

**APPENDIX G**  
**RESPONSE TO AGENCY COMMENTS**

**Response to Agency Comments**  
**Draft Basewide Remedial Investigation / Feasibility Study**  
**Volume II - Sites 16 and 17 Remedial Investigation**  
**Fort Ord, California**

The following are the Army's responses to the comments of the regulatory agencies on the Draft Basewide Remedial Investigation/Feasibility Study. All comments and the associated responses pertaining to Volume II, Sites 16 and 17, of the Basewide Remedial Investigation/Feasibility Study are provided below.

**I. U.S. Environmental Protection Agency Technical Review Comments**

**Analysis of Conclusions and Recommendations**

**Comment 1:** Although a summary of the results is presented in Section 5 of the report, conclusions and recommendations for additional work to be performed were not included.

**Response:** A conclusions section (Section 7.0) has been added to the text which states that the data collected are adequate to perform the Human Health Risk Assessment and Feasibility Study, and, therefore, no additional field sampling is needed. Additional sampling required to complete the Ecological Risk Assessment has been completed under that program.

**General Comments**

**Comment 1:** A discussion of meteorology should be included in Section 3 in order to characterize the potential for the transport of contaminants in air. Information on the local climate, such as temperature averages and extremes, precipitation, wind speed and predominant wind direction, should be provided. An assessment of the potential for transport of contaminants in air should be included in Section 4 of the report.

**Response:** A brief discussion of the Fort Ord climate has been added to Section 3.0. Section 5.0 now contains a discussion of site-specific fate and transport for Sites 16 and 17, including the potential for contaminant transport in air, based on the general fate and transport discussion in the Introduction to Volume II.

**Comment 2:** This RI report lacks a discussion of the conceptual site model and the fate and transport of contaminants. A conceptual site model should be presented in order to provide an understanding of the potential sources of contaminants, potential migration pathways from these sources, possible receptors in the vicinity, and the specific points of potential contact between contaminants and receptors. The report should also discuss the potential routes of contaminant migration, contaminant persistence in the environment, and contaminant migration for the chemicals detected in the investigation in a fate and transport section.

**Response:** A comprehensive fate and transport discussion has been included in the Introduction to Volume II. A site-specific fate and transport discussion, which includes a discussion of the conceptual site model, has also been included in this volume (Section 5.0). Possible receptors were identified and discussed as part of the Human Health Risk Assessment (Volume III).

**Comment 3:** The installation of three groundwater monitoring wells (MW-16-01-A, MW-17-01-A, and MW-17-02-180) is not sufficient to evaluate groundwater quality in the uppermost aquifer beneath Sites 16 and 17. The rationale for the installation of the three wells at those locations is not presented.

- a) The one well is not sufficient to determine water quality in Site 16. Well MW-16-01-A is installed in the A-aquifer and there are no wells installed in the 180-foot aquifer at Site 16. Furthermore, wells both upgradient and downgradient of a site should be identified in order to be able to make a meaningful assessment of groundwater quality.
- b) MW-16-01A was installed at Pete's Pond. However, no wells were installed at other source areas such as at Pete's Pond Extension and the DOL Maintenance Yard.
- c) For Site 17, although one well was installed in a A-aquifer and one in the 180-foot aquifer, this is not sufficient to characterize water quality at this site. What is the basis for the locations chosen for these monitoring well installation?

**Response:** As part of the Phase 1 Site Characterizations, monitoring wells at Sites 16 and 17 were installed in the uppermost aquifer on the downgradient portion of each site to evaluate general groundwater quality. The location of Well MW-16-01-A in the A-aquifer was selected because it was downgradient of Pete's Pond (approximately 100 feet from the primary debris area) as well as downgradient of all of Site 16. The location of Well MW-17-01-A was originally selected because it was believed that the Upper 180-foot aquifer was the uppermost aquifer at that location, and therefore it also represented the downgradient portion of Site 17. However, the clay layer indicative of the Fort Ord Salinas Valley Aquiclude (FO-SVA) was present at that location, which meant the A-aquifer was the uppermost aquifer; therefore, Well MW-17-01-A was actually installed in the A-aquifer. The location of Well MW-17-02-180 was placed west of Well MW-17-01-A, beyond where the FO-SVA has pinched out, and was installed in the Upper 180-foot aquifer. A description of this rationale for the placement of the wells has been added to Section 2.1.7.

