] DEST
[X] OTHER
(See Schedule)

9. CONTRACTOR Vendor Id: 00001586 — CODE 0GKT9 — FACILITY CODE
NAME AND ADDRESS: ATLANTIC TESTING LAB, LIMITED
P. O. BOX 29
CANTON NY 13617-

10. DELIVER TO FOB POINT BY: 12/18/93

11. MARK IF BUS. IS
[X] SMALL
[ ] SMALL DIS-ADVANTAGED
[ ] WOMEN-OWNED

12. DISCOUNT TERMS: 0 % 0 Net 0

13. MAIL INVOICES TO: See Block 15

14. SHIP TO — CODE GEB
Geotechnical Engineering
Division, Engineering
Directorate, at issuing office
DACW3393D0004/0007

15. PAYMENT WILL BE MADE BY — CODE FAO
Finance & Accounting Officer
U.S.A. Engr. Div., New England
424 Trapelo Road
Waltham, MA 02254-9149

MARK ALL PACKAGES AND PAPERS WITH CONTRACT OR ORDER NUMBER

16. DELIVERY [X] This delivery order is issued on another Government agency or in accordance with and subject to terms and conditions of above numbered contract.

PURCHASE [ ] Reference your furnish the following on terms specified herein.

ACCEPTANCE. THE CONTRACTOR HEREBY ACCEPTS THE OFFER REPRESENTED BY THE NUMBERED PURCHASE ORDER AS IT MAY PREVIOUSLY HAVE BEEN OR IS NOW MODIFIED, SUBJECT TO ALL OF THE TERMS AND CONDITIONS SET FORTH, AND AGREES TO PERFORM THE SAME.

NAME OF CONTRACTOR | SIGNATURE | TYPED NAME AND TITLE | DATE SIGNED

[ ] If this box is marked, supplier must sign Acceptance and return the following number of copies:

17. ACCOUNTING AND APPROPRIATION DATA/LOCAL USE
96X3122 BB305307200E000 (MD) $80,909.50

18. ITEM NO.	19. SCHEDULE OF SUPPLIES/SERVICE	20. QUANTITY ORDERED/ACCEPTED*	21. UNIT	22. UNIT PRICE	23. AMOUNT
0003	FURNISH NECESSARY SUPPLIES AND SERVICES TO INVESTIGATE MATERIALS DOWN TO DREDGE DEPTH AND TO ACQUIRE SOIL SAMPLES FOR LABORATORY TESTING IN ACCORDANCE WITH THE ATTACHED SCOPE OF WORK AND DRAWING. GEOTECHNICAL INSPECTOR	80	HR	48.000000	3840.00

*If quantity accepted by the Government is same as quantity ordered, indicate by x. If different, enter actual quantity accepted below quantity ordered and encircle.

24. ~~UNITED STATES OF AMERICA~~
Charles W. Coe 11/4/93
BY: CHARLES W. COE m01
CONTRACTING/~~ORDERING~~ OFFICER

25. TOTAL: 80909.50

29. DIFFERENCES:

26. QUANTITY IN COLUMN 20 HAS BEEN
[ ] INSPECTED [ ] RECEIVED [ ] ACCEPTED AND CONFORMS TO THE CONTRACT EXCEPT AS NOTED

DATE | SIGNATURE OF AUTHORIZED GOVERNMENT REP.

27. SHIP. NO.
[ ] PARTIAL
[ ] FINAL

28. D.O. VOUCHER NO.

30. INITIALS

31. PAYMENT
[ ] COMPLETE
[ ] PARTIAL
[ ] FINAL

32. PAID BY

33. AMT VERIFIED CORRECT FOR

34. CHECK NUMBER

35. BILL OF LADING NO.

36. I certify this account is correct and proper for payment

DATE | SIGNATURE AND TITLE OF CERTIFYING OFFICER

37. REC'D AT | 38. RECEIVED BY | 39. DATE REC'D | 40. TOTAL CONT. | 41. S/R ACCOUNT NUMBER | 42. S/R VOUCHER NO.

ITEM NO.	SCHEDULE OF SUPPLIES/SERVICE	QUANTITY	UNIT	UNIT-PRICE	AMOUNT
0003 (continued)					
0004	GEOTECHNICAL INSPECTOR - STANDBY TIME	24	HR	48.000000	1152.00
0005	PER DIEM - OVERNIGHT STAY	10	DA	55.000000	550.00
0006	MILEAGE FROM WALTHAM, MA AND RETURN	250	MI	0.500000	125.00
000707	50% OF $3,840.00 (LINE ITEM NO. 3), DELIVERY ORDER NO. 0007 GEOTECHNICAL SERVICES AND REPORTS	1	JB	1920.000000	1920.00
0008	SURVEYING MOBILIZATION AND DEMOBILIZATION	1	JB	450.000000	450.00
0009	MILEAGE FROM/TO WALTHAM, MA	250	MI	0.500000	125.00
0011	SURVEY CREW AND EQUIPMENT	10	DA	880.000000	8800.00
0012	OVERNIGHT PER DIEM FOR SURVEY CREW	10	DA	160.000000	1600.00
001307	DATA REDUCTION AND PLOTTING (PRICE EXPRESSED AS A PERCENTAGE OF LINE ITEM NO. 0011.) 75% OF $8,800.00, DELIVERY ORDER NO. 0007	1	JB	6600.000000	6600.00
0015	SAMPLE DELIVERY	1	JB	110.000000	110.00
0016	MOBILIZATION AND DEMOBILIZATION ONE DRILL RIG, CREW AND AUXILIARY EQUIPMENT MOBILIZATION AND DEMOBILIZATION	1	JB	1320.000000	1320.00
0018	MILEAGE FROM/TO CONTRACTOR'S MAIN	250	MI	1.650000	412.50

ATLANTIC TESTING LAB, LIMITED

ITEM NO.	SCHEDULE OF SUPPLIES/SERVICE	QUANTITY	UNIT	UNIT-PRICE	AMOUNT
0018 (continued)	EQUIPMENT STORAGE SITE. SITE LOCATED IN MANCHESTER, NEW HAMPSHIRE				
0029	16 FOOT BOAT	10	DA	132.000000	1320.00
0030	OPERATOR FOR 12 FT. OR 16 FT. BOAT	10	DA	220.000000	2200.00
0038	1500 SQUARE FT. BARGE WITH SPUD ANCHORS	13	DA	2750.000000	35750.00
0043	DRIVE SAMPLE BORING WITHOUT CASING: CONTINUOUS SAMPLING 0-30 FT. DEPTH	220	LF	16.000000	3520.00
0056	MACHINE PROBES: 300 LB. HAMMER (5 FT. MINIMUM TO 40 FT. MAXIMUM DEPTH)	500	LF	12.000000	6000.00
0062	DRIVING AND PULLING CASING BX, NX SIZE	220	LF	18.000000	3960.00
0082	NWX SIZE AND/OR NWM	15	LF	77.000000	1155.00

ATTACHMENT NO. 1

GED REQUISITION NO. 93 - 49
SCOPE OF WORK

PROJECT: Borings and probes.

SITE: Hyannis Harbor Navigation Improvement Project (Figure 1)

PURPOSE: Borings and probes shall be done to investigate the materials down to dredge depth and to acquire soil samples for laboratory testing.

1. SCOPE OF INVESTIGATIONS.

a. Continuous drive sampling borings and probes shall be done from -15 to a maximum of -20 MLW as indicated on the drawings (furnished separately) or as directed in the field by the Government. The Contractor shall have the capability of coring 10 feet into rock, through boulders or through dense material. Coring shall be done at the direction of the Government if refusal is encountered.

b. The Contractor shall provide an experienced geotechnical inspector to log the explorations and prepare a report.

c. A spud barge is required for this work. The Contractor shall assure the barge is suitable to provide a stable drilling platform for the conditions of the Harbor.

d. Survey support shall be provided by the Contractor. Communication between the floating plant and shore shall be by radio. The Contractor shall examine the plans and exploration locations and shall provide surveys by conventional, radio or other electronic method as most appropriate. The Contractor shall inform the NED Point of Contact of his plan for survey control. Tide charts are available to the Contractor from NED Survey Branch upon request.

e. The Contractor shall notify the Coast Guard as required.

2. SITE CONDITIONS.

The work is in open water in Hyannis Harbor (Figure 1). Water depths for explorations vary from about 5 feet MLW to 10 feet MLW. The tide range is 3.1 feet. Variations in the borings locations may be allowed if access for the drill barge is limited because of water depth. Subsurface soils may consist of mixed deposits of sand and silty sand, and/or possibly compact glacial till. It is not known if bedrock may be encountered. Full size condition survey drawings showing Hyannis Harbor bottom elevations and exploration locations have been provided separately to the Contractor.

3. COORDINATION.

Liaison will be maintained for the duration of the delivery order through frequent telephone contacts with the NED Point of Contact, Yuri Yatsevitch (617-647-8387). The Contractor will inform the Government at least 10 days in advance of the start of drilling so a Government repsentative can be on site. Daily telephone contacts and field discussions are required between the Contractor and the NED Point of Contact during the work.

4. COMPLETION SCHEDULE.

It is intended to begin this work as soon as practical to take advantage of more favorable weather conditions. Work under this delivery order shall be completed as follows:

•Begin Coordination and Establish Schedule	Within 10 days from NTP
•Submission of Draft Report	Within 20 days from completion of explorations
•Submission of Final Report	Within 5 days from Government review comments

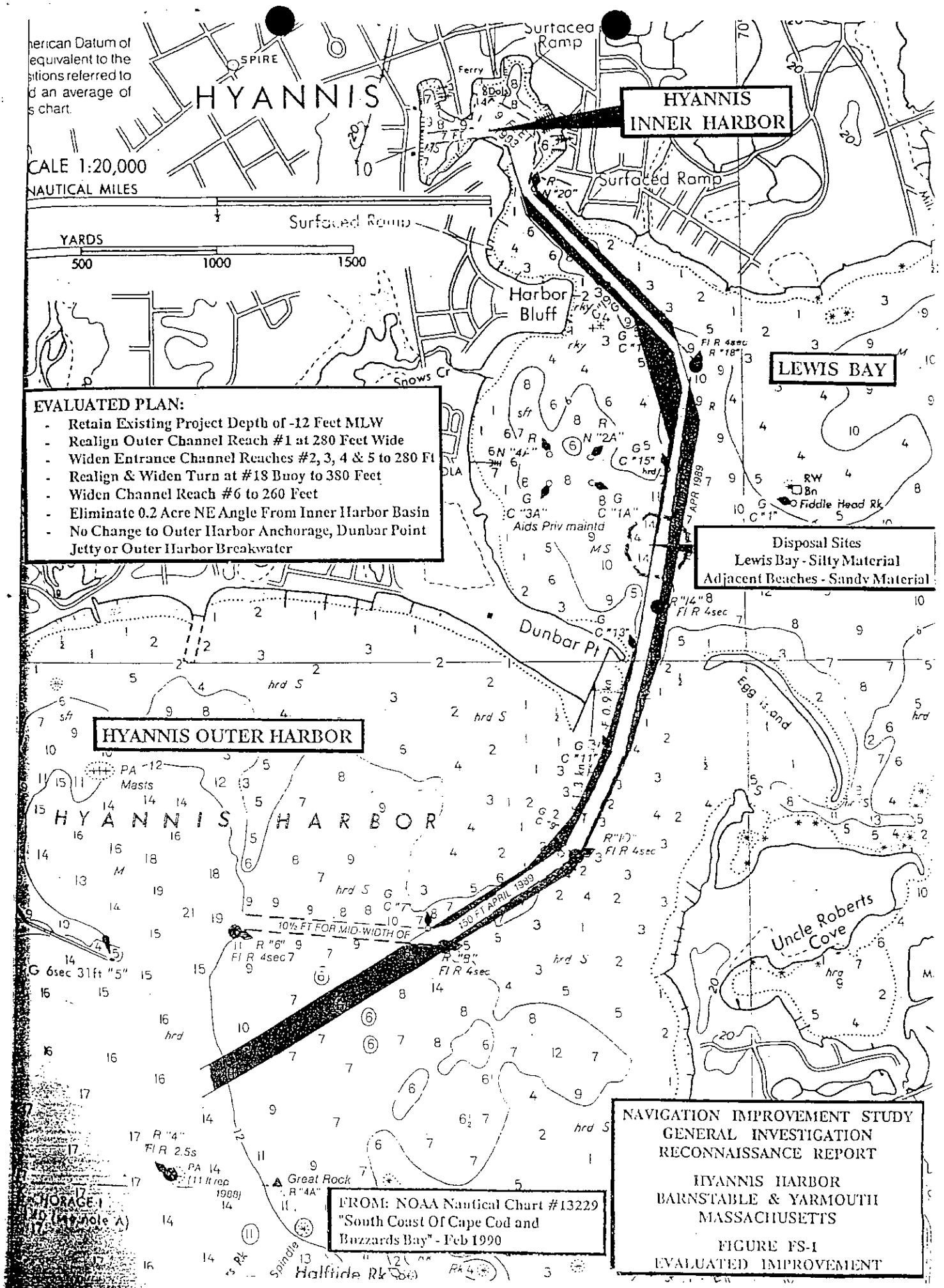
5. GOVERNMENT REVIEW.

The Government review will take approximately ten calendar days from receipt of the draft report. Three copies of the final report shall be submitted no later than ten calendar days after your receipt of the Government-reviewed draft report including the action taken on possible comments.

6. QUALITY CONTROL.

Your attention is invited to the Contract General Provisions, "Quality Control and Assurance". You will be held responsible for the quality of the report submitted and for all damages caused to the Government as a result of your negligence in the performance of any services furnished under the contract.

Although the submissions required by our contract are technically reviewed by the Government, it is emphasized that your work must be prosecuted using proper internal controls and review procedures. The letter of transmittal for each submission which you make shall include a certification that the submission has been subjected to your own review and coordination procedures to insure (a) completeness for each discipline commensurate with the level of effort required for that submission, (b) professional and the technical accuracy of the submission. Documents which are significantly deficient in any of these areas will be returned to you for correction and/or upgrading prior to completing out review. Contract submission dates will not be extended if a resubmission of draft material is required for this reason.


HYANNIS INNER HARBOR
HYANNIS
SPIRE
Surfaced Ramp
Ferry
Surfaced Ramp
Surfaced Ramp
SCALE 1:20,000
NAUTICAL MILES
YARDS
500
1000
1500
Harbor Bluff
Snows Cr
LEWIS BAY
Fiddle Head Rk
Aids Priv maintd
Dunbar Pt
Egg Island
HYANNIS OUTER HARBOR
HYANNIS HARBOR
Uncle Roberts Cove
Great Rock
Halftide Rk
Spindle
EVALUATED PLAN:
- Retain Existing Project Depth of -12 Feet MLW
- Realign Outer Channel Reach #1 at 280 Feet Wide
- Widen Entrance Channel Reaches #2, 3, 4 & 5 to 280 Ft
- Realign & Widen Turn at #18 Buoy to 380 Feet
- Widen Channel Reach #6 to 260 Feet
- Eliminate 0.2 Acre NE Angle From Inner Harbor Basin
- No Change to Outer Harbor Anchorage, Dunbar Point Jetty or Outer Harbor Breakwater
Disposal Sites
Lewis Bay - Silty Material
Adjacent Beaches - Sandy Material
FROM: NOAA Nautical Chart #13229 "South Coast Of Cape Cod and Buzzards Bay" - Feb 1990
NAVIGATION IMPROVEMENT STUDY
GENERAL INVESTIGATION
RECONNAISSANCE REPORT
HYANNIS HARBOR
BARNSTABLE & YARMOUTH
MASSACHUSETTS
FIGURE FS-1
EVALUATED IMPROVEMENT

B. PROJECT SITE

The project site is located in the Hyannis Harbor, Hyannis, Massachusetts. The site includes the Inner Harbor, Lewis Bay, and Outer Harbor regions.

C. PURPOSE

The purpose of the investigation was to determine Harbor subsurface materials down to dredge depth for navigational improvements.

D. SCOPE OF WORK

Inspection and exploration instructions were provided by the Army Corps of Engineers (NED), in Delivery Order No. 0007 and are included in Section 3a. of this report. General inspection and exploration instructions were provided by the Army Corps of Engineers (NED) through the contracted Specifications for Services, and Equipment Necessary for Conducting Geotechnical Exploratory Work Various Locations in New England.

Drilling and sampling were performed by Atlantic Testing Laboratories, Limited's (ATL) personnel using Atlantic Testing Laboratories' equipment. The test borings were sampled using a 1-3/8" I.D. split spoon sampler advanced with a 140-lb. safety hammer falling 30". The borings were advanced using HW casing by spinning and washing. The casing was cleaned with the appropriate size roller bit. The probes were advanced with NW rod using a 300-lb. drop hammer falling 18".

The proposed scope of work required 24 test borings and 23 machine probes advanced from a barge at various locations throughout Hyannis Harbor. These borings and machine probes were completed on November 16, 1993. One additional boring and nine probes were then added to the program. The borings and probes were performed from November 6 through November 19, 1993 using a 30 ft by 90 ft spud barge.

Surveyors, from the firm Spencer Thew, P.E./L.S., provided locations and elevations for the test borings and machine probes.

SECTION 4

QUALITY CONTROL

A. GENERAL CERTIFICATION STATEMENT

I hereby certify that the records, equipment, and procedures mentioned herein were used to perform the subsurface exploration. I also certify that the work was performed in a professional manner and meets the requirements set forth in the Delivery Order. This report has been subject to my review and is both complete and technically accurate.

CERTIFIED, December 28, 1993

Spencer F. Thew, P.E./L.S.

B. GENERAL STATEMENT

The equipment and procedures used to perform the subsurface investigation are summarized below.

C. RECORDS TAKEN

The "General Project Location Map", "Site Location Plan", and "Boring Location Plan" are included in Section 8.

Pertinent drilling procedures, sampling operations, and soil classification data were noted on the following forms provided by the Corps of Engineers:

NED 198	Daily Log of Field Explorations
NED 58 and 58a	Field Log of Test Boring

A series of logs for each of the borings and probes are included in Section 8.

A "Summary of Daily Activities" and "Telephone Log" are Table I and Table II of Section 5, respectively. A "Chain of Custody Log" is in Section 6. Safety meeting, reports, and NED Form 251 are in Section 7.

D. EQUIPMENT USED

Drilling equipment, survey equipment and supplies were provided by Atlantic Testing Laboratories, Limited (ATL). The subcontract equipment consisted of a spud barge and tug boat. A list of pertinent equipment follows:

1. Survey Equipment:

   - 2 Wild System 200 Dual Frequency Global Positioning Receivers
   - 1 Gateway Color Book 486/33 Portable Computer and support equipment
   - 1 Wild T-1000 Electronic Total Stations and support equipment
   - Wild Heerbrugg, NA-2 automatic level
   - Two-way radios
   - 1 Pick Up Truck

D. EQUIPMENT USED (CONT'D)

2. Drilling Equipment:

- CME-75 truck-mounted drill rig
- HW and NW size casing with spin shoes
- Drill rod, NW-threaded in 2 ft, 5 ft and 10 ft lengths used for sampling and advancing a roller bit
- 300-lb. drop hammer for driving probes
- 140-lb. safety hammer for driving split spoons
- 2 ft x 1-3/8" I.D. split spoon samplers
- NX size core barrel with diamond cutting shoe for coring rock

3. Subcontract Equipment:

- Tugboat/operator
- 30 ft x 90 ft spud barge/pilot
- Crane/Operator
- 16 ft boat with outboard motor/operator
- Cellular phone

E. PROCEDURES

1. General Statement

A marine test boring/machine probe investigation was performed in Hyannis Harbor, Hyannis, Massachusetts during the period November 6, 1993 through November 19, 1993.

2. Surveying Procedures

Atlantic Testing Laboratories, Limited's surveyors were on-site throughout the duration of the project to locate the test borings and machine probes, to determine their as-drilled locations, and to provide tidal elevations as the drilling program proceeded. The boring and probe locations were staked and located using Real-Time Global Positioning Techniques.

a. Horizontal Control

The control point and boring locations were provided by Yuri Yatsevitch (USACE) on four drawings entitled "Hyannis Harbor, Hyannis, Massachusetts, After-Dredge and Conditions Surveys, 12-Foot Channel and Anchorage", prepared by the New England Division Corps of Engineers, dated April 1992, and distinguished as Drawing No. HY-155, Sheets 1 of 4 through 4 of 4. The coordinates of the boring locations were determined by scaling on the reference drawings, while the coordinates of the control points were supplied by Mr. Jeff Preston (USACE). All coordinates were State Plane Coordinates referenced to the Massachusetts Main Land State Plane Coordinate System, based on the North American Datum of 1927 (NAD27). The coordinates were transformed to Geodetic Coordinates (latitude and longitude) using an Algorithym prepared by the Bureau of Land Management, Cadastral Survey Division. The Geodetic positions were then transformed from NAD27 Positions to NAD83 (North American Datum of 1983) Positions.

E. PROCEDURES (CONT'D)

2. Surveying Procedures (con't.)

   b. Vertical Control

   The vertical control for this project was referenced to Mean Low Water (MLW), based on the National Geodetic Vertical Datum of 1928 (NGVD29). A calibrated staff gauge was set by the USACE surveyors, which was continuously monitored by an ATL representative. The elevation of the bottom of the casing was determined on the drilling platform by using the known length of casing assembled, subtracting the distance from the drill platform to water level, and the stick-up elevation (float platform to top of drill stem); minus the tide reading at that moment.

3. Boring Location Procedures

   Boring/probe locations were field-located using Real-Time Global Postioning Techniques. A static GPS receiver was set at one of three control points (Yacht, Dunbar, or Bash) and a roving receiver was set up on the stern of the tugboat. The Geodetic positon of the control point was entered into the static receiver and the Geodetic positions of the boring locations (called waypoints) were entered into the roving receiver. A radio link between the static receiver and the roving receiver allowed updated positions of the roving receiver every second and, in turn, the azimuth and distance to the specified waypoint was then displayed and transmitted to the tugboat captain.

   The tugboat was navigated to the waypoint and a buoy attached to an anchor was dropped, marking the location of the boring/probe. The drilling platform (barge) was then navigated to the buoy for drilling operations.

   The as-drilled boring locations were located using the GPS receivers in a stop and go mode. The roving receiver was positioned at the as-drilled location and the Geodetic position was then recorded.

4. Sampling and Drilling Procedures

   Sampling techniques involved retrieving material using the Standard Penetration Test. A 1-3/8" I.D. x 2 ft long split spoon sampler was advanced using a 140-lb. safety hammer falling 30". Samples were classified in the field in accordance with ASTM D-2488. Representative samples were taken from each soil sampling run and placed in 16-oz. jars with hermetically-sealed lids. Sample jars were labeled using a form similar to ENG Form 1742.

   Machine probes involved advancing NW rod and probe tip using a 300-lb. drop hammer falling 18".

SECTION 5

SUMMARY OF DAILY ACTIVITIES

AND

TELEPHONE LOG

A. SUMMARY OF DAILY ACTIVITIES

TABLE I

DATE/TIME	ACTIVITY
Saturday, November 6, 1993	- Barge crew spent the day preparing the barge for the project to include building drill platform and drill rig tie down system.
Monday, November 8, 1993	- T. Custeau (ATL geotechnical inspector) made calls regarding project coordination, refer to telephone call records. Total time 6 hours. - ATL drill crew mobilized to Woods Hole, MA and arrived at noon. **12:00 pm - 9:00 pm, ATL driller and helper on site** - ATL drill crew started preparing drill platform on barge. Crosby Towboat, Inc. arrived with tugboat and prepared for tow to Vineyard Haven on Martha's Vineyard, where drill rig will be loaded on barge. - Drill crew arrived at the dock at Vineyard Haven at 9:00 pm.
Tuesday, November 9, 1993	**6:00 am - 5:00 pm, Drill crew on site** - Driller and helper assisted barge crew in loading drill rig, completing the drill platform. Drill crew then took ferry back to Woods Hole and traveled to Hyannis. **5:00 am - 5:00 pm, Tugboat with captain, and barge with crew** - Left Woods Hole at 5:00 am and arrived at Vineyard Haven at 7:00 am. - Left Vineyard Haven at 12:00 pm and arrived Hyannis about 4:00 pm. Met drillers and secured barge for the project. **11:30 am - 5:00 pm, ATL geotechnical inspector on site** - T. Custeau (ATL geotechnical inspector) mobilized to site and met with T. Lee of the Steamship Authority, and made arrangements for docking barge at town dock (Ocean St. Dock) and working in harbor so as not to interfere with scheduled boating. Obtained schedule of boats. - Y. Yatsevitch (CE-NED) visted T. Custeau to report he would be on site (town dock) at 6:00 am. - T. Custeau (ATL) coordinated activities with ATL drill crew and surveyors.

A. SUMMARY OF DAILY ACTIVITIES

TABLE I

DATE/TIME	ACTIVITY
Tuesday, (con't.) November 9, 1993	**11:30 pm to 7:00 pm, ATL Surveyors (J. Thew, L. Eisenhaur on site** - Survey crew met with CE-NED Surveyors at 12:45 pm. J. Preston (CE-NED, Crew Chief) showed ATL surveyors the location of the horizontal and vertical control points throughout the harbor. - J. Preston gave ATL surveyors copies of the horizontal and vertical control data sheets. - Survyors generated coordinates for boring/probe locations. - Confirmed plans with M. Contino (Syracuse Blueprint representative), who will be working with survey crew and will be on site at 10:00 am on Wednesday. ATL will meet M. Contino on the Ocean Street Docks. - Input control coordinates into computer. - Scaled coordinates for borings/probes; generated stakeout coordinates for Machine Probes FP-N and FP-O, and Borings FD-K and FD-L.
Wednesday, November 10, 1993	**6:00 am - 5:00 pm, ATL driller, helper, geotechnical inspector, surveyors, tugboat with captain, and barge with crew on site** - Assembled at town wharf (Ocean Street Dock) to conduct safety meeting. - Departed at 6:15 am for barge. - Arrived at barge at 6:25 am. - Set buoys for boring/probe locations. - Positioned barge over buoy, advanced Boring FD-1 to 11 ft; continuous sampling. - Positioned barge over buoy, advanced Probe FP-1 to 11 ft. - Moved barge to new area. - Positioned barge over buoy, advanced Boring FD-2 to 12 ft. - Moved barge to new area. - Positioned barge over buoy, advanced Probe FP-2 to 9 ft. - Drill rig down due to electric module from 12:10 pm to 2:40 pm. - Rig repaired and moved to next station. - J. Thew (ATL surveyor) had problem with coordinates. Attempted to locate using "conventional" survey techniques. Unable to establish location. - Moved barge to anchorage and secured for day. - 3 Hours of moving on this date. - 5:00 pm, Depart site for day.

A. SUMMARY OF DAILY ACTIVITIES

TABLE I

DATE/TIME	ACTIVITY
Wednesday, (con't.) November 10, 1993	**Surveying Activities** - Attended ATL safety meeting. - Staked and located 2 boring and 2 probe locations using conventional survey methods (Transit at Dunbar BS Wizeck). - L. Eisenhaur collected tidal data. - Located as-drilled locations of borings/ probes using conventional methods. - Met M. Contino of Syracuse Blueprint at 10:15 am. - Generated latitude and longitude for boring/probe locations; Geodetic coordinates did not agree with GPS position of Dunbar. - Determined that coordinates supplied by CE-NED was in Massachusetts Main Land zone. - Generated Geodetic coordinates for borings/ probes for GPS stakeout.
Thursday, November 11, 1993	**6:00 am - 5:00 pm, ATL driller, helper, geotechnical inspector, surveyors, tugboat with captain, and barge with crew on site** - Assembled at Ocean Street Dock and departed for barge. - Move barge to Station FD-R. - Positioned barge over buoy, advanced Boring FD-3 to 11 ft. - Moved barge to Station FD-Q - Positioned barge over buoy, advanced Boring FD-4 to 12 ft. - Moved barge to Station FD-O - Positioned barge over buoy, advanced Boring FD-5 to 12 ft. Winds rising at approximately 10 to 15 miles per hour and water rising to 3'. - Moved barge to Station FD-P - Positioned barge over buoy, advanced Boring FD-6 to 10 ft. - Moved barge to Station FD-M - Positioned barge over buoy, advanced Boring FD-7 to 12 ft. - Moved barge to Station FP-5. High winds made move difficult (barge could not stay tied to tugboat). - Positioned barge over buoy, advanced Probe FP-3 to 10 ft. - Probe completed and the Captain of the tugboat reported that a small craft advisory had been posted. The captain advised us to head to dock.

A. SUMMARY OF DAILY ACTIVITIES

TABLE I

DATE/TIME	ACTIVITY
Thursday, (con't.) November 11, 1993	- Discussed setting points close to Inner Harbor; however, due to impending darkness and the fact that the dingy had no lights, and the need for data transformation; no locations could be set. - Secured barge and head for dock. - 4-1/2 Hours of moving on this date. - 5:00 pm, Depart site for day. **Surveying Activities** - Set static receiver at Control Point "Dunbar". - Staked and located 5 borings and 1 probe. - M. Contino of Syracuse Blueprint assisting with Real Time GPS operations. - L. Eisenhauer collected tidal data. - All borings/probes were staked and located using Real Time GPS.
Friday, November 12, 1993	**6:00 am - 3:00 pm - ATL driller, helper, geotechnical inspector, surveyors, tugboat with captain, barge and crew on site.** - Assembled at Ocean Street Dock and sailed barge. - Strong winds and small craft advisory in effect, thus decided to work the Inner Harbor. - Positioned barge over buoy, advanced Boring FD-8 to 9.2 ft. - Positioned barge over buoy, advanced Boring FD-9 to 7 ft. - Positioned barge over buoy, advanced Boring FD-10 to 10.3 ft. - Positioned barge over buoy, advanced Boring FD-11 to 11.5 ft. - Positioned barge over buoy, advanced Probe FP-4 to 10 ft. - Positioned barge over buoy, advanced Boring FD-12 to 10.9 ft. - Positioned barge over buoy, advanced Probe FP-5 to 10.1 ft. - Positioned barge over buoy, advanced Probe FP-6 to 10.2 ft. - Moved barge to Station FP-M. - Positioned barge over buoy, advanced Probe FP-7 to 13.5 ft. - Moved barge to Station FP-L. - Positioned barge over buoy, advanced Probe FP-8 to 10 ft. - Positioned barge over buoy, advanced Probe FP-9 to 10 ft.

