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U S NAVY RESPONSES TO REGULATOR COMMENTS ON DRAFT SAMPLING AND
ANALYSIS PLAN CONSTRUCTION EQUIPMENT DEPARTMENT NCBC DAVISVILLE RI
07/25/2014
TETRA TECH



TETRA TECH

PITT-07-14-077

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Project No. 112G01813

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Reference: Contract No. N62470-08-D-1001
Contract Task Order (CTO) Number WE-01

Subject: Response to Comments Document for Draft Sampling and Analysis Plan
The Construction Equipment Department at
The Former Naval Construction Battalion Center, Davisville
North Kingstown, Rhode Island

Dear Mr. Dale:

Enclosed is the response-to-comments document for the Draft Sampling and Analysis Plan for TPH Delineation at the Construction Equipment Department (CED) and Additional Groundwater Sampling at Sites 02 and 03 and the Drum Removal Area at the Former Construction Battalion Center, Davisville, Rhode Island. The Environmental Protection Agency (EPA) Region I and State of Rhode Island Department of Environmental Management (RIDEM) comments were presented in correspondence dated June 24, 2014 and June 23, 2014, respectively.

Please call me at 412-921-8608 if you have any questions regarding the enclosed documents.

Sincerely,

Scott Anderson
Contract Task Order (CTO) Manager

Enclosures (1)

cc: David Barney, BRAC Environmental Coordinator (1 copy)
Christine Williams, EPA Region I (4 copies)
Richard Gottlieb, RIDEM (2 copies)
Bonnie Capito, NAVFAC (1 copy)
Andrew Glucksman, Mabbett and Associates (1 copy)
Steve King, QDC (1 copy)
John Reiner, Town of North Kingstown (1 copy)
John Trepanowski/Garth Glenn, TtNUS PMO (1 copy)
Lee Ann Sinagoga, TtNUS Project Manager (NCBC Davisville Site 16) (1 copy)
Joe Logan TtNUS Feasibility Study Engineer (1 copy)
Leigh Ciofani, TtNUS Risk Assessment Specialist (1 copy)
NIRIS RDM (1 copy, 1 CD)
TtNUS Project Files, Sharon Currie (1 copy)

ENCLOSURE 1

**Navy Response to United States Environmental Protection Agency (USEPA)
New England - Region I Comments on
The Draft Sampling and Analysis Plan (Field Sampling Plan and Quality Assurance Project Plan)
for TPH Delineation at the Construction Equipment Department (CED) Area Site 03 and Additional
Groundwater Sampling at Sites 02 and 03 and the Drum Removal Area, Dated May 2014, OU7 at
The Former Davisville Naval Construction Battalion Center (NCBC), Rhode Island
(USEPA Region I Correspondence Dated June 24, 2014)**

**Navy Response to United States Environmental Protection Agency (USEPA)
New England - Region I Comments on
The Draft Sampling and Analysis Plan (Field Sampling Plan and Quality Assurance Project Plan)
for TPH Delineation at the Construction Equipment Department (CED) Area Site 03 and Additional
Groundwater Sampling at Sites 02 and 03 and the Drum Removal Area, Dated May 2014, OU7 at
The Former Davisville Naval Construction Battalion Center (NCBC), Rhode Island
(USEPA Region I Correspondence Dated June 24, 2014)**

General Comments:

EPA Comment No. 1: The document should clarify, perhaps in Section 4.0 that the previous CED risk assessment showed acceptable risk for soils in the three areas addressed.

