

**PROJECT REVIEW MONTHLY CALL SUMMARY**  
**FORMER DEFENSE DEPOT MEMPHIS, TENNESSEE**  
**13 October 2015**  
**10:30-11:15 AM ET**

**LOCATION:** Conference Call

**ATTENDEES:**

Army, Base Realignment and Closure Division (DAIM-ODB): Carolyn Jones

USACE: Mobile – Laura Roebuck; Tulsa - Tyler Jones

CALIBRE: BEC - Joan Hutton

TDEC Division of Remediation, DDMT Project Manager: Jamie Woods

U.S. Environmental Protection Agency, Region 4, DDMT Project Manager: Diedre Lloyd

HDR EOC: Tom Holmes

**GENERAL**

No items

**MAIN INSTALLATION**

**Remedial Action** - No current remedial action

**Supplemental Remedial Investigation/Focused Feasibility Study**

Mr. Holmes stated that report preparation was continuing and should be submitted for internal review in two weeks. No information beyond that discussed on the September call was available.

**DUNN FIELD**

**Remedial Action** - FSVE system shut down in 2012. AS/SVE system operating.

Mr. Holmes stated PID readings and an effluent sample were collected last week and the AS manifold was closed on 10 October. The AS manifold will remain closed until early November, except during weekly inspections; during that period, one SVE blower will operate for 12 hours per day. The AS/SVE system operated without any equipment problems or downtime since the September call.

A response to TDEC's comment on the AS/SVE Y5Q2 report was distributed by email prior to the call. Mr. Holmes discussed the comment and response; Mr. Woods stated the response was sufficient. Mr. Holmes stated that the review period had ended but that comments from EPA would still be reviewed. Ms. Lloyd stated she intended to complete her review of the report and submit comments. Mr. Holmes noted the next quarterly report would be prepared this month and requested any comments be provided soon.

Mr. Holmes stated he and Ms. Hutton had discussed the AS/SVE reports with the goal of reducing review requirements. Based on the discussion, Army proposes to provide AS/SVE operations reports semiannually rather than quarterly. Ms. Hutton stated that reporting schedule would be consistent with LTM and asked for comment from Mr. Woods and Ms. Lloyd. Mr. Woods stated that since the AS/SVE reports were fairly straight-forward and we were in the final phase of AS/SVE operations,

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he did not have a problem with the proposed schedule. Ms. Lloyd did not have a problem with the proposal at this point but withheld further comment until she completed review of the latest quarterly report.

**Offsite Plume**

Mr. Holmes stated that no additional information on the offsite plume was available but asked if Mr. Woods or Ms. Lloyd had any comments on the off-site plume discussions during the last two calls. Mr. Woods stated that TDEC still planned to conduct a new soil gas survey at the Cintas site but had not established the funding source. Ms. Lloyd did not have any additional comments but stated she planned to meet with Ben Bentkowski to discuss vapor intrusion issues. Mr. Holmes noted that discussions of VI pertained to the MI not the Dunn Field/offsite plume area.

Mr. Holmes stated that Army planned to conduct further investigation in the northeast corner of Dunn Field, pending funding. Ms. Hutton stated the investigation would address potential for a contaminant source in the area. No investigation has been performed because there was no indication of past waste disposal activities in the northeast corner; the work will be a step forward in addressing the off-site plume. Mr. Woods asked what type of investigation was planned. Mr. Holmes stated a membrane interface probe (MIP) investigation with soil confirmation sampling was being considered based on success with that technology on the west side of Dunn Field and in the source area investigation on the MI. The boring log for MW-129 across Hayes Rd. and E. Person Ave. from Dunn Field showed high PID readings and the investigation could support the absence of an on-site source. In response to a question, Mr. Holmes stated that additional monitoring wells on Dunn Field were not planned; the existing wells are considered to provide sufficient delineation of the offsite CVOC plume on Dunn Field. A work plan for the investigation will be submitted for review by EPA and TDEC. Ms. Lloyd and Mr. Woods thought the MIP investigation was a good idea and would be helpful.

**LONG TERM MONITORING**

LTM continuing with 99 wells on the MI and 86 wells on Dunn Field/Off Depot Area.

Mr. Holmes stated that semiannual LTM sampling at the MI and Dunn Field was completed last week. The sampling went as planned except that MW-257 in the Barnhart Crane area of central-northwest MI could not be sampled. One of the bollards had been knocked down and the well pad shifted; the well casing appeared to be intact and the well cap was still in place. The well pad and the bollard were properly replaced but the well was blocked at approximately 80 feet below the top of casing. The well will be inspected with a down-hole camera in the next week or two. Mr. Holmes noted that CVOCs have not been detected in MW-257.

Mr. Holmes noted that responses to EPA comments on the April 2015 LTM Report had been submitted in September. Ms. Lloyd stated she had glanced at the responses but had not had time for a detailed review. Mr. Holmes proceeded with a brief review of the responses with further discussion planned after Ms. Lloyd completed her review.

