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TRANSMITTAL LETTER AND U S NAVY RESPONSES TO U S EPA REGION I COMMENTS
ON FINAL SAMPLING AND ANALYSIS PLAN DATA GAPS ASSESSMENT FOR TANK FARM
2 CATEGORY 1 AREAS SITE 10 NS NEWPORT RI
10/7/2013
TETRA TECH



C-NAVY-10-13-5278W

October 7, 2013

Project Number 112G03019

Ms. Kymberlee Keckler, Remedial Project Manager
U.S. EPA Region I
5 Post Office Square, Suite 100
Boston, Massachusetts 02109-3912

Reference: CLEAN Contract No. N62470-08-D-1001
Contract Task Order No. WE30

Subject: Transmittal of Response to EPA Comments, Final Sampling and Analysis Plan
Tank Farm 2, Category 1 Areas
Site 10: Tank Farm 2, NAVSTA Newport, Rhode Island

Dear Ms. Keckler:

On behalf of Mr. Roberto Pagtalunan, U.S. Navy NAVFAC, Tetra Tech is providing to you the Navy's response to EPA's comments and an errata sheet for the Final Sampling and Analysis Plan (SAP) for the site referenced above. Comments were received from the USEPA dated August 15, 2013.

Please incorporate the errata sheet into the Final SAP, following the acronyms. If you have any questions regarding this material, please do not hesitate to contact me.

Very truly yours,

A handwritten signature in blue ink, appearing to read 'Dabra I. Seiken'.

Dabra I. Seiken, CG
Project Manager

DIS/lh

Encl.

cc: R. Pagtalunan, NAVFAC (w/encl.)
P. Crump, RIDEM (w/encl.)
D. Ward, NAVSTA (w/encl.)
G. Glenn, Tetra Tech (w/o encl.)
NIRIS - RDM File (w/encl - 1)
File G03019-3.2 (w/o encl.) File G03019-8.0 (w/encl.)

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**NAVY RESPONSES TO THE ENVIRONMENTAL PROTECTION AGENCY (EPA)
COMMENTS (AUGUST 15, 2013) ON THE FINAL SAMPLING AND ANALYSIS PLAN
(SAP), DATA GAPS ASSESSMENT, TANK FARM 2, CATEGORY 1 AREAS, NAVAL
STATION NEWPORT (NOVEMBER 16, 2012)**

The Navy's responses to the EPAs (August 15, 2013) comments on the Final Sampling and Analysis Plan (July 18, 2013) for Category 1 areas of Tank Farm 2, NAVSTA, Newport, Rhode Island are presented below.

The EPA's comments are presented first in regular font and the Navy responses are presented in **bold font** following each comment.

EPA General Comments

EPA General Comment 1: Please clarify where Building 218 is located and why it was not investigated. EPA previously requested that the area around this building be sampled for PCBs and lead.

Navy Response: Building 218 is located about 200 feet west of Tank 21. Figure 2-2 from the SIRAR is included and it shows the location. RIDEM had requested additional investigation of Building 218 and the following was provided to RIDEM and EPA on 11/15/2011:

"The investigation at Building 218 included the collection and analysis of fourteen shallow soil (0' to 0.5' bgs) samples around the building. Seven of the samples were analyzed for PCBs and chlorinated benzenes. Eight of the samples were analyzed for lead. Attached is a field form from the sampling and analysis that shows the locations of the soil samples and it should be noted that all of the samples taken in close proximity to the battery pack storage area and six of the seven PCB/ chlorinated benzene samples were collected in close proximity to the transformer. The results of the analyses are presented on the attached table. PCB/ chlorinated benzenes were not detected in the samples. This indicates that PCBs have been investigated and there has not been a release in of PCBs in the vicinity of Building 218.

Lead was detected in all of the samples at concentrations below the ICDEC of 500 mg/kg. Seven of the eight samples contained lead at concentrations below the RDEC of 150 mg/kg. One sample (collected from the north side of the battery backup area) contained 200 mg/Kg lead, above the RDEC criteria of 150 mg/Kg. The lead concentrations are well below the EPA residential RSL of 400 mg/Kg. The average concentration of lead in soil samples collected in the vicinity of the battery storage area is 76 mg/kg, well below the RDEC of 150 mg/kg. Furthermore, as shown on the field form that depicts the locations of the soil samples, the extent of the RDEC exceedance is of limited extent. The magnitude and extent of lead in soil around B218 does not indicate a release of lead from the battery storage area. Therefore, Navy has completed the investigation with respect to a possible release of lead in the vicinity of Building 218."

