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 STATE OF UTAH
 NATURAL RESOURCES & ENERGY
 State Lands & Forestry

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March 25, 1983

Mr. Esben S. Svalastog
 Vice-President
 North American Equities
 1660 17th Street, Suite 340
 Denver, Colorado 80202

#2
 RE: Apparent Completeness Review
 North American Equities
 Blazon #1 Mine
 ACT/007/021
 Carbon County, Utah

Dear Mr. Svalastog:

The Division of Oil, Gas and Mining (DOGM) technical staff has completed its initial review of North American Equities' Blazon #1 Mine Mining and Reclamation Plan (MRP) submitted under the permanent program.

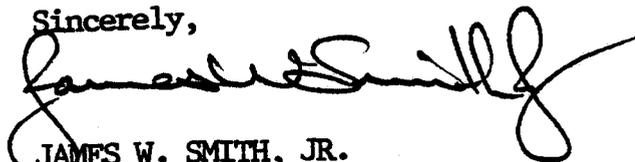
Please find the enclosed copy of DOGM's combined Apparent Completeness Review (ACR) and Technical Deficiency section for the Blazon #1 Mine. The ACR is intended to list areas which are technically incomplete as well as address areas that will require additional information necessary to proceed with a detailed Technical Analysis (TA). It is hoped that by compiling both of these review steps into one document, the permitting process will be expedited. The concerns of other State and Federal agencies are reflected in this review document.

The next phase of the Blazon #1 Mine review, the Determination of Completeness (DOC), is scheduled for July. Therefore, it is necessary that we review the response to both of these sections no later than June 1, 1983 in order that we may be able to maintain our objective of repermitting all existing operations as soon as possible. Your cooperation is appreciated.

Mr. Esben S. Svalastog
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If you have any questions regarding the enclosed document, or about the permitting process in general, please contact me or Everett Hooper of my staff. We would be happy to arrange a meeting to discuss any concerns you or your staff may have.

Sincerely,



JAMES W. SMITH, JR.
COORDINATOR OF MINED
LAND DEVELOPMENT

JWS/EH:btb

Enclosure

cc: Allen Klein, OSM, Denver
Walt Swain, OSM, Denver
Everett Hooper, DOGM

APPARENT COMPLETENESS REVIEW

North American Equities
Blazon #1 Mine
ACT/007/021, Carbon County, Utah

UMC 771.23 Permit Applications: General Requirements for Format and Contents

(c) The applicant is requested to provide information which leads to the negative impact determinations concerning historical and archeological resources. Were professionals or State/Federal authorities consulted?

UMC 782.13 Identification of Interests

(e) The applicant is requested to provide the Division with the names and addresses of the owners of record of all surface areas contiguous to any part of the proposed mine permit area.

The applicant must submit information to reflect the removal of Blazon Company as applicant and the name of the new applicant and the change of TOE Investment Company N.V., to North American Equities.

UMC 782.14 Compliance Information

(a) The applicant must state whether North American Equities, any subsidiary, affiliate or persons controlled by or under common control with the applicant has had a Federal or State mining permit suspended or revoked during the last five years, or forfeited a mining bond or similar security deposited in lieu of bond. If so, a statement of the facts involved must be provided to the Division (See UMC 782.14[b][1] - [5]).

(c)(2), (5) The applicant must provide the Division with a brief description of the violations stated on page II-2 of the mine plan application. Also, are these the only violation notices received during the three-year period before the application date? The applicant must describe the actions, if any, taken to abate the violations.

UMC 782.17 Permit Term Information

(a) The operator is requested to state the anticipated number of acres for surface lands to be affected by the operation.

UMC 782.18 Personal Injury and Property Damage Insurance Information

A statement of compliance is given, but no evidence is provided.

Proof of personal injury and property damage insurance must be provided.

UMC 783.12 General Environmental Resources Information

(a) Please show the size, sequence and timing of the subarea mining for years 6 through 10 in the mine plan area. This may be illustrated on Enclosure 8.

UMC 783.13 Hydrology and Geology Description

(a)(1) The operator is requested to provide the Division with the elevation(s) of the water table(s) as penetrated by all drilling to date (including the water well), and related lithologic data from these drill holes.

A complete and adequate description of the surface water, contributing watersheds and ground waters must be included in this section in sufficient detail to comply with UMC 783.13-.16.

