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NAS WHITING FIELD
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U S NAVY RESPONSE TO U S EPA REGION IV COMMENTS REGARDING TECHNICAL
MEMORANDUM 2 GEOLOGIC ASSESSMENT NAS WHITING FIELD FL

10/1/1994
U S NAVY

RESPONSE TO COMMENTS
of
U.S. ENVIRONMENTAL PROTECTION AGENCY (USEPA)

RI/FS PHASE IIA
TECHNICAL MEMORANDUM NO. 2 - GEOLOGIC ASSESSMENT
NAS WHITING FIELD, MILTON, FLORIDA

Comment Number	Comment	Response
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1. GENERAL COMMENTS

Overall, the document is well-written and coherent. The Technical Memorandum summarizes the subsurface stratigraphy at NAS Whiting Field by presenting stratigraphic data collected during the Phase IIA RI and consists of lithologic logs of subsurface soil samples obtained from soil borings. Furthermore, the Technical Memorandum includes a series of cross sections to portray the lateral continuity of the stratigraphic units.

Comment noted.

The three objectives of the Phase IIA RI were to characterize vadose zone and saturated zone soils, map local clay layers and characterize the soil stratigraphy between the Industrial Area and the Southwestern Disposal Area. There is adequate data to meet these three objectives, and both the lithologic data and the cross sections are well designed and readable. The Technical Memorandum acknowledges that the continuity of some of the clay horizons cannot be verified because many of the soil borings are too shallow. However, the addition of deeper borings to confirm clay horizon continuity does not appear to be necessary at this stage. Since no analytical data are available as yet, it would be premature to expand the geological data base. Additional stratigraphic data should be collected only if analytical results indicate that the investigation of soil stratigraphy in selected areas is necessary to improve the understanding of contaminant fate and transport mechanisms or to estimate the extent of contamination.

03.01.00.0069
 1D-00095

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	<p>The interpretations presented in the Technical Memorandum are reasonable and conservative. For example, the Technical Memorandum does not excessively extrapolate the horizontal extent of clay layers beyond known data points. The possibility the these clay layers extend further than shown on the cross sections is acknowledged in the text, but this potential is not depicted on the cross sections. This conservative approach is appropriate.</p> <p>It should be recognized that all of the stratigraphic data presented in the Technical Memorandum is based on visual observation and therefore subject to inaccuracies resulting from subjective judgement. It would be useful to present in the Technical Memorandum a comparison of the borehole geophysical data developed in Phase I with lithologic data from visual examination developed during Phase IIA. Although the geophysical data is also subject to interpretation, it is generally more reproducible. The comparison would yield a measure of confidence in the reliability of the visual descriptions.</p> <p><u>SPECIFIC COMMENTS</u></p>	<p>The purpose of Technical Memorandum No. 2 was to present data collected during the Phase IIA Investigation. The comparison of geophysical logs from Phase I to Phase IIA lithologic logs will be completed in the RI Report. Furthermore, during drilling operations subsurface soil samples were collected and archived in sample collection boxes. They are available for reference thus allowing reproducible and accurate inspection of materials present in the subsurface.</p>
1.	<p><u>Page 1-4, Paragraphs 2 and 3:</u> Remove any reference to the HRS II. The HRS although revised to better assess relative risk was not renamed. Therefore, refer to the scoring model as simply the HRS.</p>	Correction made.

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2.	<u>Page 1-10, Table 1-2:</u> According to previous information, JP-5 was the type of material disposed of at Sites 17 and 18. Revise the table to reflect that JP-5 was deposited in these areas, not JP-4. In addition, make the change to the Notes section at the bottom of the page.	Previous reports including the Verification Study by Geraghty and Miller (Geraghty and Miller, 1986) indicate that JP-4 was disposed of at Sites 17 and 18.
3.	<u>Page 3-6, Figure 3-4:</u> Site 31B as located on the map east of Site 16 should be labeled as Site 31A.	Correction made.
4.	<u>Page 3-8, Figure 3-8:</u> The North Field Runway/Taxiway should be labeled as the South Field Runway/Taxiway.	Correction made.
5.	<u>Page 3-27, Paragraph 5:</u> In the second to last sentence, make the word boring plural to agree with the subject.	Correction made.