Table 1 from the 2006 SIRAR which shows the PCB reporting limits for the non-detect soil samples collected around Building 218.

EPA General Comment 2: Figure 2 and 3 depict different locations of Site features, including the Areas of Concern (AOCs) 001 and 003. How did the Navy locate those AOCs? Which figure shows the correct locations? Please provide the supporting documentation (GPS or survey data; aerial photographs; etc.) for the locations of all four AOCs and relevant Site features. Please provide the July 2006 SIRAR (including the April 2009 Addendum 1), as it is not available on the Navy's on-line Administrative Record.

Navy Response: Figure 3 of the SAP shows the correct locations of AOCs 001 and 003. Figure 3 was created by taking the data from the SIRAR. Figure 3 from the SIRAR is attached. This figure shows AOC-001, AOC-003, AOC-004 and AOC-005 overlaid on an aerial photograph. The 2006 SIRAR will be forwarded to the EPA. The 2009 Addendum will be forwarded too. Please note however, that the 2009 Addendum is a report on a soil treatment pilot test performed for TPH-impacted soil and has nothing in it that is relevant to this SAP.

EPA General Comment 3: Soil data will be evaluated against protection of groundwater soil screening levels to determine if additional groundwater investigation is warranted.

Navy Response: Comment noted.

EPA Specific Comments (SC)

SC 1) p. 5, ¶2 EPA does agree that the Site groundwater has not been impacted by contamination. Please replace the last sentence with: "... soil to groundwater; however, soil data will be compared to EPA's protection of groundwater soil screening levels to determine if further groundwater investigation is warranted."

Navy Response: Navy believes that EPA intended to say that they do NOT agree that the Site groundwater has not been impacted. Please recall the following sequence of events. During the June 11, 2013 conference call about this issue all parties (Navy, RIDEM, USEPA, and USEPA's contractor), the Navy agreed to include the protection of groundwater SSLs (with a DAF of 20) as screening criteria, and not just in development of PSLs. In addition, all parties agreed that the email that Tetra Tech sent all parties on June 18, 2013 served as the confirmation of this agreement. Therefore, no change to the SAP is needed.

SC 2) p. 32, §11.2.2 The project screening levels (PSLs) also include the soil to air screening criteria as indicated in Worksheet 15. Also refer to the comment on Section 11.4.1. Please correct the text accordingly.

Navy Response: The EPA is correct the PSLs do include the soil to air SSLs; and this is clearly stated in the section the reviewer calls out. This section reads: "The PSLs are the lowest of the applicable human health risk-screening criteria (EPA RSLs for residential and industrial soil; *the EPA soil to air SSLs and the RIDEM RDEC*), the RIDEM leachability criteria and the selected ecological soil screening levels (SSLs), for the receptors identified in Section 10.5" Note: *Italics added for emphasis.*

SC 3) p. 34, §11.4.1 The discussion inaccurately describes the scope of the screening levels used for decision-making. The screening levels for decision-making necessarily include the soil to groundwater screening levels and the RIDEM leachability criteria in order to make the evaluations discussed in Section 11.3 regarding the potential need for groundwater sampling. Similarly, it makes little sense to have soil to air PSLs for laboratory quantitation purposes if they will not also be used to screen for air exposure risk. The differentiation between PSLs for

laboratory quantitation and screening levels for decision-making is not valid or necessary except for dioxins. Please eliminate the differentiation or explain why the Navy believes it is necessary.

Navy Response: During the June 11, 2013 conference call about this issue all parties (Navy, RIDEM, USEPA, and USEPAs contractor), the Navy agreed to include the protection of groundwater SSLs (with a DAF of 20) as screening criteria, and not just in development of PSLs. In addition, all parties agreed that the email that Tetra Tech sent all parties on June 18, 2013 served as the confirmation of this agreement. Therefore, no change to the SAP is needed. The soil to air SSLs are already part of the PSLs and part of the decision –making screening criteria (see EPA SC 2 and Navy’s response to EPA SC 2).

