Southwest Regional Partnership on Carbon Sequestration

Quarterly Progress Report

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Executive Summary

Task 2–Public Outreach and Education: The design of the public SWP website was updated. Changes to the beta testing site were fully ported to the main SWP site and additional content was added. Researchers continued maintaining content management system SWP-Velo.

Task 6–Operational Monitoring and Modeling: the MVA Database was maintained. In *6.1 Surface and Near-Surface,* the usual site measurements were performed but the eddy flux tower was not installed as expected. In *6.2 Subsurface:* CO_2 storage summaries showed a total of 621,490 tons stored since the inception of FWU CO_2 accounting. A new aqueous-phase tracer injection was performed in June into the #13-3 pattern and analysis of tracer test results continued. MMP research added valuable data for SWP modeling efforts and FWU seismic data were used to directly link to hydrologic properties. In *6.3 Seismic,* VSP repeat data and 3D surface seismic depth data processing were ongoing. In *6.4 Reservoir Modeling,* the geological model update for 2017 (a milestone) was completed. Multiphase flow characterization studies included the effects of capillary pressure and relative permeability on CO_2-EOR forward models. Work continued on relative permeability and geomechanical testing of core samples, as well as on extending STOMP and TOUGHREACT reactive transport simulations. STOMP-EOR was also applied to aqueous tracer test experiments. Work was completed on Booker well tie quality control and new fault models for FWU. In *6.5 Risk Assessment*, researchers continued working on the best approach to apply NRAP tools to SWP projects, with the goal of a work plan in the next quarter. FWU model development in CMG-GEM software commenced. The SWP book chapter focusing on uncertainty analysis and risk assessment was revised. A caprock study progressed integrating all of the SWP team's caprock integrity analyses. The caprock report is a milestone in Risk Assessment for Phase III.

Task 8–Project Management and Oversight: In April, a USC visit identified broader areas for possible collaboration working on adding USC to SWP members. In May, the Project Management Plan update was reviewed by all Working Group leads and the revision was delivered. A report from the SWP Advisory Board meeting May 12, 2017 reviewed the most recent quarterly (Q38) and advised on format changes to more clearly present data. In fieldwork, all equipment for the seismic array replacement was being readied for the planned deployment in the next quarter (July). At the end of the quarter, Principal Investigators were waiting to hear whether CSM's project would utilize well 13-10 for their EM study.