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DENVER, COLORADO 80202

SEP 27 1984

DIVISION OF OIL  
GAS & MINING

SEP 24 1984

*ACT 1015/004  
#2*

Dr. Dianne Nielson, Director  
Division of Oil, Gas and Mining  
4241 State Office Building  
Salt Lake City, Utah 84114

Dear Dr. Dianne Nielson:

The Office of Surface Mining (OSM) has completed a review of the Draft Final Technical Analysis and Decision Package for the Huntington Canyon No. 4 Mine submitted by your office on August 27, 1984. Enclosed are our review comments.

Should you or your staff have any questions regarding the review comments, please feel free to contact Mark Humphrey or Walter Swain at (303) 844-3806.

Sincerely,

*for Walter Swain*  
Steve Manger  
Utah Task Force Leader

cc: Walt Swain, OSM  
Mark Humphrey, OSM  
Suzie Hodak, HQ-OSM

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COMMENTS FOR

UDOGM's Draft Final TA And Decision Package,

Beaver Creek Coal Company, Huntington Canyon No. 4 Mine

MINE PLAN INFORMATION SHEET

1. The legal discription for Federal lease No. U-33454 is incorrect for Section 16 and the second lease number is in error. The following information should correct the errors:

"Section 16: NW1/4NE1/4, N1/2NW1/4, SW1/4NW1/4, NW1/4SW1/4"

and

"2. Federal Coal Lease #SL-064903".

2. Scott Raymond should be deleted as a contact person and the mining method should be changed to "U.G. - Room and Pillar" from "U.G. - Continuous Miner".

FINDINGS DOCUMENT

3. The use of the word "material" is suggested in Finding #3, second sentence between the words ". . . prevent damage . . ." . This better represents the wording in UMC 786.19[c].

4. The personal communications dated January 12, 1984 and April 19, 1984 are not current in Finding #8, to determine if payment of fees are delinquent for the Abandoned Mine Reclamation Fund.

5. Findings # 7 & 8 should be based on a dated personal communication with OSM Albuquerque Field Office and UDOGM enforcement branch. This finding cannot be based solely upon the applicant's PAP.

6. Finding # 10 fails to mention the proposed Rilda Canyon Mine adjacent to the UP&L and Huntington Canyon No. 4 Mines.

CONCURRENCE MEMORANDUMS

7. The BLM memorandum dated January 10, 1984, from the Mining Law and Solid Minerals Branch, is not included with the FWS, BLM District, and SHPO memorandums.

8. The State Historical Society letter is not a concurence, but a statement that the cultural resources material is adequate to submit to OSM. A concurence letter is required, and has been requested by OSM.

9. The US Fish and Wildlife Service (FWS) memorandum references the agency's concerns and recommends issuance of the permit upon the appropriate response from Beaver Creek Coal Company. If the company has provided the appropriate responses, then Section UMC 817.97 should indicate such and reference the FWS memorandum.

## STIPULATIONS

10. Stipulation 817.57-(1)-JM should be reworded to require the applicant to notify the RA, instead of the reverse.

## TECHNICAL ANALYSIS

### Introduction

11. The mine was temporarily inactive between 1978 and 1980. The technical analysis (TA) should specifically state what is meant by "temporarily inactive" and under what authority did the company resumed mining operations (page 1, TA).

12. The TA indicates 12.5 acres of disturbance resulting from existing surface facilities. The TA should clearly state whether the 12.5 acres include surface facilities disturbed outside the permit boundary, specifically the pumphouse facilities on Mill Fork Creek, portions of the lower sediment pond and the rip-rap channel between the lower sediment pond and the creek, and provide the rationale for these facilities being outside the permit boundary.

### Description of Existing Environment

13. The last paragraph should describe stream locations and flow with respect to the permit area.

14. The following rewording is suggested for clarification of the second to the last paragraph on page 2:

"Streamflow in Huntington Canyon drainage basin results predominantly from snowmelt . . ."

15. The following rewording is suggested for clarification of the last paragraph on page 2:

"Mill Fork Canyon is oriented primarily in an east-west direction with Mill Fork Creek discharging to the east into Huntington Creek. Streamflow in Mill Fork Creek is intermittent; no flow was recorded during the summer of 1977 whereas flow occurred at the mouth of the canyon during the summers of 1978 and 1979, both years above normal precipitation (Danielson et al, 1981)."