Navy Response to EPA Comment No. 1: *Agree that the previous CED risk assessment showed acceptable risk for soils at Sites 02/03; however, the Drum Removal Area was not evaluated in the previous CED risk assessment. The following will be added as the second sentence in the second paragraph of Section 4.0: "This risk evaluation concluded that risks were acceptable for direct contact (i.e., incidental ingestion, dermal contact, and inhalation) with soil at Sites 02 and 03 (Tetra Tech, 2014)."*

EPA Comment No. 2: The May 2014 EPA Regional Screening Level (RSL) tables now have screening levels for six fractions of Total Petroleum Hydrocarbons, based on non-cancer risk values that were derived in a Provisional Peer Reviewed Toxicity Value document, which serves as a Tier 3 source of toxicity values. There are RSLs for each fraction for residential soil, industrial soil, residential air, industrial air, tapwater, and risk-based soil screening levels (SSLs). EPA at this time for this site does not require analysis or risk assessment of these fractions because EPA-approved analytical methods have not been identified, and petroleum is generally exempt from CERCLA unless it have been contaminated by CERCLA pollutants. However, EPA reserves the right to require such analysis and risk screening in the future if EPA-approved methods are identified, and if TPH concentrations left in place exceed RSLs for these fractions.

Navy Response to EPA Comment No. 2: *Comment noted. If EPA-approved methods are identified for the total petroleum hydrocarbons fractions, the Navy will evaluate the need to perform a risk assessment of these fractions.*

EPA Comment No. 3: For clarity, please include a conceptual site model (CSM) figure to complement section 4 that describes the sources and the various hydrogeological pathways from which the sources are impacting the soil and groundwater. This differs from the risk assessment model shown on figure 4-5.

Navy Response to EPA Comment No. 3: *Agree. The sources and various hydrogeological pathways through which the sources are potentially impacting the soil and groundwater will be added to Figure 4-5.*

EPA Comment No. 4: Problem No. 1 - Delineation of TPH-Contaminated Soil at Site 03 (CED Solvent Disposal Area): As requested by EPA, the draft SAP for the Site 02 TPH investigation (see Figure 4-3) includes additional vadose-zone soil sample locations to provide better spatial coverage for assessing the vertical and horizontal extent of potential TPH contamination above RIDEM GA leachability criteria and residential and industrial/commercial direct exposure criteria. EPA requested these additional soil sample locations after reviewing the Navy's December 2013 proposal which showed fewer soil sample locations.

Navy Response to Comment No. 4: *Comment noted.*

EPA Comment No. 5: Problem Nos. 2/3 - Characterization of Groundwater/Vapor Intrusion Potential at Sites 02/03: As requested by EPA, the draft SAP for Sites 02/03 groundwater investigation includes shallow overburden groundwater samples from existing monitoring wells MW03-03S, MW02-11S, and MW02-03S. Similar to other groundwater wells collected to address Problem Nos. 2 and 3, these wells will be sampled for VOCs, naphthalene, TAL metals (total and dissolved) and TPH. EPA recommended these wells be sampled to further characterize the nature and extent of these contaminants in shallow groundwater within and down gradient from Sites 02 and 03, as well as down gradient from the CED Drum Removal Area.

The draft SAP indicates that groundwater samples to be collected from existing monitoring wells MW01-10S, MW01-13S, and MW01-14S were selected to provide “upgradient” conditions relative to groundwater at Sites 02 and 03. However, during the December 12, 2013 BCT call, EPA acknowledged these wells may provide useful perspective, but cautioned that these wells may or may not be suitable background wells. Accordingly, the Navy should use data from these wells with a level of caution above and beyond what may be conveyed in the draft SAP.

Navy Response to Comment No. 5: *Comment noted. Please see response to Comment 12.*

EPA Comment No. 6: Problem No. 4 - Characterization of Groundwater at CED Area Drum Removal Area: The draft SAP includes sampling all six of the groundwater wells recently installed in this area in February 2014, and following the time-critical removal action (removal of buried drums) completed by the Navy in October 2013. Portions of the draft SAP appear to have been written prior to the installation of these six wells, but these wells were subsequently included in the tables listing locations that will be sampled (Tables 7-1 and 8-1). These wells will be sampled for VOCs, naphthalene, TAL metals (total and dissolved), TPH, as well as SVOCs and Pesticides/PCBs.