After completing Phase 1 and again during Phase 2, the Army evaluated whether additional monitoring wells were needed at each site or contaminated area. It was concluded that additional wells at these sites were not needed for several reasons. First, most of the chemicals detected in soil at these sites are relatively immobile and generally decrease in concentration with depth. In most instances, chemicals were vertically delineated to nondetect (for organics) or to concentrations approaching maximum background concentrations (for metals). Second, the results of the modeling (using vadose zone leaching [VLEACH] and groundwater mixing models) of organic chemicals detected in onsite soils indicate that no significant impact to groundwater should occur. Lastly, the chemicals detected in groundwater collected from onsite wells are considered to be part of the OU 2 plume, and any organic chemicals that did leach to groundwater at Sites 16 and 17 would likely be remediated as part of planned OU 2 groundwater remediation.

Although monitoring wells were not installed at each Site 16 and 17 area having contaminated soil, Well MW-16-01-A, which is within the Pete's Pond area, is approximately 100 feet downgradient of the primary debris area at Pete's Pond and approximately 400 feet downgradient of the northern debris area at Pete's Pond Extension. This well is crossgradient from the portion of the DOL Maintenance Yard with soil contamination.

No monitoring wells were installed in the Upper 180-foot aquifer at Site 16 because only the uppermost aquifer was to be investigated as part of the initial Phase 1 Site Characterization. As stated above, Well MW-16-01-A is installed in the A-aquifer, which is the uppermost aquifer at Site 16. Three monitoring wells (MW-14-01-A, MW-14-02-A, and MW-14-04-A), which are included in the basewide groundwater monitoring program, are located upgradient within approximately 1,000 feet of Site 16; except for the December 1993 sampling round, no VOCs (e.g., TCE and PCE) were detected in these wells. Because the A-aquifer terminates less than 500 feet downgradient of Site 16 (i.e., FO-SVA pinches out), no offsite downgradient A-aquifer wells are available for monitoring.

Also, Well MW-18-03-180, installed as part of the Site 18 investigation, is located approximately 150 feet upgradient of Site 17; VOCs (i.e., TCE and/or PCE) have been detected in this well since March 1992. These contaminants, as well as those identified in groundwater at Sites 16 and 17, are part of the OU 2 plume.

**Comment 4:** An assessment of whether additional data is needed should be provided. Have all of the data required for the risk assessment and the feasibility study been collected? Has the horizontal and vertical extent of contamination been adequately defined? Have the impacts to groundwater been adequately determined? The answers to these and other questions should be presented in a discussion of data gaps.

**Response:** The lateral and vertical extent of site-related soil contamination has been delineated to nondetect or, in a few cases, relatively low concentrations for organic chemicals and to concentrations that are below or approach maximum background levels for inorganic compounds. As discussed in the response to EPA General Comment 3 above, it does not appear that groundwater has been impacted by site-related chemicals. The data collected are adequate to perform the Human Health Risk Assessment and Feasibility Study. On this basis, the objectives of the RI for Sites 16 and 17 have been achieved and no additional data are required for the RI. A conclusions section (Section 7.0) has been added to the text, which summarizes these conclusions; no data gap section is required.

### **Specific Comments**

**Comment 1:** Section 1.2.1.1, Page 2, first paragraph: It is unclear from the discussion presented which buildings and structures are currently in use or were previously used for the purposes identified. For example, are vehicles currently being repaired in Building 4900? Is it still being used for blueing-process and spray painting operations? A chronology of events including historical information and previous investigations would help clarify the discussion.

**Response:** Currently, Building 4900 at the DOL Maintenance Yard is still in use for vehicle repair and is scheduled to remain in use until 1998. A few of the other buildings in the DOL Maintenance Yard are also used on a periodic basis. Currently, most of the facilities at Site 17 are not in use. Because of base closure activities, the usage of the facilities at Sites 16 and 17 is continuously changing, so presenting current facility usage information would be difficult.

