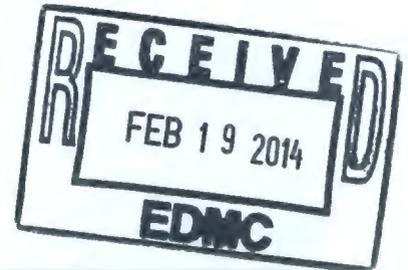


## MEETING NOTES

## 200 West Tank Farms Interim Measures Investigations

**MEETING DATE:** January 15, 2014

**LOCATION:** Washington State Department of Ecology, Richland Office

**ATTENDEES:**

Jim Alzheimer (Ecology)	Jenifer Linville (Freestone)
Mike Barnes (Ecology)	Jeff Lyon (Ecology)
Joe Caggiano (Ecology)	Dan Parker (WRPS)
Susan Eberlein (WRPS)	Kristin Scott (WRPS)
Les Fort (WRPS)	Maria Skorska (Ecology)
Dan Glaser (WRPS)	Harold Sydnor (WRPS)
Doug Hildebrand (DOE)	Cindy Tabor (WRPS)
Michelle Hendrickson (Ecology)	Becky Wiegman (WRPS)

**BACKGROUND:** The purpose of the meeting was to provide a forum for Ecology and DOE representatives to discuss efforts being undertaken at the 241-TX, 241-SX, and 241-U Farms (documents, field work, and results of interim measures investigations). As part of the meeting notes, a list of actions, and the status of those actions, are tracked.

**DISCUSSION:**

**Prior Meeting Notes:** Prior meeting notes and status reports were reported to have been placed into the Tri-Party Agreement Administrative Record.

**Status of Ongoing Field Work:** WRPS distributed two graphics illustrating the vadose zone field work schedule (as originally envisioned) and various deliverables associated with the interim investigations at the 241-TX, 241-SX, and 241-U Farms. The following field activities and deliverables were discussed.

- **TX Farm Direct Push:** On October 24, 2013, DOE and Ecology selected four additional locations for direct push investigation at TX Farm. Mr. Sydnor reported that field work would begin this week. Field activities are expected to start in the southernmost part of the farm (around Tanks 241-TX-103, 241-TX-104, and 241-TX-107), then move to the northern part of the farm (around Tank 241-TX-114).

Ms. Tabor noted that the original schedule called for completing TX Farm field work in December 2013, but completion is now expected in March 2014. She reported that the field schedule was impacted by furloughs; however, despite these delays and field work schedule impacts, WRPS anticipates that TX Farm reporting commitments identified in Figure 5-1 of the *200 West Area Tank Farms Interim Measures Work Plan* (RPP-PLAN-53808, Revision 1) will be met.

Beta probe testing was also discussed. Ms. Tabor reported that beta probe testing was not funded; however, the remaining four locations being pushed in TX Farm will be evaluated to determine

whether sufficient concentrations of Tc-99 are present to meet beta probe testing requirements. Dr. Eberlein stated that funding for beta probe testing is contingent upon issuance of the Congressional budget. When funding becomes available, testing will be conducted at TX Farm or another farm, contingent on field results and schedule.

- **SX Farm Direct Push and Pore Water Extraction Test:** Mr. Parker discussed the status of field work in the SX Farm and reviewed several field observations that had been reported previously. The field test portion of the SX Pore Water Extraction Test near SX Farm is wrapping up in the next couple of weeks. Water production rates have been well below what was expected, and the test had been extended a month to try different approaches to increase water production. However, water production rates have remained very low.

Two issues that have been identified through the testing and are being worked are (1) well construction and (2) control of the bladder pump. The small diameter wells have been problematic. Mr. Parker reminded the meeting attendees that three of the four well packers had failed, and the grout placement around the sumps was difficult and uncertain during well construction. The use of the well packers and grout placement around the sumps was necessary due to the small diameter of the monitoring/extraction wells. A larger diameter (approximately 3 7/8 inch rather than 2 1/2 inch outside diameter) may simplify well construction and result in a more robust design. Therefore, a larger diameter direct push demonstration is ongoing by EnergySolutions. The current plan is to push four large diameter boreholes at a near-town test site and construct an extraction well as a demonstration. This is to be followed by attempting approximately four pushes near the current extraction/monitoring wells outside SX Farm.

The controller for the down-hole bladder pump, which ensures the bladder pump operates only when there is water in the sump, has not operated correctly throughout the test. Two controllers have been tried with similar results. Columbia Energy is working to determine if a controller can be fabricated for use rather than relying on the pump manufacturer's commercially available unit.

- **U Farm SGE Work:** Mr. Glaser stated that field work is complete, and the characterization report required by TPA target M-045-22-T02 is on schedule for delivery by April 30, 2013. Mr. Glaser reported that U Farm electrodes were some of the first deep electrodes placed, and some issues were encountered due to low soil moisture.
- **C Farm SGE Work:** Mr. Glaser stated that field work is complete and that preparation of a report is underway. Mr. Glaser reported that he is reviewing the information and also evaluating the impacts of an electrical line running through C Farm. The attendees discussed provision of a summary of the results. Ms. Tabor suggested that the information could be presented during a C Farm RFI Report meeting.

**Laboratory Data Status:** Ms. Tabor reported that three final data packages were being released by the laboratory (i.e., C Farm Well 299-E27-20, SX Farm Direct Push Data, and TX Farm Quick Turn Data for the first eight direct push locations). Ms. Tabor also indicated that the preliminary data package for the remaining data from the eight TX Farm direct push locations is expected to be received later in January.