Navy Response to Comment No. 6: *Comment noted.*

Specific Comments:

EPA Comment No. 7: The draft SAP describes soil and groundwater analysis for “TPH-DRO (C9-C40)” by EPA Method SW-846 8015B through the text and tables (see page 68). However, EPA’s understanding is this method identifies both gasoline range organics (C6-C10; GRO) and diesel range organics (C10-C28; DRO), but does not identify hydrocarbon ranges above C29. The Navy should clarify the carbon range of total petroleum hydrocarbons to be analyzed and any other or different analytical methods to be used.

Navy Response to EPA Comment No. 7: *The Navy will use Method 8015 to analyze for the “full” petroleum hydrocarbon range (C5 through C40, which includes GRO plus extractable TPH). This will include gasoline and other light products (paint thinner, jet fuel) through the extractable range up to C40 (including heavy hydrocarbon fuels, lubricating oil, #2, 4, 6 fuels). The SAP will be revised to state that soil and groundwater will be analyzed for TPH as GRO [methyl tert-butyl ether (MTBE) through naphthalene] plus extractable TPH (C9-C40) using Method 8015. The laboratory’s standard operating procedure (SOP) is available upon request.*

EPA Comment No. 8: Page 6 of 82: Add PQLG and T-RSL to the list of acronyms and abbreviations.

Navy Response to EPA Comment No. 8: *Agree.*

EPA Comment No. 9: Section 5.2: the next to last bullet on page 22 of 82 indicates that no rinsate blanks will be taken, and that Navy accepts the liability of accidentally contaminating a sample. EPA does not accept this elimination of a standard component of good quality assurance because it could compromise the accuracy and usability of data at this site and perhaps elsewhere due to precedent. Please change the text to include rinsate blanks.

Navy Response to EPA Comment No. 9: *Agree. The text in Section 5.2 (next to last bullet) and Section 6.0 will be updated to state that rinsate blanks will be collected.*

EPA Comment No. 10: Section 5.3: At the end of Problem No. 1 on page 23 of 82 it is stated that there are no temporal bounds on the soil data to be evaluated. This infers that historic data will be used for this evaluation, presumably in addition to the TPH data to be collected as part of this work plan. Please clarify the meaning of temporal bounds and the historical data that will be used.

Navy Response to EPA Comment No. 10: *As the text states, there are no temporal bounds on the soil to be evaluated, meaning that available historical data will be considered (e.g., evaluated qualitatively). However, because historical soil boring locations will be resampled as specified in the SAP (see Figure 4-3) and because the new soil samples will be analyzed per the current analytical procedures specified in this SAP, it is anticipated that risk management decisions will be made based on the new data. This information will be added to the end of the first paragraph in Section 5.3.*

EPA Comment No. 11: Page 24 of 82, Section 5.3, top of page. Please describe the CSM that indicates TPH contamination is not expected greater than 4 feet deep. The combination of TPH and solvents could cause contaminant migration to the water table and beyond.

Navy Response to EPA Comment No. 11: *The CSM indicates that TPH is likely from surface releases (e.g., solvent disposal, equipment storage). At present, only surface soil TPH data are available for Site 03. Section 4.2 states: "The source of TPH is expected to be historical contaminant disposal activities conducted at the site and/or potential releases from heavy equipment. The horizontal and vertical extent of contamination exceeding RIDEM criteria is currently unknown." Even though it is anticipated that TPH contamination is limited to the shallower soil intervals (i.e., < 4 feet bgs), soil samples will be collected to a depth of 10 feet bgs and analyzed, as necessary, (see Section 7.1) in an attempt to delineate the vertical extent of contamination in case contamination is present at deeper soil intervals.*

EPA Comment No. 12: Page 25 of 82, Section 5.4, Please describe the methodology for determining when the groundwater constituents detected are CoPCs when the background concentrations for this part of the NPL site has not yet been agreed to.

