

APPENDIX M
DOCUMENT REVIEW COMMENTS

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August 9, 2014

U.S. Army Engineer and Support Center, Huntsville
Attn.: Mr. Spencer O'Neal
4820 University Square
Huntsville, AL 35816-1822

Re: Response to SC DHEC Comments on the
Draft-Final Remedial Investigation (RI) Report
Former Camp Croft, Spartanburg, South Carolina
DERP-FUDS Project No. I04SC001603
Contract No. W912DY-10-D-0028; Task Order No. 0005

Dear Mr. O'Neal:

Zapata Incorporated (ZAPATA) has reviewed the South Carolina Department of Health and Environmental Control (SC DHEC) comments on the Draft-Final Remedial Investigation (RI) at the former Camp Croft, Spartanburg, South Carolina dated May 2014 and recommends the following USACE responses.

SC DHEC Comment 1: Table 3-1, Page 3-10, Range Complex-Lake Craig and Lake Johnson: The RI Field Investigation Summary column states that no MEC was found; however, Exhibit 8-6 indicates that a 60 mm mortar was found on the south west side of Lake Craig. Please clarify.

USACE Response: The RI Field Investigation column on Table 3-1 for the Range Complex Lake Craig and Lake Johnson has been revised to specify that no MEC/MD were found along the shoreline during the RI field investigation. 60mm MEC was found close to the shoreline during previous site activities, as reported in HFA's Removal Action Report (1997). The precise location of those findings is unclear and is estimated on Exhibit 8-6.

SC DHEC Comment 2: Please distinguish which PALs in the tables and the text are based on EPA Regional Screening Levels (RSLs) and which are based on Soil Screening Levels (SSLs). Generally SSLs are used to determine leachability to groundwater to establish the need for monitoring well installation and not for use in source identification or site delineation. There are site specific dilution attenuation factors that are often applied to EPA's generic conservative SSLs that allow for site contamination screening based on specific geologic parameters.

USACE Response: The text has been revised to more clearly indicate the use of Resident Soil levels from the EPA Regional Screening Levels (RSLs), dated November 2012. We are not using the Risk-based SSLs for Protection of Ground Water from the EPA RSLs.

SC DHEC Comment 3: Page 7-4, Screening Level Ecological Risk Assessment, Contaminant Fate and Transport Mechanism, Bullet c: The text states that soils within the former range and target areas are identified as being potentially contaminated with MC either by direct contact from past military training activities or through localized transport via erosion. This statement is somewhat misleading since no source areas were identified with the exception of 2 small, isolated hotspots of lead located in MRS3.

USACE Response: Section 7.2.1.c. was revised, as follows: “Soils within the former firing range and target areas have the potential of being contaminated with MC, either by direct contamination from past military training activities or through localized transport via erosion. However, no source areas were identified with the exception of two small, isolated hotspots of lead located in MRS 3. No surface water or sediment samples were collected because these media were not considered to be of concern at the former Camp Croft.”

SC DHEC Comment 4: Many of the Exhibit figures have Key color choices that are similar which makes it difficult to differentiate items and areas.

USACE Response: Noted. Exhibits provided in the Final RI will be revised to include color schemes that are more discernable.

If you have any questions or comments, please feel free to contact us at your convenience.

Sincerely,
Zapata Incorporated

By: _____
Jason Shiflet, P.G.
Director of Operations, MRS/ECRS

Response to Comments Review (76852)

(history of open issues)

Title of Original Document Reviewed

Draft Final - Remedial Investigation Report, ITRC Ranges, FUDS MMRP Project No. I04SC001603, Spartanburg, Spartanburg County, SC.

Reviewer / Discipline		Ford, Dwayne / MEC Response		
Review - Comment ID	Type/Status	EMCX Review Comment	EMCX Review Recommendation	Response to EMCX Review
Review Cycle: 1 UID: 76450-DCF-1	Significant	One of the primary conclusions of the RI Report is the proposed delineation of a multitude of new MRS's. The District should carefully review the proposed new MRS's and, if it agrees, needs to initiate creation of the associated new MMRP projects. If it isn't done soon, the linkage and rationale for the new MRS's will fade and the tracking and documentation in FUDSMIS will soon get disjointed and very confusing.	The District should initiate creation of the recommended new MRS's, i.e. MMRP projects, as soon as practical upon finalization of the RI Report.	Noted.
Review Cycle: 2 UID: 76852-DCF-1	Resolved	Issue Resolved		RESOLVED issues do not require a response.
Review - Comment ID	Type/Status	EMCX Review Comment	EMCX Review Recommendation	Response to EMCX Review
Review Cycle: 1 UID: 76450-DCF-3	Significant	Section states, "Considering the findings in MRS 1, it is recommended for No Action and will not require inclusion in the Feasibility Study; however, it will be included in subsequent Decision Documents." Why in the world would we not include a site in the FS but then include it in a DD? Maybe there will be a need or a good reason for referencing MRS 1 in a DD, but I don't believe we should commit to including any MRS in a DD at this point in the CERCLA process.	Remove reference to including MRS 1 in a subsequent DD.	EMCX - No Response Found/Required
Review Cycle: 2 UID: 76852-DCF-3	Resolved	Issue Resolved		RESOLVED issues do not require a response.

Review - Comment ID	Type/Status	EMCX Review Comment	EMCX Review Recommendation	Response to EMCX Review
Review Cycle: 1 UID: 76450-DCF-4	Observation	Section states, "MRS 2 should maintain its current status and, when rights-of-entry can be obtained, the property should be investigated." I believe the sentence should be reworded to state, "...and, assuming rights of entry can be obtained at some point in the future, the property should be investigated." There's no guarantee ROEs will ever be obtained.	Reword sentence.	Concur. Section 1.4.a has been revised per the reviewers comment.
Review Cycle: 2 UID: 76852-DCF-4	Resolved	Issue Resolved		RESOLVED issues do not require a response.

Review - Comment ID	Type/Status	EMCX Review Comment	EMCX Review Recommendation	Response to EMCX Review
Review Cycle: 1 UID: 76450-DCF-5	Observation	Section states, "In 1997, a surface clearance began at OOU2. However, it was discovered that there were no horse trails in OOU2; therefore, 5,400 feet of new trails were established in OOU2 with the aid of park personnel." This just seems like oddly linked sentences and I interpreted it to mean, 'we launched a removal action to conduct surface clearance in this area to protect the people and horses using the trails but when we found out there actually weren't any trails, we created some so that we could do the surface clearance we told everyone one to do'. I dunno, it just seemed like a strange thing to include in the RI Report and a strange way to word it.	Consider rewording.	Concur. Section 2.3.1.1.b was revised to clarify the historical events.
Review Cycle: 2 UID: 76852-DCF-5	Resolved	Issue Resolved		RESOLVED issues do not require a response.

Review - Comment ID	Type/Status	EMCX Review Comment	EMCX Review Recommendation	Response to EMCX Review
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Review Cycle: 1
UID: 76450-DCF-6

Significant

The DQOs are weak and should be strengthened. For example, "MRS 1 (23.8 acres): Collect data along transects spaced 36 meters (m) apart within the MRS boundary and 16.24m apart south of the MRS boundary. Grids equated to 50 feet by 50 feet within the MRS." Each of the MRS's / areas has a similar statement of "collect data". What data? The details about the transect spacing sort of implies the quantity and quality of data, but the rest of the DQO is hollow. As stated, the DQO might be about collecting information on June bug habitat.

The RI has some distinct objectives: determining nature and extent of MEC, completing MEC HA, determining MRSPP score, etc. Each of those objectives has a unique set of data needs in order to be able to successfully complete it. And that data needs to be of a certain quantity and quality in order to make, and have confidence in, the project decisions. For example, the MRSPP is going to need some population/census data. Where are you going to get that? How accurate does it need to be? How old can it be?

Another example is in MRS 2. There was 0.09 acres of transects completed but it was not possible to draw any conclusions about nature and extent in that MRS because not enough data was collected due to insufficient ROEs - the project team didn't have enough ROE data to complete the objective. Clearly, there was a certain amount of ROEs, or perhaps some strategically placed ROEs, which were needed in order to draw conclusions with and have some confidence in those conclusions. Somebody, somewhere, made the mental calculation that 0.09 acres of ROEs was not sufficient to meet the project objectives at MRS 2. The DQO process is how the team determines and documents where those 'tipping points' are.

