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Wayne

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Moab District
P. O. Box 970
Moab, Utah 84532

RECEIVED
AUG - 2 1984
DIVISION OF OIL GAS & MINING

IN REPLY REFER TO:
3450
(U-066)

Memorandum

To: Center Administrator, OSM, Denver

Attention: Dave Maxwell

From: District Manager, Moab

Subject: Unit Train Loadout Technical Review Response (July 5, 1984); Plateau Mining

We have reviewed subject submittal for a project associated with the Starpoint Mines. Use of the Federal surface estate within the project area has been approved by the BLM through a right-of-way which was issued April 10, 1984. A copy of the agreement is enclosed. Stipulations therein address all of our concerns. Stipulations of your approval of the subject submittal should be consistent with our right-of-way agreement. With the expectation that your stipulations will not conflict with ours, this is our final concurrence letter.

Kenneth V Rhea

Enclosure:
Right-of-way U-52409

2890
U-52409
(U-066)

Moab District
Price River Resource Area
P. O. Drawer AB
Price, Utah 84501

RIGHT-OF-WAY

U-52409

ction A

There is hereby granted, pursuant to Title V of the Federal Land Policy d Management Act of 1976 (43 U.S.C. 1761), a nonexclusive, nonpossessory ght-of-way to:

Getty Minerals Marketing Incorporated
P. O. Box 7900
Salt Lake City, UT 84107

In case of change of address the Holder shall immediately notify the thorized Officer.

To use, subject to terms and conditions set out below, the following scribed Pulbic Land.

Salt Lake Base and Meridian, Utah
Township 15 South, Range 8 East,
Section 15, NE¼

Description of the right-of-way facility and purpose:

The right-of-way is for an access road, conveyor, sedimentation pond, version ditches and culverts, associated with a unit train loadout facility. e right-of-way contains 25.19 acres.

A map showing the location of the right-of-way over the above described blic land is attached hereto as "Exhibit A".

TERMS AND CONDITIONS

ction B

The right-of-way Holder agrees to comply with all the applicable regula- ons contained in 43 CFR 2800.

2. This grant is subject to all valid rights existing on the effective date of this grant.

3. The holder shall comply with the applicable Federal and State laws and regulations concerning the use of pesticides (i.e., insecticides, herbicides, fungicides, rodenticides and other similar substances) in all activities/ operations under this grant. The holder shall obtain from the Authorized Officer approval of a written plan prior to the use of such substances. The plan must provide the type and quantity of material to be used; the pest, insect, fungus, etc., to be controlled; the method of application; the location for storage and disposal of containers; and other information that the Authorized Officer may require. The plan should be submitted no later than December 1 or any calendar year that covers the proposed activities for the next fiscal year (i.e., December 1, 1983 deadline for a fiscal year 1985 action). Emergency use of pesticides may occur. The use of substances on or near the right-of-way shall be in accordance with the approved plan. A pesticide shall not be used if the Secretary of the Interior has prohibited its use. A pesticide shall be used only in accordance with its registered uses and within other limitations if the Secretary has imposed limitations. Pesticides shall not be permanently stored on public lands authorized for use under this grant.

4. The holder agrees not to exclude any person from participating in employment or procurement activity connected with this grant on the grounds of race, creed, color, national origin or sex, and to ensure against such exclusions, the holder further agrees to develop and submit to the proper reviewing official specific goals and time tables with respect to minority and female participation in employment and procurement activity connected with this grant. The holder will take affirmative action to utilize business enterprises owned and controlled by minorities or women in its procurement practices connected with this grant. Affirmative action will be taken by the holder to assure all minorities or women applicants full consideration of all employment opportunities connected with this grant. The holder also agrees to post in conspicuous places on its premises which are available to contractors, subcontractors, employees and other interested individuals, notices which set forth equal opportunity terms; and to notify interested individuals, such as bidders, contractors, purchasers and labor unions or representatives of workers with whom it has collective bargaining agreements, of the holder's equal opportunity obligations.

5. There is hereby reserved to the Secretary of the Interior, or his lawful delegate, the right to grant additional rights-of-way or permits for compatible uses on, over, under or adjacent to the land involved in this grant.

6. If the right-of-way Holder violates any of the terms and conditions to this grant, the authorized officer, after giving written notice may declare this grant terminated.

7. The holder acknowledges and agrees that the grant of this right-of-way is subject to the express condition that the exercise thereof will not interfere with the management, administration or disposal by the United States of the lands affected thereby, or the full and safe utilization thereof by the United States, for necessary operations incident to such management, administration or disposal. The holder agrees and consents to the occupancy and use by the United States, its grantees, permittees or lessees of any part of the right-of-way not actually occupied or required by the project for purposes which are not in conflict with holder's use of the right-of-way.

8. The right-of-way shall be relinquished to the United States if the authorized uses are no longer needed.

9. The holder shall construct and maintain right-of-way facilities and structures in strict conformity with the descriptive and technical data which it has heretofore furnished the Bureau of Land Management in connection with its application. Activities which are not in accord with such data may not be initiated without the prior written approval of the Authorized Officer. Approval of variances will not be given unless the need therefore is fully justified by the holder.

10. If at any time hereafter the holder wishes to reconstruct, remodel or relocate any portion of the right-of-way hereby granted, or any of the improvements thereon, the prior written approval of the Authorized Officer must be obtained. No such approval will be given unless the request is fully justified by the holder and is authorized by law. Where necessary, the holder shall make application under appropriate regulations.

11. The holder shall comply with all State and Federal regulations and laws pertaining to water quality, public health and safety, and environmental protection. Compliance shall be made with State standards when those standards are more stringent than Federal Standards.

12. The holder shall comply with applicable Federal and State laws and regulations issued thereunder, existing or hereafter enacted or promulgated, affecting in any manner construction, operation, maintenance or termination of facilities located on the right-of-way to include all applicable regulations in 30 CFR Chapter VII and regulations developed to implement the Coal Mining Reclamation Act of 1978 (U.C.A. 40-10-1 et. seq.) Chapter I Parts U.M.C. 700-845.

13. Topsoil shall be removed and stockpiled from all areas to be disturbed before any surface disturbance occurs. The performance guidelines outlined in 30 CFR 816.22 shall be followed in the removal of topsoil.

14. All topsoil removed for storage shall be stockpiled on the right-of-way and protected from wind and water erosion, unnecessary compaction and contaminants. Immediately following stockpiling, topsoil shall be seeded with a quick growing cover plant and a permanent perennial plant to protect the soil until reclamation operations begin. When reclamation operations commence, topsoil shall be evenly distributed over the final prepared site. Soil nutrients or other amendments may be required if, in final reclamation, soil test results so determine.

15. Discharge of water from areas impacted by surface disturbance on the right-of-way shall be made in compliance with all Federal and State laws and regulations.

16. The holder shall remove and dispose of all waste material including trash, oil, grease, chemicals and similar substances in accordance with local, State and Federal laws and regulations. Under no circumstances shall waste material be disposed of on public lands without the written approval of the Authorized Officer.

17. All structures constructed on the right-of-way shall be painted, utilizing a nonobstrusive color approved by the Authorized Officer.

18. The holder shall seed all areas disturbed by construction operations not required for operation or maintenance of the facility.

19. All disturbed areas shall be seeded or planted to achieve a permanent vegetative cover. The seeding/plant mixture will be developed by the holder and authorized BLM official in conjunction with recommendations made by the Utah Division of Oil, Gas and Mining. Seeding and planting shall take place from mid October through November unless supplemental irrigation is used. The holder shall apply a suitable mulch on all disturbed areas to control erosion and to promote germination of seeds and growth of plants. Mulch shall be mechanically or chemically anchored to the soil surface. If straw or hay is used as mulch, the rate of application shall be at least 1.5 tons per acre.