(a) A monitoring plan is included in the plan for monthly sampling, but no data are incorporated into the plan and no discussion of the characteristics of seasonal variations of the waters are included. Data submitted later by Vaughn Hansen and Associates on September 18, 1981 does not correspond to the monitoring plan included in the Mining and Reclamation Plan (MRP). A new narrative and the map submitted on October 8, 1981 indentifying the monitoring points and scheme must be incorporated into the MRP. The data must be submitted monthly for the baseline period. Therefore, data for August and September 1981 must be submitted.

Chapter VII is an incomplete and inadequate description of the mine permit area hydrology.

UMC 783.14 Geology Description

(a) The applicant is requested to show the distribution of outcropping formations on the geologic map.

(a)(2) How prevalent is jointing in the mine plan area? Major joint zones, if determinable, must be shown on the geologic map.

(a)(2)(ii) The applicant is requested to provide the Division with the locations of the 1982 drill holes, along with collar elevations and lithologic logs.

(a)(2)(iii) The applicant is requested to send the Division the results of the lab analyses (see page VI-2 of the mine plan application) concerning pyritic content and potential alkalinity of the stratum immediately above and below the seam to be mined and the clay content of the stratum immediately below the seam to be mined.

(a)(2)(iv) The applicant is requested to send the Division the results of analyses concerning sulfur forms in the coal seam to be mined.

(2)(ii) Locations of subsurface water encountered to date must be incorporated into the MRP.

UMC 783.15 Ground Water Information

Chapter VII, Section 7.1.2.2 states "that no aquifers have been discovered yet." An assessment of the area's ground water resources must be made and evidence presented to support this statement. Appendix VII contains a brief description of some potential aquifer. These must be described fully as described under this section. This information must include for each aquifer:

1. The depth below the surface and horizontal extent of water table and aquifers.
2. Lithology and thickness of the aquifer.
3. Quality reports of encountered subsurface water as committed to on page A-15 of the MRP.
4. Any uses (or a statement of no use) of the ground water.
5. Description of the recharge area.
6. Storage and discharge characteristics.
7. Quality and quantity data.

UMC 783.16 Surface Water Information

(a) An updated map must be incorporated into the MRP identifying all water discharges into surface waters.

A narrative and data summary must be incorporated into the MRP describing the seasonal variations of the surface water quantity and quality in sufficient detail to address all the items of section (b) of this code.

UMC 783.17 Alternative Water Supply Information

Page 8 of the Division of Wildlife Resources (DWR) report for the Clear Creek Mine (Chapter 10) states that significant losses of water will require that alternative sources be established for wildlife use. The operator must identify potential sources and commit to this statement in the MRP.

The applicant must also discuss the potential extent of interruption of any ground water or surface water source and fully describe the quality and source of an equivalent water supply.

UMC 783.19 Vegetation Information

The applicant has submitted a soils and vegetation survey prepared by the U. S. Soil Conservation Service (SCS) for meeting vegetation information needs. A review of this survey indicates that more detailed information is needed:

1. The report for the field trip to assess present vegetation, productivity and range condition should be submitted (see page 1, paragraph 3 of the above-referenced report).
2. The site specific species list for each of the range types that is referred to on page 8 should be submitted.
3. The report lacks density (plants per unit area) calculations. This parameter needs to be assessed and reported (using acceptable methodology).
4. Cover estimates reported are given as a range. Ranges reported exceed the precision level of the performance standards (UMC 817.111-.117). Please provide cover estimates to the nearest one percent increment.
5. Sample adequacy was not analyzed nor were the means or the standard deviations reported. This information is needed. (A copy of the field data sheets may be requested in the future pending a review of the information requested.)
6. A discussion of sampling methodology (i.e., a description of methods used) should also be supplied.

This information is needed to establish the standards for reclamation success.

UMC 783.22 Land-Use Information

The applicant must submit information that fully addresses the areas referred to under UMC 783.22. A statement indicating that the premining land-use was grazing is not adequate.

(b) The applicant shall state or expand on previous mine information: (3) the extent of coal removed; (4) the approximate dates of past mining.

(c) A description of existing land uses and land-use classification under local law, if any, of mine and adjacent area.

