

MEETING MINUTES
Unresolved Issues - Resolution Meeting
Fort McClellan, Alabama
December 11 – 12, 2008

Meeting Objective – resolve outstanding “big picture” issues related to ADEM comments on several FTMC documents.

Attendees

<u>Name</u>	<u>Agency/Company</u>	<u>Telephone</u>
Scott Bolton	Fort McClellan TF	256-848-3847
Lisa Holstein	Fort McClellan TF	256-848-7455
Bob Beacham	USACE-Mobile	251-690-3077
Brandi Little	ADEM	334-274-4226
Julie Ange	ADEM	334-270-5646
Ashley Toellner	ADEM	334-271-7797
Alan Blake	ADEM	334-394-4371
Tracy Strickland	ADEM	334-271-7738
Stephen Cobb	ADEM	334-271-7739
Phil Rury	TRC	978-656-3590
Andrew Smyth	TRC	978-656-3568
Sharon Thoms	EPA, Region 4	404-562-8666
Peter Tuttle	USFWS	251-441-6633
Steve Moran	Shaw Environmental	865-694-7361
Troy Winton	Shaw Environmental	865-670-2698
Paul Goetchius	Shaw Environmental	315-682-0395
Rich Prann	Shaw Environmental	610-742-2229
Jeff Tarr	Shaw Environmental	865-690-3211

AGENDA

Unresolved Issues - Resolution Meeting Fort McClellan, Alabama December 11 – 12, 2008

Thursday, December 11th

10:00 – 11:30 Choccolocco Corridor Ranges RI

11:30 – 1:00 Lunch

1:00 – 3:00 T-24A Ranges RI

3:00 – 5:00 T-24A Ranges PF/SD

Friday, December 12th

8:00 – 10:00 Ecological Risk-Based Remedial Goals – White Paper

10:00 – 12:00 Lines of Evidence Tables

12:00 – 1:00 Lunch

1:00 – 4:00 Determination of a Path Forward for any Remaining Unresolved Issues

MEETING SUMMARY

Chocolocco Corridor Ranges RI

The group discussed four issues based on ADEM's comments on the draft RI report for Chocolocco Corridor Ranges:

1. Detection Limits vs. Screening Criteria – The group discussed the fact that the BCT recognized the issue of detection limits (DL) vs. screening criteria in 1999. The group agreed that the Army will qualitatively address the issue in the Uncertainty Sections of the risk assessments and note whether any of the chemicals with DLs above screening criteria are likely to be site related based on considerations of background and activities and processes that took place on the site. The uncertainty section should address whether, and to what degree, risks may have been underestimated due to high DLs.
2. Averaging of Sample Quantitation Limits (SQL) for Non-Detects – Recent changes in EPA national guidance stating that full SQL should be used to calculate the mean and 95% UCL of the mean concentration for COPECs was discussed. Region 4 EPA accepts the continued use of one-half the SQL in these calculations at Fort McClellan and ADEM agrees.
3. Use of Field Duplicate Data – it was pointed out that the convention in all FTMC reports produced to date is not to include FD data in the evaluation of nature and extent of contamination or in the risk assessments. Rather, the FD data are used for QA/QC purposes only. The group agreed that the potential impact of excluding FD data from the risk assessments will be discussed in the Uncertainty Sections including the implications of that exclusion for COPEC selection.
4. Lead Cleanup Level for Young Child Recreational Site User – It was agreed that the human health risk approach is not relevant for this site because the ecological cleanup goal for lead will be lower than the human health goal and will drive the cleanup. For future sites where the human risk will drive the goal, ADEM will verify if the child or youth is required for the trespasser scenario.

