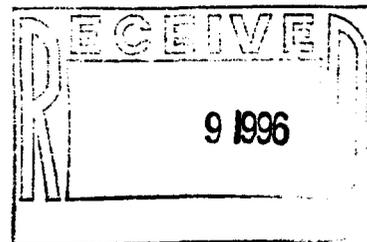




UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 4  
ATLANTA FEDERAL CENTER  
100 ALABAMA STREET, S.W.  
ATLANTA, GEORGIA 30303-3104

32501.036  
03.01.36.0031

December 2, 1996



4WD-FFB

N00204.AR.001248  
NAS PENSACOLA  
5090.3a

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Commanding officer,  
Southern Division, NAVFACENCOM  
Attn: Mr. Bill Hill (code 1851)  
P.O. Box 190010  
North Charleston, South Carolina 29419-9010

SUBJ: NAS Pensacola  
Draft Preliminary Site Characterization Report  
Site 36,

Dear Mr. Hill:

The U.S. Environmental Protection Agency (EPA) has completed its review of the above subject document. Comments are enclosed.

If you have any questions or comments, please call me at (404) 562-8538.

Sincerely,

Gene D. Townsend  
Senior Project Manager  
Federal Facilities Branch

Enclosure

cc: Ron Joyner, NAS Pensacola  
Henry Beiro/Brian Caldwell, Ensafe, Pensacola  
Allison Dennon, Ensafe, Memphis  
John Mitchell, FDEP

## 10 GENERAL COMMENTS

1. Section 2.3, Page 2-25, Paragraph 3, Sentence 6, states that for UST Site 12, the groundwater contamination **was** attributable to the AVGAS line, and no further action was recommended for Site 12 groundwater. However, **it is premature to make** a no action recommendation on the groundwater based on the removal of the AVGAS line. **With the removal of the AVGAS line, the suspected source has been removed, yet the contaminants in the groundwater are still present.** Therefore, the **no further action decision** made in this Section is inappropriate.
2. Section 7, Pages 7-1 through 7-18, indicates that the **USEPA** and/or **State of Florida's** standards **are used** as **PRGs**. However, in tables presenting the **PRGs versus** detected concentrations, no reference to individual **PRGs** is given. Therefore, it is unknown which standard (**EPA** or Florida) is used. The text should indicate the reference for each **PRG** so that the **PRG** value can be verified.
3. **Section 10.0, Page 10-4, Paragraph 1, Sentence 3,** states that groundwater contamination is not **directly** attributable to Site 36 **soil** contamination because contaminants detected in groundwater are not detected in site **soil**. However, naphthalene **was** detected on the east side of excavation **15**. Also, lead exceeded its PRG in the **surface soil** (see Table 7-1) **and** also exceeded its **PRG** at a few locations in groundwater. The text **should** be revised accordingly.

## 20 SPECIFIC COMMENTS

1. **Section 2.1, Page 2-1, Paragraph 1, Sentence 5**  
The text states that the area near Building 3380 **has** been added to the Site 36 investigation. However, Building 3380 is not shown on the **site** map (*see* Figure 2-2). Even in Figure 2-3, which shows buildings connected to the **sewer line**, Building 3380 is not identified. Also, Pump Station 3 and Buildings 54 and 18 are not **identified**. The **site** map and/or related **figures** should identify Building 3380 and other **areas** referenced in the text.
2. **Section 2.1, Page 2-1, Paragraph 2, Sentence 7**  
The text states that manhole **A-1** along the gravity lines is **fiberglass**. However, Figure 2-2 fails to identify manhole **A-1**. The manhole should be identified on **the figure**.
3. **Section 2.1, Page 2-3, Figure 2-2.**  
**Figures 2-2 and 2-3 are maps that depict the site and buildings near the Site.** However, some of the investigated **areas** are not identified. Some **areas mentioned** in the **text** are not shown, and some **areas** shown on the **figure** are not mentioned in the **text**. **The figures** should be combined to clearly depict **all** the investigated **areas**.
4. **Section 2.3, Page 2-4, Paragraph 0, Sentence 4.**  
The text **lists** borings where **soil** sampling did not **occur** including boring 36GI01. These borings are identified on Figure 2-6. However, boring **36GI01** is not depicted on the figure **and** should be identified like the rest of the borings.

5. **Section 2.2, Page 2-6, Table 2-1**

The table identifies buildings that are connected to the IWTP sewer line. However, Building 2662 which is connected to the sewer line is not shown on Figure 2-3. The building should be identified on Figure 2-3.

6. **Section 2, Page 2-6, Table 2-1.**

Table 2-1 presents chemicals used in buildings connected to the IWTP sewer line. For Building 782, the text indicates that all chemicals are contained in Building 782. However, no specific information about chemicals is given. Also, for Building 3460, the text describes the chemicals used as a "small degreaser"; however, it is unclear whether the degreaser is a small piece of equipment or a amount of solvent used for the degreasing process. The text should be revised to provide specific information.

