GARY R. HERBERT
Governor
SPENCER J. COX
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

May 20, 2015

Kenneth S. Fleck, Manager of Geology and Environmental Affairs
Energy West Mining Company
P.O. Box 310
Huntington, Utah 84528

Subject: Approval to Add Waste Rock Site, PacifiCorp, Trail Mountain Mine, C/015/0009, Task ID #4790

Dear Mr. Fleck:

Enclosed is the Division's Decision Document for the Addition of the Cottonwood Waste Rock Site to the PacifiCorp's Trail Mountain Mine. The Division finds that Energy West Mining Company has met the regulatory requirements and approves this significant revision. At this time, please submit 2 clean copies to the Division by no later than June 19, 2015. A stamped incorporated copy of the approved plans will be returned to you for insertion into your copy of the Mining and Reclamation Plan.

Enclosed are two (2) copies of the revised permit for the Trail Mountain Mine. The expiration date remains February 21, 2020. Please read the permit, then have both copies signed by the appropriate PacifiCorp representative and return one to the Division.

If you have any questions or need further information, please feel free to call Daron Haddock at (801) 538-5325 or myself at (801) 538-5334.

Sincerely,

John R. Baza
Director

DRH/ss
Enclosure
cc: Alan Boehms, OSM
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UTAH DNR
OIL, GAS & MINING

Addition of Waste Rock Site
PacifiCorp
Trail Mountain Mine
C/015/0009
Emery County, Utah

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DECISION DOCUMENT

Addition of Waste Rock Site
PacifiCorp
Trail Mountain Mine
C/015/0009
Emery County, Utah

ACTION

The Permittee has applied to have the Cottonwood Waste Rock Site removed from the Cottonwood Wilberg Mine and added to the Trail Mountain Mine. In doing so, the name of the waste rock site will be changed from the Cottonwood Waste Rock Site to the Trail Mountain Waste Rock Facility.

BACKGROUND

PacifiCorp is in the process of selling a portion of its mining assets. The Cottonwood waste rock site and the Trail Mountain Mine are two of the assets involved in the sale package. The Trail Mountain Mine is adjacent to unmined reserves that will be accessed through the existing Trail Mountain Mine. The Cottonwood waste rock site will be transferred to the Trail Mountain mining and reclamation plan so as to provide a site for the storage of coal waste materials from the mine.

CHRONOLOGY

January 30, 2015	Energy West Corporation submits the application to Add the Waste Rock Site to the Trail Mountain Mine.
February 24, 2015	The Division received the proposed public notice.
March 5, 2015	The permit application was determined administratively complete. Energy West Corporation is instructed to publish in the local newspaper and place a copy of the application in the county courthouse.
March 9, 2015	The Division sent letters to state federal and local planning agencies notifying them of the complete permit application and soliciting their comments.

March 10, 17, 24 and 31, 2015	This permitting action at the Trail Mountain Mine is published in the Emery County Progress for four consecutive weeks.
April 10, 2015	The Division requests additional application information from the Permittee.
April 27, 2015	The requested additional information is received by the Division.
May 1, 2015	Public comment period closes. The Division receives no comments
May 13, 2015	The Technical Analysis is completed.
May 14, 2015	AVS check completed with issue recommendation.
May 18, 2015	The CHIA is updated.
May 20, 2015	Decision Document completed and Permit is issued.

ANALYSIS

The Division of Oil, Gas and Mining has conducted an Administrative and Technical Analysis of the proposed Waste Rock Site Addition and has produced a written TA. All appropriate State and Federal agencies have been consulted regarding this proposal. All requirements for public participation have been satisfied. The application meets the requirements of the Utah Coal Regulatory Program.

RECOMMENDATION

It is recommended that approval be given for the Addition of the Waste Rock Site to the Trail Mountain Mine.

GARY R. HERBERT
Governor
GREG BELL
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

Technical Analysis and Findings

Utah Coal Regulatory Program

May 13, 2015

PID: C0150009
TaskID: 4790
Mine Name: TRAIL MOUNTAIN MINE
Title: ADD WASTE ROCK SITE

Summary

This technical analysis is for the amendment to add the Cottonwood waste rock site to the Trail Mountain Mine permit area. The waste rock site is simultaneously being removed from the Cottonwood/Wilberg Mine MRP as Volume 10 and is being added to the Trail Mountain MRP as Volume 4. In doing so, the name of the waste rock site will be changed to Trail Mountain Waste Rock Facility.

Energy West submitted three amendments. The first amendment is to Permit # C/015/0019 to remove the Cottonwood waste rock site from its MRP. The second amendment is to Permit # C/015/0009 to add the waste rock site to its MRP. The third amendment is to the legal and financial volume to amend the all text and appendices affected by the transfer of the site from one permit to another. The three amendments were submitted simultaneously but evaluated as separate tasks.

The three amendments propose no changes to environmental resources, operations, or reclamation design. It is simply a transfer of a permitted area (25.85 acres consisting of the Waste Rock Site) from one mines MRP (Cottonwood/Wilberg) to another (Trail Mountain) and both mines are owned by Energy West Mining Company, a subsidiary of PacifiCorp.

Deficiencies Details:

None

lreinhart

The Division of Oil, Gas and Mining (the Division) received an application from Energy West Mining Company (the Permittee) to transfer the Cottonwood-Wilberg Waste Rock Storage Facility in the Cottonwood-Wilberg Mine MRP to the Trail Mountain Mine MRP on January 30, 2015. The application has been assigned Task ID #4790 by the Division. The Waste Rock Storage Facility is located in Grimes wash just down the road from the Cottonwood-Wilberg mine on BLM land. The waste rock site was originally designed to handle the disposal needs of the Cottonwood-Wilberg mine, Des-Bee-Dove mine, and Trail Mountain mine. Disposal of waste rock for two sites, Des-Bee-Dove and Cottonwood-Wilberg mines, is no longer necessary because it has had final reclamation bond release or is currently being reclaimed, respectively.

kstorrar

General Contents

Legal Description

Analysis:

Information provided in the application meets the minimum requirements of the regulations. The legal description and status of unsuitability claims for the Waste Rock Site is being handled in a separate task (4791) and is evaluated there.

The legal description of the Waste Rock Site in appendix G was removed from the Cottonwood/Wilberg Permit boundary description and added to the Trail Mountain permit boundary description. The legal description was digitized and verified as correct and matches the boundary as indicated on the maps provided.

lreinhart

Public Notice and Comment

Analysis:

On February 24, 2015, the applicant submitted a draft public notice that was reviewed and found acceptable.

lreinhart

Maps and Plans

Analysis:

Information provided in the application meets the minimum requirements of the regulations.

The application contains land ownership drawings and boundaries of lands and names of present owners of record of those lands, both surface and subsurface, included in or contiguous to the Waste Rock Storage Facility permitted area. Maps include: Trail Mountain Mine Surface and Coal ownership (1-1), Permit Area (3-4), Land Use (4-3), Seeps & Springs (7-1), and, Water Monitoring Locations (7-2).

lreinhart

Completeness

Analysis:

All legal and financial aspects of the amendment are being reviewed as a separate task (4791) and are evaluated there.

lreinhart

Environmental Resource Information

General

Analysis:

The application proposes no changes to the existing and approved MRP for both Cottonwood/Wilberg or Trail Mountain and therefore will not affect existing resources or current land use.

The only textual changes made are changing the heading from Volume 10 to Volume 4, and also changing the reference from "Cottonwood/Wilberg Waste Rock Site" to "Trail Mountain Waste Rock Site".

lreinhart

Soils Resource Information

Analysis:

Analysis:
The particulars for the BLM ROW grant UTU-65027 are found in the introduction to Volume 4. The Right of Way area and permit boundary are 25.82 acres. The disturbed area acreage is outlined on Map 4-5 and stated on page 2 of Vol. 4 as 15.82 acres. The 15.82 acres figure is based upon recent aerial photography and AutoCad analysis. The location of the Trail Mountain Waste Rock site is shown on Permit Area Map 3-4. The soil resource is described in MRP Vol 1 Section 3.4.1.1, Map 4-3, and in MRP Vol 4 Appendix A (soil survey), B (prime farmland determination), and C (Soil Chemistry).

The permit boundary is shown on Map 4-1. The elevation is between 6,700 and 7,000 ft. (Section R645-30-300). Appendix A contains the soil survey was conducted in 1989 by T.H. Furst at the time of construction. Five pedons are discussed in the narrative, but only three pedons were excavated and described in Appendix I of the survey and only three are marked on Volume 4 Soils Map 7-1 (dated 1989). The predominant soil type is
Lithic Ustic Torriorthents with slopes between 0 – 5%, and 5 – 30% corresponding to Carbon 1988 soil map unit Badland/Rubbleland/Rock Outcrop complex. This shallow soil is only 4- 6 inches deep over shale. T.H. Furst concludes his

report with the recommendation of crushing lower horizons (10 – 65 cm depth) to create suitable substitute topsoil.

Volume 4 Biology Appendix B contains a 1990 productivity evaluation performed by George Cook, Range Conservationist (retired) with the former Soil Conservation Service. The Strych very stony loam dry site (3-30% slope) ranged from 400 lbs/ac production in the reference area under pinyon/juniper to even lower production (125 lbs/ac) at the ""saltbrush"" vegetation of the waste rock site. Black sage waste rock sites were found to have 250 - 300 lbs of production. The potential for the waste rock site was 500 lbs/ac and the potential for the reference area was 1,200 lbs/ac. It would be very interesting to know the current productivity of the topsoil stockpile in comparison to the undisturbed site 25 years before.

Findings:
The information provided meets the environmental resource/soils requirements.

pburton

Hydro Baseline Information

Analysis:

R645-301-700 Hydrology
The application provides a section outlining the hydrologic function associated with the waste rock site.

R645-301-721.
The application provides an Environmental Description narrative and map of the hydrologic features associated with the waste rock site per R645-301-720.

R645-301-722.
Maps and drawings of the waste rock site are included in the application per R645-301-722.

R645-301-723.
The current Sampling and Analysis protocol at the waste rock site meets the minimum hydrology requirements per R645-301-723. This sampling protocol will be carried through in the transfer of the permit.

R645-301-724.
Hydrologic baseline data at the waste rock site was performed and approved by the Division at the time the site was permitted.

Findings:
The application meets the minimum Environmental Description hydrologic requirements per the Divisions rules R645-301-720.

kstorrar

Probable Hydrologic Consequences Determination

Analysis:

R645-301-728.
The application provides an adequate analysis of the Probable Hydrologic Consequences of the site. The application shows through studies and records the waste rock site is in a very dry area and has little effect on both the surface and groundwater resources in the area.

Findings:
The application meets the minimum hydrologic requirements per the Divisions rules R645-301-728.

kstorrar

Operation Plan

Mining Operations and Facilities

Analysis:

The application proposes no changes to the existing and approved MRP for both Cottonwood/Wilberg or Trail Mountain and therefore will not affect existing operation plans. There are no proposed changes to the operation plan as described in

Volume 10 of the Cottonwood Mine MRP which will become Volume 4 of the Trail Mountain Mine MRP.

The application incorporated operations of the waste rock site in Chapter 3, in which the additional disturbance acreage is added and the area is incorporated into the plan.

lreinhart

Mining Operations and Facilities

Analysis:

Analysis:
General
The Task ID # 4790 addition of the waste rock site to the Trail Mountain Mine permit does not propose or include any changes to the Trail Mountain Mine site facilities area.
Type and Method of Mining Operations
The Task ID # 4790 addition of the waste rock site to the Trail Mountain Mine permit does not propose or include any changes in the extraction methods utilized in the Trail Mountain Mine at the time of its placement into temporary cessation status.
Facilities and Structures
Task ID # 4790 does not propose any changes in the surface facilities area of the Trail Mountain Mine. The overland conveyor which transported coal from Trail Mountain through the Cottonwood / Wilberg Mine to those surface facilities for truck transport to the Hunter Power Plant was removed during the reclamation of the Trail Mountain Access portal facilities (Cottonwood Canyon portals of the Cottonwood / Wilberg Mine) in October of 2014.
The only change in the facilities is the addition of the waste rock site to the Trail Mountain Mine permit. Following Division approval, this will allow disposal of ROM waste rock and surface facilities sediment pond cleanout material at the Trail Mountain waste rock site.
Findings:
The only change proposed in this section of the mining and reclamation plan is the name change and transfer of the former Cottonwood / Wilberg Mine waste rock disposal area from the C/015/019 permit and its addition to the Trail Mountain Mine permit C/015/009. Both Mines operated in the same geologic coal seam (the Hiawatha) and therefore, there are no changes in the chemical characteristics of the material to be disposed. ROM waste and pond cleanings have been deposited at this same site for many years.

phess

Mining Operations and Facilities

Analysis:

Analysis:
The Trail Mountain Waste Rock site was constructed in June 1990. Since that time, three berms for three lifts have been constructed, and the side slopes of those three lifts were contemporaneously reclaimed. Completed construction Map 4-5 was created after an aerial survey in 2013. The fourth quarter 2014 certified inspection report (received 1/20/2015) states that the total storage capacity of the Waste Rock site is 784,000 cu yds. The elevation of the current lift is approximately 6,803.31 ft. The final design elevation will be 6,850 ft. The site is at 36% capacity and the useable area of the present lift is 97%.

