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June 6, 2017

Mr. Stephen A. Cobb, Chief
c/o Mrs. Brandi Little
Governmental Hazardous Waste Branch Land Division
Alabama Department of Environmental Management
P.O. Box 301463
Montgomery, Alabama 36130-1463

SUBJECT: Responses to ADEM Comments dated May 18, 2017 on the *Corrective Measures Effectiveness Report, Sixth Year Long-Term Monitoring, Former Small Weapons Repair Shop, Parcel 66(7), dated April 18, 2017*
McClellan, Calhoun County, Alabama
Facility I.D. No. AL4 210 020 562

Dear Mr. Cobb:

On behalf of the McClellan Development Authority (MDA), Matrix Environmental Services, LLC (MES) is submitting responses to ADEM comments dated May 18, 2017 on the *Corrective Measures Effectiveness Report, Sixth Year Long-Term Monitoring, Former Small Weapons Repair Shop, Parcel 66(7),* dated April 18, 2017. We have submitted pdfs of the revised pages for replacement into the original submission by email and two hard copies to Mrs. Brandi Little. Please contact me at (256) 847-0780 should you have any questions or comments.

Sincerely,
MATRIX ENVIRONMENTAL SERVICES, LLC

Richard Satkin, P.G
McClellan Program Manager

Enclosure

CC: Mrs. Brandi Little, ADEM (email, two paper copies)
Mr. Robin Scott, MDA (transmittal letter only)
Ms. Lisa Holstein, U.S. Army (one paper copy)
MES Files

ADEM Review Comments
***Corrective Measures Effectiveness Report, Sixth Year Long-Term Monitoring, Former Small Weapons Repair Shop, Parcel 66(7),* dated April 18, 2017**
Fort McClellan, Alabama

Specific Comment 1

Page ES-1, Executive Summary, Paragraph 6. The text states, "The MDA is currently drafting an Underground Injection Control (UIC) permit application. Prior to implementing the additional remedy, and as described in a letter to the Department dated April 11, 2017, the MDA will submit a Second Addendum to the Final Corrective Measures Implementation Plan for the Former Small Weapons Repair Shop, Parcel 66(7)." Per the 2012 Draft Corrective Measures Implementation Report for the Site, solid potassium permanganate was applied directly to the exposed bedrock during the anhydrous quicklime mixing process; however, the MDA proposes to use an alternative application process (UIC injection) for the additional remedy implementation. Please provide an adequate justification for the change in remedy application method in the upcoming addendum to the Corrective Measures Implementation Plan for the Site.

MDA Response:

The Second Addendum to the Corrective Measures Implementation Plan for the Site will include adequate justification for the change in remedy application method.

Specific Comment 2

Page 4-1, Section 4.1.2 Groundwater Field Parameter Results. The text states, "Field screening parameters, i.e., pH, conductivity, dissolved oxygen, turbidity, etc., are typically used by field personnel to assess when a well has been adequately purged and a representative groundwater sample can be collected. However, because PDBs were used for groundwater sampling at the Site, field screening parameters were not measured." Per Cleanup Agreement condition V.D.1.b., each time a compliance well is sampled the temperature, specific conductance and pH must be measured as well. Additionally, monitoring geochemical indicators, such as oxidation-reduction potential, pH, temperature, etc., would provide a line of evidence on whether groundwater conditions are conducive to natural attenuation of the chemicals of concern (COCs). In future monitoring events, please resume monitoring field screening parameters per Cleanup Agreement Condition V.D.1.b. Please also consider analyzing each compliance well for other geochemical parameters that indicate whether natural attenuation is occurring.

MDA Response:

PDBs were first deployed at this site in 2011 and the sampling methodology described in the 2012 CMER as agreed to in an email correspondence from Brandi Little on April 11, 2011 to Richard Satkin. MDA stated in the 2012 CMER and each subsequent CMER that because PDBs were used field parameters were not measured. MDA recognizes field parameters ORP, temperature, pH, etc. are useful for determining when to collect groundwater samples using purging methods. Collection of these field parameters, however, would require a second PDB, additional time, and generation of IDW and therefore defeat the purpose of using PDBs and loss of any associated efficiencies. Furthermore, Section V.B.5 of the Cleanup Agreement (CA) states that MDA shall follow the approved Sampling and Analysis Plan for techniques and procedures…..MDA follows Standard Operating Procedure 19 of the current Sampling and Analysis Plan for PDB sampling which does not require the collection of field parameters. Therefore MDA

believes that the current groundwater sampling protocol for this site is consistent with the requirements of both the CA and ADEM Code 335-14.

Specific Comment 3

Table 4-4. Please revise the header in the top right hand corner of Table 4-4 from "Table 5-4" to "Table 4-4."

MDA Response:

The header in Table 4-4 has been revised from "Table 5-4" to "Table 4-4."