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NWS EARLE
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LETTER DOCUMENTING THE HALF DAY INVESTIGATION PERFORMED BY FOSTER
WHEELER ENVIRONMENTAL CORPORATION AT BUILDING S207 CONCERNING
DELINEATION OF EXTENT OF HEATING OIL CONTAMINATION NWS EARLE NJ
6/9/1998
FOSTER WHEELER ENVIRONMENTAL CORPORATION

**FOSTER WHEELER ENVIRONMENTAL CORPORATION**

June 9, 1998
File #: 1284-0034-98-0276

Commanding Officer
Northern Division
Naval Facilities Engineering Command
10 Industrial Highway, Mail Stop #82
Lester, PA 19113
Attn: Code 402A (P. Briegel)

Subject: US NAVY CONTRACT NO. N62472-94-D-0398
DELIVERY ORDER NO. 0034 – NWS EARLE, NJ
QUARTERS E/BUILDING S207
HEATING OIL RELEASE RESPONSE
INVESTIGATION RESULTS

Dear Mr. Briegel:

The purpose of this letter is to document the ½-day investigation performed by Foster Wheeler Environmental Corporation (FWENC) at Quarters E (Building S207) located at 306 Route 34 South on the Naval Weapons Station Earle in Colts Neck, New Jersey on 4 June 1998. This work was performed as a continuing response to Modification #3 to Delivery Order 34 dated 20 January 1998. The objective of the work was to attempt to delineate the extent of heating oil contamination both under and near the basement slab. The results of the investigation are summarized below.

Basement Floor Slab Investigation

A total of 19 holes were drilled through the concrete basement floor slab. The holes were monitored for organic vapors immediately upon removal of the drill bit by inserting the probe of an HNu several inches into the hole. The locations of the holes and the HNu readings are provided in Exhibit 1. The thickness of the concrete slab was observed to be approximately two inches with soil present immediately under the slab. Sand was encountered under the concrete except at the location of the 13 ppm HNu reading near the east basement wall where clay/silt was encountered.

In general, HNu readings were highest along the west basement wall near the french drain system. The highest reading of 500 ppm was measured at a point between the western drain access point and the floor sump. A reading of 15 ppm was recorded at the western drain access point.

Several relatively low HNu readings were recorded for holes drilled in the central/eastern area of the slab. The highest reading in this area (13 ppm) was associated with clay/silt soil encountered

immediately under the slab. A hole drilled approximately six inches east of this location encountered sandy soil and no HNu readings above background.

Hand Auger Test Holes

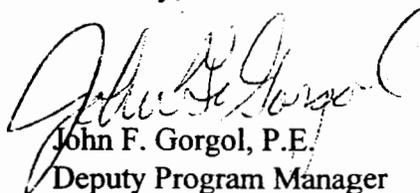
Three test holes were completed outside of the structure using a hand auger at the locations shown on Exhibit 1. Borehole logs for each hand auger hole are attached. Each hand auger hole was advanced until groundwater was encountered. The surface elevations of Hand Augers #1 and #2 were approximately 4.5' above the top of the basement slab. The surface elevation of Hand Auger #3 was approximately 2' lower than the surface elevation of Hand Augers #1 and #2.

Hand Auger #1 was located on the south side of the porch approximately 3' from the residential structure. Primarily sandy material was encountered from the ground surface to a depth of 6.5'. From 6.5' to 9.5' below the ground surface (bgs) varying amount of clay, silt and sand were present and a petroleum odor was detected. HNu readings above background were measured for the material removed from 6.5' to 9.5' bgs. No free product was present on the groundwater which was encountered at a depth of 9' bgs (measured at 8' bgs in the auger hole).

Hand Auger #2 was located on the north side of the residential structure and Hand Auger #3 was located 28' west of Hand Auger #1 near the UST. Subsurface stratigraphy encountered for these test holes was similar to Hand Auger #1. No petroleum odors or elevated HNu readings were noted for Hand Augers #2 and #3.

Please contact me if you have any questions or require any additional information. FWENC will await Navy direction regarding future remedial activities.