The Trail Mountain Mine is being sold (Incoming document 01082015.pdf). The December 2014 Cottonwood Waste Rock site certified engineering report states that the Trail Mountain Mine has ceased production. but that the Cottonwood Waste Rock site would remain open to accommodate future pond cleanings at Trail Mountain. Therefore the transfer of the Cottonwood Waste Rock site to the Trail Mountain Mine may change the idle status of the waste rock site in the future.

Findings: Until the Division received further notice, the idle site will continue in Temporary Cessation with the operational requirements of R645-301-515.200.

pburton

Topsoil and Subsoil

Analysis:

Analysis:
Volume 4 Engineering section states that six inches was salvaged from the roadway construction and stored on the road

embankments (Section R645-301-526).Section R645-301-526, p. 13, Underground Development Waste, describes the salvage and live haul of 10 inches of soil from the north and west slope to the actively growing pile. It is thought that this material was used on the three existing reclaimed terraces of the pile. Plate 7-2 provides historical information on stripping depths from the site and does not show any further topsoil material available on the north and west slopes.

Plate 4-5 shows the site construction in 2013, made possible by an aerial survey in 2013. Plate 4-4 shows the contours in 1990 and the existing location of the topsoil and subsoil stockpiles. Plate 4-4 provides a calculation of the stockpile volumes based on cross sections shown on Plates 4-11A and 4-11B. Volumes contained in the piles are described as 31,629 CY topsoil and 40,317 CY subsoil on Plate 4-4.

Volume 4 Soil section states that the soil stockpiles are ASCA's, and the downhill slopes of the piles are protected by a silt fence (Section R645-301-234 and Engineering Section 526, pg 11).

Interim reclamation of topsoil stockpiles, sediment pond embankments and road outslopes is described in Volume 4 Biology Section 341.200. Table 300-5 provides the interim seed mix of grasses, forbs and shrubs. Interim reclamation included seeding, raking seed, application of fertilizer and 2T/ac mulch as described on pages 11 and 12 of Section 341.200. An annual site visit to monitor interim vegetation is a commitment described in Section R645-301-333.100 which will be added to the Trail Mountain commitment list.

Findings: The information provided meets the operations requirements for topsoil and subsoil handling.

pburton

Road System Other Transportation Facilities

Analysis:

Analysis:
The Task ID # 4790 application does not propose any changes to the approved Volume 10 material relative to Primary Roads, R645-301-512.250 for insertion into Volume 4 of the Trail Mountain Mine MRP. The access road design has been certified, and the road was certified as being constructed according to design meeting the requirements of R645-301-534.200 and R645-301-742.420.
Page 20 of the Volume 10 information (now Volume 4 information) does not propose to make any changes to the reclamation plan for the access road to the waste disposal site. Under Section R645-301-542.600, Roads, "the road will be removed and the area reclaimed during the reclamation operations" (of the waste rock pile, upon retreat / PHH). "All drainage structures will be removed and the natural drainage system through the access road area will be returned to their pre-existing state".
Findings:
All of the information relative to the engineering requirements for waste rock site access road has been previously approved by the Division (Volume 10, CWW Mine MRP). The Volume 4 information is identical relative to roads, and it should be approved as submitted.

phess

Spoil Waste Coal Mine Waste

Analysis:

Coal Mine Waste
Refuse Piles
Analysis:
Page 14, Chapter 5, Engineering of Volume 4, R645-301-530, Operational Design Criteria and Plans states that the "design of the Waste Rock Storage Facility is discussed above in R645-301-526 (See page 11, Waste Rock Storage Facility Placement and Handling of Materials). No changes are proposed to the methods approved within Volume 10 and used in the placement and disposal of underground development waste, trammel reject, or cleanout material from the Trail Mountain surface facilities pond. Volume 4 will be identical to Volume 10, with the exception of minor text changes deleting the Cottonwood / Wilberg Mine waste rock site name and inserting the Trail Mountain Mine waste rock disposal facility name.
There are no changes proposed to the Volume 10 text for page 15, R645-301-536, Coal Mine Waste, for insertion into Volume 4 of the Trail Mountain Mine MRP.
There are no changes proposed to the Volume 10 text for page 21, R645-301-553, Backfilling and Grading, Waste Rock Storage Facility, for insertion into Volume 4 of the Trail Mountain Mine MRP.
There are no changes proposed to the Volume 10 text for pages 16-18 for R645-301-540, 541, Reclamation Plan, General

of the Trail Mountain waste rock disposal site reclamation plan, (Volume 4).
There are no changes proposed to the Volume 10 text for Chapter 5, Engineering, page 22, which re-iterates the commitment in Volume 4 to conduct all coal mining and reclamation operations in accordance with the approved permit and requirements of R645-301-510 through R645-301-553.
Findings:
There are no changes requiring a Division evaluation of the operational or reclamation plan for the Trail Mountain Mine Waste Rock Disposal Facility. All performance standards are committed to by the Permittee. Volume 4 (Trail Mountain Mine) is identical to Volume 10 (Cottonwood / Wilberg Mine) with regard to the Waste Rock Disposal Site.
Task ID # 4790, Chapter 5, Engineering, Trail Mountain Mine, C/015/009 should be approved as submitted.

phess

Hydrologic General

Analysis:

R645-301-731.
The Permittee application meets the minimum requirements of Hydraulic-Balance Protection per R645-301-731. Maps are provided showing the surface water outflow location from the waste rock site.

R645-301-732.
The application meets the minimum Sediment Control Measure requirements per R645-301-732.
Surface runoff from the site will either be routed through the waste rock sediment pond or will be treated by alternative sediment control measures along the access road to the waste rock site.

R645-301-733.
The application meets the minimum Impoundment requirements per R645-301-733 by providing certified drawings and a narrative of the impoundment at the waste rock site.

Findings:
The application meets the minimum hydrologic requirements per the Divisions rules R645-301-730.

kstorrar

Hydrologic Sediment Control Measures

Analysis:

R645-301-740.
The application meets the minimum Design Criteria and Plan requirements per R645-301-740 by outlining drainage control at the waste rock site.

R645-301-742, -743, -744.
The application meets the minimum requirements of Sediment Control Measures per R645-301-742 by providing a narrative, maps, and cross-sections of impoundments and diversions. The Permittee will route the vast majority of water to the waste rock pond located at the site. The application outlines in remote locations where it is not possible to route water to the waste rock pond, but runoff would not meet effluent limits the plan implements Alternative Sediment Control Areas to treat the runoff.

R645-301-747.
The application meets the minimum requirements for the Disposal of Noncoal Mine Waste per R645-301-747.

R645-301-748
The application meets the minimum Casing and Sealing of Wells requirement per R645-301-748 by outlining a plan for such within the permit area.

Findings:
The application meets the minimum hydrologic requirements per the Divisions rules R645-301-740.

kstorrar

Maps Facilities

Analysis:

Affected Area Maps
Mining Facilities Maps
Monitoring and Sample Location Maps
Analysis:
The Task ID # 4790 application proposes to replace the following plates / maps in Volume 3 of the Trail Mountain Mine MRP;
1) TMS1680C, Plate 3-4, Trail Mountain Mine, Permit Area Map;
2) TMS1454C, Plate 1-1, Trail Mountain Mine, Surface and Coal Ownership Map
3) TMS1458C, Plate 4-3, Trail Mountain Mine, Land Use Map
4) TMS1450C, Plate 7-2, Trail Mountain Mine, Water Monitoring Locations / Discharge Locations
5) TMS1684C, Plate 7-1, Trail Mountain Mine, Locations of Seeps and Springs / Relationship of the Blackhawk / Starpoint Aquifer to Proposed Mine Workings
None of these Plates have the P.E. certification stamp completed; the certifying engineers stamp has not been signed or dated. These actions must be completed before final approval of the Task ID # 4790 application can be completed.
The Task ID # 4790 application proposes to add the following plates / maps in Volume 4 of the application to meet the requirements of R645-301-512,-301-521, and -301-542 for the transfer of the waste rock disposal area to the Trail Mountain Mine permit;
1) CM-10821-WB, Plate 4-2, Trail Mountain Mine, Waste Rock Storage Facility / Hydrological Area Map;
2) CM-10822-WB,Plate 4-3, Trail Mountain Mine, Waste Rock Storage Facility / Pre-Existing Topography Map;
3) CM-10816-WB, Plate 4-4, Trail Mountain Mine, Waste Rock Storage Facility / Initial Construction Map;
4) CM-10823-WB, Plate 4-5, Trail Mountain Mine, Waste Rock Storage Facility / Completed Construction Map;
5) CM-10824-WB, Plate 4-6, Trail Mountain Mine, Waste Rock Storage Facility / Reclamation Phase 1 (proposed);
6) CM-10825-WB, Plate 4-7, Trail Mountain Mine, Waste Rock Storage Facility / Reclamation Phase 2 (proposed);
7) CM-10810-WB, Plate 4-8, Trail Mountain Mine, Waste Rock Storage Facility / Access Road Cross Sections (A);
8) CM-10810-WB, Plate 4-8, Trail Mountain Mine, Waste Rock Storage Facility / Access Road Cross Sections (B);
9) CM-10820-WB, Plate 4-9, Trail Mountain Mine, Waste Rock Storage Facility / Profile / Center Line of Access Road;
10) CM-10811-WB, Plate 4-10, Trail Mountain Mine, Waste Rock Storage Facility / Cross Sections (of waste pile);
11) CM-10815-WB, Plate 4-11A, Trail Mountain Mine, Waste Rock Storage Facility / Topsoil Cross Sections;
12) CM-10846-WB, Plate 4-11B, Trail Mountain Mine, Waste Rock Storage Facility / Subsoil Cross Sections;
13) CM-10830-WB, Plate 4-12, Trail Mountain Mine, Waste Rock Storage Facility / Diversion Ditch Profiles and Cross Sections;
14) CM-10837-WB, Plate 4-13, Cottonwood / Wilberg Mine, Waste Rock Storage Facility / Dam Cross Sections (waste rock sediment pond);
15) CM-10877-WB, Plate 4-14, Trail Mountain Mine, Waste Rock Storage Facility / Interim Surface Refuse Drainage Plan;
16) CM-10818-WB, Plate 7-1, Trail Mountain Mine, Waste Rock Storage Facility / Soils Map;
17) CM-10831-WB, Plate 7-2, Trail Mountain Mine, Waste Rock Storage Facility / Topsoil Stripping Map with Mass Balance Tables;
18) CM-10817-WB, Plate 8-1, Trail Mountain Mine, Waste Rock Storage Facility / Vegetation Map;
19) CM-10819-WB, Plate 9-1, Trail Mountain Mine, Waste Rock Storage Facility / Wildlife Habitat Map.
The Trail Mountain Mine / Water Monitoring Location Map has a professional geologists stamp owned by Mr. Ken Fleck. The PG certification must be signed and dated by Mr. Fleck prior to the Division granting a final approval of the Task ID # 4790 application.
The Plates listed above as Plates (1) to (19) must have the Utah professional engineers stamp completed by signing and dating the placed P.E. stamps before the Division can give final approval of the Task ID # 4790 application, which will transfer the Volume 10 information from the Cottonwood / Wilberg Mine MRP to Volume 4 of the Trail Mountain Mine MRP.
These plates are required to be certified under R645-301-512.100, -512.120, -512.130, -512.140, -512.150, -512.200, -512.230, -512.240, -512.250.
The drawing titles "Trail Mountain Mine / Waste Rock Storage Facility / 2001 Soil Sample Locations" and Figure 1, Trail Mountain Mine, Waste Rock Storage Facility, Soil Distribution for Final Reclamation are not P.E. certified and do not need to be certified. They are recommended for approval as submitted.