RESPONSE TO COMMENTS
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RI\FS PHASE IIA
TECHNICAL MEMORANDUM NO. 4 - HYDROGEOLOGIC ASSESSMENT
NAS WHITING FIELD, MILTON, FLORIDA

Comment Number	Comment	Response
<u>SPECIFIC COMMENTS</u>		
1.	<u>Page ii, Paragraph 4:</u> Correct the sentence to read as follows: ...and included installing 77 monitoring wells, ...	Correction made.
2.	<u>Page 1-4, Paragraph 1:</u> Revise the last sentence to read as follows: The field's mission has been to train student naval aviators in the use of basic instruments, formation and tactic phases of fixed-wing, propeller-driven aircraft, and basic and advanced helicopter training.	Correction made.
3.	<u>Page 1-4, Paragraph 2:</u> Restate the purpose of the RI/FS. The RI/FS focuses on collection data and characterizing the site in order to assess the threat(s) to human health and the environment and serves to identify a range of remedial alternatives to address any identified risks.	The document has been revised to state the purpose of the RI\FS in a more concise manner.
4.	<u>Page 1-5, Paragraph 1:</u> Delete the last sentence in the paragraph. The HRS is designed to assess the relative risk which a release or potential release may pose to human health and/or the environment. This information is already presented in the preceding paragraph.	Comment noted.
5.	<u>Page 1-5, Paragraph 2:</u> The term HRS II is a misnomer. Although the HRS was revised, its name remains the same, the HRS. Change any reference to the HRS II to the HRS.	Correction made.

NASWHF
Comment-10.94

TO :

743 0853

1994, 10-14

11:09

#888 P.07/13

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6.	<u>Page 1-9, Paragraph 4:</u> Include information pertinent to the level of EPA and State oversight taking place at OLF Barin in Foley, Alabama.	A separate remedial investigation is being conducted at the OLF Barin sites. Both the USEPA and the Alabama Department of Environmental Management provide regulatory oversight.
7.	<u>Page 1-17, Paragraph 2:</u> Rewrite the second to the last sentence in the paragraph which describes the thickness of the confining unit. The current structure of the sentence makes understanding the meaning of the information obscure.	Agree. The revised sentence reads as follows: The confining units range in thickness from about 300 feet within Escambia and Santa Rosa Counties to less than 10 feet to the northeast of these counties.
8.	<u>Page 3-12, Table 3-3:</u> The day of the week of the October 1993 measurements needs to be added to the date at the top of the table. The calculated vertical gradient for well WHF-15-6S should be 0.0226 ft/ft for the measurements taken on February 8-9, 1994. The calculated vertical gradient for well WHF-16-2S should be 0.0041 ft/ft for the measurements taken on September 30, 1993 and October 1, 1993. The groundwater elevation of well WHF-16-2S should be rounded up to 43.93 in order to consistently utilize four significant figures. The calculated vertical gradient for well WHF-16-2S should be 0.0026 ft/ft for the measurements obtained on February 8-9, 1994. The calculated vertical gradient for well WHF-16-3S should be 0.0291 ft/ft for the measurements obtained on February 8-9, 1994.	The measurements were taken on October 1, 1993. The table has been revised and the gradients have been corrected.

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9.	<p><u>Page 3-13, Table 3-3 (Continued):</u> The calculated vertical gradient for well WHF-3-2S should be 0.0315 ft/ft for the measurements obtained on September 30, 1993 and October 1, 1993. The calculated vertical gradient for well WHF-3-2S should be 0.0363 ft/ft for the measurements obtained on February 8-9, 1994. The calculated vertical gradient for well WHF-5-8S should be 0.0184 ft/ft for the measurements obtained on February 8-9, 1994. The calculated vertical gradient for well WHF-5-9S should be 0.0007 ft/ft for the measurements obtained on February 8-9, 1994.</p>	Agree. Corrections made.

