



**State of Utah**  
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August 26, 1996

TO: Joe Helfrich, Permit Supervisor 

FROM: Steven M. Johnson, Reclamation Hydrologist 

RE: Sowbelly As-Built, Castle Gate Mine, Amax Coal Company, ACT/007/004-96D,  
Folder #2, Carbon County, Utah

**SYNOPSIS**

Amax Coal Company completed regrading and seeding reclamation in the fall of 1995 for the Sowbelly Canyon permit area. They have requested Phase I bond release and have submitted as-builts for the regrading, sediment control and diversion in the canyon.

The amendment included an entire update for Section 3.2 of the Castle Gate MRP. Particular parts that are addressed in this analysis are Sections 3.2-5(4) and 3.2-10, and Appendices. The first submittal of this amendment was deficient in a few areas, which Amax addressed in an August 20, 1996, submittal.

**ANALYSIS**

**RECLAMATION PLAN**

**HYDROLOGIC INFORMATION**

Regulatory Reference: R645-301-760

**Analysis:**

Section 3.2-5(4) covers the reclamation alternate sediment control measures that will be implemented in the reclamation of this canyon. This section was permitted prior to reclamation activities in 1995. Section 3.2-5(4) refers to Appendix 3.2I for sediment control as-builts. Appendix 3.2I shows USLE calculations that demonstrate that the alternate sediment control measures are adequate to treat reclaimed areas. First, Amax Coal says that the amount of sediment from the undisturbed area is greater than the disturbed areas; therefore, the sediment is controlled on the reclaimed areas. Second, Amax Coal says that



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an analysis which uses predisturbed assumptions on the disturbed areas results in only a slightly lower sediment production. Finally, the data shows that sediment production per acre is less from the reclaimed areas than the sediment production from undisturbed areas.

Section 3.2-10 discusses the reclamation as-builts. This section discusses the reclamation activities performed in 1995. This section also describes the use of mulch as sediment in the reclaimed areas.

Appendix 3.2G is the reclamation as-built, hydrology calculations. In this section the channel configurations are shown. All channels are shown to be built to design and certified by a professional engineer, except SBRD-8. This channel was only slightly modified in order to leave a more natural, stable channel; therefore the engineer certified that the channel was stable and capable of conveying the required storm runoff, rather than certifying the designs.

**Findings:**

This section is complete and accurate and should be approved as part of the reclamation plan.

**RECOMMENDATION**

This submittal should be approved for inclusion in the Castle Gate Reclamation plan.

SOWASBL2.SJ