Deficiencies Details:

Findings:
The conditional approval of the twenty-four Plates listed on pages 5 and 6 of this document is recommended.
These plates are required to be certified under R645-301-512.100, -512.120, -512.130, -512.140, -512.150, -512.200, -512.230, -512.240, -512.250. When the Permittee submits the properly certified Plates to the Division, FINAL APPROVAL of Task ID # 4790 can be made by the Division.
The drawing titles "Trail Mountain Mine / Waste Rock Storage Facility / 2001 Soil Sample Locations" and Figure 1, Trail Mountain Mine, Waste Rock Storage Facility, Soil Distribution for Final Reclamation are not P.E. certified and do not need to

be certified. They are recommended for approval as submitted.

phess

Reclamation Plan

General Requirements

Analysis:

There are no proposed changes to the operation plan as described in Volume 10 of the Cottonwood Mine MRP which will become Volume 4 of the Trail Mountain Mine MRP.

lreinhart

General Requirements

Analysis:

R645-301-550, Reclamation Design Criteria and Plans
Analysis:
Plans and designs for the reclamation of the Trail Mountain Mine waste rock storage facility and its access road are submitted for 1) the permanent features on each, and 2) the backfilling and grading of these features. These are discussed on pages 20 and 21 of the Chapter 5 submittal. No changes to the approved information of Volume 10 (CWW permit C/015/019) have been made to the information which is to be called Volume 4 of the Trail Mountain Mine permit (C/015/009).
Findings:
The text submitted as Volume 4 contains no changes to the information which was approved by the Division as Volume 10 of the Cottonwood / Wilberg waste rock disposal site plan, C/015/019. The information should be approved and accepted as being the Volume 4 information for the Trail Mountain Mine permit C/015/009 and mining and reclamation plan.

phess

Topsoil and Subsoil

Analysis:

Analysis:
Map 4-3 shows the pre-disturbance contours. Map 4-4 is shows the topsoil pile construction and provides the volume of topsoil and subsoil stockpiled on site as 31,629 CY and 40,317 CY, respectively.

Exhibit XXI is a figure showing the typical berm and terrace construction and overall slope of 2.5h:1v for the waste pile. Section 242 and Section 541 p. 17 & 18 & 20 describe contemporaneous reclamation of the berms and final reclamation of the top surface of the pile with 24 inches of subsoil and 12 inches of topsoil.
As built calculations of topsoil and subsoil on Plate 4-5 show that there is approximately 31,629 CY of topsoil and 40,317 CY of subsoil stored on site.

Drill cores and outcrop samples of the roof and floor showed little potential for acid generation and a few samples with high SAR (Section 536). Prior to final reclamation, graded waste and berms will be sampled and analyzed according to the Overburden and Topsoil Guidelines. Two samples will be taken for every 200 linear feet of berm (Sec 536) and two sample for every acre on the pile surface (Sections 541). Acid/Toxic waste will be covered with four feet of material. Non-toxic waste will be covered with twenty four inches of subsoil and twelve inches of topsoil (Sec 541).

Section 553 describes replacement of topsoil and subsoil from the road embankments on to the 5 acre road surface.

Soil sampling and analysis is described in Section 240 and Section 243.

Findings:
The information provided meets the requirements of the operational plans for topsoil and subsoil handling.

pburton

Contemporaneous Reclamation General

Analysis:

Analysis:
Section 541 describes contemporaneous reclamation practices for the waste rock site. Rollins, Brown and Gunnell's 1989 stability report produced Figure XXI which illustrates the construction of bermed terraces to be reclaimed. Surface roughening will be used to control erosion (Section 552). Pocks will measure 1.5 ft deep by 3 ft. in diameter. Future interim and final revegetation will include fertilizer application based on soil analysis as described in Section 341.200, item 3.

Section 243 describes soil analysis upon which fertilizer applications will be based.

Findings:
The information provided meets the requirements for soil redistribution (R645-301-242) and soil stabilization (R645-301-244) during contemporaneous reclamation (R645-301-252).

pburton

Stabilization of Surface Areas

Analysis:

Analysis:
Section 341.200 describes interim reclamation of topsoil, road outslopes and the pond embankments, and describes the interim vegetation mix (Table 300-5).

Final reclamation treatments are described in Section 341.200 and include soil roughening (hand or mechanical breaking a soil crust, if any), seeding, fertilizer application based upon soil analysis, hand or mechanical raking, and application of 2T/ac mulch or an erosion control mulch blanket. The final seed mix is described in Table 300-6.

Terraces and berms (Section 553.140), and surface roughening (Section 552) will provide sediment control as vegetation becomes established. An annual inspection for rills and gullies and their repair is described in Section 301-350.

The site will continue to be monitored annually as described in Section 301-333.100.

Findings:
The information provided meets the requirements of \$645-301-244 for soil stabilization during reclamation.

pburton

Bonding Form of Bond

Analysis:

Analysis:
The bond held by the Division to ensure the reclamation of the Trail Mountain Mine's disturbed areas is a surety bond issued by the Travelers Casualty and Surety Company of America (# 103908997). The Travelers has an A.M. Best rating of A++, and the requirements of R645-301-860.110 have been met.
Findings:
The requirements of this section of the R645-301-500 and 800 are being met.

phess

Bonding Determination of Amount

Analysis:

Analysis:
The reclamation cost estimate / required bond amount for Trail Mountain Mine was last reviewed during the 2012 Midterm Permit Review (Task ID # 4006) completed on August 20, 2012.
The reclamation cost estimate was calculated at \$ 774,404.06 in 2012 dollars.
The reclamation cost estimate for the Cottonwood / Wilberg waste rock site was last estimate during the 2011 Midterm Permit Review (Task ID # 4003, final approval as Task ID # 4078) amounted to \$ 299,718.79.
\$ 299,718.79 was escalated to 2012 dollars by escalating the amount by 1.012 for 1 year = \$ 3596. Total Cost to reclaim the Waste Rock Site in 2012 = \$ 303,315.42.

Total Reclamation Cost Estimate for the Trail Mountain Mine surface facilities area plus the addition of the waste rock disposal site (from the C/015/019 permit) = $ 774,404.06 + $ 303,315.42 = $ 1, 077,719.00 in 2012 dollars.
This amount is escalated to 2015 (Current Review Year) by multiplying $ 1,077,719.00 by 1.012 (ESF for 2015) by 3 years (2012 to 2015) or 1.045678 = $ 1,126,947.00.
$ 1,126,947.00 must be escalated to 2017 (date of the next Midterm Permit Review) by multiplying $ 1,126,947.00 by 1.012 (2015 ESF) for 2 years (1.02414) = $ 27,205.00 of escalation dollars.
Total Reclamation Cost for the Trail Mountain Mine surface facilities AND the Trail Mountain Mine waste rock disposal facility = $ 1,154,152.00 in 2017 dollars.
The Total bond amount which must be posted to complete the Task ID # 4790 process is $ 1,154,000. As $ 822,000.00 is currently posted, an additional amount of $ 332,000 is required.
Energy West posted an additional bond amount of $ 332,000 on April 15, 2015. The TOTAL POSTED BOND for the Trail Mountain Mine and its associated disturbed areas is now $ 1,154,000.
The total posted bond amount meets the minimum regulatory requirements for R645-301-820.111, Coverage of Entire Permit Area and R645-301-820.112, Addition of Bond Increment for Addition of Disturbed Area Acreage.

Deficiencies Details:

phess

CUMULATIVE HYDROLOGIC IMPACT ASSESSMENT

ENERGY WEST MINING COMPANY a subsidiary of PACIFICORP
Trail Mountain Mine
C/015/009

(Federal Lease Tract)
Emery County, Utah
May 18, 2015

I. INTRODUCTION

The purpose of this report is to provide a Cumulative Hydrologic Impact Assessment (CHIA) for the Trail Mountain Mine located in Emery County, Utah. The assessment encompasses the probable cumulative impacts of all anticipated coal mining in the general area on the hydrologic balance, and whether the operations proposed under the application have been designed to prevent damage to the hydrologic balance outside the proposed mine plan area. This report complies with legislation passed under Utah Code Annotated (UCA 40-10-1 et seq.) and the attendant State Program rules.

Energy West Mining Company's Trail Mountain Mine is located along the eastern margin of the Wasatch Plateau Coal Field, approximately 12 miles west of Orangeville, Utah (Figure 1). The eastern margin of the Wasatch Plateau forms a rugged escarpment that overlooks Castle Valley and the San Rafael Swell to the east. Elevations along the eastern escarpment of the Wasatch Plateau range from approximately 6,500 to over 9,000 feet.

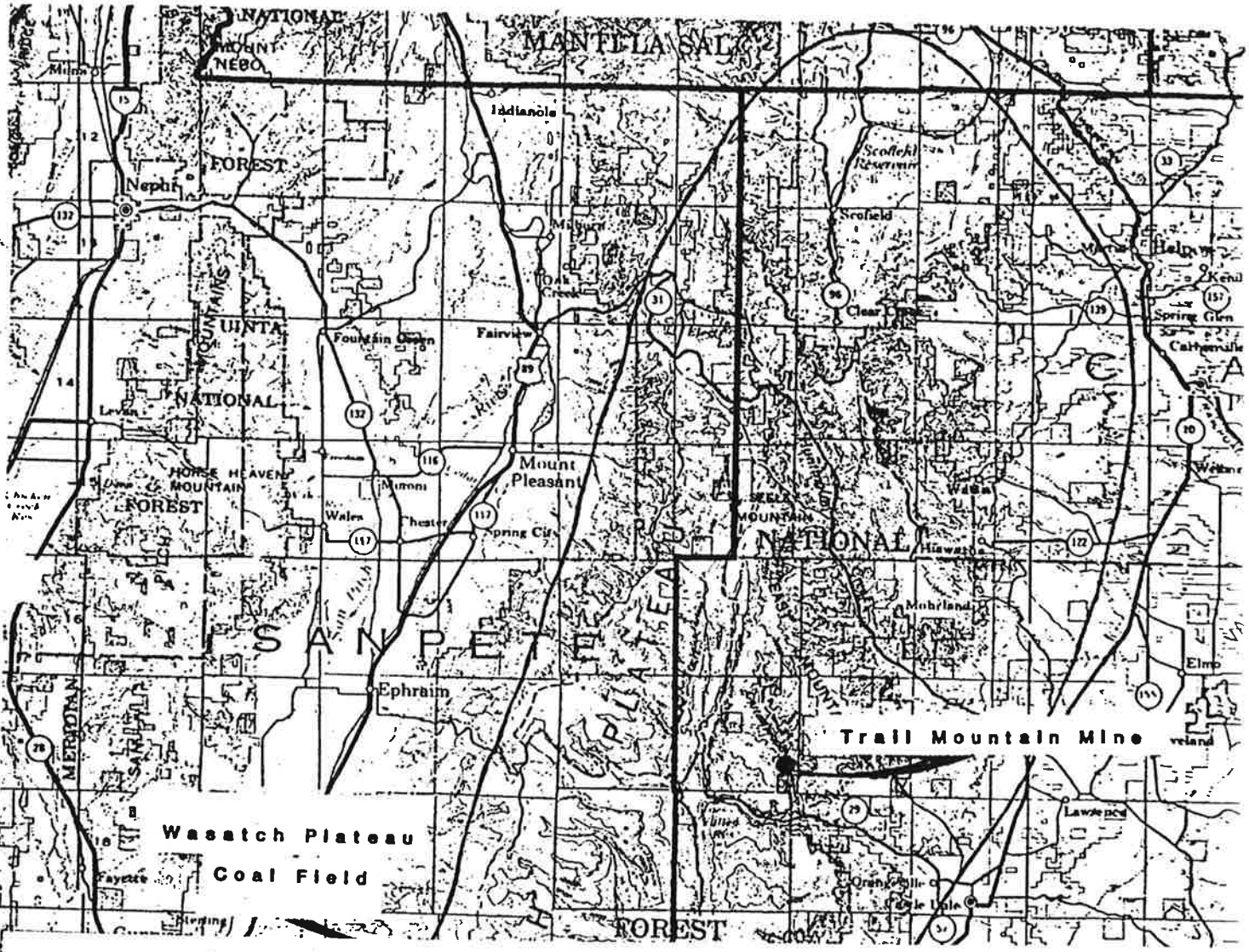
Precipitation varies from 40 inches at the higher elevations to less than 10 inches at lower elevations. The area encompassed by the Wasatch Plateau may be classified as semi-arid to sub-humid.

GEOLOGY

Outcropping rocks of the Wasatch Plateau Coal Field range from Upper Cretaceous to Quaternary in age. The rock record reflects an overall regressive sequence from marine (Mancos Shale) through littoral and lagoonal (Blackhawk Formation) to fluvial (Castlegate Sandstone, Price River Formation, North Horn Formation, and lacustrine Flagstaff Formation) depositional environments. Oscillating depositional environments within the overall regressive trend are represented by lithologies within the Blackhawk Formation and the North Horn Formation. The major coal-bearing unit within the Wasatch Plateau Coal Field is the Blackhawk Formation.