20. The holder shall install permanent monuments at each corner of the right-of-way. Each monument shall have the survey bearing and right-of-way number inscribed on a brass cap. Monument specifications are attached.

21. The Holder shall submit to the Authorized Officer a report verifying the success of wildlife mitigation efforts. The report shall discuss the success of seeding and planting of transplant stock as well as the improvement in shrub density and vegetative production. Additional measures may be required to mitigate impacts to mule deer critical winter range, if current efforts appear unsuccessful.

22. Upon termination of the right-of-way all structures shall be removed and the site restored to as natural a state insofar as possible, subject to the approval of the Authorized Officer.

23. The Holder shall initiate construction startup between May 15 and November 1, to mitigate impacts to mule deer. It is also recommended that construction be conducted between these dates for the same purpose.

24. At least 30 days prior to construction, the holder shall schedule a preconstruction conference with the Authorized Officer. The purpose of this conference is to review the terms and conditions of the grant.

25. When all development has been completed, a joint compliance check of the right-of-way shall be made by the holder and the Authorized Officer to determine compliance with the terms and conditions of this grant. The holder shall perform at his own expense any required modifications or reclamation work needed to comply with the terms of the grant.

26. The right-of-way shall be relinquished to the United States if the authorized uses are no longer needed.

27. Rental: $25 advance rental deposit is required pending the determination of fair market rental value of uses authorized by this grant. This right-of-way is not in force until the Holder has paid the stipulated rental deposit.

28. Term of the Grant: 20 years.

a. This right-of-way grant shall terminate 20 (twenty) years from the effective date of this grant unless prior thereto it is relinquished, abandoned, terminated, or otherwise modified pursuant to the terms and conditions of this grant or of any applicable Federal law or regulation.

b. This grant may be renewed so long as it is still being used for the purposes granted, and is operated and maintained in accordance with all the provisions of this grant and pursuant to the regulations under which it is granted. If renewed the right-of-way will be subject to regulations existing at the time of renewal, and such other terms and conditions deemed necessary to protect the public interest.

c. This grant is subject to review at the end of 20 years from the date of execution, and at regular intervals thereafter not to exceed 10 years.

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FINDINGS DOCUMENT

Plateau Mining Company
Unit Train Loadout Facility
Star Point Mines MRP Permit Revision
ACT/007/006, Carbon County, Utah

September 5, 1984

1. The Utah Division of Oil, Gas and Mining (DOGM) has determined that the permit application for a revision to the approved Mining and Reclamation Plan (MRP) originally submitted December 1, 1983 and updated through August 20, 1984 and the permit with conditions, are accurate, complete and comply with the requirements of the Utah State Program, the Surface Mining Control and Reclamation Act (SMCRA) and the Federal Lands Program including the Mineral Leasing Act (as required by UMC 786.19[a]).

2. The DOGM has prepared a Technical Analysis (TA) and based on this has made the following findings:

   A. The information in the permit application for a revision and the approved MRP details acceptable practices for reclamation. The DOGM has determined that reclamation, as required by the Act, can be feasibly accomplished under the permit application for a revision (see TA Section UMC 817.111-.117). (UMC 786.19[b])

   B. Cumulative hydrologic impacts have been assessed for the Unit Train Loadout Facility by the DOGM (see Cumulative Hydrologic Impact Assessment [CHIA] attached). The details of the type and extent of impacts are included in the CHIA. (UMC 786.19[c])

3. After reviewing the description of the proposed permit area, the DOGM has determined that the area is:

   A. Not included within an area designated unsuitable for coal mining operations. (UMC 786.19 [d][1])

   B. Not within an area under study for designating lands unsuitable for coal mining operations. (UMC 786.19 [d][2])

   C. Not on any land subject to the prohibitions or limitations of 30 CFR 761.11(a) (national parks, etc.), 761.11(f) (public buildings, etc.) and 761.11(g) (cemeteries).

   D. Not within 100 feet of the outside right-of-way of public roads. (UMC 786.19 [d][4])

   E. Not within 300 feet of an occupied building. (UMC 786.19[d][5])

4. The issuance of a permit and the Secretarial decision on the Mineral Leasing Act plan are in compliance with the National Historic Preservation Act and implementing regulations (see letter from SHPO, December 19, 1983 and Star Point Mines Mining and Reclamation Plan, Volume 1, 3.5.2). (UMC 786.19[e])

5. The applicant has the legal right to enter and begin underground mining activities in the permit area. The applicant has provided information required by UMC 782.15(b) (see BLM letter approving a right-of-way for use of the Federal estate issued April 10, 1984 and received by DOGM on August 22, 1984). (UMC 786.19[f])

6. The applicant has submitted proof and the DOGM records indicate that prior violations of applicable laws and regulations have been or are in the process of being corrected (personal communication, David Lof, Field Specialist, Division of Oil, Gas and Mining [DOGM] August 28, 1984). (UMC 786.19[g])

7. The OSM records confirm that all fees for the Abandoned Mine Reclamation Fund have been paid (personal communication, John Sender, OSM Fee Compliance Officer, August 29, 1984). (UMC 786.19[h])

8. The DOGM records show that the applicant does not control and has not controlled mining operations with a demonstrated pattern of willful violations of the Act of such nature, duration and with such resulting irreparable damage to the environment as to indicate an intent not to comply with the provisions of the Act (personal communication, Joe Helfrich, Field Supervisor, DOGM). (UMC 786.19[i])

9. Coal mining and reclamation operations to be performed under the permit will not be inconsistent with other underground mines in the general vicinity of the Star Point Mines. (UMC 786.19[j])

10. The applicant posted a corporate surety bond for $2,425,172 in May of 1983 for the Star Point Mines. A revised bond (rider) in the amount of $3,246,317.00 (1985 dollars) will be posted by the applicant to cover the entire operation (including the unit train loadout facility). Of this amount, $481,144.00 (1985 dollars) is for the unit train loadout facility. This bond, as provided in the original permit approval, will be revised annually. See the bonding calculations attached to this document for specifics. Final approval will not be issued by the DOGM until the revised surety bond is received. (UMC 786.19[k])

11. The applicant has provided evidence and the DOGM has found that there are no prime farmlands located in the permit area which are being protected as required by 30 CFR 785.17 (see letter from Soil Conservation Service dated July 7, 1981). (UMC 786.19[l])

12. The DOGM has determined that there are no alluvial valley floors (AVF) existing within the proposed permit area. There are no AVF's which may be negatively impacted by the utilization of the unit train loadout facility. (UMC 786.19[l])

13. The proposed postmining land-use for the permit area has been approved by the DOGM (see TA Section UMC 817.133). (UMC 786.19[m])

14. All specific approvals required by the Act, the Utah State Program and the Federal Land Program have been made. (UMC 786.19[n])

15. The proposed operation will not affect the continued existence of threatened or endangered species or result in the destruction or adverse modification of their critical habitats (see TA Section UMC 817.97 and letter dated July 23, 1984 from U. S. Fish & Wildlife Service). (UMC 786.19[o])

16. All procedures for public participation required by the Act, and the approved Utah State Program have been complied with. (UMC 786.23[a][2]).

Prior to the permit taking effect, the applicant must forward a letter stating its acceptance of the special stipulations in the permit.