A. SUMMARY OF DAILY ACTIVITIES

TABLE I

DATE/TIME	ACTIVITY
Friday, (con't.) November 12, 1993	- Positioned barge over buoy, advanced Probe FP-10 to 10 ft. - Positioned barge over buoy, advanced Probe FP-11 to 11 ft. - 3-1/2 Hours of moving on this date. - 3:00 am, Depart site for day. **Surveying Activities** - Arrived at Ocean Street Dock at 5:30 am to get locations staked before drillers arrived on site. - Set static receiver at Control Point "Yacht". - Staked and located 15 borings and 8 probes. - M. Contino of Syracuse Blueprint assisted with Real Time GPS operations. - L. Eisenhauer collected tidal data. - All borings and probes were staked and located using Real Time GPS.
Monday, November 15, 1993	**8:30 am - 5:30 pm, ATL driller, helper, geotechnical inspector, surveyors, tugboat with captain, barge with crew on site** - Safety meeting conducted by T. Eldridge (ATL geotechnical inspector). - Moved barge to Inner Harbor. - Tugboat with buoys and survey equipment mark drilling sites in Inner Harbor. - Positioned barge over buoy, advanced Boring FD-13 to 11 ft; continuous sampling. - Positioned barge over buoy, advanced Boring FD-14 to 10 ft; continuous sampling. - Positioned barge over buoy, advanced Boring FD-15 to 9 ft; continuous sampling. - Positioned barge over buoy, advanced Probe FP-12 to 11 ft. - Positioned barge over buoy, advanced Boring FD-16 to 14 ft; continuous sampling. - Positioned barge over buoy, advanced Probe FP-13 to 10 ft. - Positioned barge over buoy, advanced Boring FD-17 to 11 ft; continuous sampling. - Tugboat with buoys and survey equipment mark drilling sites in Lewis Bay area, Hyannis Harbor. - Positioned barge over buoy, advanced Probe FP-14 to 10 ft. - Moved barge to Lewis Bay, Hyannis Harbor. - Positioned barge over buoy, advanced Probe FP-15 to 10 ft.

A. SUMMARY OF DAILY ACTIVITIES

TABLE I

DATE/TIME	ACTIVITY
Monday, (con't.) November 15, 1993	- Positioned barge over buoy, advanced Probe FP-16 to 11 ft. - Moved barge to anchor site in Lewis Bay. - Left barge via tugboat to Inner Harbor landing site, Ocean Street Dock. - 4 Hours of moving on this date. - 5:30 pm, Depart site for the day. **Surveying Activities** - Arrived at Hyannis Airport at approximately 8:00 am. - Purchasedd 12-volt marine battery for GPS receiver at Bash Station. - Set receiving receiver at Station "Bash". - Staked and located 5 borings and 5 probes. - L. Eisenhaur was not available to work today, tidal data was interpolated linearlly using data supplied by CE-NED. - All borings and probes were staked and located using Real Time GPS.
Tuesday, November 16, 1993	**6:00 am - 6:30 pm, ATL driller, helper, geotechnical inspector, surveyor on site** - Left harbor landing for Lewis Bay in Hyannis. - Boarded the barge and moved to Boring FD-18, Hyannis Outer Harbor. - Positioned barge over buoy, advanced Boring FD-18 to 11 ft; continuous sampling. - Tugboat with buoys and survey equipment marking drill sites. - Positioned barge over buoy, advanced Boring FD-19 to 9 ft; continuous sampling. - Positioned barge over buoy, advanced Boring FD-20 to 8 ft; continuous sampling. - Positioned barge over buoy, advanced Boring FD-21 to 8 ft; continuous sampling. - Positioned barge over buoy, advanced Boring FD-22 to 8 ft; continuous sampling. - Mark machine probe drilling sites. - Positioned barge over buoy, advanced Probe FP-17 to 8 ft. - Positioned barge over buoy, advanced Probe FP-18 to 8 ft. - Positioned barge over buoy, advanced Probe FP-19 to 8 ft. - Positioned barge over buoy, advanced Probe FP-20 to 8 ft. - Tugboat with buoys and survey equipment marking drill sites in Outer Harbor off Dunbar Point.

A. SUMMARY OF DAILY ACTIVITIES

TABLE I

DATE/TIME	ACTIVITY
Tuesday, (con't.) November 16, 1993	- Moved barge to new area. - Positioned barge over buoy, advanced Boring FD-23 to 11 ft; continuous sampling. - Positioned barge over buoy, advanced Boring FD-24 to 10 ft; continuous sampling. - Positioned barge over buoy, advanced Probe FP-21 to 12 ft. - Positioned barge over buoy, advanced Probe FP-22 to 11 ft. - Positioned barge over buoy, advanced Probe FP-23 to 11 ft. - Y. Yatsevitch (CE-NED) added 15 probes and 1 boring to project. - Wind has shifted to southwest and gained intensity. - Original scope of work was completed at approximately 3:00 pm. - Tugboat with buoys and survey equipment moved to Outer Harbor marking extra drill probe sites. - Positioned barge over buoy, advanced Probe FP-24 to 8 ft. - Positioned barge over buoy, advanced Probe FP-25 to 8 ft. - Positioned barge over buoy, advanced Probe FP-26 to 8 ft. - Moved barge into Lewis Bay and anchored for the evening. - Returned to Ocean Street Docks via tugboat. - 6 Hours of moving on this date. - 6:30 pm, Depart site for the day. **Surveying Activities** - Staked and located 7 borings and 10 probes. - Y. Yatsevitch (CE-NED) provided coordinates of additional boring/probes. - J. Thew (ATL surveyor) transformed the coordinates to NAD83 latitude and longitude on board the tugboat for the additional boring/probes. - L. Eisenhauer recorded tidal data at 15 minute intervals. - All borings and probes were staked and located using Real Time GPS.

A. SUMMARY OF DAILY ACTIVITIES

TABLE I

DATE/TIME	ACTIVITY
Wednesday, November 17, 1993	**6:00 am - 3:00 pm, ATL driller, helper, geotechnical inspector, surveyors, tugboat with captain, barge with crew on site** - Leave landing site for barge in Lewis Bay. - Tugboat with buoys and GPS survey equipment to mark drilling sites in Lewis Bay. - Positioned barge over buoy, advanced Boring FD-25 to 23.3 ft; continuous sampling. - Positioned barge over buoy, advanced Probe FP-37 to 22 ft. - Positioned barge over buoy, advanced Probe FP-38 to 22 ft. - Positioned barge over buoy, advanced Probe FP-36 to 22 ft. - Positioned barge over buoy, advanced Probe FP-35 to 22 ft. - Positioned barge over buoy, advanced Probe FP-34 to 23 ft. - Positioned barge over buoy, advanced Probe FP-33 to 23 ft. - Pulled up and disassembled drilling rods and moved barge to anchor site in Lewis Bay. - Wind is out of southwest and strong; small craft advisory in effect. - At completion of final probe in Inner Harbor, J. Thew (ATL surveyor) contacted Y. Yatsevitch (CE-NED) to inform him that all Inner Harbor probes and borings were completed along with the probes in the Outer Harbor. Informed him of weather deteriorating and that tugboat captain did not recommend moving into the Outer Harbor. - Y. Yatsevitch (CE-NED) terminated the project. - Moved all supplies, soil samples, survey equipment, etc. via tugboat to Inner Harbor, Ocean Street Docks, Hyannis. - J. Thew (ATL surveyor) contacted S. Thew (ATL) about project status. Indicated that tugboat captain discouraged towing to Vineyard Haven, because of tides and deteriorating weather. Recommended ATL hire larger tugboat to make the move safely on Thursday. S. Thew authorized the larger tugboat. - The tug was not of adequate size to safely move barge to Vineyard Haven. The tug and barge were secured, waiting for arrival of a larger tug on Friday.

A. SUMMARY OF DAILY ACTIVITIES

TABLE I

DATE/TIME	ACTIVITY
Wednesday, (con't.) November 17, 1993	- At 3:00 pm, T. Eldridge (ATL) departed for ATL's Manchester, NH office. - 6 Hours of moving on this date. - 3:00 pm, Depart site for the day. **Surveying Activities** - Staked and located 1 boring and 6 probes. - Tried to contact Y. Yatsevitch regarding probes in Outer Harbor. - Receiving receiver was located at Station "Bash". - L. Eisenhauer collected tidal data. - All borings and probes were staked and located using Real Time GPS. - 3:00 pm, Depart site for the day and demobilized.
Thursday, November 18, 1993	**6:00 am - 6:30 pm, ATL driller, helper, tugboat with captain, barge and crew on site** - Used larger tug to tow from Hyannis to Vineyard Haven. from 6:00 am to 10:00 am. - Smaller tug departed Hyannis at 7:00 am and returned to Osterville. - Waited 3 hours in harbor for space at dock to unload drill rig from 10:00 am to 1:00 pm. - Unloaded drill rig. - Towed from Vineyard Haven to Woods Hole arriving at 6:30 pm. - Delivered jar samples to CE-NED, Waltham, MA.
Friday, November 19, 1993	- One large tugboat returned to home port. - Barge crew disassembled drill platform, rig tie downs, and other associated gear.

B. TELEPHONE LOG

TABLE II

DATE/TIME	CONVERSATION
Thursday, 2:45 pm October 28, 1993	**Y. Yatsevitch (CE-NED) to S. Thew (ATL)** - To inform him that he will send plans. - S. Thew told Y. Yatsevitch that ATL could start the week of November 8, 1993, and ATL will call to verify. - Y. Yatsevitch indicated that there are five general areas where borings would be performed with ring of probes around the boring. - ATL Needs to coordinate with United States Coast Guard (USCG). - S. Thew said hours for Geotechnial Inspector looked a little low, since we will work 10-hour days minimum. - Y. Yatsevitch told S. Thew we must try to stay within the total budget, if line items vary, that is acceptable.
Monday, 2:00 pm November 1, 1993	**Y. Yatsevitch (CE-NED) to S. Thew (ATL)** - To inform ATL that he will send boring locations on Tuesday, November 2, 1993. - Y. Yatsevitch informed S. Thew that he will be at the Hyannis project for the beginning of the project. - S. Thew indicated to Y. Yatsevitch that ATL was tentatively scheduled to mobilize Monday, November 8, 1993. ATL will keep Y. Yatsevitch posted on start date.
Friday, 2:00 pm November 5, 1993	**Y. Yatsevitch (CE-NED) to S.Thew (ATL)** - To inquire about ATL's schedule for Hyannis. S. Thew indicated ATL wanted to start drilling first thing Wednesday a.m. (11/10/93). If mobilization progressed faster than scheduled, ATL will do a probe hole Tuesday a.m. (11/9/93). Y. Yatsevitch indicated he would drive down Tuesday p.m. Plans are to start mobilizing from Woods Hole to Hyannis, Monday p.m. or Tuesday a.m.
Monday, 1:15 pm November 8, 1993	**T. Wiggins (ATL) to T. Custeau (ATL)** - Asked to call Clifford Monz (USCG) at 508/968-6556. - Suggested T. Custeau call Y. Yatsevitch.
Monday, 1:20 pm November 8, 1993	**T. Custeau (ATL) to C. Monz (USCG)** - C. Monz stated that the Steamship Authority should be notified to arrange for notice to mariners. Also asked if the Town had been notified. - T. Custeau responded he would investigate and return call.

B. TELEPHONE LOG (CONT'D)

TABLE II

DATE/TIME	CONVERSATION
Monday, 1:25 pm November 8, 1993	**T. Custeau (ATL) to T. Wiggins (ATL)** - Stated barge company was to notify harbor master.
Monday, 1:30 pm November 8, 1993	**T. Custeau (ATL) to C. Schultz (Dan Clark Co.) 508/548-0101** - C. Shultz was unavailable; left no message.
Monday, 2:10 pm November 8, 1993	**T. Custeau (ATL) to Harbor Master** - Requested street address and expressed need to notify Harbor Master of work in Harbor; also requested a return phone call.
Monday, 2:15 pm November 8, 1993	**T. Custeau (ATL) to Dig Safe** - Reported to Ocean Street; All borings either side of 12' channel - Permit Number 934601211.
Monday, 2:30 pm November 8, 1993	**T. Custeau (ATL) to C. Monz (USCG)** - To report name of vessel, use day signals; will need white light at night and a time work notice. If not in, speak to Lt. Washburn.
Monday, 3:00 pm November 8, 1993	**T. Custeau (ATL) to Dan Clark Co.** - C. Schultz (508/548-0101); left message.
Monday, 3:15 pm November 8, 1993	**C. Schultz (Dan Clark Co.) to T. Custeau (ATL)** - Reported tugboat "Grand Isle" owners are out of Osterville, MA.
Monday, 3:30 pm November 8, 1993	**S. Bowen (Harbor Master) to T. Custeau (ATL)** - Requested to monitor Channels 13 and 16 (ferrys and fishing boats). - He will call Steamship Authority. - Please notify when project is completed.
Monday, 3:45 pm November 8, 1993	**T. Custeau (ATL) to C. Monz (USCG)** - Reported ATL would be using the "Grand Isle" tugboat and the Harbor Master had been notified, and that they would notify the Steamship Authority. - C. Monz requested the tugboat to monitor Channels 13 and 16.

B. TELEPHONE LOG (CONT'D)

TABLE II

DATE/TIME	CONVERSATION
Monday, 4:00 pm November 8, 1993	**T. Custeau (ATL) to Y. Yatsevitch (CE-NED)** - Y. Yatsevitch unavailable.
No Calls 11/10 or 11/11	
Friday, 7:15 pm November 12, 1993	**T. Custeau (ATL) to Y. Yatsevitch (CE-NED)** - Reported weight of rod material to -18.3' MLW at FD-G. Y. Yatsevitch terminated hole. - Reported progress of 11/11/93. - Reported weather and small craft advisory in effect; 30 to 35 mph winds and 3-5' water; and that ATL would be working closer to the Inner Harbor and end day at 3:00 pm, with no work planned for the weekend.
Friday, 2:25 pm November 12, 1993	**T. Custeau (ATL) to Y. Yatsevitch (CE-NED)** - Y. Yatsevitch unavailable; left message with R. Schmidt that 5 borings and 8 probes were completed today.
No Calls 11/15	
Tuesday, 1:45 pm November 16, 1993	**T. Eldridge (ATL) to Y. Yatsevitch (CE-NED)** - Reported progress to date and that ATL should finsih late today. - Y. Yatsevitch stated there may be additional probes and borings which CE-NED would like to have done on Wednesday if good weather conditions prevail. - T. Eldridge acknowledged and Y. Yatsevitch asked for call back after 3:00 pm.
Tuesday, 3:15 pm November 16, 1993	**T. Eldridge (ATL) to Y. Yatsevitch (CE-NED)** - Received a list of additional probes that CE-NED would like to have performed tomorrow, along with one boring, and to advance them to -35 ft MLW. Also received their coordinates and forwarded the information to J. Thew (ATL surveyor). Outer Harbor probes were optional and given to T. Eldrige in order of priority. - Reported to Y. Yatsevitch that T. Eldridge would stay in contact with him as the extra work progressed.

B. TELEPHONE LOG (CONT'D)

TABLE II

DATE/TIME	CONVERSATION
Wednesday, 2:00 pm November 17, 1993	**C. Shultz (Dan Clark Co.) to G. Jobe (ATL)** - To inform ATL that due to the forecast of high winds and waves a larger tug boat to demobilize ATL's barge-mounted drill rig would be needed. - The cost of the larger tug is about double the cost of the tug presently in service. - C. Shultz asked for ATL's authorization to proceed with the larger tug.
Wednesday, 2:10 pm November 17, 1993	**G. Jobe (ATL) called Y. Yatsevitch (CE-NED)** - Y. Yatsevitch was unavailable at this time.
Wednesday, 2:15 pm November 17, 1993	**Y. Yatsevitch (CE-NED) to G. Jobe (ATL)** - G. Jobe explained the problem with the weather, and the additional cost ATL would incur with the larger tug. - G. Jobe informed Y. Yatsevitch that ATL was going to use the larger tug (in the interest of safety) regardless of the increase in cost; but asked how, under the contract, ATL could recoup the cost. - Y. Yatsevitch stated he could not adjust the unit prices in the contract.
Wednesday, 2:30 pm November 17, 1993	**G. Jobe (ATL) to S. Thew (ATL)** - Explained the situation of the additional cost with the larger tug due to the weather, and requested authorization. S. Thew approved use of larger tug.
Wednesday, 2:35 pm November 17, 1993	**G. Jobe (ATL) to C. Shultz (Dan Clark Co.)** - Gave C. Shultz verbal approval to use the larger tug.
Wednesday, 2:45 pm November 17, 1993	**G. Jobe (ATL) to J. Thew (ATL surveyor)** - Informed him of the approval to use the larger tug.
Wednesday, 3:30 pm November 17, 199	**T. Eldridge (ATL) to G. Jobe (ATL)** - To report that ATL had completed drilling program and Y. Yatsevitch of CE-NED was satisfied with the number of probes and borings drilled. - Stated that the rig and barge were made ready to be moved out of the harbor and to Martha's Vineyard. - G. Jobe stated that C. Schultz had acquired a larger tugboat to move the barge.

B. TELEPHONE LOG (CONT'D)

TABLE II

DATE/TIME	CONVERSATION
Wednesday, 4:00 pm November 17, 1993	**T. Eldridge (ATL) to G. Jobe (ATL)** - Informed him that samples will be delivered to Waltham, MA tommorrow (11/18/93).
Thursday, 2:15 pm November 18, 1993	**T. Eldridge (ATL) to Y. Yatsevitch (CE-NED)** - Y. Yatsevitch was unavailable; spoke to R. Schmidt and left message in regards to the findings and data from the additional deeper probes and borings ATL drilled.

SECTION 6

CHAIN OF CUSTODY LOG

CHAIN OF CUSTODY RECORD

ATLANTIC TESTING LABORATORIES, Limited

SCIENCE AND ENGINEERING
P.O. BOX 29
CANTON, NEW YORK 13617
315-386-4578, FAX 315-386-1012

ENVIRONMENTAL LABORATORY
48 LAGRASSE STREET
WADDINGTON, NEW YORK 13694
315-388-4452, FAX 315-388-5510

PROJECT NUMBER: CD0044

PAGE 1 OF 2

PROJECT CONTACT: YURI YATSEVITCH

QA/QC CODE: ☐ DEC/ASP ☐ NYSDOH ☐ CLP ☐ SW-846 ☐ OTHER

PROJECT NAME: HYANNIS HARBOR NAVIGATION HARBOR DACW33-93-D-0004

PROJECT LOCATION: HYANNIS, MA

PARAMETERS

REPORT DISTRIBUTION
DATES REQUIRED:
SEND REPORT TO:
FAX RESULTS TO: AT

CUSTODY SEAL X EQUALS INTACT

DATE	TIME	SAMPLE LOCATION	SAMPLE TYPE *	NO OF CONT.	LABORATORY IDENTIFICATION NUMBER	FIELD NOTES
11/10		TEST BORING FD-1	SOIL	5		
11/10		FD-2		6		
11/11		FD-3		5		
11/11		FD-4		6		
11/11		FD-5		5		
11/11		FD-6		6		
11/11		FD-7		6		
11/12		FD-8		1		
11/12		FD-9		2		
11/12		FD-10		3		
11/12		FD-11		6		
11/12		FD-12		2		

SAMPLERS NAME: TOM CUSTEAU
SAMPLERS SIG:
DATE: 11-18-93
TIME: 1000 AM

RECEIVED FOR LABORATORY NAME: DATE:
SIG: TIME:
SHIPMENT REC'D INTACT (YES/NO)?

SAMPLES RELINQUISHED BY:		SAMPLES RECEIVED BY:	
NAME: TOM ELDRIDGE SIG: Tom Eldridge	DATE: 11/18/93 TIME: 1000AM	NAME: FORREST KNOWLES SIG: Forrest Knowles	DATE: 11/18/93 TIME: 1010
NAME: SIG:	DATE: TIME:	NAME: SIG:	DATE: TIME:
NAME: SIG:	DATE: TIME:	NAME: SIG:	DATE: TIME:

* SAMPLE TYPE CODE KEY
B = QA/QC
C = COMPOSITE
G = GRAB
H = HEXANE SURFACE WIPES
ND = NOT DETERMINED BY SAMPLER
O = OIL
S = SOLID OR SLUDGE
W = WATER

DISTRIBUTION: WHITE WITH SAMPLES GREEN TO SCIENCE AND ENGINEERING FILES, GOLD TO CLIENT

LABORATORY STORAGE LOCATION:

LABORATORY REMARKS

THINK QUALITY

CHAIN OF CUSTODY RECORD

ATLANTIC TESTING LABORATORIES, Limited

SCIENCE AND ENGINEERING
P.O. BOX 29
CANTON, NEW YORK 13617
315-386-4578, FAX 315-386-1012

ENVIRONMENTAL LABORATORY
48 LAGRASSE STREET
WADDINGTON, NEW YORK 13694
315-388-4452, FAX 315-388-5510

PROJECT NUMBER: CP0044

PAGE 2 OF 2

PROJECT CONTACT: YURI YATSEVITCH

QA/QC CODE: ☐ DEC/ASP ☐ NYSDOH ☐ CLP ☐ SW-846 ☐ OTHER

PROJECT NAME: HYANNIS HARBOR NAVIGATION IMPROVEMENTS DACW33-93-D-0004

PROJECT LOCATION: HYANNIS, MA

PARAMETERS

REPORT DISTRIBUTION
DATES REQUIRED:
SEND REPORT TO:
FAX RESULTS TO: AT:

CUSTODY SEAL 'X' EQUALS INTACT

DATE	TIME	SAMPLE LOCATION	SAMPLE TYPE *	NO. OF CONT.	LABORATORY IDENTIFICATION NUMBER	FIELD NOTES
11/15	A.M.	TEST BORING FD-13	SOIL	5		
11/15	A.M	FD-14		4		
11/15	A.M.	FD-15		1		
11/15	P.M.	FD-16		8		
11/15	P.M.	FD-17		2		
11/16	A.M	FD-18		5		
11/16	A.M	FD-19		4		
11/16	A.M	FD-20		3		
11/16	A.M.	FD-21		4		
11/16	P.M.	FD-22		3		
11/16	P.M.	FD-23		5		
11/16	P.M	FD-24		5		
11/17	AM	FD-25		3		

SAMPLERS NAME: TOM ELDRIDGE
SAMPLERS SIG: Tom Eldridge
DATE: 11/18/93
TIME: 1000 AM

RECEIVED FOR LABORATORY NAME:
SIG:
DATE:
TIME:

SHIPMENT REC'D INTACT(YES/NO)?

SAMPLES RELINQUISHED BY:		SAMPLES RECEIVED BY:	
NAME: TOM ELDRIDGE SIG: Tom Eldridge	DATE: 11/18/93 TIME: 1000 AM	NAME: FORREST KNOWLES SIG: Forrest Knowles	DATE: 11/18/93 TIME: 1010
NAME: SIG:	DATE: TIME:	NAME: SIG:	DATE: TIME:
NAME: SIG:	DATE: TIME:	NAME: SIG:	DATE: TIME.

* SAMPLE TYPE CODE KEY
B = QA/QC
C = COMPOSITE
G = GRAB
H = HEXANE SURFACE WIPES
ND = NOT DETERMINED BY SAMPLER
O = OIL
S = SOLID OR SLUDGE
W = WATER

DISTRIBUTION: WHITE WITH SAMPLES GREEN TO SCIENCE AND ENGINEERING FILES, GOLD TO CLIENT

LABORATORY STORAGE LOCATION:

LABORATORY REMARKS

THINK QUALITY

SECTION 7

SAFETY REPORTS

WEEKLY SAFETY MEETING

Date held 11/10/93

NEDSO

Time

THRU: Area Engineer, Area

TO: Safety Office, NED

1. Weekly safety meeting was held this date for the following personnel:

Contract No. DACW33-93-D-0004 (93-49) Contractor ATLANTIC TESTING LABORATORIES

Conducted By T.A. Custeau

Personnel present (Contr) LAVERE EISENHOWER, M. HAWKINS, TACUSTEAU, THEW, P. McALOON
(Sub) TIM WALKER, LAWRENCE ALLAN, CHARLIE STORRY
(Govt)

Subjects discussed (Note, delete, or add):

Individual Protective Equipment LIFE VEST, HARD HATS, FLOATATION SUITS, ETC.

Prevention of Falls - WATCH FOR ICE IN EARLY AM, KEEP BARGE CLEAN

Safe Lifting Techniques - Use legs

Emergency Communications - SHIP TO SHORE RADIO, Cellular phone, TUG monitoring, CHANNEL 13+16

Fire Prevention - EXTINGUISHERS ON BARGE, TUG, and drilling

Sanitation, First Aid - FIRST AID KITS ON BOARD

Tripping Hazards - trash, hose, nails in lumber - KEEP BARGE CLEAN

Staging, Ladders, Concrete Forms - N/A

Hand Tools, Portable Power Tools, Woodworking Machinery - Follow INSTRUCTIONS

Equipment Maintenance (Zero defects) - FIX IT OR LOCK IT OUT

Hoisting Equipment - WATCH LINES, [illegible]

Ropes, Hooks, Chains and Slings -

Electrical Grounding, Temporary Wiring - N/A

Lockouts for safe clearance procedures - electrical, pressure, moving part

Welding - keep extinguishers handy

Excavations - N/A

Loose Rock and Steep Slopes - N/A.

Explosives - N/A

Water Safety - use Care.

Other -

Prepared by T.A. CUSTEAU Title GEOTECH INSPECTOR

2. Forwarded.

Signature Thomas A. Custeau
Resident Engineer

CP: MANHOURS
Contractor 221
Sub Contractor 179
Period Covered [illegible] THRU 11/12

FIG No. 11

WEEKLY SAFETY MEETING

Date held NOV 15, 1993

NEDSO

Time 930 AM

THRU: Area Engineer, _____ Area

TO: Safety Office, NED

1. Weekly safety meeting was held this date for the following personnel:

Contract No. DACW33-93-D-0004 Contractor ATLANTIC TESTING LABS

Conducted By TOM ELDRIDGE Personnel present (Contr) T. ELDRIDGE M. HAWKINS P. MCALOON

(Sub) T. WALKER, L. ALLEN, C. CROSBY

(Govt) _____

Subjects discussed (Note, delete, or add):

Individual Protective Equipment - HARD HATS, LIFE VESTS, ETC..

Prevention of Falls - ORGANIZE BARGE

Safe Lifting Techniques - LEGS NOT BACK

Emergency Communications - CELLULAR PHONE (BARGE) RADIOS TO/FROM SHORE

Fire Prevention - FIRE EXTINGUISHERS FIRST AID KITS

Sanitation, First Aid -

Tripping Hazards - trash, hose, nails in lumber - ORGANIZE BARGE

Staging, Ladders, Concrete Forms - N/A

Hand Tools, Portable Power Tools, Woodworking Machinery - CARE

Equipment Maintenance (Zero defects) - OK

Hoisting Equipment - OK

Ropes, Hooks, Chains and Slings - KEEP OUT OF WAY

Electrical Grounding, Temporary Wiring -

Lockouts for safe clearance procedures - electrical, pressure, moving part

Welding - OK

Excavations - N/A

Loose Rock and Steep Slopes - N/A

Explosives - N/A

Water Safety - CAREFUL

Other -

Prepared by TOM ELDRIDGE Title GEOTECHNICAL INSPECTOR

2. Forwarded.

Signature Tom Eldridge
Resident Engineer

CP: MANHOURS

Contractor ~~30~~ 41

SubContractor 30 91.5

Period Covered 11/15 To 11/17

FIG No. 11

SECTION 8

FIELD INSPECTOR'S LOGS AND MAPS

A. DAILY LOG OF FIELD EXPLORATIONS

NEW ENGLAND DIVISION
CORPS OF ENGINEERS, U.S. ARMY
WALTHAM, MASSACHUSETTS

FOUNDATIONS & MATERIALS BRANCH

LOG NO. 1 DATE Nov 9 1993 (Tuesday)

DAILY LOG OF FIELD EXPLORATIONS

PROJECT HYANNIS HARBOR

TEMPORARY ADDRESS

LOCATION WHERE CAN BE REACHED

PHONE TIME TEMPERATURE: MAX. MIN.

WEATHER

DRILLING TODAY

HOLE	AREA	FOOTAGE FROM	FOOTAGE TO	FOOTAGE TODAY	MATERIAL
				NONE	

TEST PITS OR AUGER BORINGS TODAY

HOLE	AREA	DEPTH	MATERIAL
	NONE		

HOLE	AREA	DEPTH	MATERIAL
	NONE		

PERSONNEL

NAME	HOURS
T. CUSTEAU (INSPECTOR)	5 1/2
J. THEN (SURVEYOR)	4 1/2
M. HAWKINS (DRILLER)	11
P. McALEON (HELPER)	11
C. CROSBY (TUG OPERATOR)	12
T. WALKER (BARGE)	12
L. ALLEN (BARGE AND DINGHY)	12

PLANT USED

ITEM	HOURS	BREAKDOWN HOURS
ELEC. SURVEY EQUIP	7 1/2	
CME 75' TRUCK MOUNT	11	
30 x 90 BARGE	12	
TUG BOAT	12	
16' DINGHY (BOAT)	12	
GPS EQUIP	7 1/2	

Thomas A. Custeau
CHIEF OF FIELD PARTY

NED FORM DEC 63 198 REPLACES EDITION OF MAY 62 WHICH MAY BE USED UNTIL EXHAUSTED

(OVER)

NARRATIVE OF DAYS OPERATIONS

Nov 9, 1993 (Tuesday)

Surveyor And Inspector Mobilized to site
Inspector Assisted Surveyor In Reestablishing Control Points
Driller, Helper, Barge etc. Completed Mobilizing to site
Meant with Mr. T. Lee of the Steamship Authority; discussed
Work Plan And Ferry Schedule.
Footage total 0 Drilled 0 Placed

MAN-HOUR WORK BREAKDOWN

NAME	MOB.	DEMOB.	MOVING	DRILL OVB.	DRILL BEDROCK	PREV. MAINT.	EQUIP. FAILURE	LOST TIME (WEATHER)	INSP. & SUPER.	MISC.	TOTAL
T.A. Costello										5 1/2	5 1/2
J. Thew										7 1/2	7 1/2
M Hawkins	11										11
P McAlroy	11										11
C. Crosby	12										12
T. Walker	12										12
L. Allen	12										12

WORK FOR TOMORROW

Hold Safety Meeting Then Begin Work

FIELD PURCHASES

ITEM	AMOUNT	ITEM	AMOUNT

NEW ENGLAND DIVISION
CORPS OF ENGINEERS, U.S. ARMY
WALTHAM, MASSACHUSETTS

FOUNDATIONS & MATERIALS BRANCH

LOG NO. 2. DATE Nov. 10, 1993 (Wednesday)

DAILY LOG OF FIELD EXPLORATIONS

PROJECT Hyannis Harbor

TEMPORARY ADDRESS

LOCATION WHERE CAN BE REACHED

PHONE TIME TEMPERATURE: MAX. MIN.