The DQOs need to succinctly summarize those elements of the project's data needs: the specific project objective, the specific data

Make the project / MRS DQOs robust and succinct.

Concur. The reviewer has a valid point. Development of DQOs at RI/FS sites have improved over the last several years, under the direction and guidance of the EM CX. However, in speaking with the project team (CESAS, CESAW, USAESCH) about this comment, the team agrees that these DQOs are being presented as they were provided in the approved Final Work Plans.

needed to complete that objective, and how much/how good the data should be.

Review Cycle: 2
UID: 76852-DCF-6 Resolved Issue Resolved
RESOLVED issues do not require a response.

Review - Comment ID	Type/Status	EMCX Review Comment	EMCX Review Recommendation	Response to EMCX Review
Review Cycle: 1 UID: 76450-DCF-7	Observation	It's unclear what the different purposes are of the mag-and-dig grids are from the DGM grids. Why weren't all the grids mag-and-dig or all DGM? Maybe there's a reason but I couldn't grasp it from the text (and this ties back to the comment on DQOs).	Clarify purpose of the mag-and-dig grids versus the DGM grids.	Noted. The mag-and-dig grids were meant to supplement the AIR transects. The DGM grids were meant to supplement the mag-and-dig transects. This process was agreed upon by the PDT and documented in the approved Final Work Plans.

Review Cycle: 2
UID: 76852-DCF-7 Resolved Issue Resolved
RESOLVED issues do not require a response.

Review - Comment ID	Type/Status	EMCX Review Comment	EMCX Review Recommendation	Response to EMCX Review
Review Cycle: 1 UID: 76450-DCF-8	Significant	Section states, "The nature and extent of MEC and MC cannot be determined on property that was not investigated." This is a bit misleading. The nature and extent can be interpolated for MEC and MC on property that wasn't investigated, provided there's data of sufficient quantity and quality around the area in question. And this RI does exactly that in a number of places. The RI simply needs to identify where it was and where it was not able to confidently make such interpolations or extrapolations.	Reword sentence.	Concur. Section 5.0.a was revised to indicate the possibility of observational inference across property boundaries.

Review Cycle: 2
UID: 76852-DCF-8 Resolved Issue Resolved
RESOLVED issues do not require a response.

Review - Comment ID	Type/Status	EMCX Review Comment	EMCX Review Recommendation	Response to EMCX Review
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Review Cycle: 1 UID: 76450-DCF-9	Observation	The terms "IRA" and "TCRA" are used somewhat interchangeably in this section and it might be confusing to the reader. I believe I understand why it's done this way (it looks like a TCRA was conducted but an IRA Report was issued?) but it's a bit unwieldy.	Clarify to remove confusion between IRA and TCRA.	Concur. Sections 5.1.3.d and 5.1.3.e were revised to address the TCRA in a consistent way. However, the removal action report title was referenced, as titled.
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Review Cycle: 2 UID: 76852-DCF-9	Resolved	Issue Resolved	RESOLVED issues do not require a response.	
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Review - Comment ID	Type/Status	EMCX Review Comment	EMCX Review Recommendation	Response to EMCX Review
Review Cycle: 1 UID: 76450-DCF-10	Significant	Section states, "The area adjacent to (and south of) AoPI 3 has undergone previous MEC investigations and removals. Numerous MEC and MD items have been removed from those areas. Those areas were excluded from this investigation." But were the results from the previous MEC investigations and removals on those areas incorporated into the conclusions in this RI? If so, probably need to state so.	Clarify whether data from previous work was incorporated into conclusion for this RI.	Concur. Section 5.1.4.a was revised to indicate the inclusion of previous AoPI 3 findings in the RI design and conclusions.

Review Cycle: 2 UID: 76852-DCF-10	Resolved	Issue Resolved	RESOLVED issues do not require a response.	
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Reviewer / Discipline Brewer, Garry / Office of Counsel

Review - Comment ID	Type/Status	EMCX Review Comment	EMCX Review Recommendation	Response to EMCX Review
Review Cycle: 1 UID: 76450-GLB-1	Observation	Contractor information should not be on the title page but may be included elsewhere in the document as appropriate.	Delete the Contractor information on the title page. There is no objection to the contractor information on the subsequent page(s).	Noted. The contractors name has been removed from the binder cover. However, per USAESCH Project Manager direction, the inside cover page will include the contractors name and signature lines, as required in DID WERS-010.02.

Review Cycle: 2
UID: 76852-GLB-1 Resolved Issue Resolved

RESOLVED issues do not require a response.

Review - Comment ID	Type/Status	EMCX Review Comment	EMCX Review Recommendation	Response to EMCX Review
Review Cycle: 1 UID: 76450-GLB-2	Observation	Section 3-3 d - The Ecological Society of America is a professional organization of ecological scientists. The fact that it lists something as threatened or endangered is of no importance. Only if the species is listed as T and E by the federal gov't or a State would a ARAR be considered.	Delete the reference to the ESA.	Concur. The acronym ESA, which stands for (in this case) the Endangered Species Act was mistakenly misdefined in Section 3.3. The acronym definition was corrected in Section 3.3 and on the Abbreviations and Acronyms page.

Review Cycle: 2
UID: 76852-GLB-2 Resolved Issue Resolved

RESOLVED issues do not require a response.

Review - Comment ID	Type/Status	EMCX Review Comment	EMCX Review Recommendation	Response to EMCX Review
Review Cycle: 1 UID: 76450-GLB-3	Significant	CWA -- this provisions deals with discharges and permits. It does not appear that any potential remedy would require a discharge. Additionally, CERCLA section 121(e) provides an exemption from the requirement to obtain permits --as the document states in Section 3-3 h. ESA - the comment section states that "No endangered species are known to be present on the site". Accordingly, it is not clear why the ESA would be a potential ARAR.	Delete the CWA as a potential ARAR. Delete the ESA as a potential ARAR.	Concur. There are no potential ARARs and Section 3.3 has been revised to indicate such.

Review Cycle: 2
UID: 76852-GLB-3 Resolved Issue Resolved

RESOLVED issues do not require a response.

Reviewer / Discipline Bailey, Mike / MC Response-EMG

Review - Comment ID	Type/Status	EMCX Review Comment	EMCX Review Recommendation	Response to EMCX Review
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Review Cycle: 1 UID: 76450-MMB-1	Observation	The CSM identifies potential receptors through the volatilization release mechanism and inhalation exposure route, yet there are no volatile MC. With no volatile MC, the inhalation exposure route should be an incomplete pathway.	Please revise the figure to reflect known or suspected release mechanisms for the contaminants of concern.	Concur. Exhibit 3-3 has been revised to indicate an incomplete pathway for the inhalation exposure route of air from a volatilization release mechanism.
Review Cycle: 2 UID: 76852-MMB-1	Resolved	Issue Resolved	RESOLVED issues do not require a response.	