D. Wayne Hedberg
Permit Supervisor

James W. Smith
Administrator, Mineral Resource Development and Reclamation Program

Ernest W. Dennis
Associate Director
Division of Oil, Gas and Mining

Dianne R. Nielson
Director
Division of Oil, Gas and Mining

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STIPULATIONS

Plateau Mining Company
Unit Train Loadout Facility
Star Point Mines MRP Permit Revision
ACT/007/006, Carbon County, Utah

September 5, 1984

Stipulation 784.17-(1)-DWH

1. The applicant must provide a written commitment to follow the SHPO recommendation as stated in the December 21, 1983 letter to the Division (suggests that some form of loan program be worked out between an accredited museum and the Helper Mining Museum regarding display of artifacts), or arrange for placement of the historic artifacts in an accredited museum. This commitment must be received by the DOGM prior to final approval of this revision.

2. Standard permit conditions as outlined under Section UMC 786.29 (appended to this document).

3. All of the special conditions as attached to the BLM right-of-way/special use permit #U-52409 issued April 10,1984 (appended to this document).

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CUMULATIVE HYDROLOGIC IMPACT ASSESSMENT

Plateau Mining Company/Getty Minerals Company
Plateau Unit Train Loadout Site
Starpoint Mines Permit Revision
ACT/007/006, Carbon County, Utah

September 5, 1984

Existing Surface and Ground Water Resources

The existing surface and ground water resources at the proposed Unit Train Loadout site are discussed in the draft Cumulative Hydrologic Impact Assessment (CHIA) with respect to the Hiawatha Mines Complex which was prepared for the Office of Surface Mining (OSM) in May 1984 by Engineering Sciences, Denver, Colorado. Reference is herein made to that document for a description of the hydrology and geology of the area.

The surface water resources at the proposed site consist of ephemeral drainages. These drainages convey runoff and snowmelt to Serviceberry Creek to the north of the disturbed area.

Ground water resources in the specific area in question are relatively unknown. Regionally, ground water occuring in the Mancos Shale is of poor quality (being high in calcium - sulfates and TDS) with limited quantity. No springs or seeps are located in the area.

Potential Impacts

Potential impacts to the surface water regime in the area includes two potential sources. One would be the increased sediment levels from the roads, conveyor and fill slopes. The second would be possible runoff discharges from the outslope of the loadout facility pad.

Findings

I. Given the existing surface water regime in the proposed project area, and given the proposed measures which the applicant will undertake if the permit is approved, the Division finds that there will be no significant impacts to the surface water regime from the construction, operation, or reclamation of the proposed Unit Train Loadout facilities. The rationale for this finding is as follows:

1. The applicant has proposed adequate plans for controlling surface runoff from the disturbed area by constructing a sedimentation pond and runoff collection ditches below the access road and north side of the loadout pad facilities and a sediment collection ditch along the base of the eastern pad outslope. If needed to ensure that effluent limitations will be met the applicant has agreed to supplement sediment control (i.e., mulching and seeding) on the outslope of the pad with straw bales or silt fences (Vol. 1, pp. 784-23 - 784-26, MRP Revision, and PMC tehnical deficiency response, August 20, 1984).

2. Discharge from the sediment pond will be collected in the existing railroad impoundment and will then evaporate (MRP Revision, Vol. 1, p. 784-26). The applicant will monitor the water quality of the water in the railroad impoundment to insure its protection for the continued intermittent use by the local wildlife population (MRP Revision, Vol. 1, p. 784-26).

3. A small portion of the undisturbed area drainage above the road will be diverted around the disturbed area, while the remaining portion of the drainage runoff will be treated in the sediment pond. This was done to prevent additional disturbance as a result of the loadout facilities and to ensure that all the drainage area under the conveyor will be treated (Vol. 1, p. 784-25).

4. Increased sediment loads from the access road cut and fill slopes will be adequately addressed by the applicant. Plans include revegetating those cut and fill slopes as well as providing energy dissipation riprap in all areas where water velocities cause erosion (PMC Technical deficiency response, August 20, 1984).

II. The Division finds that there will not be any significant impacts to the ground water regime from the construction, operation and reclamation of the project based on the following:

1. Given the plans for the facility, no subsurface disturbances will be undertaken which would intersect the ground water surface. The water table in the area exists at depth (see Chapter 7 of the approved MRP, and Hiawatha Mines Complex CHIA) and the plans for the load-out clearly state that no underground facilities will be built (see section 784.11 and Map 3, Vol. 2, of the MRP Revision).

2. Operation of the Loadout facility will not result in discharges of water which could enter the ground water regime. Given the highly impermeable surface soils on the site (see section 783.21, Vol. 1, MRP Revision) and the small area to be disturbed by the loadout facility, there will not be any significant changes in the local recharge characteristics of the ground water system.

3. Only precipitation which falls directly on the site will be collected in the sediment pond and that water will not impact the ground water regime. The proposed sedimentation pond will be built on a badland soil complex directly above an existing "natural" railroad impoundment (see Map 10, MRP Revision). The automatic dewatering device (for sediment pond 8) insures that the storm runoff will be drained into the pre-existing catchment basin (the railroad impoundment) and evaporate rather than percolate into the ground water system.

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TECHNICAL ANALYSIS

PROPOSED MRP PERMIT REVISION
Plateau Mining Company, Unit Train Loadout
ACT/007/006, Carbon County, Utah

September 5, 1984

Introduction

Plateau Mining Company (PMC) proposes to construct a Unit Train Loadout Facility adjacent to their Star Point coal mine which is located near the town of Wattis, Utah. The proposal has been reviewed by the Utah Division of Oil, Gas and Mining (Division) as a revision to the approved (January 1981) Star Point Mining and Reclamation Plan (MRP) pursuant to the requirements of UMC 788.12.

The concept of the Unit Train project was described in the original Star Point MRP, but due to insufficient technical detail it was not included in the Division's 1981 approval. The Division found the application complete on March 29, 1984 and the company published notice of a complete plan on April 11, 1984. The public comment period ended as of June 2, 1984 (see attached Affidavit of Publication).

The area of the proposed facility is contained on the U. S. Geological Survey 7.5-minute "Wattis" quadrangle map and is further identified as Section 10, S1/2 SW1/4 and SW1/4 SE1/4; Section 15, N1/2, NE1/4 and SE1/4 NE1/4, Township 15 South, Range 8 East, Salt Lake Base and Meridian. A portion lying in Section 15 is on a Bureau of Land Management (BLM) right-of-way No. U-52409 (see Map #1, Volume 2, December 1, 1983 submission).

A total of approximately 8.5 acres of new disturbance is proposed. An additional 25.19 acres of BLM right-of-way is also included in the proposal. The BLM right-of-way was approved (with stipulations) on April 10, 1984 (copy attached). A significant portion of the proposed facilities will be located on previously permitted disturbed area.

The following facilities are included as part of the Unit Train Loadout proposal:

A. A 3,000 foot long graveled silo access and conveyor maintenance road.

B. A 100 foot high x 12 foot diameter concrete stacking tube.

C. A 210 foot high X 70 foot diameter concrete storage silo.

D. A reclaim tunnel.

E. A sample and transfer tower building.

F. A reclaim hopper.

G. A silo penthouse.

H. Three concrete storage tank pads.

I. @ 3,150 feet of 42-inch conveyor and its support system.

J. A new fine coal recovery circuit.

K. A new coal crushing and screening building.

L. A raw coal stockpile (50,000 ton).

M. A stoker coal stockpile (5,000 ton).

For more detailed designs of these facilities, refer to the plates and figures provided in Volumes 2 and 3 of the December 1, 1983 application for revision. For a general overview of the Unit Train Loadout refer to Figure 1 (attached).

There are no new mine workings associated with this modification. The geologic and topographic descriptions of the area are probably best characterized by references to soils data given in Volume I of the modification plan. The fairly steep-sloped, badlands-type soils which make up the majority of the new area to be permitted are slightly alkaline and rock derived from the weathered Mancos Shale Formation. Differentiation can be further made that a distinctive break occurs between the Masuk Shale Member and the Emery Sandstone Member, however, physical processes have mixed the weathered material from each. Table 13 of Volume I gives a physical and chemical analysis of this major soil rock mixture which will comprise the fill used in this modification.

