



## State of Utah

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May 3, 1990

TO: Lowell P. Braxton, Associate Director, Mining

FROM: Tom Munson, Sr. Reclamation Hydrologist *TM*

RE: **Subsidence Study for the North Fork of the Right Fork of Miller Creek, Cyprus-Plateau Mining Corporation, Starpoint Mine, ACT/007/006, Folder #2, Carbon County, Utah**

**Synopsis**

A study to determine effects of mining beneath the above perennial stream is on-going, and this memo will verify the intent of this study.

**Objectives**

1. Document the subsidence effects on flows related to surface water flow, quantity and quality.
2. Document effects on surface water quality if ground water is placed back in the stream following mining.
3. Document the land effects from subsidence (i.e., surface fracturing, cracks, etc.) by mapping and relating these effects to the hydrology of the area.
4. Determine the effects to the ground water system and any aquifers above the coal seam, including the coal beds.
5. Determine the interaction between ground water and surface water, and if any visible effects occur following mining related to fracturing of associated aquifers above the coal seam (i.e., dewatering or increased transmissivity of aquifers). The study of this interaction would include documenting the recovery of the ground water system following mining.

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6. If effects are observed relating to hydrology on both surface and ground water, how do these effects change over time following mining (i.e., if the stream is intercepted, is it healing itself over time? If the aquifers are dewatered, are they reestablished over time following mining?).

**Recommendations**

This study should be continued and the objectives be pursued and addressed with the scope of the study.

djh  
AT46/21-22