T-24A Ranges RI

Several issues were discussed based on ADEM's comments on the draft RI report for the T-24A Ranges:

1. Installation of Well in Fracture Zone – the Army agreed to install an additional well east-northeast of R24A-187-MW44 and approximately 180 feet north of existing well cluster R24A-MW20 & R24A-187-MW45 to more precisely capture the downgradient extent of the plume. It was noted that funding for the new well will have to be arranged and that it will be some time before the well can be installed, mainly due to the upcoming UXO clearance work.
2. Currency of Exposure Variables Used in SSSLs – the group agreed that the Army will document due diligence in considering new exposure risk data for human and ecological risk. This will entail recalculating SSSLs using the latest EPA default exposure variable values for standard receptor scenarios in the human health risk assessment, and applying updated Eco-SSLs and ambient water quality criteria in the ecological risk assessment.
3. Use of Source Area Groundwater Data in Calculating Exposure Point Concentrations – the group discussed the fact that the maximum detected concentrations from wells in source area were used to calculate exposure point concentrations. This will be clarified in the revised report.
4. Lead Cleanup Level for Young Child Recreational Site User –It was agreed that the human health risk approach is not relevant for this site because the ecological cleanup goal for lead will be lower than the human health goal and will drive the cleanup. For future sites where the human risk will drive the goal, ADEM will verify if the child or youth is required for the trespasser scenario.
5. Trench Worker Scenario & Vapor Intrusion – the Army pointed out that the groundwater VOC contamination at T-24A Ranges is very deep (i.e., greater than 100 feet below ground surface) and that no significant VOC contamination is present in site soils (i.e., detections were generally very sporadic and low concentrations; none were identified as COPCs in surface or subsurface soil). The group agreed that a qualitative discussion would be added to the risk assessment stating that these exposure pathways are considered insignificant due to the lack of soil contamination and the considerable depth of the groundwater contamination at T-24A.
6. Use of Lines-of-Evidence Tables/Geochemistry in Selecting COPCs – Steve Cobb (ADEM) reaffirmed that the three-tiered background screening process developed for the FTMC project is not inconsistent with the ARBCA process, regardless of environmental media.
7. Detection Limits vs. Screening Criteria – This issue was previously discussed for the Choccolocco Corridor Ranges. The group agreed that the Army will qualitatively address the issue in the Uncertainty Sections of the risk assessments, including the possible consequence that risks were underestimated, and note whether any of the chemicals with DLs above screening criteria are likely to be site related.
8. Perchlorate – ADEM indicated that this is no longer an issue.

T-24A Ranges PF/SD

Several issues were discussed based on ADEM's comments on the draft PF/SD for the T-24A Ranges:

1. Use of Background Screening for Surface Water & Sediment – Steve Cobb (ADEM) reaffirmed that the three-tiered background screening process developed for the FTMC project is not inconsistent with the ARBCA process and applies to all sample media. The BCT agreed in the early planning stages of the project to use the background data in SAIC's background metals survey report, including surface water and sediment, to screen data collected at FTMC.
2. Refinement of COPECs – ADEM indicated that it will defer to EPA Region 4 policy regarding the screening of COPECs against background/upstream media concentrations in the refinement of COPECs. EPA will send an e-mail to ADEM documenting the acceptability of the background COPEC screening approach that is being used at FTMC.
3. Validity of ESVs – the group agreed that the Army will document due diligence in considering new exposure risk data for ecological risk. This will entail applying updated Eco-SSLs and ambient water quality criteria in the ecological risk assessment.
4. Use of Toxicity Testing Results from other FTMC Ranges – the Army agreed with ADEM's request to document the presence or absence of earthworms and other soil invertebrates, while collecting supplemental soil samples for characterization purposes.
5. Background Surface Water & Sediment Data Sets (upstream/off-site) – the Army agreed with ADEM's request to attempt to collect a background sample upstream of T-24A during the BERA field sampling effort.
6. Need for Additional Surface Water/Sediment Samples – the Army agreed with ADEM's request to collect additional surface water/sediment samples for chemical analyses to support the BERA, including 3 to 4 locations already targeted by Shaw on Figure 9-1 plus additional depositional locations requested by ADEM in areas with elevated soil lead as marked on Figure 9-1 by ADEM's contractor.

Note: A teleconference was held on August 12, 2009 to discuss several unresolved issues regarding the *Final Baseline Ecological Risk Assessment Problem Formulation and Study Design for the Ranges Near Training Area T-24A* (Shaw, 2009). Representatives from the Army, Shaw, TRC, ADEM, and USEPA attended the teleconference. The paragraphs below summarize the agreements reached during the teleconference. These agreements supplement and/or clarify resolutions reached through the normal comment/response process.

