

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: Mike Davis and Clay Mecham (SUFCO)

Date & Time: November 26, 2003; 8:30 am

PURPOSE:

To accompany SUFCO personnel on their weekly subsidence monitoring of the East Fork of Box Canyon. We drove ATVs to the East Fork Box Canyon trailhead at the confluence with the East Fork of the East Fork of Box Canyon. During the field visit, temperatures were in the 20s °F and snowfall was heavy. The ground was covered with 3" to 10" of snow. At the time of the site visit, the longwall face had progressed to approximately 50 feet north of EFB-12.

OBSERVATIONS:

The stream was mostly frozen at the channel bottom from the confluence with the east fork of the East Fork of Box Canyon to approximately 25 feet upstream of monitoring site EFB-11 (where spring Pines 214 discharges to the stream channel). No subsidence effects were noted on the way down to this point and we headed up to the Elusive Peacock Shelter. The shelter appeared to be mostly collapsed. Mike Davis stated that the shelter collapse was more extensive since the time of last weeks subsidence monitoring. Due to the unstable rubble and accumulating snow, we could not get close enough to the shelter to see any of the cribbing supports or fabric used to cover the floor of the upper shelter. I could not tell where the upper shelter floor was located or if it was still partially intact. Mike Davis believed the upper floor was still intact, although covered in rubble. We took photos from below at the southeast and from above at the northwest.

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We then headed down to observe flow from spring Pines 214. Eric Peterson measured the spring's flow on Monday (November 24) at approximately 38 gallons per minute (gpm). Historically, the spring's maximum flow has been reported at 3.4 gpm since quarterly monitoring began in June 1997. Steady flow along the stream channel resumes at the confluence with the spring due to the additional flow and because the water has not had time to freeze up.

Subsidence fractures begin to appear in sandstone within the stream channel at about the confluence with spring Pines 214 (EFB-11). A flag marking a fracture was left by Chris and Eric on Monday, but new snow cover obscured the fracture. Approximately 75 to 100 feet downstream of EFB-11, the stream was lost beneath buckled sandstone for approximately 20 feet. Ice covering the stream channel at this area was broken away, but snow and ice still obscured the actual fissures that the flow was lost to. The stream flow resumed downstream of this area. Only hairline fractures were observed in the stream channel bedrock downstream. On the way out, I observed hairline fractures in the stream channel bedrock approximately 50 feet upstream of EFB-11.

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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