Available information on the historical usage of areas investigated (including the usage of pertinent buildings and structures) was presented in Section 1.2. Previous investigations performed at Sites 16 and 17 were summarized as appropriate in Section 1.3. No detailed presentation was included of the historical usage of

buildings and structures at Site 17 that are not related to areas of known or suspected contamination.

**Comment 2:** Section 1.4, Page 4, last paragraph: When will the anticipated future use for Site 17 and part of Site 16 take place?

**Response:** The implementation dates of future use plans have not been determined and are outside the scope of the RI.

**Comment 3:** Section 2.1.4, Page 9, first paragraph: The objectives and the rationale for the number of pits excavated and the number of samples collected from the test pits at Sites 16 and 17 is not explained.

**Response:** A statement has been added to Section 2.1.4 regarding the objectives and the rationale for number of test pits and soil samples.

**Comment 4:** Section 2.1.6.1, Page 11, last paragraph: The rationale for why some soil samples were tested for selected chemical and physical analytical parameters and not others is unclear. For example, this section indicates that 40 samples were analyzed for one or more of the following parameters: total petroleum hydrocarbons (TPH) diesel, TPH motor oil, semivolatile organic compounds (SOCs), volatile organic compounds (VOCs), etc. Why were samples not analyzed for all of the parameters of concern?

**Response:** The specific suite of analyses for each soil sample varied for one or more of the following reasons. For soil samples collected for chemical testing, a suite of analyses was selected for each study area (e.g., Disposal Area) based on the nature of the potential sources of contamination (i.e., what chemicals would likely be associated with that source). With one exception, the selected suite of analyses was used for every soil sample collected during Phase 1 and/or the first half of Phase 2. During the first half of Phase 2, extractions for SOC analyses were performed on most samples from these sites, but only approximately 25 percent of the samples were analyzed for SOCs. Samples with the highest detected concentrations of petroleum hydrocarbons were submitted for SOC analysis to obtain data needed for the risk evaluation. During the second half of Phase 2, samples were collected to fill data gaps on the lateral and vertical extent of contaminants previously detected. Also, because burned debris was observed in test pits during the first half of Phase 2, selected samples were analyzed for chlorinated dibenzodioxins (CDDs) and chlorinated dibenzofurans (CDFs) to evaluate the distribution of these contaminants throughout these areas. Therefore, samples were only analyzed for selected analytes during the second half of Phase 2.

Also, one location was sampled to assess the presence or absence of contaminants related to 55-gallon drums of the type used to contain mustard agent. The primary analytical laboratory for chemical analyses, Enseco, was not able to analyze samples for sulfur mustard-degradation products. Therefore, a separate sample was collected at selected locations (adjacent test pit and boring) for submittal to a second laboratory. Lastly, typically only one to three physical analytical tests can be performed on a given soil sample and, therefore, several samples were required to complete a suite of analyses for a given target sampling interval.

A description of the analyte selection rationale has been added to the text in Section 2.1.6.1.

**Comment 5:** Section 2.1.6.2, Page 12, second paragraph: Why were ten 20-foot borings that were proposed in the RI/FS Sampling and Analysis Plan (SAP) eliminated from the RI program?

**Response:** The ten 20-foot borings were to be drilled at five grease racks to investigate potential releases of contaminants. However, during a Fort Ord tour with regulatory agency representatives in early 1992, it was agreed between the agencies and the Army that these borings were not necessary because the racks were underlain by concrete or asphalt and that the borings would be eliminated from the RI program.

**Comment 6:** Section 3.5, Page 19, last paragraph: What is the vertical hydraulic gradient between the A-aquifer and the 180-foot aquifer?

**Response:** Because the A-aquifer and Upper 180-foot aquifer wells (MW-17-01-A and MW-17-02-180) are not in close proximity and are in different hydrogeologic settings (i.e., the FO-SVA is not present at Well MW-17-02-180), it is not possible to calculate the vertical hydraulic gradient at Site 17 using existing well data. However, vertical gradients can be estimated using water-level elevation contours for both aquifers. Based on contours presented on Plates 14 and 15, a range of expected vertical gradient ranges from 0.97 to 2.3 feet/foot in the upward direction.