Navy Response to Comment No. 12: *Although a formal background data set for groundwater has not been agreed to for the CED Area, samples will be collected from upgradient groundwater wells (i.e., MW01-10S, MW01-13S and MW01-14S) and used for comparison to groundwater results from the site wells. To account for uncertainty associated with the upgradient groundwater data set, risks will be evaluated two ways: 1) after eliminating chemicals greater than screening levels but within the range of upgradient concentrations, and 2) including all chemicals greater than screening levels. The following statements will be added to Note 2 in Section 5.4: "Because a formal background dataset for groundwater is not available for the CED Area, upgradient groundwater concentrations, as described in Section 5.1, will be used for comparison with site groundwater concentrations to determine COPCs. To account for uncertainty associated with the upgradient groundwater data set, risks will be evaluated two ways: 1) after eliminating chemicals greater than screening levels but within the range of upgradient concentrations, and 2) including all chemicals greater than screening levels."*

EPA Comment No. 13: Page 25 of 82, Section 5.4, Groundwater cleanup is to drinking water standards, so the risk evaluation should include both drinking water and soil to groundwater migration.

Navy Response to EPA Comment No. 13: *The risk assessment will include an evaluation of groundwater COPCs for direct contact (i.e., ingestion, dermal contact, and inhalation) and vapor intrusion as well as an evaluation of the potential for COPC migration from soils to groundwater. For clarity, the text for Decision Rules for Problem Nos. 2 and 3 will be revised as follows: "If target analytes are detected in groundwater samples collected during the sampling of monitoring wells and determined to be COPCs for direct contact/vapor intrusion, then conduct a risk evaluation using all applicable COPCs. If no COPCs are selected, no risk evaluation is necessary for direct contact/vapor intrusion. An update of the analysis (see Note 3 below) of the potential for chemical migration from soil to groundwater presented in the 2014 CED Area soils risk assessment will be included." Similar revisions will be made to the text for Decision Rules for Problem No. 4.*

EPA Comment No. 14: Page 28 of 82, Section 7.1, second paragraph – The text refers to Figure 7-1, but there is no figure 7.1 in this work plan. Please include this figure in the next version.

Navy Response to EPA Comment No. 14: *The figure reference in the second paragraph of Section 7.1 should be for Figure 4-3, which shows all of the boring locations. This figure reference in Section 7.1 will be changed to Figure 4-3.*

EPA Comment No. 15: Page 29 of 82, Section 7.1, top of page. What information has been reviewed that indicates the contamination at site 03 is the results of surface releases?

Navy Response to Comment No. 15: *Please see the response to Comment 11. The last sentence of the third paragraph in Section 7.1 will be changed to: "The decision not to automatically analyze all soil depth intervals was based on an expectation that very few locations need to be investigated to depths greater than approximately 4 feet bgs because the contamination at Site 03 is likely to be the result of surface releases based on the CSM (see Section 4.1)." A reference for the Phase III Comprehensive Remedial Investigation (EA, 1998) will be added to Section 4.1 to indicate the source of the information presented in the CSM.*

EPA Comment No. 16: Page 41 of 82, Accuracy, Precision, Completeness, and Comparability – The text needs to define how these DQI's will be measured. For example, duplicate analyses such as lab dups, LCS, LCSDs, MS, and MSDs will be used to determine the precision of the analytical data. The Relative Percent Difference (RPD) will be calculated using the following formula; the difference of the two results divided by the average of the two results expressed as a percentage (see worksheet #28 for specific acceptance criteria).