WEATHER

DRILLING TODAY

HOLE	AREA	FOOTAGE FROM	FOOTAGE TO	FOOTAGE TODAY	MATERIAL
FD-1	FD-L	-5.2	-16.2	11	0-6' Brown Sand; 6'-10' Peat; 10-11' Sand
FD-2	FD-K	-7.9	-19.9	12	0-4' Sand; 4-8' Peat; 8-12' Sand

MLW

~~TEST PITS OR AUGER BORINGS TODAY~~

Machine Probes

HOLE	AREA	DEPTH	MATERIAL
FP-1	FP-O	11	-6.4 to -17.4 MLW
FP-2	FP-N	9	-13.2 to -22.2 MLW

HOLE	AREA	DEPTH	MATERIAL

PERSONNEL

NAME	HOURS
T. Costeau (Inspector)	11
J. Thew (Surveyor)	11
M. Contino (Surveyor)	11
L. Eisenhower (Surveyor)	11
M. Hawkins (Driller)	11
P. M. Alcorn (Helper)	11
T. Walker (Barge)	11
L. Allen (Dingly)	11
C. Crosby (Tug)	11

PLANT USED

ITEM	HOURS	BREAKDOWN HOURS
Elec. Survey Equip	11	
G.P.S. Equip	11	
CME 75	11	2 1/2
Tug Boat	11	
30 x 90 Barge	11	
16' Boat	11	

Thomas A. Costeau
CHIEF OF FIELD PARTY

NED FORM DEC 63 198 REPLACES EDITION OF MAY 62 WHICH MAY BE USED UNTIL EXHAUSTED

(OVER)

NARRATIVE OF DAYS OPERATIONS

November 10, 1993
Pg 2/2

Set Buoys For Locations FD-L, K, FP-N, O. Performed Borings and Probes; Drill Rig was Down From 12:10 to 1:40 Due to Ignition Problems Repaired Rig, Attempted to Locate Boring and Probe Near ~~FP-10~~ FR-10 using "G.P.S". GPS Could Not Be Used Due to Incomplete Information For Coordinate Transformation. Attempted to Locate Holes using ~~Conventional~~ Conventional Survey Equip, Due to Impending Darkness this Attempt was Aborted.

Mr Yuri Yatsevitch was on Site this Morning to Monitor work stated He would Not be In Office on 11/12/93 (Veteran's Day) Requested ATL to Call Him on Friday at 8:00am, Also Some Outer Holes May be Cancelled and/or Additional Holes Added.

Footage total Drilled 23' Probed 20'

MAN-HOUR WORK BREAKDOWN

NAME	MOB.	DEMOB.	MOVING	DRILL OVB.	DRILL BEDROCK	PREV. MAINT.	EQUIP. FAILURE	LOST TIME (WEATHER)	INSP. & SUPER.	MISC.	TOTAL
T.A. Costello			3				2 1/2		5 1/2		11
J. Thew										11	11
M. Contino										11	11
L. Eisenhower										11	11
T. Walker			8 1/2				2 1/2				11
L. Allen			8 1/2				2 1/2				11
C. Crosby			8 1/2				2 1/2				11
M. Hawkins			3				2 1/2				11
P. McAlood			3				2 1/2				11

WORK FOR TOMORROW

Continue Borings and Probes, Locate Holes using G.P.S.

FIELD PURCHASES

ITEM	AMOUNT	ITEM	AMOUNT

NEW ENGLAND DIVISION
CORPS OF ENGINEERS, U.S. ARMY
WALTHAM, MASSACHUSETTS

FOUNDATIONS & MATERIALS BRANCH

LOG NO. 3 DATE Nov. 11, 1993

DAILY LOG OF FIELD EXPLORATIONS

PROJECT Hyannis Harbor

TEMPORARY ADDRESS

LOCATION WHERE CAN BE REACHED

PHONE TIME TEMPERATURE: MAX. MIN.

WEATHER

DRILLING TODAY

HOLE	AREA	FOOTAGE FROM	FOOTAGE TO	FOOTAGE TODAY	MATERIAL
FD-3	FD-R	-5.4	-16.4	11	GREY F SAND
FD-4	FD-Q	-3.9	-15.9	12	GREY F SAND
FD-5	FD O	-5.8	-17.8	12	GREY F SAND

M.L.W

~~TEST PITS OR AUGER BORINGS TODAY~~ DRILLING

HOLE	AREA	DEPTH	MATERIAL
FD-6	FD-P	10	(-8.5 to -18.5) GREY F SAND
FD-7	FD-M	12	(-5.1 to -17.1) GREY F SAND

MACHINE PROBES PROBES

HOLE	AREA	DEPTH	MATERIAL
FP-3	FP-S	10'	-10.9 to -20.9 MLW

PERSONNEL

NAME	HOURS
T.A. Custeau (Inspector)	11
J. Thew (Surveyor)	11
M. Hawkins (Driller)	11
P. Mc Alani (Helper)	11
M. Cantino (Surveyor)	11
T. Walker (16' Boat)	11
L. Allen (Barge)	11
C. Crosby (Tug)	11
L. Eisenhower (Surveyor)	11

PLANT USED

ITEM	HOURS	BREAKDOWN HOURS
Elec Survey Equip	11	
30x90 Barge		
Tug Boat		
GPS		
CME 75		
16' Boat (Dinghy)		

Thomas A. Custeau
CHIEF OF FIELD PARTY

NED FORM DEC 63 198 REPLACES EDITION OF MAY 62 WHICH MAY BE USED UNTIL EXHAUSTED

(OVER)

NARRATIVE OF DAYS OPERATIONS

November 11, 1993 (THURS)

ESTABLISHED LOCATIONS USING GPS. SET UP AND drilled FD-Q, O, P, M AND Probed FP-S, wind CAMP UP IN LATE MORNING, 3' SEAS ENCOUNTERED by Noon WITH 15-25 MPH winds. AT 3:30 pm TUG CAPTAIN INFORMED US OF SMALL CRAFT ADVISORY SETTING, LOCATIONS DIFFICULT. ATTEMPTED TO LOCATE Holes NEAR INNER HARBOR, DUE TO IMPENDING DARKNESS AND ROUGH SEAS WORK WAS HALTED FOR THE DAY

FOOTAGE TOTAL FOR THE DAY Drilled 52' Probed 100'

MAN-HOUR WORK BREAKDOWN

NAME	MOB.	DEMOB.	MOVING	DRILL OVB.	DRILL BEDROCK	PREV. MAINT.	EQUIP. FAILURE	LOST TIME (WEATHER)	INSP. & SUPER.	MISC.	TOTAL
T. COSTEAU			4 1/2						6 1/2		11
J. THEW										11	11
M. HAWKINS			4 1/2	6 1/2							11
P. McALOON			4 1/2	6 1/2							11
M. CANTINO										11	11
T. WALKER			11								11
L. ALLEN			11								11
C. CROSBY			11								11
L. EISENHOWER			11							11	11

WORK FOR TOMORROW

CONTINUE DRILLING AND Probing

FIELD PURCHASES

ITEM	AMOUNT	ITEM	AMOUNT

NEW ENGLAND DIVISION
CORPS OF ENGINEERS, U.S. ARMY
WALTHAM, MASSACHUSETTS

FOUNDATIONS & MATERIALS BRANCH

LOG NO. 4 DATE November 12, 1993 Friday

DAILY LOG OF FIELD EXPLORATIONS

PROJECT Hyannis Harbor
TEMPORARY ADDRESS
LOCATION WHERE CAN BE REACHED
PHONE TIME TEMPERATURE: MAX. MIN.
WEATHER

DRILLING TODAY

HOLE	AREA	FOOTAGE FROM	FOOTAGE TO	FOOTAGE TODAY	MATERIAL
FD-8	FD-G	-9.0	-18.3	9.2 ~~11.5~~	GREY BLACK CLAYEY SILT
FD-9	FD-H	-10.3	-17.3	7	GREY BLACK SAND, SILT and GRAVELLY SAND
FD-10	FD-I	-8.6	-18.9	10.3	GREY BLACK SILTY GRAVELLY SAND
FD-11	FD I	-5.0	-16.5	11.5	
FD-12	FD F	-6.7	-17.6		

~~TEST PITS OR AUGER BORINGS TODAY~~ MACHINE PROBES

HOLE	AREA	DEPTH	MATERIAL
FP-4	FP-K	10	-5.7 to -15.7
FP-5	FP-I	10.1	-6.6 to -16.7
FP-6	FP-J	10.2	-9.7 to -19.9
FP-7	FP-M	13.5	-9.5 to -23

HOLE	AREA	DEPTH	MATERIAL
FP-8	FP-L	10	-4.8 to -14.8
FP-9	FP-F	10	-5.0 to -15
FP-10	FP-H	10	-7.2 to -17.2
FP-11	FP-G	11	-5.2 to -16.2

PERSONNEL

NAME	HOURS
T. Custeau (Inspector)	9
J. Thew (Surveyor)	9
M. Cortino (Surveyor)	9
L. Eisenhauer (Surveyor)	9
M. Hawkins (Driller)	9
P. McAloon (Helper)	9
L. Allen (Dinghy)	9
T. Walker (Barge)	9
C. Crosby (Tug)	9

PLANT USED

ITEM	HOURS	BREAKDOWN HOURS
Elec Survey Equip	9	
CME 75	9	
16' Boat	9	
30x90 Barge	9	
Tug Boat	9	
G.P.S.	9	

Thomas A. Custeau
CHIEF OF FIELD PARTY

NED FORM DEC 63 198 REPLACES EDITION OF MAY 62 WHICH MAY BE USED UNTIL EXHAUSTED

(OVER)

NARRATIVE OF DAYS OPERATIONS

November 12 Friday

Due to small craft advisory and strong winds and high seas, work was performed close to the inner harbor. 5 borings were performed and 8 probes were completed. All drilling was smooth. Secured barge for weekend.

Footage totals 48.9' drilled 84.8' probed

MAN-HOUR WORK BREAKDOWN

NAME	MOB.	DEMOB.	MOVING	DRILL OVB.	DRILL BEDROCK	PREV. MAINT.	EQUIP. FAILURE	LOST TIME (WEATHER)	INSP. & SUPER.	MISC.	TOTAL
T. Costeau			3½						5½		9
J. Thew										9	9
M. Cunting										9	9
L. Eisenhower										9	9
M. Hawkins			3½	5½							9
P. McAlvon			3½	5½							9
L. Allen			9								9
T. Walker			9								9
C. Crosby			9								9

WORK FOR TOMORROW

FIELD PURCHASES

ITEM	AMOUNT	ITEM	AMOUNT

NEW ENGLAND DIVISION
CORPS OF ENGINEERS, U.S. ARMY
WALTHAM, MASSACHUSETTS

FOUNDATIONS & MATERIALS BRANCH

LOG NO. 5 DATE NOVEMBER 15, 1993 (MON)

DAILY LOG OF FIELD EXPLORATIONS

PROJECT HYANNIS HARBOR NAVIGATION IMPROVEMENTS

TEMPORARY ADDRESS ANCHOR INN #209 HYANNIS, MA

LOCATION WHERE CAN BE REACHED

PHONE TIME EVENINGS TEMPERATURE: MAX. 70 MIN. 50

WEATHER MOSTLY SUNNY, WINDY

DRILLING TODAY

	HOLE	AREA	FOOTAGE FROM	FOOTAGE TO	FOOTAGE TODAY	MATERIAL
BORINGS	FD-13	INNER HARBOR	-5.6'	-16.6'	11'	0-7 GRAY MF SAND 7-11 LIGHT GRAY MEDIUM SAND
	FD-14		-6.1'	-16.1'	10'	0-2 GRAY-BRN CMF SAND 2-10 DARK GRAY ORGANIC SILT
	FD-15		-7.1'	-16.1'	9'	0-9 DARK GRAY ORGANIC SILT
	FD-16		-3.8'	-17.8'	14'	0-5 GRAY CMF-MF SANDS, TRACE GRAVEL 5-14 GRAY-BROWN M-MF SAND STRATIFIED W SILT/CLAY
	FD-17		-7.0	-18.0'	11'	0-11 GRAY-BLACK SILT
	HOLE	AREA	FROM	TO	FOOTAGE	MATERIAL
PROBES	FP-12		-5.0'	-16.0'	11'	
	FP-13		-4.7'	-14.7'	10'	
	FP-14		-6.8'	-16.8'	10'	
	FP-15	LEWIS BAY	-6.2'	-16.2'	10'	
	FP-16	LEWIS BAY	-5.3'	-16.3'	11'	

PERSONNEL

NAME	HOURS
TOM ELDRIDGE (GEO INSPECTOR)	9
MIKE HAWKINS (DRILLER)	9
PAUL McALOON (DRILLER HELPER)	9
JIM THEW (SURVEYOR)	9
T. WALKER (16 FT. BOAT OPERATOR)	9
L. ALLEN (BARGE OPERATOR)	9
C. CROSBY (TUG CAPTAIN)	9

PLANT USED

ITEM	HOURS	BREAKDOWN HOURS
CME 75 DRILL RIG	9	
30'x90' SPUD BARGE	9	
TUG BOAT	9	
16 FT. BOAT	9	
SURVEY EQUIPMENT	9	

Tom Eldridge
CHIEF OF FIELD PARTY

NED FORM DEC 63 198 REPLACES EDITION OF MAY 62 WHICH MAY BE USED UNTIL EXHAUSTED

(OVER)

NOV 15
MON

NARRATIVE OF DAYS OPERATIONS

TEST BORINGS FD-13 THROUGH FD-17 WERE ADVANCED TO THEIR DESIGNATED DEPTHS. THEY WERE SAMPLED CONTINUOUS USING A 1 3/8" I.D. SPLIT SPOON SAMPLER.
MACHINE PROBES FP-12 through FP-16 WERE ADVANCED TO THEIR DESIGNATED DEPTHS AND RESULTS RECORDED.
THE BORINGS AND PROBES WERE LOCATED IN THE INNER HARBOR AND LEWIS BAY AREAS. THE DAY WAS WINDY AND SEAS 3 TO 6 FT. @ SMALL CRAFT WARNINGS.

BORINGS WERE ADVANCED A TOTAL OF 55 FEET TODAY, PROBES 51 FEET.

MAN-HOUR WORK BREAKDOWN

*

NAME	MOB.	DEMOB.	MOVING	DRILL OVB.	DRILL BEDROCK	PREV. MAINT.	EQUIP. FAILURE	LOST TIME (WEATHER)	INSP. & SUPER.	MISC.	TOTAL
Tom ELDRIDGE			4						5		9
MIKE HAWKINS			4	5							9
PAUL McALOON			4	5							9
Jim THEW										9	9
T. WALKER / L. ALLEN C. CROSBY			9								9

* SURVEY WORK

WORK FOR TOMORROW

TO ADVANCE TEST BORINGS AND TEST PROBES TO THEIR DESIGNATED DEPTHS IN THE HYANNIS OUTER HARBOR AREA

FIELD PURCHASES

ITEM	AMOUNT

ITEM	AMOUNT

NEW ENGLAND DIVISION
CORPS OF ENGINEERS, U.S. ARMY
WALTHAM, MASSACHUSETTS

FOUNDATIONS & MATERIALS BRANCH

LOG NO. 6 DATE NOVEMBER 16, 1993 (TUE)

DAILY LOG OF FIELD EXPLORATIONS

PROJECT HYANNIS HARBOR

TEMPORARY ADDRESS ANCHOR INN RM 209 HYANNIS, MA

LOCATION WHERE CAN BE REACHED

PHONE TIME TEMPERATURE: MAX. 60 MIN. 35

WEATHER MOSTLY SUNNY - MODERATE WIND NW

DRILLING TODAY

HOLE	AREA	FOOTAGE FROM	FOOTAGE TO	FOOTAGE TODAY	MATERIAL	HOLE	FROM	TO	FOOTAGE
FD-18	HYANNIS OUTER HARBOR	-8.5'	-19.5'	11'	0-2 GRAY cmF SAND 2-11 GRAY mED SAND	FP-19	-7.8'	-15.8'	8'
FD-19		-7.9'	-16.9'	9'	0-2 GRAY cmF SAND tr GRAVEL 2-9 GRAY mED SAND tr GRAVEL	FP-20	-7.5'	-15.5'	8'
FD-20		-8.7'	-16.7'	8'	SAME AS FD-18	FP-21	-2.7'	-14.7'	12'
FD-21		-8.3'	-16.3'	8'	0-6 GRAY cmF SAND, tr GRAVEL 6-8 DARK GRAY SILT ORG	FP-22	-2.7'	-13.7'	11'
FD-22		-9.5'	-17.5'	8'	0-8 GRAY cmF TO mC SANDS	FP-23	-3.3'	-14.3'	11'
HOLE	AREA	FROM	TO	FOOTAGE	MATERIAL				
FD-23		-2.7'	-13.7'	11'	0-11 GRAY cmF, mF SANDS, tr GRVL	FP-24	-7.1	-15.1	8'
FD-24	↓	-5.6'	-15.6'	10'	0-11 GRAY SANDS mF TO mC + cmF	FP-25	-7.8	-15.8	8'
						FP-26	-7.5	-15.5	8'
FP-17	HYANNIS OUTER HARBOR	-9.6'	-17.6'	8'					
FP-18	↓	-10.3'	-18.3'	8'					

PERSONNEL

NAME	HOURS
TOM ELDRIDGE (GEO INSPECTOR)	12½
MIKE HAWKINS (DRILLER)	12½
PAUL McALOON (DRILLER HELPER)	12½
JIM THEW (SURVEYOR)	12½
L. EISENHOWER (SURVEY HELP	10
T. WALKER (BARGE OPERATOR)	12½
L. ALLEN (16 FT. BOAT OPERATOR)	12½
C. CROSBY (TUG CAPTAIN)	12½

PLANT USED

ITEM	HOURS	BREAKDOWN HOURS
CME 75 DRILL RIG	12½	
30'x90' SPUD BARGE	12½	
TUG BOAT	12½	
16 FT. BOAT	12½	
SURVEY EQUIPMENT	12½	

Tom Eldridge
CHIEF OF FIELD PARTY

NED FORM DEC 63 198 REPLACES EDITION OF MAY 62 WHICH MAY BE USED UNTIL EXHAUSTED

(OVER)

NOV 16
TUE

NARRATIVE OF DAYS OPERATIONS

TEST BORINGS FD-18 THROUGH FD-24 WERE ADVANCED TO THEIR DESIGNATED DEPTHS. THEY WERE SAMPLED CONTINUOUS.
MACHINE PROBES FP-17 THROUGH FP-26 WERE ADVANCED TO THEIR DESIGNATED DEPTHS AND RESULTS RECORDED.
THE BORINGS AND PROBES WERE LOCATED IN HYANNIS OUTER HARBOR, OUTSIDE OF DUNBAR POINT. MACHINE PROBES FP-24, 25, AND 26 WERE EXTRAS PER YURI YATSEVITCH, U.S. ARMY CORPS OF ENGINEERS.

BORINGS WERE ADVANCED A TOTAL OF 65 FEET TODAY, PROBES 90 FEET.

MAN-HOUR WORK BREAKDOWN

NAME	MOB.	DEMOB.	MOVING	DRILL OVB.	DRILL BEDROCK	PREV. MAINT.	EQUIP. FAILURE	LOST TIME (WEATHER)	INSP. & SUPER.	MISC. *	TOTAL
TOM ELDRIDGE			6						6½		12½
MIKE HAWKINS			6	6½							12½
PAUL McALOON			6	6½							12½
JIM THEW										12½	12½
T. WALKER / L. ALLEN C. CROSBY			12½								12½
LORIE EISENHOWER										12½	12½

* SURVEYWORK

WORK FOR TOMORROW

TO ADVANCE ADDITIONAL TEST BORING AND TEST PROBES IN THE LEWIS BAY AREA OF THE HARBOR TO DESIGNATED DEPTHS OF -35' MLW

FIELD PURCHASES

ITEM	AMOUNT

ITEM	AMOUNT

NEW ENGLAND DIVISION
CORPS OF ENGINEERS, U.S. ARMY
WALTHAM, MASSACHUSETTS

FOUNDATIONS & MATERIALS BRANCH

LOG NO. 7 DATE NOVEMBER 17, 1993 (WED)

DAILY LOG OF FIELD EXPLORATIONS

PROJECT HYANNIS HARBOR NAVIGATION IMPROVEMENTS

TEMPORARY ADDRESS ANCHOR INN Room 209 HYANNIS, MA

LOCATION WHERE CAN BE REACHED

PHONE TIME TEMPERATURE: MAX. 60 MIN. 35

WEATHER PT. SUNNY - A.M. RAIN DEVELOPING - RAIN P.M.

DRILLING TODAY

BORING PROBES

HOLE	AREA	FOOTAGE FROM	FOOTAGE TO	FOOTAGE TODAY	MATERIAL
FD-25	LEWIS BAY	-14.4	-37.7	23.3	0-12 DARK GRAY ORGANIC SILT 12-23 BROWN PEAT, ORGANIC SILT
FP-33	↓	-12.6	-35.6	23.0	
FP-34	↓	-12.9	-35.9	23.0	

TEST PITS OR AUGER BORINGS TODAY

HOLE	AREA	FROM	TO	FOOTAGE	
FP-35	↓	-13.6	-35.6	22	
FP-36	↓	-13.5	-35.5	22	
FP-37	↓	-13.3	-35.3	22	
FP-38	↓	-13.2	-35.2	22	

HOLE	AREA	DEPTH	MATERIAL

PERSONNEL

NAME	HOURS
TOM ELDRIDGE (GEO INSPECTOR)	9
MIKE HAWKINS (DRILLER)	9
PAUL MCALOON (DRILLER HELPER)	9
JIM THEW (SURVEYOR)	9
LAURIE EISENHOWER (SURV HELP)	9
TIM WALKER (BARGE OPERATOR)	9
LARRY ALLEN (16 FT. BOAT OPERATOR)	9
CHARLIE CROSBY (TUG CAPTAIN)	9

PLANT USED

ITEM	HOURS	BREAKDOWN HOURS
CME 75 DRILL RIG	9	
30' x 90' SPUD BARGE	9	
TUG BOAT	9	
16 FT. BOAT	9	
SURVEY EQUIPMENT	9	

Tom Eldridge
CHIEF OF FIELD PARTY

NED FORM DEC 63 198 REPLACES EDITION OF MAY 62 WHICH MAY BE USED UNTIL EXHAUSTED

(OVER)

NOV 17
WED

NARRATIVE OF DAYS OPERATIONS

TEST BORING FD-25 WAS ADVANCED TO -37.7 FT MLW AND TERMINATED.
THE BOTTOM WAS BROWN PEAT AND ORGANIC SILT
MACHINE PROBES FP-38 THROUGH FP-38 WERE ADVANCED TO THEIR
DESIGNATED DEPTHS OF -35' + MLW AND THE RESULTS RECORDED
THE BORING AND PROBES, WHICH WERE ADDITIONS TO THE ORIGINAL
NUMBER OF BORINGS AND PROBES, WERE LOCATED IN THE LEWIS BAY
AREA, HYANNIS HARBOR.

THE BORING WAS ADVANCED -23.3 FT. AND THE PROBES WERE
ADVANCED A TOTAL OF 134 FT. TODAY.

MAN-HOUR WORK BREAKDOWN

NAME	MOB.	DEMOB.	MOVING	DRILL OVB.	DRILL BEDROCK	PREV. MAINT.	EQUIP. FAILURE	LOST TIME (WEATHER)	INSP. & SUPER.	MISC. *	TOTAL
TOM ELDRIDGE			6						3		9
MIKE HAWKINS			6	3							9
PAUL MCALOON			6	3							9
JIM THEW										9	9
LAURIE EISENHOWER										9	9
T. WALKER, L. ALLEN, C. CROSBY			9								9

* SURVEY WORK

WORK FOR TOMORROW

WORK IN HARBOR COMPLETED
DEMOBILIZE, READY RIG AND BARGE FOR MOVE ACROSS CHANNEL TO
MARTHAS VINEYARD

FIELD PURCHASES

ITEM	AMOUNT

ITEM	AMOUNT

B. BORING LOGS

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site Hyannis Harbor Page 1 of 1 Pages

~~Boring~~ Probe No. EP-1 Desig. EP-0 Diam. (Casing) _____

Co-ordinates: N 232942.6 E 935696.6

Elevation Top of Boring -6.4 ~~M.S.L.~~ MLW
Total Overburden Drilled 11 Feet
Elevation Top of Rock _____ M.S.L.
Total Rock Drilled _____ Feet
Elevation Bottom of Boring -17.4 ~~M.S.L.~~ MLW
Total Depth of Boring 11 Feet
Core Recovered _____ % No. Boxes _____
Core Recovered _____ Ft. _____ Diam. _____ In.
Soil Samples _____ In. Diam. _____ No.
Soil Samples _____ In. Diam. _____ No.

Hammer Wt. 300 Boring Started 11/10/93
Hammer Drop 18 Boring Completed 11/10/93
Casing Left _____
Subsurface Water Data _____ Page _____
Obs. Well _____
Drilled By M. Hawkins
Mfg. Des. Drill CME 75
Inspected By: T.A. Costello
Classification By: N/A
Classification By: _____

DEPTH	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE RECV'Y	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
				WOR	MACHINE PROBE 300# HAMMER, NW Rods 18" DROP	
1				4		
2				7		
3				9		
4				14		
5				12		
6				16		
7				9		
8				15		
9				15		
10				13		

GENERAL REMARKS: Probe terminated @ -17.4' MLW

ED FORM 1 58 (Test)

Boring No. _____

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site Hyannis Harbor Page 1 of 1 Pages

~~Boring~~ Probe No. FP-2 Desig. FP-N Diam. (Casing) _____

Co-ordinates: N 233039.0 E 935732.5

Elevation Top of Boring -13.2 ~~M.S.L.~~ MLW
Total Overburden Drilled 9 Feet
Elevation Top of Rock _____ ~~M.S.L.~~ MLW
Total Rock Drilled _____ Feet
Elevation Bottom of Boring -22.2 ~~M.S.L.~~ MLW
Total Depth of Boring 9.0 Feet
Core Recovered _____ % No. Boxes _____
Core Recovered _____ Ft : _____ Diam. _____ In.
Soil Samples _____ In. Diam. _____ No.
Soil Samples _____ In. Diam. _____ No.

Hammer Wt. 300# Boring Started _____
Hammer Drop 18" Boring Completed _____
Casing Left _____
Subsurface Water Data _____ Page _____
Obs. Well _____
Drilled By M. Hawkins
Mfg. Des. Drill CME 75
Inspected By: T.A. Custeau
Classification By: N/A
Classification By: _____

DEPTH	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE RECV'Y	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
				WOR	Machine Probe 300# Hammer, 18" drop, NW Rod.	
1				5		
2				4		
3				16		
4				20		
5				21		
6				25		
7				26		
8				25		
9				24	Probe terminated @ -22.2 MLW	

GENERAL REMARKS:

ED MAR 1 58 (Test)

~~Boring~~ Probe No. FP-2
C-50

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site Hyannis Harbor Page 1 of 1 Pages

~~Boring~~ Probe No. FP-3 Desig. FP-5 Diam. (Casing) _____

Co-ordinates: N 230728.0 E 934918.0

Elevation Top of Boring -10.9 ~~M.S.L.~~ MLW
Total Overburden Drilled 10 Feet
Elevation Top of Rock _____ ~~M.S.L.~~ MLW
Total Rock Drilled _____ Feet
Elevation Bottom of Boring -20.9 ~~M.S.L.~~ MLW
Total Depth of Boring _____ Feet
Core Recovered _____ % No. Boxes _____
Core Recovered _____ Ft : _____ Diam. _____ In.
Soil Samples _____ In. Diam. _____ No.
Soil Samples _____ In. Diam. _____ No.

Hammer Wt. 300# Boring Started _____
Hammer Drop 18" Boring Completed _____
Casing Left _____
Subsurface Water Data _____ Page _____
Obs. Well _____
Drilled By M. Hawkins
Mfg. Des. Drill CME 75
Inspected By: T.A. Custeau
Classification By: N/A
Classification By: _____

DEPTH	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE RECVY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
	W0			WOR	Machine Probe 300# Hammer, 18" drop, NW Rod.	
1				2		
2				5		
3				8		
4				6		
5				6		
6				6		
7				6		
8				5		
9				4		

GENERAL REMARKS: Probe Terminated @ -20.9 MLW

ED 1 MAR 58 (Test)

Probe Boring No. FP-3

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site Hyannis Harbor Page 1 of ___ Pages

~~Boring~~ Probe No. FP-4 Desig. FP-K Diam. (Casing) _____

Co-ordinates: N 236811.9 E 935919.5

Elevation Top of Boring -5.7 ~~M.S.L.~~ MLW
Total Overburden Drilled 10 Feet
Elevation Top of Rock _____ ~~M.S.L.~~ MLW
Total Rock Drilled _____ Feet
Elevation Bottom of Boring -15.7 ~~M.S.L.~~ MLW
Total Depth of Boring 10 Feet
Core Recovered _____ % No. Boxes _____
Core Recovered _____ Ft : _____ Diam. ____ In.
Soil Samples _____ In. Diam. ____ No.
Soil Samples _____ In. Diam. ____ No.

Hammer Wt. 300# Boring Started 11/12/93
Hammer Drop 18"
Casing Left _____ Boring Completed 11/12/93
Subsurface Water Data _____ Page _____
Obs. Well _____
Drilled By M. HAWKINS
Mfg. Des. Drill CME 75
Inspected By: T.A. CUSTEAU
Classification By: N/A
Classification By: _____

DEPTH	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE REC'VY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
				WOR	MACHINE PROBE 300# HAMMER, 18" drop, NW Rod.	
1				4		
2				2		
3				3		
4				3		
5				5		
6				9		
7				9		
8				12		
9				17		

GENERAL REMARKS: Probe terminated @ -15.7 MLW

ED MAR 1 58 (Test)

~~Boring~~ Probe No. FP-4

FIG NO 2B

C-50

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site Hyannis Harbor — Page 1 of 1 Pages

Boring No. FP-5 Desig. FP-I Diam. (Casing) _____
Probe

Co-ordinates: N 236639.5 E 936455.2

Elevation Top of Boring -6.6 MLW ~~M.S.L.~~ — Hammer Wt. 300# — Boring Started 11/12/93

Total Overburden Drilled 10.1 Feet — Hammer Drop 18" — Boring Completed 11/12/93

Elevation Top of Rock _____ MLW ~~M.S.L.~~ — Casing Left _____

Total Rock Drilled _____ Feet — Subsurface Water Data _____ Page _____

Elevation Bottom of Boring -16.7 MLW ~~M.S.L.~~ — Obs. Well _____

Total Depth of Boring _____ Feet — Drilled By M. HAWKINS

Core Recovered _____ % No. Boxes _____ — Mfg. Des. Drill CME 75

Core Recovered _____ Ft : _____ Diam. _____ In. — Inspected By: T.A. CUSTEAU

Soil Samples _____ In. Diam. _____ No. — Classification By: N/A

Soil Samples _____ In. Diam. _____ No. — Classification By: _____

DEPTH	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE REC'VY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
1				WEIGHT OF RODS TO	MACHINE PROBE 300# HAMMER, 18" drop, NW Rod.	
2						
3						
4						
5						
6						
7				-10.1		
8						
9						
10						

GENERAL REMARKS: Probe Terminated @ -16.7 MLW

ED 58 (Test)

Boring No. FP-5
Probe C-50

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site Hyannis Harbor Page 1 of ___ Pages

~~Boring~~ Probe No. FP-6 Desig. FP-1 Diam. (Casing) _____

Co-ordinates: N 236195.8 E 936579.8

Elevation Top of Boring -9.7 ~~M.S.L.~~ MLW
Total Overburden Drilled 10.2 Feet
Elevation Top of Rock _____ ~~M.S.L.~~ MLW
Total Rock Drilled _____ Feet
Elevation Bottom of Boring -19.9 ~~M.S.L.~~ MLW
Total Depth of Boring 10.2 Feet
Core Recovered _____ % No. Boxes _____
Core Recovered _____ Ft : _____ Diam. ____ In.
Soil Samples _____ In. Diam. ____ No.
Soil Samples _____ In. Diam. ____ No.

