



**State of Utah**  
 DEPARTMENT OF NATURAL RESOURCES  
 DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt  
 Governor

Kathleen Clarke  
 Executive Director

Lowell P. Braxton  
 Division Director

1594 West North Temple, Suite 1210

PO Box 145801

Salt Lake City, Utah 84114-5801

801-538-5340

801-359-3940 (Fax)

801-538-7223 (TDD)

April 21, 2000

TO: Internal File

FROM: Michael Suflita, Reclamation Hydrologist *MS by Daron Haddock*

RE: Office Pad Drainage - ASCA Z, West Ridge Resources, Inc., West Ridge Mine, ACT/007/041- AM00E, Folder #2, Carbon County, Utah

**SUMMARY:**

On April 3, 2000 the Division received a request to modify treatment of the drainage of Alternate Sediment Control Area (ASCA) - Z in order to use more of the area for parking. This Technical Memo is a response to that request. Deficiencies were found.

**TECHNICAL ANALYSIS:**

**OPERATION PLAN**

**HYDROLOGIC INFORMATION**

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

**Analysis:**

**Sediment Control Measures**

The submittal does not have redline/strikeout to highlight what portions of text have been deleted and/or changed. Please include that in the next submittal to expedite DOGM review.

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**TECHNICAL MEMO**

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The original design called for a detention basin to completely contain the anticipated runoff from the office and parking pad and an adjacent undisturbed drainage. Reference the Mining and Reclamation Plan (MRP), Appendix 7-4, page 11. The original design event was a 10-year, 24-hour event and that was used for the proposed revisions as well. The runoff volumes did not change. The new proposal is to reverse the slope of the pad and to channel the runoff into a half-round culvert, designated DC-16. At the inlet of the culvert would be placed a silt fence to collect sediment. The culvert would carry water into the main stream channel at the energy dissipater riprap apron for the main culvert UC-00. This outfall is the very lowest end of the disturbed area.

The overall concept appears workable, however, there are some problems with the proposed design. First, there is no separation between runoff from the pad and the ditch UD-Z which contains water from an undisturbed drainage. Disturbed area drainage water cannot be mixed with undisturbed drainage. A berm must be designed to separate the two waters. The waters would remain separated since the culverts DC-16 and UC-PP are separate. Second, a silt fence will not be adequate to collect the oil and grease resulting from the numerous vehicles parked on the pad. It will be necessary to install an oil and grease separator at the inlet to DC-16 to treat the water before it leaves the disturbed area and flows directly into the creek. This will also better collect sediment and allow clean out of sediments and oil and grease.

Since the outfall of DC-16 is the energy dissipater riprap basin for the main minesite culvert, it seems the small flow of DC-16 might not need any additional riprap as designed in the submittal. See page 39, Table 15. The use of a half-round culvert has often proven an ongoing maintenance problem. The Operator is encouraged to consider using a full round culvert for the proposed change.

Some tables in the submittal need revision. Table 2, page 19: DA-Z, Drains to: Culvert DC-16, not a silt fence. Table 11, page 33: DC-16 Flows to: main stream channel, not to a silt fence.

**Findings:**

In its present form the submittal does not meet regulatory requirements. Accordingly, the Permittee must address those deficiencies as found within this Draft Technical Memo and provide the following, prior to approval, in accordance with the requirements of:

**R645-301-742**, separation of disturbed area drainage waters and undisturbed area drainage waters, an oil and grease separator at the inlet to DC-16, and corrections to tables indicating where structures flow to.

**TECHNICAL MEMO**

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**RECOMMENDATION:**

The proposed amendment should not be approved.

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cc: Sharon Falvey  
Pete Hess

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