VEGETATION

Vegetation varies from the sagebrush/grass community type at lower elevations to the Douglas fir/aspen community at higher elevations. Other vegetative communities include mountain brush, pinyon-juniper, pinyon-juniper/sagebrush and riparian. These communities are primarily used for wildlife habitat and livestock grazing.


MANTI-LA SAL
NATIONAL
MOUNT NEBO
FOREST
Nephi
Fairview
Mount Pleasant
Ephraim
SANPETE VALLEY
Trail Mountain Mine
Wasatch Plateau
Coal Field
FOREST

HYDROLOGY

Cottonwood Canyon Creek which flows past the Trail Mountain Mine is a perennial tributary to the San Rafael River. The Cottonwood Canyon Creek drainage basin encompasses about 205 square miles of mountainous country in the Wasatch Plateau. About 90 percent of the area is higher than 8,000 feet. The average channel gradient along Cottonwood Canyon Creek is about 300 feet per mile. The lower reaches of the tributaries to Cottonwood Canyon Creek typically have surface relief between the stream channel and tops of adjacent canyon walls of 2,000 feet or more.

II. CUMULATIVE IMPACT AREA (CIA)

Figure 2 delineates the CIA for current and projected Trail Mountain Mine operations. The CIA is bounded on the east by Cottonwood Canyon Creek, on the south by Cottonwood Creek in Straight Canyon, on the west by Joe's Valley fault, and along the northern boundary of T17S R6E. The CIA encompasses approximately 14,507 acres. At the southeastern corner of Trail Mountain the boundary follows Cottonwood Creek down to the confluence with Grimes Wash where the boundary extends north to encompass the disturbance of the Cottonwood Waste rock site.

III. SCOPE OF MINING

Mining on Trail Mountain was initiated around 1898 at the Oliphant Mine and Black Diamond Mine. These mines have been shut down since the late 1940's. Portals were sealed by the Utah Abandoned Mine Reclamation Program in 1983. Both mines are located in Straight Canyon; no further mining is anticipated in this area due to U.S. Forest Service designation of Straight Canyon as a protected area.

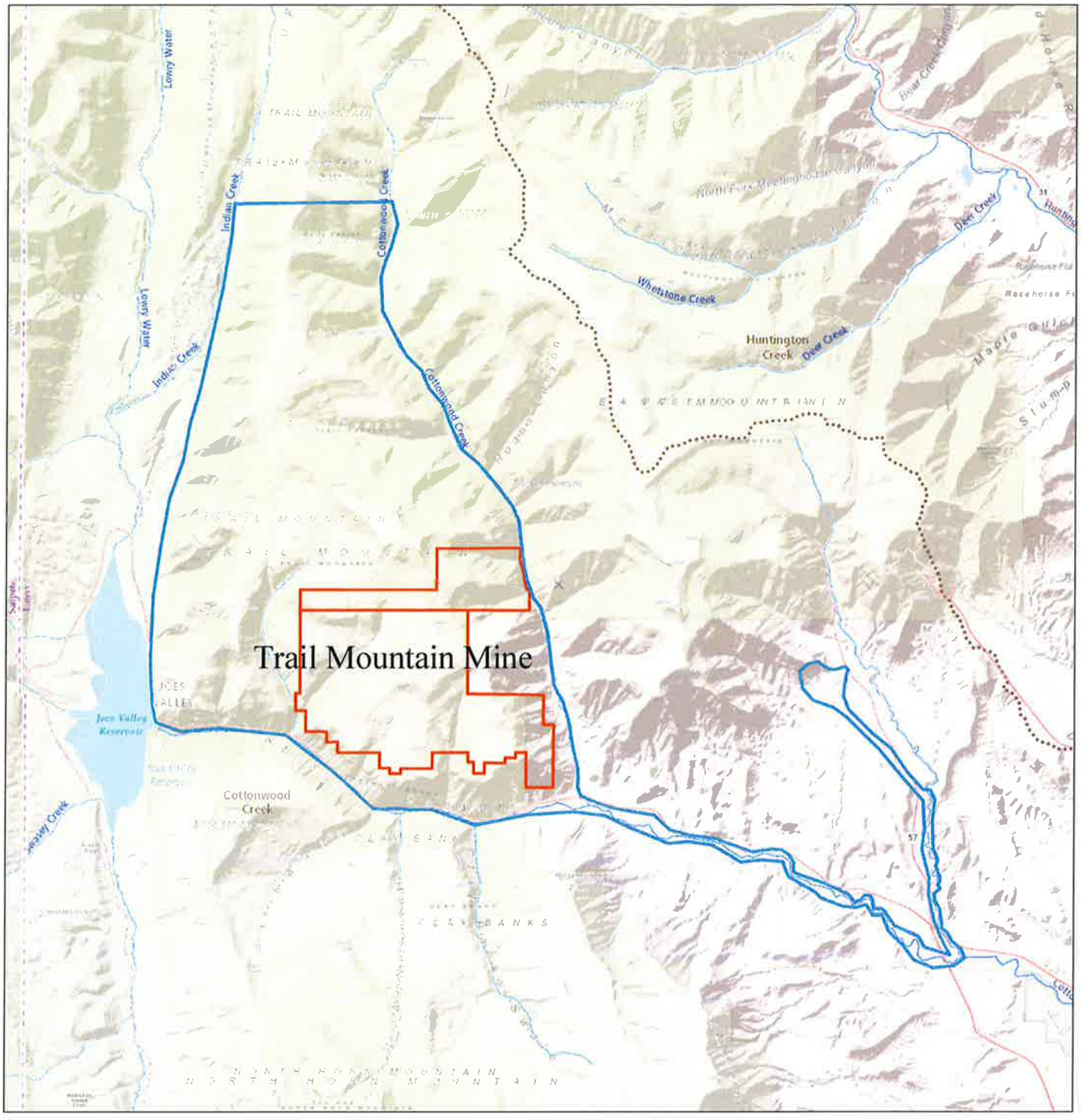
Mining at or near the Trail Mountain Mine began in 1898 (Doelling, 1972). Large scale operations started in 1909. Mining continued up to 1967 when the mine was shut down for 10 years (Cottonwood CHIA). The mine was reopened and is currently owned by Energy West Mining Company.

The Trail Mountain Mine permit area encompasses 4045.78 acres of which the Federal Lease addition is 2630.81 acres. The surface disturbance associated with this mine is approximately 8 acres.

Mining took place in the Hiawatha coal seam. It is the only coal seam within the permit area of economic interest. The Coal Seam ranges from 7' to 13' thick. Production was from room and pillar using continuous mining equipment and longwall mining methods.

Subsidence control monuments are established to detect the effects of mining induced subsidence. A map identifying subsidence monitoring locations is seen in Figure 12-6 of the Mining and Reclamation Plan (MRP).

Figure 2. Culmulative Impact Area (CIA)



IV. STUDY AREA

Lithostratigraphic units outcropping within the study area include, from oldest to youngest, the Mancos Shale, Star Point Sandstone, Blackhawk Formation, Castlegate Sandstone, Price River Formation, North Horn Formation, Flagstaff Limestone and Quaternary deposits. Lithologic descriptions and unit thicknesses are given in Figure 3.

Rocks in the study area strike northwest and dip from two to four degrees to the southwest. The Joe's Valley Fault occurs along the western boundary of the CIA, where an estimated 2,300 feet of vertical displacement has juxtaposed North Horn Formation (west) against Blackhawk Formation (east). The Straight Canyon Syncline axis trends and plunges southwest across the central portion of the CIA, immediately north and west of the Tract 1 and Tract 2 permit areas (Figure 4).

TOPOGRAPHY AND PRECIPITATION

Topography ranges from less than 6,800 feet to over 9,000 feet in the southern and northern portions of the CIA, respectively.

The CIA is characterized by a southerly drainage system of perennial, intermittent and ephemeral streams (Figure 5). The North Fork of Cottonwood Creek is perennial and has headwaters above 9,000 feet. Cottonwood Creek in Straight Canyon maintains perennial flow from Joes Valley Reservoir.

Average annual precipitation ranges from 14 inches to 30 inches in the CIA. The Wasatch Plateau may be classified as semi-arid to sub-humid.

Slopes in the permit and adjacent areas are dominated by the pinyon-juniper vegetative community with the conifer types present on north and west facing slopes at higher elevations. Grassland types are interspersed on knolls and benches of upper slopes and ridgetops. Canyon bottoms are covered by sagebrush vegetation types with riparian vegetation occurring as a narrow band along the streams.

V. HYDROLOGIC RESOURCES

GROUND WATER

The groundwater regime within the CIA is dependent upon climactic and geologic parameters that establish systems of recharge, movement and discharge.

Snowmelt at higher elevations provides most of the ground water recharge, particularly where permeable lithologies or faults/fractures are exposed at the surface. Vertical migration of ground water occurs through permeable rock units and/or along zones of faulting and fracturing. Lateral migration initiates when ground water encounters impermeable rocks and continues until either the land surface is intersected (and spring discharge occurs) or other permeable lithologies or zones are encountered that allow further vertical flow.

System	Series	Geologic unit	Thickness (feet)	Lithology and water-bearing characteristics
Quaternery	Holocene and Pleistocene	Unconsolidated deposits undifferentiated	0-100	Unconsolidated deposits; clay, silt, sand, gravel, and boulders; yields water to springs that may cease to flow in late summer.
Tertiary	Eocene and Paleocene	Flagstaff Limestone	10-300	Light-gray, dense, cherty, lacustrine limestone with some interbedded thin gray and green-gray shale; light-red or pink calcareous siltstone at base in some places; yields water to many springs. (See table 9.)
	Paleocene	North Horn Formation	800±	Variegated shale and mudstone with interbeds of tan-to-gray sandstone; all of fluvial and lacustrine origin; yields water to springs. (See table 9.)
Cretaceous	Upper Cretaceous	Price River Formation	600-700	Gray-to-brown, fine-to-coarse, and conglomeratic fluvial sandstone with thin beds of gray shale; yields water to springs locally.
		Castlegate Sandstone	150-250	Tan-to-brown fluvial sandstone and conglomerate; forms cliffs in most exposures; yields water to springs locally.
		Blackhawk Formation	600-700	Tan-to-gray discontinuous sandstone and gray carbonaceous shales with coal beds; all of marginal marine and paludal origin; locally scour-and-fill deposits of fluvial sandstone within less permeable sediments; yields water to springs and coal mines, mainly where fractured or jointed.
		Star Point Sandstone	350-450	Light-gray, white, massive, and thin-bedded sandstone, grading downward from a massive cliff-forming unit at the top to thin interbedded sandstone and shale at the base; all of marginal marine and marine origin; yields water to springs and mines where fractured and jointed.
		Masuk Member of the Mancos Shale	600-800	Dark-gray marine shale with thin, discontinuous layers of gray limestone and sandstone; yields water to springs locally.

Figure 3. Stratigraphy of the Trail Mountain Area (From Danielson and Sylla, 1983).