Pursuant to the Federal Facility Agreement (FFA), the RIDEM and the Navy entered formal dispute in 2011. As part of (Item 1) the dispute resolution, dated January 12, 2012, the Navy has discretion to use more stringent screening criteria developed by the state. In this case, the Navy has declined to use the RIDEM leachability criteria in decision making. However, the Navy has decided to use the RIDEM leachability criteria in developing PSLs. Please note that none of the RIDEM leachability criteria are lower than the EPA SSLs. There is no effect on this particular project. There is no need to change the Final SAP.

SC 4) p. 35, §11.4.2 Please replace the last sentence with: “... a standard comparison of the two data sets can be made using a 95% confidence interval.”

Navy Response: Navy is issuing an errata sheet (attached) to re-word this sentence as the USEPA requests.

SC 5) p. 40, §15 Please update the EPA Regional Screening Level reference to May 2013 and check the Section 15 values to ensure that the latest screening levels have been used. The screening level for 2,3,7,8-TCDD is 4.5 pg/g, not 4.2.

Navy Response: Navy believes that the EPA is referring to the RSL references on page 47, as there are no PSL references on page 40. The RSLs in the SAP are the May 2013 iteration. Navy is issuing an errata sheet (attached) to make this correction.

SC 6a) p. 44, §15 The table of PSLs needs to include soil to groundwater screening levels and RIDEM leachability criteria. Please explain why the Navy has differentiated between PSLs and screening levels.

Navy Response: During the June 11, 2013 conference call about this issue all parties (Navy, RIDEM, USEPA, and USEPAs contractor), the Navy agreed to include the protection of groundwater SSLs (with a DAF of 20) as screening criteria, and not just in development of PSLs. In addition, all parties agreed that the email that Tetra Tech sent all parties on June 18, 2013 served as the confirmation of this agreement. Therefore, no change to the SAP is needed.

Pursuant to the Federal Facility Agreement (FFA), the RIDEM and the Navy entered formal dispute in 2011. As part of the dispute resolution (Item 1), dated January 12, 2012, the Navy has discretion to use more stringent screening criteria developed by the state. In this case, the Navy has declined to use the RIDEM leachability criteria in decision making. However, the Navy has decided to use the RIDEM leachability criteria in developing PSLs. Please note that none of the RIDEM leachability criteria are lower than the EPA SSLs. There is no effect on this particular project.

SC6b) The level of quantitation goal for many of the PAHs is too high because ecological risk is associated with and differs for concentrations of low molecular weight and high molecular weight PAHs as a group. Consequently, the level of quantitation for the various individual PAHs needs to be sufficiently low so that as a group, if all were present, the group concentration would not exceed the screening level. For example, with seven low molecular weight PAHs, the PSL for each for ecological risk should be $29/7 = 4.1$ milligrams per kilogram (mg/kg). This value should be used as the PSL for each low molecular weight PAH unless it is superseded by another lower value based on another criterion. Similarly, the PSLs for the high molecular weight PAHs need to be reduced based on the ten PAHs in that group. The PSL for each high molecular weight PAH should be 0.11 mg/kg unless superseded by a lower value. In all cases the listed level of quantitation limits achievable by the laboratory would be sufficient for the reduced level of quantitation goals required.

Similarly, ecological risk for PCBs is based on total PCBs therefore the ecological risk PSL needs to be reduced by a factor of seven and applied to each PCB to account for the cumulative risk from multiple PCBs. The lowest of that value compared to other criteria will be used as the PSL.

Navy Response: There are no ecological criteria for the sum of the high molecular weight PAHs nor the sum of the low molecular weight PAHs in soil. Therefore, lowering the goal is not necessary.

Attached is Table 1 from the 2006 SIRAR. As shown on Table 1, historical PCB analytical results indicate that only Aroclor 1260 has been detected. Therefore, lowering the goal to plan for the possibility of detecting additional Aroclors is not necessary.

p. 50, §17 The discussion for Building 219 states that sixteen samples will be collected, but Figure 5 indicates that 20 samples will be collected including the resampling of each of the four locations previously sampled. Please clarify the intent.

