

TECHNICAL FIELD VISIT

Utah Coal Regulatory Program

January 16, 2004

TO: Internal File

THRU: Daron R. Haddock, Permit Supervisor

FROM: Steve M. Fluke, Reclamation Hydrogeologist

RE: Technical Field Visit, East Fork Box Canyon, Canyon Fuel Company, LLC., SUFCO, C/041/002

Other Attendees: Mark Bunnell and Clay Mecham (SUFCO); Tom Lloyd, Lance Sudweeks, Mesia Nyman, Jeff Jewkes, and Jeff O'Connel (U.S. Forest Service)

Date & Time: December 3, 2003; 9:30 am

PURPOSE:

With the Forest Service personnel, to accompany SUFCO personnel on their weekly subsidence monitoring of the East Fork of Box Canyon. The Forest Service was interested in observing mining impacts. In particular, they were interested in observing damage caused to the Elusive Peacock Shelter. We drove ATVs to the east side of the East Fork of Box Canyon and approached the shelter area from above. During the field visit, temperatures were in the 30s °F and the ground was covered with 3" to 12" of snow. At the time of the site visit, the longwall face had progressed approximately to EFB-13.

OBSERVATIONS:

On the hike down to the Elusive Peacock Shelter, we encountered tension cracks on the surface of the Castlegate Sandstone near the canyon rim that ranged in width from 2 inches to 2 feet. The snow cover made it difficult to trace the lateral extent of the cracks, but some appeared to extend at least 50 feet. The Elusive Peacock Shelter was much as it appeared during the site visit last week. We took photos from above to the southwest of the shelter. Due to the rubble, we could not make out any of the lower shelter cribbing or geotextile fabric that was placed on the floor of the upper shelter.

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We then headed downstream of EFB-11 where the stream channel is fractured and losing water. Sandstone beds up to seven feet thick within the stream channel are fractured and the stream flow can be observed in places flowing into cracks where the stream isn't frozen. However, the flow appears to reemerge within the stream channel downstream above and within shale beds acting as aquitards. This condition is observed until just past the point where the stream channel crosses over the 3LPE west gate roads.

Mark Bunnell, Tom Lloyd, Jeff Jewkes, and I headed to EFB-12 and EFB-13. No changes to spring flow or fractures were observed there. We met the rest of the group back at the ATVs and headed out. On the way, we stopped at two drilling exploration sites to observe the reclamation efforts.

RECOMMENDATIONS/CONCLUSIONS:

Continue weekly subsidence and water monitoring. The frozen conditions in the stream channel made it difficult to determine where the streamflow was lost, and therefore, it would not be possible to repair cracks with bentonite at this time.

cc: All Attendees
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