UMC 783.24 Maps: General Requirements

(g) A map of all water supply intakes for current uses in the permit and adjacent areas must be supplied. This should include, but not be limited to, the supply intakes for the community of Clear Creek and agriculture intakes in the adjacent areas.

Section (1), Map 3032 must show surface and subsurface owners contiguous to the permit area.

The applicant should state the name of the government or any state agency from which historical or archeological information was received.

The applicant must submit a Property Map indicating which area(s) Blazon has legal right of entry.

UMC 783.25 Cross-Sections, Maps and Plans

(b) A current monitoring map showing the elevations and locations of the sampling points for water quality and quantity must be submitted. The Vaughn Hansen submittal of October 8, 1981 will be adequate if the map is complete and current and it is incorporated into the MRP (scale of map is 1:24,000).

(e) The applicant must submit a map showing mine workings of adjacent lands if workings exist. The map must be certified as per section 1 of this Chapter; if applicable.

(f) Cross-sections and maps of subsurface water encountered showing areal extent of aquifers and seasonal differences of head in each aquifer must be submitted and incorporated into the MRP.

(j) A map showing the location and depth of the water well on the permit area and any others in the adjacent area (i.e., Sections 32, 33 of Township 12 South, Range 7 East, and Sections 4, 5 and 9 of Township 13 South, Range 7 East, realizing an additional area may be required upon receipt of the requested hydrologic and geologic information).

(k) Slope measurement map adhering to Section K, Subpart (2) and (3) and certified as per Section 1 must be submitted.

(l) All maps and plans in the MRP and required by this section are not certified by a professional engineer or geologist. The applicant must have all maps, plans and cross-sections in the MRP and from other submittals that are to be considered a portion of the MRP certified.

UMC 784.11 Operation Plan: General Requirements

(b)(1)(6) See comments under UMC 784.16.

Page A-17 of the MRP states that a postmining monitoring plan will be adopted after mining has ceased. This is not adequate for the application. A plan detailing frequency and points of sampling and water quality parameters to be sampled is required.

(1) On page A-7, Table III-1 of the mine plan, please list the number of main belt lines and chain conveyors in the major equipment list.

(2) State and show on map where overburden, topsoil handling storage location or facilities are placed.

(3) State where mine development waste is stored.

UMC 784.12 Operation Plan: Existing Structures

If existing structures on the mine plan area which are to be used in connection with or to facilitate underground coal mining activities, then applicant must address UMC 784.13 Section (A, -1, 2, 3, 4,) and (B - 1, 2, 3, 4).

UMC 784.13 Reclamation Plan: General Requirements

(b)(5) The applicant should specify which grass species and the rate of application for contemporaneous reclamation. Also, it is highly recommended that at least one legume (e.g., alfalfa, yellow sweetclover, lupine, sweetvetch, etc.) be added to the contemporaneous seed mix.

It is suggested that the operator use (where possible) the same seed mix, methods, mulch, etc., that is proposed for final reclamation. With proper monitoring, this could provide valuable information regarding the reclamation plan as to whether the proposed methods, species, etc., will be successful for final reclamation efforts.

(b)(5)(ii) The applicant must provide a list of species to be used for final reclamation as well as the amounts per acre of seed (in terms of Pure Live Seed [PLS]) or seedlings for each of the species to be used. Pursuant to the area being high-priority deer summer range, the seed mix should also include several forb species (the proposed seed mix in the MRP excludes this life form of vegetation). The use of any and all introduced species for final reclamation must be justified as per the requirements of UMC 817.114.

(iii) The applicant needs to be more specific as to the methods to be used for planting and seeding, i.e., what type of seeder will be used - drill, whirlybird, handseeder, etc. What spacing will be used for hand-set seedlings? The applicant should consider grouping trees and shrubs to maximize "edge" and enhance wildlife habitat. Hydromulch seeding as described on page A-29 is not acceptable due to the fact that as the mulch dries, it

tends to "lift" off the soil, thus uprooting the sprouts. Hydromulching could be used if the applicant sprays the seed first and then applies the mulch in a second operation. A map showing where the different methods of planting will be used is requested.

(iv) Mulching must be discussed in greater detail, i.e., the type of mulch to be used, rates of application, how it will be anchored, etc. (see also hydromulching comment under part [iii] above).

(v) The applicant should discuss irrigation and pest and disease control measures to be used, if any, or a statement as to why they are not planned.