Navy Response to EPA Comment No. 16: *The text will be updated to define how the DQIs for accuracy, precision, and completeness presented in Section 8.1 will be measured. The following text will be added for these DQIs:*

Accuracy: The accuracy of chemical analyses is assessed through the use of surrogate spikes, MSs, PDSs, LCSs, calibration check standards, internal standards, and blanks. Blanks are used to infer the potential for positive biases because of contamination. To assure the accuracy of the analytical procedures, at least one of every 20 environmental samples will be spiked with known amounts of target analytes (i.e., MSs) prior to preparation for analysis. The spiked samples will be analyzed, and the concentrations of each target analyte observed in the spiked sample will be compared to the reported value of the analyte in the unspiked sample to determine the %R of the analyte. Control charts are

plotted by the laboratory for each target analyte and are kept on matrix- and analyte-specific bases. The %R for a spiked sample is calculated using the following formula:

$$\%R = \frac{\text{Amount in Spiked Sample} - \text{Amount in Sample}}{\text{Known Amount Added}} \times 100\%$$

LCSs and surrogate spikes are also analyzed to assess accuracy. The %R calculation for LCSs and surrogate spikes is as follows:

$$\%R = \frac{\text{Amount in Spiked Sample} - \text{Amount in Sample}}{\text{Known Amount Added}} \times 100\%$$

Precision: The precision will be assessed through laboratory duplicate samples (for inorganic analyses) and MSD samples (for organic analyses). These samples will be prepared and analyzed at a minimum frequency of one per every 20 environmental samples per matrix. As described in Section 5.2, field duplicate samples also will be collected at a minimum frequency of one per 10 environmental samples per matrix. The RPD between a sample or MS (Sample 1) and its duplicate or MSD (Sample 2) is calculated for chemical analyses using the following formula:

$$RPD = \frac{|\text{Amount in Sample 1} - \text{Amount in Sample 2}|}{0.5 (\text{Amount in Sample 1} + \text{Amount in Sample 2})} \times 100\%$$

Completeness: Completeness for this project is determined based on the number of sample results for each target analyte and each sample type that are usable as determined through data validation and data assessment. Data values rejected during data validation (indicated by an "R" or "UR" flag) will be considered unusable unless additional review and documentation by one or more technical team members demonstrates that the rejection was erroneous.

Percent completeness will be calculated using the following equation:

$$\% \text{ Completeness} = \frac{(\text{Number of Valid Measurements})}{(\text{Number of Measurements Planned})} \times 100\%$$

The ideal objective for completeness is 100 percent (i.e., every sample planned to be collected is collected; every sample submitted for analysis yields valid data). However, samples can be rendered unusable during shipping or preparation (e.g., bottles broken or extracts accidentally destroyed), errors can be introduced during analysis (e.g., loss of instrument sensitivity, introduction of ambient laboratory contamination), or strong matrix effects can become apparent (e.g., extremely low MS recovery). These instances result in data that do not meet QC criteria. Based on these considerations, 95 percent is considered an acceptable target for the data completeness objective. If critical data points are lost, resampling and/or reanalysis may be required.

No change is necessary for comparability, as the text in Section 8.1 states comparability “will not require quantitative comparisons unless the Tetra Tech Project Chemist indicates that such quantitative analysis is beneficial to the project and the Tetra Tech PM agrees.”

EPA Comment No. 17: Page 52 of 82, Section 9, Method 8260B – If EDB, DBCP, and 1,4-Dioxane are contaminants of concern, then there are alternative analytical procedures that can be utilized with lower reporting limits than the ones that are listed here. Since the clean-up levels are MCLs and the OU7 includes both solvents and TPH, navy should reconsider the analytical procedures.

Navy Response to EPA Comment No. 17: *Based on the available site information, EDB, DBCP, and 1,4-dioxane are not expected to be significant contaminants in the CED area groundwater. Historical EDB and DBCP results are available in both the historical CED area dataset and historical NIKE site dataset; however, 1,4-dioxane was not an analyte in these historical datasets. Although reported non-detected results for EDB and DBCP in the historical dataset exceed applicable screening criteria, neither compound has been detected in any of the historical soil or groundwater samples collected at the CED Area or in the NIKE site samples collected by USACE. Therefore, EDB and DBCP are unlikely to be significant site contaminants, and the methodology in the SAP will not be altered to achieve lower detection limits for these chemicals. However, 1,4-dioxane will be added to the 8270D/SIM list of SVOCs because there are no historical data for this compound. The BNA SIM method does achieve detection limits that are less than the project screening level.*

EPA Comment No. 18: Section 9.0: The Project Screening Levels based on Regional Screening Levels should be updated to those issued in May, 2014.