Navy Response: Figure 5 does not indicate that 20 samples will be collected. Figure 5 shows that 16 samples will be collected, as indicated by the sample ID's located next to each proposed location. Sixteen samples are to be collected.

p. 51, Table 17-1 This table shows 16 total PCB samples at Building 219, so it appears that the original locations will not be resampled. The available samples should be used to

better characterize the limits of contamination and not resample locations where data exist.

Navy Response: As shown on Figure 5, the SAP indicates that two previously sampled locations will be re-sampled. These samples have sample IDs TF2-B219-SS-1080 and TF2-B219-SS-1086. Navy agrees that these could potentially be used in different locations. On behalf of the Navy, Tetra Tech sent an email to the project team on September 11, 2013 with a suggestion (based upon a RIDEM field request) about where to relocate these samples. If the team agrees to relocate samples, it will be documented in a field modification record (FMR).

Figure 5 Samples SS/SB-1080 and 1086 should be relocated to just outside the doors. To avoid confusion, the Legend description for the 2005 samples should delete the words “to be resampled,” otherwise it appears that thirteen (rather than nine) locations will be sampled. Further discussion will be required if Site characterization is compromised by moving samples because of utility restrictions.

Navy Response: Navy agrees and will move 1080 and 1086 to just outside the doors. In fact a careful review of the SIRAR indicates that the 2005 samples were collected directly outside the doors. The field copies of the Final SAP will be marked up to avoid confusion in the field regarding sample locations. On behalf of the Navy, Tetra Tech sent an email to the project team on September 11, 2013 with a suggestion (based upon a RIDEM field request) about where to relocate these samples. If the team agrees to relocate samples, it will be documented in a field modification record (FMR).

Figures 6 & 7 The Navy identified concerns with some of the proposed locations because of existing utilities. Further discussion will be required if Site characterization is compromised by moving samples because of utility restrictions.

Navy Response: There are no concerns at AOC-001 (Figure 6) with respect to underground utilities. There used to be concerns at AOC-003 (Figure 7) with respect to underground utilities. These concerns have been resolved and the locations are moved back to the locations depicted in the Final SAP. If the team agrees to relocate samples due to unanticipated field conditions, it will be documented in a field modification record (FMR) and provided to the team.

Figure 9 The sampling locations should reflect the changes that were made during the June 2013 field walk. Please update the figure with the current sample locations. None of the changes resulted from utility restrictions.

Navy Response: The changes requested by the EPA representative and RIDEM during the June 11, 2013 site walk were provided as an attachment to an email correspondence sent by Tetra Tech on behalf of the Navy on September 11, 2013. Once the minor changes identified in the email correspondence are approved by the EPA and RIDEM, the field work can commence and the minor changes will be documented in a FMR that will be provided to the team.

References Please update the EPA risk screening reference to the May 2013 document.

Navy Response: The RSLs in the SAP are the May 2013 iteration. Navy is issuing an errata sheet to correct this reference.

Errata Sheet for:

Sampling and Analysis Plan (Field Sampling Plan and Quality Assurance Project Plan), July 2013. Data Gaps Assessment, Tank Farm 2, Category 1 Areas, Naval Station Newport, Portsmouth, Rhode Island.

Prepared for: Naval Facilities Engineering Command Mid-Atlantic

Prepared by: Tetra Tech

Prepared Under: Contract Number N62470-08-D-1001,

“CLEAN” Contract Task Order No. WE30

Errata: p. 35 of 100, Section 11.4.2. Replace the part of the last sentence following the final comma with “...*a standard comparison of the two data sets can be made using a 95% confidence interval.*”

Errata: p. 47 of 100, Section 11.4.1. The reference for the EPA Regional Screening Levels (RSLs) residential and industrial soil values was EPA, May 2013 and should be corrected on this page.

Errata: In the Reference section of the document, the reference *EPA, 2010a*, the date should be corrected to be *EPA, 2013*. The referenced document remains the same because this is a publication that is periodically updated.