16. The following rewording is suggested for clarification of the first paragraph on page 3:

". . . The Star Point Sandstone lies just below, and is intertongued with the Blackhawk Formation. . . ."

17. The following rewording is suggested for clarification of the second paragraph on page 3:

". . . of the Star Point-Blackhawk aquifer most likely occurs primarily through fractures and . . ."

UMC 817.13-.15 Casings and Sealing of Underground Openings

18. Exploration holes coded DH are said to be "covered" on page 4 of the TA. The Division should specify the material that covers these holes.

19. The use of specific dates such as the October 31, 1984 deadline for Stipulation 817.13-.15-(1)-RS (Page 5, TA), is inadequate since such dates have often expired at the time a permit is approved. Therefore, a time frame starting the day a permit is approved is preferred.

UMC 817.41 Hydrologic Balance: General Requirements

20. The following rewording is suggested for clarification of the first two paragraphs under Ground Water on page 7:

"The applicant proposes to mine two coal seams within the Blackhawk Formation: the Blind Canyon Seam, the upper seam which is currently being mined; and the Hiawatha Seam, the lower seam, which directly overlies the Star Point Sandstone. Only perched water zones have been noted in the Black Formation (page 7-5, MRP). Water encountered while mining the Blind Canyon Seam will be used in the mine for dust suppression. Only occasional mine water discharges are anticipated by the applicant. These discharges are routed to the sedimentation ponds (page 3-8a, MPR)."

"The Star Point Sandstone is an important regional aquifer which consists of three main sandstone members. These three members are the main water-bearing strata and are separated by much less permeable strata. Recharge to the Star Point Sandstone members is primarily via the geological structure (fractures and faults). There is significant faulting in the permit area which is most likely the local source of recharge to the Star Point Sandstone as well as the source of recharge to the fluvial channel sandstones of the Blackhawk Formation (Plate 6-1, MRP)."

"Little Bear Spring, an important municipal water supply for the city of Huntington, lies just north of the lease area. This spring issues from the Panther Sandstone Member, stratigraphically the lowest of the three Star Point Sandstone members and about 350 feet below the Hiawatha Seam. Even though there are about 350 feet of interburden recharging this spring between the Hiawatha Seam and the Panther Sandstone member, there is a very good chance that the flow to this spring will be decreased. Water that would normally recharge via the fractures and faults in the Panther Sandstone will most likely be intercepted during the mining operation."

UDOGM should consider the option of excluding the recharge area for Little Bear Spring and spring from the permit area.

21. If the Little Bear Spring and it's recharge area remain within the permit area, then the last sentence in Stipulation 817.41-(1)-JW should be reworded to the following:

"Mining will be allowed to proceed towards the northwest in the Hiawatha seam upon a positive determination by the regulatory authority that no impacts will occur to Little Bear Spring based on results from the ground water study provided by the company".

#### UMC 817.42 Water Quality Standards and Effluent Limitations

22. Sections UMC 817.43 (pages 11-14, TA) and UMC 817.56 (page 27) do not address reclamation of natural drainages used to channel disturbed flow from the upper pad to the sediment pond system (See Plate 3-1). Stipulation 817.44-(1)-TM (page 16, TA) could address this issue, referencing the drainages between the upper and lower pads.

23. The wording in this section and Stipulation 817.42-(1)-JW implies that there is a possibility of unauthorized discharges from the sedimentation control system because this section addresses additional measures to be taken if unauthorized discharges occur. Potentially inadequate pond sizes appear to be the source of the problem, which would indicate non-compliance with UMC 817.45 and .46. The stipulation should be eliminated entirely by requiring the applicant to demonstrate that the sediment control system is adequate to retain the designed storm inflow plus any sustained pumped outflows from the mine.

#### UMC 817.43 Diversions and Conveyance of Overland Flow, Shallow Ground Water Flow and Ephemeral Streams

24. The compliance section fails to determine if the U.S. Forest Service culvert designs comply with UMC 817.43.

25. The compliance should explain why recalculations were necessary and why 2.3 inches was used as a rainfall value when 2.4 was recommended in the previous draft TA. Also, the "additional areas" included in the calculations should be explained.

26. Diversion structures and other disturbed areas must be reclaimed as required by UMC 817.43(e). The use of the phrases "extent feasible" and "extent practical" on pages 12 and 14 infers that some areas are exempt from reclamation. These phrases should be deleted from the TA to avoid any confusion.