Reviewer / Discipline Johansen, Mary / Compliance

Review - Comment ID	Type/Status	EMCX Review Comment	EMCX Review Recommendation	Response to EMCX Review
Review Cycle: 1 UID: 76450-MMJ-1	Observation	<p>Revise the text. What is the PRG is for this project? It should be something like: demonstrate with at least a 90% confidence that the concentration of unexploded ordnance (UXO) did not exceed the applicable land-use threshold," where the threshold is defined as "0.5 UXO per acre.</p> <p>PRGs are general in nature.</p> <ul style="list-style-type: none"> They are based upon the type of munitions expected to be found at the site; Site conditions and land use is incorporated. <p>Delete section b. We are the lead agency -we define the PRGs. Regulators are asked to comment on the key CERCLA documents - but concurrence is not required.</p> <p>NOTE From J. Sikes - deleted from report. This topic needs more internal discussion with the CX. It may be more appropriate for a design phase. We do not want to set arbitrary clean-up standards.</p>	<p>Revise the PRG based on site knowledge. The PRG should discuss a level of confidence that UXO is present at a land use threshold. For example: demonstrate with at least a 90% confidence that the concentration of unexploded ordnance (UXO) did not exceed the applicable land-use threshold," where the threshold is defined as "0.5 UXO per acre.</p> <p>Delete section b.</p>	EMCX - No Response Found/Required

Review Cycle: 2 UID: 76852-MMJ-1	Resolved	Issue Resolved	RESOLVED issues do not require a response.	
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Review - Comment ID	Type/Status	EMCX Review Comment	EMCX Review Recommendation	Response to EMCX Review
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Review Cycle: 1 UID: 76450-MMJ-2	Significant	Delete bullets f, g, and h. The information is misleading. Note: there is no requirement under CERCLA to identify TBCs. TBCs can be useful in the absence of ARARs. The use of screening levels for MC is acceptable -but that does not make them ARARs. Be very careful in discussing TBCs in the context of ARARs - do not allow the TBCs to be come enforceable.	Delete bullets f, g, and h. Use CERCLA terminology.	Concur. Bullets f, g, and h have been deleted. Noted . References to Project Action Limits (PALs) will be deleted. Constituent concentrations from chemical analyses will be compared to Resident Soil levels from the EPA Regional Screening Levels, dated November 2012.
		PALs are not CERCLA terminology. USACE is required to follow CERCLA on FUDS. Stick to CERCLA terminology.		

Review Cycle: 2 UID: 76852-MMJ-2	Resolved	Issue Resolved	RESOLVED issues do not require a response.	
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Review - Comment ID	Type/Status	EMCX Review Comment	EMCX Review Recommendation	Response to EMCX Review
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Review Cycle: 1 UID: 76450-MMJ-3	Significant	<p>Specifically 3.3 d and Table 3-4. correct the ARARs for this site. 33 CFR 320 Substantive portions may be an ARAR if there is an impact to an ecosystem. Delete Authority: 33 USC §1344 – Permit 33 USC §1361 – Admin. As these are administrative requirements.</p> <p>Endangered Species Act (ESA), 16 USC 1539(a)(2) “consult” is administrative / procedural and therefore not an ARAR by definition.</p> <p>Endangered Species Act (ESA), 16 USC 1538(a)(1)(b) “prohibit” may be an ARAR if there is an impact to a listed specifics at the site. The comment column states that there are no known species that are impacted at the site - therefore this is not an ARAR for this site.</p> <p>3.3d discusses a cultural site and threatened or endangered species. The wording is odd. Federally listed species through the Endangered Species Act that are impacted by the remedial activity would be a potential ARAR. The archeological site - if there is an ARAR associated with it - is not listed in the table. This would likely be procedural in nature and not an ARAR by definition.</p>	Correct the text and the table.	Concur. Based on this reviewer's (and others') detailed comments, the ARARs text and table have been revised to demonstrate there are no longer any ARARs.
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Review Cycle: 2 UID: 76852-MMJ-3	Resolved	Issue Resolved	RESOLVED issues do not require a response.	
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Review - Comment ID	Type/Status	EMCX Review Comment	EMCX Review Recommendation	Response to EMCX Review
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Review Cycle: 1 UID: 76450-MMJ-4	Significant	Section 3 Correct the text. USACE has no authority to implement LUC on private property. Table 2 USACE is the lead agency for FUDS at Camp Croft. It is not clear how USACE has the authority to oversee the implementation of LUCS on private property - USACE has no authority on private property. SCDHEC does not have concurrence authority on DD. The CERCLA documents are offered for review and comment; not concurrence.	Correct the text.	Concur. Section 3 text and Table 2 have been revised to indicate the USACE has no authority to implement LUCs on private property. Concur. Table 2 revised to indicate SCDHEC as Review/Comment authority on DD.
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Review Cycle: 2 UID: 76852-MMJ-4	Resolved	Issue Resolved		RESOLVED issues do not require a response.
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Reviewer / Discipline Walker, Terry / Risk Assessment

Review - Comment ID	Type/Status	EMCX Review Comment	EMCX Review Recommendation	Response to EMCX Review
Review Cycle: 1 UID: 76450-TLW-2	Observation	A SLERA does not evaluate ecological risks, it merely identifies the possibility that risks may be manifest at the site. An HQ of 29 is no more likely to be indicative of risks than is an HQ of 2.	In the last sentence, please replace "likely" with "possible".	Concur. Section 7.2.2.h has been revised, per the reviewers recommendation.
Review Cycle: 2 UID: 76852-TLW-2	Resolved	Issue Resolved		RESOLVED issues do not require a response.

Reviewer / Discipline Zange, Walt / MMRP Safety

Review - Comment ID	Type/Status	EMCX Review Comment	EMCX Review Recommendation	Response to EMCX Review
Review Cycle: 1 UID: 76450-WEZ-1	Observation	This document doesn't cover all of former Cp Croft. Please add specific MRSs and AOIs to cover. This will reduce confusion when other Cp Croft documents are generated.		Concur. The specific MRSs and AoPIs address in this RI/FS have been added to the binder cover and inside cover.

Review Cycle: 2
UID: 76852-WEZ-1

Resolved Issue Resolved

RESOLVED issues do not require a response.

Review - Comment ID	Type/Status	EMCX Review Comment	EMCX Review Recommendation	Response to EMCX Review
Review Cycle: 1 UID: 76450-WEZ-2	Significant	The areas covered under this document do not match the areas covered under the approved ESP. For example the ESP has AoPI #6 and is missing AoPI8 and 9E.	In the ES address the differences and why areas were excluded and or added.	Noted. ZAPATA was not scoped to develop the ESP. However, we included the ESP as an appendix, as directed by the task order requirements. The reviewer is correct in noting the exclusion of AoPI 8 and 9E, as well as the confusing notation of AoPI 6 (rather than including that area as part of MRS 3, as it is in the scope and GIS). It should be noted that the RI addresses areas specified in the scope (and provided GIS files), as well as the PDT-approved recommended changes to those areas documented in the TPP Memorandum. Section 1.1 has been revised to provide an explanation of the discrepancies between the scope and the RI results.

Review Cycle: 2
UID: 76852-WEZ-2

Resolved Issue Resolved

RESOLVED issues do not require a response.

Review - Comment ID	Type/Status	EMCX Review Comment	EMCX Review Recommendation	Response to EMCX Review
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Review Cycle: 1 UID: 76450-WEZ-3	Significant	<p>Demo operation were not conducted IAW HNC Safety Advisory dated 12 July 2010, and the DDESB Memorandum "Clarifications Regarding Use of Sandbags for Mitigation of Fragmentation and Blast Effects due to Intentional Detonation of Munitions", (Nov. 29 2010)" and the approved ESP. The demo log lists 3 items for disposal and the picture depicting the "shot set up" shows all 3 items being disposed at the same time in the same demo shot. This is very dangerous and incorrect. Although this comment has nothing to do with the results of the RI, it is a serious safety violation and needs to be addressed immediately on ALL projects. This same issue is shown in all the demo shots that were conducted.</p>	Contractor should immediately review the sandbag publications and safety advisories and provide training to their personnel before an accident occurs.	Noted. The ZAPATA Project Manager has initiated, through our internal safety program, an After Action Review with the Vice President of our Military Munitions Response Program Division, our corporate Safety Officer, and our corporate Quality Control Manager. Following that review, we will initiate operational procedure revisions and training, as appropriate.
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Review Cycle: 2 UID: 76852-WEZ-3	Resolved	Issue Resolved	RESOLVED issues do not require a response.	
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Review - Comment ID	Type/Status	EMCX Review Comment	EMCX Review Recommendation	Response to EMCX Review
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Review Cycle: 1 UID: 76450-WEZ-4	Significant	<p>This photo states "Sandbag mitigation to reduce blast and fragmentation distances". There are several things that are seriously wrong with this demolition shot.</p> <p>1) The rounds are not situated IAW pub "Procedures for Demolition of Multiple Rounds (Consolidated Shots) on Ordnance and Explosives (OE) Sites".</p> <p>2) You can't conduct disposal on multiple rounds while using sandbag mitigation IAW "Sandbags (HNC-ED-CS-S-98-7 Amendment 1, HNC Safety Advisory dated 12 July 2010, and the DDESB Memorandum "Clarifications Regarding Use of Sandbags for Mitigation of Fragmentation and Blast Effects due to Intentional Detonation of Munitions", Nov. 29 2010) (I reference the old DDESB safety advisory as that's what was in play during this operation).</p> <p>3) The picture depicting the "sandbag mitigation" is no where close to being correct IAW HNC-ED-CS-S-98-7 Amendment 1.</p>	Contractor need to understand and train on proper disposal procedures.	Noted. Please see response to comment #9.
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Review Cycle: 2 UID: 76852-WEZ-4	Resolved	Issue Resolved	RESOLVED issues do not require a response.
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The contractor did not include a written Response to Comments for this reviewer's original comments, so this back check is based on a re-review of the revised document.