Hammer Wt. 300# Boring Started 11/12/93
Hammer Drop 18" Boring Completed 11/12/93
Casing Left _____
Subsurface Water Data _____ Page _____
Obs. Well _____
Drilled By M. HAWKINS
Mfg. Des. Drill CME 75
Inspected By: T.A. CUSTEAU
Classification By: N/A
Classification By: _____

DEPTH	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE REC'VY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
1				WEIGHT OF RODS TO 10.2'	MACHINE PROBE 300# HAMMER, 18" drop, NW Rod.	
2						
3						
4						
5						
6						
7						
8						
9						
10						

GENERAL REMARKS: Probe terminated @ -19.9' MLW

ED FORM 1 MAR 58 (Test)

~~Boring~~ Probe No. FP-6
C-50

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site HYANNIS HARBOR Page 1 of 1 Pages

~~Boring~~ Probe No. FP-7 Desig. FP-M Diam. (Casing) _____

Co-ordinates: N 235709.4 E 936456.3

Elevation Top of Boring -9.5 ~~M.S.L.~~ MLW
Total Overburden Drilled 13.5 Feet
Elevation Top of Rock _____ ~~M.S.L.~~ MLW
Total Rock Drilled _____ Feet
Elevation Bottom of Boring -23 ~~M.S.L.~~ MLW
Total Depth of Boring 13.5 Feet
Core Recovered _____ % No. Boxes _____
Core Recovered _____ Ft : _____ Diam. _____ In.
Soil Samples _____ In. Diam. _____ No.
Soil Samples _____ In. Diam. _____ No.

Hammer Wt. 300# Boring Started _____
Hammer Drop 18" Boring Completed _____
Casing Left _____
Subsurface Water Data _____ Page _____
Obs. Well _____
Drilled By M. HAWKINS
Mfg. Des. Drill CME 75
Inspected By: T.A. CUSTEAU
Classification By: N/A
Classification By: _____

DEPTH (Ft.)	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE REC'VY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
1				WEIGHT OF RODS TO -13.5'	MACHINE PROBE 300# HAMMER, 18" drop, NW Rod.	
2						
3						
4						
5						
6						
7						
8						
9						
10						

GENERAL REMARKS:
11
12
13.
Probe Terminated @ -23.0 MLW

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site Hyannis Harbor Page 1 of ___ Pages

~~Boring~~ Probe No. FP-8 Desig. FP-L Diam. (Casing) _____

Co-ordinates: N 236348.3 E 936068.5

Elevation Top of Boring -4.8 ~~M.S.L.~~ MLW
Total Overburden Drilled 10 Feet
Elevation Top of Rock _____ ~~M.S.L.~~ MLW
Total Rock Drilled _____ Feet
Elevation Bottom of Boring _____ ~~M.S.L.~~ MLW
Total Depth of Boring -14.8 Feet
Core Recovered _____ % No. Boxes _____
Core Recovered _____ Ft : _____ Diam. ____ In.
Soil Samples _____ In. Diam. ____ No.
Soil Samples _____ In. Diam. ____ No.

Hammer Wt. 300# Boring Started 11/12/93
Hammer Drop 18" Boring Completed 11/12/93
Casing Left _____
Subsurface Water Data _____ Page _____
Obs. Well _____
Drilled By M. HAWKINS
Mfg. Des. Drill CME 75
Inspected By: T.A. CUSTEAU
Classification By: N/A
Classification By: _____

DEPTH	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE RECVY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
				WOR	MACHINE PROBE 300# HAMMER, 18" drop, NW Rod.	
1						
				WOR THEN 1 FOR .2'		
2						
				3		
3						
				1		
4						
				2		
5						
				2		
6						
				4		
7						
				9		
8						
				12		
9						
				9		
10						

GENERAL REMARKS: Probe terminated @ -14.8' MLW

ED ... 58 (Test)

Boring No. _____

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site Hyannis Harbor Page 1 of ___ Pages

Boring No. FP-9 Desig. FP-F Diam. (Casing) _____
Probe

Co-ordinates: N 237 339.3 E 935759.7

Elevation Top of Boring -5 ~~M.S.L.~~ MLW
Total Overburden Drilled 10 Feet
Elevation Top of Rock _____ ~~M.S.L.~~ MLW
Total Rock Drilled _____ Feet
Elevation Bottom of Boring -15 ~~M.S.L.~~ MLW
Total Depth of Boring 10 Feet
Core Recovered _____ % No. Boxes _____
Core Recovered _____ Ft : _____ Diam. ____ In.
Soil Samples _____ In. Diam. ____ No.
Soil Samples _____ In. Diam. ____ No.

Hammer Wt. 300# Boring Started _____
Hammer Drop 18" Boring Completed _____
Casing Left _____
Subsurface Water Data _____ Page _____
Obs. Well _____
Drilled By M. HAWKINS
Mfg. Des. Drill CME 75
Inspected By: T.A. CUSTEAU
Classification By: N/A
Classification By: _____

DEPTH	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE REC'VY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
				WOR	MACHINE PROBE 300# HAMMER, 18" drop, NW Rod.	
1				4		
2				5		
3				7		
4				4		
5				3		
6				6		
7				7		
8				20		
9				28		
10						

GENERAL REMARKS: Probe Terminated @ -15' MLW

ED MAR 58 (Test)

Boring No. FP-9
Probe C-50

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site Hyannis Harbor Page 1 of ___ Pages

~~Boring~~ Probe No. FP-10 Desig. FP-H Diam. (Casing) _____

Co-ordinates: N 237178.1 E 935564.7

Elevation Top of Boring -7.2 ~~M.S.L.~~ MLW
Total Overburden Drilled 10 Feet
Elevation Top of Rock _____ ~~M.S.L.~~ MLW
Total Rock Drilled _____ Feet
Elevation Bottom of Boring -17.2 ~~M.S.L.~~ MLW
Total Depth of Boring 10 Feet
Core Recovered _____ % No. Boxes _____
Core Recovered _____ Ft : _____ Diam. ____ In.
Soil Samples _____ In. Diam. ____ No.
Soil Samples _____ In. Diam. ____ No.

Hammer Wt. 300# Boring Started 11/12/93
Hammer Drop 18" Boring Completed 11/12/93
Casing Left _____
Subsurface Water Data _____ Page _____
Obs. Well _____
Drilled By M. HAWKINS
Mfg. Des. Drill CME 75
Inspected By: T.A. CUSTEAU
Classification By: N/A
Classification By: _____

DEPTH	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE RECV'Y	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
				WOR	MACHINE PROBE 300# HAMMER, 18" drop, NW Rod.	
1				WOR		
2				WOR		
3				WOR		
4				WOR		
5				7		
6				8		
7				11		
8				12		
9				11		
10						

GENERAL REMARKS: Probe Terminated @ 17.2' MLW

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site Hyannis Harbor Page 1 of ___ Pages

~~Boring~~ Probe No. FP-11 Desig. FP-G Diam. (Casing) _____

Co-ordinates: N 237348.1 E 935394.4

Elevation Top of Boring -5.2 ~~M.S.L.~~ MLW
Total Overburden Drilled 11 Feet
Elevation Top of Rock _____ ~~M.S.L.~~ MLW
Total Rock Drilled _____ Feet
Elevation Bottom of Boring -16.2 ~~M.S.L.~~ MLW
Total Depth of Boring ~~16~~ 11 Feet
Core Recovered _____ % No. Boxes _____
Core Recovered _____ Ft : _____ Diam. ____ In.
Soil Samples _____ In. Diam. ____ No.
Soil Samples _____ In. Diam. ____ No.

Hammer Wt. 300# Boring Started 11/12/93
Hammer Drop 18"
Casing Left _____ Boring Completed 11/22/93
Subsurface Water Data _____ Page _____
Obs. Well _____
Drilled By M. HAWKINS
Mfg. Des. Drill CME 75
Inspected By: T. A. CUSTEAU
Classification By: N/A
Classification By: _____

DEPTH	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE REC'VY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
1				4	MACHINE PROBE 300# HAMMER, 18" drop, NW Rod.	
				11		
2						
				7		
3						
				3		
4						
				1		
5						
				1		
6						
				3		
7						
				2		
8						
				2		
9						
				2		
10						

GENERAL REMARKS:

11 2

Probe TERMINATED @ -16.2 MLW

ED MAR 58 (Test)

~~Boring~~ Probe No. FP-11
C-50

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site HYANNIS HARBOR Page 1 of 1 Pages

~~Boring~~ Probe No. FP-12 Desig. FP-B Diam. (Casing) _____

Co-ordinates: N 238213.3 E 934876.3

Elevation Top of Boring -5.0 MLW ~~MSL~~.
Total Overburden Drilled 11 Feet
Elevation Top of Rock _____ MLW ~~MSL~~.
Total Rock Drilled _____ Feet
Elevation Bottom of Boring -16.0 MLW ~~MSL~~.
Total Depth of Boring 11 Feet
Core Recovered _____ % No. Boxes _____
Core Recovered _____ Ft : _____ Diam. _____ In.
Soil Samples N/A In. Diam. _____ No.
Soil Samples _____ In. Diam. _____ No.

Hammer Wt. 390 lb. Boring Started 11/15/93
Hammer Drop 18 in. Boring Completed 11/15/93
Casing Left _____
Subsurface Water Data _____ Page _____
Obs. Well _____
Drilled By MIKE HAWKINS, PAUL McALOON
Mfg. Des. Drill CME 75 TRUCKMOUNT
Inspected By: TOM ELDRIDGE
Classification By: _____
Classification By: _____

DEPTH (ft)	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE RECV'Y	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
9.0 0				W O R	WEIGHT OF ROD (NW) SETTLED TO -1 FT.	
1				3	300 lb HAMMER 18 IN DROP	
2				2		
3				1		
4				5		
5				3		
6				4		
7				4		
8				4		
9				5		
10						
11				5	PROBE TERMINATED @ -16' MLW	

GENERAL REMARKS:

58 (Test)

~~Boring~~ Probe No. FP-12

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site HYANNIS HARBOR Page 1 of 1 Pages

~~Boring~~ Probe No. FP-13 Desig. FP-A Diam. (Casing) _____

Co-ordinates: N 238325.0 E 934747.1

Elevation Top of Boring -4.1 ~~M.S.L.~~ MLW
Total Overburden Drilled 10 Feet
Elevation Top of Rock _____ ~~M.S.L.~~ MLW
Total Rock Drilled _____ Feet
Elevation Bottom of Boring -14.1 ~~M.S.L.~~ MLW
Total Depth of Boring 10 Feet
Core Recovered _____ % No. Boxes _____
Core Recovered _____ Ft: _____ Diam. _____ In.
Soil Samples N/A In. Diam. ___ No.
Soil Samples _____ In. Diam. ___ No.

Hammer Wt. 300 lb Boring Started 11/15
Hammer Drop 18 in Boring Completed 11/15
Casing Left _____
Subsurface Water Data _____ Page _____
Obs. Well _____
Drilled By MIKE HAWKINS, PAUL McALOON
Mfg. Des. Drill CME 75 TRUCK MOUNT
Inspected By: T. ELDRIDGE
Classification By: _____
Classification By: _____

DEPTH (Ft)	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE RECV'Y	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
-4.1 0						
				W	WEIGHT OF ROD	
1				O	SETTLED TO -3 FT.	
				R		
2				↓		
3				3	300 lb HAMMER 18 in DROP NW ROD	
4				3		
5				5		
6				8		
7				14		
8				21		
9				16		
10					PROBE TERMINATED @ -14.1' MLW	

GENERAL REMARKS:

ENG FORM 1258 (Test)

~~Boring~~ Probe No. FP-13

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site HYANNIS HARBOR Page 1 of 1 Pages

~~Boring~~ Probe No. FP-14 Desig. FP-C Diam. (Casing) _____

Co-ordinates: N 238216.7 E 934578.3

Elevation Top of Boring -6.8 MLW ~~M.S.L.~~
Total Overburden Drilled 10 Feet
Elevation Top of Rock _____ ~~M.S.L.~~
Total Rock Drilled _____ Feet
Elevation Bottom of Boring -16.8 MLW ~~M.S.L.~~
Total Depth of Boring 10 Feet
Core Recovered _____ % No. Boxes _____
Core Recovered _____ Ft. _____ Diam. _____ In.
Soil Samples N/A In. Diam. _____ No.
Soil Samples _____ In. Diam. _____ No.

Hammer Wt. 300 lb
Hammer Drop 18 IN
Casing Left _____
Subsurface Water Data _____ Page _____
Obs. Well _____
Drilled By MIKE HAWKINS, PAUL MCALOON
Mfg. Des. Drill CME 75 TRUCK MOUNT
Inspected By: TOM ELDRIDGE
Classification By: TOM ELDRIDGE
Classification By: _____

Boring Started 11/15/93
Boring Completed 11/15/93

DEPTH	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE RECV'Y	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
-6.8 0						
				W	WEIGHT OF ROD	
1						
					RODS SETTLED 5 FT.	
2				0		
3						
				R		
4						
5				↓		
				3	300 lb HAMMER 18 IN DROP NW ROD	
6						
				1		
7						
				8		
8						
				15		
9						
				13		
10					PROBE TERMINATED @ -16.8' MLW	

GENERAL REMARKS:

ED ... 58 (Test)

~~Boring~~ Probe No. FP-14

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site HYANNIS HARBOR Page 1 of 1 Pages

~~Boring~~ Probe No. FP-15 Desig. FP-E Diam. (Casing) _____

Co-ordinates: N 237433.0 E 935670.5

Elevation Top of Boring -6.2 MLW ~~M.S.L.~~ Hammer Wt. 300 lb Boring Started 11/15/93

Total Overburden Drilled 10 Feet Hammer Drop 18 IN Boring Completed 11/15/93

Elevation Top of Rock _____ ~~M.S.L.~~ Casing Left _____

Total Rock Drilled _____ Feet Subsurface Water Data _____ Page _____

Elevation Bottom of Boring -16.2 MLW ~~M.S.L.~~ Obs. Well _____

Total Depth of Boring 10 Feet Drilled By MIKE HAWKINS, PAUL McALOON

Core Recovered _____ % No. Boxes _____ Mfg. Des. Drill CME 75 TRUCKMOUNT

Core Recovered _____ Ft : _____ Diam. _____ In. Inspected By: TOM ELDRIDGE

Soil Samples N/A In. Diam. _____ No. Classification By: _____

Soil Samples _____ In. Diam. _____ No. Classification By: _____

DEPTH	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE REC'VY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
-6.2 0				W O R	WEIGHT OF ROD SETTLED 1 FT.	
1				5	300 lb HAMMER 18 IN DROP NW ROD	
2				5		
3				5		
4				3		
5				1		
6				3		
7				2		
8				7		
9				11		
10					PROBE TERMINATED @ -16.2' MLW	

GENERAL REMARKS:

ENG FORM 1558 (Test)

~~Boring~~ Probe No. FP-15

C-50

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site HYANNIS HARBOR Page 1 of 1 Pages

~~Boring~~ Probe No. FP-16 Desig. FP-D Diam. (Casing) _____

Co-ordinates: N 237529.8 E 935593.6

Elevation Top of Boring -5.3 ~~M.S.L.~~ MLW
Total Overburden Drilled 11 Feet
Elevation Top of Rock _____ ~~M.S.L.~~
Total Rock Drilled _____ Feet
Elevation Bottom of Boring -16.3 ~~M.S.L.~~ MLW
Total Depth of Boring 11 Feet
Core Recovered _____ % No. Boxes _____
Core Recovered _____ Ft. _____ Diam. _____ In.
Soil Samples N/A In. Diam. _____ No.
Soil Samples _____ In. Diam. _____ No.

Hammer Wt. 300 lb Boring Started 11/15/93
Hammer Drop 18 IN Boring Completed 11/15/93
Casing Left _____
Subsurface Water Data _____ Page _____
Obs. Well _____
Drilled By MIKE HAWKINS, PAUL McALOON
Mfg. Des. Drill CME 75 TRUCK MOUNT
Inspected By: TOM ELDRIDGE
Classification By: TOM ELDRIDGE
Classification By: _____

DEPTH	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE REC'VY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
-5.3 0				WOR	WEIGHT OF ROD	
				17/6"	300 lb HAMMER 18 IN DROP NW ROD	
1				17		
2				13		
3				10		
4				8		
5				10		
6				5		
7				9		
8				6		
9				13		
10						

GENERAL REMARKS:

11 14 PROBE TERMINATED @ -16.3 MLW

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site HYANNIS HARBOR Page 1 of 1 Pages

~~Boring~~ Probe No. FP-17 Desig. FP-W Diam. (Casing) _____

Co-ordinates: N 230291.6 E 933115.7

Elevation Top of Boring -9.6 ~~N.S.L.~~ MLW
Total Overburden Drilled 8 Feet
Elevation Top of Rock _____ ~~N.S.L.~~
Total Rock Drilled _____ Feet
Elevation Bottom of Boring -17.6 ~~N.S.L.~~ MLW
Total Depth of Boring 8 Feet
Core Recovered _____ % No. Boxes _____
Core Recovered _____ Ft. _____ Diam. _____ In.
Soil Samples N/A In. Diam. _____ No.
Soil Samples _____ In. Diam. _____ No.

Hammer Wt. 300lb
Hammer Drop 18 IN
Casing Left _____
Subsurface Water Data _____ Page _____
Obs. Well _____
Drilled By MIKE HAWKINS, PAUL McALOON
Mfg. Des. Drill CME 75 TRUCK MOUNT
Inspected By: T. ELDRIDGE
Classification By: _____
Classification By: _____

Boring Started 11/16/93
Boring Completed 11/16/93

DEPTH	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE RECV'Y	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
-9.6 0				W O R	WEIGHT OF ROD SETTLED 1 FT.	
1				8	300lb HAMMER 18 IN DROP NW ROD	
2				11		
3				10		
4				8		
5				4		
6				3		
7				2		
8					PROBE TERMINATED @ -17.6' MLW	
9						
10						

GENERAL REMARKS:

ED ... 58 (Test)

~~Boring~~ Probe No. FP-W-17

C-50 (P.W)

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site HYANNIS HARBOR Page 1 of 1 Pages

~~Boring~~ Probe No. FP-18 Desig. FP-V Diam. (Casing) _____

Co-ordinates: N 230263.1 E 933393.7

Elevation Top of Boring -10.3 MLW ~~M.S.L.~~ Hammer Wt. 300 lb Boring Started 11/16/93

Total Overburden Drilled 8 Feet Hammer Drop 18 IN Boring Completed 11/16/93

Elevation Top of Rock _____ ~~M.S.L.~~ Casing Left _____

Total Rock Drilled _____ Feet Subsurface Water Data _____ Page _____

Elevation Bottom of Boring -18.3 MLW ~~M.S.L.~~ Obs. Well _____

Total Depth of Boring 8 Feet Drilled By MIKE HAWKINS, PAUL MCALOON

Core Recovered _____ % No. Boxes _____ Mfg. Des. Drill CME 75 TRUCK MOUNT

Core Recovered _____ Ft. _____ Diam. _____ In. Inspected By: T. ELDRIDGE

Soil Samples N/A In. Diam. _____ No. Classification By: _____

Soil Samples _____ In. Diam. _____ No. Classification By: _____

DEPTH	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE RECV'Y	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
-10.3 0				3	300 lb HAMMER 18 IN DROP NW ROD	
1				1		
2				1		
3				1		
4				1		
5				W O R	WEIGHT OF ROD	
6				W O R	WEIGHT OF ROD	
7				2	PROBE TERMINATED @ -18.3' MLW	
8						

GENERAL REMARKS:

ED FORM 1 MAR 58 (Test)

~~Boring~~ Probe No. FP-18

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site HYANNIS HARBOR Page 1 of 1 Pages

~~Boring~~ Probe No. FP-19 Desig. FP-U Diam. (Casing) _____

Co-ordinates: N 230338.8 E 933509.2

Elevation Top of Boring -1.8 ~~M.S.L.~~ MLW
Total Overburden Drilled 8 Feet
Elevation Top of Rock _____ ~~M.S.L.~~ MLW
Total Rock Drilled _____ Feet
Elevation Bottom of Boring -15.8 ~~M.S.L.~~ MLW
Total Depth of Boring 8 Feet
Core Recovered _____ % No. Boxes _____
Core Recovered _____ Ft. _____ Diam. _____ In.
Soil Samples N/A In. Diam. _____ No.
Soil Samples _____ In. Diam. _____ No.

Hammer Wt. 300 lb Boring Started 11/16/93
Hammer Drop 18 IN Boring Completed 11/16/93
Casing Left _____
Subsurface Water Data _____ Page _____
Obs. Well _____
Drilled By MIKE HAWKINS, PAUL McALOON
Mfg. Des. Drill CME 75 TRUCK MOUNT
Inspected By: T. ELDRIDGE
Classification By: _____
Classification By: _____

DEPTH	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE RECV'Y	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
-1.8 0						
				6	300 lb. HAMMER 18 IN DROP NW ROD	
1				1		
2				13		
3				6		
4				1		
5				3		
6				5		
7				3		
8					PROBE TERMINATED @ -15.8' MLW	

GENERAL REMARKS:

ED ... 58 (Test)

~~Boring~~ Probe No. FP-19

C-50

19-U

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site HYANNIS HARBOR Page 1 of 1 Pages

~~Boring~~ Probe No. FP-20 Desig. FP-T Diam. (Casing) _____

Co-ordinates: N 230434.7 E 933607.6

Elevation Top of Boring -7.5 ~~MSL~~ MLW. Hammer Wt. 300 lb Boring Started 11/16/93

Total Overburden Drilled 8 Feet Hammer Drop 18 IN

Elevation Top of Rock _____ ~~MSL~~ MLW. Casing Left _____ Boring Completed 11/16/93

Total Rock Drilled _____ Feet Subsurface Water Data _____ Page _____

Elevation Bottom of Boring -15.5 ~~MSL~~ MLW. Obs. Well _____

Total Depth of Boring 8 Feet Drilled By MIKE HAWKINS, PAUL McALOON

Core Recovered _____ % No. Boxes _____ Mfg. Des. Drill CME 75 TRUCK MOUNT

Core Recovered _____ Ft. _____ Diam. _____ In. Inspected By: T. ELDRIDGE

Soil Samples N/A In. Diam. _____ No. Classification By: _____

Soil Samples _____ In. Diam. _____ No. Classification By: _____

DEPTH	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE REC'VY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
-7.5 0				W/R	WEIGHT OF ROD SETTLED 6"	
1				1	300 lb HAMMER 18 IN DROP NW ROD	
				3		
2						
				5		
3						
				12		
4						
				15		
5						
				7		
6						
				7		
7						
				6		
8				—	PROBE TERMINATED @ -15.5' MLW	
9						
10						

GENERAL REMARKS:

D ... 58 (Test)

~~Boring~~ Probe No. FP-20

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site HYANNIS HARBOR Page 1 of 1 Pages

~~Boring~~ Probe No. FP-21 Desig. FP-P Diam. (Casing) _____

Co-ordinates: N 231276.8 E 934885.8

Elevation Top of Boring -2.1 ~~M.S.L.~~ MLW
Total Overburden Drilled 12 Feet
Elevation Top of Rock _____ ~~M.S.L.~~
Total Rock Drilled _____ Feet
Elevation Bottom of Boring -14.1 ~~M.S.L.~~ MLW
Total Depth of Boring 12 Feet
Core Recovered _____ % No. Boxes _____
Core Recovered _____ Ft. _____ Diam. _____ In.
Soil Samples N/A In. Diam. _____ No.
Soil Samples _____ In. Diam. _____ No.

Hammer Wt. 300 lb Boring Started 11/16/93
Hammer Drop 18 IN Boring Completed 11/16/93
Casing Left _____
Subsurface Water Data _____ Page _____
Obs. Well _____
Drilled By MIKE HAWKINS, PAUL McALOON
Mfg. Des. Drill CME 75 TRUCK MOUNT
Inspected By: T. ELDRIDGE
Classification By: _____
Classification By: _____

DEPTH	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE REC'VY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
-2.1 0				W O R	WEIGHT OF ROD SETTLED 1 FT.	
1				4	300 lb HAMMER 18 IN DROP NW ROD	
2				11		
3				14		
4				15		
5				22		
6				26		
7				42		
8				48		
9				45		
10				55		
11				70	PROBE TERMINATED @ -14.1' MLW	
12						

GENERAL REMARKS:

ED ... 58 (Test)

Probe Boring No. FP-21

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site HYANNIS HARBOR Page 1 of 1 Pages

~~Boring~~ Probe No. FP-22 Desig. FP-Q Diam. (Casing) _____

Co-ordinates: N 231146.2 E 934835.0

Elevation Top of Boring -2.1 MLW ~~M.S.L.~~ Hammer Wt. 300 lb Boring Started 11/16/93

Total Overburden Drilled 11 Feet Hammer Drop 18 IN Boring Completed 11/16/93

Elevation Top of Rock _____ M.S.L. Casing Left _____

Total Rock Drilled _____ Feet Subsurface Water Data _____ Page _____

Elevation Bottom of Boring -13.1 MLW ~~M.S.L.~~ Obs. Well _____

Total Depth of Boring 11 Feet Drilled By MIKE HAWKINS, PAUL McALOON

Core Recovered _____ % No. Boxes _____ Mfg. Des. Drill CME 75 TRUCKMOUNT

Core Recovered _____ Ft : _____ Diam. _____ In. Inspected By: TOM ELDRIDGE

Soil Samples N/A In. Diam. _____ No. Classification By: _____

Soil Samples _____ In. Diam. _____ No. Classification By: _____

DEPTH	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE REC'VY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
-2.1 0				1	300 lb HAMMER 18 IN DROP NW ROD	
1				6		
2				5		
3				5		
4				3		
5				3		
6				10		
7				23		
8				31		
9				55		
10						
11				51	PROBE TERMINATED @ -13.1' MLW	

GENERAL REMARKS:

Probe ~~Boring~~ No. FP-22

ED ... 58 (Test)

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site HYANNIS HARBOR Page 1 of 1 Pages

~~Boring~~ Probe No. FP-23 Desig. FP-R Diam. (Casing) _____

Co-ordinates: N 230878.0 E 934545.5

Elevation Top of Boring -3.3 ~~M.S.L.~~ MLW
Total Overburden Drilled 11 Feet
Elevation Top of Rock _____ M.S.L.
Total Rock Drilled _____ Feet
Elevation Bottom of Boring -14.3 ~~M.S.L.~~ MLW
Total Depth of Boring 11 Feet
Core Recovered _____ % No. Boxes _____
Core Recovered _____ Ft. _____ Diam. _____ In.
Soil Samples N/A In. Diam. _____ No.
Soil Samples _____ In. Diam. _____ No.

Hammer Wt. 300 lb Boring Started 11/16/93
Hammer Drop 18 IN Boring Completed 11/16/93
Casing Left _____
Subsurface Water Data _____ Page _____
Obs. Well _____
Drilled By MIKE HAWKINS, PAUL McALOON
Mfg. Des. Drill CME 75 TRUCK MOUNT
Inspected By: T. ELDRIDGE
Classification By: _____
Classification By: _____

DEPTH	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE RECV'Y	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
-3.3 0				2	300 lb HAMMER 18 IN DROP NW ROD	
1				10		
2				16		
3				17		
4				23		
5				22		
6				26		
7				24		
8				19		
9				15		
10						
11				13	PROBE TERMINATED @ -14.3' MLW	

GENERAL REMARKS:

ED 58 (Test)

~~Boring~~ Probe No. FP-23

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site HYANNIS HARBOR Page 1 of 1 Pages

~~Boring~~ Probe No. FP-24 Desig. _____ Diam. (Casing) _____

Co-ordinates: N 229123.7 E 932511.2

Elevation Top of Boring -7.1 ~~M.S.L.~~ MLW
Total Overburden Drilled 8 Feet
Elevation Top of Rock _____ M.S.L.
Total Rock Drilled _____ Feet
Elevation Bottom of Boring -15.1 ~~M.S.L.~~ MLW
Total Depth of Boring 8 Feet
Core Recovered _____ % No. Boxes _____
Core Recovered _____ Ft : _____ Diam. _____ In.
Soil Samples N/A In. Diam. _____ No.
Soil Samples _____ In. Diam. _____ No.

Hammer Wt. 300 lb
Hammer Drop 18 IN
Casing Left _____
Subsurface Water Data _____ Page _____
Obs. Well _____
Drilled By MIKE HAWKINS / PAUL McALOON
Mfg. Des. Drill CME 75 TRUCK MOUNT
Inspected By: T. ELDRIDGE
Classification By: _____
Classification By: _____

Boring Started 11/16/93
Boring Completed 11/16/93

DEPTH	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE REC'VY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
-7.1 0				W O R	WEIGHT OF ROD SETTLED 1 FT.	
1					300 lb HAMMER 18 IN DROP NW ROD	
				7		
2						
				14		
3						
				22		
4						
				31		
5						
				45		
6						
				49		
7						
				53		
8					PROBE TERMINATED @ -15.1' MLW	

GENERAL REMARKS:

ED MAR 1 58 (Test)

~~Boring~~ Probe No. FP-24

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site HYANNIS HARBOR Page 1 of 1 Pages

~~Boring~~ Probe No. FP25X Desig. _____ Diam. (Casing) _____

Co-ordinates: N 224033.2 E 932354.3

Elevation Top of Boring -7.8 ~~MSL~~ MLW
Total Overburden Drilled 8 Feet
Elevation Top of Rock _____ M.S.L.
Total Rock Drilled _____ Feet
Elevation Bottom of Boring -15.8 ~~MSL~~
Total Depth of Boring 8 Feet
Core Recovered _____ % No. Boxes _____
Core Recovered _____ Ft. _____ Diam. _____ In.
Soil Samples N/A In. Diam. _____ No.
Soil Samples _____ In. Diam. _____ No.

Hammer Wt. 300 lb
Hammer Drop 18 IN.
Casing Left _____
Subsurface Water Data _____ Page _____
Obs. Well _____
Drilled By MIKE HAWKINS, PAUL McALOON
Mfg. ~~Des.~~ Drill CME 75 TRUCKMOUNT
Inspected By: TOM ELDRIDGE
Classification By: _____
Classification By: _____

Boring Started 11/16/93
Boring Completed 11/16/93

DEPTH	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE RECV'Y	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
-7.8 0				WOR	WEIGHT OF ROD SETTLED 1 FT.	
1				8	300 lb HAMMER 18 IN DROP NW ROD	
2				13		
3				18		
4				30		
5				35		
6				40		
7				35		
8					PROBE TERMINATED @ -15.8' MLW	
9						
10						

GENERAL REMARKS:

ED ... 58 (Test)

~~Boring~~ Probe No. FP25X

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site HYANNIS HARBOR Page 1 of 1 Pages

~~Boring~~ Probe No. FP-26 X Desig. _____ Diam. (Casing) _____

Co-ordinates: N 228858.2 E 93240A.1

Elevation Top of Boring -7.5 ~~M.S.L.~~ MLW
Total Overburden Drilled 8 Feet
Elevation Top of Rock _____ M.S.L.
Total Rock Drilled _____ Feet
Elevation Bottom of Boring -15.5 ~~M.S.L.~~ MLW
Total Depth of Boring 8 Feet
Core Recovered _____ % No. Boxes _____
Core Recovered _____ Ft. _____ Diam. _____ In.
Soil Samples N/A In. Diam. _____ No.
Soil Samples _____ In. Diam. _____ No.