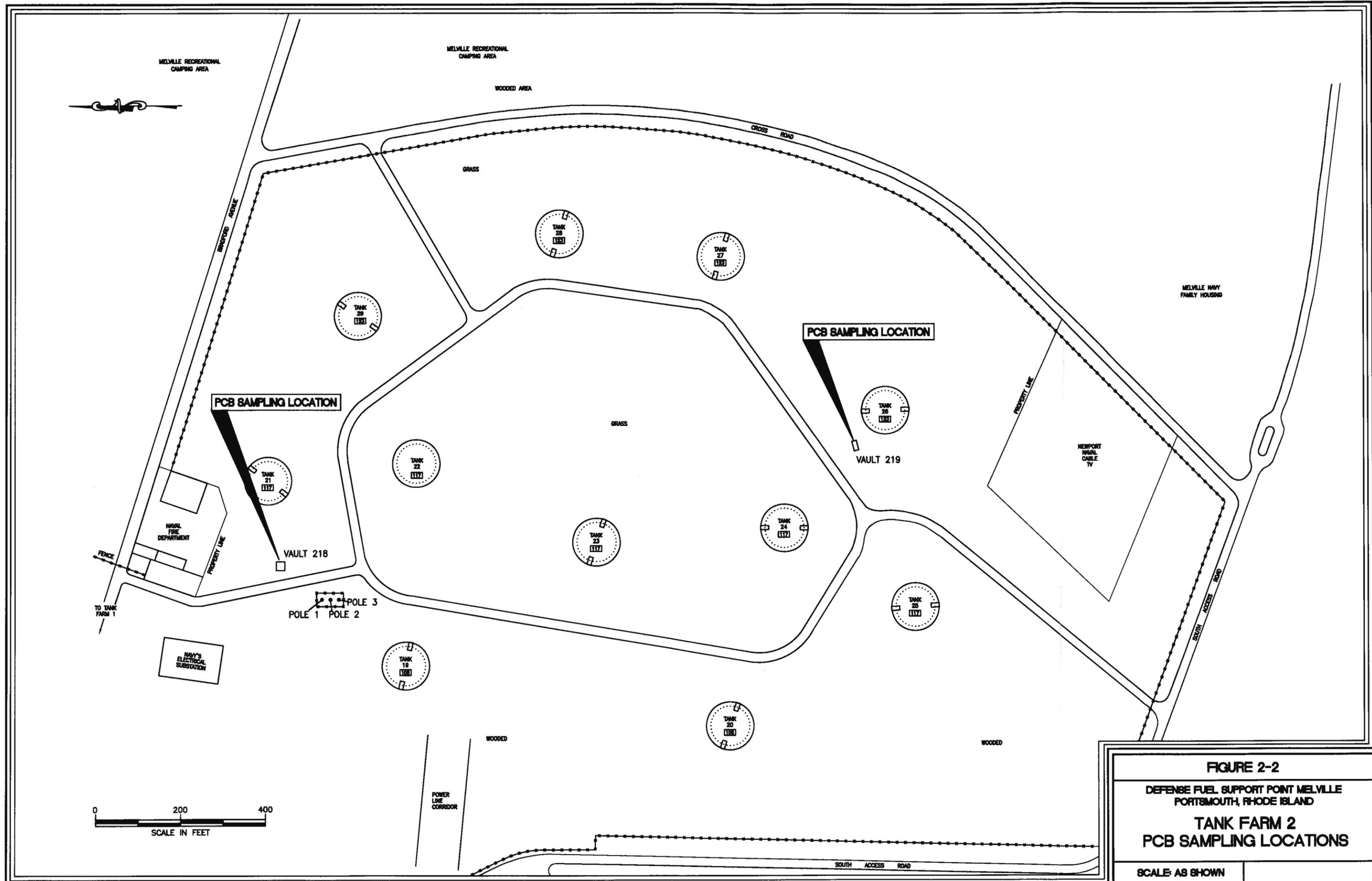


FIGURE 2-2
 DEFENSE FUEL SUPPORT POINT MELVILLE
 PORTSMOUTH, RHODE ISLAND
TANK FARM 2
PCB SAMPLING LOCATIONS
 SCALE: AS SHOWN

Legend

- 1951 Polygon Features
- 1954 Polygon Features
- 1979 Polygon Features
- Tanks and Geographic Features
- Sample Locations

HOSE / PIPE & PIT ('81)

OBN (SEPT '51)