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|---|-------------------------------|--|---|
| 1 | Section 1.2.1.0.3
Page 1-2 | Acceptable response. | |
| 2 | Section 1.4
Page 1-4 | Acceptable response. | |
| 3 | Table 3-1
Page 3-9 | The MC Sampling entry for MRS 3 states that 110 soils samples were collected, and then later states that additional soils samples were collected. How many "additional" samples were collected? | A – The MC Sampling entry was revised to specify the number of primary and duplicate samples collected in MRS 3. |
| 4 | Table 3-1
Page 3-10 | The MC Sampling entry for AOPI 9G states that soils samples were collected from three grids. How many total samples were collected from these grids? | A – The MC Sampling entry was revised to specify the number of primary and duplicate samples collected in AoPI 9G. (MC Sampling entry for AoPI 10A was also revised.) |
| 5 | Exhibit 3-1
Page 3-20 | There are two purple areas in the northern area of the site labeled 11D and 3. The Key does not indicate what the purple coloring indicates. Please provide the missing information. | D – Please clarify. Those areas are the proposed area of investigation for AoPIs 11D and 3, which were shifted slightly from the PWS-defined boundaries, as documented in planning deliverables (e.g., TPP Memorandum and the Final Work Plans) and noted in Table 3-1. |

6	Section 5.2.1 Page 5-8	While the subsequent sampling at locations MRS3-A and A4718 defined the horizontal extent of contamination, the lack of subsurface sampling creates a data gap regarding the vertical extent of contamination in these two areas. How will this be addressed?	D – Analytical results for these two areas were discussed with the PDT, which included South Carolina Department of Health and Environmental Control (SC DHEC). All stakeholders agreed the Lead exceedances were localized, not considered a risk for Human Health or Ecology, and that further sampling, including vertical sampling was not required. The risk characterization agreed to by the PDT is documented in §3.1.3.2(a).
7	Table 5-x Page 5-6	The number of the pages on the tables appears to be wrong. The last page of text in this chapter is 5-8, which is followed by the first page of tables which is marked 5-6 .	A – Table page numbers will be revised, as appropriate, to follow text.
8	Table 5-x Page 5-6 to 5-17	Where are the results for the additional lead samples at locations MRS3-A and A4718? They do not appear to be included in any of the tables.	D – Those results are provided as the last ten entries at the bottom of Table 5-2.
9	Exhibit 5-11	The General Notes on the figure indicated that the lab sample at location #12 was “lost”. Please be sure there in an explanation of this missing sample result included in the text where the additional samples are discussed.	A – An explanation of the lost sample was added to §3.1.3.2(a), Table 3-1, §4.4.1(b), and §5.2(c).
10	Figures/Exhibits General	The designations of the graphics in the report seem to vary from “Figure” to “Exhibit” (example 5-11 and 5-12). Please review the report and use consistent nomenclature throughout the document.	A – References to “Figure” will be revised to “Exhibit”.

11 Appendix B
General

The appendix is incomplete. In addition to the PDF laboratory reports and data validation reports, the contractor must submit the laboratory EDDs in SEDD format, and all the output files from processing the raw laboratory EDDs through the ADR validation software.

A – Data will be provided in SEDD format, along with all the output files from processing the raw laboratory EDDs through the ADR software.

NOTE: The report cannot be finalized until after this missing data is reviewed and approved by USACE Huntsville.

1	Section 1.2.1.0.3 Page 1-2	Acceptable response.
2	Section 1.4 Page 1-4	Acceptable response.
3	Table 3-1 Page 3-9	Acceptable response.
4	Table 3-1 Page 3-10	Acceptable response.
5	Exhibit 3-1 Page 3-20	Acceptable response.
6	Section 5.2.1 Page 5-8	Acceptable response.
7	Table 5-x Page 5-6	Acceptable response.
8	Table 5-x Page 5-6 to 5-17	Acceptable response.
9	Exhibit 5-11	Acceptable response.
10	Figures/Exhibits General	Acceptable response.

11 Appendix B
General

The appendix is still incomplete. Please consult Section 1.3.4 of the WERS-009.01 DID. The following EDD files are still missing from the May 2014 submission.

- The Library (eQAPP) file
- The DTD file(s)
- The unprocessed, laboratory SEDD file(s)
- The SEDD Stage 1 export file(s)

There is also an error in the EDD files that were submitted.

- The field for Project Number contains “00017”. This field should contain the FUDS Project number for Camp Croft (“I04SC001603”). Please correct the files.

NOTE: The report cannot be finalized until after this missing and revised data is reviewed and approved by USACE Huntsville.

Concur. The Appendix will be submitted with the required EDD files, per the reviewers comment. Those files are revised to use the FUDS Project Number for Camp Croft (“I04SC001603”), rather than “00017”.

I have reviewed the subject document and have the following comments:

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| 1. | Acronyms | MRSPP: Change "priority" to "prioritization". | A – The acronym has been corrected and all instances of MRSPP in the document have been checked for that the correct definition is used. |
| 2. | General | More figures are needed to adequately portray the different areas of investigation and the different nomenclature used. Individual maps would be acceptable with an inset showing the location on the site map. | A – Numerous exhibits have been revised to more clearly illustrate the site activities and findings. |
| 3. | General | The current planned TCRA needs to be discussed. The data can be incorporated into an appendix afterwards, but we still need to discuss this area in the RI and the FS because the TCRA is not a final remedy. | A – Section 5.1.3.0.4 was revised to expand on the TCRA and findings from that work. Appendix P was added to the RI; a summary and preliminary figure are included as a placeholder for the forthcoming TCRA Report. |
| 4. | 1.1 | The acreage of the AOPI areas should be included. | A – The acreages were added to this section. |
| 5. | 1.2.1.0.3 | The first sentence states "Over the entire MRS..." it is unclear to which MRS this is referring. Maybe it should state investigation area or something similar.

Additionally, the 8 areas identified as containing MEC should be given an identifier and be shown in a map. It is unclear at this point if these areas are the only areas of contamination, if they have been bounded and/or if they have been recommended as part of an MRS. | A – The first sentence was revised as follows, "Over the investigation areas,..."

A – Generally descriptive names have been given to each of the eight areas. Section 1.2.1.0.3 (and other locations, where appropriate) has been revised to include those names and a reference to Exhibit 5-6. |

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| 6. | 1.3.2 | <p>These are the MRSPP scores for the existing MRS's. Per the PWS 3.5 Task 5 specific requirements
Recommend changes in realignment of MRS dependent on RI finding.
- Prepare, as an appendix to this report, a new or update Munitions Response Site Prioritization Protocol (MRSPP) for each MRS dependent upon RI findings using the MRSPP worksheets, http://www.lab-data.com/MRSPP/.</p> <p>There should be recommendations regarding future MRS's based on findings from the RI field investigation and results and future land use. This project has not been realigned in FUDSMIS, therefore recommended MRS's will be very important in getting this project realigned.</p> | <p>A – Section 1.3.2 and others, as warranted, have been revised to address proposed realignment of MRSs and the MEC HA and MRSPP scores associated with those proposed realigned areas.</p> |
| 7. | 1.4 | <p>This section should discuss MRS recommendations.
Last sentence: change “reclassification” to “realignment”.</p> | <p>A – The last sentence has been revised, as requested.</p> |
| 8. | 2.1.0.1 | <p>We are not trying to determine the extent of contamination; we are determining the extent of MEC/MC contamination due to DoD usage. Do not refer to “contamination” in general terms throughout this document. We are looking for a specific type of contamination and the document should clearly state what and why.</p> | <p>A – The references to non-specific “contamination” and “waste” have been revised throughout the document.</p> |
| 9. | 2.1 | <p>3rd Bullet: “waste or” is an unacceptable term see previous comment.</p> | <p>A – Please see response to comment No. 8.</p> |
| 10. | 2.3.1 | <p>Correct 2nd sentence.
Last sentence. It is not true that MEC is synonymous with UXO. All UXO is MEC, but not all MEC is UXO. UXO is a sub-category of MEC as is DMM and MC.</p> | <p>A – The second sentence was revised as follows, “The reader should note that munitions nomenclature has been revised since the early 1990s; UXO and discarded military munitions (DMM) are subsets of MEC.</p> |