The following technical sections are identified as to a specific regulation and/or performance standard. It is the Division's opinion that these sections differ significantly from the mining and reclamation practices and procedures which were approved in the overall Star Point Mines Mining and Reclamation Plan (MRP) permit application. Those sections or regulations not outlined were determined to be in compliance pursuant to the previously approved MRP.

UMC 784.17 Protection of Public Parks and Historic Places - DWH

Existing Environment and Applicant's Proposal

Results of the applicant's investigations as the potential cultural and historical resources within the area to be affected and adjacent areas are presented as Exhibit 1, Volume 1 of the December 1, 1983 submittal. These results were transmitted to the State of Utah Historical Preservation Office (SHPO) for comment. The applicant's proposal suggests that the artifacts recovered from the surveyed area be reviewed and placed in the Helper Mining Museum.

Compliance

A letter from the SHPO was received by DOGM on December 21, 1983 (attached) offering general concurrence with the suggestions and results of the archeological document prepared by K. K. Pelli Cultural Resource Management Specialists. However, the SHPO notes that the Helper Museum is not presently an accredited museum and, therefore, may not be the proper place for locating said artifacts (Federal regulation apparently requires museum accreditation). It is suggested that some form of loan program be worked out between an accredited museum and the Helper Mining Museum to resolve this concern. The applicant's proposal will be in compliance with this section upon satisfactory resolution of this issue.

Stipulation 784.17-(1)-DWH

1. The applicant must provide a written commitment to follow the SHPO recommendation as stated above or arrange for placement of the historic artifacts in an accredited museum. The specific accredited museum should be indicated in the commitment. This commitment must be received by the DOGM prior to final approval of this revision.

UMC 784.18 Relocation of Public Roads -DWH

Existing Environment and Applicant's Proposal

The applicant states on page 784-35, Volume 1 of the December 1, 1983 application that PMC does not propose to relocate any public roads other than those described in the previously approved Star Point MRP.

Compliance

On July 17, 1984, a DOGM minesite inspection discovered on-going excavation work which was associated with the relocation of the county access road to the minesite. This project was not described in the original MRP permit application or in the Unit Train proposal.

Through a series of inquiries and investigations into the specifics behind the road alteration the Division has resolved the concerns over this issue. The county is requiring PMC to construct an overpass at the point where the county/mine access road intercepts the Utah Railway's main line and the proposed Unit Train rail spur. This relocation is required to permit unrestricted travel to and from the minesite during the two-three hour time period necessary to load a unit train.

The county held a public hearing on February 22, 1984 on this issue and no adverse public comment was received. An opinion was solicited from the Utah State Attorney General's Office regarding the need for the Board of Oil, Gas and Mining to provide opportunity for another public hearing pursuant to UMC 761.12(d)(3). It is the Attorney General's opinion that another hearing is not warranted in this instance. The applicant's proposal is in compliance with this section.

Stipulations

None.

UMC 805.11 Bond Determination -PGL

Existing Environment and Applicant's Proposal

The bond estimate of $481,144.00 (1985 dollars) will be posted to cover reclamation of the unit train loadout modification in the form of a corporate surety. This amount is included in a rider to the original bond for $3,246,317.00 for the entire operation (MRP Revision, Vol. 1, p. 805-1).

Compliance

The applicant's proposal is in compliance with this section. Please refer to the bonding calculations attached to this document.

Stipulations

None.

UMC 817.13-.15 Casing and Sealing of Exposed Underground Openings - TNT

Existing Environment and Applicant's Proposal

There are no drill holes, wells, openings, nor any coal outcrops associated with this proposed modification. As such, these sections of the regulations are not applicable and no changes from the originally approved mining and reclamation will be made.

Compliance

The applicant's proposal is in compliance with this section.

Stipulations

None.

UMC 817.22-.25 Topsoil -TLP

Existing Environment and Applicant's Proposal

The soil resources of the Unit-Train project area are described in Volume 1 of the Minor Modification to Mining and Reclamation Plan (MRP) on pages 783-21 to 783-24.

Soils found in previously undisturbed areas are of the Badland Rubble Complex comprising approximately 75 percent of the area to be disturbed and are derived from geologic materials, chiefly Mancos Shale with interbedded sandstone. Slopes may vary from 18 percent to 52 percent and vegetation which occurs on these materials is generally salt tolerant dominated by saltbush with mat saltbush (Atriplex cuneata) on steeper slopes. Soil analysis for this complex is presented in Table 13 of volume 1. Runoff and sediment yield potential are rated high in this area.

The other soil type found in the project area is the Featherlegs stony loam which comprises approximately 25 percent of the area to be affected. This material is comprised of glacial outwash and alluvium from shale and sandstone and is found on fans and terraces. Vegetation associated with these soils is primarily of the pinyon-juniper type. Soil depths for this area were determined using three depth points (See Map 10, 2 of 2) and a representative pedon description (page 783.23).

The plans for topsoil removal are found on pages 784-13 to 784.14. All removal will be accomplished using dozers, front-end loaders or scrapers. While safety considerations preclude salvage of soil materials on steep slopes, topsoil will be obtained to greater depths in suitable areas. In the Badlands Rubbleland complex, enough material will be salvaged to equal a 12-inch removal yielding approximately 5,180 bank cubic yards (BCY) of topsoil (see page 18 of the July 5, 1984 response). In the Featherlegs type, 5.3 inches of topsoil and 7.0 inches of B horizon material will be salvaged to yield approximately 871 BCY of soil material. There are no plans for segregation of the A and B horizons due to the Soil Conservation Service (SCS) description which indicates little or no horizon development.

Soil storage and protection will be in accord with previously approved plans (see Star Point MRP, Volume 1, Chapter 3, pages 108-109). Plateau Mining Company has proposed utilization of the existing stockpile (see Map 10 sheet 1).

Topsoil will be redistributed to a depth of 12 inches (see July 5, 1984 response, page 18) and seeded the first growing season following regrading and redistribution (minor modification to MRP, page 784-15, Dec. 1, 1983). Methods of topsoil protection during and after redistribution, prevention of slippage surfaces and enhancement of root penetration are found in the approved MRP (Volume 1, Chapter 3, pages 3-108 to 3-109). All reclaimed areas will be hydromulched with a tackifying agent following seeding (minor modification to MRP page 784-18).

Following redistribution composite soil samples will be taken to analyze for nitrogen and phosphorous levels using approved methods. Should analysis reveal levels significantly lower than native soils, fertilizer amendments will be added to bring levels into accord with those found in the native soils.

Compliance

The applicant's proposal is in compliance with this section.

Stipulations

None.

UMC 817.59 Coal Recovery -TNT

Existing Environment and Applicant's Proposal

The newly proposed facilities associated with this revision (screening, crushing, cleaning) are estimated to yield an effective increase in overall coal recovery of about seven percent. This is a reduction of coal waste as well, thus the modification serves two beneficial purposes (MRP Revision, Vol. 1, p. 784-2, 784-7).

Compliance

The applicant's proposal is in compliance with this section.

Stipulations

None.

UMC 817.61-.68 Use of Explosives -TNT

Existing Environment and Applicant's Proposal

The use of explosives will be required in various areas of the proposed revision to develop working surfaces. The applicant has stated in Chapter 3 of the original MRP that applicable State and Federal regulations will be followed. However, no specific reference to this previous commitment has been made by the applicant in the new proposal.

Compliance

The applicant's proposal will comply with this section if the commitment made in the original MRP is followed.