Sincerely,



John F. Gorgol, P.E.
Deputy Program Manager

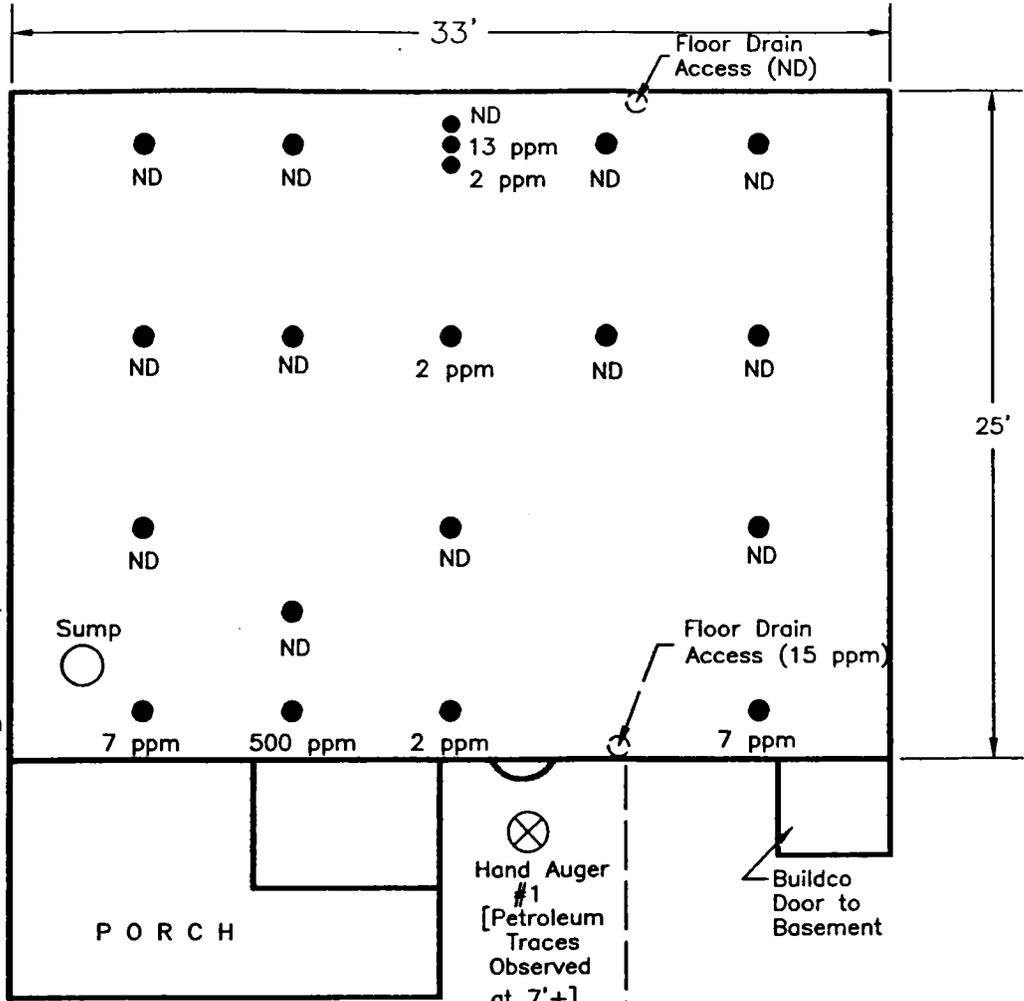
JFG/pd
Enclosure

cc: T. Dunn, Earle, ROICC
L. Burg, Earle, 043-Environmental
D. Blazak, Earle, 043-Environmental



ROUTE 34

DRIVEWAY

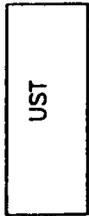


LEGEND

- Basement Core Location and HNu Reading
- ⊗ Hand Auger Location
- ND No HNu Readings Above Background

Approximate Scale: 1"=7'

NOTE: Some features are not to scale.



Hand Auger #3
 ⊗
 [No Contamination Observed]

U.S. Navy RAC Earle NWS
Exhibit 1 Quarters E/Building S207 Heating Oil Release Response Investigation Results
 FOSTER WHEELER ENVIRONMENTAL CORPORATION

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Borehole Log

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PROJECT: Quarters E - Heating Oil Release

BORING NO: #1

PROJECT LOCATION: Rt 34 NWS Earle

SURFACE ELEVATION: _____

SUBCONTRACTOR/DRILLER: N/A

DATE STARTED: 6/4/78

DATE COMPLETED: 6/4/78

DRILLING METHOD: Hand Auger

REMARKS: _____

Depth	Material Description	Remarks
0	Black and tan sand with silt, pebbles and cobbles.	No odors or HNU readings above background
4'	Tan sand	↓
5.5'	Gray sandy silt	
6.5'	Grey clay with sandy silt. Some tan sand.	
7'	Grey clay with tan sandy silt.	Definite petroleum odor, HNU reading of 0.5 ppm near cuttings.
8'	Brown clay with tan sand.	Slight petroleum odor. HNU reading of 0.5 ppm near cuttings.
9'	Brown clay with tan sand.	Water encountered at 9' depth.
9.5'	Boring terminated.	

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Borehole Log

PAGE 1 OF 1

PROJECT: Quarters E - Heating Oil Release

BORING NO: #2

PROJECT LOCATION: Rt 34 NWS Earle

SURFACE ELEVATION: _____

SUBCONTRACTOR/DRILLER: N/A

DATE STARTED: 6/4/98

DATE COMPLETED: 6/4/98

DRILLING METHOD: Hand Auger

REMARKS: _____

Depth	Material Description	Remarks
0	Black and tan sand with silt, pebbles and cobbles.	No odors or HNU readings above background.
4	Gray sandy silt.	
4.5	Tan sand	
5	Tan sandy silt	
6.5'	Gray sandy silt with tan sandy silt.	
7.5'	Tan and gray clay and silt.	
8.5'	Tan and gray clay with silt and sand	
10'	Tan and gray clay and tan sand	
10.5'	Boring terminated	

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Borehole Log

PAGE 1 OF 1

PROJECT: Quarters E - Heating Oil Release

BORING NO: #3

PROJECT LOCATION: Rt. 34 NWS Earle

SURFACE ELEVATION: _____

SUBCONTRACTOR/DRILLER: N/A

DATE STARTED: 6/4/98

DATE COMPLETED: 6/4/98

DRILLING METHOD: Hand Auger

REMARKS: _____

Depth	Material Description	Remarks
0	Black and tan sand with silt, pebbles and cobbles.	No odors or HNu readings above background.
1.5'	Tan sandy silt	
4'	Tan and gray silt with clay	
4.5'	Gray silty sand	
6'	Gray silty sand	
6.5'	Boring terminated	
		Water encountered at 6' depth.