Hammer Wt. 300 lb Boring Started 11/16/93
Hammer Drop 18 IN. Boring Completed 11/16/93
Casing Left _____
Subsurface Water Data _____ Page _____
Obs. Well _____
Drilled By MIKE HAWKINS, PAUL McALOON
Mfg. Des. Drill CME 75 TRUCK MOUNT
Inspected By: T. ELDRIDGE
Classification By: _____
Classification By: _____

DEPTH (Ft.)	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE RECV'Y	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
-7.5 0					300 lb HAMMER 18 IN DROP NW ROD	
1				1		
				14		
2						
				27		
3						
				34		
4						
				38		
5						
				55		
6						
				58		
7						
				57	PROBE TERMINATED @ -15.5' MLW	
8						
9						
10						

GENERAL REMARKS:

ED ... 58 (Test)

~~Boring~~ Probe No. FP-26

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site HYANNIS HARBOR Page 1 of 1 Pages

~~Boring~~ Probe No. FP-33 Desig. - Diam. (Casing) _____

Co-ordinates: N 234692.4 E 936296.1

Elevation Top of Boring -12.6 ~~M.S.L.~~ MLW
Total Overburden Drilled 23 Feet
Elevation Top of Rock _____ M.S.L.
Total Rock Drilled _____ Feet
Elevation Bottom of Boring -35.6 ~~M.S.L.~~ MLW
Total Depth of Boring 23 Feet
Core Recovered _____ % No. Boxes _____
Core Recovered _____ Ft : _____ Diam. _____ In.
Soil Samples N/A In. Diam. _____ No.
Soil Samples _____ In. Diam. _____ No.

Hammer Wt. 300 lb Boring Started 11/17/93
Hammer Drop 18 IN Boring Completed 11/17/93
Casing Left _____
Subsurface Water Data _____ Page _____
Obs. Well _____
Drilled By MIKE HAWKINS, PAUL MCALOON
Mfg. Des. Drill CME 75 TRUCK MOUNT
Inspected By: T. ELDRIDGE
Classification By: _____
Classification By: _____

DEPTH	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE RECV'Y	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
-12.6 MLW 0						
2				W O R	WEIGHT OF ROD ROD SETTLED TO -4.7 FT.	
4						
6				2 5 9	300 lb HAMMER 18 IN DROP NW ROD	
8				16 27		
10				28 24		
12				31 27		
14				24 22		
16				22 25		
18				26 31		
20				38 35		
22				25 45	PROBE TERMINATED @ -35.6 MLW	
24						

GENERAL REMARKS: 23'

Probe ~~Boring~~ No. FP-33

ED ... 58 (Test)

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site HYANNIS HARBOR Page 1 of 1 Pages

~~Boring~~ Probe No. FP-34 Desig. _____ Diam. (Casing) _____

Co-ordinates: N 234482.8 E 936274.0

Elevation Top of Boring -12.9 ~~M.S.L.~~ Hammer Wt. 300 lb Boring Started 11/17/93

Total Overburden Drilled 23 Feet Hammer Drop 18 IN. Boring Completed 11/17/93

Elevation Top of Rock _____ M.S.L. Casing Left _____

Total Rock Drilled _____ Feet Subsurface Water Date _____ Page _____

Elevation Bottom of Boring -35.9 ~~M.S.L.~~ Obs. Well _____

Total Depth of Boring 23 Feet Drilled By MIKE HAWKINS PAUL MCALOON

Core Recovered _____ % No. Boxes _____ Mfg. Des. Drill CME 75 TRUCK MOUNT

Core Recovered _____ Ft : _____ Diam. _____ In. Inspected By: T. ELDRIDGE

Soil Samples N/A In. Diam. _____ No. Classification By: _____

Soil Samples _____ In. Diam. _____ No. Classification By: _____

DEPTH	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE REC'VY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
-12.9 MLW 0				W	WEIGHT OF ROD ROD SETTLED TO -5.3 FT.	
2				O		
4				R		
6				12	300 lb HAMMER 18 IN DROP NW ROD	
				17		
8				12		
				20		
10				19		
				17		
12				12		
				12		
14				11		
				16		
16				23		
				19		
18				19		
				20		
20				19		
				22		
				21		
				25	PROBE TERMINATED @ -35.9' MLW	
22						
24						

GENERAL REMARKS:

ED FORM MAR 1 58 (Test)

~~Boring~~ Probe No. FP-34

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site HYANNIS HARBOR Page 1 of 1 Pages

~~Boring~~ Probe No. FP-35 Desig. _____ Diam. (Casing) _____

Co-ordinates: N 234266.4 E 936247.5

Elevation Top of Boring -13.6 ~~M.S.L.~~ MLW
Total Overburden Drilled 22 Feet
Elevation Top of Rock _____ M.S.L.
Total Rock Drilled _____ Feet
Elevation Bottom of Boring -35.6 ~~M.S.L.~~ MLW
Total Depth of Boring 22 Feet
Core Recovered _____ % No. Boxes _____
Core Recovered _____ Ft. _____ Diam. _____ In.
Soil Samples N/A In. Diam. _____ No.
Soil Samples _____ In. Diam. _____ No.

Hammer Wt. 300 lb Boring Started 11/17/93
Hammer Drop 18 IN Boring Completed 11/17/93
Casing Left _____
Subsurface Water Data _____ Page _____
Obs. Well _____
Drilled By MIKE HAWKINS, PAUL McALOON
Mfg. Des. Drill CME 75 TRUCK MOUNT
Inspected By: T. ELDRIDGE
Classification By: _____
Classification By: _____

DEPTH (Ft)	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE RECV'Y	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
-13.6 MLW 0						
2				W		
4					WEIGHT OF ROD	
6				O	ROD SETTLED TO -15.5 FT.	
8						
10				R		
12						
14						
16				6 9	300 lb HAMMER 18 IN DROP ON ROD	
18				9 10		
20				8		
22				8 8	PROBE TERMINATED @ -35.6 MLW	

GENERAL REMARKS:

ED ... 58 (Test)

~~Boring~~ Probe No. FP-35

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site HYANNIS HARBOR Page 1 of 1 Pages

~~Boring~~ Probe No. FP-36 Desig. – Diam. (Casing) _____

Co-ordinates: N 234750.6 E 935993.0

Elevation Top of Boring –13.5 ~~M.S.L.~~ MLW
Total Overburden Drilled 22 Feet
Elevation Top of Rock _____ M.S.L.
Total Rock Drilled _____ Feet
Elevation Bottom of Boring –35.5 ~~M.S.L.~~ MLW
Total Depth of Boring 22 Feet
Core Recovered _____ % No. Boxes _____
Core Recovered _____ Ft. _____ Diam. _____ In.
Soil Samples N/A In. Diam. _____ No.
Soil Samples _____ In. Diam. _____ No.

Hammer Wt. 300 lb
Hammer Drop 18 IN
Casing Left _____
Subsurface Water Data _____ Page _____
Obs. Well _____
Drilled By MIKE HAWKINS, PAUL McALOON
Mfg. Des. Drill CME 75 TRUCK MOUNT
Inspected By: T. ELDRIDGE
Classification By: _____
Classification By: _____

Boring Started 11/17/93
Boring Completed 11/17/93

DEPTH	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE RECV'Y	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
–13.5 MLW 0						
2						
4				W		
6				O	WEIGHT OF ROD RODS SETTLED TO –15.6 FT.	
8						
10				R		
12						
14						
16				6 15	300 lb HAMMER 18 IN DROP NW ROD	
18				18 18		
20				20		
22				15 27	PROBE TERMINATED @ –35.5' MLW	

GENERAL REMARKS:

~~Boring~~ Probe No. FP-36

ED ... 58 (Test)

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site HYANNIS HARBOR Page 1 of 1 Pages

~~Boring~~ Probe No. FP-37 Desig. — Diam. (Casing) _____

Co-ordinates: N 234479.9 E 935857.7

Elevation Top of Boring -13.3 ~~M.S.L.~~ MLW
Total Overburden Drilled 22 Feet
Elevation Top of Rock _____ M.S.L.
Total Rock Drilled _____ Feet
Elevation Bottom of Boring -35.3 ~~M.S.L.~~ MLW
Total Depth of Boring 22 Feet
Core Recovered _____ % No. Boxes _____
Core Recovered _____ Ft. _____ Diam. _____ In.
Soil Samples N/A In. Diam. _____ No.
Soil Samples _____ In. Diam. _____ No.

Hammer Wt. 300 lb Boring Started 11/17/93
Hammer Drop 18 IN Boring Completed 11/17/93
Casing Left _____
Subsurface Water Data _____ Page _____
Obs. Well _____
Drilled By MIKE HAWKINS, PAUL McALOON
Mfg. Des. Drill CME 75 TRUCK MOUNT
Inspected By: T. ELDRIDGE
Classification By: _____
Classification By: _____

DEPTH	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE REC'VY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
-13.3 MLW / 0						
2						
4				W	WEIGHT OF ROD	
6					ROD SETTLED TO -14.5 FT.	
8				O		
10				R		
12						
14						
16				4 6 6	300 lb. HAMMER 18 IN DROP NW ROD	
18				5 6		
20				7		
22				8 8	PROBE TERMINATED @ -35.3' MLW	

GENERAL REMARKS:

ED FORM 1 MAR 58 (Test)

~~Boring~~ Probe No. FP-37

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site HYANNIS HARBOR Page 1 of 1 Pages

~~Boring~~ Probe No. FP-38 Desig. — Diam. (Casing) _____

Co-ordinates: N 234258.1 E 935923.4

Elevation Top of Boring -13.2' MLW ~~M.S.L.~~ Hammer Wt. 300 lb Boring Started 11-17-

Total Overburden Drilled 22 Feet Hammer Drop 18 IN Boring Completed 11/17/93

Elevation Top of Rock _____ M.S.L. Casing Left _____

Total Rock Drilled _____ Feet Subsurface Water Data _____ Page _____

Elevation Bottom of Boring -35.2 MLW ~~M.S.L.~~ Obs. Well _____

Total Depth of Boring 22 Feet Drilled By MIKE HAWKINS, PAUL MCALOON

Core Recovered _____ % No. Boxes _____ Mfg. Des. Drill CME 75 TRUCK MOUNT

Core Recovered _____ Ft. _____ Diam. _____ In. Inspected By: T. ELDRIDGE

Soil Samples N/A In. Diam. _____ No. Classification By: _____

Soil Samples _____ In. Diam. _____ No. Classification By: _____

DEPTH	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE RECV'Y	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
-13.2 MLW 0						
2						
4				W	WEIGHT OF RODS	
6					ROD SETTLED TO -17.4 FT.	
8				O		
10				R		
12						
14						
16						
18				4 5 6	300 lb HAMMER 18 IN DROP NW ROD	
20				5 6		
22					PROBE TERMINATED @ -35.2' MLW	

GENERAL REMARKS:

ED FORM 1 58 (Test)

~~Boring~~ Probe No. FP-38

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site HYANNIS HARBOR Page 1 of ___ Pages

Boring No. FD-1 Desig. FD-L Diam. (Casing) 3"

Co-ordinates: N 232821.5 E 935642.0

Elevation Top of Boring -5.2 ~~M.S.L.~~ MLW
Total Overburden Drilled 11.0 Feet
Elevation Top of Rock — M.S.L.
Total Rock Drilled — Feet
Elevation Bottom of Boring -16.2 ~~M.S.L.~~ MLW
Total Depth of Boring 11.0 Feet
Core Recovered ___ % No. Boxes ___
Core Recovered ___ Ft. ___ Diam. ___ In.
Soil Samples 1 3/8 In. Diam. 5 No.
Soil Samples ___ In. Diam. ___ No.

Hammer Wt. 140 Boring Started 11/10
Hammer Drop 30" Boring Completed 11/10
Casing Left ___
Subsurface Water Data ___ Page ___
Obs. Well ___
Drilled By M. HAWKINS, P. McALOON
Mfg. Des. Drill CME 45
Inspected By: T.A. CUSTEAU
Classification By: T.A. CUSTEAU
Classification By: ___

DEPTH (Ft.)	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE RECV'Y	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
1, 2	S-1		0.0' to 2.0'	WOR 1 1 2	1 3/8" I.D. SS, NW Rod, 140# HAMMER 30" DROP. ADVANCED CASING TO 2' by SPINNING AND WASHING. CASING SETTLED 1' SAMPLED FROM 3' TO 5'	BROWN C M f SAND; trace SILT (S, NP) 6" RECOVERY
3, 4	S-2		3.0 to 5.0	13 8 9 6	1 3/8" I.D. SS, NW Rod 140# HAMMER 30" DROP ADVANCED CASING TO 5' BY SPINNING AND WASHING	GREY C M f SAND; trace SILT (S, NP) 8" RECOVERY.
5, 6	S-3		5.0 to 7.0	3 4 2 2	1 3/8" ID SS, NW Rod 140# HAMMER, 30" DROP ADVANCED CASING TO 7.0' BY SPINNING AND WASHING	SIMILAR SOILS GRADING TO f SAND; LITTLE SILT (S, NP) 8" RECOVERY.
7, 8	S-4		7.0 to 9.0	2 1 1 2	1 3/8" ID SS NW Rod 140# HAMMER, 30" DROP ADVANCED CASING TO 7.0' BY SPINNING AND WASHING.	SIMILAR SOILS TO 8.0' BROWN PEAT; POSSIBLE SILT LENSE, CONTAINED WOOD CHIPS (STRONG ODER) 8.0' to 9.0' 24" RECOVERY
9, 10	S-5		9.0 to 11.0	1 6 14 14	1 3/8" I.D. SS, NW Rod 140# HAMMER, 30" DROP	SIMILAR SOILS TO 10.0' ORANGE BROWN C M f SAND; LITTLE SILT (S, NP) 24" RECOVERY

GENERAL REMARKS: 11.0

BORING TERMINATED @ -16.2' MLW

ED MAR 58 (Test)

Boring No. FD-1

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site Hyannis Harbor Page 1 of 2 Pages

Boring No. FD-2 Desig. FD K Diam. (Casing) 3'

Co-ordinates: N 233039.0 E 935732.5

Elevation Top of Boring -7.9 ~~M.S.L.~~ MLW Hammer Wt. 140# Boring Started 11/10

Total Overburden Drilled 12.0 Feet Hammer Drop 30 Boring Completed 11/10

Elevation Top of Rock — M.S.L. Casing Left

Total Rock Drilled — Feet Subsurface Water Data Page

Elevation Bottom of Boring -19.9 ~~M.S.L.~~ MLW Obs. Well

Total Depth of Boring 12.0 Feet Drilled By M. Hawkins, P. McAlow

Core Recovered % No. Boxes Mfg. Des. Drill CME 75

Core Recovered Ft: Diam. In. Inspected By: T.A. Custeau / Y. Yatsevitch

Soil Samples 1 3/8 In. Diam. 6 No. Classification By: T.A. Custeau

Soil Samples In. Diam. No. Classification By: Y. Yatsevitch / CENED

DEPTH (Ft)	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE RECV'Y	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
1	S-1		0.0 to 2.0	WOR 3 4 5	1 3/8" ID SS, NW Rod 140# Hammer Spin and wash Casing to 2'	Grey cm f Sand; trace Silt trace f Gravel (S, NP)
3	S-2		2.0 to 4.0	8 5 4 3	1 3/8" ID SS, NW Rod 140# Hammer Spin and wash Casing to 4'	No Recovery
5	S-3		4.0 to 6.0	2 1 3 3	Ditto, Casing to 6'	Brown Black Peat w/wood chips (S, NP) 6" Recovery
7	S-4		6.0 to 8.0	2 1 2 2	1 3/8" ID SS, NW Rod, 140# Hammer Spin and wash Casing to 8'	Similar Soils; trace m f Gravel (S, NP) 6" Recovery
9	S-5		8.0 to 10.0	17 13 13 14	1 3/8" ID SS NW Rod, 140# Hammer Spin and wash Casing to 10'	Orange Brown m f Sand w/ wood Fibers at 8.0'; trace Silt (S, NP) 8" Recovery

GENERAL REMARKS:

DEPTH	CORE/SAMPLE			BLOWS PER FT / CORE REC'VY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
1'	NO.	SIZE	DEPTH RANGE			Dk. reddish (SP)
10	6		10 to 12	7	13/8" ID SS, NW Rod	Brown crse & SAND; trace m & GRAVEL; trace SILT (S,NP)
				10	140# HAMMER, 30" DROP	6" Recovery
11				10		
				10		
12					Boring terminated @ - 19.9 M.L.W.	

NED Form 58A (Test)

Boring No. FD-2

FIG NO

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site Hyannis, Mass. Page 1 of 1 Pages

Boring No. FD-3 Desig. FD-R Diam. (Casing) 3

Co-ordinates: N 230951.1 E 934665.3

Elevation Top of Boring -5.4 ~~M.S.L.~~ MLW
Total Overburden Drilled 11 Feet
Elevation Top of Rock — M.S.L.
Total Rock Drilled — Feet
Elevation Bottom of Boring -16.4 ~~M.S.L.~~ MLW
Total Depth of Boring 11.0 Feet
Core Recovered ____ % No. Boxes ____
Core Recovered ____ Ft: ____ Diam. ____ In.
Soil Samples 1 3/8 In. Diam. 5 No.
Soil Samples ____ In. Diam. ____ No.

Hammer Wt. 140 Boring Started 11/11
Hammer Drop 30" Boring Completed 11/11
Casing Left ____
Subsurface Water Data ____ Page ____
Obs. Well ____
Drilled By M. Hawkins
Mfg. Des. Drill CME 75
Inspected By: T.A. Custeau
Classification By: T.A. Custeau
Classification By: Y. Yatsevitch CENED

DEPTH (Ft.)	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE REC'VY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS Lt. to Med. Br. (SP)
	S-1		0.0 to 2.0	Hole 3 3 4	1 3/8" ID SS, NW Rod 140# Hammer, 30" drop Spin and wash casing to 2'	~~Grey~~ Mf SAND; trace SILT; trace SHELLS (S,NP) 8" Recovery
1						
2	S-2		3.0 to 5.0		Casing settled to 3'; sampled from 3 to 5'	
3				21 7 3 4	~~Grey mf SAND; trace SILT~~ 1 3/8" ID SS, NW Rod 140# Hammer, 30" drop Spin and wash casing to 5'	GREY Mf SAND; trace SILT; trace SHELLS 18" Recovery (S,NP)
4						
5	S-3		5.0 to 7.0	11 7 7 10	1 3/8" ID SS, NW Rod 140# Hammer, 30" drop Spin and wash casing to 7.0	GREY C-M f SAND; trace f GRAVEL; trace SILT (S,NP)
6						
7	S-4		7.0 to 9.0	8 6 6 6	1 3/8" ID SS, NW Rod 140# Hammer, 30" drop Spin and wash casing to 9.0'	No Recovery
8						
9			9.0 to 11.0	4 3 3 3	1 3/8" ID SS, NW Rod, 140# Hammer 30" drop.	GREY C-M f SAND; with a 3" f SAND and SILT lense @ 10' (S,NP) 18" Recovery
10						
11						

GENERAL REMARKS:

Boring terminated at -16.4' MLW

ED MAR 58 (Test)

Boring No. FD-3

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site Hyannis Harbor — Page 1 of 2 pages

Boring No. ED-4 Desig. ED-Q Diam. (Casing) 3"

Co-ordinates: N 231025.5 E 93484.5

Elevation Top of Boring -3.9 ~~M.S.L.~~ MLW — Hammer Wt. 140 — Boring Started 11/11

Total Overburden Drilled 12.0 Feet — Hammer Drop 30" — Boring Completed 11/11

Elevation Top of Rock — M.S.L. — Casing Left

Total Rock Drilled — Feet — Subsurface Water Data — Page

Elevation Bottom of Boring -15.9 ~~M.S.L.~~ MLW — Obs. Well

Total Depth of Boring 12.0 Feet — Drilled By M. Hawkins

Core Recovered % — No. Boxes — Mfg. Des. Drill CME 75

Core Recovered Ft: Diam. In. — Inspected By: T.A. Custeau

Soil Samples 1 3/8 In. Diam. 6 No. — Classification By: T.A. Custeau

Soil Samples In. Diam. No. — Classification By: Y. Yatsevitch (CENED)

DEPTH (1"=1')	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE RECV'Y	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
	S 1		0.0 to 2.0	WOR 1 1 1	1 3/8" ID SS, H.W Rod, 140# hammer 30" drop, spin and wash casing to -2'	Grey m-f SAND; trace silt; trace shells (S,NP) 2" Recovery
1, 2	S-2		2.0 to 4.0	6 6 4 4	Ditto; spin and wash casing to 4'	Similar soil, 8" Recovery
3, 4	S-3		4.0 to 6.0	5 8 7 9	Ditto; spin and wash casing to 6'	Grey m f SAND; trace silt; grading to f SAND; trace silt (S,NP) 6" Recovery
5, 6	S-4		6.0 to 8.0	12 11 14 13	Ditto; spin and wash casing to -8'	Lt. to med Br (SP) ~~Grey~~ c m f SAND; trace silt; trace shells 8" Recovery
7, 8	S-5		8.0 to 10.0	2 4 6 5	Ditto; spin and wash casing to 10'	Grey f SAND; trace silt (S,NP) 12" Recovery
9, 10						

GENERAL REMARKS:

ED FORM 58 (Test)

Boring No.

FIG NO 2B

DEPTH	CORE/SAMPLE			BLOWS PER FT / CORE REC'VY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
10	S-6		10 to 12	wtr	1 3/8" ID SS, NW Rod	GREY m-f SAND; trace SILT (S,NP)
11				2	140# Hammer, 30" Drop	
				4		
12				3		
					Boring Terminated @ -15.9' MLW	

NED Form 58A (Test)

Boring No. FD-4

FIG NO

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site Hyannis Harbor — Page 1 of 2 Pages

Boring No. FD-5 Desig. FD 0 Diam. (Casing) 3"

Co-ordinates: N 231329.2 E 935010.8

Elevation Top of Boring -5.8 ~~M.S.L.~~ MLW
Total Overburden Drilled 12 Feet
Elevation Top of Rock ____ M.S.L.
Total Rock Drilled ____ Feet
Elevation Bottom of Boring -17.8 ~~M.S.L.~~ MLW
Total Depth of Boring 12.0 Feet
Core Recovered ____ % No. Boxes ____
Core Recovered ____ Ft: ____ Diam. ____ In.
Soil Samples ____ In. Diam. ____ No.
Soil Samples ____ In. Diam. ____ No.

Hammer Wt. 140# Boring Started 11/11
Hammer Drop 30" Boring Completed 11/11
Casing Left ____
Subsurface Water Data ____ Page ____
Obs. Well ____
Drilled By M Hawkins
Mfg. Des. Drill CME 75
Inspected By: TA Custeau
Classification By: TA Custeau
Classification By: Y. Yatsevitch CENED

DEPTH (Ft)	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE RECV'Y	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
	S-1		0.0 to 2.0	WOR 1 3 3	1 3/8" ID SS, NW Rod, 140# Hammer, 30" Drop, Spin and wash casing to 2.0'	Grey c m f SAND; trace GRAVEL; trace SILT; trace Shells (S,NP) Recovery = 12"
1						
2	S-2		2.0 to 4.0	28 17 17 22	Ditto; Spin and wash casing to 4.0; casing settled to 4.7; cleaned out and sampled	No Recovery
3						
4						
	S-3		4.7 to 6.7	8 8 13 14	Ditto, Spin and wash casing to ~~8~~ 8'	Grey m f SAND; trace f GRAVEL trace SILT (S,NP) 12" Recovery
5						
6						
7	~~S-4~~					
8	S-4		8.0 to 10.0	7 11 11 11	Ditto, Spin and wash casing to 10' ~~8~~	Med to dk. Br (SP) ~~Grey~~ m f SAND; trace SILT (S,NP) 12" Recovery
9						
10						

GENERAL REMARKS:

ED FORM 1 MAR 58 (Test)

Boring No. FD-5

FIG NO 2B

DEPTH	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE RECV'Y	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
10	S-5		10.0 to 12.0	6 9 11 13	13 1/2" ID, SS, 140# HAMMER 30" DROP	No Recovery
11						
12					Boring terminated at -17.8 MLW	

NED Form 58A (Test)

Boring No. FD-5

FIG NO

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site Hyannis Harbor — Page 1 of 1 pages

Boring No. FD-6 Desig. FD-P Diam. (Casing) 3

Co-ordinates: N 231206.8 E 934966.9

Elevation Top of Boring -8.5 ~~M.S.L.~~ MLW
Total Overburden Drilled 10 Feet
Elevation Top of Rock ____ M.S.L.
Total Rock Drilled ____ Feet
Elevation Bottom of Boring -18.5 ~~M.S.L.~~ MLW
Total Depth of Boring 10 Feet
Core Recovered ____ % No. Boxes ____
Core Recovered ____ Ft. ____ Diam. ____ In.
Soil Samples 1 3/8 In. Diam. 6 No.
Soil Samples ____ In. Diam. ____ No.

Hammer Wt. 140# Boring Started 11/11/93
Hammer Drop 30" Boring Completed 11/11/93
Casing Left ____
Subsurface Water Data ____ Page ____
Obs. Well ____
Drilled By M. HAWKINS
Mfg. Des. Drill CME 75
Inspected By: T.A. CUSTEAU
Classification By: T.A. CUSTEAU
Classification By: ____

DEPTH (Ft)	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE REC'VY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
	S-1		0.0 to 2.0	WOR 1 1 3	1 3/8" ID SS, NW Rod, 140# Hammer 30" Drop. Spin and wash casing to 2.0'	Grey m-f SAND; trace SILT; trace SHELLS (S,NP) 12" Recovery
1						
2	S-2		2.0 to 4.0	7 11 14 11	Ditto; Spin and wash casing to 4'	Similar Soil 12" Recovery
3						
4	S-3		4.0 to 6.0	18 16 16 19	Ditto; Spin and wash casing to 6'	Grey m-f SAND; trace SILT (S,NP) 12" Recovery
5						
6	S-4		6.0 to 8.0	7 10 10 10	Ditto; Spin and wash casing to 8'	Similar Soil 12" Recovery
7						
8	S-5A		8.0	3	1 3/8" ID SS, NW Rod, 140# Hammer, 30" Drop	Grey SILT and CLAY varved (S,P) to 9.0' then Grey f SAND; little SILT (S,NP) 12" Recovery
9	S-5b		to 10.0	3 6 7		
10						

GENERAL REMARKS: Boring terminated at -18.5' MLW

ED ... 58 (Test)

Boring No. FD-6

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site Hyannis Harbor — Page 1 of 2 Pages

Boring No. ED-7 Desig. ED-M Diam. (Casing) 3"

Co-ordinates: N 230854.9 E 935116.5

Elevation Top of Boring -5.1 ~~M.S.L.~~ MLW
Total Overburden Drilled 12.0 Feet
Elevation Top of Rock ____ M.S.L.
Total Rock Drilled ____ Feet
Elevation Bottom of Boring -17.1 ~~M.S.L.~~ MLW
Total Depth of Boring 12.0 Feet
Core Recovered ____ % No. Boxes ____
Core Recovered ____ Ft. ____ Diam. ____ In.
Soil Samples 1 3/8 In. Diam. 6 No.
Soil Samples ____ In. Diam. ____ No.

Hammer Wt. 140 Boring Started 11/11/93
Hammer Drop 30" Boring Completed 11/11/93
Casing Left ____
Subsurface Water Data ____ Page ____
Obs. Well ____
Drilled By M. Hawkins
Mfg. Des. Drill CME 75
Inspected By: T.A. Custeau
Classification By: T.A. Custeau
Classification By: J. Yatsenko CEMED

DEPTH (Ft)	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE RECV'Y	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
	S-1		0.0	WOR	1 3/8" ID SS, NW Rod, 140# Hammer 30" drop; Spin and wash casing to 2.0'	Grey c-m f SAND; trace Silt; trace Shells (S,NP) 18" Recovery
			to	4		
1			2.0	6		
				8		
2	S-2		2.0	7	Ditto; Spin and wash casing to 4'	Lt. to med Br SAND (SP) ~~Similar Soil~~; trace f GRAVEL 12" Recovery (S,NP)
			to	8		
3			4.0	10		
				12		
4	S-3		4.0	9		
			to	10	Ditto; Spin and wash casing to 6'	Similar Soil (S,NP)
5			6.0	12		
				13		
6	S-4		6.0	6		No Recovery
			to	6	Ditto; Spin and wash casing to 8'	
7			8.0	6		
				6		
8	S-5		8.0	3		No Recovery
			to	5	Ditto; Spin and wash casing to 10'	
9			10.0	6		
10				5		

GENERAL REMARKS:

ED FORM MAR 1 58 (Test)

Boring No. ED-7

FIG NO 2B

DEPTH	CORE/SAMPLE			BLOWS PER FT / CORE RECV'Y	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
1'=	NO.	SIZE	DEPTH RANGE			
	S-6		10 to 12		1 3/8" ID SS, NW Rod 140# Hammer 30" drop, Installed A trap door Basket prior to Sampling to Improve Recovery	No Recovery
11						
12					Boring Terminated At -17.1 MLW	

NED Form 58A (Test)

Boring No. FD-7

FIG NO

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site Hyannis Harbor Page 1 of 1 Pages

Boring No. FD-8 Desig. FD-4 Diam. (Casing) 3

Co-ordinates: N 236465.6 E 936608.1

Elevation Top of Boring -9.1 ~~M.S.L.~~ MLW
Total Overburden Drilled 9.2 Feet
Elevation Top of Rock _____ M.S.L.
Total Rock Drilled _____ Feet
Elevation Bottom of Boring -18.3 ~~M.S.L.~~ MLW
Total Depth of Boring 9.2 Feet
Core Recovered _____ % No. Boxes _____
Core Recovered _____ Ft. _____ Diam. _____ In.
Soil Samples 1 3/8 In. Diam. 1 No.
Soil Samples _____ In. Diam. _____ No.

Hammer Wt. 140# Boring Started 11/2/93
Hammer Drop 30" Boring Completed 11/2/93
Casing Left _____
Subsurface Water Data _____ Page _____
Obs. Well _____
Drilled By H. HAWKINS
Mfg. Des. Drill CME 75
Inspected By: T.A. CUSTEAU
Classification By: T.A. CUSTEAU
Classification By: Y. Yatsevitch CENED

DEPTH (ft)	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE RECV'Y	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
						Med to dk Br Silty SAND
1	S-1			WEIGHT OF RODS	1 3/8" I.D. SS, NW Rod No HAMMER. SPLIT SPOON AND Rod settled 9.2' to -18.3' MLW	~~Med Black SILT, some CLAY~~; trace SHELLS; ~~trace F SAND~~ (SM) (S, SP)
2						
3						
4						
5						
6						
7						
8						
9						
					BORING TERMINATED @ -18.3' MLW	

GENERAL REMARKS: MR. Y. YATSEVITCH WAS NOTIFIED OF OUR FINDING, PRIOR TO MOVING BARGE OFF THIS HOLE.