It is the Division's interpretation that the previous commitment made by the applicant in the original MRP is also applicable to this revision. If this is not the case, the Division must be notified in writing of alternative plans immediately upon receipt of this approval document.

Stipulations

None.

UMC 817.71 Underground Development Waste
UMC 817.81 Coal Processing Waste
UMC 817.89 Noncoal Waste -PGL

Existing Environment and Applicant's Proposal

Spoil, coal processing waste, mine development waste and iron-coal waste are addressed in Sections 3.3.11 and 3.5.9 of the existing Star Point permit. The volume of coal processing refund will be reduced by seven percent with the new wash plant modification.

Compliance

The applicant's proposal is in compliance with this section.

Stipulations

None.

UMC 817.97 Protection of Fish, Wildlife and Related Environmental Values -LK

Existing Environment and Applicant's Proposal

The wildlife studies conducted for the Star Point Mines included the proposed Unit Train Loadout site. The results of these studies are found in Volume IV, Chapter 10 of the Star Point Mines MRP, Permit Application Package (PAP). Wildlife species expected to occur would be those listed for the pinyon/juniper and desert shrub habitats (Tables 10-6, 10-7, 10-8, 10-1). This area is classified by Utah Division of Wildlife Resources as high-priority winter range and is utilized during normal winters. With excessive snow, the deer move to crucial-critical habitat east of the project area (MRP, pages 10-36, 10-37).

Site specific references to projected impacts to wildlife and proposed mitigation are found on pages 783.19-.20, 784.41-.43 of the Unit Train Loadout revision and pages 13 and 14 of the July 5, 1984 response to the Technical Review.

A total of 5.75 acres of wildlife habitat will be affected by the proposed operation. 1.45 acres have previously been affected by the waste pile expansion, 0.45 acres and 3.84 acres in the pinyon/juniper and saltbush types will be affected by the project.

Compliance

The applicant's proposal minimizes, to the extent possible, adverse impacts to fish, wildlife and related environmental values (UMC 817.97[a]). The species proposed for revegetation (see revised seed mix submitted July 17, 1984) are of proven value to fish and wildlife as food and cover (UMC 817.97[d][9]).

Threatened and endangered species which would be expected to use the area are discussed in the Star Point Mines TA (Section UMC 817.97). No threatened and endangered species are known to be in the mine plan area (see letter from U. S. Fish & Wildlife Service dated July 23, 1984). Powerlines will be constructed as per guidelines set forth in Environmental Criteria for Electric Transmission Systems (USDI, USDA, 1970) (UMC 817.97[c]) (page 784.42, Dec. 1, 1983 MRP revision application).

The proposed conveyor system will be elevated to maintain a three foot clearance of the ground, thus not being a barrier to any migrating wildlife (page 784.42). The railroad impoundment will be protected with a sediment pond and a system of diversion ditches which will maintain or increase the quality of water entering it (page 784.42).

A 40-acre tract of land has been improved to increase the carrying capacity and absorb displaced wildlife due to the activities of the proposed operation. This improvement included mauling of decadent, over mature woody species to promote root sprouting, disking, reseeding with species to improve quality and quantity of forage and installing a guzzler (page 784.42, Exhibit 4 and pages 13 and 14, July 5, 1984 Technical Review Response [TRR]).

Any hazards to wildlife will be fenced, covered or otherwise isolated to protect wildlife as determined in consultation with the Utah Division of Wildlife Resources (UDWR) (Original MRP, Volume IV, page 10-43).

Pesticides will not be used without prior approval of the Division (TRR, page 13, July 5, 1984). The UDWR has reviewed the applicant's proposal and in a letter of February 14, 1984 stated the proposed mitigation was acceptable and sufficient for the proposed operation.

The applicant's proposal is in compliance with this section.

Stipulations

None.

UMC 817.99 Slides and Other Damage -PGL

Existing Environment and Applicant's Proposal

The original MRP Decision Document has a stipulation concerning slides. It reads: "At any time a slide occurs which may have a potentially adverse effect on public property, health, safety or the environment, the applicant shall notify the regulatory authority by the fastest available means and comply with any remedial measures required by the regulatory authority."

No reference to this previous commitment has been made by the applicant in the application for a revision.

Compliance

The applicant 's proposal will be in compliance with this section if the commitment in the original MRP is followed. It is the Division's interpretation that this commitment is also applicable to this revision. The Division must be notified in writing of alternate plans immediately upon PMC's receipt of final approval of the revision if this is not the case.

Stipulations

None.

UMC 817.101-.106 Backfilling and Grading -PGL

Existing Environment and Applicant's Proposal

Premining topography is depicted in Map 10 and cross-sections are provided in Map 12 of the MRP revision application. Slopes range from 3 to 52 percent in the project location. This area is generally described as Badlands with outcrops of weathering Mancos Shale.

The upper section of the conveyor (previous disturbance) will be regraded in accordance with the previously approved MRP (Volume 1, Chapter 3, pages 3-113 to 3-115). All other areas will be graded to contour using dozers, and in steeper areas, cuts will be backfilled using a backhoe (see July 5, 1984 response page 784-12, Maps 10-13).

Compliance

The applicant's proposal is in compliance with this section.

Stipulations

None.

UMC 817.111-.117 Revegetation -LK

Existing Environment and Applicant's Proposal

The proposed operation is located within the saltbush and pinyon/juniper vegetation communities, disturbing 0.84 and 0.45 acres in these types, respectively. An additional 1.45 acres of a previously revegetated refuse pile will also be affected. Descriptions of these communities are discussed in the December 1, 1983 permit application, pages 783.13 through 783-18 and Table 3-12. Additional information regarding productivity and range conditions of the reference areas is found on pages 1 and 2 of the July 5, 1984 TRR. Sampling followed DOGM vegetation guidelines and sample adequacy was met for cover and woody plant density in both affected areas and reference areas (Table 12). Productivity was estimated by the SCS. T-tests shows the affected and reference areas to be statistically equivalent (Table 12).

The applicant proposes to reclaim the site to wildlife habitat and livestock grazing and will use the salt bush and pinyon/juniper reference areas for determining reclamation success (pages 784-18 through 784-20).

A complete revegetation plan has been submitted (pages 784-15 through 784-20, and July 5, 1984 TRR, pages 3-13) a revised seed mix was submitted July 17, 1984. Revegetation will take place before the first available growing season. A suitable seedbed will be prepared by chisel plowing (as needed) disking and scarifying. Seed will be broadcast on steep slopes and drilled whenever slope conditions permit. Two thousand pounds of a wood fiber hydromulch will be applied to all reseeded areas. Pest and disease control is not anticipated, but should it become necessary, prior approval of control measures to be used will be obtained from the regulatory authority. Revegetated areas will be monitored as per the previously approved monitoring plan.

Compliance

The applicant has submitted a complete revegetation plan which is compatible with and should enhance the postmining land-use of wildlife habitat and grazing by providing a quality forage and cover for livestock and wildlife.

Introduced species (Ladak alfalfa and yellow sweetclover) proposed for use meet the requirements of UMC 817.112 (July 5, 1984 TRR, page 3-11).

Plans for determining revegetation success are adequately described and are acceptable (pages 784-18 through 784-20, Dec. 1, 1983 application).

The applicant's proposal is in compliance with this section.

Stipulations

None.

UMC 817.121-.126 Subsidence Control -TNT

Existing Environment and Applicant's Proposal

Since no new mining or underground disturbance is proposed these sections are not applicable.

Compliance

Not applicable.

Stipulations

None.

