



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
841 Chestnut Building
Philadelphia, Pennsylvania 19107-4431

OCT 16 1995

Mr. Orlando Monaco
Naval Facilities Engineering Command
Environmental Contracts Branch
10 Industrial Highway
Lester, Pennsylvania 19113

Re: Naval Air Warfare Center (NAWC), Warminster, PA

Dear Mr. Monaco:

Please find below initial EPA comments on a Proposed Subsurface Soil Investigation for Area A, as submitted by Brown & Root Environmental and dated September 7, 1995. Per our discussions, these initial comments address the eastern portion of Area A identified on the enclosed map (see Figure 1). This eastern portion of Area A includes the following features identified by EPA-EPIC: Probable Trench TR1, Ground Scar GS1, Possible Trench TR2, Mounded Material MM1 and Disturbed Ground DG1. This area also includes "Site 3" and parts of "Site 2" as described in previous RI reports. As discussed, based on the photo review and interpretation by EPA-EPIC, these "sites" virtually contiguous.

Based on RI data generated to date, identified below are the significant features of concern in the subject area and the subsurface soil sampling recommending to investigate these features (Figure 2 indicates the location of the soil borings and test pits referenced below). Note that, to date, only one subsurface soil sample has been collected and analyzed for TCL/TAL parameters from the features identified below.

1. VOCs ranging from 2 to 20 ppm were detected by HNu from 2 to 10 feet in depth in Soil Boring S3-3 during the Phase I RI. The location of this boring may potentially correspond to EPIC feature D1, the location of an alleged "burn pit", and a geophysical anomaly identified during the Phase I RI. In response, a test pit (TP1) should be conducted at this location and a soil boring (SB1) conducted about 25 feet downdip.
2. A gray, apparent sludge-like material with HNu readings ranging from 1 to 2 ppm was encountered from 3 to 8 feet in depth in Soil Boring S3-1 during Phase I RI. A soil boring (SB2) should be conducted at this location.
3. A significant geophysical anomaly was detected at the location of Possible Trench TR2. The aerial photo of

9/23/58 indicates this possible trench was approximately 125 feet long. During the Phase II RI, TCE was detected at 16 ppb in MW DG-23 and manganese was detected at 4190 ppb manganese in MW DG-2. These wells may be downgradient of TR2. To investigate TR2, two soil borings (SB3 and SB4) should be conducted through the access road and two test pits (TP2 and TP3) conducted south of the access road.

4. No exploratory soil borings were conducted between D1 and TR2 during the Phase I or Phase II RI. An aerial photo dated 9/23/58 indicates significant soil disturbance in this area. Two soil borings (SB5 and SB6) should be conducted through the access road between D1 and TR2.
5. Mounded material was noted to be present immediately west of TR2 in the photo of 9/23/58 (see MM1) and a photo dated 3/31/65 (see MM3). Soil borings should be conducted within the area of MM1 (see SB7) and MM3 (see SB8).
6. Benzene was detected in soil gas at levels of up to 1510 ppm at three consecutive sample stations along the fence line about 100 to 150 feet east of the guardhouse. Two soil borings (SB9 and SB10) should be conducted within this area.
7. Benzene levels of up to 510 ppb were detected in soil gas at a series of 10 sample stations along the access road west of the guardhouse. Three soil borings (SB11, SB12 and SB13) should be conducted at 25 foot intervals in the area of the highest soil gas readings.
8. No soil investigation to date has been conducted at the location of Probable Trench TR1 or Ground Scar GS1. These features may be located upgradient of the elevated benzene levels detected in soil gas along the access road west of the guardhouse. Three soil borings (SB14, SB15 and SB16) should be conducted at the estimated location of TR1/GS1 to try and locate these features and one boring (SB17) should be conducted between these features and the referenced soil gas stations along the access road.

EPA requests an opportunity to identify the actual location of the borings and test pits in the field with the Navy. As discussed, this can be accomplished after a meeting of the BCT on October 17, 1995.

While it may be assumed that there will be two subsurface soil sample depths within each soil boring, additional samples should be collected if necessary based on field observations and FID/PID readings.

The number of samples to be collected from each test pit is not identified. A minimum number of two soil samples should be

collected from each test pit. Again, additional samples should be collected as needed based on field observations and FID/PID readings. As with the soil borings, if there are no pertinent visual observations or FID/PID readings above background the sample depths should be at the soil bedrock interface and the midpoint between surface and the interface.

Due to a lack of historical TCL soil data from this area to support eliminating the analysis of certain TCL fractions, each subsurface soil sample collected should undergo analysis for volatiles, semi-volatiles and pesticides/PCBs. In addition, due to the alleged burning of wastes at the location of D1, samples collected from TP1 and SB1 should undergo analysis for dioxin isomers. Finally, due to the potential for burial of sludge from plating operations, each subsurface soil sample should be analyzed for hexavalent chromium.