Navy Response to EPA Comment No. 18: *Agree. The Project Screening Levels based on Regional Screening Levels will be updated to reflect the most recent (May 2014) Regional Screening Levels.*

EPA Comment No. 19: Figure 4-4 ---It is recommended that an arrow that indicates the groundwater flow direction be added to this figure.

Navy Response to EPA Comment No. 19: *Groundwater flow arrows will be added to Figure 4-4.*

ENCLOSURE 2

**Navy Response to
RIDEM Comments on
The TPH Delineation at CED Area Site 03 and Additional Groundwater Sampling at Sites 02 & 03
and the Drum Removal Area Sampling and Analysis Plan Dated May 23, 2014
Naval Construction Battalion Center (NCBC)
Davisville, Rhode Island
(RIDEM Correspondence Dated June 23, 2014)**

**Navy Response to
RIDEM Comments on
The TPH Delineation at CED Area Site 03 and Additional Groundwater Sampling at Sites 02
& 03 and the Drum Removal Area Sampling and Analysis Plan Dated May 23, 2014
Naval Construction Battalion Center (NCBC)
Davisville, Rhode Island
(RIDEM Correspondence Dated June 23, 2014)**

RIDEM Comment No. 1: Page 17 of 82, Section 4.1, Site Descriptions and History, Site 02, Paragraph 1 – This paragraph states that a removal action included the collection of confirmation samples to ensure that cleanup criteria were met for lead and TPH. Please note in this paragraph that both lead and TPH were left in place that exceeds the RIDEM Industrial/Commercial Direct Exposure Criteria. There is also one sample (02-SS17) which exceeds RIDEM GB Leachability Criteria and six that exceed the GA Leachability Criteria (02-SS16 through 20 which included one duplicate sample). For lead this was documented in a letter dated 23 September 1996 from Richard Gottlieb of RIDEM to Philip Otis of the Navy. Please revise this paragraph accordingly.

Navy Response to EPA Comment No. 1: *Agree that lead concentrations exceeding RIDEM Industrial/Commercial Direct Exposure Criteria were left at the site. However, based on the information presented in the Final Closeout Report for IR Program Site 02, NCBC Davisville, RI (September 26, 1996), no TPH concentrations exceeding the RIDEM criteria were left at the site. The samples noted in the comment above to exceed TPH RIDEM Industrial/Commercial Direct Exposure Criteria and RIDEM GA/GB Leachability Criteria (02-SS16 through 20) were collected during the **first round** of confirmatory sampling discussed in the closeout report. Regarding these first round confirmatory samples, Section 2.2 of this report states, "...five of the seven samples exceeded the TPH cleanup criterion of 500 ppm. As a result, one foot of soil was excavated from the bottom and sidewalls of the Wheel Alignment Room piping trench". Section 3.1 states, "Following completion of the excavation of the Wheel Alignment Room Trench, a second round of confirmatory soil samples was collected (02-SS16A-062796 through 02-20A-062796) for TPH analysis. The test results, summarized in Table 3-1, were all below the cleanup goal for the site." Based on the **second round** of confirmatory sampling, TPH results were not left at the site at concentrations exceeding RIDEM criteria.*

Based on this information, the following statements will be added after the seventh sentence in the paragraph for Site 02 in Section 4.1: "Although cleanup criteria were met for both lead and TPH, lead concentrations that exceed the RIDEM Industrial/Commercial Direct Exposure Criterion (500 ppm) were left at the site. TPH concentrations left at the site do not exceed RIDEM criteria."

RIDEM Comment No. 2: Page 19 of 82, Section 4.4, Potential Migration Pathways and Exposure Potential, Paragraph 1 – This paragraph states that it is unlikely, but possible that a building may be constructed atop the area being investigated. Please remove this statement as QDC has divided this area up into a number of parcels (see Plat Map 191, North Kingstown, RI) with the intent of developing each parcel which in most instances would include building construction.