UMC 817.160-.166 Roads: Class II -PGL

Existing Environment and Applicant's Proposal

The site access road shown on Map 3 and Map 5 (MRP Revision, Vol. 2, Dec. 1, 1983) commences at the county road near the location of the sample building and generally parallels the conveyor routing at the silo location. The road is a single lane 15 feet wide and approximately 3,000 feet long, having a finished surface of 6 inches of gravel and a maximum sustained grade of less than 9 percent.

After construction of the facilities is complete, all construction roads not planned for access to the site or maintenance of the overland conveyor will be reclaimed (MRP Revision, Vol. 1, p. 784-8).

The maintenance of roads is addressed in the application for MRP Revision, Vol. 1, p. 784-51. The reclamation of roads is addressed in the original MRP application, Vol. I, p. 3-112.

Compliance

The applicant's proposal is in compliance with this section.

Stipulations

None.

UMC 817.180 Other Transportation Facilities -PGL

Existing Environment and Applicant's Proposal

The Plateau expansion projects consists of additions and/or modifications in two major areas of Plateau Mining Company's operations: the coal preparation plant; and, the coal loading system.

The proposed facilities include a new screening building located to the north of the existing preparation plant (refer to Map 3, MRP Revision, Vol. 2, entitled "Plateau Unit Train Loadout Proposed Surface Facilities Map" and Figures 1-22). This building will house a chute which will allow run-of-mine coal to bypass the preparation plant whenever its quality permits.

The fine coal circuit will be located in a new building adjacent to the existing plant and will consist of a jig and associated cyclones, centrifuges and dewatering screens (see Figures 16, 17 and 18, Vol. 2, MRP Revision). The clean coal or bypassed raw coal then goes to a new crushing and screening building (refer to Figures 18 and 19, MRP Revision).

The stockpile feed conveyor will discharge either into a stacking tube, into the raw coal bypass chute for direct conveying to the silo or into the raw coal stockpile. The stockpile reclaim conveyor will deliver coal to a sampling and transfer tower. The sample and transfer tower (Figure 6) will be an enclosed building.

A fully-equipped laboratory will be constructed near the sample and transfer tower. After being sampled, coal will be conveyed by a belt conveyor to a transfer structure. Map 3 shows a service road paralleling the conveyor. The maximum sustained grade will not exceed 10 percent.

The third belt in the conveyor system discharges into the concrete storage pile which is located over the railroad track.

Dust suppression spray systems will be installed at the vibrating feeders beneath the washed coal storage pile, at the transfer and sample tower and at the discharge of the loadout chute beneath the silo.

All structures will be removed at the end of the mine life, (in conjunction with Volume 1, Chapter 3, pages 3-103 through 3-137, PMC Star Point MRP).

Compliance

The structures will be maintained in an environmentally sound manner as discussed in UMC 817.96 and 817.41-.49.

The applicant's proposal is in compliance with this section.

Stipulations

None.

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CHRONOLOGY OF PERMITTING EVENTS

Plateau Mining Company
·Unit Train Loadout Proposal
Star Point Mines
ACT/007/006, Carbon County, Utah

September 5, 1984

December 1, 1983	Original three-volume submittal received by Division of Oil, Gas and Mining (DOGM).
December 1983	Plans transmitted to other State and Federal agencies. December 2, 1983--State agencies; December 12, 1983--Federal agencies.
December 19, 1983	DOGM receives letter from Division of State History addressing the cultural resource survey adequacy.
December 20, 1983	DOGM recevies sign-off letter from State Division of Water Rights.
January 17, 1984	DOGM transmits letter to Office of Surface Mining (OSM) outlining permitting approach and review procedures for Plateau Mining Company (PMC) Unit Train proposal.
February 22, 1984	Letter from Bureau of Land Management (BLM) signing off on PMC Unit Train Loadout proposal.
February 24, 1984	DOGM receives sign-off letter from State Division of Wildlife Resources.
March 29, 1984	DOGM determines Unit Train proposal to be apparently complete and advises company to publish notice.
April 9, 1984	DOGM receives letter from OSM concurring with DOGM's January 17, 1984 letter outlining permitting approach.
May 10, 1984	DOGM receives copies of PMC affidavit of publication for the Unit Train permit application, forwards copy of same to OSM.
June 21, 1984	DOGM transmits Technical Deficiency document to PMC.

June 27, 1984	DOGM receives PMC partial response to outstanding MRP Special Stipulations (#6 and #10) which were conditioned (see DOGM letter dated December 9, 1983) to be addressed adequately before approval of the Unit Train Loadout proposal would be granted by DOGM.
July 11, 1984	PMC/Getty responds to Technical Deficiency Document.
July 12, 1984	DOGM contacts Mr. Kent Crofts of Getty to arrange to have at least four additional copies of the Technical Deficiency response forwarded to Mr. Dave Maxwell of OSM.
July 17, 1984	DOGM transmits copies of PMC Special Stipulations #6 and #10 to OSM.
July 17, 1984	DOGM transmits copies of PMC Technical Deficiency response to State agencies.
July 17, 1984	DOGM requests additional technical information on vegetation from Getty via phone conversation.
July 1984	PMC/Getty provides vegetation and soils information to DOGM. Vegetation received July 17, 1984; soils received July 25, 1984.
July 18, 1984	DOGM transmits copies of PMC/Getty additional vegetation information received July 18, 1984 (amended revegetation seed mix) to State agencies.
July 18, 1984	DOGM transmits two extra Division copies of PMC Technical Deficiency response to OSM.
July 19 & 20, 1984	DOGM requests additonal soils information via phone conversation with Getty.
July 31, 1984	DOGM receives hydrologic technical deficiency information which addresses some of the concerns raised in "draft" technical deficiency document previously copied to operator.
August 6, 1984	DOGM transmits letter to PMC requesting justification on relocation of public road and copies "draft" hydrologic deficiencies to company.

August 9, 1984	PMC responds to DOGM request for public road information.
August 13 & 14, 1984	DOGM contacts PMC/Getty requesting a meeting with company hydrologist to resolve remaining DOGM concerns.
August 16, 1984	DOGM received sign-off letter from BLM, Mining Law and Solid Minerals, indicating no conflict with the procedures for future recovery of coal resources.
August 17, 1984	DOGM meets with company hydrologist to resolve remaining hydrologic technical issues at DOGM offices.
August 20, 1984	DOGM receives additional hydrologic information to address concerns expressed at the August 17, 1984 meeting at DOGM offices.
August 22, 1984	DOGM received copy of BLM, right-of-way permit #U-52409 for the Unit Train Loadout.
August 30, 1984	DOGM received copy of U. S. Fish & Wildlife Service clearance letter for threatened and endangered species for the proposal area.