7. **Section 2.3, Page 2-7, Paragraph 2, Sentence 4**

The text states that Site 9 was not recommended for further study. However, the text does not state the rationale for that decision. The text should be revised accordingly.

8. **Section 2.3, Page 2-10, Paragraph 1, Sentence 3.**

The text states that one section of the IWTP sewer line runs approximately 700 feet along Radford Boulevard from Pump Station 3 to Fisher Avenue and makes a reference to Figure 2-2. However, these roads are not identified on the figure. Radford Boulevard and Fisher Avenue should be depicted on the figure.

9. **Section 2.3, Page 2-10, Paragraph 2, Sentence 1**

The text alludes to the boundary of Site 36 as the area between Pump Station 3 and Fisher Avenue. However, the boundary is incorrect. The text should be revised accordingly.

10. **Section 2.3, Page 2-12, Paragraph 1, Sentence 2**

The text indicates that subsurface soil samples are compared to USEPA and FDEP screening values. However, the text does not present the number of subsurface soil samples and their results. Instead, only surface soil samples were discussed. The text should explain why the subsurface soil studies' are not presented.

11. **Section 2, Page 2-17, Table 2-4.**

Table 2-4 presents results of IWTP sewer line characterization. However, the text does not indicate the type of sample presented in this table. According to the text (page 1-14), the type of samples are sediments from manholes. The text should indicate the type of sample accordingly.

12. **Section 2.3, Page 2-18, Paragraph 1, Sentence 1**

The text refers to "manhole 6-B. However, the label for this manhole is inconsistent with references to manholes is written incorrectly. For consistency in labeling sampling locations, this manhole should be labeled as Manhole A-6-B (see Table 2-4).

13. **Section 2.3, Page 2-18, Paragraph 1, Sentence 5**

The text states: "Other inorganics detected which do not PRGs include cyanide,

aluminum, barium, calcium, magnesium, manganese and selenium. " However, this statement is incomplete. The text should be clarified and revised accordingly.

**14. Section 2.3, Page 2-36, Figure 2-9.**

The groundwater samples from the 18 monitoring wells with exceedances of MCLs are shown on Figure 2-9. Although sample locations 12G003 and 12G017 had concentrations of lead exceeding the MCLs, their concentrations are not shown on the figures. The concentrations of lead in sample locations 12G003 and 12G017 should be reflected on Figure 2-9.

**15. Section 5.0, Page 5-1, Paragraph 3**

The text addresses Phases I and II investigations. However, the text does not indicate when Phase II investigation was conducted (Phase I was conducted during May 1994 and January 1996). The text should indicate when Phase II was conducted.

**16. Section 5.2, Page 5-4, Paragraph 2, Sentence 1.**

The text states that in the Building 3380 area, 12 soil borings were advanced on a grid across the area. However, the sampling pattern is random and there are more than 12 soil borings (see Figure 5-2). The text should be revised accordingly.

**17. Section 5.2, Page 5-5, Figures 5-1.**

Figure 5-1 shows soil sampling locations. The legend of the figure shows the same symbol for soil boring/temporary monitoring wells. However, there is another symbol used in the legend for soil boring. The legend should be revised for clarity.

In addition, the figure should be revised to give the name of the sampling location site.

**18. Section 5.2, Page 5-10, Paragraph 1, Sentences 2 through 4**

The text states that after the removal actions, 36 soil borings and 80 soil samples remained excluding the verification samples. The soil sample identification numbers are outlined in Table 5-3. However, the table omits some sampling locations and sample identification numbers. The table should be revised accordingly.

**19. Section 5.2, Page 5-10, Paragraph 3, Sentence 3.**

The text states that an open valve on the bilge water line was observed near sampling locations 338S10, 338811, 338812 and 338813. However, these locations are not identified on a figure. There should be a figure added to the document to identify these locations.

**20. Section 5.2, Page 5-14, Table 5-4.**

Figure 5-2 shows soil boring locations for Building 3380. On the figures some sampling location numbers are designated as 1, 2, 3 etc. However, this sampling or boring location number is not consistent with what is used in Table 5-4. For example, boring location 1 on Figure 5-2 is reflected as 3388001 in Table 5-4. The sampling numbers should be made consistent.

21. **Section 5.2, Page 5-15, Table 5-5.**

The table identifies samples and the rationale of Site 26 removal actions. However, some of the sample identification numbers do not match the identification numbers shown on Figure 5-2. The inconsistency of sample identification numbers should be corrected.

