

## EGS Collab Daily Shift Report

**Date:** 7/3/19

**Written by:** Jake Horner (jake.horner@pnnl.gov; 509.438.3116), 7/3/19

**SURF Personnel:** George Vandine

**Location(s):** 4100 Level Battery Alcove

### Summary:

The team (Jake Horner, PNNL; Carson Reimers, SDSMT; Trevor Mutchler, SDSMT; George Vandine, SURF; Jason Davis, Agapito) took the 6:30 cage down to the 4100 Level and conducted a toolbox talk at the Battery Alcove. A REFLEX downhole trajectory tool survey was conducted in TH4100 at 5 ft intervals from 0 to 25 ft. After struggling to install the tool with the rubber centralizers, the crew decided to perform the survey without the centralizers. The first two survey attempts were run with the same multishot mode that was used to log the vertical borehole. However, the data that was collected returned azimuth readings that ranged up to 10 degrees. After reaching out for input, the tool was ran a third time in continuous mode and produced reliable results. The only exception might be the zero depth where the tool was sticking part way out of the borehole and potentially affecting the dip reading.

Depth (ft)	Dip (deg)	Azimuth (deg)
0	-4.53	45
5	-5.31	44.9
10	-5.47	45.21
15	-5.44	45.22
20	-5.39	45.25
25	-5.49	45.27

After completing the survey, the crew began demobilization. All cores, REFLEX tools, cameras, logging tools, and most of the drilling equipment was staged near the Yates shaft on the 4100L by the time Horner and Reimers took the 11:45 cage to the surface. The rest of the crew remained on the 4100L to continue staging equipment and had plans to get everything out by the end of the shift. Reimers also remained on site at the surface to ensure the core and REFLEX tools were staged in a secure location.

Agapito plans to return next week to complete the well head installation on TV4100. The schedule for this has yet to be determined, but will need to be coordinated to avoid any interruption of geophysical logging plans for next week.

The fracture that was noted in the "Irregularities" section of the 7/2 shift report was further inspected. The fracture intersects the borehole at a depth of 0.3 ft (see Figure 2) and the shaft wall approximately 1.0' ft to the left of the borehole.

**Lead Researcher:** Jake Horner (jake.horner@pnnl.gov; 509.438.3116), 7/2/19

**Documents or Procedures:** JHAs: EGS-001-RevB, EGS-004-RevB

### Inspections:

**Materials Receiving/Shipping:** No additional supplies were brought to the work site today.

**Comments:**

**Recommendations:**

**Irregularities:**

**Acts of Safety:** Discussed avoiding pinch points and tripping hazards while working to demobilize and haul equipment to the surface.

**Near Misses or Incidents:**

**EGS Collab Personnel Hours (Surface and Underground):**

	Name	Surface Hours		Underground Hours	
		Time In	Time Out	Time In	Time Out
1	<i>Jake Horner (PNNL)</i>	06:00	12:00	06:30	11:50
2	<i>Carson Reimers (SDSMT)</i>	06:00	unknown	06:30	11:50
3	<i>George Vandine (SDSTA)</i>	06:00	unknown	06:30	unknown
4	Trevor Mutchler, (SDSMT)	06:00	unknown	06:30	unknown
5	<i>Jason Davis (Agapito)</i>	06:00	unknown	06:30	unknown



*Figure 1. Carson showing the planned TH4100 location in relation to the borehole, located ~6ft to the right.*



*Figure 2. Natural fracture within TH4100 located 0.3' downhole.*