11.	2.3.1.0.2	“Waste or” see comment 8. Please remove throughout document.	A – Please see response to comment No. 8.
12.	2.3.1.1.0.3	2 nd sentence is unclear.	A – The second sentence was revised as follows, “AoPI 3 (formerly OOU3) is a residential area generally surrounding and including the Wedgewood Subdivision and portions of The Creek Golf Course, both of which are located north of Croft State Natural Area.
13.	3.1.3.1.0.1	As previously mentioned these areas should be labeled and identified on a map.	A – The areas mentioned in this section have been added to Exhibits 5-4 and 5-6; exhibit references have been incorporated into this section.
14.	3.1.3.2.0.1	The figures where these grids can be seen should be referenced in this section.	A – A reference to figures 5-7 through 5-13, which show these grids, has been added.
15.	3.4.0.5	Include discussion on USACE’s role as the “lead agency”.	A – Verbiage has been added to refer to USACE as “lead agency.”
16.	3.5.0.5	We need to clarify in this section that no investigation took place in the water, only on the shore.	A – A sentence was added that states “The portions of MRS 3 include shorelines of the lakes; no investigation was performed within the bodies of water.”
17.	Table 3-2	It is unclear why underwater MEC is considered incomplete. If fishing is allowed there are a variety of ways fisherman could come into contact with underwater MEC.	N – During the 20 May 2013 PDT meeting, the team agreed that no exposure pathway exists between potential receptors and underwater MEC.

18	Table 3-4	<p>Most of these are not ARAR's!</p> <p>The only one on the list that may apply is the Endangered Species Act, and only the taking and prohibited portions of the law. We have to state the specific part of the law.</p> <p>At this time I don't think we should include:</p> <p>CAA- We aren't removing any hazardous chemicals. CWA- The only portion of this that might apply would be for the wetlands. Fish & Wildlife Coordination Act: All Administrative, not an ARAR. NHPA: Administrative, not an ARAR Misc. Hazardous Waste Transport: Not an ARAR. This is a regulation that we have to comply with if we are transporting haz. Waste. But its not an environmental site ARAR.</p>	<p>A – Table 3-4 has been revised to include substantive requirements from the Clean Water Act and the Endangered Species Act.</p>
19.	4.4.2	<p>There was no discussion of the QA samples. The QAPP states QA samples would be collected. Worksheet 14.</p>	<p>N – In email communication dated 30 August 2012, the USAESCH confirmed the decision to not collect QA samples. Section 4.4.2 was revised to convey this information.</p>
20.	5.1.3.1.0.1	<p>Refer to previous comments concerning these areas. The boundaries of these areas should be shown on a map.</p>	<p>A – Please refer to response to comment 5.</p>
21.	5.1.4	<p>Please reference a map that shows each of these areas.</p> <p>Each area discussed should include an amount/type of any MEC/MD found.</p>	<p>Sections 5.1.4 through 5.1.13 have been revised to include references to exhibits. These sections have also been revised to include the amount/type of any MEC/MD found, if any.</p>

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| 22. | Figure 5-1 | <p>It is unclear if all of the items on this figure are indicative of MEC. See remaining figures also.</p> <p>Based on some of the figures there are items found right up to the boundary. It is unclear why additional investigation was not performed to delineate the boundary. For example Figure 5-2: Grenades found on western boundary.</p> <p>Red diamond on western boundary not identified on legend.
Red triangle not identified on map legend.</p> | <p>A – This and other exhibits have been revised to present the RI findings more clearly. The symbols are meant to indicate the category of munitions item encountered. Red symbols (specifying the munitions category) indicate the item encountered was identified as a MEC item.</p> |
| 23. | 6.2 | <p>Text states “metals did not exceed ESL’s”. This is not a true statement.</p> | <p>A – The section was re-written to correctly explain the findings.</p> |
| 24. | 6.2.2 | <p>There should be an introductory paragraph to introduce which contaminants are being addressed in the following paragraphs.</p> <p>This is confusing this section should either discuss all of the MC constituents that were considered analytes of concern or only those that were found to be present above PAL’s, such as lead. It is unclear why only lead and copper are discussed here.</p> | <p>A – Lead was the only metal above its respective PAL. References to copper were removed.</p> |
| 25. | 7.3.4 | <p>As mentioned earlier, this document is supposed to recommend changes for the MRS realignment and the MRSPP scores should reflect those recommended changes. See PWS 3.5 Task 5 Specific Task Requirements.</p> | <p>A – Please refer to response to comment 6.</p> |
| 26. | 8.2.3 | <p>See previous comments regarding MRS recommendations.</p> | <p>A – Please refer to response to comment 6.</p> |

27. 8.3

The recommended "boundary refinements" are not adequate. The entire FUDS property acreage of 12,337 acres (FUDSMIS) has to be accounted for. Areas where ROE were not granted should be recommended as an MRS (if adequate data is not available to make decisions), the lakes were not investigated so they should also be an MRS. Property acreage that we can NDAI can become an MRS.

I realize this will require a PDT meeting to discuss, but the acreage has to be broken down into MRS's with maps of the individual areas for realignment. Areas that will require additional investigation (No ROE, Lakes) will not be included in the FS process. Areas that will be NDAI'd will not be included in the FS process but will require a DD.

A – A PDT meeting was held on 20 May 2013 and this comment was discussed, along with others. In addition to Section 8.3, numerous portions of the RI have been revised to reflect the MRS realignment resolutions reached during the PDT meeting. An acreage summary was added to this section, to clarify proposed boundary realignments and how they relate to the overall FUDSMIS acreage.

1.	Comment 1	Response is acceptable.	
2.	Comment 2	Response is acceptable.	
3.	Comment 3	Response is acceptable; however additional comments on this section are addressed.	A – Noted.
4.	Comment 4 1.1.0.2	Suggest changing revised sentence to state, The purpose of the RI is to determine the nature and extent of possible contamination of munitions and explosives of concern and munitions constituents due to previous usage by the Department of Defense.	A - §1.1(d), formerly §1.1.0.2, was revised per reviewer's request.
5.	Comment 5 1.2.1.0.3	Response is acceptable; however, the areas shown on the map are impossible to read. Suggest enlarging the names of these areas.	A – Area labels will be enlarged per reviewer's request.
6.	Comment 6 1.3.2	Since we don't know for sure what the correct MRS numbers will be, we need to name each of these MRS's based on our team meeting in May (mortar range, mixed use area, grenade range, etc) and refer to them by name instead of numbers. Additionally, MRS can't be named as using sub areas such as 3a-3h.I apologize if this was not made clear during the meeting. This comment should be addressed throughout the document and figures, tables and exhibits.	A – Areas proposed for realignment will be renamed, using nomenclature discussed during our 20 May 2013 meeting in Huntsville, AL. The following names will be used: 1. 105mm Area A (formerly MRS 3a) 2. 105mm Area B (formerly MRS 3b) 3. Maneuver Area A (formerly MRS 3c) 4. Mortar/Grenade Area (formerly MRS 3d) 5. 60mm Mortar Area (formerly MRS 3e) 6. Maneuver Area B (formerly MRS 3f) 7. 60/81mm Mortar Area (formerly MRS 3g) 8. Rocket & Rifle Grenade Area (formerly MRS 3h) 9. Remaining Lands (unchanged) 10. Grenade Area (formerly MRS 4/AoPI 3)