Navy Response to RIDEM Comment No. 2: *Agree. The referenced statement will be changed to: "[Because a VOC groundwater plume underlies soil at the CED Area (see Section 5.1), it is necessary to understand if the Focused Feasibility Study (FFS) currently being prepared for the CED Area soils needs to address vapor intrusion.]"*

RIDEM Comment No. 3: Page 20 of 82, Section 5.1, Problem Statements, Problem 3, Characterization of Vapor Intrusion Potential at Sites 02/03 – This paragraph states that the "FFS is for CED Area soils and does not require an understanding of the potential for vapor intrusion", but further on in the paragraph it states that "data must be collected from select CED Area shallow-zone wells to support an evaluation of the potential for vapor intrusion". Please clarify as

the former statement sounds as if understanding vapor intrusion is not necessary, but the latter statement implies that understanding vapor intrusion is necessary. Please note that vapor can also come from soils, i.e. it is not limited to what is in groundwater.

Navy Response to RIDEM Comment No. 3: *The sentence referenced above states, “The FFS is for CED Area soils and **does require** an understanding of the potential for vapor intrusion...”, which is consistent with the other statements in the same paragraph. Therefore, no change to the text is required. Agree that vapor can come from soils, but based on the available soils data for Sites 02/03, soil is not expected to be a source of vapor intrusion; rather, the potential vapor intrusion source for Sites 02/03 is a VOC groundwater plume emanating primarily from an upgradient United States Army Corps of Engineers (USACE) source area.*

RIDEM Comment No. 4: Page 24 of 82, Section 5.3, Site Boundaries, Problem 1, Delineation of TPH-Contaminated Soil at Site 03, Paragraph 1 - For Site 03 please explain what the difference is between soil contaminated by site operations and soil not contaminated by site operations and how one is going to tell the difference between the two.

Navy Response to RIDEM Comment No. 4: *Soil contaminated by site operations is that which has TPH concentrations exceeding RIDEM criteria. Soil not contaminated by site operations is that which does not have TPH concentrations that exceed RIDEM criteria. To explain this, the first sentence of the second paragraph of Section 5.3 will be revised as follows: “Two populations of soil are of interest for Site 03, soil contaminated by site operations (at concentrations exceeding RIDEM criteria) and soil not contaminated by past site operations (at concentrations less than or equal to RIDEM criteria) that helps to delineate the extent of site-related contamination.”*

RIDEM Comment No. 5: Page 28 of 82, Section 7.1, Soil Borings at Site 03, Paragraph 2 – This paragraph references Figure 7-1 which delineates where a DPT rig will be used to advance shallow soil borings at 35 locations. Please provide the figure.

Navy Response to RIDEM Comment No. 5: *Paragraph 2 of Section 7.1 should reference Figure 4-3, as all of the proposed soil boring locations are shown in this figure. This figure reference will be changed to Figure 4-3.*

RIDEM Comment No. 6: Page 28 of 82, Section 7.1, Soil Borings at Site 03, Paragraph 3 – This paragraph states that TPH- DRO will be measured from C₉ to C₄₀ which is adequate for DRO. For total TPH, GRO, from C₇ to C₁₂, also needs to be measured. This comment also applies to the same reference on page 31 of 82, paragraph 1. Please include this in the work plan.

Navy Response to RIDEM Comment No. 6: *The work plan will be revised to define TPH as GRO (MTBE through naphthalene) plus extractable TPH (C₉-C₄₀). The last sentence in Section 7.1 will be changed to: “All samples will be submitted to the subcontract analytical laboratory to be analyzed for TPH as gasoline range organics (GRO) [methyl tert-butyl ether (MTBE) through naphthalene] and extractable TPH (C₉-C₄₀).” Similar revisions will be made in the last paragraph of Section 7.2 and throughout the work plan where TPH is defined.*

RIDEM Comment No. 7: Page 33 of 82, Table 7-1, Wells Identified for Additional Sampling – It is not clear what the suggested EPA wells (MW03-03S, MW02-11S, MW02-03S) are going to be sampled for. Wells MW02-11S and MW02-03S should at minimum be sampled for metals and naphthalene. MW03-03S should be sampled at minimum for metals and TPH.