ED MAR 58 (Test)

Boring No. _____

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site Hyannis — Page 1 of 1 Pages

Boring No. ED-9 Desig. ED-H Diam. (Casing) 3

Co-ordinates: N 235967.0 E 936547.0

Elevation Top of Boring -10.3 ~~M.S.L.~~ MLW
Total Overburden Drilled 7 Feet
Elevation Top of Rock _____ M.S.L.
Total Rock Drilled _____ Feet
Elevation Bottom of Boring -17.3 ~~M.S.L.~~ MLW
Total Depth of Boring 7.0 Feet
Core Recovered _____ % No. Boxes _____
Core Recovered _____ Ft : _____ Diam. _____ In.
Soil Samples 1 3/8 In. Diam. 2 No.
Soil Samples _____ In. Diam. _____ No.

Hammer Wt. 140# Boring Started 11/12
Hammer Drop 30" Boring Completed 11/12
Casing Left _____
Subsurface Water Data _____ Page _____
Obs. Well _____
Drilled By T.A. Costeau
Mfg. Des. Drill CME 75
Inspected By: T.A. Costeau
Classification By: T.A. Costeau
Classification By: Y. Yatsevitch CEIVED

DEPTH	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE RECV'Y	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
1	S-1			WEIGHT OF RODS	1 3/8" ID SS, NW Rod, No Hammer SS Sunk to 4.5', Spun and washed casing to 5,	Grey Black Silt, some c m f SAND; trace shells (S,SP) 12" Recovery
2						
3						
4						
5	S-2		5.0 to 7.0	5 10 15 16	1 3/8" ID SS, NW Rod 140# Hammer 30" Drop	Med to dk Br ~~Grey Brown~~ c m f SAND; trace f GRAVEL (S,NP) (SP) 6" Recovery
6						
7						

GENERAL REMARKS:

ED 1 MAR 58 (Test)

Boring No. _____

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site Hyannis Harbor — Page 1 of 1 Pages

Boring No. FD 10 Desig. FD-1 Diam. (Casing) 3"

Co-ordinates: N 236090.9 E 936180.4

Elevation Top of Boring -8.6 ~~M.S.L.~~ MLW
Total Overburden Drilled 10.3 Feet
Elevation Top of Rock _____ M.S.L.
Total Rock Drilled _____ Feet
Elevation Bottom of Boring -18.9 ~~M.S.L.~~ MLW
Total Depth of Boring 10.3 Feet
Core Recovered _____ % No. Boxes _____
Core Recovered _____ Ft. _____ Diam. _____ In.
Soil Samples 1 3/8 In. Diam. 3 No.
Soil Samples _____ In. Diam. _____ No.

Hammer Wt. 140# Boring Started 11/12/93
Hammer Drop 30" Boring Completed 11/12/93
Casing Left _____
Subsurface Water Data _____ Page _____
Obs. Well _____
Drilled By M. Hawkins
Mfg. Des. Drill CME 75
Inspected By: T.A. Custeau
Classification By: T.A. Custeau
Classification By: Y. Yatsevitch CENED

DEPTH (Ft.)	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE REC'VY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
	S-1		0.0 to 2.0	W E I G H T O F R O D S 4.7	1 3/8" ID, SS, NW Rod No Hammer Sampler and Rod Settled to 4.7', Spun and Washed Casing to 5.0'	Black Grey m-f SAND; some SILT; little Shells (S,NP) Recovery = 8"
			5.0 to 7.0	2 1 3 2	1 3/8" ID SS, NW Rod, 140# Hammer Casing Settled to 8.3 after Sampling ~~Spun and~~ Washed Casing and Sampled @ 8.3	
			8.3 to 10.3	5 10 14 13	1 3/8" ID SS, NW Rod, 140# Hammer 30" drop	Med to dk. Br ~~Black~~ c-m-f SAND; trace SILT (S,NP) 12" Recovery (SP)

GENERAL REMARKS: Boring Terminated @ -18.9' MLW

ED 1 MAR 58 (Test)

Boring No. _____

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site Hyannis Harbor — Page 1 of 2 Pages

Boring No. FD-11 Desig. FD I Diam. (Casing) 3"

Co-ordinates: N 236565.0 E 936013.9

Elevation Top of Boring -5.0 ~~M.S.L.~~ MLW
Total Overburden Drilled 11.5 Feet
Elevation Top of Rock ____ M.S.L.
Total Rock Drilled ____ Feet
Elevation Bottom of Boring -16.5 ~~M.S.L.~~ MLW
Total Depth of Boring 11.5 Feet
Core Recovered ____ % No. Boxes ____
Core Recovered ____ Ft. ____ Diam. ____ In.
Soil Samples 1 3/8 In. Diam. 5 No.
Soil Samples ____ In. Diam. ____ No.

Hammer Wt. 140 Hammer Drop ____ Casing Left ____ Subsurface Water Data ____ Page ____ Obs. Well ____ Drilled By ATL Mfg. Des. Drill ____ Inspected By: ____ Classification By: ATL Classification By: Y. Yatsevitch CENED

Boring Started 11/12/93 Boring Completed 11/12/93

DEPTH (Ft.)	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE RECVY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
	S-1		0.0 to 2.5	WEIGHT OF RODS	1 3/8 ID SS, NW Rod, No Hammer Sampler Sank to 2.5'. Spun and washed casing to 2.5'	Grey Black m-f SAND, trace SILT (S,NP) 18" Recovery
1						
2						
3	S-2		2.5 to 4.5	Rods 3	1 3/8" ID SS, NW Rod. ~~Hot~~ 140# Hammer 30" drop	Med. to dk Br ~~Similar Soils~~ w/ little Organics grading to Brown c-m-f SAND; little m-f GRAVEL; trace SILT (S,NP) (SP)
4					Casing settled to 7.5' during sampling	
5					~~Spun and~~ Washed out casing at 7.5' and sampled	
6						
7						
8	S-3A		7.5 to 9.5	2 2	1 3/8 ID SS, NW Rod 140# Hammer, Spun and washed casing to 9.5'	3A Grey Brown c-m-f SAND; some SILT; little m-f GRAVEL (S,NP)
9	S-3b			5 7		3B. Grey Brown c-m-f SAND; some m-f GRAVEL; little SILT (S,NP) 12" Recovery

GENERAL REMARKS:

ED MAR 1 58 (Test)

Boring No. FD 11

FIG NO 2B

DEPTH	CORE/SAMPLE			BLOWS PER FT / CORE RECVY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
	NO.	SIZE	DEPTH RANGE			
			9.5 To 11.5	6 10 13 18	1 3/8" ID SS, 140# HAMMER 30" DROP	Grey Brown Clay/SAND; some f GRAVEL; trace SILT (S,N?)
					Boring terminated @ -16.5' MLW	

NED Form 58A (Test)

Boring No. FD-11

FIG NO

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site Hyannis Harbor Page 1 of 1 Pages

Boring No. FD12 Desig. FD-F Diam. (Casing) 3"

Co-ordinates: N 2368276 E 936258.7

Elevation Top of Boring -6.7 ~~M.S.L.~~ MLW
Total Overburden Drilled 10.9 Feet
Elevation Top of Rock _____ M.S.L.
Total Rock Drilled _____ Feet
Elevation Bottom of Boring -17.6 ~~M.S.L.~~ MLW
Total Depth of Boring _____ Feet
Core Recovered _____ % No. Boxes _____
Core Recovered _____ Ft. _____ Diam. _____ In.
Soil Samples 1 3/8 In. Diam. 2 No.
Soil Samples _____ In. Diam. _____ No.

Hammer Wt. 140# Boring Started 11/12/93
Hammer Drop 30 Boring Completed 11/12/93
Casing Left _____
Subsurface Water Data _____ Page _____
Obs. Well _____
Drilled By M. Hawkins
Mfg. Des. Drill Cme 75
Inspected By: T.A. Custeau
Classification By: T.A. Custeau
Classification By: Y. Yatsevitch CEIVED

DEPTH (Ft.)	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE REC'VY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
	S-1		0.0 to 3.0	WEIGHT OF RODS	1 3/8" N.W Rod, No Hammer Sampler Settled to 3' After obtaining sample casing settled to 8.9	Grey Black f SAND, and SILT (S,NP) 6" Recovery
1						
2						
3						
4						
5						
6						
7						
8						
9	S-2		8.9 To 10.9	1 1 1	1 3/8" SS, 140# Hammer 30" Drop	Med to dk Br ~~Grey Black~~ m f SAND, some SILT trace Shells (S,NP) 24" Recovery (SP)
10						

GENERAL REMARKS: Boring terminated @ -17.6' MLW

ED MAR 1 58 (Test)

Boring No. _____

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site: HYANNIS HARBOR — Page 1 of 1 Pages

Boring No. FD-13 Desig. FD-E Diam. (Casing) 3 IN.

Co-ordinates: N 237265.9 E 935475.9

Elevation Top of Boring: -5.6 MLW ~~M.S.L.~~
Total Overburden Drilled: 11 Feet
Elevation Top of Rock: ~~M.S.L.~~
Total Rock Drilled: Feet
Elevation Bottom of Boring: -16.6 MLW ~~M.S.L.~~
Total Depth of Boring: 11 Feet
Core Recovered: % No. Boxes:
Core Recovered: Ft.: Diam. In.
Soil Samples: 1 3/8" In. Diam. 5 No.
Soil Samples: In. Diam. No.

Hammer Wt. 140 lb Boring Started 11-15-93
Hammer Drop 30 IN. Boring Completed 11-15-93
Casing Left
Subsurface Water Data Page
Obs. Well
Drilled By: M. HAWKINS, P. McALOON
Mfg. Des. Drill: CME 75 TRUCK MOUNT
Inspected By: T. ELDRIDGE
Classification By: T. ELDRIDGE
Classification By: Y. Yatsevitch CENED

DEPTH	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE RECV'Y	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
-5.6 0	S-1		0.0 TO 2.0	WOR 1/18	140 lb HAMMER 30 IN DROP NW ROD 1 3/8" I.D. SPLIT SPOON; SPIN/WASH 3" CASING TO -2.0'	9" RECOVERY GRAY mf SAND, Trace SILT (S, NP)
1						
2					CASING SETTLED TO -2.5'	
3	S-2		2.5 TO 4.5	2 2 4 4	140 lb HAMMER 30 IN DROP NW ROD 1 3/8" I.D. SPLIT SPOON; SPIN/WASH CASING TO -4.0'	10" RECOVERY Med to dk Br SAND (SP) ~~SIMILAR SOILS~~
4					CASING SETTLE TO -5.0 FT.	
5	S-3		5.0 TO 7.0	7 12 12 12	140 lb HAMMER 30 IN DROP NW ROD 1 3/8" I.D. SPLIT SPOON; SPIN/WASH CASING TO -7.0 FT.	20" RECOVERY SIMILAR SOILS SHELLS
6						
7	S-4		7.0 TO 9.0	4 4 4 5	140 lb HAMMER 30 IN. DROP NW ROD 1 3/8" I.D. SPLIT SPOON; SPIN/WASH CASING TO -9 FT.	6" RECOVERY GRAY-CLEAN MEDIUM SAND (SP) SHELLS (S, NP)
8						
9	S-5		9.0 TO 11.0	3 5 5 7	140 lb. HAMMER 30 IN DROP NW ROD 1 3/8" I.D. SPLIT SPOON	6" RECOVERY Lt to med. Br ~~SIMILAR SOILS~~ cmf SAND w TRACE OF GRAVEL (SP) (S, NP)
10						
11					TERMINATE BORING @ -16.6' MLW	

GENERAL REMARKS:

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site HYANNIS HARBOR Page 1 of 1 Pages

Boring No. FD-14 Desig. FD-C Diam. (Casing) 3 IN.

Co-ordinates: N 238030.4 E 935083.5

Elevation Top of Boring -6.1 ~~M.S.L.~~ MLW
Total Overburden Drilled 10 Feet
Elevation Top of Rock ~~M.S.L.~~ MLW
Total Rock Drilled Feet
Elevation Bottom of Boring -16.1 ~~M.S.L.~~ MLW
Total Depth of Boring 10 Feet
Core Recovered % No. Boxes
Core Recovered Ft. Diam. In.
Soil Samples 1 3/8 In. Diam. 4 No.
Soil Samples In. Diam. No.

Hammer Wt. 140 lb Boring Started 11/15/93
Hammer Drop 30 IN Boring Completed 11/15/93
Casing Left
Subsurface Water Data Page
Obs. Well
Drilled By MIKE HAWKINS, PAUL McALOON
Mfg. Des. Drill CME 75 TRUCK MOUNT
Inspected By: TOM ELDRIDGE
Classification By: TOM ELDRIDGE
Classification By: J. Yatsenitch CENED

DEPTH (Ft.)	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE RECV'Y	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
-6.1 0	S-1		0.0 TO 2.0	W O R	WOR = WEIGHT OF ROD SETTLED TO -2 FT. SPIN/WASH 3 IN. CASING TO -2.0 FT. CASING SETTLE TO -2.5'	1" RECOVERY GRAY-BRN cmf SAND (S, NP) 2.5
1						
2						
3	S-2		2.5 TO 4.5	1 1 1 2	140 lb HAMMER 30 IN DROP NW ROD 1 3/8" I.D. SPLIT SPOON SPIN/WASH CASING TO -5 FT.	7" RECOVERY GRAY-BLACK cmf SAND, trace GRAVEL / GRAY-BLACK ORGANIC SILT - STRATIFIED ODOR (S, NP)
4						
5	S-3		5.0 TO 7.0	W O R W O HAMMER	140 lb HAMMER 30 IN DROP NW ROD 1 3/8" I.D. SPLIT SPOON ADVANCE CASING TO -7 FT.	20" RECOVERY DARK GRAY ORGANIC SILT, SHELLS, ODOR, TRACE SAND (S, NP)
6						
7	S-4		7.0 TO 10.0	1 1 1 1	140 lb HAMMER 30 IN. DROP NW ROD 1 3/8" I.D. SPLIT SPOON	20" RECOVERY Med to dk Br silty SAND (SM)
8						
9						
10					TERMINATE BORING @ -16.1' MLW	

GENERAL REMARKS:

ENG FORM 1836 (Test)

Boring No. FD-14

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site HYANNIS HARBOR Page 1 of 1 Pages

Boring No. FD-15 Desig. FD-B Diam. (Casing) 3 IN

Co-ordinates: N 238112.6 E 934978.6

Elevation Top of Boring -7.1 MLW ~~M.S.L.~~ Hammer Wt. 140 lb Boring Started 11/15/93

Total Overburden Drilled 9 Feet Hammer Drop 30 IN Boring Completed 11/15/93

Elevation Top of Rock ____ MLW ~~M.S.L.~~ Casing Left ____

Total Rock Drilled ____ Feet Subsurface Water Data ____ Page ____

Elevation Bottom of Boring -16.1 MLW ~~M.S.L.~~ Obs. Well ____

Total Depth of Boring 9 Feet Drilled By MIKE HAWKINS, PAUL McALOON

Core Recovered ____ % No. Boxes ____ Mfg. Des. Drill CME 75 TRUCK MOUNT

Core Recovered ____ Ft. ____ Diam. ____ In. Inspected By: TOM ELDRIDGE

Soil Samples 1 3/8 In. Diam. 1 No. Classification By: T. ELDRIDGE

Soil Samples ____ In. Diam. ____ No. Classification By: Y. Yatsevitch CEIVED

DEPTH (Ft.)	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE RECVY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
-7.1 0	S-1		0.0 TO 9.2	WEIGHT OF ROD	WEIGHT OF ROD SETTLED TO -9.2 FT. 1 3/8" I.D. SPLIT SPOON SAMPLER	18" RECOVERY CLAY DARK GRAY ORGANIC ~~SILT~~ SHELL FRAGMENTS, ODOR (S, NP) (CH)
1						
2						
3						
4						
5						
6						
7						
8						
9					TERMINATE BORING @ -16.1' MLW	
10						

GENERAL REMARKS:

ENG FORM 1558 (Test) Boring No. FD-15 FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site HYANNIS HARBOR — Page 1 of 2 Pages

Boring No. FD-16 Desig. FD-A Diam. (Casing) 3 IN.

Co-ordinates: N 238266.4 E 934814.9

Elevation Top of Boring -3.8 MLW ~~M.S.L.~~ — Hammer Wt. 140 lb — Boring Started 11/15/93

Total Overburden Drilled 14 Feet — Hammer Drop 30 IN. — Boring Completed 11/15/93

Elevation Top of Rock ~~M.S.L.~~ — Casing Left

Total Rock Drilled Feet — Subsurface Water Data Page

Elevation Bottom of Boring -17.8 MLW ~~M.S.L.~~ — Obs. Well

Total Depth of Boring 14 Feet — Drilled By MIKE HAWKINS,

Core Recovered % No. Boxes — Mfg. Des. Drill CME 75 TRUCK MOUNT

Core Recovered Ft: Diam. In. — Inspected By: TOM ELDRIDGE

Soil Samples 1 3/8 In. Diam. 8 No. — Classification By: TOM ELDRIDGE

Soil Samples In. Diam. No. — Classification By: Y. Yatsevitch CENED

DEPTH (Ft.)	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE REC'VY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
-3.8 0	S-1		0.0 TO 2.0	4 4 5 6	140 lb HAMMER 30 IN. DROP NW ROD 1 3/8" I.D. SPLIT SPOON; SPIN/WASH CASING TO -2.0 FT. EASY DRILLING	10" RECOVERY GRAY-BROWN cmf SAND, TRACE GRAVEL, TRACE SILT (S, NP)
1						
2	S-2		2.0 TO 4.0	11 5 6 10	140 lb HAMMER 30 IN. DROP NW ROD 1 3/8" I.D. SPLIT SPOON	10" RECOVERY GRAY-BROWN cmf SAND, little GRAVEL grade TO mf SAND (S, NP)
3						
4	S-3A		4.0 TO 6.0	8 20 33	140 lb HAMMER 30 IN. DROP NW ROD 1 3/8" I.D. SPLIT SPOON; SPIN/WASH CASING TO -6 FT. REL. EASY DRILLING	16" RECOVERY 4 IN. GRAY mf SAND (WET, NP); 12 IN. BROWN-RUST mf SAND, TRACE SILT (S, NP)
5	S-3B			22		
6	S-4		6.0 TO 8.0	10 12 14 11	140 lb HAMMER 30 IN. DROP NW ROD 1 3/8" I.D. SPLIT SPOON; SPIN/WASH CASING TO -8 FT.	12" RECOVERY Lt. BROWN mf SAND grades TO GRAY SILT, SOME CLAY (SP-SM) (LAST 1 IN.) (CLAY IS NP)
7						
8	S-5		8.0 TO 10.0	6 6 7 10	140 lb HAMMER 18 IN. DROP NW ROD 1 3/8" I.D. SPLIT SPOON; SPIN/WASH CASING TO -10 FT.	16" RECOVERY GRAY-BROWN mf SAND, TRACE SILT (S, NP)
9						
10						

GENERAL REMARKS:

ENG FORM 1836 (Test)

Boring No. FD-16

FIG NO 2B

DEPTH (ft)	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE REC'VT	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
10	S-6		10.0 TO 12.0	11 7 8 8	140 lb HAMMER 30 IN DROP NW ROD 1 3/8" I.D. SPLIT SPOON SPIN/WASH CASING TO -12 FT.	12" RECOVERY Dk BROWN MEDIUM SAND ≈3 IN. SILT/CLAY LAYER (SP) (S, NP)
11						
12	S-7		12.0 TO 14.0	8 8 13 10	140 lb HAMMER 30 IN. DROP NW ROD 1 3/8" I.D. SPLIT SPOON	24" RECOVERY BROWN MEDIUM SAND STRATIFIED TRACE CLAY (S, NP)
13						
14					TERMINATE BORING @ -17.8' MLW	

NED FORM 58A (Test)

Boring No. FD -16

FIG NO

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site HYANNIS HARBOR Page 1 of 1 Pages

Boring No. FD-11 Desig. FD-D Diam. (Casing) 3 IN.

Co-ordinates: N 238117.4 E 934621.0

Elevation Top of Boring -7.0 mLW ~~M.S.L.~~
Total Overburden Drilled 11 Feet
Elevation Top of Rock ~~M.S.L.~~
Total Rock Drilled Feet
Elevation Bottom of Boring -18.0 mLW ~~M.S.L.~~
Total Depth of Boring 11 Feet
Core Recovered % No. Boxes
Core Recovered Ft: Diam. In.
Soil Samples 1 3/8 In. Diam. 2 No.
Soil Samples In. Diam. No.

Hammer Wt. 140 lb Boring Started 11/15/93
Hammer Drop 30 IN. Boring Completed 11/15/93
Casing Left
Subsurface Water Data Page
Obs. Well
Drilled By MIKE HAWKINS, PAUL McALOON
Mfg. Des. Drill CME 75 TRUCK MOUNT
Inspected By: TOM ELDRIDGE
Classification By: TOM ELDRIDGE
Classification By: Y. Yatsevitch CENED

DEPTH	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE REC'VY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
-7.0 0	S-1		0.0 TO 8.6	WEIGHT OF ROD	WEIGHT OF ROD – 1 3/8" I.D. SPLIT SPOON NW ROD	14" RECOVERY GRAY-BLACK SILT, ORGANIC, ODOR (S, NP)
1						
2						
3						
4						
5					CASING SETTLE TO -5.8 FT.	
6					SPIN/WASH CASING TO -8.6 FT.	
7						
8						
9	S-2		9.0 TO 11.0	WOR	CASING SETTLED TO -9.0 WEIGHT OF ROD 1 3/8" I.D. SPLIT SPOON NW ROD	18" RECOVERY Med to dk Br ~~GRAY-BLACK SILT grade~~ Silty SAND ~~TO GRAY crf SAND~~ (S, NP) (SM)
10						

GENERAL REMARKS:
11 BORING TERMINATED @ -18.0' MLW

ENG FORM 1558 (Test)

Boring No. FD-11

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site HYANNIS HARBOR Page 1 of 1 Pages

Boring No. FD-1B Desig. FD-T Diam. (Casing) 3 IN.

Co-ordinates: N 230495.3 E 933851.6

Elevation Top of Boring -8.5 MLW ~~M.S.L.~~ Hammer Wt. 140 lb Boring Started 11/16/93

Total Overburden Drilled 11.0 Feet Hammer Drop 30 IN. Boring Completed 11/16/93

Elevation Top of Rock ~~M.S.L.~~ Casing Left

Total Rock Drilled Feet Subsurface Water Data Page

Elevation Bottom of Boring -19.5 MLW ~~M.S.L.~~ Obs. Well

Total Depth of Boring 11 Feet Drilled By MIKE HAWKINS, PAUL McALOON

Core Recovered % No. Boxes Mfg. Des. Drill CME 75 TRUCK MOUNT

Core Recovered Ft. Diam. In. Inspected By: T. ELDRIDGE

Soil Samples 1 3/8 In. Diam. 5 No. Classification By: T. ELDRIDGE

Soil Samples In. Diam. No. Classification By: Y. Yatsevitch CENED

DEPTH	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE RECV'Y	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
-8.5 0	S-1		0.0 TO 2.0	W O R 1 2 1	140 lb HAMMER 30 IN DROP NW ROD 1 3/8" I.D. SPLITSPOON	3" RECOVERY GRAY cmf SAND (S, NP)
1					SPIN/WASH CASING TO -2.0 FT.	
2	S-2		2.0 TO 4.0	7 9 11 12	140 lb HAMMER 30 IN DROP NW ROD 1 3/8" I.D. SPLIT SPOON	12" RECOVERY GRAY MEDIUM SAND
3						
4	S-3		4.0 TO 6.0	7 11 14 15	140 lb HAMMER 30 IN DROP NW ROD 1 3/8" I.D. SPLIT SPOON	10" RECOVERY SIMILAR SOIL
5					SPIN/WASH CASING TO -6.0 FT.	
6					CASING SETTLED TO -6.5'	
7	S-4		6.5 TO 8.5	14 17 20 22	140 lb HAMMER 30 IN. DROP NW ROD 1 3/8" I.D. SPLIT SPOON	10" RECOVERY Lt. to med Br. SAND ~~SIMILAR SOIL~~ (SP)
8					SPIN/WASH CASING TO -8.5 FT.	
9					CASING SETTLED IN @ -9'	
10	S-5		9.0 TO 11.0	6 6 7 9	140 lb HAMMER 30 IN DROP NW ROD 1 3/8" I.D. SPLIT SPOON	NO RECOVERY
11					BORING TERMINATED @ -19.5' MLW	

GENERAL REMARKS:

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site HYANNIS HARBOR Page 1 of 1 Pages

Boring No FD-19 Desig. FD-U Diam. (Casing) 3 IN.

Co-ordinates: N 230400.7 E 933746.7

Elevation Top of Boring -7.9 ~~M.B.L.~~ MLW
Total Overburden Drilled 9 Feet
Elevation Top of Rock ~~M.S.L.~~
Total Rock Drilled Feet
Elevation Bottom of Boring -16.9 ~~M.S.L.~~ MLW
Total Depth of Boring 9 Feet
Core Recovered % No. Boxes
Core Recovered Ft : Diam. In.
Soil Samples 1 3/8 In. Diam. 4 No.
Soil Samples In. Diam. No.

Hammer Wt. 140 lb Boring Started 11/16/93
Hammer Drop 30 IN. Boring Completed 11/16/93
Casing Left
Subsurface Water Data Page
Obs. Well
Drilled By MIKE HAWKINS, PAUL McALOON
Mfg. Des. Drill CME 75 TRUCK MOUNT
Inspected By: T. ELDRIDGE
Classification By: T. ELDRIDGE
Classification By: Y. Yatsevitch CENED

DEPTH (-7.9)	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE RECV'Y	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
0	0					
	S-1		0.0 TO 2.0	W O R 2 2	140 lb HAMMER 30 IN. DROP NW ROD 1 3/8" I.D. SPLIT SPOON; SPIN/WASH CASING TO -2.0 FT.	6" RECOVERY Lt. to med. ~~GRAY~~ BRN CME SAND, TRACE GRAVEL, TRACE SILT (SP) (S, NP)
1						
2	S-2		2.0 TO 4.0	12 8 8 14	140 lb HAMMER 30 IN DROP NW ROD 1 3/8" I.D. SPLIT SPOON; SPIN/WASH CASING TO -4.0 FT; CASING SETTLED TO -5.0 FT.	12" RECOVERY GRAY MEDIUM SAND, TRACE GRAVEL (S, NP)
3						
4						
5	S-3		5.0 TO 7.0	11 6 5 6	140 lb HAMMER 30 IN DROP NW ROD 1 3/8" I.D. SPLIT SPOON; SPIN/WASH CASING TO -7.0 FT.	2" RECOVERY GRAY MC SAND, SHELL FRGMNTS (S, NP)
6						
7	S-4		7.0 TO 9.0	5 7 6 8	140 lb HAMMER 30 IN DROP NW ROD 1 3/8" I.D. SPLIT SPOON; BORING TERMINATED @ -16.9' MLW	8" RECOVERY Lt. to med. Br SAND (SP) ~~SIMILAR SAND~~
8						
9						
10						

GENERAL REMARKS:

ENG FORM 1836 (Test)

Boring No. FD-19

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site: HYANNIS HARBOR — Page 1 of 1 Pages

Boring No. FD-20 Desig. FD-V Diam. (Casing) 3IN

Co-ordinates: N 230328.6 E 933647.4

Elevation Top of Boring: -8.1 mlw ~~MSL~~
Total Overburden Drilled: 8 Feet
Elevation Top of Rock: ~~MSL~~
Total Rock Drilled: Feet
Elevation Bottom of Boring: -16.1 mlw ~~MSL~~
Total Depth of Boring: 8 Feet
Core Recovered: % No. Boxes:
Core Recovered: Ft.: Diam. In.
Soil Samples: 1 3/8 In. Diam. 3 No.
Soil Samples: In. Diam. No.

Hammer Wt. 140 lb
Hammer Drop 30IN
Casing Left
Subsurface Water Data: Page
Obs. Well
Drilled By: MIKE HAWKINS, PAUL McALOON
Mfg. Des. Drill: CME 75 TRUCK MOUNT
Inspected By: T. ELDRIDGE
Classification By: T. ELDRIDGE
Classification By: Y. Yatsenitch CENED

Boring Started: 11/16/93
Boring Completed: 11/16/93

DEPTH (Ft.)	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE RECVY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
-8.1 0	S-1		0.0	WOR	140 lb HAMMER 30IN DROP	8" RECOVERY
			TO	WOR	NW ROD 1 3/8" I.D. SPLITSPOON	GRAY CMF SAND, TRACE GRAVEL, TRACE SILT SHELLS (S, NP)
1			2.0	WOH	SPIN/WASH CASING TO -2.0 FT.	
				3		
2	S-2		2.0	4	140 lb HAMMER 30IN DROP	14" RECOVERY
			TO	7	NW ROD 1 3/8" I.D. SPLIT SPOON	Lt. to med Br. ~~GRAY~~ MEDIUM SAND (SP)
3			4.0	10	SPIN/WASH CASING	(S, NP)
				14	EASY DRILLING	
4						
5						
					CASING SETTLED TO -5.7' SPIN/WASH TO -6.0 FT.	
6	S-3		6.0	6	140 lb HAMMER 30IN DROP	12" RECOVERY
7			TO	5	NW ROD 1 3/8" I.D. SPLIT SPOON	SIMILAR SOIL TRACE GRAVEL, SHELLS
			8.0	4		
8				4	BORING TERMINATED @ -16.1' MLW	
9						
10						

GENERAL REMARKS:

ED MAR 1 58 (Test)

Boring No. FD-20

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site: HYANNIS HARBOR — Page 1 of 1 Pages

Boring No. FD-21 Desig. FD-W Diam. (Casing) 3 IN.

Co-ordinates: N 230347.7 E 933374.6

Elevation Top of Boring: -8.3 mlw ~~MSL~~
Total Overburden Drilled: 8 Feet
Elevation Top of Rock: mlw ~~MSL~~
Total Rock Drilled: Feet
Elevation Bottom of Boring: -16.3 mlw ~~MSL~~
Total Depth of Boring: 8 Feet
Core Recovered: % No. Boxes:
Core Recovered: Ft: Diam. In.
Soil Samples: 1 3/8 In. Diam. 4 No.
Soil Samples: In. Diam. No.