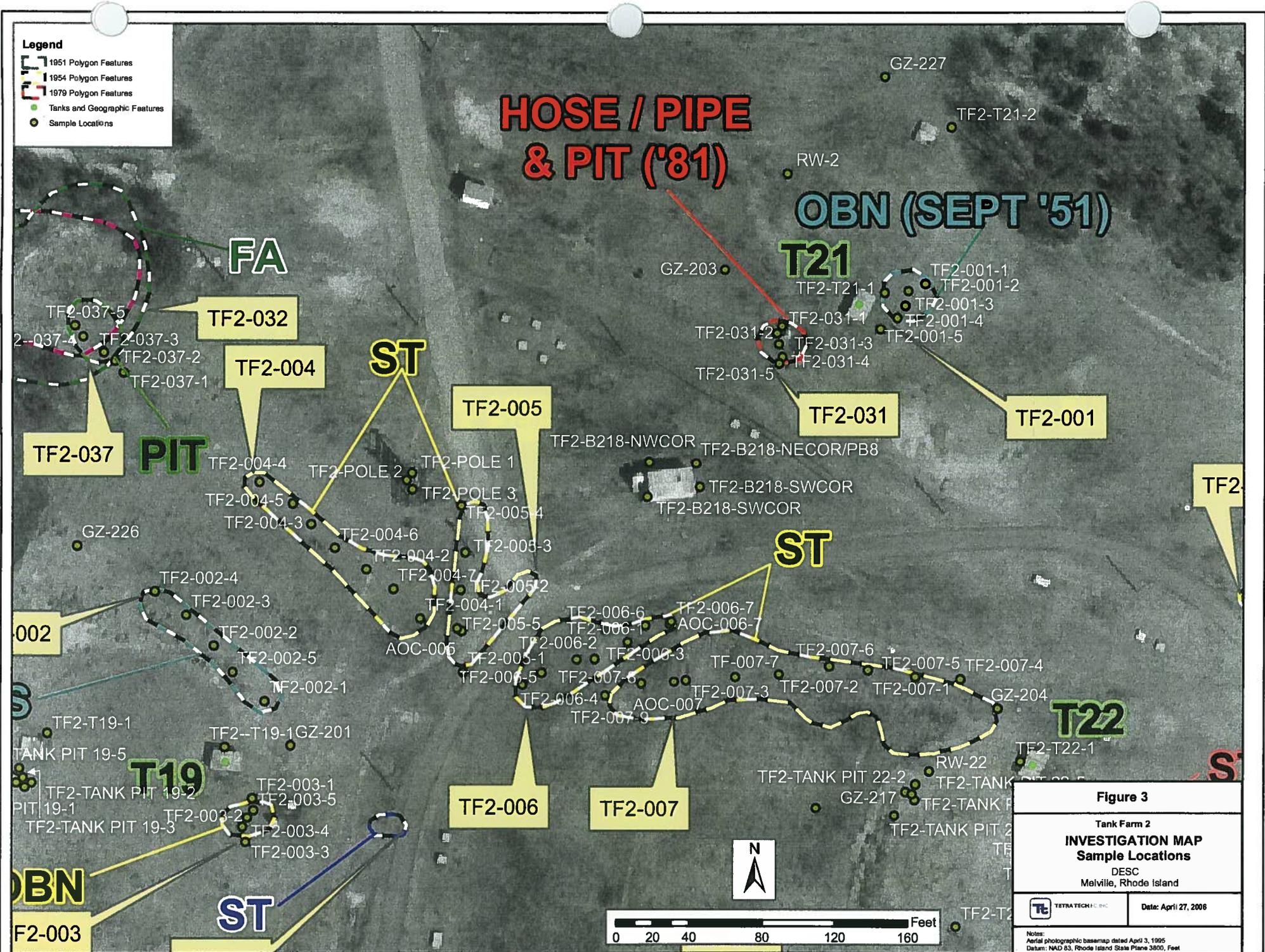


Figure 3

**Tank Farm 2
INVESTIGATION MAP
Sample Locations**

DESC
Melville, Rhode Island



Date: April 27, 2006

Notes:
Aerial photographic basemap dated April 3, 1995
Datum: NAD 83, Rhode Island State Plane 3800, Feet