Mr. Holmes stated some of the comments requested more detail to demonstrate the effectiveness of remedial action and progress toward remedial action objectives. He noted that level of detail was

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outside the scope of the semiannual reports, which are intended to provide the latest analytical results of LTM samples for review and indication of changes in plume concentration or migration. More detailed review of the data and progress toward RAOs is provided in annual reports. Mr. Holmes then reviewed the MNA “lines of evidence” listed in the general comment and requested to be included in the October 2015 report. Abbreviated comments and discussion below:

- *Historical data, including contaminant time-series trend graphs, Mann-Kendall statistical analysis.* Time-series graphs are included for all LTM wells in the annual report. Mann-Kendall analysis has been discontinued per a previous comment from Mr. Bentkowski of EPA (attached). The trends for individual wells are discussed in the annual reports as well.
- *Contaminant isoconcentration plume maps in plan view and cross-section through time.* Isoconcentration maps and limited cross-section views are provided in the semiannual report with additional cross-sections in the annual report. (Note: Time-series views for the MI have not been prepared but will be considered.)
- *Data on natural attenuation processes and the rate of reduction in contaminant concentrations.* Further discussion to be provided in the SRI report but natural biodegradation processes are not evident in the groundwater at DDMT. Previous studies (RI/FS) noted there were three groundwater types identified for biodegradation, Types 1 and 2 supported biodegradation and Type 3 (aerobic) did not. Groundwater at the MI was identified as Type 3 but was still considered to support a low level of biodegradation.
- *Detailed site figure with base boundary, known and potential sources, fate and transport and exposure pathways, and receptors/resources.* Specific sources for groundwater contamination have not been identified. (Note: Further discussion of the information to be shown is warranted.)
- *Detailed land use control (LUC) property boundary map.* The LUCs apply site-wide and thus the site boundary on figures provides the information.
- *Estimation of attenuation rate and remediation timeframe.* This item is considered in the annual reports and will be addressed in the final SRI report.

The well classification systems for Dunn Field and the MI were discussed, in particular the “Background” and “Boundary” classifications. Mr. Holmes stated the boundary classification, which is also a part of the background classification description, was believed to have been used for the MI due to the more complicated groundwater flow patterns. LTM well classification criteria were not found through a search for EPA guidance documents by Mr. Holmes, and Ms. Hutton stated the only criteria she had found was groundwater classification types. Ms. Lloyd stated that the current classifications were confusing and outdated but did not have specific suggestions for changes. It was agreed that further discussion would be tabled by the Army until Ms. Lloyd identified specific changes for review.

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**OTHER ISSUES**

**LUC Annual Site Inspection Report**

Mr. Holmes stated the LUC Annual Site Inspection Report comment period had ended. Ms. Lloyd stated she did not expect there to be any problems and would provide an approval letter. (Note: Approval letter with comments for future LUC reports received 15 October.)

**Site Management Plan**

Mr. Holmes stated preparation of the 2016 Site Management Plan (SMP) continued with the submittal date as noted in the September call.

**EnviroNews**

Mr. Holmes stated the story list and schedule had been approved by Army and preparation had begun. Distribution is scheduled for mid-December. Ms. Lloyd asked if she had been added to the distribution, and Mr. Holmes confirmed her office and home address were on the list.

**Applicability of Shelby County Permit Requirements**

Mr. Holmes stated Mr. Woods had sent an email asking if well permits were obtained for well installations at DDMT and had provided correspondence between TDEC and Shelby County regarding the applicability of county requirements on environmental projects conducted by TDEC. Mr. Holmes noted that well permits had previously been obtained only for off-site wells, but that following completion of property transfers on the MI, county permits were obtained for all wells; a permit had also been obtained for the SVE system on Dunn Field and the AS/SVE system was incorporated into that permit. The guidance followed at DDMT was that Superfund sites are not required to meet administrative requirements of local jurisdiction, but did have to meet substantive requirements. Given that, the practice has been to obtain permits in order to demonstrate compliance, where the conditions were not onerous. Based on the correspondence from Mr. Woods, Mr. Holmes wanted to confirm that practice was correct. Mr. Woods provided additional details on the correspondence in the emails. Ms. Lloyd and Ms. Jones agreed that obtaining the permits and maintaining good relations with local agencies was appropriate and no change to permitting issues at DDMT was needed.

**Responses to Comments from  
U.S. Environmental Protection Agency (EPA) Region 4  
Annual Long-Term Monitoring Report – 2013  
Defense Depot Memphis, Tennessee  
Revision 0, February 2014  
Memphis, Shelby County  
U.S. EPA ID Number TN4210020570**

Excerpt from comment-responses.

6. It is EPA's view that the Mann-Kendall (M-K) test analyses are of limited usefulness in evaluating the DDMT data. The M-K analysis can tell a conflicting story when compared to visual examinations of the trend graphs.
  - For the DF graphs, concentrations are decreasing and plain to see absent M-K analysis.
  - In the MI, the picture is not as simple. For example, MW-92 is listed as 'probably decreasing' in Table 23, the Mann Kendall Trend Analysis. Examination of the graph shows that the PCE decreased, the DCE increased and then the PCE rebounded with minimal vinyl chloride produced. This extra detail is not captured in the M-K designation 'probably decreasing' and is highly relevant to developing a path forward for additional treatment and secondary source investigation/mitigation, as appropriate.

Army Response: Mann-Kendall analysis has been performed in accordance with the LTM plan in the 2004 MI Remedial Design report. The Army agrees that at this juncture this analysis is of limited use and will discontinue its usage in future reports, pending regulatory concurrence.