			<p>11. Rocket Area (formerly MRS 5/AoPI 10A)</p> <p>12. Grenade Maneuver Area (formerly MRS 6/part of MRS 3)</p> <p>13. Practice Grenade Area (formerly MRS 7/AoPI 11C)</p> <p>14. Mortar/Rifle Grenade Area (formerly MRS 8/AoPI 11D)</p>
7.	Comment 7 1.4	<p>1.4.0.1: change finding to findings, change “it may be suitable” to it is recommended for No Action and will not require inclusion in the FS. Last sentence: revise to state that based on the findings of the RI it is not recommended that AoPI 5, AoPI 8, AoPI 9E, AoPI G be retained for further consideration, or something similar. It is unclear if the last paragraph is part of 1.4.0.1 or if it is supposed to be 1.4.0.2. Clarify</p>	A - §1.4(a), formerly §1.4.0.1, was revised per reviewer’s request.
8.	Comment 8	Response is acceptable.	
9.	Comment 9	Response is acceptable.	
10.	Comment 10	Response is acceptable.	
11.	Comment 11	Response is acceptable.	
12.	Comment 12	Response is acceptable.	
13.	Comment 13	Response is acceptable, however see additional comment 5.	A – Refer to Response to Comment #5.
14.	Comment 14	Response is acceptable.	
15.	Comment 15	Response is acceptable.	
16.	Comment 16	Response is acceptable	
17.	Comment 17	Response is acceptable	
18.	Comment 18	Response is currently acceptable, but it should be noted that the ESA may not be applicable since no endangered species are present on site.	A – Noted.

19.	Comment 19	Response is acceptable	
20.	Comment 20	Response is acceptable.	
21.	Comment 21	Response is acceptable; however refer to additional comment 6.	A – Refer to Response to Comment #6.
22.	Comment 22	Response is acceptable.	
23.	Comment 23	Response is acceptable	
24.	Comment 24	6.2.3.0.2 discusses explosives contaminant migration but not lead. Suggest only discussing lead.	A - §6.2.3 was revised to reference lead only. The discussion of explosives was moved from §6.2.3(b), formerly §6.2.3.0.2, to §6.2(a).
25.	Comment 25	Response is acceptable, see comment 6.	A – Refer to Response to Comment #6.
26.	Comment 26	Response is acceptable.	
27.	Comment 27	See additional comment 7. 8.3.0.2 First sentence should be revised to state: MRS 3 and five AOPI's are recommended for realignment. 2 nd sentence: revise sentence to state It is recommended that MRS 3 be divided...	A - §8.3(a), formerly §8.3.0.1, was revised per reviewer's request. §8.3(b), formerly §8.3.0.2, was revised per reviewer's request.

1.	General	All previous comments have been adequately addressed. However, I have a couple of additional comments.	A – Noted.
2.	Table 3-4	Delete ESA 1539; under CERCLA we do not obtain permits.	A – The reference to ESA 16 USC 1539(a)(2) has been deleted.
3.	Summary	In the summary of the findings please add a discussion of each of the recommended MRS's to include what was found (type of MEC/.MD), depth, etc. This section should be similar to what is discussed in Section 5 but adjusted based on recommended MRSs.	A – Section 8.3 was revised to include details of each of the recommended MRSs, per the reviewers comment.
4.	General	Based on delineation/realignment discussion on the 21May14 weekly call, change "delineation" to "realignment".	A – All references to "Delineation" have been changed to "Realignment".
5.		No further comments.	A – Noted.
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		I have reviewed the Human Health and Ecological Risk Assessments for the Camp Croft RI and I have the following comments:	
1	App O, General	The tables and attachments have not been included in the Risk Assessment (Appendix O), which makes it difficult to fully evaluate the risk assessments. Please revise to include these.	A – This is an oversight. Tables and Attachments will be provided in the Draft Final submittal.
2	App O, HHRA, 1.0	In paragraph 1, may want to add that the baseline HHRA evaluates the effects of MC release in a baseline condition, i.e. in the event that no action is taken to remove contaminants or stop contaminant migration. This will clarify that the current HHRA is not considering any potential future remedial actions, but merely the baseline.	A – The following text was added to §1.0 of Appendix O, HHRA. “The purpose of this baseline human health risk assessment (HHRA) is to evaluate the potential current and future health effects in a baseline condition caused by the releases of munitions constituents (MC), i.e., hazardous substances, from the site, in the event that no action is taken to remove contaminants or stop contaminant migration.”
3	App O, HHRA, 2.0	Cannot find Table 2, which shows comparison to background and RSLs, as well as the rationale for selecting or eliminating chemicals as COPCs. Section 2.0 of the HHRA cannot be evaluated without this table. Does the table include frequency of detection? Was the 95 % Upper Confidence Level on the mean used? Were the RSL values modified at all to provide additional protection against exposure to multiple chemicals (ex. Reducing non-cancer RSL values by a factor of 0.1)?	A – Please see response to comment #1.
4	App O, HHRA, 3.2	Referencing the CSM would be very helpful in this section as it would show the exposure pathways and any of migration pathways. Is lead in soil the only concern here, or is there any means of migration? The CSM may assist in showing this.	A – References to the CSM and CSEMs have been included in §3.2, as requested. Lead was the only COPC retained from the screening process.

5	App O, HHRA, 3.2.2	Reference any maps that would assist in describing these areas.	A – References to Exhibits 5-12 and 5-13 were added to §3.2.2, per the reviewer's request.
6	App O, HHRA, 3.2.2	In addition to providing the IEUBK attachment (currently not included in appendix) please add a discussion on why the average lead concentrations were used as opposed to the maximum. Is exposure to the maximum concentrations considered as well? Please provide additional discussion on this.	A - Please see response to comment #1. A – The IEUBK model specifies the use of the average concentrations and not the maximum.
7	App O, HHRA	The Risk Assessment should include an uncertainty analysis. Depending on the uncertainties, this can be more quantitative or qualitative/ descriptive.	A – A brief uncertainty analysis has been added to §3.2.
8	App O, ERA, 2.2	Here also it may be beneficial to include the CSEM for ecological receptors.	A – References to the CSM and CSEMs have been included in §2.2, as requested.
9	App O, ERA, 2.4	Again, a conceptual site model or something similar might be helpful here to show that all exposure routes have been considered for all receptors.	A – References to the CSM and CSEMs have been included in §2.4, as requested.
10	App O, ERA, 2.5	First sentence, are the endpoint the plant and animal populations themselves, or are they the point where these receptors begin to see adverse effects? Please clarify.	A – The first sentence of §2.5 of the ERA has been revised as indicated below. "Screening-level assessment endpoints include populations of plants and animals, communities, habitats, and sensitive environments. "
11	App O, ERA, 4.0	Last sentence states that "...it is not anticipated that significant adverse risks would occur to local populations of wildlife", so can it also be stated that "There is adequate information to conclude that ecological risks are negligible and therefore no need for remediation on the basis of ecological risk", as stated in the ERAGS? Or is there a possibility for a more thorough assessment being necessary? Please add some clarification to how the risk assessment may be used to make decisions regarding the RI/FS.	A – The following sentence has been added: "There is adequate information to conclude that ecological risks are insignificant and therefore no need for remediation on the basis

12	App O, ERA	Make sure there is an uncertainty analysis associated with any developed values or values taken from literature. This may already be included in the tables but since they are not included in this version of the appendix this cannot be verified. If they are already included, please disregard this comment.	A – A brief discussion regarding the uncertainty of using literature values in the ERA has been added to §3.0.
		End of comments	