(vi) Measures proposed to be used to determine revegetation success (as per UMC 817.116) must be discussed (refer also to comments under UMC 783.19).

Applicant should submit a more detailed cost of reclamation (i.e., show how applicant arrived at hours of use for machine costs - acres, ft³, haul distances, etc.).

(7) A description of measures to be employed to ensure that debris, acid-forming, toxic-forming and materials constituting a fire hazard are disposed of in accordance with UMC 817.89 and 817.103 and a description of the contingency plan which may have been developed.

UMC 784.14 Reclamation Plan: Protection of Hydrologic Balance

(b)(3) A plan for the monitoring of water quality and quantity during the mining operation and reclamation phases of the project must be submitted.

(c) The plan must include a narrative that describes the probable hydrologic consequences of the mining activities in sufficient detail to address the topics delineated in this section.

UMC 784.15 Postmining Land-Use

The applicant must submit a detailed description of how the postmining land-use will be achieved, and how underground mining activities will be consistent with surface water plans and applicable state and local land-use plans and programs.

UMC 784.16 Reclamation Plan: Ponds, Impoundments, Banks, Dams & Embankments

The application states plans and design details for the sedimentation system and diversions will be sent at a later date (page III-2 and III-4). Subsequent to a search through the correspondence file for these designs, it became evident that the applicant must compile and update these submitted hydrologic designs in order that the Division may conduct a reasonable review. UMC 771.23(b) states that "information set forth in the application shall be current, (and) presented clearly and concisely. . . ."

The Division's files contain approximately 15 pieces of correspondence relative to the system designs, many of which have several options for a particular objective and no statements to the effect of which designs were finally incorporated.

The current drainage system and sedimentation treatment system must have completely described in sufficient detail to comply with UMC 784.11(b)(1)(6), 784.13(b)(3), 784.16, 784.22, 784.23(a)(6)(10)(12) and (c)(1), 784.24(a)(c), 817.42-.47, 817.49 and 817.56. The applicant must compile the designs and eliminate any outdated or impertinent material before incorporating these designs into the MRP.

The applicant must address all the topics in the aforementioned regulations and should specifically include (but not be limited to) the following:

1. Rainfall amount of the design storm (10-year, 24-hour).
2. Curve numbers with appropriate acreage, corresponding soil types and slopes of the watershed.
3. Land use and condition of the watershed.
4. Unit hydrograph and calculations.
5. Culvert lengths and slopes.
6. Head water depths.
7. Presence of inlet or outlet control on culverts.
8. Bottom dimensions of sedimentation ponds.
9. Manning's "N" or type of channel linings.
10. Any available calculations which were utilized to arrive at peak runoff volumes.
11. Description of trash-racks.
12. Flow velocities and calculations.

UMC 784.20 Subsidence Control Plan

(a)(2) The operator is requested to outline on a map those surface areas where subsidence is expected.

(b)(3)(i) Will valley rims be protected from destabilization?

UMC 784.23 Maps and Plans

(b)(12) Without established subsidence monitoring points, how will the settling of beds be detected?

(5) A cross-section map of the topsoil material storage piles must be submitted.

(11) The applicant must provide surface and cross-section maps depicting final surface configuration.

Blazon Mine Site Layout Map, Blazon #3 Map (sediment ponds), Blazon #1 Topo Map, maps must also show topsoil, spoil, coal processing waste, underground development waste and noncoal waste storage areas. Remember these maps and plans must be certified and stamped as per UMC 784.23 Section C-1 and 2 (qualified registered professional engineer or geologist).

UMC 784.24 Transportation Facilities

Applicant must submit specifications and detailed description of Class I (primary) and Class II (secondary) roads with cross-sections and maps showing width, gradient, surface cutouts, fills, culverts, bridges, ditches and drainage structures. A description of measures for alteration or relocation of natural drainage way. A detailed description including maps and cross-sections of conveyors and rail systems to be constructed used or maintained.

Note: Please review UMC 817.150-.176 to assure that the performance criteria for this section are met.

TECHNICAL DEFICIENCIES

UMC 817.24 Topsoil Redistribution

The applicant must provide the volume of topsoil that has been removed and placed in the storage pile for use at time of final reclamation and the depth of topsoil that will be redistributed over the regraded areas.