Navy Response to Comment No. 7: *Wells MW03-03S, MW02-11S, and MW02-03S will be sampled for TCL VOCs, naphthalene, TAL metals (total and dissolved), and TPH. Table 7-1 will be revised so that footnotes indicate the fractions that will be analyzed for each of the wells.*

RIDEM Comment No. 8: Page 34 of 82, Section 8.1, Field Project Tasks, Mobilization/Demobilization and Utility Clearance, Paragraph 2 - This paragraph references IDW. Please reference that IDW, at minimum, should be handled in accordance with RIDEM's IDW Policy Memo 95-01. This policy memo is noted on Page 38 of 82 (Investigation-Derived Waste Management), but should also be referenced in this section.

Navy Response to RIDEM Comment No. 8: Agree. RIDEM's IDW Policy Memo 95-01 will be added to the referenced paragraph in Section 8.1.

RIDEM Comment No. 9: Page 43 of 82, Section 8.2, Field SPOS Reference Table, SOP-15, Management of Investigative Derived Waste - See Comment #8.

Navy Response to RIDEM Comment No. 9: In Section 8.2, a footnote will be added to the "Comments" column for SOP-15 ("Management of Investigation-Derived Waste") to state that IDW will also be handled in accordance with RIDEM Policy Memo 95-01 - Guidelines for the Management of Investigation Derived Wastes (1995), as noted in Section 8.1.

RIDEM Comment No. 10: Pages 44 – 47 of 82, Table 8-1, Sample Details Table - See Comment #6.

Navy Response to RIDEM Comment No. 10: Please see Navy response to RIDEM Comment No. 6.

RIDEM Comment No. 11: Pages 48 – 49 of 82, Table 8-2, Analytical SOP Requirements Table – For TPH see Comment #6.

Navy Response to RIDEM Comment No. 11: Please see Navy response to RIDEM Comment No. 6.

RIDEM Comment No. 12: Page 50 of 82, Table 8-3, Field Quality Control Sample Summary Table – See Comment #6.

Navy Response to RIDEM Comment No. 12: Please see Navy response to RIDEM Comment No. 6.

RIDEM Comment No. 13: Pages 51 – 61 of 82, Section 9.0 Reference Limits and Evaluation Tables – Where the detection limit is greater than the project screening level please explain how a non-detect will be used in terms of determining whether there is an exceedance of the project screening level or how it might be used in then possible performance of a risk assessment.

Navy Response to RIDEM Comment No. 13: Chemicals not detected in environmental samples collected from an environmental medium will not be considered chemicals of potential concern (COPC) and will not be retained for quantitative risk assessment. However, if the reported sample quantitation limits (i.e., non-detected results, "U" qualified data) exceed COPC screening levels, such "non-detected results" will be further evaluated (qualitatively) in the uncertainty section of the risk assessment to determine if risk management decisions could be impacted by the non-detected results exceeding the screening levels. Factors considered during this qualitative evaluation may include the frequency with which non-detected results exceed screening levels and the magnitude of the exceedances. The following sentence will be added to the notes following the reference limits and evaluation tables in Section 9.0: "Non-detected results greater than PSLs will be evaluated qualitatively in the risk assessment uncertainty section."

RIDEM Comment No. 14: Pages 68 and 69 of 82, Section 11.0, Laboratory QC Samples Tables – This section is for TPH-DRO (C9-C40). We also need to include TPH-GRO (C7-C12). Please add.

Navy Response to RIDEM Comment No. 14: Please see Navy response to RIDEM Comment No. 6.