**Interim Surface Barrier (ISB) Repair Status:** Ms. Hendrickson reported on the status of barrier repairs. Ms. Hendrickson was able to observe the repairs to the T Farm ISB for two days in October 2013. The

spray-on application of the repair material worked well, but Ms. Hendrickson was concerned that the barrier material was pulling away from the concrete structures, leaving gaps between the structures and the barrier. It was noted that this has been observed early in the life of the barrier but may be getting worse. It was also noted that in one location, tumbleweeds were growing in the gravel between the barrier and a concrete structure. Discussion followed as to potential methods to improve adhesion of the barrier material to the concrete structures.

Ms. Hendrickson noted a concern that the barrier material may put an undue burden on operations to maintain the barrier. The meeting attendees discussed the possibility of installing an asphalt barrier, and dome load issues associated with that choice of barrier material.

The meeting attendees also discussed barrier/interim measure maintenance and inspection requirements and how those activities are funded.

#### **New Topics:**

- **Surface Barrier Construction Milestones:** The meeting attendees discussed TPA milestones M-045-22 and M-045-92, which are related to the outcome of the interim measures investigations at TX, SX, and U Farms. Milestone M-045-22 calls for DOE to propose a modification to milestone M-045-92 (regarding surface barrier construction) if DOE and Ecology agree that a modification is necessary, based on their review of the SX Farm pore water extraction test report (M-045-22-T03). This SX Farm report is required to include “a recommendation for further soil desiccation/contaminant removal for tank farm contamination or for performing interim barrier construction.”
- **M-045-22-T03 Test Report:** During December, an action was taken during a retrieval status meeting to develop the “Invite list for the review of SX contaminant removal demonstration draft document review.” This is the M-045-22-T03 test report. Ms. Eberlein suggested that the action be tracked via the 200 West Tank Farms interim investigations status meetings.

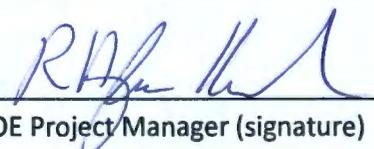
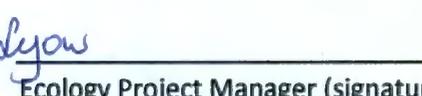
The meeting attendees discussed topics that should be considered for inclusion in the report:

- Pore water extraction test results and judgment of potential value of the technology
  - Accountability and funding for barrier maintenance
  - Level of effort associated with ongoing barrier maintenance
  - Barrier effectiveness
  - The need for barrier replacement
  - Recommendations regarding the construction of additional barriers.
- **Interim Surface Barriers:** Mr. Lyon identified three discussion points regarding ISBs:
    - Requirements for continuing maintenance on all interim measures, including barriers and the associated mechanism for Ecology holding DOE-ORP accountable
    - Barrier effectiveness (review design requirements v. performance)
    - Barrier placement (ISBs covering an entire tank farm).

Mr. Parker will schedule a meeting with Ecology regarding barriers (will be addressed through Action Item 2013-08-21-9); and will determine how to address Mr. Lyon’s concerns regarding all interim actions during the February 2014 200 West tank farms interim measures investigations meeting.

**Next Meeting:** The next meeting is scheduled for February 19, 2014, at 10:00 am.

**ACTIONS:** Refer to the following table. A date-based numbering system is used to track the actions. An action will be removed from the list after DOE and Ecology have agreed to close the action.

<u>R Douglas Hildebrand</u> DOE Project Manager (print)	 DOE Project Manager (signature)	<u>2-18-2014</u> Date
<u>M. Hildebrand for J. Lyow</u> Ecology Project Manager (print)	 Ecology Project Manager (signature)	<u>2-18-2014</u> Date

Action Items. (2 sheets)				
Item #	Topic/Title	Actionee	Description	Status
2013-08-21-3	Action from annual M-45-56 meeting	Hildebrand	Evaluate the potential for providing a single comprehensive report on the electrical resistivity correlation work to date.	WRPS is defining the scope of this activity to support the possible addition of this report as new work scope in FY 2014. Mr. Hildebrand stated that upcoming work in A/AX Farm could be used to supplement information for this report. Continue to track here until commitment is closed or until it is tracked elsewhere.

<b>Action Items. (2 sheets)</b>				
<b>Item #</b>	<b>Topic/Title</b>	<b>Actionee</b>	<b>Description</b>	<b>Status</b>
2013-08-21-9	Barrier effectiveness	Parker	(a) Provide Ecology with the barrier monitoring report after it has been issued; (b) Schedule a meeting on barrier effectiveness/merits of barriers.	(a) Closed. RPP-RPT-55143, Rev. 1 has been provided to Ecology and is in the Administrative Record. (b) A meeting will be scheduled the week of 02/03/2014 to discuss barrier effectiveness. Mr. Parker will send out the questions received from Dr. Caggiano to Mr. Alzheimer, Ms. Skorska, and Ms. Hendrickson. Any additional questions to be considered should be sent to Mr. Parker.
2014-01-15-1	U Farm SGE results	Glaser	Provide a briefing on U Farm SGE results at the Feb. 2014 monthly meeting.	New.
2014-01-15-2	C Farm SGE results	Glaser	Provide a briefing on C Farm SGE results at an upcoming C Farm RFI report meeting.	New.
2014-01-15-3	Well 299-E27-20 vadose zone data	Tabor	Provide Well 299-E27-20 vadose zone data to Mr. Barnes.	New.
2014-01-15-4	M-045-22-T03 test report	Parker	Develop a plan for communicating advance information regarding the contents of the M-045-22-T03 test report.	New.