N69118.AR.001338
ST JULIENS CREEK
5090.3a

U S NAVY RESPONSE TO U S EPA COMMENTS ON SITE 5 GROUNDWATER INVESTIGATION SCOPING TOPIC ST JULIENS CREEK ANNEX VA

08/09/2013

CH2M HILL

Responses to Comments
Site 5 Groundwater Investigation Scoping Topic
St. Juliens Creek Annex July 31, 2013, Partnering Meeting
Newport News, Virginia

PREPARED FOR: Robert Stroud, EPA Region 3
Karen Doran, VDEQ
Krista Parra, NAVFAC Mid-Atlantic

PREPARED BY: CH2M HILL

DATE: August 9, 2013

Comments from EPA, provided August 7, 2013.

1. ***Comment:*** *EPA recommends sampling for the full suite of TAL metals total and dissolved. A full suite analysis will help in determining an increasing or decreasing trend in the shallow groundwater, as well as enhance the position that all metals (including cobalt) are not site related. Limiting the scope of the analysis will limit the assessment of the current groundwater conditions.*

   Response: NAVFAC respectfully disagrees with EPA's recommendation to collect full suite of TAL metals total and dissolved based on the following:

   - While the latest metals data is from 2006, no CERCLA-related activities have occurred at the site since that sampling event. Therefore, there is no reason to suspect a release occurred after that sampling event that warrants further investigation.
   - Human health risk was re-calculated using current toxicity values in 2013 to confirm the conclusions of the risk assessment remain appropriate. The results were presented in the May 2013 partnering meeting. With the exceptions of chromium and cobalt, the results were consistent with those of the 2007 Expanded Remedial Investigation Addendum, and the team agreed that the report conclusions remained true. For chromium, the team developed and agreed to the following consensus statement: "The team agrees that that no further action or investigation for chromium in shallow aquifer groundwater at Site 5 is required. Although the cancer risk for chromium ($2.6x\ 10^{-4}$ for ingestion by future adult/child residents, and $1.3x10^{-4}$ for dermal exposure by future adult/child residents conservatively assuming hexavalent chromium), is outside of the acceptable risk range of 10^{-4} to 10^{-6} based on the risk calculations updated in May 2013, the maximum detected concentration (58.7 µg/L) is less than the MCL (100 µg/L)." Therefore, cobalt was the only chemical of potential concern remaining.

     (Note, it is recognized that the calculations have not been formalized, as documentation was on hold pending a determination of a path forward. The calculation will be formalized in an upcoming deliverable.)

- It is unclear how the full suite of TAL metals data would be used, which is inconsistent with EPA and DoD policy calling for systematic planning during which the method of evaluation and use of the data are to be defined.
- Based on the environmental questions and DQOs developed by the partnering team and summarized in the presentation, only increasing and decreasing trends in cobalt concentrations will be used.

2. Comment: *Also, please explain why anions and not cations are included in the proposal.*

Response: The anion data is proposed because only limited anion data was collected at the site during previous investigations, and it may be helpful in determining the cause of the low pH. Cations (e.g., calcium, potassium, magnesium, sodium) were included in previous phases of investigation and their data have been reviewed, but have not supported any particular theory for the cause of the low pH or slightly elevated cobalt. Therefore, because the collection of additional cation data is not expected to be conclusive and to minimize cost, analysis of cations is not proposed .