

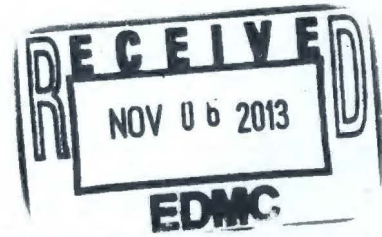
MEETING NOTES

TX Tank Farm Probe Hole Location Selection Criteria

MEETING DATE: October 8, 2013

LOCATION: Washington State Department of Ecology, Richland Office

ATTENDEES:



Mike Barnes (Ecology)	Jeff Lyon (Ecology)
Mark Byrnes (CHPRC)	Julie Robertson (Freestone Environmental Services)
Joe Caggiano (Ecology)	Maria Skorska (Ecology)
Les Fort (WRPS)	Harold Sydnor (WRPS)
Dan Glaser (WRPS)	Cindy Tabor (WRPS)
R.D. Hildebrand (DOE)	Jacob Throolin (WRPS)
Art Lee (CHPRC)	Becky Wiegman (WRPS)

BACKGROUND: This meeting was part of the continuing effort to ensure timely communication between Ecology and DOE representatives regarding the field work being conducted pursuant to the *200 West Area Tank Farms Interim Measures Work Plan* (RPP-PLAN-53808, Revision 1) and *Sampling and Analysis Plan for Soil Samples in Support of Interim Measure Planning at the 241-TX Tank Farm* (RPP-PLAN-54376, Rev. 1). The purpose of the meeting was as follows:

- To identify the criteria to select the next four direct push locations in TX farm
- To potentially select a couple of the four locations.

DISCUSSION:

Purpose of the Direct Push Campaign: Ms. Tabor began the meeting with a review of the purpose of the overall TX farm direct push campaign. Per RPP-PLAN-53808, the goals of the current investigation are to determine the approximate boundary of the contaminated zone under TX Farm and the approximate depth of the mobile contaminants, to support a decision regarding the potential effectiveness of an interim surface barrier or other interim measure.

Description of the TX Direct Push Campaign: Ms. Tabor stated that the current campaign calls for the installation of 12 direct push boreholes for TX farm interim measure evaluation efforts. Eight locations are being pushed to outline the area of interest. Four additional locations will be pushed to further define vadose zone contamination.

Status of Current Field Work: Ms. Tabor stated that at six locations, probe holes have been pushed, logged, sampled, and decommissioned. Quick-turn result for Tc-99 and nitrate are available for these six locations. At an additional two locations, probe holes have been pushed and logged, and sampling of these locations is underway.

Available Information to Aid in Establishing Criteria for Direct Push Locations: Ms. Tabor provided a series of diagrams and figures illustrating the locations of the TX farm tanks, piping, dry wells, and characterization boreholes, as well as borehole logging data and results from prior field activities measuring soil resistivity. Mr. Fort provided information regarding the TX farm tank leak loss assessment efforts, noting that six TX farm tanks are recommended for additional assessment. The attendees discussed the characterization and leak

assessment information and agreed that it seems likely that releases have occurred from tanks 241-TX-104, 105, 107, and 114. Based on ORP and Nez Perce interpretations of available data, the attendees identified likely locations of contaminants in the soil column.

Establish Criteria: After reflecting on the purpose of the TX farm investigation, available characterization and tank leak loss information, various possible interim actions, and TX farm infrastructure, the attendees developed a list of criteria applicable to decisions regarding locating the four additional TX farm probe holes. The attendees agreed that the boreholes should be located to support the following goals:

- Testing of the beta probe
- Better defining areas contaminated by tank waste
- Assisting in the preliminary definition of the areal extent of an interim barrier, if deemed appropriate.

Additionally, the attendees agreed that probe hole siting should take into account the desirability of:

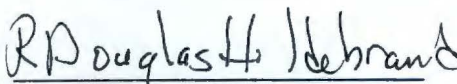
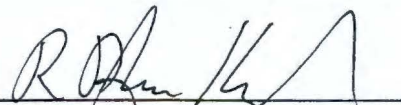
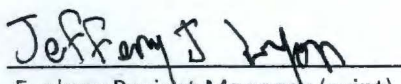
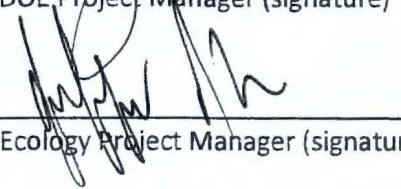
- Locations where there is prior indication of the presence of mobile contaminants
- Locations that are of interest to stakeholders (Nez Perce)
- Locations where infrastructure and surface contours would not inhibit placement of a hydraulic hammer unit or installation of a probe hole.

Mr. Hildebrand noted that if the parties agree that a borehole is needed outside the TX farm on property managed by RL, ORP would work with RL to support the effort.

Establish Areas to Evaluate: The meeting attendees agreed to conduct ground penetrating radar (GPR) surveys at four locations within the TX farm near tanks 241-TX-104, 105, 107, and 114. The attendees noted the following characteristics of these locations.

- Three of these four locations span small geographic areas where both ORP and Nez Perce data interpretations indicate subsurface contamination with cesium, uranium, or cobalt is likely.
- Two of the locations are likely to contain technetium at levels high enough to be useful for testing the beta probe.
- All are near tanks that are likely to have released contaminants to the soil column (241-TX-104, 105, 107, and 114).

The GPR survey results should identify where infrastructure is present to better locate investigation sites. An additional meeting will be set up to further discuss probe hole placement.

 DOE Project Manager (print)	 DOE Project Manager (signature)	10-23-2017 Date
 Ecology Project Manager (print)	 Ecology Project Manager (signature)	11/04/17 Date