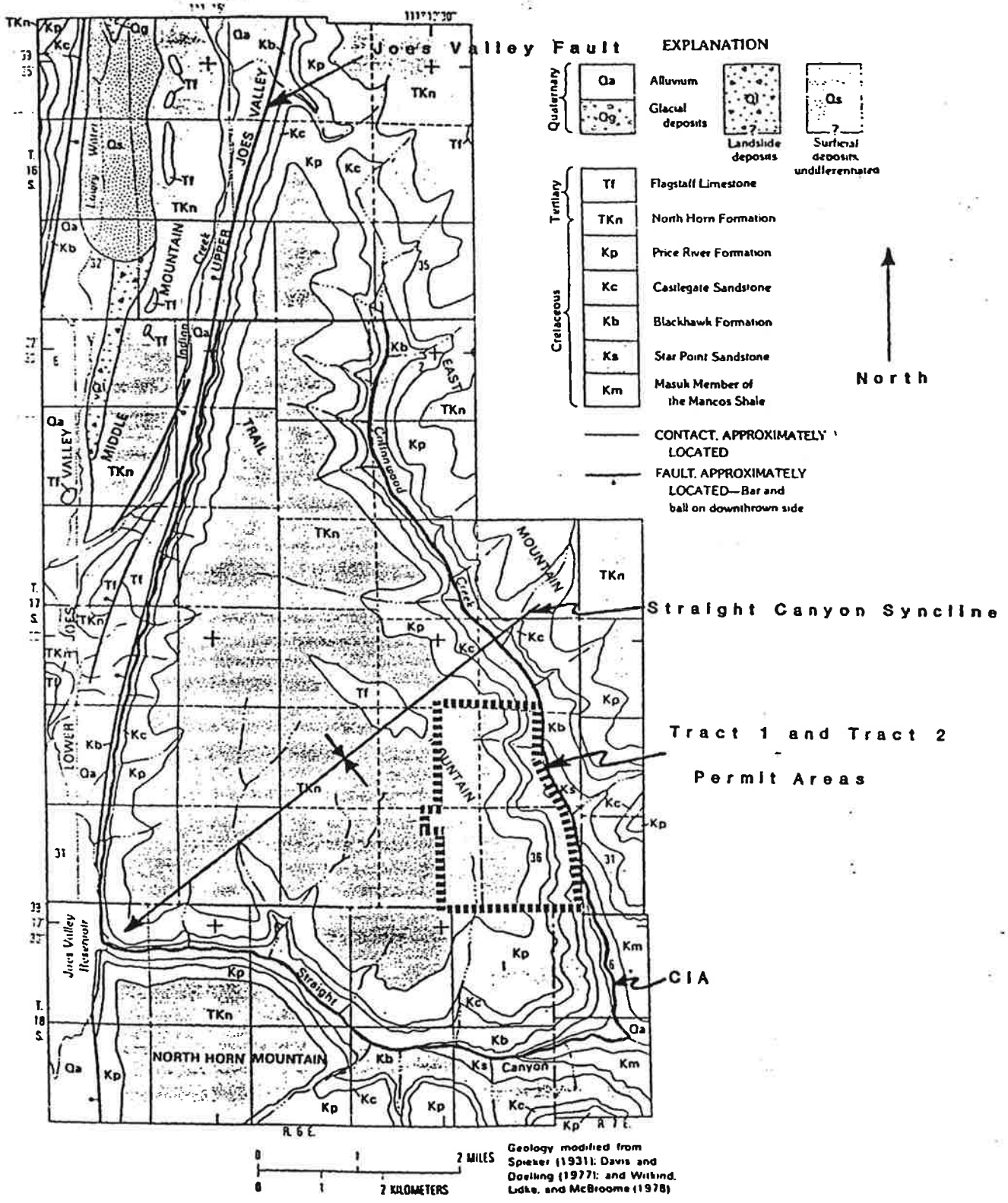


Figure 4. Surficial Geology (Modified from Lines, 1985).

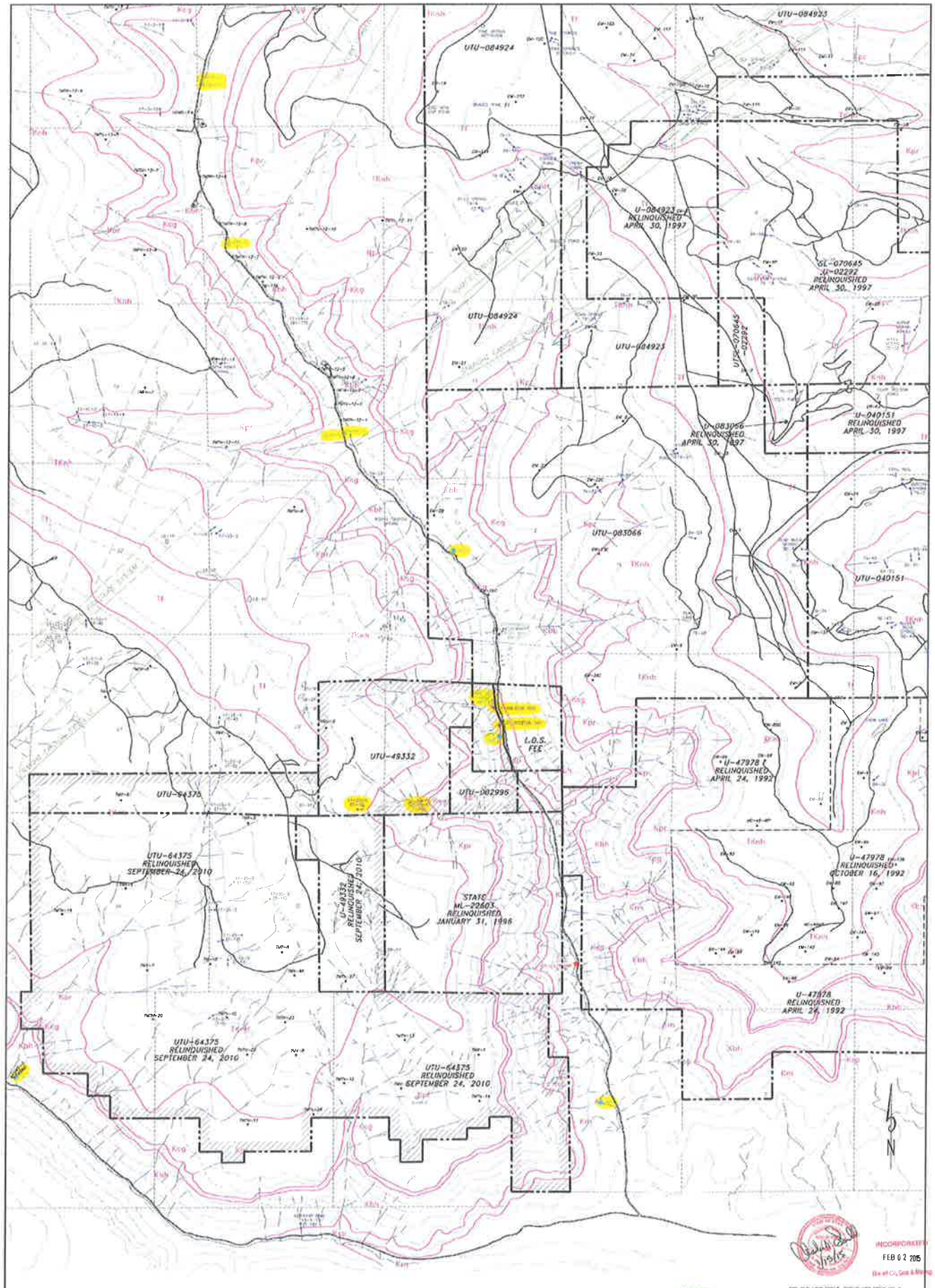


Figure 5: Springs, Streams, Wells, UPDES

LEGEND

- TRAIL MOUNTAIN PERMIT BOUNDARY
- LEASE BOUNDARY
- FAULT (DASHED WHERE INFERRED)
- WATER MONITORING STATION WITH FLUME
- WATER MONITORING STATION
- UPDES DISCHARGE LOCATION
- DRILLING WATER MONITORING LOCATION
- DRILL HOLE
- LAKE
- TROUGH
- POND
- SPRING
- MONITORING WELL
- GAS WELL
- North Horn Formation
- Flagstaff Formation
- Price River Formation
- Wasatch Shale
- Star Point Sandstone
- Blackhawk Formation
- Castlegate Sandstone

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ENERGY WEST MINING COMPANY
A SUBSIDIARY OF PACIFICORP

TRAIL MOUNTAIN MINE
WATER MONITORING
LOCATION MAP

DRAWN BY:	K. LARSEN	
SCALE:	1"=1200'	DRAWING #:
DATE:	NOVEMBER 17, 2014	SHEET 1 OF 1

Ground water is present in all lithostratigraphic units that occur within and adjacent conditions (Figure 6) that often form a system of perched aquifers and associated springs and/or seeps. The U.S. Geological Survey (USGS) has identified and formally designated the Blackhawk-Star Point aquifer as the only regional ground water resource in the study area (Danielson, et al 1981 and Lines, 1984).

A total of 16 boreholes have been drilled within the CIA (Figure 3). Two boreholes (TM-1 and TM-2) were completed for the purpose of evaluating ground water resources. The fourteen (14) remaining boreholes were drilled to the west of the permit area by the U.S. Geological Survey for the purposes of assessing coal (Davis and Doelling, 1977) and ground water (Lines, 1985) resources.

TM-1 (Figure 7) penetrated the Star Point-Blackhawk aquifer as well as the Mancos Shale below the Star Point-Blackhawk aquifer. Figure 7 incorporates waterlevel data from TM-1, TM-2 and Lines (1985) to derive a potentiometric surface contour map for the Blackhawk-Star Point aquifer. The slope, from 7,700 to 7,100 feet, indicates a north to south direction of regional ground water flow. The hydraulically flat gradient in the permit area (Figure 7) suggests that the aquifer discharges to Cottonwood Canyon Creek.

Lines (1985) conducted a testing on the regional aquifer and the results were simulated in a finite difference three-dimensional computer model. Several responses of the ground water resource to mine dewatering activities were generated. Lines concluded that mine inflows could be several hundred gallons per minute (gpm). In the Trail Mountain Mine Probable Hydrologic Consequence (PHC), using acceptable methodologies, the applicant stated that mine inflows would range between 70 and 165 gpm. The resulting cone of depression would extend 2 miles to the north and south of the mine, and 5 miles to the east and west of the mine. The majority of mine inflow would be from aquifer storage (Lines, 1985). Several "perched" aquifer systems, or zones, are present in the CIA, most prevalently in the North Horn Formation. Approximately 80 percent of the identified springs in the CIA issue from the North Horn Formation. Water moves vertically through the permeable sandstone lenses of the North Horn Formation until intersecting less permeable shale lenses, whereupon water will begin to move in the horizontal direction and may discharge to the surface as a spring.

"Perched" aquifer zones and the Blackhawk-Star Point aquifer are separated by 1,000 to 1,700 feet of interburden. Lines (1985) noted that although there was a significant amount of interburden between aquifers, hydraulic connection occurs between aquifers. Most of the exchange of water probably occurs along fractures in perching beds where there is unsaturated flow downward (Lines, 1985). This leakage is a significant source of recharge to the Blackhawk-Star Point aquifer.

Hydraulic and lithologic data presented by Lines (1985) demonstrated large variations in porosity and hydraulic conductivity for the Blackhawk-Star Point aquifer. The Blackhawk Formation consists of interfingering lenses of fine grained sandstone, siltstone, and shale, while the Star Point Sandstone is medium-grained sandstone. Hence, the variation in the hydraulic properties of the aquifer.

Lithologic Key

Qd-Quaternary deposits
KTn-North Horn Formation
Kp-Price River Formation
Kc-Castlegate Sandstone
Kb-Blackhawk Formation
Ks-Star Point Sandstone
Km-Mancos Shale

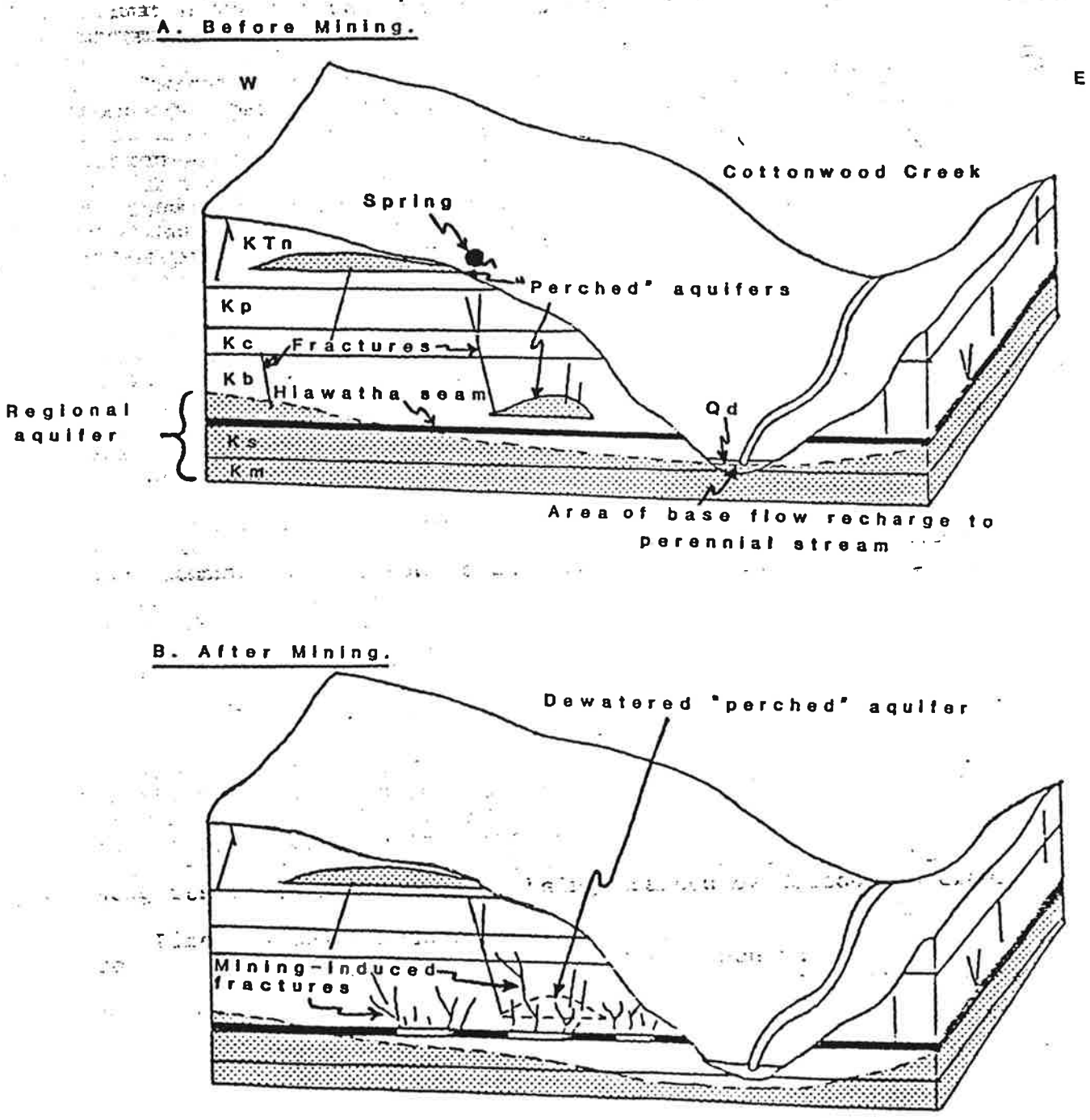


Figure 6. Conceptual Representation of Mining-Induced Impacts to the Ground-Water Regime(Modified from Lines,1985).