**Comment 7:** Section 4.1.1, Page 21, first and second paragraphs:

- a) For what purpose were the small trenches observed in the October 1974 aerial photograph used? Were wash racks, above ground storage tanks and oil/water separators discernible in this and other photographs?
- b) Are there any discernible signs of storage tanks, spills, and/or disposal activities in the April 1985 and November 1988 aerial photographs?

**Response:** Due to the scale of the October 1974 aerial photograph (1:2,400) and the lack of any obvious visual indication in the photograph, the purpose of the small trenches could not be determined. In most cases, wash racks and, to some extent, aboveground storage tanks were discernible in this and other photographs of similar scales. Oil/water separators were not discernible because of their small size. However, the presence of a wash rack was typically indicative of the presence of an oil/water separator. Features including storage tanks, wash racks, and signs of spills and/or disposal activities were not discernible in photographs with small scales (e.g., 1:20,000 and 1:36,000), such as the 1985 and 1988 photographs.

**Comment 8:** Section 4.1.2, Page 21, first paragraph: The potential for past chemical spills from vehicles and equipment at paved and stained areas near Building 4900 should also be identified and investigated as potential sources of contamination. What was the rationale for not investigating sources located in paved areas?

**Response:** Paved areas of the DOL Maintenance Yard were not investigated as part of the RI because no obvious staining was observed during previous site walkovers that would indicate that a major chemical release had occurred, and the review of historical information (e.g., aerial photographs) did not reveal any potential sources of contamination. Also, because the asphalt pavement appears to have been well maintained and is sloped toward storm drain inlets, most of the liquid released from a significant chemical spill would have entered the storm drain system, rather than infiltrating into the subsurface, and would have emptied onto Pete's Pond Extension

via a storm drain outfall in an area that has been investigated. The results of the soil sampling near the outfall did not indicate that such a release had occurred.

**Comment 9:** Section 4.1.2, Page 21, last paragraph: Although grease racks were underlain by concrete or asphalt that is not a sufficient reason for removing investigation of them from the RI/FS program. Cracks in the concrete or asphalt may have allow release of contamination to soils beneath pavement.

Response: See response to EPA Specific Comment 5.

**Comment 10:** Sections 4.2.2.2 and 4.2.2.3, Page 24, last paragraph: The results of field screening analyses (Ensys, OVA, OVM data) should be provided in a tabular format in this report.

Response: As stated in Sections 2.1.4 and 2.1.6, Ensys immunoassay data were presented in Table 8 and OVA/OVM data were presented on test pit and boring lithologic logs in Appendixes A and B. A reference has been added to Section 4.2.2 indicating the location of Ensys and OVA/OVM data in this binder.

**Comment 11:** Section 4.3, Page 25, all paragraphs: There is no discussion of whether the areas from which the largest number of detected compounds were found correlate to source areas identified in Section 4.1.2.

Response: The soil gas results were evaluated as part of the RI to assess whether an apparent relationship existed between the distribution of detected chemicals in soil gas and the locations of source areas identified during this investigation. In general, for Pete's Pond and the Disposal Area, the highest concentrations occurred randomly outside the lateral limits of the debris areas and, therefore, did not appear to be related. For the fueling facility, the distribution of chemicals did not appear to indicate a chemical release from the nearby underground storage tanks. These findings have been added to Section 4.3.

**Comment 12:** Section 4.3, Page 25: It would be helpful for soil gas detects to be presented on a map and correlated to source areas and/or subsurface debris (e.g., Plate 23 for inorganics).

Response: Because concentrations of chemicals detected in soil gas samples from Sites 16 and 17 were generally low and did not indicate potential source areas, the data were not posted onto a site map. Also see response to EPA Specific Comment 11. above.

**Comment 13:** Section 4.3, Page 26, second paragraph: No explanation is provided for the detection of xylenes in the field blanks and of trichloroethylene (TCE) in the post decontamination sample.

Response: The presence of these chemicals in field blanks and postdecontamination water may be indicative of quality control problems. Corrective action, which included an increased effort in equipment decontamination, was taken subsequent to sampling at these sites; a significant reduction in the detection of contaminants in blanks resulted. A statement has been added to this paragraph indicating that these chemicals detected in soil gas samples may represent field or laboratory contamination.

