

03.01-12/11/2000-02582A



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IN REPLY REFER TO:
5090
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From: Commander, Atlantic Division, Naval Facilities
Engineering Command
To: Commanding General, Marine Corps Base, AC/S EMD (IRD)
(Attn: Mr. Rick Raines)
Subj: RESPONSE TO COMMENTS FOR DRAFT FOCUSED REMEDIAL
INVESTIGATION REPORT, OPERABLE UNIT 17 (SITES 90, 91
AND 92), MARINE CORPS BASE, CAMP LEJEUNE, NORTH
CAROLINA DRAFT SUPPLEMENTAL GROUNDWATER INVESTIGATION
REPORT FOR SITES 90, 91 AND 92, MARINE CORPS BASE,
CAMP LEJEUNE, NORTH CAROLINA

Encl: (1) Response to Comments

1. This letter serves as a transmittal letter for the above subject. Enclosure (1) is attached.
2. If you should have any questions, please do not hesitate to call me at (757) 322-8422.

K. A. STEVENS
By direction

Response to Comments Submitted by Mr. Brian Marshburn, Installation Restoration Division, Environmental Management Department, Dated October 14, 1997 to the Draft Focused Remedial Investigation Report, Operable Unit No. 17 (Sites 90, 91, and 92), Marine Corps Base Camp Lejeune, North Carolina.

General Comments

1. We concur. A Land Use Control Implementation Plan (LUCIP) will be included as part of the selected remedy for sites which have COPCs that exceed RBCs for soil or MCLs or NCWQS for groundwater. If found to be necessary, LUCIPs will be presented in the Record of Decision (ROD).
2. As requested, a more detailed explanation has been added to the preface explaining why a Focused Remedial Investigation was conducted as opposed to a typical Remedial Investigation. In addition, a statement regarding the concurrence of the regulators has been included.
3. Compounds such as iron, magnesium, calcium, sodium, and potassium are considered essential nutrients by the USEPA. According to the USEPA's Risk Assessment Guidance for Superfund Volume I, Human Health Manual (EPA/540/1-89-002), some inorganics are essential nutrients and can be eliminated from consideration as COPCs if they only slightly exceed background concentrations. The table below presents essential nutrients from Sites 90, 91, and 92 whose concentrations exceeded twice the average background concentration in subsurface soil. The maximum background concentration and locations where detections exceeded twice the average background concentration are also shown on the table. Additionally, there is no toxicological data for these compounds.

Site	Contaminant	Maximum Concentration (mg/kg)	Twice Average Background (mg/kg)	Maximum Background (mg/kg)	Location Exceeded 2x Avg. Background	Location Exceeded Maximum Background
Site 90	Calcium	559J	387.824	4,410	90-TWSB06	
Site 91	Aluminum	8,250J	7,413.230	11,000	91-TWSB06	
	Calcium	439J	387.824	4,410	91-TWSB06 91-TWSB07	
	Magnesium	472J	263.398	852	91-TWSB06 91-TWSB07	
Site 92	Calcium	7,125	387.824	4,410	92-TWSB02	92-TWSB02
	Iron	8,240J	7,134.639	90,500	92-TWSB02	
	Magnesium	353	263.398	852	92-TWSB02	
	Potassium	455J	344.252	1,250	92-TWSB02	
	Sodium	149J	54.570	141	92-TWSB02	92-TWSB02

While each of the constituents listed on the table above shows one or two locations where concentrations exceeded twice the average background concentration for that constituent, only two of them at Site 92 exceeded the maximum background concentration. The others can be eliminated as COPCs according to USEPA guidance. Only calcium and sodium at Site 92 (92-TWSB02) exceeded the applicable maximum background concentrations. Sodium detected at this location was only slightly above the maximum background concentration and can be eliminated as a COPC. The maximum calcium concentration is significantly higher than the maximum background concentration. However, only one location had a calcium concentration higher than the maximum or twice the average background concentration of calcium. This does not demonstrate a pattern or indicate a source of calcium in the subsurface soil. Therefore, calcium will not be considered a COPC for Site 92.

Specific Comments for Site 90:

1. The last sentence in paragraph 1 of Section 2.7 (Identification of Water Supply Wells) falsely states that groundwater is treated at five plants with a total capacity of 15.8 g.p.d. This sentence will be corrected. The sentence will state that groundwater is treated at five plants with a total capacity of 15.8 million g.p.d..
2. The results from the Site 73 RI, January, 1997 supply well study and June, 1997 supply well study will be added into the paragraph.
3. The typo has been corrected.
4. The typo has been corrected.
5. The typo has been corrected.
6. The typo has been corrected.
7. The typo has been corrected.
8. The addition of the word “likely” will be incorporated into the sentence.
9. The designation of monitoring well IR90-MW08 has been changed from temporary to existing. Additionally, a sentence will be added to the end of the paragraph. The sentence is as follows:

“However, it is uncertain as to the origin of the PCE contamination detected in wells IR90-MW08 and IR90-MW04 unless both were the result of activities associated with dry cleaning operations.”
10. Eleven inorganics in the equipment rinseate blanks are most likely due to the use of potable water for decontamination of equipment. The approved Work Plan specified that potable water would be used for decontamination purposes. However, subsequent steps in the decontamination process should have eliminated the potential for these inorganics to remain on the sampling equipment. It is possible that this sample was collected from a piece of equipment that had not been fully decontaminated because of a lack of communication between the site manager and the field crew. The potable water

source used for decontamination was sampled as the field blank and sent to the fixed base laboratory for analysis. Results showed that inorganics were present in the potable water source and can explain the presence of inorganics in the equipment rinsewater blanks.

11. The sentence has been modified to read “in the event of facility closure ...”.
12. The last sentence was eliminated from the paragraph.

Specific Comments for Site 91:

1. The typo has been corrected in the text.
2. The typo has been corrected in the text.
3. See Specific Comments for Site 90, response number 2.
4. The typo has been corrected in the text.
5. See Specific Comments for Site 90, response number 10.
6. See Specific Comments for Site 90, response number 11.

Specific Comments for Site 92:

1. The typo has been corrected in the text.
2. Specific Comments for Site 90, response number 2.
3. The project plans called for only one sample to be submitted to the fixed base laboratory for confirmation of the mobile laboratory results. A sentence will be incorporated into the text of the final document to better explain the rationale for this decision.
4. The table will be corrected in the final version of the Focused RI Report.
5. See Specific Comments for Site 90, response number 10.
6. See Specific Comments for Site 90, response number 11.