		I have reviewed the Risk Assessment for the Draft Final Remedial Investigation Report for the Former Camp Croft, as well as the responses to my comments. I have the following comments:	
1	Section 7.0 and Appendix O.	Be sure that any changes made to Appendix O as a result of these comments are also applied to Section 7.0 of the RI Report if they modify or contradict any of the content in Section 7.0.	Text in Section 7.2.3.a has been updated to reflect the changes made to Appendix O.
2	Appendix O, HHRA, Table 2 and ERA Table 3-1	Thank you for adding the tables. Nitroglycerine was flagged in these tables as a COPC. This looks to be a typo, please revise.	Table 2 in the HHRA and ERA Table 3-1 have been revised. The typo has been corrected to indicate that nitroglycerin is not selected as a COPC.
3	Appendix O, HHRA, Section 2	Paragraphs 4 and 5 require more clarification. They mention that COPCs were selected based on screening criteria of EPA RSLs and site-specific background levels. Table 2 shows antimony, copper, and zinc exceeding their background values, but these are not retained as COPCs. Please add discussion to Section 2 on why COPCs were not retained if they only exceeded background and not the RSLs.	Section 2 of the HHRA has been revised to provide more information on retention of COPCs.
4	Dyer comment 7 (App O, HHRA), comment 11 (App O, ERA, 4.0), comment 12 (App O, ERA)	The RTCs say that these changes have been incorporated, but it does not look like the change was made in the redlined version of the document. Please add to next version.	The corrections in response to Dyer comments 7, 11, and 12 have been incorporated in the document.
		End of Comments	

		I have reviewed the Risk Assessment for the Final Remedial Investigation Report for the Former Camp Croft, as well as the responses to my comments. I concur with the responses and have no additional comments.	
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		I have reviewed the Draft RI Report and submit the following comments:	
1.	Figure 2-6	In AoPI 12B, there was a UXO (M9 rifle grenade) found during the Phase II EE/CA and is included in the 1998 report. Please add.	A – Exhibit 2-6 has been revised to include historic findings for OU12B.
2.	4.1.2.0.2	<p>The document states, “The test strip was constructed per the approved project Work Plan. The test strip contained one Small Industry Standard Object (ISO), one 37mm projectile, one 60mm mortar, one 81mm mortar, one Mk II hand grenade, and one 105mm projectile. Each seed item was placed in the horizontal orientation at a depth between four and seven inches bgs.”</p> <p>I have searched the Final Work Plan and can find no reference to installation of a test strip of items with depths between only 4 and seven inches bgs. Please clarify.</p>	<p>A – Section 4.1.2 has been revised to more clearly communicate that two test strips were established, one for analog sensors and one for digital sensors, each with specific purpose.</p> <p>The Geophysical System Verification (Appendix J of the Work Plan) governed the process by which IVS construction was tested and approved. Results of that process were communicated in the Instrument Verification Strip Report, which was included as Appendix E in the RI.</p>
3.	4.1.2.0.1 and 4.1.2.0.3	<p>Section 4.1.2.0.1 states, “ ... detection depths were established utilizing an instrument test strip seeded with inert items indicative of probable munitions and positioned at various depths.” Then section 4.1.2.0.3 states, “the DQO for MEC targets and burial depths was the detection of the smallest target (i.e., 37mm, HE, Mk II hand grenade) at the site-specific detection depth determined by the test strip.”</p> <p>Since section 4.1.2.0.2 (see comment #2) states that the test strip items were buried at depths of 4 to 7 inches, can it be concluded that a large majority of the site was characterized to a depth of only 7 inches? This needs to be clarified.</p>	A – See response to Comment #2.
4.	4.1.7 and 4.1.8	These sections are omitted. Section 4.1.9 follows 4.1.6. Please fix the numbering.	A – Section 4.1.6 and following were renumbered.

5.	4.1.11	<p>This section is entitled “Data Interpolation Methodology” and is confusing. It is confusing because it is not clear that it refers to anomaly density mapping.</p> <ol style="list-style-type: none"> 1. First, also include the terminology anomaly density. For example. Statement 4.1.10.0.1 can be worded, “Distribution gradient maps or anomaly density maps were created...” 2. Create a section 4.1.10.0.2 that discusses the application of these maps/data or if the application is explained elsewhere in the report, reference the location. Also, state how these data contribute to the selection of the grids so that there is cohesion. 3. Include/reference anomaly density maps in the report if they are going to be discussed. As the report currently exists, there are no anomaly density maps contained in the report. 4. If it makes sense, you may want to move this section above the discussion of the mag-and-dig and DGM grids sections. 	<p>A – The section was revised to more clearly explain why the information is pertinent. References to figures were added.</p> <p>Latter portions of Section 4.1 have been reorganized. The former Section 4.1.10, Data Interpolation Methodology, is now Section 4.1.6. Former Section 4.1.11 and 4.1.12 are subsections of Section 4.1.6, which was the original intent (i.e., Sections 4.1.11 and 4.1.12 were mis-numbered).</p>
6.	4.3.0.2	<p>The section states, “No significant corrective action procedures were noted for the RI.”</p> <p>A major Corrective Action Request dated 5 April 2012, was issued. Please address.</p>	<p>A – Section 4.3.0.2 was revised to include a description of the corrective action request. A copy of the CAR and response was added to Appendix J.</p>
7.	5.1.3.0.2	<p>Is this supposed to be a summary paragraph for the findings for all of MRS3? If so, the MEC are not included. Please also report.</p>	<p>A – Section 5.1.3.0.2 is meant to be a general summary of findings from MRS 3. The number of MEC items encountered (i.e., 39) was added to this section.</p>

8.	5.1.3.1.0.1	This section does not seem to be numbered correctly to me. It follows 5.1.3.0.2. Then it is followed by sections that should be subsections of it that are numbered 5.1.3.0.3, 5.1.3.0.4, etc.	A – The paragraph numbering sequence was revised.
9.	Figures 5-1 through 5-4	In the legend under “AIR Interpolation MD/Acre,” 0 MD/Acre is shown as represented in red and the highest MD/Acre is shown as represented in blue. This is opposite of what is normally mapped and opposite of what the Mag & Dig area is mapped. The highest MD/Acre in the Mag & Dig areas is represented in red. Is the legend correct?	A – Exhibits 5-1 through 5-6 have been revised to more clearly illustrate interpolation estimates.
10	Figures 5-1 through 5-4	For the density maps, does the Mag & Dig truly represent MD/acre as is stated in the legend? That is, have items that are not MD, such as, cultural debris (nails, rebar, etc.), small arms, been excluded? Also, is UXO included in the MD/acre because it seems like it should be? For the AIR, the legend is MD/Acre, but there is no way to know what is represented in the anomaly count. It could be a combination of many sources of anomalies.	Exhibits meant to indicate an estimated distribution of items (e.g., anomalies, MD, etc.) developed by interpolating data along transects have been revised. In mag-and-dig areas, the legend indicates “MD/Acre”; MEC and cultural debris are not included. In the AIR areas, the legend indicates “Anomaly/Acre” and includes any contact encountered with the analog instruments.
11.	Appendix C	Appendix C is not yet completed. Also, are there other institutional controls, such as, signage, fencing, etc. that landowners (public and private) will be asked if they are willing to implement?	A – Appendix C has been updated and revised to be more comprehensive.
12.	Appendix K	In accordance with DID WERS-004.01, “Results of QC tests, numerical and pass/fail, shall be reported in an Access database or spreadsheet table...” This includes both the digital and analog QC data. Please include.	A – The digital QC test results are included in the comprehensive Access database that is part of Appendix G. Analog QC test results were completed in hard copy (spreadsheet) form and are included in Appendix K.

13.	General	Please include in an appendix an Excel spreadsheet or Access database that contains all excavations with the location, depth, item found, and any other crucial data.	A – The dig results are included in Appendix G. Dig results from digital geophysical data have been combined with analog dig results and included in an access database.
14.	Exhibit 8-1	In AoPI 12B, there was a UXO (M9 rifle grenade) found during the Phase II EE/CA that was completed by QST and is included in the 1998 report. Please add.	A – Exhibit 8-1 has been revised and separated into multiple exhibits. Exhibit 8-11 has been revised to include historic findings for OU12B, including one MEC item.
15.	General	I do not agree with the proposed MRS delineation and MRS boundaries. I propose that the PDT should discuss the new proposed MRS boundaries based on the results and come to a consensus.	A – A PDT meeting was held on 20 May 2013 and this comment was discussed, along with others. In addition to Section 8.3, numerous portions of the RI have been revised to reflect the MRS realignment resolutions reached during the PDT meeting.
		*****Nothing follows*****	