**Comment 14:** Section 4.4.1.1, Page 28, first paragraph: This paragraph should indicate whether acetone and methyl ethyl ketone (MEK) were detected in the method blank associated with the sample collected from Boring SB-16-02 at a depth of 5.5 feet. Acetone and MEK should not be dismissed as site contaminants unless these compounds were also found in the associated lab blank. (Note: this comment also applies in all cases where volatile organic compounds are discussed and are considered not representative of site conditions because they are common laboratory contaminants.)

**Response:** We disagree with this comment. Acetone and MEK were not detected in the method blank associated with the sample collected from Boring SB-16-02 at depth of 5.5 feet. Consequently, detections of acetone and MEK in associated field samples were not qualified as nondetect during data validation. However, a significant number of the method blanks generated for the Fort Ord project contained low level (e.g., less than five to ten times the reporting limit) detections of acetone and MEK, as well as methylene chloride, toluene, bis-(2-ethylhexyl)phthalate, and other phthalate esters. The absence of a common laboratory contaminant in a method blank does not mean that the common laboratory contaminant detected in a field sample is a site-related chemical. Laboratory analytical processes that take place after the analysis of a "clean" method blank cannot be assumed free of potential laboratory contamination. For example, method blanks analyzed at the beginning of the analytical sequence (e.g., first analyses of the day) may be free from contamination, but subsequent sample analyses that occur later in the day (after commencement of laboratory operations that use organic solvents) are very likely to be impacted by contamination present in the analytical laboratory environment.

In addition, site history along with the site-specific project objectives were considered during data evaluation. The review of the Site 16 and 17 history did not indicate a potential for use of these common laboratory contaminants. Also, considering this, and because these chemicals were reported and concentrations of the contaminant(s) were less than ten times the reporting limit for that compound, the presence of the common laboratory contaminant was assumed to be a result of laboratory analytical processes. However, even though these analytes, which are recognized as common laboratory contaminants by the EPA, were not detected in the method blank associated with this sample, these analytes may still represent laboratory contaminants and may not be representative of site conditions. Nevertheless, all detected organic chemicals, whether suspected laboratory contaminants or not, have been evaluated with respect to distribution and proximity to source areas and are presented on tables and plates. No revisions to the RI relative to this comment are necessary.

**Comment 15:** Section 4.4.1.1, Page 28, last paragraph: For ease of comparison, the maximum background concentrations for lead and chromium should be presented.

**Response:** Maximum background concentrations have been provided for these metals in the text.

**Comment 16:** Section 4.4.2.1, Page 29, first bullet, first paragraph: What is the basis for the statement that sample TR-16-28 may have been inadvertently switched with the sample from the debris-containing sand from the same test pit. Is there any indication in the field logs that this may have been so?

Response: There is no indication in the field logs that this switch may have occurred. However, the sample from the debris-containing sand did not contain organic compounds of elevated metal concentrations, while the sample from the debris-free sand did contain these contaminants. This is not consistent with the distribution of contaminants in relation to the presence of debris at this area. On this basis, it is believed that samples may have been inadvertently switched. The text has been revised to clarify this rationale.

**Comment 17: Section 4.4.2.1, Page 29, first and second bullets: Are acetone, toluene, and bis (2-ethylhexyl) phthalate laboratory contaminants?**

Response: Acetone, toluene and bis-(2-ethylhexyl)phthalate are considered by the EPA to be common laboratory contaminants (EPA, 1988c). However, these compounds were not present in the laboratory blanks associated with the analysis of the samples in question and were therefore not qualified as nondetect. However, the presence of these compounds in site samples are not believed to be site-related chemicals. Refer to response to EPA Specific Comment 14 for a complete discussion of the Army's approach to dealing with potential false positive detections of common laboratory contaminants.