Hammer Wt.: 140 lb
Hammer Drop: 30 IN
Casing Left:
Subsurface Water Data: Page:
Obs. Well:
Drilled By: MIKE HAWKINS, PAUL McALOON
Mfg. Des. Drill: CME 75 TRUCK MOUNT
Inspected By: T. ELDRIDGE
Classification By: T. ELDRIDGE
Classification By: Y. Yatsevitch CENED

Boring Started: 11/16/93
Boring Completed: 11/16/93

DEPTH (ft)	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE RECVY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
-8.3 / 0	S-1		0.0 TO 2.0	W O R 2 3	140 lb HAMMER 30 IN DROP, NW ROD 1 3/8" I.D. SPLIT SPOON; SPIN/WASH CASING TO -2.0 FT. EASY DRILLING	10" RECOVERY GRAY MED SAND, TRACE SILT (S, NP)
2	S-2		2.0 TO 4.0	6 5 6 6	140 lb. HAMMER 30 IN DROP NW ROD 1 3/8" I.D. SPLIT SPOON; SPIN/WASH CASING TO -4 FT.	10" RECOVERY Med TO dk Br ~~GRAY~~ cmf SAND, TRACE GRAVEL, SHELLS (SP) (S, NP)
4	S-3		4.0 TO 6.0	9 7 5 2	140 lb HAMMER 30 IN DROP NW ROD 1 3/8" I.D. SPLIT SPOON; SPIN/WASH CASING TO -6 FT	1" RECOVERY SIMILAR SOILS @ SHELLS, ORGANICS
6	S-4		6.0 TO 8.0	3 2 1 1	140 lb HAMMER 30 IN DROP NW ROD 1 3/8" I.D. SPLIT SPOON; BORING TERMINATED @ -16.3' mlw	24" RECOVERY Med ~~to dk Br SILTY SAND~~ DARK ~~GRAY ORGANIC~~ SHELLS (SM) (S, NP)
8						
9						
10						

GENERAL REMARKS:

ENG FORM 1258 (Test)

Boring No. FD-21

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site HYANNIS HARBOR Page 1 of 1 Pages

Boring No. FD-22 Desig. FD-X Diam. (Casing) 3"

Co-ordinates: N 230279.9 E 933256.5

Elevation Top of Boring -9.5 MLW ~~MSL~~
Total Overburden Drilled 8 Feet
Elevation Top of Rock ____ MLW ~~MSL~~
Total Rock Drilled ____ Feet
Elevation Bottom of Boring -17.5 MLW ~~MSL~~
Total Depth of Boring 8 Feet
Core Recovered ____ % No. Boxes ____
Core Recovered ____ Ft. ____ Diam. ____ In.
Soil Samples 1 3/8 In. Diam. 3 No.
Soil Samples ____ In. Diam. ____ No.

Hammer Wt. 140 lb Boring Started 11/16/93
Hammer Drop 30 in Boring Completed 11/16/93
Casing Left ____
Subsurface Water Data ____ Page ____
Obs. Well ____
Drilled By MIKE HAWKINS, PAUL McALOON
Mfg. Des. Drill CME 75 TRUCK MOUNT
Inspected By: T. ELDRIDGE
Classification By: T. ELDRIDGE
Classification By: Y. Yatsevitch CENED

DEPTH (ft)	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE REC'VY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
-9.5 / 0	S-1		0.0 TO 2.0	W O R 3 5	140 lb HAMMER 30 in. DROP NW ROD 1 3/8" I.D. SPLIT SPOON SPIN/WASH CASING TO -2 FT.	10" RECOVERY GRAY CMF SAND, TRACE GRAVEL (S,NP)
1						
2	S-2		2.0 TO 4.0	11 23 14 16	140 lb. HAMMER 30 in DROP NW ROD 1 3/8" I.D. SPLIT SPOON SPIN/WASH CASING TO -4 FT. ↓	6" RECOVERY GRAY mC SAND, TRACE GRAVEL SHELLS (S,NP)
3						
4						
5					CASING SETTLED TO -5.8 FT SPIN/WASH CASING TO -6 FT.	
6	S-3		6.0 TO 8.0	9 13 15 23	140 lb HAMMER 30 in. DROP NW ROD 1 3/8" I.D. SPLIT SPOON BORING TERMINATED @ -17.5' MLW	16" RECOVERY Lt. to Med Br ~~GRAY~~ MEDIUM SAND, TRACE SILT - ORGANICS (OP) (S,NP)
7						
8						
9						
10						

GENERAL REMARKS:

ENG FORM 1836 (Test)

Boring No. FD-22

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site HYANNIS HARBOR Page 1 of 1 Pages

Boring No. FD-23 Desig. FD-5 Diam. (Casing) 3 IN.

Co-ordinates: N 231082.9 E 934722.3

Elevation Top of Boring -2.7 ~~M.S.L.~~ MLW
Total Overburden Drilled 11 Feet
Elevation Top of Rock ~~M.S.L.~~
Total Rock Drilled Feet
Elevation Bottom of Boring -13.7 ~~M.S.L.~~ MLW
Total Depth of Boring 11 Feet
Core Recovered % No. Boxes
Core Recovered Ft. Diam. In.
Soil Samples 1 3/8 In. Diam. 5 No.
Soil Samples In. Diam. No.

Hammer Wt. 140 lb Boring Started 11/16/93
Hammer Drop 30 in Boring Completed 11/16/93
Casing Left
Subsurface Water Data Page
Obs. Well
Drilled By MIKE HAWKINS, PAUL McALOON
Mfg. Des. Drill CME 75 TRUCKMOUNT
Inspected By: T. ELDRIDGE
Classification By: T. ELDRIDGE
Classification By: Y. Yatsevitch CENED

DEPTH (ft)	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE REC'VY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
-2.7' MLW 0	S-1		0.0 TO 2.0	16 5 4 4	140 lb HAMMER 30 IN DROP NW ROD 1 3/8" I.D. SPLIT SPOON; SPIN/WASH CASING TO -2 FT.; CASING SETTLED TO -2 FT.	TRACE RECOVERY GRAY cmF SAND (S, NP)
1						
2						
3	S-2		3.0 TO 5.0	8 5 7 5	140 lb. HAMMER 30 IN DROP NW ROD 1 3/8" I.D. SPLIT SPOON; SPIN/WASH CASING TO -5 FT. EASY DRILLING	10" RECOVERY GRAY mF SAND, TRACE ORGANIC SILT SHELLS (S, NP)
4						
5	S-3		5.0 TO 7.0	7 8 8 10	140 lb HAMMER 30 IN DROP NW ROD 1 3/8" I.D. SPLIT SPOON; SPIN/WASH CASING TO -7 FT.	12" RECOVERY GRAY cmF SAND (S, NP)
6						
7	S-4		7.0 TO 9.0	6 12 19 20	140 lb HAMMER 30 IN DROP NW ROD 1 3/8" I.D. SPLIT SPOON; SPIN/WASH CASING TO -9 FT.	1" RECOVERY GRAY cmF SAND, SOME GRAVEL (S, NP)
8						
9	S-5		9.0 TO 11.0	6 12 16 16	140 lb HAMMER 30 IN. DROP NW ROD 1 3/8" I.D. SPLIT SPOON	12" RECOVERY Lt to med Br ~~GRAY~~ mF SAND, TRACE GRAVEL (S, NP) (S, P)
10						
11					BORING TERMINATED @ -13.7' MLW	

GENERAL REMARKS:

ED 1 MAR 58 (Test)

Boring No. FD-23

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site HYANNIS HARBOR Page 1 of 1 Pages

Boring No. FD-24 Desig. FD-N Diam. (Casing) 3 IN.

Co-ordinates: N 231488.2 E 935045.7

Elevation Top of Boring -5.6 MLW ~~MSL~~
Total Overburden Drilled 10 Feet
Elevation Top of Rock ~~MSL~~
Total Rock Drilled Feet
Elevation Bottom of Boring -15.6 MLW ~~MSL~~
Total Depth of Boring 10 Feet
Core Recovered % No. Boxes
Core Recovered Ft : Diam. In.
Soil Samples 1 3/8 In. Diam. 5 No.
Soil Samples In. Diam. No.

Hammer Wt. 140 lb
Hammer Drop 30 IN
Casing Left
Subsurface Water Date Page
Obs. Well
Drilled By MIKE HAWKINS, PAUL McALOON
Mfg. Des. Drill CME 75 TRUCKMOUNT
Inspected By: T. ELDRIDGE
Classification By: T. ELDRIDGE
Classification By: Y. Yatsevitch

Boring Started 11/16/93
Boring Completed 11/16/93

DEPTH	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE REC'VY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
-5.6 / 0	S-1		0.0 To 2.0	W OR 2 2 2	140 lb HAMMER 30 IN. DROP NW ROD 1 3/8" I.D. SPLIT SPOON SPIN/WASH CASING TO -2 FT.	12" RECOVERY Lt to med Br. ~~GRAY~~ mf SAND, TRACE ORG SILT (S, NP) (SP)
2	S-2		2.0 To 4.0	3 16 22 19	140 lb HAMMER 30 IN. DROP NW ROD 1 3/8" I.D. SPLIT SPOON SPIN/WASH CASING TO -4 FT. EASY	15" RECOVERY GRAY MEDIUM SAND grade TO mc SAND, little mf GRAVEL (S, NP)
4	S-3		4.0 To 6.0	9 28 24 24	140 lb. HAMMER 30 IN. DROP NW ROD 1 3/8" I.D. SPLIT SPOON SPIN/WASH CASING TO -6 FT.	12" RECOVERY GRAY MEDIUM SAND (S, NP)
6	S-4		6.0 To 8.0	9 5 16 12	140 lb HAMMER 30 IN. DROP NW ROD 1 3/8" I.D. SPLIT SPOON SPIN/WASH CASING TO -8 FT.	12" RECOVERY Lt. to med Br. SAND (SP) ~~SIMILAR SOILS~~
8	S-5		8.0 To 10.0	4 6 3 5	140 lb HAMMER 30 IN DROP NW ROD 1 3/8" I.D. SPLIT SPOON BORING TERMINATED @ -15.6' MLW	12" RECOVERY SIMILAR SOILS TRACE GRAVEL
10						

GENERAL REMARKS:

ED 1 JAN 58 (Test)

Boring No. FD-24

FIG NO 2B

U. S. ARMY
CORPS OF ENGINEERS
NEW ENGLAND DIVISION

FIELD LOG OF TEST BORING

Site HYANNIS HARBOR Page 1 of 2 Pages

Boring No. FO-25X Desig. _____ Diam. (Casing) 3 IN.

Co-ordinates: N 234474.5 E 935972.0

Elevation Top of Boring -14.4 ~~M.S.L.~~ MLW
Total Overburden Drilled 23.3 Feet
Elevation Top of Rock _____ M.S.L.
Total Rock Drilled _____ Feet
Elevation Bottom of Boring -37.7 ~~M.S.L.~~ MLW
Total Depth of Boring 23.3 Feet
Core Recovered _____ % No. Boxes _____
Core Recovered _____ Ft. _____ Diam. _____ In.
Soil Samples 1 3/8 In. Diam. 3 No.
Soil Samples _____ In. Diam. _____ No.

Hammer Wt. 140 lb. Boring Started 11/17/93
Hammer Drop 30 IN. Boring Completed 11/17/93
Casing Left _____
Subsurface Water Data _____ Page _____
Obs. Well _____
Drilled By MIKE HAWKINS, PAUL McALOON
Mfg. Des. Drill CME 75 TRUCK MOUNT
Inspected By: T. ELDRIDGE
Classification By: T. ELDRIDGE
Classification By: Y. Yatsevitch CENED

DEPTH (Ft.)	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE REC'VY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
-14.4 MLW, 0						
	S-1		0.0 TO 6.1	WEIGHT OF ROD	WEIGHT OF ROD	24" RECOVERY DARK GRAY ORGANIC SILT SHELLS (S, NP)
1						
2						
3						
4					ROD SETTLED TO -6.1 FT.	
5						
6						
7					SPIN/WASH CASING TO -10 FT.	
8						
9						
10						

GENERAL REMARKS:

ED 1 MAR 58 (Test)

Boring No. FO-25

FIG NO 2B

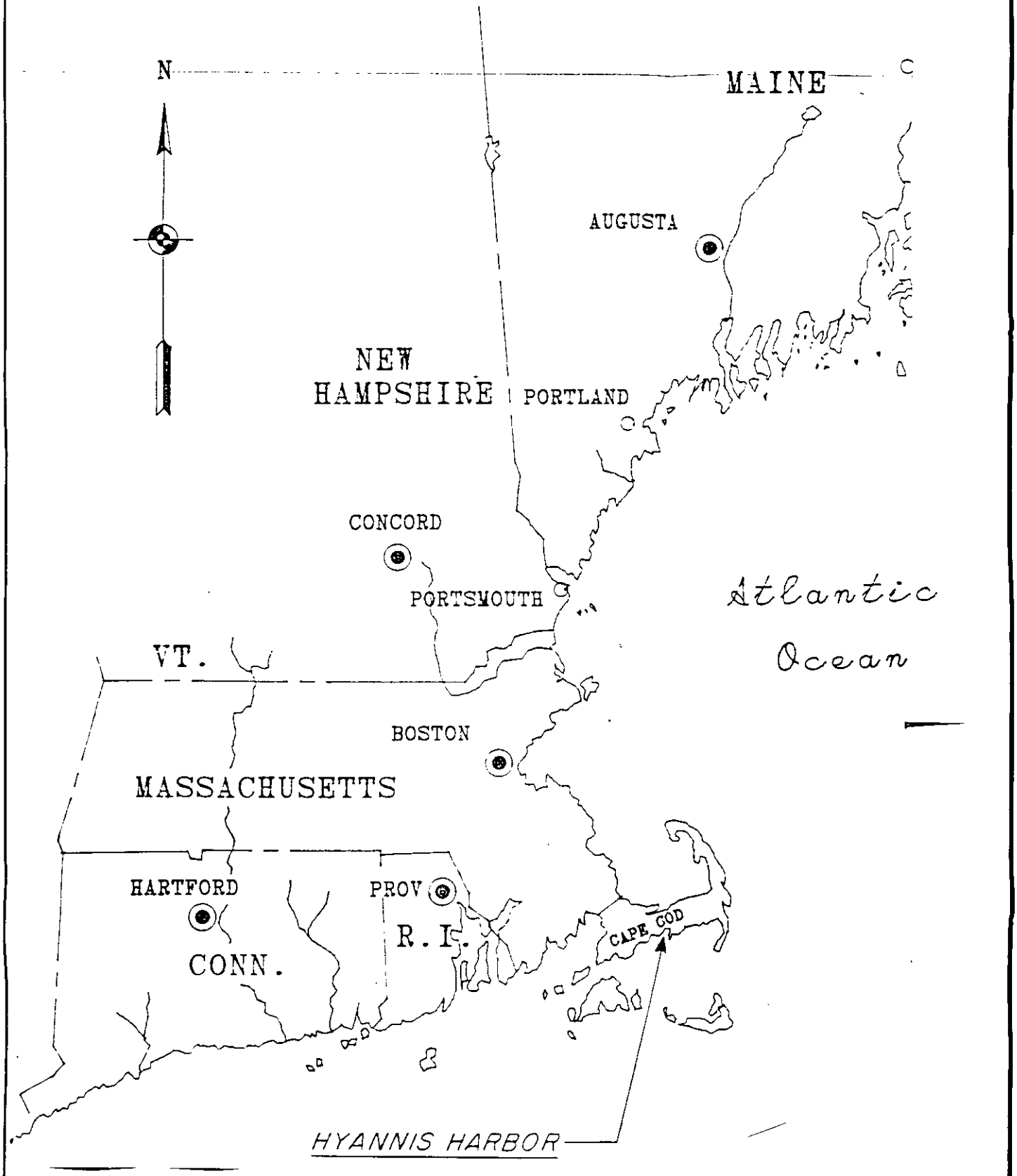
DEPTH (ft)	CORE/SAMPLE NO.	SIZE	DEPTH RANGE	BLOWS PER FT / CORE REC'VY	SAMPLING AND CORING OPERATIONS	CLASSIFICATION OF MATERIALS
10					CASING SETTLED TO -11 FT.	
11	S-2A		11.0 to 13.0	WOR	WEIGHT OF RODS 1 3/8" I.D. SPLIT SPOON SAMPLER	20" RECOVERY Med to dk Br ~~GRAY ORGANIC SILT, LITTLE FINE SAND~~ 10" silty SAND (S,NP) (SM)
12	S-2B				12.0	10" BROWN PEAT, ORGANICS NP
13						
14					SPIN/WASH CASING SINKING	
15						
16	S-3		15.0 to 23.3	WEIGHT OF RODS	SETTLED TO -19 FT. I	24" RECOVERY BROWN PEAT AND ORGANIC ~~SILT~~ (S,NP) Med to dk Br. silty SAND (SM)
17						
18						
19						
20					WEIGHT OF RODS	
21						
22						
23					BORING TERMINATED @ -37.7 MLW	
24						
25						
26						
27						

58A(Test)

Boring No. FD-25

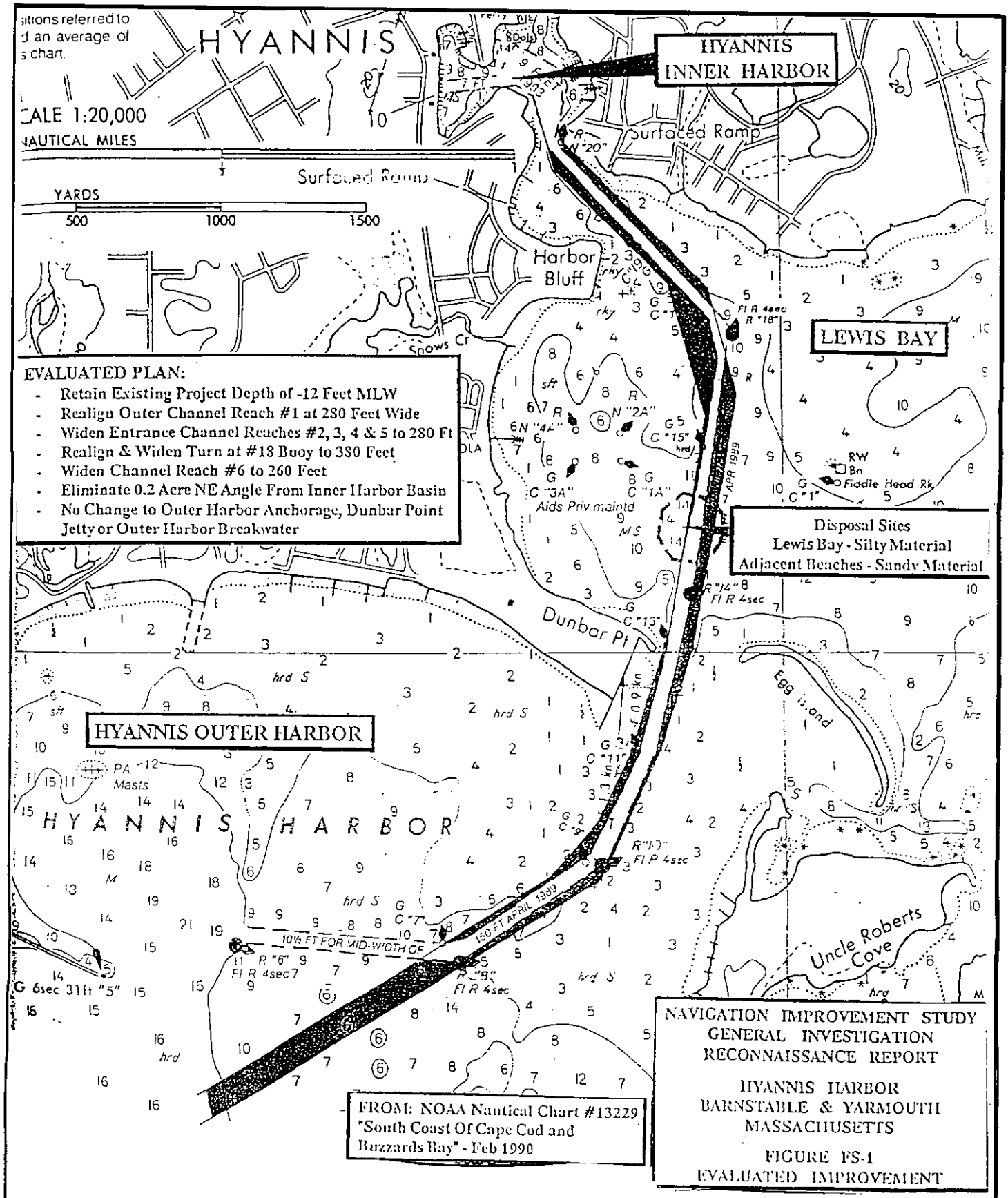
FIG NO.

C. FIGURE 1 - GENERAL PROJECT LOCATION MAP



General Project Location Map	DRAWN BY	SCALE	PROJECT No.	DATE
	NA	1"=37.5 Miles	CD044-11-93	12\7\93
New England Division – Corp of Engineers Hyannis, Massachusetts	**ATLANTIC TESTING LABORATORIES, Limited** CANTON, NY CICERO, NY ENDICOTT, NY WILLISTON, VT UTICA, NY MANCHESTER, NH			

D. FIGURE 2 - SITE LOCATION MAP



Site Location Map	DRAWN BY	SCALE	PROJECT No.	DATE
	NA	NA	CD044-11-93	12\7\93
New England Division – Corp of Engineers Hyannis, Massachusetts	**ATLANTIC TESTING LABORATORIES, Limited** CANTON, NY · CICERO, NY · ENDICOTT, NY WILLISTON, VT · UTICA, NY · MANCHESTER, NH			

E. FIGURE 3 - BORING LOCATION PLAN

ATLANTIC TESTING LABORATORIES, Limited

SUBJECT	JOB NO.	BY	DATE	SHEET
TIDAL READINGS HYANNIS HARBOR	CD 0044	L.E	11/11/93	

TIME	TIDAL READING
7:45	3.8
8:00	4.0
8:15	4.1
8:30	4.1
9:00	4.2
9:05	4.2
9:15	4.2
10:00	4.1
10:10	4.1
10:20	3.9
10:30	3.8
10:35	3.8
10:40	3.7
10:45	3.6
10:50	3.5
11:11	3.45
11:20	3.4
11:45	2.9
12:01 pm	2.7
12:15	2.55
12:30	~~1.0~~ 2.0
12:35	1.7
12:45	1.5
1:00	1.2
1:10	0.9
1:20	0.8
1:45	0.2
2:00	0.05
2:15	-0.1
2:25	-0.3
2:35	-0.4
2:45	-0.65
3:00	-0.4
3:15	-0.4
3:30	-0.1
3:45	-0.1

ATLANTIC TESTING LABORATORIES, Limited

SUBJECT	JOB NO.	BY	DATE	SHEET
TIDAL READINGS HYANNIS HARBOR	CD0044	L.E.	11/12/93	

TIME	TIDAL READING
7:10	2.9
7:15	2.9
7:30	3.1
7:50	3.2
8:00	3.4
8:10	3.6
8:20	3.8
8:35	3.8
8:50	3.10
9:00	4.0
9:20	4.1
9:30	4.3
9:45	4.3
10:00	4.4
10:15	4.25
10:30	4.2
11:00	4.2
11:05	4.1
11:15	4.5
11:40	4.5
12:10	3.2
12:40	3.1
12:50	2.3
2:15	.20
2:30	-0.30

ATLANTIC TESTING LABORATORIES, Limited

SUBJECT	JOB NO.	BY	DATE	SHEET
TIDAL READINGS HYANNIS HARBOR	CD 0044	L.E.	11/15/93	

TIME	TIDAL READING - (INTERPOLATED)
8:00	1.13
8:15	1.29
8:30	1.45
8:45	1.61
9:00	1.77
9:15	1.93
9:30	2.09
9:45	2.25
10:00	2.41
10:15	2.57
10:30	2.73
10:45	2.89
11:00	3.05
11:15	3.20
11:30	3.34
11:45	3.52
12:00	3.68
12:15	3.84
12:30	4.0
12:45	4.1
1:00	3.82
1:15	3.62
1:30	3.42
1:45	3.22
2:00	3.02
2:15	2.82
2:30	2.62
2:45	2.42
3:00	2.22
3:15	2.02
3:30	1.82
3:45	1.62
4:00	1.42
4:15	1.22
4:30	1.02

ATLANTIC TESTING LABORATORIES, Limited

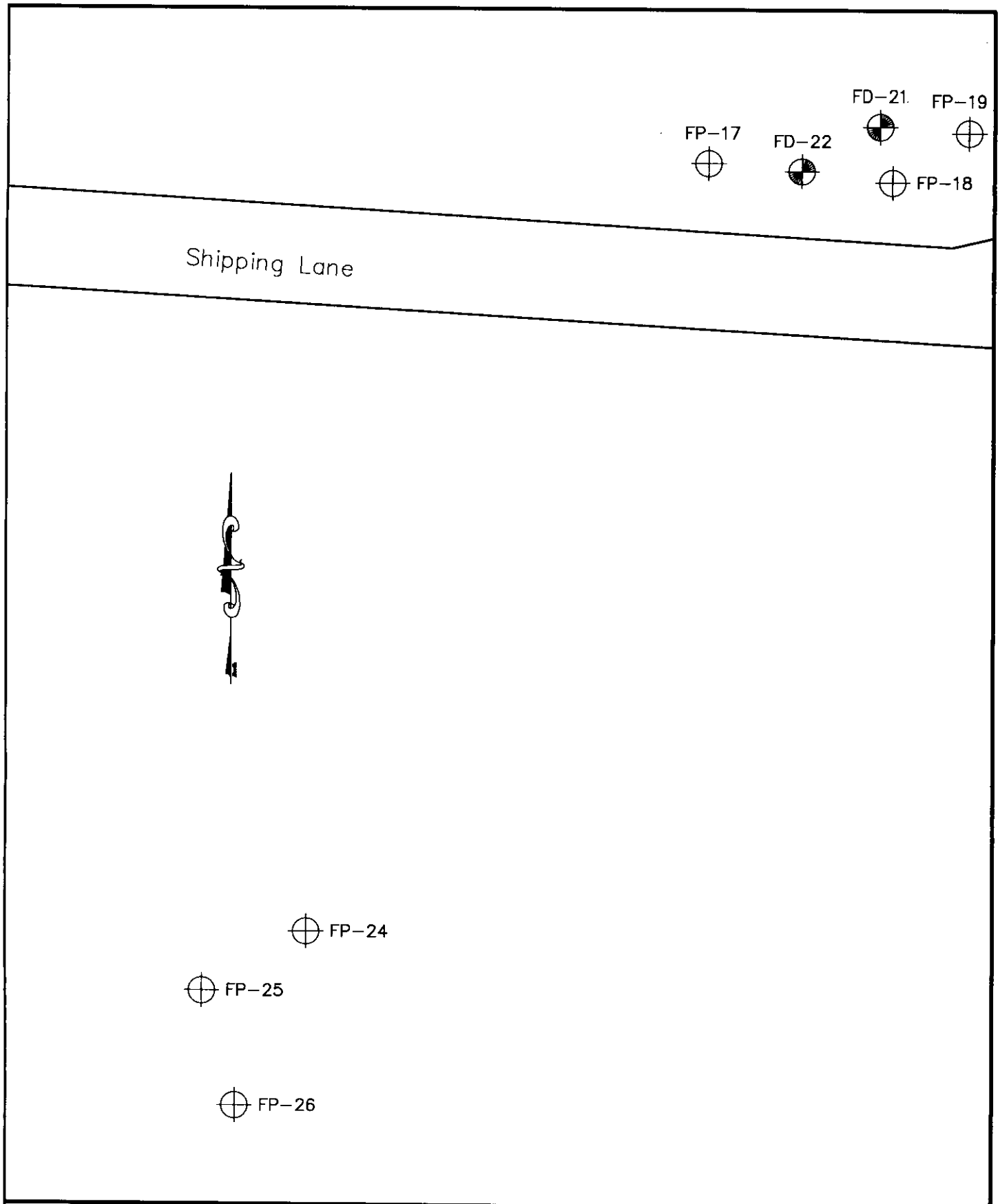
SUBJECT	JOB NO.	BY	DATE	SHEET
TIDAL READINGS HYANNIS HARBOR	CD 0044	L.E	11/16/93	

TIME	TIDAL READING
6:30	-0.10
6:50	-0.20
7:30	-0.90
7:45	-0.80
8:00	-0.50
8:20	-0.20
8:45	1.4
9:00	1.6
9:30	1.6
9:45	1.8
10:00	2.1
10:30	2.4
11:15	3.2
11:30	3.3
11:45	3.4
12:00 pm	3.6
12:30	3.8
1:00	4.1
1:15	4.3
1:30	4.3
1:45	4.3
2:10	4.2
2:20	4.1
2:30	3.9
3:00	3.6
3:15	3.6
3:45	2.1
4:00	2.8
4:15	2.75