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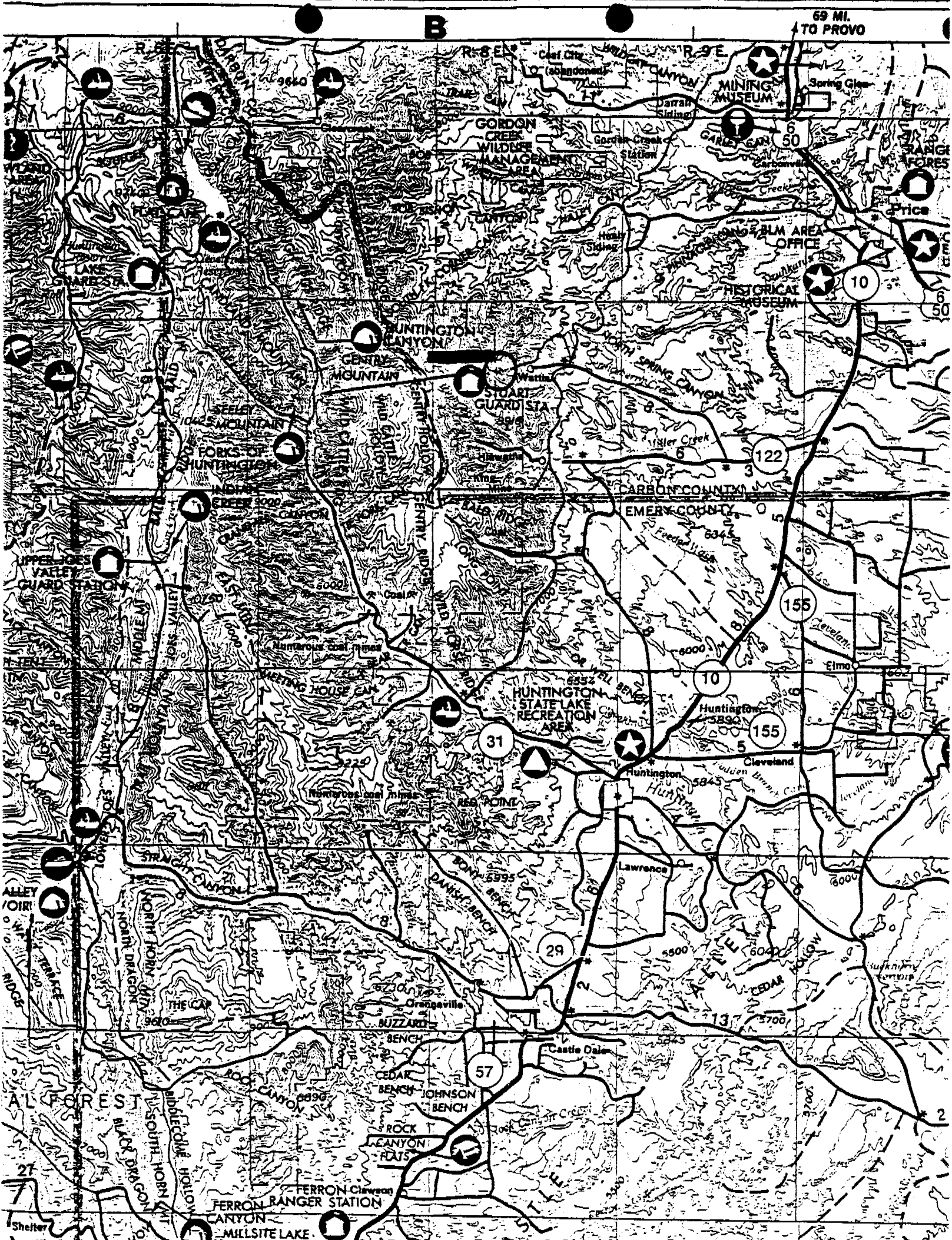
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Spring Glen
Darrah Siding
GORDON CREEK WILDLIFE MANAGEMENT AREA
Gordon Creek Station
Carbonville
Price
BLM AREA OFFICE
HISTORICAL MUSEUM
LAKE GUARD STA.
HUNTINGTON CANYON
GENTRY MOUNTAIN
STUART GUARD STA.
NORTH SPRING CANYON
SEELEY MOUNTAIN
FORKS OF HUNTINGTON
INDIAN CREEK
CARBON COUNTY
EMERY COUNTY
UPPER JOES VALLEY GUARD STATION
Numerous coal mines
MEETING HOUSE CAN.
HUNTINGTON STATE LAKE RECREATION AREA
Huntington
Cleveland
Elmo
Lawrence
RED POINT
STRAIGHT CANYON
NORTH HORN MTN
NORTH DRAGON
THE CAP
Orangeville
BUZZARD BENCH
Castle Dale
CEDAR BENCH
JOHNSON BENCH
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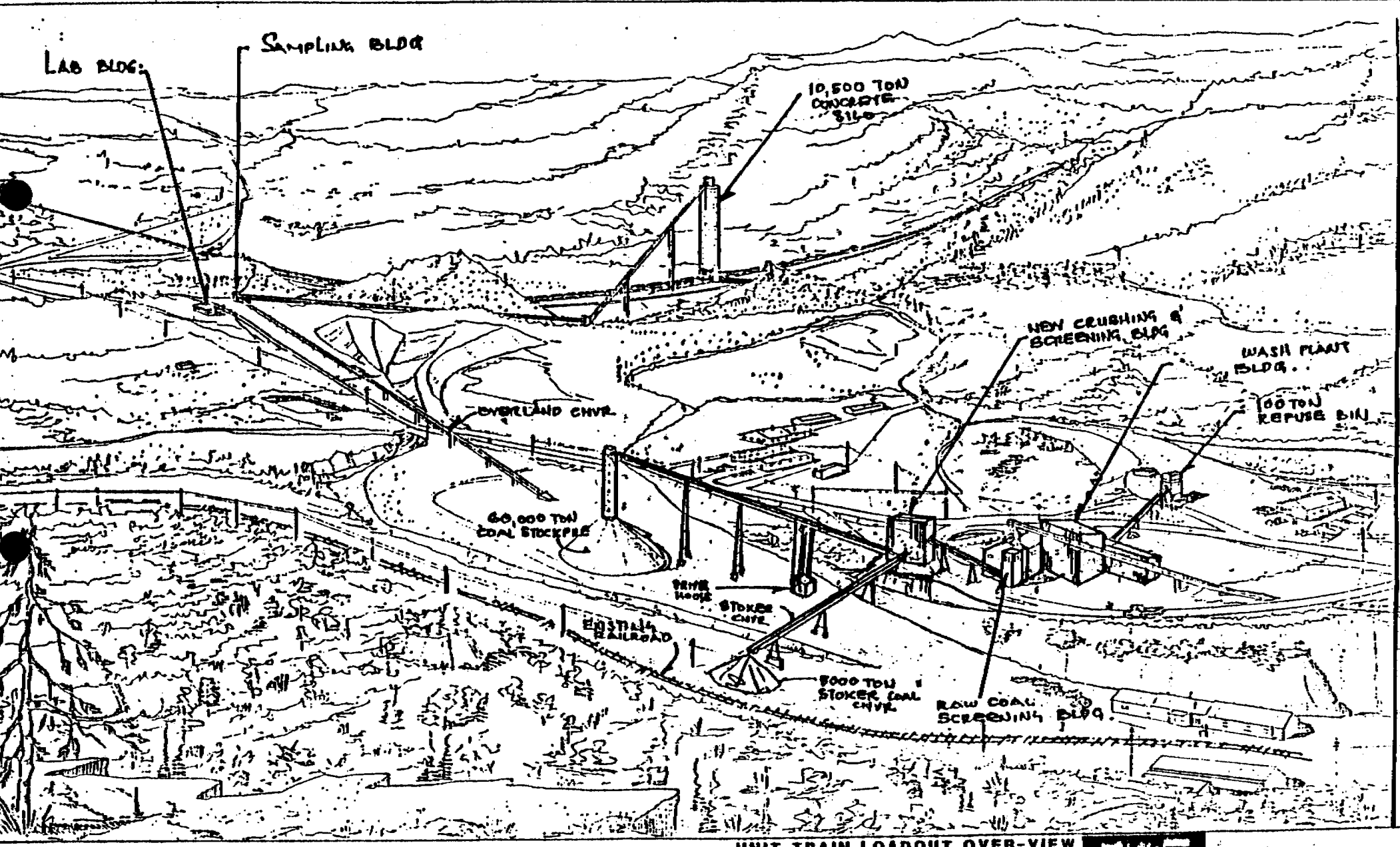

UNIT TRAIN LOADOUT OVER-VIEW

DRAVO

FIG. 1

EXHIBIT 5

BOND CALCULATIONS

*Facility and Equipment Removal and Reclamation Unit Costs

Concrete Removal	$ 70/cu. yd.
Backfilling	$ 120/cu. yd.
Grading	$1700/acre
Ripping	$2500/acre
Topsoil Spreading	$2500/acre
Soil Additives	$ 350/acre
Seeding and Tree Planting	$ 600/acre
Moisture Retention	$1200/acre
Maintenance & Monitoring	$1200/acre
Equipment Removal	$ 68/ton
Steel Frame Facility Removal	$1.76/sq. ft. of floor space

*Note - Unit costs were developed in previous approved Plateau permit.