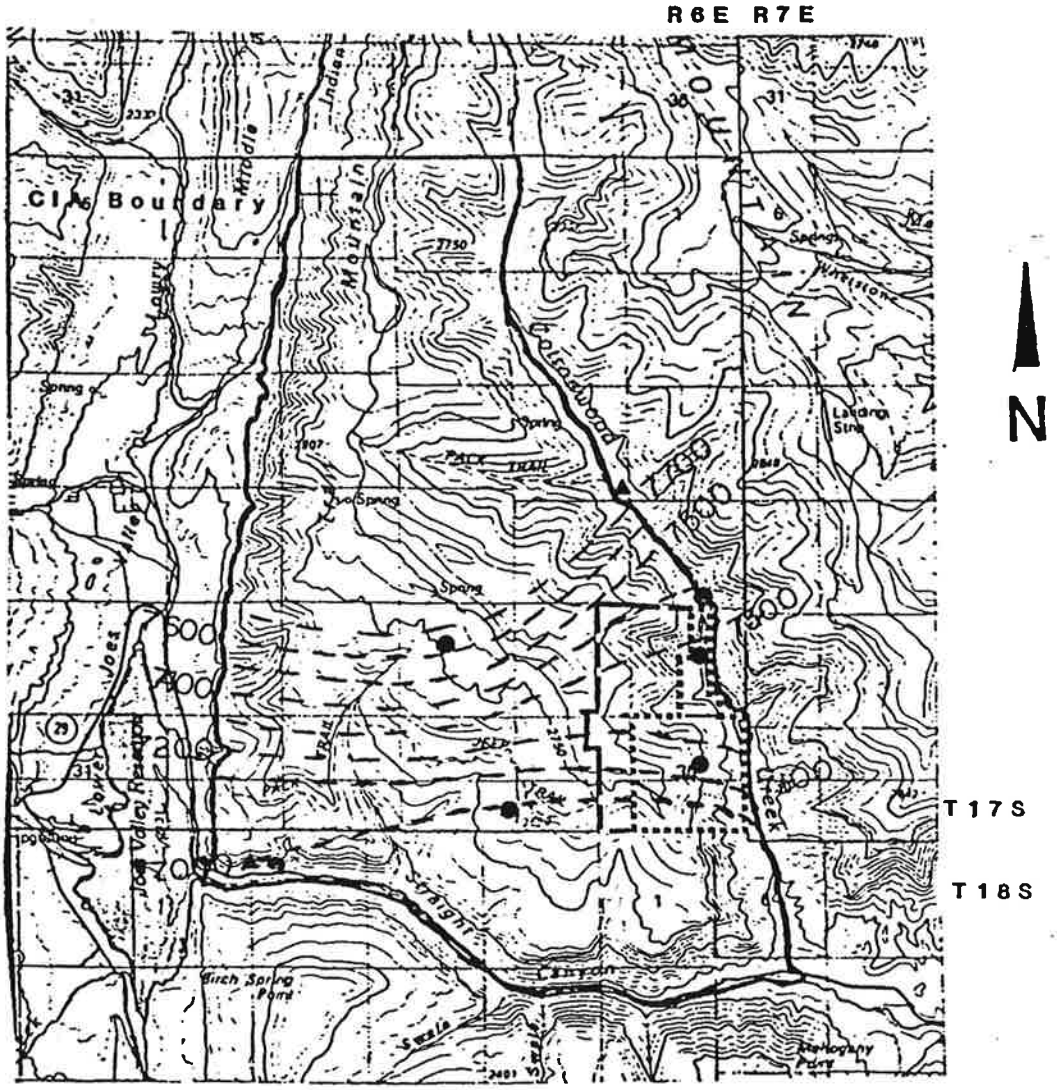


Figure 7. Potentiometric Surface Contour Map for the Blackhawk-Star Point Aquifer (Modified from Lines, 1985).

100 ft. contour interval

Lines (1985) reported that snowmelt and rain are the main sources of recharge to the ground water system underlying Trail Mountain. Danielson (1981) reported that snowmelt was the major source of recharge to the Blackhawk-Star Point aquifer.

The Blackhawk-Star Point aquifer discharges along Cottonwood Canyon Creek. Spring flows account for 18 percent of the normal annual precipitation on the outcrop. Approximately half of the Cottonwood Creek base flow is derived from aquifer discharge from Trail Mountain, and the other half from East Mountain.

The head of Straight Canyon is a major discharge point for the Blackhawk-Star Point aquifer (Lines, 1985). Prior to the construction of Joes Valley Reservoir, several large springs emanated from the Blackhawk-Star Point aquifer in the dam site area. Streamflow measurements taken during periods of base flow along Straight Canyon detected no ground water discharge except that coming from the head of the canyon and at an abandoned mine in the canyon.

Danielson et al (1981) and Lines (1985) identify 26 springs on Trail Mountain. Of these, 82 percent (21) occur in the North Horn Formation and the remainder occur in the Blackhawk Formation and Star Point Sandstone. Water quality data indicate that springs associated with the North Horn Formation have slightly elevated calcium, magnesium, and sodium levels, whereas springs that issue from the regional aquifer have increased sulfate and TDS.

At present, the Trail Mountain Mine is in temporary cessation. Inflow to the mine pool water is most likely produced from localized perched aquifers in the Blackhawk formation.

The operator currently monitors two (2) springs, eight (8) wells, and three (3) surface water sites as part of the approved water monitoring plan. Of the two springs, one issues from the Price River, and one from the Castlegate Sandstone. Three wells are completed in the Star Point Sandstone, three are screened in the alluvial sediments in Cottonwood Canyon Creek, and one is screened in fluvial sandstone in the Blackhawk formation.

SURFACE WATER

Cottonwood Canyon Creek flows along the east side of Trial Mountain and Cottonwood Creek in Straight Canyon flows along the south side of Trail Mountain. These two creeks combine at the joining of the canyons or at southeast point of Trail Mountain to form Cottonwood Creek, one of the major tributaries of the San Rafael River. Cottonwood Creek has had an annual flow near Orangeville of 70,700 acre-feet during the period of record that extends intermittently from 1909 through the present (U.S. Geological Survey, 1984). Approximately 50 to 70 percent of streamflow in the mountain streams of the region occurs during May through July (Waddell et al., 1981). Streamflow during this late spring/early summer period is the result of snowmelt runoff.

The quality of water in Cottonwood Creek and other similar streams in the area varies significantly with distance downstream. Waddell et al (1981) found that concentrations of dissolved solids varied from 125 to 375 milligrams per liter in major streams in the region in reaches above major diversions to 1,600 to 4,025 milligrams per liter in reaches below major irrigation diversions and population centers. The major ions at the upper sites were found to be calcium, magnesium, and bicarbonate, whereas sodium and sulfate became more dominant at the lower sites. They attributed these changes to: (1) diversion of water containing low dissolved solids concentrations; (2) subsequent irrigation and return drainage from moderate to highly saline soils; (3) ground water seepage; and (4) inflow of sewage and pollutants from population centers.

Average annual sediment yields within the Cottonwood Creek drainage basin range from approximately 0.1 acre-feet per square mile in the headwaters area to about 3.0 acre-feet per square mile near the confluence with the San Rafael River (Waddell et al., 1981).

The Trail Mountain Mine area is drained entirely by ephemeral and intermittent watersheds. These watersheds are steep (with average slopes often exceeding 50 percent). Channels in the mine plan area are not generally deeply incised.

Surface water quality data collected from Cottonwood Canyon Creek by Energy West Mining Company indicate that the dominant ions in Cottonwood Canyon Creek near the mine are calcium, magnesium, and bicarbonate. Total dissolved solids (TDS) concentrations in the stream have a median value of 378 mg/L with a range of 220 to 1835 mg/L in the mine area, with the lower concentrations normally occurring during September through January.

Total suspended solids concentrations in Cottonwood Creek tend to vary inversely with the flow rate, as expected. Concentrations have varied during the period of record from less than 1 milligram per liter to greater than 1,000 milligrams per liter.

Additional discussions concerning the surface water regime of the Cottonwood Creek drainage basin are contained in the Cottonwood CIA.

VI. POTENTIAL HYDROLOGIC IMPACTS

GROUND WATER

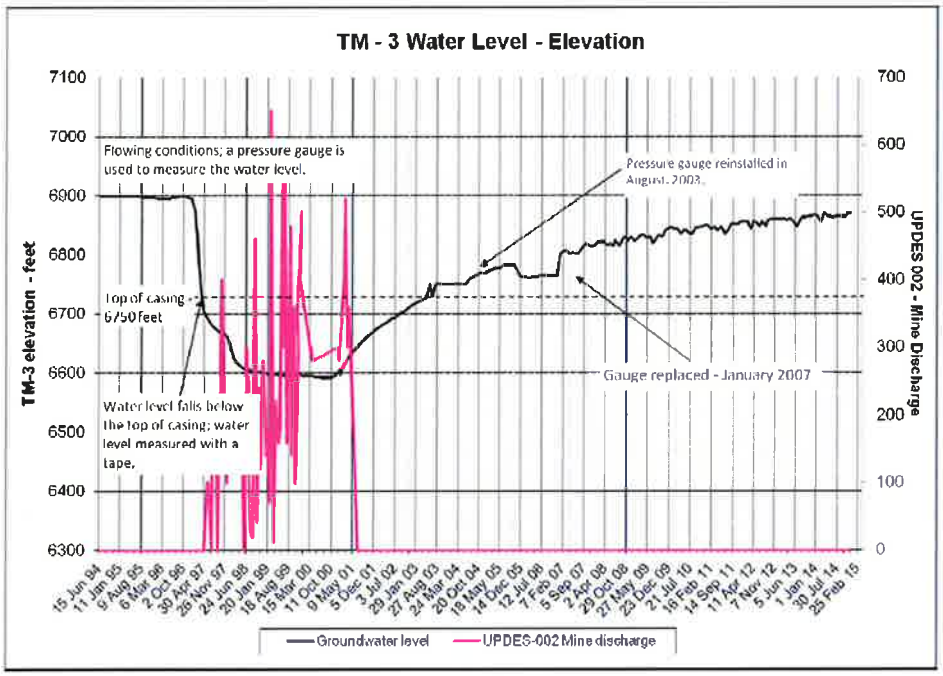
Dewatering and subsidence related to mining have the greatest potential for impact ground water resources in the CIA.

Dewatering. Mine inflow during active operations was estimated to be 72.62 gpm. Most of the inflow was utilized underground for dust suppression.

Mine inflows increased as mining progressed downdip to the west. The regional aquifer fully saturated the coal seam (Figure 6) in the permit area. Active mining induced a cone of depression that extended out from the mined area. The drawdown of the potentiometric surface is seen in well TM-3.

