



**State of Utah**  
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 DIVISION OF OIL, GAS AND MINING

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October 6, 1995

TO: Daron Haddock, Permit Supervisor

FROM: Steven M. Johnson, Reclamation Hydrologist *SMJ*

RE: Willow Creek Refuse Removal and Sowbelly Canyon Reclamation Site Visit, Castle Gate Mine, AMAX Coal Company, ACT/007/004, File #2, Carbon County, Utah.

Mike Sufлита and I visited the Castle Gate Mine on October 4, 1995 to evaluate the construction taking place as part of the Willow Creek refuse removal and the Sowbelly Canyon reclamation projects. We met with Ben Grimes at Willow Creek at 9:30 a.m., and Bill Minchey at Sowbelly Canyon about 10:30 a.m.

The operator was about 90% finished with the removal of topsoil over the refuse. Mr. Grimes said they were surveying the road so it could be widened. Plans were moving along to remove the existing culvert and replace it with a longer culvert that would allow two lanes of traffic flow. The Division of Wildlife Resource (DWR) representative has requested special considerations in placing the longer culvert so fish migration on Willow Creek would not be inhibited. These considerations are skylight in the culvert and low grade to maintain slow flows. Mr. Grimes said that special design may be required to accommodate low grade and still meet the 100-year, 6-hour storm designs. I suggested that they look into supplementary high flow culverts that would not need to meet the DWR requirements, but could pass flow in extreme events.

At Sowbelly Canyon construction was proceeding on: SBRD-1D; SBRD-4; removal of Ponds 16 and 17; regrading east of SBRD-1C and south of SBRD-2; and surface roughening. SBRD-1 is being reworked in places by breaking riprap down to its designed size and gradation and removing some humps in its flow way. The berms on either side of SBRD-1D have been pushed down and material from the berms is being used for building depth on the main channel. This depth appears to be sufficient to meet the design of 2.5-feet, therefore, there is no need to cut more depth near station 14+00 as previously discussed.



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Mr. Minchey was concerned that the slope of SBRD-4, near the top, would not be in compliance with the plan. Though it is steeper in this reach the slope does not exceed the design slope for the overall channel, therefore it will be stable and pass the design storm runoff. The final grade for SBRD-4 was roughed-in but completion of the channel will not be possible until the lower sediment pond is removed and the road can be reclaimed. Mr. Minchey predicts that this will occur around October 20, 1995.

Many areas have been roughened and are waiting for mulch incorporation. Sediment control is in place and functional. Methods that are being used now are roughening and a series of silt fence in the main channel, below the disturbed areas.

cc: M. Sufita  
P. Baker

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