Revised Draft RI Report

27 November 2013

		I have back checked my previous comments and reviewed the modifications to the Revised Draft RI. I am submitting the following comments:	
1.	1.3	The Remaining Lands are large and encompass areas where no MEC/UXO or MD were found and areas where UXO and MD were found even if the density was low. As a result the MRSPP and MEC HA scores for the Remaining Lands indicate high potential explosive hazard. Therefore, I recommend further delineating the Remaining Lands based on MEC/MD finds or other logical delineation (such as, land use, etc.). Areas where there was no MEC or MD located should be able to have MRSPP and MEC HA scores that do not indicate high explosive hazard or risk.	D – The PDT have discussed potential delineation revisions for the Remaining Lands and deferred any action to after the Draft-Final RI review, when the CX and other stakeholders will have an opportunity to evaluate the proposed delineation.
2.	Exhibits 2-3, 2-4, and 2-5	<ol style="list-style-type: none"> 1. The terminology “MEC” is used in the legend. Is this because it is unknown whether the items are UXO or DMM? If known, please replace “MEC” with “UXO” or “DMM” as appropriate. 2. A red square is used in the legend for “MEC.” This symbol is used in other figures to represent MD. I recommend using a different symbol that is consistent with MEC in other figures. A triangle is used for MEC in other figures, therefore, I would recommend replacing the square with a triangle. 	<p>A – The legend will be clarified to indicate whether items were UXO or DMM, where known.</p> <p>A – The symbols will be revised to be consistent throughout the exhibits.</p>
3.	5.1.3.0.5	In the last sentence, change “... if MEC and MD is ...” to “... if MEC and MD are ...”	A - §5.1.3(e), formerly 5.1.3.0.5, was revised per reviewer's request.

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4.	Appendix G	The response to previous comment 13 states, "Dig results from digital geophysical data have been combined with analog dig results and included in an access database." However, the Access Database intrusive appears to only contain data from grids and the ball field since all of the target IDs begin with either "BF" or "G." Therefore, apparently the mag-and-dig intrusive results along the transects are not included. Please also add the transect results.	D – Per the Final Work Plans (09/2011), dig results where digital geophysical data were collected (ball field and grids) were captured in an electronic database. Findings along transects were summarized (i.e., No. of Contacts/Excavations, No. of MEC items, MD, and Cultural Debris) and recorded onto hard copy field forms. Relative locations for all MEC items encountered along transects were noted on the field forms. ZAPATA will, to the extent possible, convert the hard copy field forms that document analog dig results for MEC into an electronic database format, per WERS DID 0004.01, Attachment B.
5.	Appendix K	There is no spreadsheet included with analog QC test results electronically (to include all QC tests) as required by DID WERS-004.01. Only hardcopy versions of the QC forms are contained in the appendix.	D – ZAPATA will include the spreadsheet in the Draft-Final hard copy submittal via CD.
6.	GIS	There is a placeholder appendix for the GIS, but it was not included. Will it be included with the next delivery?	A – The GIS will be included in the Draft-Final hard copy submittal.
		*****and nothing follows*****	

		I have back checked my previous comments and reviewed the modifications to the Revised Draft RI. I am submitting the following comment(s):	
1.	7.3	<p>Previous Comment #1: "The Remaining Lands are large and encompass areas where no MEC/UXO or MD were found and areas where UXO and MD were found even if the density was low. As a result the MRSPP and MEC HA scores for the Remaining Lands indicate high potential explosive hazard. Therefore, I recommend further delineating the Remaining Lands based on MEC/MD finds or other logical delineation (such as, land use, etc.). Areas where there was no MEC or MD located should be able to have MRSPP and MEC HA scores that do not indicate high explosive hazard or risk."</p> <p>As a result of this comment, Teresa Carpenter forwarded the Zapata Project Manager an email on March 19, 2014, that included the statement:</p> <p>"We also need to add additional discussion in each of the paragraphs for the recommended MRS's describing the reason this area was delineated. This should include what was found, to what depth, and the quantity. This information should be used to justify the MEC HA score especially in the "remaining lands".</p> <p>Has Teresa's email been addressed? I do not see evidence in the modified RI report.</p> <p>*****and nothing follows*****</p>	A – Text has been added in Section 8.3 to address Ms. Carpenter's comments.

		I have back checked my previous comments and reviewed the modifications to the Revised Draft RI. I am submitting the following comment(s):	
1.	8.3.6	Recommend changing "16 50 ft by 50 ft" to "sixteen 50 ft by 50 ft."	Concur. Text edited per reviewers comment.
2.	8.3.9	<p>The section states: "Following the transect evaluations, 36 50 ft by 50 ft grids were established in areas where elevated MD concentrations were observed."</p> <p>1. Recommend changing "...36 50 ft by 50 ft grids were established is ..." to "...thirty-six 50 ft by 50 ft were established in ..."</p> <p>2. The sentence states that the grids were established in areas where elevated MD concentrations were observed. This area was investigated using both mag-and-dig and AIR (previous sentence). Is it true that grids established from AIR data were based on elevated anomaly density and not elevated MD concentrations. If so, please modify the sentence to reflect both options.</p>	<p>1. Concur. Text edited per reviewers comment.</p> <p>2. Concur. The text was edited, as follows: "Following the transect evaluations, thirty-six 50 ft by 50 ft grids were established in areas where elevated MD concentrations along mag-and-dig transects and anomaly concentrations along AIR transects were observed."</p>
		*****and nothing follows*****	

After reviewing the Draft Final Remedial Investigation (RI) Report for the Former Camp Croft, Spartanburg, South Carolina, which is dated July 2013, I have the following comments:

- | | | | |
|----|----------------------------------|--|--|
| 1. | Pg. 4-1, Para. 4.1.1.0.2 | The 2 nd sentence states that all recovered MPPEH and MD was inspected, consolidated, and disposed of in accordance with Chapter 14, EM 1110-1-4009 and Errata Sheet 2. The last sentence states that Material Documented as Safe (MDAS) would be immediately processed through a smelter or shredder prior to resale. If the Contractor refers to Chapter 14 of EM 1110-1-4009, they will see that smelting is the only option for final disposition. | A - § 4.1.1(b), formerly 4.1.1.0.2, was revised to delete reference to shredding. |
| 2. | Appendix A | This appendix contains a total of 7 pages, but only the first 2 pages have an alpha-numeric page number in the footer (A-1 and A-2). Please ensure all the pages are numbered properly. | A – All pages of Appendix A have been numbered. |
| 3. | Appendix A, 6 th Page | The DD Form 1348-1A on this page is for four 55-gallon drums. The letter from Bonetti Explosives, LLC on Page 7 of this appendix says that they received a sealed container (note singular usage). Please explain this discrepancy. | A – ZAPATA has requested and received a revised letter from Bonetti Explosives, LLC that documents four 55-gal drums were received in the shipment. |
| 4. | Appendix A, 7 th Page | The letter from Bonetti Explosives on this page says they received a sealed container (note singular usage) that contained 2,904 pounds of MDAS. This conflicts with the DD Form 1348-1A on Page 6 of this appendix which says four 55-gallon drums with a total weight of 3,400 pounds and the Bill of Lading on Page 5 of this appendix which lists 4,500 pounds for 4 skids. Please explain the discrepancy between number of containers and weights. | A – MDAS weights indicated on the DD Form 1348-1A and the shipping Bill of Lading were estimates. The actual weight was determined by Bonetti Explosives, LLC upon arrival. § 4.1.1(b) has been revised to explain the apparent discrepancy. |
| 5. | Appendix A, 7 th Page | The letter from Bonetti Explosives on this page does not contain the proper statement from Chapter 14 of EM 1110-1-4009. This statement would be that the contents of the sealed containers will not be sold, traded or otherwise given to another party until the contents have been smelted and are only identifiable by their basic content. Contractor is again reminded that smelting is the only option for final disposition by EM 1110-1-4009. | A – Please see Response to Comment #3. |

-----End of Comments-----

1. General On 4 December 2013 I reviewed the Draft-Final Remedial Investigation (RI) Report for the Former Camp Croft, Spartanburg, South Carolina, which was dated July 2013, and I had 5 comments that needed to be addressed by the Contractor. A – Noted.
- After reviewing the Contractors responses to my 5 previous comments and the revised Draft-Final RI Report, which is now dated May 2014, I find that all my previous comments have been adequately addressed. Recommend finalization of the RI Report.
- End of Comments-----