Updated Ecological Screening Values (ADEM Specific Comment #4): It was agreed that the data collected as part of the BERA for the T-24A ranges would be compared to the most recent ecological screening values (ESVs) for soil, surface water, and sediment in the BERA. Any differences between the COPECs identified in the Final T-24A PFSD report (Shaw, 2009) and the T-24A BERA would be addressed as necessary in the uncertainty section of the T-24A BERA.

Toxicity Reference Value for PAHs (ADEM Specific Comment #12): The toxicity reference value (TRV) for PAHs that is used in the food web models for the T-24A BERA will be reviewed and revised as necessary. If available, a TRV based on PAH ingestion will be used in the food web model.

Background Surface Water and Sediment (ADEM Specific Comments #34, 35, & 36): If available, background conditions for surface water and sediment will be characterized by using data from stream samples located “upstream” of suspected contaminated areas within the T-24A study area in preference to off-site background data. If available, these “upstream” background data will be compared to the off-site background data that were used to identify COPECs in the T-24A PFSD report (Shaw, 2009). Differences in the “upstream” and off-site data sets and their impact on the identification of COPECs will be addressed in the uncertainty section of the T-24A BERA.

Total Suspended Solids (ADEM Specific Comment # 37): The potential for elevated levels of total suspended solids in surface water samples will be eliminated as a line of evidence for the exclusion of bis(2-ethylhexyl)phthalate as a surface water COPEC at the T-24A ranges.

Additional Surface Water and Sediment Samples (ADEM Specific Comment # 50): In addition to the samples identified in the T-24A PFSD report (Shaw, 2009), one additional surface water and sediment sample will be collected from a location midway between sample locations R24A-187-SW/SD07 and R24A-187-SW/SD06.

PAHs in Sediment (ADEM Specific Comments 38, 39, & 40): The Army agreed to evaluate all PAHs in sediment using the ESVs presented in MacDonald, et al. (2000).

Revise Comment Response (ADEM Specific Comment #41): The Army agreed to revise the response to ADEM’s specific comment #41.

Ecological Risk-Based Remedial Goals – White Paper

Three issues were discussed based on ADEM’s comments on the draft white paper on development of ecological risk-based remedial goals for FTMC:

1. Setting RBRGs Below the Lowest LOAEL – ADEM will further consider the proposed Eco-RBRG of 500 mg/kg for lead in soil presented in the White Paper vs. 147 mg/kg

suggested by ADEM’s subcontractor. The group agreed with the Eco-RBRGs for surface water & sediment as presented in the White Paper.

2. Additional Lines of Evidence on Avian Exposure to Soil Lead - Army and EPA stated that studies of lead levels in blood of birds residing at the Bains Gap Road Ranges were performed by Mark Johnson of USCHPPM, but that the data were not available at the meeting. ADEM’s contractor mentioned that these site-specific data are relevant and should be considered in developing RBRGs.
3. RBRGs vs. ARARs – it was pointed out that the purpose of the White Paper was to present site-specific Eco-RBRGs, not conduct comparison to ARARs. Consideration of ARARs, which may trump the Eco-RBRGs in some instances, will occur during the feasibility study.

Lines of Evidence Tables

Two issues were discussed based on ADEM’s comments on the Lines of Evidence tables presented in the Iron Mountain Road Ranges RI:

1. Use of Background Screening for Surface Water and Sediment –ADEM reaffirmed that the three-tiered background screening process developed for the FTMC project is not inconsistent with the ARBCA process and applies to all sample media. The BCT agreed in the early planning stages of the project to use the background data in SAIC’s background metals survey report, including surface water and sediment, to screen data collected at FTMC.
2. Other Metals Potentially Associated with Ammunition – ADEM agreed with the Army’s response that the other metals (e.g., chromium, cobalt etc.) are not constituents of typical small arms ammunition such as that historically used at the FTMC firing ranges. The Lines of Evidence tables will be revised for clarity.

ACTION ITEMS

Item	Action	Responsibility	Due Date	Status
1	Send e-mail to ADEM documenting COPEC refinement policy of EPA Region 4.	Sharon T.		
2	Obtain funding to install new well at T-24A	Lisa H., Bob B. & Steve M.		
3	ADEM will further consider the proposed Eco-RBRG of 500 mg/kg for lead in soil presented in the	ADEM		

	White Paper vs. 147 mg/kg suggested by ADEM's subcontractor.			
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