These figures are needed to determine if enough soil material is available for a proper seedbed to insure revegetation success. If enough material is not available, the applicant must propose a source and volume necessary for reclamation. All substitute soil material is subject to the requirements of UMC 817.22(e).

UMC 817.42 Water Quality Standards and Effluent Limitations

The applicant must submit past and current water quality data to insure compliance with Section (b)(7) of this code.

UMC 817.52 Surface and Ground Water Monitoring

See above comment. Quarterly reports will satisfy this regulation.

The applicant must continue to monitor water quality after cessation of mining (i.e., currently) and submit reports to the Division in accordance with (b)(2) of this section.

UMC 817.57 Stream Buffer Zones

The applicant should delineate the stream buffer sections mentioned on page III-9 that are ". . . considered for diversion in this plan or volume . . ." with reference and in agreement with the diversion and drainage plans that are to be resubmitted. Also, this does not preclude the placement of signs mentioned in the MRP.

UMC 817.71 Disposal of Underground Development Waste

Applicant must clarify any disposal of underground development waste including location, compaction and projected extent of disturbed area other than the portal pad area, if applicable.

UMC 817.97 Protection of Fish, Wildlife and Related Environmental Values

Pursuant to seeps and springs being of high values to wildlife, the applicant should discuss mitigation for potential negative impacts to seeps and springs due to subsidence.

To whom will reports relative to wildlife road kills be submitted? Also, at what interval will they be made (refer to MRP, page 17, Section 3.4.6.3)?

The Fish and Wildlife Mitigation Plan presented in the MRP is a verbatim copy of the Division of Wildlife Resources' (DWR) recommendations to the applicant. If the applicant intends to adopt each recommendation, this section of the MRP will need some modification to show it to be a definitive plan. For example, descriptions such as "must be," "could be" and "need to be" accomplished must be changed to read "will be" or "shall be" accomplished.

(d)(9) Pursuant to the permit area containing high-priority summer range for many wildlife species and crucial-critical range for moose, the applicant should propose plans to restore or enhance these habitat areas where practicable.

UMC 817.99 Slides and Other Damage

Has applicant monitored any subsidence or other damage from earlier mining? If so, please explain.

UMC 817.100 Contemporaneous Reclamation

The applicant should provide a specific plan and seed mix(es) to be used for contemporaneous (temporary stabilization) reclamation that is in concert with UMC 817.113(b) (see also comments under UMC 784.13[b][5]).

UMC 817.101 Backfilling and Grading: General Requirements

(b)(5)(ii) The applicant must provide documentation to indicate that the backfilled and graded areas achieve a minimum static safety factor of 1.3.

UMC 817.106 Regrading or Stabilizing Rills and Gullies

The applicant must provide the Division with the measures that will be undertaken to eliminate rills and gullies should they occur.

UMC 817.111-.117 Revegetation

(Refer to comments under UMC 784.13[b][5].)

The applicant's reclamation plan must be able to achieve the requirements of these performance standards, i.e., the use of introduced species must meet the requirements of UMC 817.112.

Mulch must be used on all areas to be reclaimed unless the applicant can demonstrate successful (on-site) reclamation without the use of mulch. Mulching techniques should be discussed (see comments under UMC 784.13[b][5][iv]). Generally, mixing the seed with the mulch as described in the MRP is not successful in most areas of Utah without an extensive irrigation system.

As per UMC 817.116, success standards must be established for all areas of disturbance (refer to comments under UMC 783.19).

The SCS reported average precipitation for the Blazon Mine as 56 to 64 centimeters (22 to 25 inches) (Soil Survey and Interpretations and Preliminary Vegetation Survey). Consequently, the liability period (as per UMC 817.116) should be 10 years.

UMC 817.122 Subsidence Control: Public Notice

Please indicate whether the mining schedule shall be distributed by mail to all owners of property and residents within the area above the underground workings and adjacent areas that would be affected by subsidence if it occurred. Each such person shall be notified by mail at least six months prior to mining beneath his or her property or residence. Refer to UMC 817.122(a), (b) and (c) for specific requirements.

UMC 817.131 Cessation of Operations: Temporary

Each person that conducts underground coal mining is required under this section to submit a notice to cease or abandon operations when mining activities have been temporarily discontinued for a period of 30 days or more.

The notice of cessation of operation must provide all information required under this section.