Termination of mining operations has allowed a mine pool to develop in the abandoned workings. Total recovery of the intercepted recharge to Cottonwood Canyon Creek will begin when the head elevation in the abandoned workings exceeds the water level in the stream adjacent to the Tract 1 permit area. Lines (1985) indicated that most (80 percent) of the mine inflow water would come from storage in the aquifer, whereas 20 percent would be water intercepted from aquifer discharge. Mine inflows have gradually decreased and aquifer discharge will increase as the head in the mine equilibrates. Mine inflows over the equilibrium time may average 0.5 cfs; of this amount Lines (1985) estimated that aquifer discharge would be reduced by 0.1 cfs. This would result in an impact of 72 acre-feet of depleted contribution to Cottonwood Canyon Creek.

The well TM-3, screened in the Starpoint sandstone, measured the aquifers response to mining through time. Prior to mining the piezometric head was ~6,900 ft, during mining the head dropped to a low of ~6,600 ft while excess in-mine groundwater was pumped out of the mine, and post-mining has shown the aquifer is recharging to nearly pre-mining levels. Given this well is artesian the aquifer may have begun to discharge at a lower elevation, which would explain the asymptotically leveling off of the piezometric head.



Subsidence. Subsidence impacts are related to extension and expansion of the existing fracture system and upward propagation of new fractures. Inasmuch as vertical and lateral migration of water appears to be partially controlled by fracture conduits, readjust or realignment in the conduit system will inevitably produce changes in increased flow along fractures that have "opened" and diverting flow along new fractures or permeable lithologies. Subsurface flow diversions may cause the depletion of water in certain localized or "perched" aquifers, whereas

increased flow rates along fractures would reduce ground water resistance time and potentially improve water quality.

Subsidence associated with Trail Mountain Mine development is projected to encompass limited vertical movement and be largely confined to the approved permit areas. Accordingly, the ground water regime within the CIA is considered to be at low risk to mining-induced subsidence impacts.

Faulting. Current mapping of the Roans Canyon graben shows it running northeast to southwest from East Mountain through Cottonwood Canyon and bisecting Trail Mountain. It is truncated on the northeast by the Pleasant Valley fault and probably on the southwest by Joes Valley fault, where it runs into Joes Valley Reservoir. It will be important to monitor the Roans Canyon fault if/when the Cottonwood coal tract in the Trail Mountain is mined because the fault is a conduit for significant quantities of water. If underground mining intercepts this fault and lowers the piezometric head within the Roans Canyon fault below the surface elevation of Joes Valley Reservoir, there is the potential for the Roans Canyon fault to transmit significant quantities of water from the reservoir into the underground workings.

SURFACE WATER

Cottonwood Canyon Creek. No new surface facilities (i.e., extended surface disturbance) are planned for the Trail Mountain Mine. Improvements to the surface facilities (paved access road, curb and gutter to sediment pond) have negated impacts to the surface water.

No water is discharged from the Trail Mountain Mine. Water has been discharged from the mine during active periods of mining. The UPDES permit for mine water discharge ensures that the effluent meets the applicable standards.

Future development on Trail Mountain would occur along Cottonwood Creek. Straight Canyon is a Forest Service Withdrawal Area which precludes mining from occurring in Straight Canyon. Energy West Mining Company holds the only federal lease on Trail Mountain requiring diligence. Leasing of federal coal could conceivably occur north of the Trail Mountain Mine, impact from future operations would be dewatering of the aquifer system and minimal surface disturbances. The permitting process will require implementation of sediment control measures and impacts to surface water should be minimized.

VII. SUMMARY

The operational design implemented at the Trail Mountain Mine is herein determined to be consistent with preventing damage to the hydrologic balance outside the mine plan area.

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FINDINGS

PACIFICORP
TRAIL MOUNTAIN MINE
ADDITION OF WASTE ROCK SITE

Emery County, Utah
C/015/0009

May 20, 2015

1. The revised plan and the permit application are accurate and complete and all requirements of the Surface Mining Control and Reclamation Act, and the approved Utah State Program (the "Act") have been complied with (R645-300-133.100). See attached Technical Analysis dated May 13, 2015.

2. The applicant proposes to transfer the existing and permitted Cottonwood Mine waste rock site to the Trail Mountain Mine permit. This will add 25.85 acres to the Trail Mountain Mine and remove it from the Cottonwood mine. The Division has determined that reclamation, as required by the Act can be feasibly accomplished by following the approved plan. See Technical Analysis dated May 13, 2015 (R645-300-133.710).

3. The assessment of the probable cumulative impacts of all anticipated coal mining and reclamation activities in the general area on the hydrologic balance has been conducted by the regulatory authority and no significant impacts or material damage findings were identified. The Mining and Reclamation Plan (MRP) proposed under the application has been designed to prevent damage to the hydrologic balance in the permit area and in associated off-site areas (R645-300-133.400 and UCA 40-10-11 {2}{c}) (See Cumulative Hydrologic Impact Analysis [CHIA], updated May 20, 2015).

4. The proposed lands to be included within the permit area are:

    a. not included within an area designated unsuitable for underground coal mining operations (R645-300-133.220) ;

    b. not within an area under study for designated lands unsuitable for underground coal mining operations (R645-300-133.210) ;

    c. not on any lands 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 a public road (R645-300-133.220);

    e. not within 300 feet of any occupied dwelling (R645-300-133-220).

5. The regulatory authority's issuance of a permit is in compliance with the National Historic Preservation Act and implementing regulations (36 CFR 800) (R645-300-133.600). The waste rock site was previously permitted under the Cottonwood/ Wilberg mine permit. The acreage proposed in this incidental boundary was previously approved for disturbance and will not affect areas where cultural resources will be found.

6. The applicant has the legal right to enter and complete mining activities through a Right-of-Way issued by the Bureau of Land Management (R645-300-133.300).

7. A 510(c) report has been run on the Applicant Violator System (AVS), which shows that: prior violations of applicable laws and regulations have been corrected; neither Pacificorp or any affiliated company, are delinquent in payment of fees for the Abandoned Mine Reclamation Fund; and 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 (R645-300-133.730). (See attached memo dated May 14, 2015).

8. Mining operations to be performed under the permit will not be inconsistent with other operations anticipated to be performed in areas adjacent to the proposed permit area.

9. The applicant has posted financial assurance for the Trail Mountain Mine including the Waste Rock site expansion area in the amount of $1,154,000.00. (Bond #103908997 issued by Travelers Casualty and Surety Company of America). This includes $303,315.42 designated for reclamation of the Waste Rock area. (R645-300-134).

10. No lands designated as prime farmlands or alluvial valley floors occur within the permit area (R645-302-313.100) (R645-302-321.100).

11. The proposed postmining land-use of the permit area is the same as the pre-mining land use and has been approved by the regulatory authority. (See R645-301- 400)

12. The regulatory authority has made all specific approvals required by the Act, the Cooperative Agreement, and the Federal Lands Program.

13. The proposed operation will not affect the continued existence of any threatened or endangered species or result in the destruction or adverse modification of their critical habitats (R645-300-133.500).

14. All procedures for public participation required by the Act, and the approved Utah State Program have been complied with. This permitting action was published for four consecutive weeks with a 30-day public comment period. No comments were received. (R645-300-120).

15. No existing structures will be used in conjunction with the use of the Waste Rock Disposal area. This site was previously permitted under the Cottonwood/Wilberg mine permit under the Title V program of SMCRA (R645-300-133.720).

Permit Supervisor

Associate Director, Mining

Director

O:\015009.TMT\PERMIT\2015 Permit\FINDINGS.docx

AFFIDAVIT OF PUBLICATION

STATE OF UTAH)

ss.

County of Emery,)

I, Richard Shaw, on oath, say that I am the Publisher of the Emery County Progress, a weekly newspaper of general circulation, published at Castle Dale, State of Utah and County aforesaid, and that a certain notice, a true copy of which is hereto attached, was published in the full issue of such newspaper for 4 (Four) consecutive issues, and on the Utah legals.com webwsite; the first publication was on the 10th day of March, 2015, and that the last publication of such notice was in the issue of such newspaper dated the 31st day of March, 2015.

Richard Shaw – Publisher

Subscribed and sworn to before me this 31st day of March 2015.

Notary Public My commission expires January 10, 2019 Residing at Price, Utah

Publication fee, $ 360.00

LINDA THAYN
NOTARY PUBLIC-STATE OF UTAH
COMMISSION# 680835
COMM. EXP. 01-10-2019

NOTICE TO INCREASE DISTURBED ACREAGE

ENERGY WEST MINING COMPANY
P.O. BOX 310
HUNTINGTON, UTAH 84528

PacifiCorp, by and through its wholly-owned subsidiary, Energy West Mining Company (AEnergy West@) as mine operator, has submitted an application to the Utah Division of Oil, Gas, and Mining which intends to transfer the Cottonwood Mine Waste Rock Site from the Cottonwood/Wilberg mine permit to the Trail Mountain mine permit. The site permit area is 25.85 acres which includes 17.44 acres of disturbance. As required by R645-303-224.100 and 224.200 of the Utah Coal Regulations, a public notice is require when; 1) an operator increases the size of the surface or subsurface disturbed area in the amount of 15% or greater, and 2) engaging in operations outside of the cumulative impact area defined in the CHIA.

The Trail Mountain Mine (NE1/4 of Section 25, Township 17 south, Range 6 east, SLB&M) is located in the Cottonwood Creek Basin CHIA. The waste rock site (SE1/4 of Section 34, Township 17 south, Range 7 east, SLB&M) is located in the East Mountain CHIA. Because of the sediment control practices that the mine has established at each of the sites, a probable hydrologic consequence determination has indicated that only a negligible impact could occur.

The permit area of the Trail Mountain Mine currently encompasses approximately 3,538.98 acres located in Township 17 South, Range 6 East, in the portions of Sections 25, 26, 27, 34, and 35; Township 18 South, Range 6 East, in the portions of Sections 1, 2, and 3; and Township 18 South, Range 7 East, in the portions of Section 6. This transfer would increase the permit area to 3,564.83 acres.

The current Trail Mountain Mine disturbed area is 10.39 acres. Transferring the waste rock site to the Trail Mountain permit adds an additional 17.44 acres for a total of 27.83 acres.

A surety bond for both sites are filed with the Division of Oil, Gas and Mining and is payable to the State of Utah, Division of Oil, Gas and Mining (DOGM), and the Office of Surface Mining Reclamation and Enforcement (OSM).

A copy of the application may be examined at the office of the Division of Oil, Gas and Mining, 1594 West North Temple, Suite 1210, Salt Lake City, Utah 84114-5801 and also at the Recorders Office located in the Emery County Courthouse in Castle Dale, Utah. Written comments, objections, or requests for an informal conference may be submitted to the Division of Oil, Gas, and Mining address above. Said comments must be submitted thirty (30) days from the date of the last publication of this notice. This notice is being published to comply with the Surface Mining Control and Reclamation Act of 1977, and State and Federal regulations promulgated pursuant to said Act.

Published in the Emery County Progress March 10, 17, 24, and 31, 2015.

GARY R. HERBERT
Governor
SPENCER J. COX
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

May 14, 2015

TO: Internal File

FROM: Daron R. Haddock, Permit Supervisor

RE: Compliance Review for Section 510 (c) Findings, PacifiCorp, Trail Mountain Mine, C/015/0009

As of the writing of this memo, there are no NOVS or COs which are not corrected or in the process of being corrected. There are no finalized Civil Penalties, which are outstanding and overdue in the name of PacifiCorp. PacifiCorp does not demonstrate a pattern of willful violations, nor have they been subject to any bond forfeitures for any operation in the state of Utah.

The recommendation from the Applicant Violator System (AVS) denotes that all connected entities either do not have any civil penalties or are under a settlement agreement (attached).

O:\015009.TMT\WG4790 ADD WASTE ROCK\DECISION DOCUMENT\510C.DOC

1594 West North Temple, Suite 1210, Salt Lake City, UT 84116
PO Box 145801, Salt Lake City, UT 84114-5801
telephone (801) 538-5340 • facsimile (801) 359-3940 • TTY (801) 538-7458 • *www.ogm.utah.gov*

UTAH DNR OIL, GAS & MINING

U.S. Department of the Interior Office of Surface Mining
Applicant/Violator System

Click for the Office of Surface Mining Website

suzanne.steab (UT) | Logo

Home ▸ ENTITY ▸ APPLICATION ▸ PERMIT ▸ VIOLATION ▸ REPORTS ▸

HOME > ENTITY EVALUATE

Evaluation on Permit Number: C0150009 SEQ:5
0 Violations

Print Report

Permit Evaluation

Permit Number	C0150009 SEQ:5
Permitee Name	108521 Pacificorp
Date of Request	5/14/2015 10:09:41 AM
Requestor	suzanne.steab

CAUTION: The Applicant/Violator System (AVS) is an informational database. Permit eligibility determinations are made by the regulatory authority with jurisdiction over the permit application not by the AVS. Results which display outstanding violations may not include critical information about settlements or other conditions that affect permit eligibility. Consult the AVS Office at 800-643-9748 for verification of information prior to making decisions on these results.