#### UMC 817.45 Sediment Control Measures

27. The compliance section refers to a "Notice of Area of Concern", but fails to state what agency issued the notice and the outcome of the notice. Also clarify how, prior to the evaluation of data, the applicant's proposal adequately addresses effluent limitations.

#### UMC 817.46 Sedimentation Ponds

28. Clarification is required in the second paragraph in this section as it pertains to "undisturbed and disturbed" drainage. As the paragraph stands, the reader is confused as to which areas are disturbed and which are undisturbed.

29. Two ponds are identified in the first sentence of the fourth paragraph (page 19). However, the second sentence fails to identify which of the two ponds are being discussed. Further, it is unclear whether the applicant is committing to annual maintenance in the second sentence or if this is a comment made by the Division.

#### UMC 817.50 Underground Mine Entry and Access Discharges

30. Long range hydrologic impacts should be addressed under the compliance section as they apply to potential discharges from the mine from other areas of the coal outcrop.

#### UMC 817.52 Surface and Ground Water Monitoring

31. In-mine monitoring of inflows should be specified as a single or multiple sources (page 23, TA).

32. Anion - cation mass balance tables should be required in Stipulations 817.52-(1-2)-JW. These tables are easily prepared and provide a quick assessment of results validity.

#### UMC 817.54 Water Rights

33. The end of the first paragraph on page 25 states that "no mitigation measures will be recommended" until data reveals an effect on hydrologic system in Rilda Canyon. Mitigation should be required to prevent material damage to the North Emery Water User Association's springs in Rilda Canyon until the applicant can adequately demonstrate that that no material damage will occur to the springs.

#### UMC 817.57 Stream Buffer Zones

34. Sediment control methods for the snow storage areas have not been identified, if any exist. This should be addressed on page 28 (TA).

#### UMC 817.59 Coal Recovery

35. The statement on page 29 that the recovery of coal has been authorized by BLM was conditioned upon the submission of information requested in the January 10, 1984 memorandum. Section UMC 817.59 has not documented that adequate information was received.

#### UMC 817.97 Fish, Wildlife and Other Environmental Values

36. Section UMC 817.97 (page 31, TA) implies that sitings of all the economically important and high interest species have been documented as inhabiting the permit area and adjacent areas. If not, then the word "potentially" is suggested for use in the first sentence of the second paragraph in this section.

37. Approximately 1.4 acres of riparian habitat have been identified in the lease area (page 32, TA). The pumphouse facilities outside the lease area also occupies riparian habitat that should be restored. All riparian habitat disturbed by mining activities at this mine must be restored and addressed in Sections UMC 817.97 and UMC 817.111 -.117 of the TA.

38. The TA states that T&E species are not likely to occur in the area. However, the TA fails to state whether any T&E species have been previously sited on or adjacent to the permit area (page 32, TA).

39. The use of the word "decommissioning" is improperly used in the last paragraph on page 32. A more appropriate phrase would be "upon bond release".

40. According to page 33 (TA) "powerlines are designed to protect raptors", and on page 34 "any future powerlines will be designed and constructed to be raptor-protected". Are the existing powerlines designed and constructed to protect raptors as stated on page 33? If not, then the applicant must be required to change the existing powerlines to protect raptors.

41. The first sentence in the third paragraph on page 33 is misleading. Much of the length of the "100 foot buffer zone is considerably narrower than 100 due to the existence of the haul road, access road, pumphouse, parking lot and lower sediment pond. Existing and proposed mitigation measures design to protect the aquatic ecosystem should be discussed to justify a narrower buffer zone.

#### UMC 817.100 Contemporaneous Reclamation

42. Section UMC 817.100 refers to the "first desirable planting season" (page 35,TA). This vague statement precludes a finding of a feasible reclamation plan. The proper planting season should be identified as in other permits. Also, the word "available" appears inappropriate in it's use in the first sentence.

#### UMC 817.101 Backfilling and Grading

43. Page 36 indicates that the "highwalls will be reduced . . . where feasible." This is ambiguous, and it should be specifically defined, by the applicant, where reclamation will occur. In the past, this language has been taken by other companies as carte blanche to do what they wanted during reclamation. Also the applicant should provide reasoning for retention of highwalls based on the criteria pursuant to UMC 817.101 (b)(8)(i) & (iii). If the criteria can not be met and the Division finds that highwall retention is desirable and consistent with the intent of the Utah Coal Mining Reclamation Act of 1979 and the Federal Surface Mining Control and Reclamation Act of 1977, any variance from the Regulatory requirements must be fully discussed and supported.

