



Norman H. Bangertter
Governor
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Executive Director
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Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340

file

August 4, 1988

William B. Prince, Attorney
HOLME, ROBERTS & OWEN, Attorneys at Law
Suite 900
50 South Main Street
Salt Lake City, Utah 84144

Dear Mr. Prince:

Re: Blazon Mine Reclamation, Little Snyder Drainage Design, North American Equities, Blazon #1 Mine, ACT/007/021, Folder #2, Carbon County, Utah

Attached are technical review documents regarding the drainage design of Little Snyder Canyon.

The submittal for the drainage design is considered to be adequate except as noted in the review documents. These deficiencies need to be corrected in the proposal and resubmitted to the Division. Since NAE is currently re-evaluating various aspects of the reclamation design for the Blazon mine, drainage designs for Little Snyder should be submitted in conjunction with those proposed modifications.

In order to allow sufficient time for review of Little Snyder Drainage, as well as other proposed amendments to the reclamation plan, these changes should be submitted promptly to the Division. In accordance with the Notice of Violation regarding the sediment ponds, plans for the ponds are required on or before August 10, 1988 and construction is to commence on the ponds on or before August 29, 1988. In order to achieve reclamation, these amendments to the site should be submitted to the Division by the end of August in order to prevent delays in reclamation construction due to Division review and approval.

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Mr. William B. Prince
August 4, 1988

Should you have further questions regarding this matter, please feel free to call Sue Linner or myself.

Thank your for your cooperation in this matter,

Sincerely,



J. Randall Harden
Reclamtion Engineer

JRH/cl
Attachments (3)
cc: S. Linner
R. Summers

WPOBTEAM:ID16:pp 6

July 5, 1988

TO: File *JRH*

FROM: Randy Harden, Reclamation Engineer

RE: Blazon Mine Reclamation, Little Snyder Drainage Designs,
North American Equities, Blazon #1 Mine, ACT/007/021,
Folder #2, Carbon County, Utah

Summary

With regard to the July 1, 1988 submittal by North American Equities for the Blazon #1 Mine, the submittal is considered sufficient to meet the conditions of Stipulation UMC 817.21-(1)-RPS, of the Reclamation Plan. However minor deficiencies and comments pertaining to the design are provided below in the analysis.

Analysis

With regard to the stability analysis of the slopes of the drainage, NAE has not provided sufficient copies of the analysis and report. This information was submitted to the Division last fall in a draft proposal, but was never formalized and submitted to the Division. 5 Copies of the stability analysis and report should be submitted to the Division for final approval and filing.

The Design as proposed does not account for the unstable area above and to the southeast of Little Snyder Drainage. This area currently shows signs of surface and near surface slope failure. The toe of this embankment should be properly backfilled in order to maintain stability. The design provided for the drainage does not comment on this.

Design of the filter Blanket material for Little Snyder Channel calls for side slopes of 1:1 (45°). The angle of repose for sand is approximately 37°, which would indicate that the sand and the gravel filter blanket materials must be placed in the channel simultaneously with the riprap material in order to achieve the desired design section for the channel. This is not impossible but would be considered difficult during construction to accomplish.

The trash rack design as shown in the drawing will not work as intended. The placement of the hinge will not allow for opening of the rack. This should be corrected during the fabrication and the installation of the trash rack.

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ACT/007/001
July 5, 1988

Rebar placement in the walls of the culvert inlet structure appears to be placed on the wrong side of the wall. The tension side of the structure is the inside surface of the wall rather than the outside. This should be corrected prior to construction of the drop structure.

The consultant has indicated that a 90° elbow will be placed at the end of the existing 24 inch culvert to deflect flow downstream into Mud Creek. The consultant should check thrust forces on the elbow in order to determine whether or not the elbow will require bracing or reinforcement.

As suggested by the Division Soils Specialist, the sod currently covering the topsoil stockpile is recommended to be placed immediately adjacent to the riprap materials placed in the channel of Little Snyder Drainage. If NAE is in concurrence with this suggestion, the detail section of the drainage channel should be modified to reflect this. Sod should be indicated where topsoil material is currently shown on the cross section.

A generalized section of the swale to be installed should be included on the drawings. The plan view should indicate the grade at which the swale is to be placed. This information is found in the hand-written calculations of the report but could not be found on the design drawings.

The design of the riprapped channel down Little Snyder Drainage calls for a total excavated depth of 5 feet. Earlier field measurements indicated that the existing 24 inch culvert in the drainage is at approximately that same depth. During construction of the channel, in those areas where the 24 inch culvert is found to be less than 4 feet below the final finished bottom channel depth, the culvert must be removed, crushed or filled to prevent piping or eventual failure of the culvert below the riprapped channel. In those areas where the culvert exceeds 4 feet below the bottom of the finished channel, removal or filling of the culvert will not be explicitly required, but will be recommended by the Division during the construction. This change to the design must be incorporated into the reclamation plan.

No anchoring or transition from the natural stream channel to the riprapped section of Little Snyder Drainage is included in the plan. NAE should at least indicate in the plan how this transition is to be accomplished in order to prevent head-cutting of the natural channel above the riprap.

WOBTEAM:16:pp 4-5
cc: S. Linner
R. Summers



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July 6, 1988

TO: Sue Linner, Permit Supervisor

FROM: James Leatherwood, Reclamation Soils Specialist 

RE: Reclamation Drainage Design, North American Equities,
Little Snider Canyon, Blazon #1 Mine, ACT/007/021, Folder
No. 2, Carbon County, Utah

The July 1, 1988 submittal of the reclamation drainage design of Little Snider Canyon has been reviewed. The submittal does not include a soil or revegetation reclamation plan. A soil and revegetation plan specific to the Little Snider Drainage reclamation should be incorporated within the text of the design report. The Division recommends that the drainage design and the Final Closure and Reclamation Plan be modified to include the following comments.

Reclamation Plan

The reconsolidated Final Closure and Reclamation Plan includes plans to redistribute topsoil in the Little Snider Drainage. However, due to the shortage of soil material required to cover and revegetate the underground development waste, it is advisable not to topsoil Little Snider Drainage and use the topsoil as a topdressing over the soil material that will cover the underground development waste.

Drainage Design

The outslopes of Little Snider Drainage will require specific soil/revegetation handling. The Division proposes that the operator remove the sod from the existing topsoil stockpile and place it where the soil for revegetation is delineated on the riprap on Plate 3. This operation should be done only immediately prior to topsoil redistribution. The remaining exposed soil in the Little Snider Drainage should then be seeded, fertilized, hand raked, and then covered with a tacked down biodegradable (wood fiber) erosion blanket.

as
cc: R. Harden
R. Summers
1342R/45