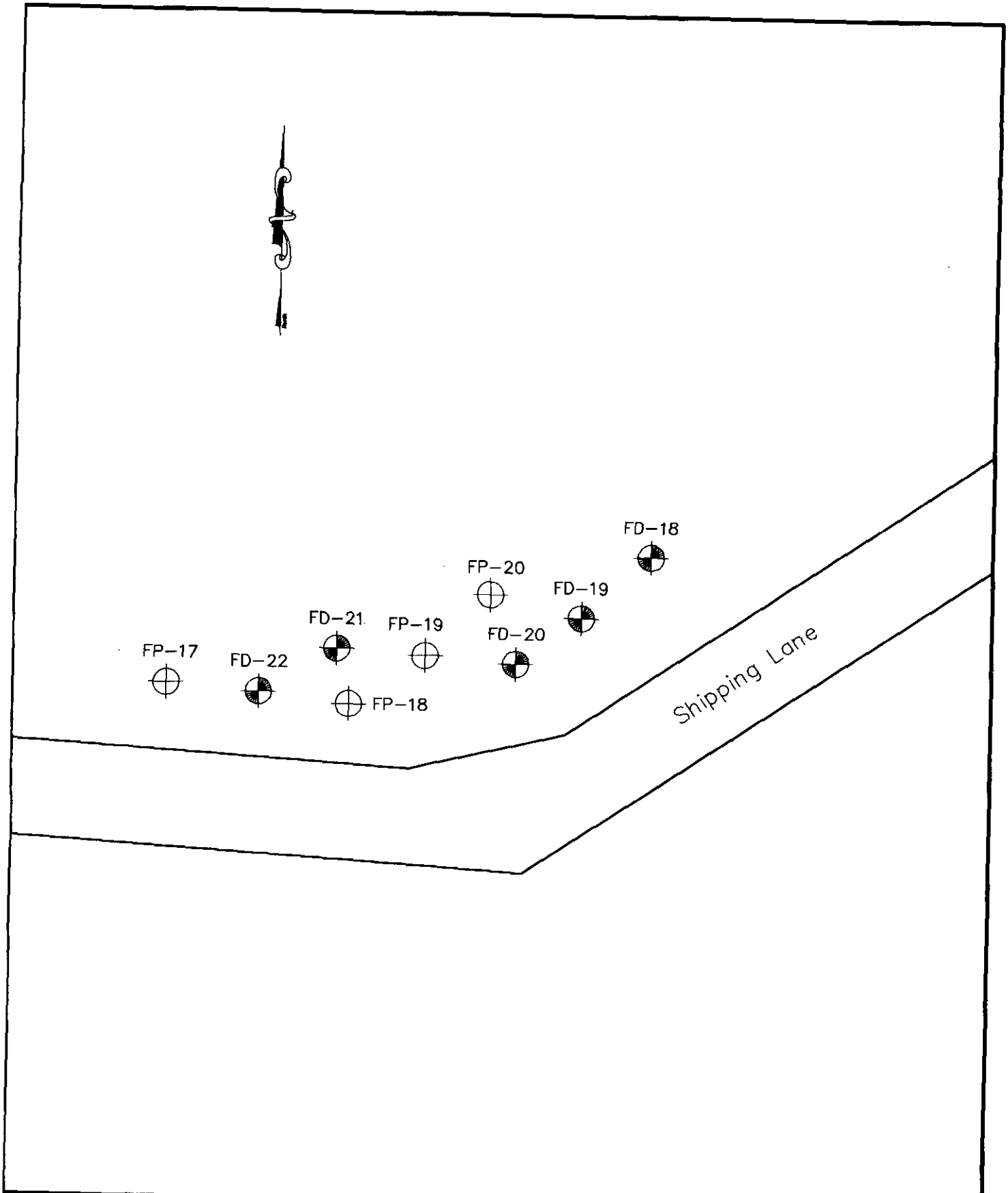
ATLANTIC TESTING LABORATORIES, Limited

SUBJECT	JOB NO.	BY	DATE	SHEET
TIDAL READINGS HYANNIS HARBOR	CD 0044	L.E	11/17/93	

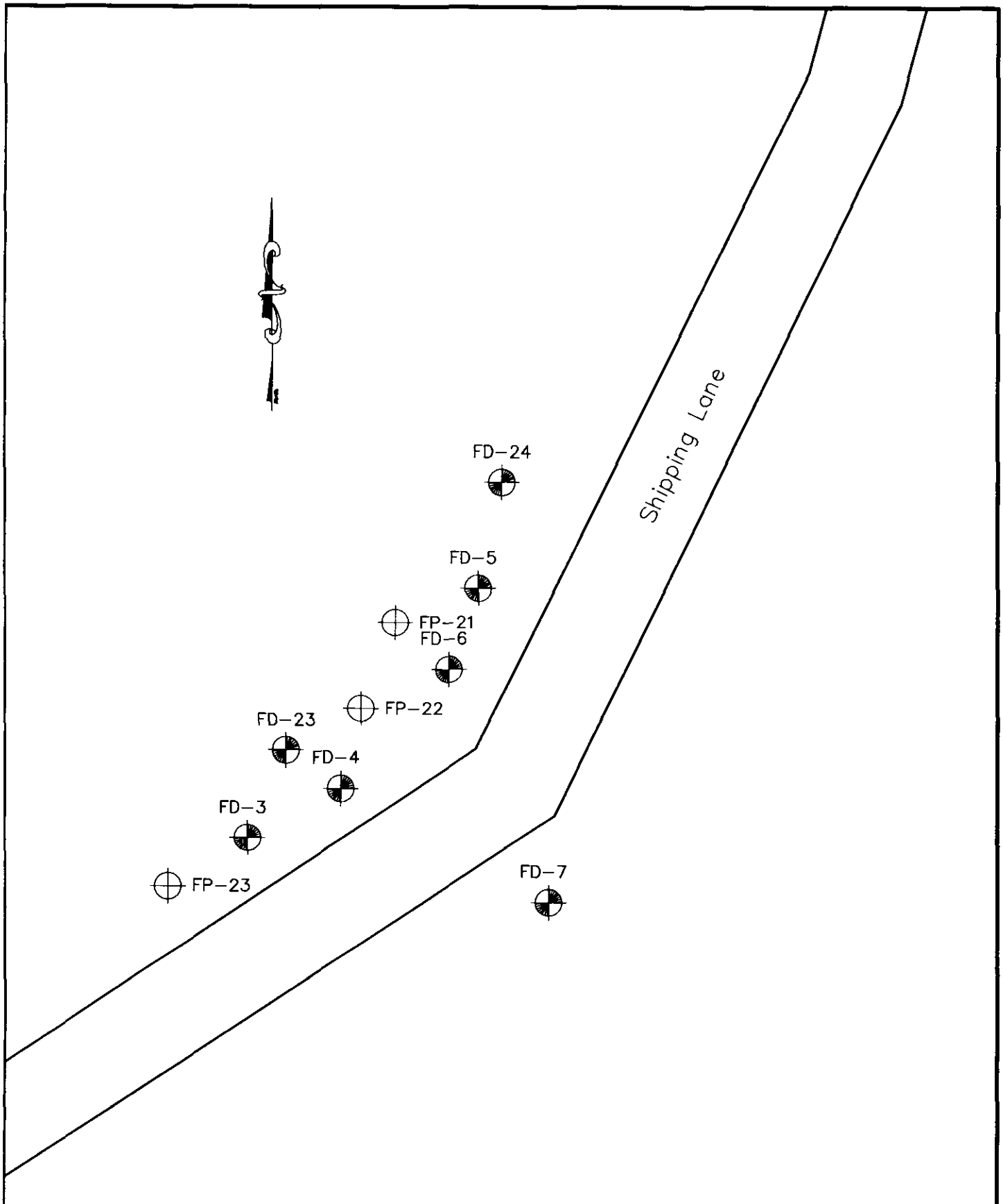
TIME	TIDAL READING
6:30	-0.20
7:00	-0.10
7:30	-0.10
8:10	0.10
8:30	0.20
8:50	0.30
9:10	0.60
9:30	0.70
9:45	0.80
10:00	0.85
10:30	0.85
11:00	0.90



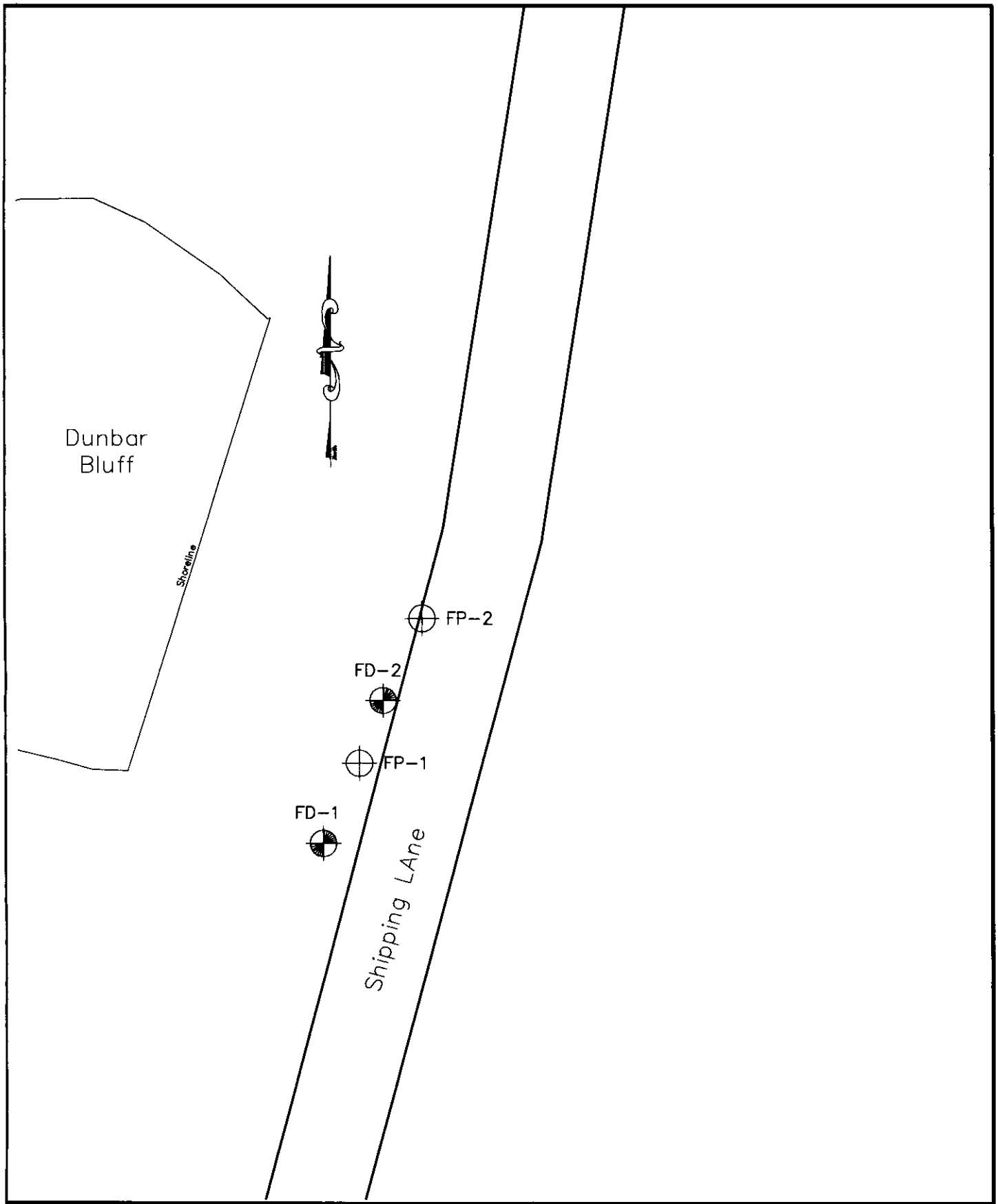
Boring Location Plan Sheet 1 of 7	DRAWN BY DHO	SCALE 1" = 200'	PROJECT No. CD044-11-93	DATE 12\7\93
New England Division – Corp of Engineers Hyannis Harbor, Massachusetts	**ATLANTIC TESTING LABORATORIES, Limited** CANTON, NY CICERO, NY ENDICOTT, NY WILLISTON, VT UTICA, NY MANCHESTER, NH			



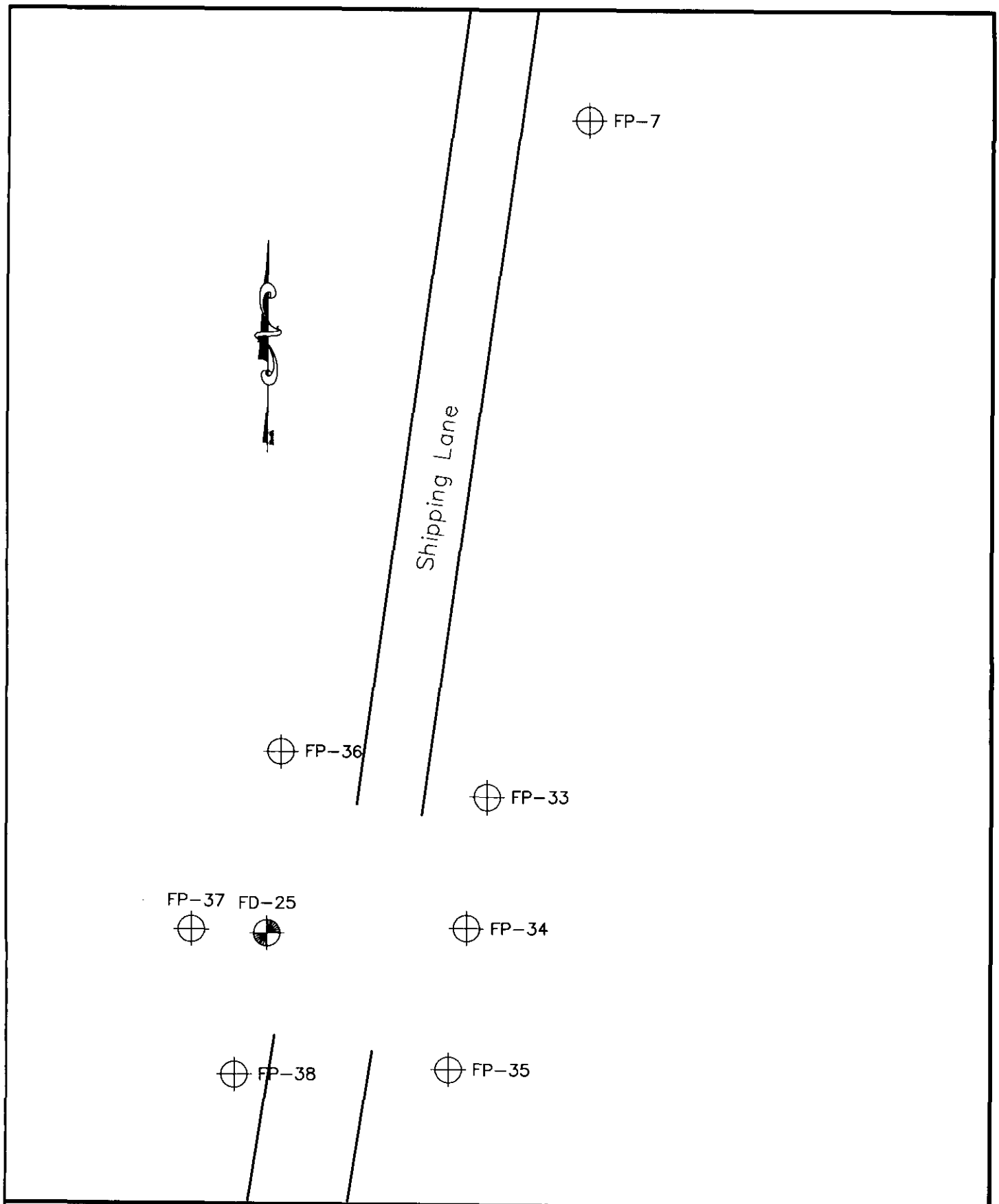
Boring Location Plan Sheet 2 of 7	DRAWN BY DHO	SCALE 1" = 200'	PROJECT No. CD044-11-93	DATE 12\7\93
New England Division – Corp of Engineers Hyannis Harbor, Massachusetts	**ATLANTIC TESTING LABORATORIES, Limited** CANTON, NY · CICERO, NY · ENDICOTT, NY WILLISTON, VT · UTICA, NY · MANCHESTER, NH			



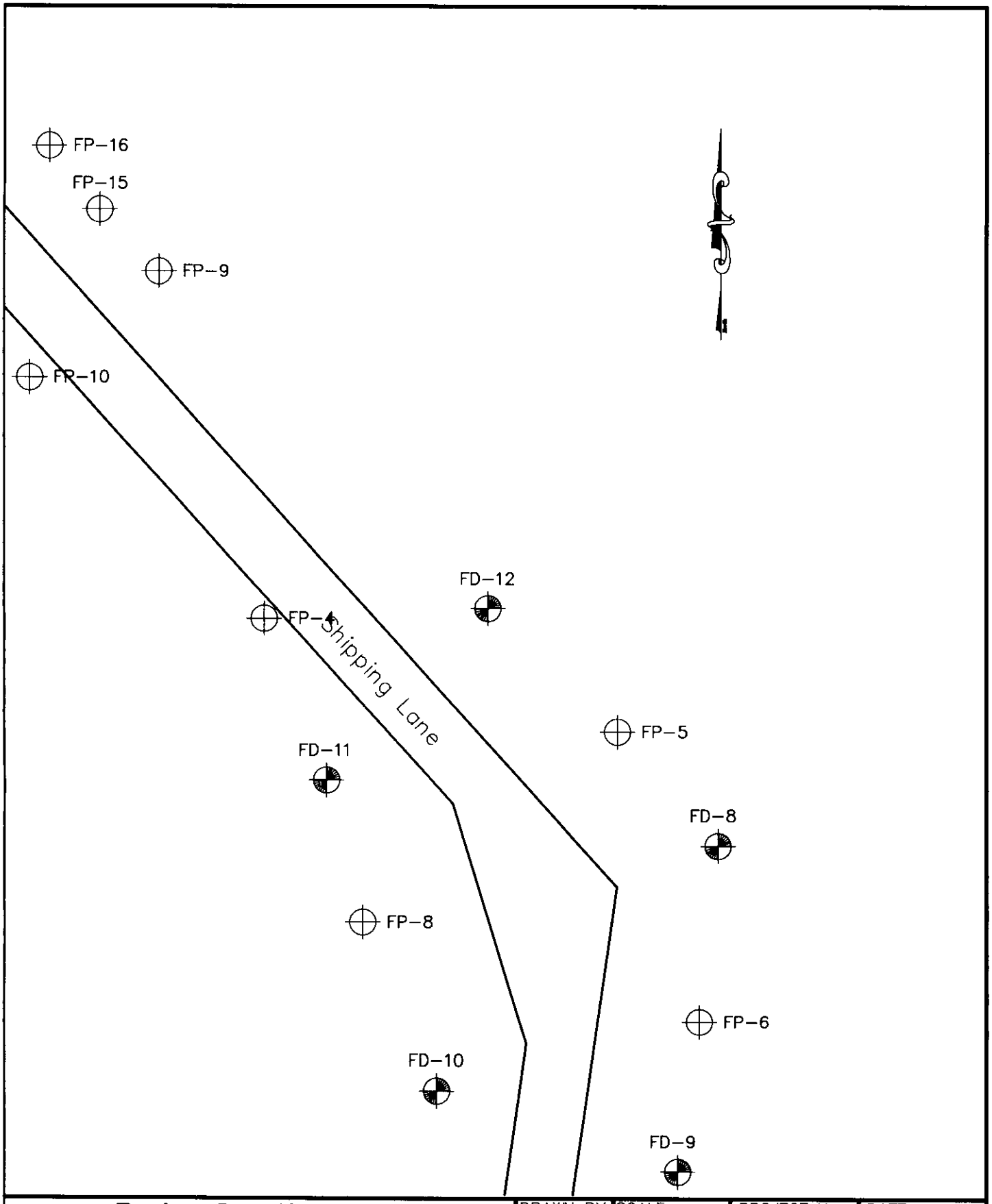
Boring Location Plan Sheet 3 of 7	DRAWN BY DHO	SCALE 1" = 200'	PROJECT No. CD044-11-93	DATE 12\7\93
New England Division – Corp of Engineers Hyannis Harbor, Massachusetts	ATLANTIC TESTING LABORATORIES, Limited CANTON, NY CICERO, NY ENDICOTT, NY WILLISTON, VT UTICA, NY MANCHESTER, NH			



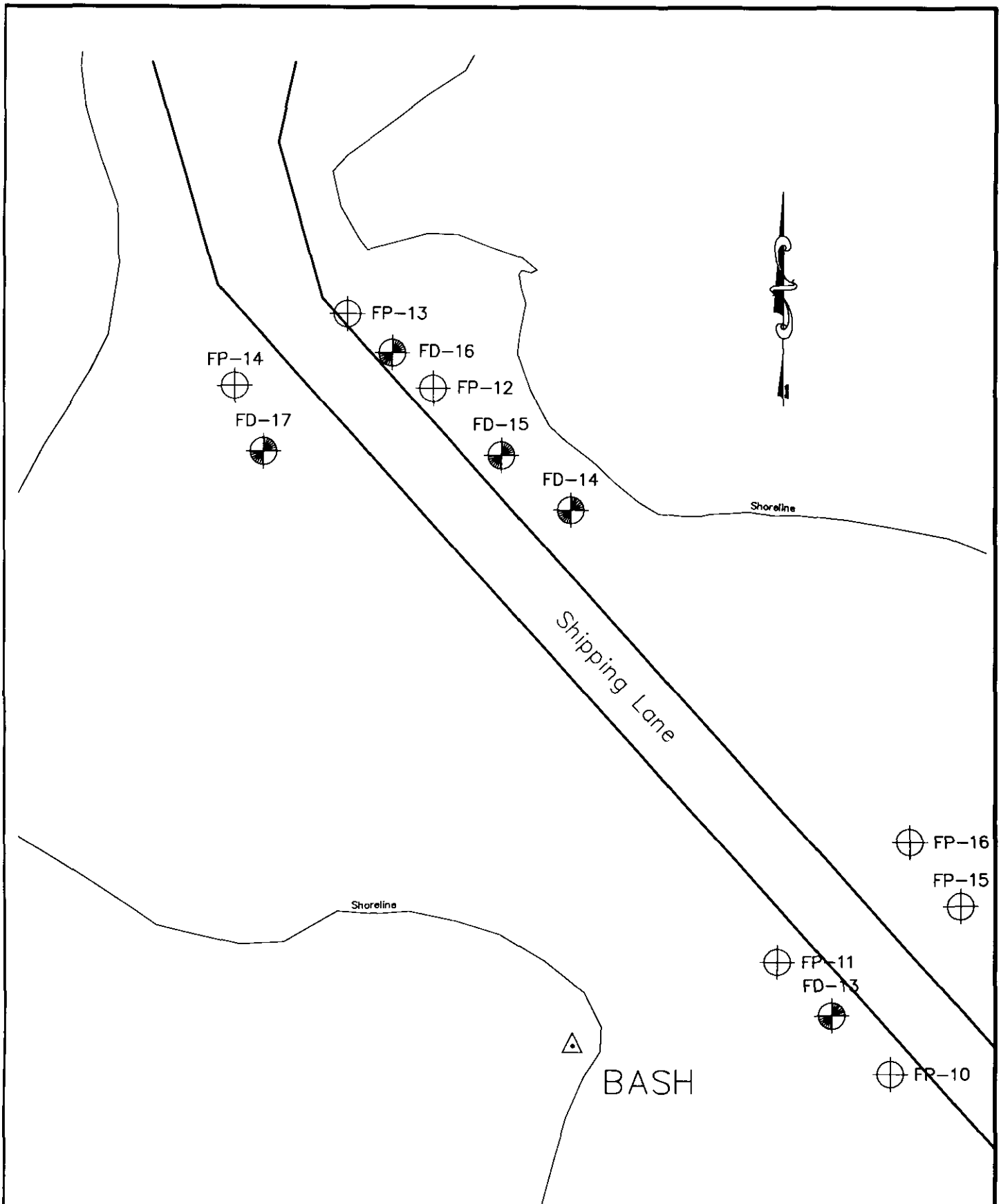
Boring Location Plan **Sheet 4 of 7**	DRAWN BY DHO	SCALE 1" = 200'	PROJECT No. CD044-11-93	DATE 12\7\93
New England Division – Corp of Engineers Hyannis Harbor, Massachusetts	**ATLANTIC TESTING LABORATORIES, Limited** CANTON, NY CICERO, NY ENDICOTT, NY WILLISTON, VT UTICA, NY MANCHESTER, NH			



Boring Location Plan Sheet 5 of 7	DRAWN BY DHO	SCALE 1" = 200'	PROJECT No. CD044-11-93	DATE 12\7\93
New England Division – Corp of Engineers Hyannis Harbor, Massachusetts	**ATLANTIC TESTING LABORATORIES, Limited** CANTON, NY CICERO, NY ENDICOTT, NY WILLISTON, VT UTICA, NY MANCHESTER, NH			



Boring Location Plan Sheet 6 of 7	DRAWN BY DHO	SCALE 1" = 200'	PROJECT No. CD044-11-93	DATE 12\7\93
New England Division – Corp of Engineers Hyannis Harbor, Massachusetts	**ATLANTIC TESTING LABORATORIES, Limited** CANTON, NY CICERO, NY ENDICOTT, NY WILLISTON, VT UTICA, NY MANCHESTER, NH			



Boring Location Plan Sheet 7 of 7	DRAWN BY DHO	SCALE 1" = 200'	PROJECT No. CD044-11-93	DATE 12\7\93
New England Division – Corp of Engineers Hyannis Harbor, Massachusetts	**ATLANTIC TESTING LABORATORIES, Limited** CANTON, NY CICERO, NY ENDICOTT, NY WILLISTON, VT UTICA, NY MANCHESTER, NH			

SECTION 9

OTHER RECORDS TAKEN

A. SURVEY NOTES

New England Army Corp of Engineers
Subsurface Investigation
Hyannis Harbor
Hyannis, Massachusetts

Current Coordinate Listing (All)

Point	Northing	Easting	Elevation	Description
500	237265.9	935475.9	.	FD-13 (DR)
501	237433.0	935670.5	.	FP-15 (DR)
502	237529.8	935593.6	.	FP-16 (DR)
503	238030.4	935083.5	.	FD-14 (DR)
504	238112.6	934978.6	.	FD-15 (DR)
505	238213.3	934876.3	.	FP-12 (DR)
506	238266.4	934814.9	.	FD-16 (DR)
507	238325.0	934747.1	.	FP-13 (DR)
508	238117.4	934621.0	.	FD-17 (DR)
509	238216.7	934578.3	.	FP-14 (DR)
510	230495.3	933851.6	.	FD-18 (DR)
511	230400.7	933746.7	.	FD-19 (DR)
512	230328.6	933647.4	.	FD-20 (DR)
513	230347.7	933374.6	.	FD-21 (DR)
514	230279.9	933256.5	.	FD-22 (DR)
515	230291.6	933115.7	.	FP-17 (DR)
516	230263.1	933393.7	.	FP-18 (DR)
517	230338.8	933509.2	.	FP-19 (DR)
518	230434.7	933607.6	.	FP-20 (DR)
519	230878.0	934545.5	.	FP-23 (DR)
520	231082.9	934722.3	.	FD-23 (DR)
521	231488.2	935045.7	.	FD-24 (DR)
522	231276.8	934885.8	.	FP-21 (DR)
523	231146.2	934835.0	.	FP-22 (DR)
524	229123.7	932511.2	.	FP-24 (DR)
525	229033.2	932354.3	.	FP-25 (DR)
526	228858.2	932404.1	.	FP-26 (DR)
527	234474.5	935972.0	.	FD-25 (DR)
528	234479.9	935857.7	.	FP-37 (DR)
529	234258.1	935923.4	.	FP-38 (DR)
530	234750.6	935993.0	.	FP-36 (DR)
531	234266.6	936247.5	.	FP-35 (DR)
532	234482.8	936274.0	.	FP-34 (DR)
533	234692.4	936296.1	.	FP-33 (DR)
549	235709.4	936456.3	.	FP-7 (DR)
550	236811.9	935919.5	.	FP-4 (DR)
551	236465.6	936608.1	.	FD-8 (DR)
552	235967.0	936547.0	.	FD-9 (DR)
553	236090.9	936180.4	.	FD-10 (DR)
554	236565.0	936013.9	.	FD-11 (DR)
555	236827.6	936258.7	.	FD-12 (DR)
556	236639.5	936455.2	.	FP-5 (DR)
557	236195.8	936579.6	.	FP-6 (DR)
558	236348.3	936068.5	.	FP-8 (DR)
559	237339.3	935759.7	.	FP-9 (DR)
560	237178.1	935564.7	.	FP-10 (DR)
561	237348.1	935394.4	.	FP-11 (DR)
562	232821.5	935642.0	.	FD-1 (DR)
563	232942.6	935696.6	.	FP-1 (DR)
564	233039.0	935732.5	.	FD-2 (DR)
565	233163.5	935791.5	.	FP-2 (DR)
566	230951.1	934665.3	.	FD-3 (DR)
567	231025.5	934804.5	.	FD-4 (DR)
568	231329.2	935010.8	.	FD-5 (DR)
569	231206.8	934966.9	.	FD-6 (DR)
570	230854.9	935116.5	.	FD-7 (DR)
571	230728.0	934918.0	.	FP-3 (DR)

B. TIDAL READINGS

a1R
a1C

Nov 1993
Hyannis Port Nantucket Sound MA
Time of High and Low Water
With level in feet above MLLW (Mean Lower Low-Water)

	Morning				Evening				
	Hi	Ft.	Lo	Ft.	Hi	Ft.	Lo	Ft.	Time
Mon Nov 1	12:57am	3.1	6:19am	0.4	1:01pm	3.4	6:51pm	0.1	EST
Tue Nov 2	1:36am	3.0	6:59am	0.4	1:40pm	3.4	7:32pm	0.1	EST
Wed Nov 3	2:16am	3.0	7:41am	0.4	2:20pm	3.3	8:14pm	0.1	EST
Thu Nov 4	2:59am	2.9	8:25am	0.5	3:04pm	3.3	8:59pm	0.1	EST
Fri Nov 5	3:46am	2.9	9:14am	0.5	3:54pm	3.2	9:50pm	0.2	EST
Sat Nov 6	4:37am	2.9	10:08am	0.5	4:47pm	3.2	10:42pm	0.2	EST
LQ¶¶SUN Nov 7	5:32am	3.0	11:05am	0.4	5:46pm	3.2	11:38pm	0.1	EST
Mon Nov 8	6:28am	3.1	(none)		6:47pm	3.2	12:05pm	0.3	EST
Tue Nov 9	7:25am	3.3	12:36am	0.1	7:48pm	3.3	1:06pm	0.1	EST
Wed Nov 10	8:20am	3.5	1:33am	0.0	8:48pm	3.4	2:05pm	-0.1	EST
Thu Nov 11	9:13am	3.7	2:28am	-0.1	9:46pm	3.5	3:03pm	-0.3	EST
Fri Nov 12	10:06am	3.9	3:21am	-0.2	10:41pm	3.6	3:58pm	-0.5	EST
NM¶¶Sat Nov 13	10:57am	4.0	4:12am	-0.2	11:35pm	3.6	4:51pm	-0.6	EST
NM¶¶SUN Nov 14	11:48am	4.1	5:04am	-0.3	(none)		5:41pm	-0.6	EST
Mon Nov 15	**12:28am**	**3.6**	**5:55am**	**-0.2**	**12:39pm**	**4.1**	**6:32pm**	**-0.6**	**EST**
Tue Nov 16	**1:20am**	**3.5**	**6:45am**	**-0.1**	**1:31pm**	**3.9**	**7:24pm**	**-0.5**	**EST**
Wed Nov 17	2:12am	3.4	7:37am	0.0	2:22pm	3.8	8:16pm	-0.3	EST
Thu Nov 18	3:04am	3.3	8:30am	0.2	3:17pm	3.6	9:09pm	-0.1	EST
Fri Nov 19	4:00am	3.1	9:23am	0.3	4:11pm	3.4	10:00pm	0.1	EST
FQ¶¶Sat Nov 20	4:56am	3.0	10:21am	0.5	5:09pm	3.2	10:56pm	0.3	EST
SUN Nov 21	5:51am	3.0	11:21am	0.5	6:09pm	3.0	11:52pm	0.4	EST
Mon Nov 22	6:50am	3.0	(none)		7:08pm	2.9	12:21pm	0.6	EST
Tue Nov 23	7:41am	3.0	12:46am	0.4	8:05pm	2.9	1:19pm	0.5	EST
Wed Nov 24	8:31am	3.1	1:38am	0.5	8:56pm	2.9	2:14pm	0.4	EST
Thu Nov 25	9:16am	3.2	2:24am	0.5	9:45pm	2.9	3:00pm	0.3	EST
Fri Nov 26	9:58am	3.2	3:09am	0.5	10:30pm	2.9	3:45pm	0.2	EST
Sat Nov 27	10:38am	3.3	3:51am	0.4	11:13pm	3.0	4:27pm	0.1	EST
SUN Nov 28	11:18am	3.4	4:33am	0.4	11:53pm	3.0	5:08pm	0.1	EST
Mon Nov 29	11:57am	3.4	5:13am	0.4	(none)		5:48pm	0.0	EST
Tue Nov 30	12:32am	3.0	5:53am	0.3	12:36pm	3.4	6:27pm	-0.0	EST

10h1230Vc1260h72vc0Pc210h72va 1620 hc0Pa 2120 hc0Pa 2620 hc0Pa 3120 hc0Pa 3620 hc0
:0Pc36h4005va 1154 hc0Pa 2154 hc0Pa 3154 hc0Pa 4154 hc0Pa 5154 hc0Pa5620hc0Pc5650h
10h 1555 vc0Pa0h 1675 vc0Pa0h 1795 vc0Pa0h 1915 vc0Pa0h 2035 vc0Pa0h 2155 vc0Pa0h