

03.01-04/04/96-01651



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4

345 COURTLAND STREET, N.E.  
ATLANTA, GEORGIA 30365  
April 4, 1996

4WD-FFB

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Ms. Katherine Landman  
Department of the Navy - Atlantic Division  
Naval Facilities Engineering Command  
Code 1823  
Norfolk, Virginia 23511-6287

SUBJ: MCB Camp Lejeune  
Draft Remedial Investigation  
Operable Unit No. 12 - Site 3

Dear Ms. Landman:

The Environmental Protection Agency (EPA) has partially completed its review of the above subject document. Comments from the Human Health review will be forwarded by April 26.

If you have any questions or comments, please call me at (404) 347-3016 or voice mail, (404) 347-3555, x-6459.

Sincerely,

  
Gena D. Townsend  
Senior Project Manager

cc: Patrick Waters, NCDEHNR  
Neal Paul, MCB Camp Lejeune

## 1.0 General Comments

1. Section 3, Figure 3-1, presents the topography and site features of Site 3. However, the drainage ditches described in Section 3.1 are not shown on the figure. These drainage ditches should be added to the figure to identify the pathways of site surface water runoff.
2. Section 4.3, Page 4-5, Paragraph 3, indicates in a discussion of state and federal criteria and standards that chemical-specific criteria and standards are not available for soil. However, the EPA has published a Soil Screening Guidance to standardize the evaluation and cleanup of contaminated soils (EPA, 1994). The guidance presents soil screening levels (SSLs) for Superfund Sites, although use of the SSLs is not mandatory for sites being addressed under CERCLA. The text should therefore address the EPA's SSLs as chemical-specific criteria for soil..
3. Section 4.3, Page 4-5, Paragraph 5, discusses risk-based concentrations (RBCs) as the federal criteria and standards for soils. However, the text does not provide specific references for the RBCs which were developed by EPA Region III. The text should refer to the most recent reference for the RBCs, the EPA Region III Risk-Based Concentration Table issued in October, 1995. This reference should be listed at the end of Section 4 in the reference list.
4. Section 4.4.2.2, Page 4-11, Paragraph 3, states that pH values ranged from 7.70 to 11.96 s.u. for monitoring wells 3-MW11IW and 3-MW02DW which are above the range of Federal Secondary Drinking Water MCLs (6.5 to 8.5 s.u.). However, monitoring well 3-MW02IW is within Federal Standards. The text should explain the difference in pH ranges for each zone, and state if there is a problem with well construction or salt water infiltration.
5. Section 4.5.2.1, Page 4-15, Paragraph 5, states that the highest concentration of benzene was exhibited by well 3-MW08 in the North Area of the site. However, Section 2.3, page 2-7, states that monitoring well 3-MW08 was placed at an upgradient (background) location to assess off-site groundwater quality. Because the well is upgradient of the site, contamination from upgradient sites should be considered. The text should explain the use of 3-MW08 as a background groundwater sampling location and identify other possible sources of this high benzene concentration.
6. Section 4, Tables 4-14, 4-16, and 4-18, presents pH values of groundwater in Rounds one, two, and three, respectively. However, the text in Section 4 does not discuss why most of the pH values of groundwater are either lower or higher than

the EPA Secondary MCL range of 6.5-8.5. For example, in Round two groundwater samples, the lowest pH value is 4.52 (well 3-MW01), and the highest pH value is 11.96 (well 3-MW11IW). A discussion regarding the pH values in groundwater should be presented in Section 4.

7. Section 5.2.4, Pages 5-4 through 5-6, discusses migration of groundwater contaminants. However, unlike other discussions regarding contaminant transport pathways, there is no indication at the end of the section whether this contaminant transport pathway will be of concern or not. The text should be clarified and revised accordingly.

This comment also applies to Section 5.2.6..

8. Receptors should be determined at each site within the facility based on the contaminants present at the site. Contaminants that do not bioaccumulate in the food web should not be used in food web models but studied for direct toxicity. At Site 3 soil invertebrates should be used as receptors since PAHs are a direct toxicity threat to soil organisms.
9. Region III SSSVs may not be appropriate for Site 3. Selection of a particular screening value should be thoroughly discussed as to its applicability to be used at site 3. For example, a national average for a particular contaminant is not appropriate for Site 3.

## 2.0 Specific Comments

1. Section 4.4.2.1, Page 4-10, Paragraph 5, Sentence 7.  
The text states that the reported pH value was comparable to valves measured in the Castle Hayne Aquifer. However, the word "valves" should be "values".
2. Section 4, Table 4-3.  
Table 4-3 shows that base background concentrations of vanadium and zinc are 28.3 and 2.4 mg/kg, respectively. However, the concentrations of vanadium and zinc should be 18.2 and 28.3 mg/kg, respectively, as shown in Table 4-1. The data for vanadium and zinc in Table 4-3 should be corrected accordingly.
3. Section 4, Table 4-5.  
Table 4-5 shows that the MCL for zinc in groundwater surficial aquifer (Round one) is 500  $\mu\text{g/L}$ . However, the MCL for zinc should be 5,000  $\mu\text{g/L}$  according to the EPA secondary

MCL table (EPA, 1993). The text should be corrected accordingly.

4. **Section 4, Tables 4-7 through 4-13 and 4-15.**

Tables 4-7 through 4-13 and 4-15 are labeled as "Positive Detection Summaries in all Media". However, in some samples, some contaminants are neither detected nor analyzed. Thus, the titles are not compatible with the contents in the tables. The titles of Tables 4-7 through 4-13 and 4-15 should be revised to reflect the contents in the tables.

5. **Section 7, Page 7-20.**

In the second sentence of page 7-20 it should read Figure 7-2 instead of Figure 7-1.