**Comment 18: Section 4.4.2.1, Page 31: The second bullet on Page 31 states that "Mercury was detected in one surface sample from Test Pit TR-16-20 at a concentration slightly above background." Such general statements do not adequately communicate the magnitude of contamination found in the source areas. In all cases, when discussing soil chemistry results for Pete's Pond Extension (and for all other source areas), the concentrations of chemicals should be included as well as the background concentrations and maximum contaminant levels used for comparison, as appropriate.**

Response: Discussions of soil chemistry and groundwater chemistry have been revised, as needed, to include the concentrations of chemicals and their respective maximum background concentrations or maximum contaminant levels.

**Comment 19: Section 4.4.3.1, Page 32, third and fourth bullets:**

- a) In the discussion of pesticides detected for Pete's Pond, it is stated that no subsurface samples could be collected at the other borings. The next statement indicates that subsurface debris has not been detected at any of these locations. Is the presence of subsurface debris a criterion for collecting additional subsurface samples? If so, this and other criteria used to determine whether subsurface samples were collected should be included in the discussion of the remedial investigation program in Section 2. If not, provide an explanation as to why additional subsurface samples could not be collected.
- b) CDDs/CDFs were analyzed in only one sample collected from Pete's Pond. What is the rationale for why only one sample was analyzed for CDDs/CDFs? Is one sample considered representative of site conditions? What are the possible sources of CDDs/CDFs at the site?

Response: As was presented in Section 2.2.1, outfall sampling included drilling eight borings using a hand auger and collecting soil samples at 0- and 5-foot depths, when possible. However, several outfall locations contained rock erosion protection beneath the ground surface, which prevented completion of the borings to the target depths. For

this reason, the 5-foot samples could not be collected at certain boring locations. Also, debris, which has been observed at or near the ground surface at Pete's Pond, was not observed in any of the borings to the depths drilled. The text has been revised to provide this explanation.

Because no incinerated debris was encountered at Pete's Pond, as was the case at Pete's Pond Extension and the Disposal Area, CDDs and CDFs were not suspected of being present in subsurface soils at this area. CDDs and CDFs had been added to the analytical program for sites where incinerated material had been identified (e.g., Pete's Pond Extension and the Disposal Area) during Phase 2. Because only one more soil boring was planned in the area of Pete's Pond with subsurface debris at that time and because of the similar landfilling history to these adjacent areas, one sample from the planned Pete's Pond boring was selected for CDD/CDF analysis. The concentration of TCDD-TE that was detected in this sample (0.002  $\mu\text{g}/\text{kg}$ ) was below most concentrations detected in samples collected from within debris zones from Pete's Pond Extension and the Disposal Area.

**Comment 20:** Section 4.4.4, Page 34, second bullet: The discussion of copper, lead, and zinc concentrations is too general and does not adequately reflect the magnitude of the contamination found. For example, the highest concentration of lead detected of 673 mg/kg was 119 times the maximum background concentration of 3.7 mg/kg. Provide this type of discussion in the text of the report.

**Response:** The maximum background concentrations for these metals have been provided in the discussion for purposes of comparison, as appropriate.

**Comment 21:** Section 4.5.2, Page 36, second paragraph: Provide additional discussion and rationale for the statement that it appears that tetrachloroethylene (PCE) and TCE had migrated onto Sites 16 and 17 in the A-aquifer and in the Upper 180-foot aquifer. PCE and TCE were detected in soil and soil gas samples collected from Sites 16 and 17. Could the TCE and PCE found in groundwater have come from these sites? If not, why not?

**Response:** The text has been revised to better explain the rationale for why these chemicals detected in the groundwater are attributed to the migration of the OU 2 plume onto the site. Although the apparent presence of these chemicals in onsite soil (i.e., Pete's Pond Extension) and soil gas (i.e., Pete's Pond, Disposal Area, Fueling Facility) represents a potential contributing source to the groundwater, the relatively low concentrations and distribution in soil and soil gas suggest that these potential sources do not represent a significant contributor of these chemicals to groundwater. As presented in Section 4.6, modeling of these chemicals also indicates that these chemicals, based on detected concentrations in onsite soil, would not represent a significant impact to groundwater. This rationale has been briefly discussed in the third paragraph of Section 4.5.2.