44. The sentence referring to Static factor on page 36 should be changed to ". . . 2.73 for saturated conditions . . ."

45. There is no mention of the adequacy of sediment control measures during backfilling and grading operations.

#### UMC 817.111-.117 Revegetation

46. Section UMC 817.111-.117 omits any reference to riparian habitat restoration or methods for determining successful reclamation for bond release.

47. Fairway crested wheatgrass has been deleted from other final seed mixtures for other mines in Utah at DOGM's request. DOGM's policy appears inconsistent in the use of Fairway crested wheatgrass, an introduced species which has been documented to be extremely competitive and a monoculture species. Logically, crested wheatgrass should also be deleted from the final seed mixture at Huntington Canyon No. 4.

48. Production samples are proposed for final reclaimed areas and reference area. Production sampling on small riparian habitats (less than 2 acres) should be evaluated and possibly exempted due to severe damage as a result of clipping.

49. Reference areas must be managed in at least fair condition. In the third paragraph on page 38 states that if the condition of the reference area deteriorates to a "poor" condition, then management techniques will be implemented. Utah guidelines for vegetation require reference areas to be managed in fair or better condition.

#### UMC 817.121-.126 Subsidence

50. The April 12, 1984, letter from OSM to UDOGM indicates the earlier TA did not address the Blackhawk aquifer. This aquifer is still not addressed in the current TA.

51. The August 27, 1984, TA indicates "the only significant ground-water resource is the Star Point Sandstone," which is below the coal. However, stipulation 1 of this section identifies "Little Bear Spring" as a water resource that is supplied by a local fault. If Little Bear Spring is a locally significant source of water, the potential effects of subsidence on this resource should be discussed in the TA.

52. An issue that continues to come up in the Manti-La Sal National Forest is the U.S. Fish and Wildlife Service (USFWS) photogrammetric subsidence-monitoring program. The OSM Engineering Support Branch personnel feel that only gross levels of subsidence can be identified by this program. Therefore, the subsidence-monitoring plan may not be sufficient to identify areas of subsidence that could affect renewable resources. This issue must be resolved.

53. Stipulation 817.121-.126-[784.20]-(1)-TNT-(2-3)-RVS should be revised to omit "in conjunction with the applicant," from the second paragraph in No. 1. The determination for the continuation of subsidence monitoring is a decision for the RA and not the applicant.

#### UMC 817.150-.157 Roads: Class I

54. The haul road within the permit area must meet the standards pursuant to UMC 817.150-.157. "The Public Roads Criteria for Coal Haulage and Access Roads" was rejected on March 28, 1984 by OSM because they have not been submitted and approved as an amendment to the state program. This section of the TA fails to provide an analysis for roads within the permit boundaries.

UMC 817.160 Roads: Class II

55. This section fails to address restoration and the title omits UMC 817.165 and .166.

UMC 817.181 Support Facilities and Utility Installations

56. This section fails to identify the pumphouse and catch basin on Mill Fork Creek and address the restoration of this site.

800.11 Bonding

57. The April 12, 1984, letter to UDOGM indicates that the permit application package (PAP) does not provide sufficient information to determine final bond amount. The August 27, 1984 TA includes cost figures on bonding. These figures are based on the number of days required to accomplish specific reclamation tasks. The TA does not describe how these time estimates were determined. This is a significant point, since the time required to accomplish a specific reclamation task is dependent on the equipment used and the distance the material is moved. Until this information is provided, no determination can be made as to the adequacy of the bond amount.

58. In addition to the above-referenced deficiency, the "contingency" correction applied to the bond amount is insufficient. This correction factor should include provisions for overhead, profit, and contingencies. It is standard practice by the Office of Surface Mining and the construction industry to use a minimum correction factor of between 30 to 35 percent. Such a correction factor should be applied to this bond calculation, not the 10 percent currently used.

59. Does the "Remove Structures" cost estimate ( page 1, BOND) include the Class II road within the permit boundaries, the pumphouse and catch basin, sediment pond and rip-rap drainage located outside the permit boundaries?