Facility and Equipment Removal Cost

Area 1 - Wash Plant Addition - 0.5 disturbed acres

4 story Wash Plant:

- Steel Frame Facility Removal
  4 stories x 90 ft x 48 ft = 17,280 sq. ft. 17,280 sq. ft. x $1.76/sq. ft. = $30,413

- Equipment Removal
  300 tons of equipment
  170 tons of chutes and tanks
  470 tons x $68/ton = $31,960

- Concrete Removal
  90 ft x 48 ft x 8 in x 1 ft/12 in x 1 cu yd/27 cu ft = 106.7 cu yds. 106.7 cu yds. x $70/cu yd. = $7,467

Area 2 - New Crusher Building - 0.1 disturbed acres

3 story Crusher Building

- Steel Frame Facility Removal
  3 stories x 24 ft. x 24 ft. = 1,728 sq. ft. 1,728 sq. ft. x $1.76/sq. ft. = $3,041

- Equipment Removal
  15 tons of equipment and chutes
  15 tons x $68/ton = $1,020

- Concrete Removal
  24 ft x 24 ft x 8 in x 1 ft/12 in x 1 cu yd/27 cu ft = 14.2 cu yd
  14.2 cu yds x $70/cu yd = $996

Area 3 - Stacking Tubes and Reclaim Tunnel - 0.1 disturbed acres

Stacking Tube (Assume clean coal stacking tube same size as future raw coal stacking tube)

- Equipment Removal
  108 ft. x 15 ft. dia. x TT x 1/4 in x 1 ft/12 in x 490 lbs/cu ft x 1 ton/2000 lbs = 26 tons
  26 tons of tube
  17 tons of equipment
  43 tons x $68/ton = $2,922 X (2 tubes) = $5,844

- Concrete Removal
  250 ft. x (17 ft. x 2 + 12 ft. x 2) x 1 ft. x 1 cu yd/27 cu ft = 53.75 cu. yds.
  53.75 cu yds x $70/cu yd = $3,763

Area 4 - Sampler Building and Coal Lab - 0.1 disturbed acres

4 story Sampler Building

- Steel Frame Facility Removal
  4 stories x 22 ft. x 30 ft. = 2,640 sq. ft. 2,640 sq. ft x $1.76/sq. ft = $4,646

- Equipment Removal
  15 tons of equipment and chutes
  15 tons x $68/ton = $1,020

- Concrete Removal
  22 ft. x 30 ft. x 8 in. x 1 ft/12 in x 1 cu. yd/27 cu. ft = 16.3 cu yds. 16.3 cu. yds. x $70/cu. yd. = $1,141

Area 5 - Transfer Tower, Conveyors and Structures - 0.6 disturbed acres

Transfer Tower

- Steel Frame Facility Removal
  16 ft. x 15 ft. x 2 = 480 sq. ft.
  480 sq. ft. x $1.76/sq. ft. = $845

- Concrete Removal
  480 sq. ft. x 8 in. x 1 ft/12 in. x 1 cu. yd/27 cu. ft. = 11.9 cu. yds. 11.9 cu. yds. x $70/cu. yd. = $830

Conveyors

- Steel Frame Facility Removal
  5500 ft. x 6 ft. = 33,000 sq. ft.
  33,000 sq. ft. x $1.76/sq. ft. = $58,080

- Concrete Removal
  5500 ft. x 1 structure/15 ft. x 0.5 cu. yd/structure = 184 cu. yds. 184 cu. yds. x $70/cu. yd. = $12,880

Area 6 - Silo and Batch Weigh Bin - 2.3 disturbed acres

Batch Weigh Bin

- Steel Frame Facility Removal
  60 ft. x 60 ft. + 32 ft. x 32 ft. + 20 ft. x 20 ft. = 5,024 sq. ft. 5,024 sq. ft. x $1.76/sq. ft. = $8,842

Silo

- Equipment Removal
  50 tons of equipment
  50 tons x $68/ton = $3,400

- Concrete Removal
  209 ft. x 70 ft. x TT x 1 ft. x 1 cu. yd/27 cu. ft. = 1,702 cu. yds. 1,702 cu. yds + 335 cu. yds (misc.) = 2,037 cu. yds. 2,037 cu. yds. x $70/cu. yds = $142,609

Silo foundation will be left in place.

Area 7 - Sediment Pond - 1.0 disturbed acres

- Excavation
  0.5 (80 ft. x 12 ft.) x 250 ft. x 1 cu. yd./27 cu. ft. = 4,444 cu. yds. 4,444 cu. yds. x $2.00/cu. yd. = $8,888

  (Excavation unit price is a quoted current price)

- Equipment Removal
  2 tons of pipe
  2 tons x $68/ton = $136

Area 8 - Silo Access Road - 3.8 disburbed acres

Culverts

- Equipment Removal
  600 ft. x 40 lbs/ft. x 1 ton/2000 lbs. = 12 tons 12 tons x $68/ton = $816

Guardrail

- Equipment Removal
  1000 ft. x 15 lbs/ft. x 1 ton/2000 lbs. = 7.5 tons 7.5 tons x $68/ton = $510

Road

- Backfilling
  25 sq. ft. x 100 ft. x 2 x 1 cu. yd./27 cu. ft. = 185 cu. yds.
  185 cu. yds. x $120/cu. yd. = $22,222

General Comments

Much of Area 5 (Transfer Tower, Conveyors, and Structures) is included in Area 8 (a great deal of overlap occurs between these areas because of their close proximity).

EXHIBIT 5

BOND CALCULATIONS SUMMARY

Area	Description	No of Acres	Concrete Removal	Structure & Bldg Removal	Backfilling	Grading	Moisture Retention	Topsoil Spreading	Soil Additives	Seeding & Tree Planting	Maintenance & Monitoring	Total
1	Wash Plant Addition	0.5	7,467	62,373	N/A	850	*	*	*	*	*	70,690
2	New Crusher Building	0.1	996	4,061	N/A	170	*	*	*	*	*	5,227
3	Stacking Tube and Tunnel	0.1	3,763	5,844	N/A	170	*	*	*	*	*	9,777
4	Sampler and Coal Lab	0.1	1,141	5,666	N/A	170	*	*	*	*	*	6,977
5	Transfer Towers, Conveyors & Structures	0.6	13,710	60,192	N/A	1,020	720	1,500	210	360	720	78,432
6	Silo and Batch Weigh Bin	2.3	142,609	12,242	N/A	3,910	2,760	5,750	805	1,380	2,760	172,216
7	Sediment Pond	1.0	N/A	136	N/A	8,888	1,200	1,700	350	600	1,200	14,074
8	Silo Access Road	3.8	N/A	1,326	22,222	6,460	4,560	9,500	1,330	2,280	4,560	52,238
	TOTAL	8.5	169,686	151,840	22,222	21,638	9,240	18,450	2,695	4,620	9,240	409,631

* Included in a previous bond
N/A - Not Applicable

TOTAL	$409,631.00
10% Contingency	$ 40,963.00
	$450,594.00 (1984 dollars)

Bond Updated Annually
Inflated at 6.78% = $481,144 (1985 dollars) should be posted.