**Comment 22:** Section 4.5.2, Page 37, first paragraph: This paragraph states that Sites 16 and 17 do not appear to be the source of PCE and TCE in groundwater because of the low concentrations of PCE and TCE detected in shallow soil and the depth to groundwater. Provide a comparison of soil data from the other sites and source areas from which the groundwater contamination was claimed to have migrated. What concentrations of PCE and TCE are considered sufficient to be a source of these compounds to groundwater not only beneath the source area but also sufficient to migrate to other sites.

Response: To date, no sources of PCE or TCE in the groundwater have been identified at Fort Ord (i.e., a vadose zone source has not been identified for the OU 2 plume); therefore, no comparison can be provided. Based on data collected onsite and from other areas of Fort Ord, VLEACH and groundwater modelling indicate that concentrations of these chemicals detected in onsite soils are not sufficient to account for the concentrations detected in groundwater. Also, the distribution of these chemicals does not appear to be indicative of a significant source area for these chemicals. Additional modelling has not been performed to estimate source concentrations needed to account for a given concentration in groundwater. Therefore, no revisions to the RI relative to this comment are necessary.

**Comment 23: Section 4.7, Page 38: The data validation assessment section should discuss whether each of the data quality objectives listed was met. For example:**

- a) A refined list of chemicals of concern should be included and discussed
- b) Were precision and accuracy objectives met?
- c) Was the testing of soil samples for physical properties adequate to assess fate and transport characteristics? (As mentioned in the general comments, a fate and transport section was not included in this report.) Section 4.6.2 states that cation exchange capacity, oxidation reduction potential, etc. were not available to address the mobility of site related metals.

Response: A refined list of chemicals of potential concern has been developed and presented in the Human Health Risk Assessment (Volume III).

The purpose of including data quality objectives (DQOs) in Section 4.7 was to provide the reader with a basis for understanding the qualitative objectives of the investigation. Comparison of data collected to the precision and accuracy goals (e.g., quantitative DQOs) of the investigation was performed during data validation. Precision and accuracy criteria were met for some but not all of the samples of analytical batches that were generated for the investigation. When precision and accuracy criteria were not met, data usability was considered to be dependent on the nature and degree of the QC exceedance and the intended use of the data. However, given the large number of data points collected for the investigation, it is not appropriate to present in Section 4.7 the degree to which precision and accuracy criteria were met for the QA/QC parameters and sample results. Alternatively, data validation results and discussion of the precision and accuracy assessment were presented in Appendix E of the Site 16 and 17 Site Characterization reports and Appendix F of this RI report.

Physical testing at Sites 16 and 17 was performed to provide data for use in the feasibility study. Obtaining site-specific physical data to assess fate and transport characteristics of the sites was not an objective of the RI. Although sufficient physical testing data have not been collected at Sites 16 and 17 to assess site-specific fate and transport characteristics, a fate and transport discussion of Sites 16 and 17 (Section 5.0) has been prepared using available onsite data and estimated physical parameters based on the knowledge of soil types encountered onsite and data collected at other Fort Ord sites.

**Comment 24:** Section 4.7, Page 38, last paragraph: Why were field quality control sample data (field blanks, field duplicates, decontamination rinsates) not used to assess data quality. These samples must be included in any data quality assessment performed, particularly since volatile organics such as TCE and xylenes were found in field blank and post decontamination samples.

**Response:** Field quality control sample data including trip blanks, field blanks, equipment rinsate blanks, and field duplicates (soil samples only) were evaluated during data validation. Discussion of field QC data is included in Appendix E of the Draft Site Characterization reports and Appendix F of this RI, as appropriate. Field QC samples were not mentioned as part of the data validation effort. The text has been revised accordingly.

**Comment 25:** Table 1: Provide the reason why closure for some underground storage tanks was not granted.

**Response:** Closure has not been granted for all underground storage tanks at Sites 16 and 17 either because the tanks are still in use and, therefore, closure has not been requested, or because the tanks are currently under investigation. A footnote to this effect has been added to the table for clarification.

**Comment 26:** Table 2: Why were geophysical surveys conducted in some sites and not in others?

**Response:** Geophysical surveys were performed to locate areas of subsurface debris where suspected of being present and to delineate the lateral and vertical extent of subsurface debris. Subsurface debris was only suspected of being present in the three areas where the geophysical surveys were performed.