



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

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January 14, 2002

TO: Internal File

THRU: Stephen J. Demczak, Sr. Reclamation Specialist/Engineering, Team Lead *SJD Jay 8/17*

FROM: Michael J. Suflita, Sr. Reclamation Specialist/Hydrology *MS*

RE: Gilson Well, Canyon Fuel Company, LLC., Dugout Mine, C/007/039-01H-1

SUMMARY:

This Technical Memo is an evaluation of the Hydrologic aspects of the latest submittal received by the Division on December 4, 2001. There are no deficiencies.

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:

Ground-water monitoring

Since the proposed water well is for culinary and other water uses, and is covered by a valid Water Right, it is not a monitoring well. The approved Water Right is included in the submittal. Therefore, no monitoring is required.

TECHNICAL MEMO

Diversions

The water well pad is located between the road and Dugout Creek with the pad being constructed with a bin wall. The creek will need to be shortened slightly to accommodate the construction and will not use a culvert as shown on Dwg. GE4B001. Cross sections of the pad are shown on drawing B-346. Drainage ditch DD-15 is shown across the road from the new pump house.

The ditch design for DD-14 and DD-15, near the pad, used the 10-year, 24-hour design that is consistent with the Division's position paper regarding ditches and culverts draining to a sediment pond and exceeds regulation requirements. In this case, the ditches drain to the creek that conforms to regulatory recommendations by diverting runoff away from disturbed areas. Where the slope is less, 6.7%, the ditches are unlined and all other, steeper, sections are concrete lined. The watershed areas, runoff numbers, and Manning roughness coefficients were all checked and found to be appropriate. It appears the ditches are adequately designed.

Stream buffer zones

Construction will occur within 100 feet of Dugout Creek. Otherwise, stream Buffer Zones will not be affected by the proposed work.

Sediment control measures

Sediment control measures used during construction will be straw bales and silt fences in the stream below the construction site. These are typical measures and, when properly installed, will prevent additional sediment from entering the stream.

Casing and sealing of wells

Original commitments in the approved MRP cover the temporary and permanent sealing of the Gilson Well. See sections 748 and 765 of the MRP.

Findings:

The application meets minimum requirements.

MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

Analysis:

Affected area maps

Plates 7-1, 7-2, 7-5, 5-2, and 5-3(6) have all been updated to show the new well location.

Findings:

The application meets minimum requirements.

RECOMMENDATION:

The proposed amendment can be approved in its present form.