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Comment-10.94

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#888 P. 09/13

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10. Page 3-14, Table 3-4:
 The Average K (ft/min) value for well WHF-16-3S should be 0.0030. In verifying the Average K (ft/day) values, it was determined that the following corrections should be made:

WHF-1-1S	19.44
WHF-2-1	19.15
WHF-17-2	4.03
WHF-15-2S	6.62
WHF-15-2I	27.93
WHF-15-3I	22.03
WHF-15-6S	3.74
WHF-16-2I	9.79
WHF-16-3S	4.32
WHF-16-3I	5.04
WHF-16-3II	46.51
WHF-11-3	4.75
WHF-14-2	8.50

In addition, since the Average K values have changed, the geometric mean values may require revision. Verify and revise these values as appropriate.

Agree, the average K value for monitoring well WHF-16-3S should be 0.0030 ft/min. The original values presented in the table were checked and are accurate. The variations between the original values and the suggested corrections are attributable to rounding differences.

Since Average K values did not change, the geometric mean values do not require revision. The data presented is accurate.

TO : 743 0853 1994, 10-14 11:10 #888 P.10/13

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11.	<p><u>Page 3-15, Table 3-4 (Continued):</u> In verifying the Average K (ft/day) values, it was determined that the following corrections should be made:</p> <table style="margin-left: 40px;"> <tbody> <tr><td>WHF-3-3S</td><td>19.44</td></tr> <tr><td>WHF-3-7S</td><td>19.15</td></tr> <tr><td>WHF-5-8S</td><td>4.03</td></tr> <tr><td>WHF-5-10S</td><td>6.62</td></tr> <tr><td>WHF-6-1S</td><td>27.93</td></tr> <tr><td>WHF-29-5</td><td>22.03</td></tr> <tr><td>WHF-30-3</td><td>3.74</td></tr> <tr><td>WHF-32-5</td><td>9.79</td></tr> <tr><td>WHF-33-5</td><td>4.32</td></tr> <tr><td>WHF-15-2D</td><td>5.04</td></tr> <tr><td>WHF-15-3D</td><td>46.51</td></tr> <tr><td>WHF-16-3D</td><td>4.75</td></tr> <tr><td>WHF-3-3D</td><td>8.50</td></tr> <tr><td>WHF-3-7D</td><td>41.47</td></tr> <tr><td>WHF-5-8D</td><td>0.29</td></tr> <tr><td>WHF-5-10D</td><td>20.30</td></tr> <tr><td>WHF-6-1D</td><td>16.70</td></tr> </tbody> </table> <p>Again, since the Average K values require revision, the geometric mean values may also require revision. Verify and revise these values as appropriate.</p>	WHF-3-3S	19.44	WHF-3-7S	19.15	WHF-5-8S	4.03	WHF-5-10S	6.62	WHF-6-1S	27.93	WHF-29-5	22.03	WHF-30-3	3.74	WHF-32-5	9.79	WHF-33-5	4.32	WHF-15-2D	5.04	WHF-15-3D	46.51	WHF-16-3D	4.75	WHF-3-3D	8.50	WHF-3-7D	41.47	WHF-5-8D	0.29	WHF-5-10D	20.30	WHF-6-1D	16.70	See Response to Comment 10.
WHF-3-3S	19.44																																			
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WHF-6-1D	16.70																																			
12.	<p><u>Page 3-16, Paragraph 5:</u> In the first sentence of the paragraph, Table 3-2 should be changed to Table 3-1.</p>	Correction made.																																		

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13.	<u>Page 3-22, Figure 3-4:</u> The North Field Runway and the North Field Taxiway should be relabeled the South Field Runway and the South Field Taxiway.	Correction made.
14.	Change the hydraulic gradient, the vertical gradient, and the average hydraulic conductivity values in the text of the report based on changes made to the corresponding values in the tables.	Corrections made.
15.	<u>Figure C-4:</u> The North Field Runway and the North Field Taxiway should be relabeled the South Field Runway and the South Field Taxiway.	Correction made.