22. **Section 5.3, Page 5-17, Paragraph 3, Sentence 1.**

This text states that 39 of the 66 soil borings completed on Site 36 was converted to temporary monitoring wells (Figure 5-1). However, there is a discrepancy regarding the number of wells on Figure 5-1. The discrepancy should be resolved accordingly.

23. **Section 5.3, Page 5-18, Paragraph 1, Sentence 1**

The text states that the soil boring completed on Site 36 was converted into a permanent monitoring well (Figure 5-1). However, the legend for Figure 5-1 does not have a symbol for permanent monitoring wells. A symbol should be added to the legend for permanent monitoring wells.

24. **Section 5.3, Page 5-18, Paragraph 1, Sentence 11.**

The text states that Table 5-5 lists construction details for the Site 36 permanent monitoring well. However, the table does not list construction details for the Site 36 permanent monitoring well. The discrepancy between the table and the text should be resolved.

25. **Section 5.3, Page 5-19, Paragraph 4, Sentence 1.**

The text reads: "Temporary wells were purged with a peristaltic pump and dedicated, decontaminated, 0.25-inch outside diameter Teflon tubing at a slow, controlled, pumping rate (varying from 0.04 to 0.25 gallons per minute)". However, the text is confusing. The text should be clarified and revised accordingly.

26. **Section 7.1.2, Page 7-2, Paragraph 5, Sentence 2.**

The text states that benzo(a)pyrene exceeded its PRG in surface soil at 36839 and 36841. These sampling locations are on Figure 7-2. However, the aforementioned identification numbers do not correspond with the sampling location identification numbers on Figure 7-2. The text and table should be revised to be consistent.

This comment also applies to Figure 7-1 and paragraph 2

27. **Section 7.1.2, Page 7-2, Figure 7-1.**

The figure shows the inorganics above PRGs and reference concentrations in soil. However, the excavations on the figures are not labeled. The excavations should be labeled for clarity.

28. **Section 7.2.1, Page 7-5, Paragraph 2, Sentence 2 and 3.**

The text mentions 22 samples that can be found on Figure 7-4. However, the number of samples is incorrect. The text should reference 21 samples instead of 22 samples.

29. **Section 7.2.2, Page 7-5, Paragraph 3.**

The text **addresses** organics in **surface and subsurface soil at Building 3380 area**. However, the text **only indicates** exceeding surface **soil PRGs** but **does not mention** subsurface **soil PRGs**. It is unclear whether the subsurface **soil was** analyzed in the investigation. The **text** should provide the results of subsurface **soil at Building 3380 area**.

30. **Section 7.3.1, Page 7-12, Paragraph 2, Sentence 2.**

The text states that manganese exceeded its **PRG and** reference concentration at **36** monitoring wells. However, the number of wells **is incorrect**. The text **should reflect** that manganese exceeded its **PRG and** reference concentrations at **35** monitoring wells.

31. **Section 7.3.2, Page 7-7 — e — 7-7.**

Figure 7-7 shows **VOCs and SVOCs** above **PRGs** in groundwater. However, the figure **lacks** a key showing the **units** of concentration for the different **contaminants**. A key should be included with the **figure** showing the **units** of concentration for the different **contaminants**.

32. **Section 7.3.2, Page 7-15, Tables 7-5 and 7-6.**

Tables 7-5 and 7-6 present the **results** of groundwater samples at well **36GR54** and **36MW35**. However, Figure 7-7 shows that a **total** of seven wells had **VOCs and SVOCs** exceeding **PRGs**. Therefore, a table should **be** created to present **all** the **results from** the seven wells including wells **36GR54** and **36MW35** in Tables 7-5 and 7-6. Tables 7-5 and 7-6 should be combined to create a new table presenting all the **results**.

33. **Section 7.3.2, Page 7-15, Table 7-6.**

Table 7-6 shows **PRG** exceedances in **36MW35**. However, **this** sampling location identification number is incorrect. The **text** should be changed **from 36MW35 to 36GM35**.

34. **Section 9.2.1, Page 9-4, Paragraph 1, Sentence 4.**

The text states that additional aliquots **were** also **subjected to the SPLP**. However, in the list of acronyms on pages v through vii, **SPLP is omitted**. The list of acronyms should give the **meaning** of **SPLP**.

35. **Section 9.2.1, Page 9-6, Table 9-1**

Table 9-1 shows a table with **Site 9 U P** versus **SPLP data** comparisons. The **SPLP and tap water** columns data have "**n**" as a subscript. However, "**n**" is not included in the notes for the table. An explanation for "**n**" **should be** included in the notes.

36. **Section 10.0, Page 10-3, Paragraph 1, Sentence 5**

The **text reads**: "**This, coupled with the low concentrations of contaminants, retardation, mechanical dispersion and chemical diffusion, to minimize the impact of constituents in groundwater to nearby surface water.**" However, **this** statement is unclear. The **text** **needs** to be clarified and **revised** accordingly.