Should elevated VOC levels be detected by PID/FID or a NAPL-related material is otherwise encountered while test pits or soil borings are conducted, the contingency measures to be followed be consistent with those outlined in the Area A Trench Excavation Contingency Plan and Sampling Plan for NAWC dated September 28, 1995.

Surface soil samples should be collected at the location of each soil boring and test pit referenced above and undergo full TCL/TAL analysis.

EPA looks forward to discussing these comments with the Navy as needed on October 17, 1995. Please let me know if you have any questions or comments regarding the above prior to this meeting.

Sincerely,



Darius Ostrauskas
Remedial Project Manager

cc: Kathy Davies
Andy Rola, B & V
David Kennedy, PADEP

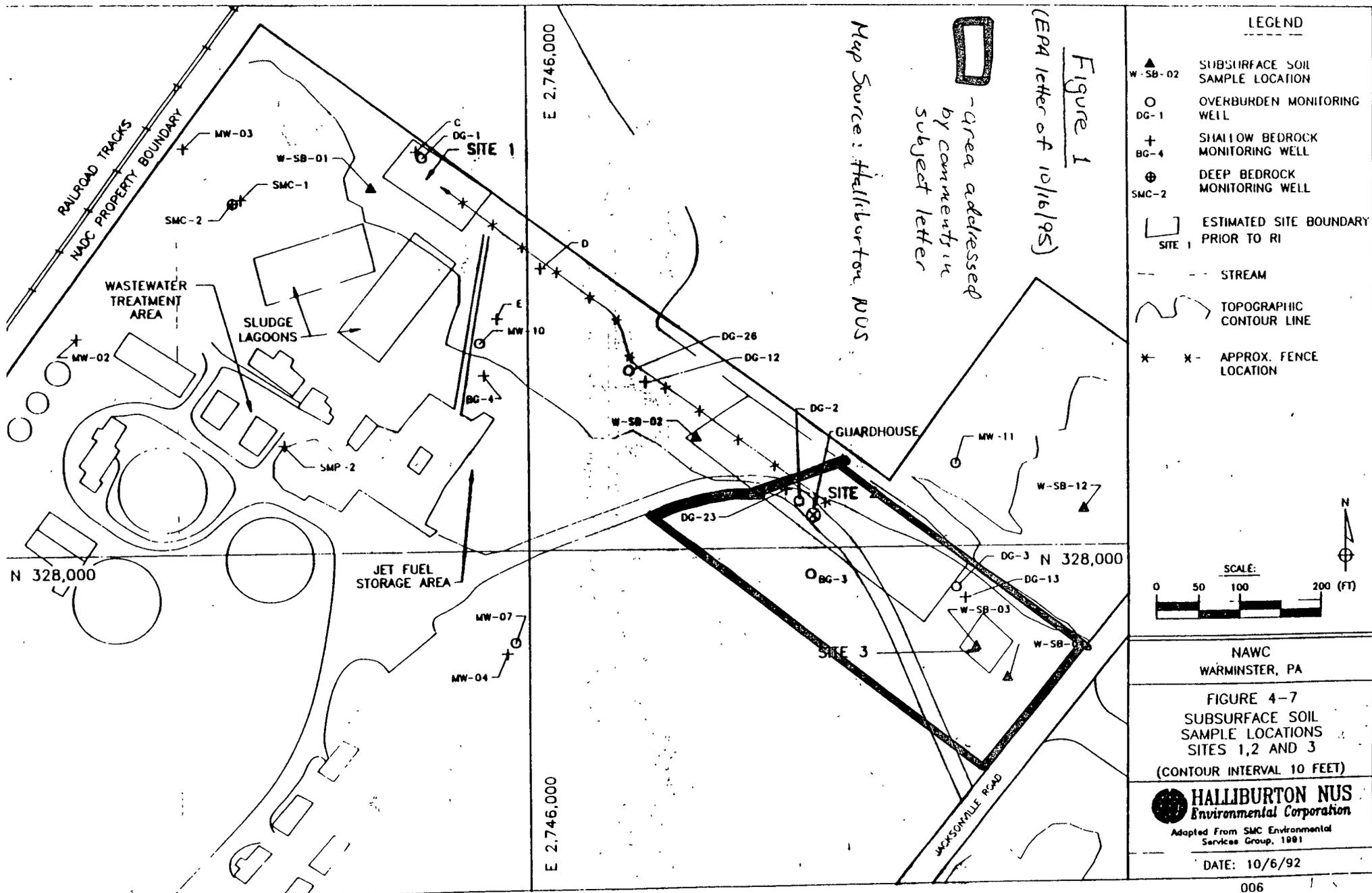


Figure 2
(letter of 10/16/95)

Key

- soil boring
- ▬ test pit

Source of Base Map:
EPIC Photo dated 3/8/90