There were no violations retrieved by the system

Evaluation OFT

Entities: 43

158506 Berkshire Hathaway Inc - ()
---104006 Walter Scott Jr - (Director)
---154396 Thomas S Murphy - (Director)
---158507 Warren E Buffett - (Chairman of the Board)
---158507 Warren E Buffett - (Chief Executive Officer)
---158508 Charles T Munger - (Chairman of the Board)
---158509 Marc D Hamburg - (Corporate Officer)
---158509 Marc D Hamburg - (Vice President)
---158510 Daniel J Jaksich - (Corporate Officer)
---158510 Daniel J Jaksich - (Vice President)
---158511 Howard G Buffett - (Director)
---158513 William H Gates Iii - (Director)
---158514 David S Gottesman - (Director)
---158515 Charlotte Guyman - (Director)
---158516 Donald R Keough - (Director)
---158517 Ronald L Olson - (Director)

---248432 Susan Decker - (Director)
---251467 Stephen B Burke - (Director)
---255229 Berkshire Hathaway Energy Company - (Subsidiary Company)
------104006 Walter Scott Jr - (Director)
------129287 Paul J Leighton - (General Counsel)
------129287 Paul J Leighton - (Secretary)
------129287 Paul J Leighton - (Vice President)
------158507 Warren E Buffett - (Director)
------158509 Marc D Hamburg - (Director)
------158519 Gregory E Abel - (Chairman of the Board)
------158519 Gregory E Abel - (Chief Executive Officer)
------158519 Gregory E Abel - (Director)
------158519 Gregory E Abel - (President)
------158521 Douglas L Anderson - (Executive Vice President)
------158521 Douglas L Anderson - (General Counsel)
------158521 Douglas L Anderson - (Secretary)
------158522 Patrick J Goodman - (Chief Financial Officer)
------158522 Patrick J Goodman - (Executive Vice President)
------158525 Brent E Gale - (Senior Vice President)
------158528 Maureen E Sammon - (Corporate Officer)
------158528 Maureen E Sammon - (Senior Vice President)
------158529 Steven R Evans - (Senior Vice President)
------158532 Jonathan W Weisgall - (Vice President)
------158534 Cathy S Woollums - (Corporate Officer)
------158534 Cathy S Woollums - (Senior Vice President)
------158541 Ppw Holdings Llc - (Subsidiary Company)
---------108521 Pacificorp - (Subsidiary Company)
----------124840 Bruce N Williams - (Treasurer)
----------124840 Bruce N Williams - (Vice President)
----------146327 Michael G Jenkins - (Assistant Secretary)
----------147401 A Richard Walje - (Chief Executive Officer)
----------147401 A Richard Walje - (President)
----------151620 Tanya S Sacks - (Assistant Treasurer)
----------152797 Jeffery B Erb - (Secretary)
----------158519 Gregory E Abel - (Chairman of the Board)
----------158519 Gregory E Abel - (Chief Executive Officer)
----------158519 Gregory E Abel - (Director)
----------158521 Douglas L Anderson - (Director)
----------158522 Patrick J Goodman - (Director)
----------247556 R Patrick Reiten - (Chief Executive Officer)
----------247556 R Patrick Reiten - (Director)
----------247556 R Patrick Reiten - (President)
----------247558 Natalie L Hocken - (Director)
----------248434 Douglas K Stuver - (Chief Financial Officer)
----------248434 Douglas K Stuver - (Senior Vice President)
----------249210 Cindy Crane - (Chief Executive Officer)
----------249210 Cindy Crane - (Director)
----------249210 Cindy Crane - (President)
----------251466 Stefan A Bird - (Chief Executive Officer)

----------251466 Stefan A Bird - (Director)
----------251466 Stefan A Bird - (President)
----------256062 Gary W Hoogeveen - (Corporate Officer)
----------256062 Gary W Hoogeveen - (Senior Vice President)
----------256063 Andrea Kelly - (Director)
---------129287 Paul J Leighton - (Secretary)
---------129287 Paul J Leighton - (Vice President)
---------158519 Gregory E Abel - (President)
---------158521 Douglas L Anderson - (Manager)
---------158522 Patrick J Goodman - (Manager)
---------158529 Steven R Evans - (Vice President)
---------158537 James C Galt - (Assistant Treasurer)
---------251468 Calvin Haack - (Treasurer)
---------251468 Calvin Haack - (Vice President)
---------254720 Jack Stark - (Manager)
------251468 Calvin Haack - (Treasurer)
------251468 Calvin Haack - (Vice President)
------255719 Jeff Austin - (Corporate Officer)
------255719 Jeff Austin - (Vice President)

Narrative

Request Narrative

PERMIT

FEDERAL **C/015/0009** **May 20, 2015**

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84114-5801
(801) 538-5340

This permit, C/015/0009, is issued for the State of Utah by the Utah Division of Oil, Gas and Mining (Division) to:

PacifiCorp
1407 West N. Temple, Suite 310
Salt Lake City, Utah 84116
(801) 220 - 2000

for the Trail Mountain Mine. PacifiCorp is the lessee of federal coal leases U-49332, U-082996, and UTU-64375, and the owner/lessee of certain fee-owned parcels. A Surety Bond is filed with the Division in the amount of $1,154,000, payable to the State of Utah, Division of Oil, Gas and Mining, and the Office of Surface Mining, Reclamation and Enforcement (OSM). The Division must receive a copy of this permit signed and dated by the permittee.

Sec. 1 **STATUTES AND REGULATIONS** - This permit is issued pursuant to the Utah Coal Mining and Reclamation Act of 1979, Utah Code Annotated (UCA) 40-10-1 et seq, hereafter referred to as the Act.

Sec. 2 **PERMIT AREA** - The permittee is authorized to conduct coal mining and reclamation operations on the following described lands within the permit area at the Trail Mountain Mine, situated in the State of Utah, Emery County, and located:

Township 17 South, Range 6 East, SLM

Section 25:	S1/2 NW1/4, W1/2 SW1/4, W1/2 E1/2 SW1/4, SW1/4 SE1/4, E1/2 E1/2 SW1/4; Begin at the point of SW corner of NW1/4 SE1/4, thence North 160 Rods, thence East 44 Rods to center of Cottonwood Creek, Southward along creek to a point 76 Rods east of the beginning, thence West 76 Rods to the Point of Beginning.
Section 26:	SE1/4 NE1/4, E1/2 SW1/4 NE1/4, E1/2 SE1/4, E1/2 W1/2 SE1/4, S1/2 SW1/4, W1/2 SW1/4 SE1/4;
Section 27:	S1/2 S1/2;
Section 34:	All; and
Section 35:	All.

Township 18 South, Range 6 East, SLM

Section 1: Lots 1-8, S1/2 N1/2, E1/2 NE1/4 SW1/4, E1/2 NW1/4 NE1/4 SW1/4, N1/2 NW1/4 NE1/4 SE1/4, N1/2 NW1/4 SE1/4;

Section 2: Lots 1-8, S1/2 N1/2, N1/2 NE1/4 SW1/4, N1/2 SW1/4 NE1/4 SW1/4, SE1/4 NE1/4 SW1/4, NW1/4 NE1/4 SE1/4, N1/2 SW1/4 NE1/4 SE1/4, N1/2 NW1/4 SE1/4, N1/2 S1/2 NW1/4 SE1/4; and

Section 3: Lots 1, 2, 3, 6 (E1/2), 7, and 8, and NW1/4 SE1/4 NE1/4, NE1/4 SW1/4 NE1/4, S1/2 SE1/4 NE1/4, NE1/4 SE1/4 NE1/4.

Township 18 South, Range 7 East, SLM

Section 6: Lots 4-7, W1/2 SE1/4 NW1/4, W1/2 E1/2 SW1/4.

Waste Rock Site

Beginning at point N82°39'28"W, 809.58 feet from the east *1/4* corner of Sec. 34; thence, S 74 09' 46" W, 246.23 feet; thence, S 27 14' 28" W, 647.59 feet; thence, S 46 59' 05" W, 165.64 feet; thence, S 76 41' 51" W, 264.72 feet; thence, N 72 09' 12" W, 670.20 feet; thence, S 06 10' 47" W. 105.57 feet; thence, S 23 08' 12" W, 35.27 feet; thence, S 36 59' 41" W, 71.59 feet; thence, S 40 44' 45" W. 114.04 feet; thence, S 23 37' 34" W, 93.77 feet; thence. S 60 40' 32" W, 113.86 feet; thence, S 05 17' 52" E, 108.19 feet; thence, S 23 20' 37" E. 105.29 feet; thence, S 24 38' 51" W, 61 .70 feet; thence, S 31 19' 19" E, 129.90 feet; thence. S 29 19' 58" E, 80.45 feet; thence, S 24 11' 44" E, 104.97 feet; thence, S 47 47' 54" E, 168.95 feet; thence, S 40 17' 54" E, 87.31 feet; thence, S 17 50' 49" W. 43.32 feet; thence, S 72 11' 49" E, 213.13 feet; thence, S 78 08' 28" E, 287.64 feet; thence, N 11 43' 23" E, 86.24 feet; thence, N 73 40' 14" E, 120.87 feet; thence, N 17 04' 33" E, 74.31 feet; thence, N 14 20' 36" W, 65.70 feet; thence, N 17 05' 06" E, 75.21 feet; thence, N 09 13' 24" W, 65.92 feet; thence, N 12 54' 35" W, 99.73, feet; thence. N 02 44' 30" W. 82.47 feet; thence, N 08 32' 17" W, 85.51 feet; thence, N 01 39' 36" W, 104.82 feet; thence, N 17 50' 48" E, 218.03 feet; thence, N 76 41' 51" E, 353.88 feet; thence, N 27 14' 28" E, 629.52 feet; thence, N 50 42' 06" E, 123.74 feet; thence, N 74 09' 48" E, 113.70 feet; thence, N 15 50' 13" W, 150.00 feet; to the point of beginning. Said parcel contains 25.85 acres more or less.

This legal description is for the permit area of the Trail Mountain Mine, which is approximately 3,564.83 acres. The permittee is authorized to conduct coal mining and reclamation operations on the foregoing described property subject to the conditions of all applicable conditions, laws and regulations.

Sec. 3 **COMPLIANCE** - The permittee will comply with the terms and conditions of the permit, all applicable performance standards and requirements of the State Program.

Sec. 4 **PERMIT TERM** - This permit expires on February 21, 2020.

Sec. 5 **ASSIGNMENT OF PERMIT RIGHTS** - The permit rights may not be transferred, assigned or sold without the prior written approval of the Division Director. Transfer, assignment or sale of permit rights must be done in accordance with applicable regulations, including but not limited to 30 CFR 740.13{e} and R645-303-300.

Sec. 6 **RIGHT OF ENTRY** - The permittee shall allow the authorized representative of the Division, including but not limited to inspectors, and representatives of the Office of Surface Mining Reclamation and Enforcement (OSM), without advance notice or a search warrant, upon presentation of appropriate credentials, and without delay to:

(a) have the rights of entry provided for in 30 CFR 840.12, R645-400-220, 30 CFR 842.13 and R645-400-110;
(b) be accompanied by private persons for the purpose of conducting an inspection in accordance with R645-400-100 and R645-400-200 when the inspection is in response to an alleged violation reported to the Division by the private person.

Sec. 7 **SCOPE OF OPERATIONS** - The permittee shall conduct coal mining and reclamation operations only on those lands specifically designated as within the permit area on the maps submitted in the approved plan and approved for the term of the permit and which are subject to the performance bond.

Sec. 8 **ENVIRONMENTAL IMPACTS** - The permittee shall take all possible steps to minimize any adverse impact to the environment or public health and safety resulting from noncompliance with any term or condition of the permit, including, but not limited to:

(a) Any accelerated or additional monitoring necessary to determine the nature and extent of noncompliance and the results of the noncompliance;
(b) immediate implementation of measures necessary to comply; and
(c) warning, as soon as possible after learning of such noncompliance, any person whose health and safety is in imminent danger due to the noncompliance.

Sec. 9 **DISPOSAL OF POLLUTANTS** - The permittee shall dispose of solids, sludge, filter backwash or pollutants in the course of treatment or control of waters or emissions to the air in the manner required by the approved Utah State Program and the Federal Lands Program which prevents violation of any applicable state or federal law.

Sec. 10 **CONDUCT OF OPERATIONS** - The permittee shall conduct its operations:

(a) in accordance with the terms of the permit to prevent significant, imminent environmental harm to the health and safety of the public; and

(b) utilizing methods specified as conditions of the permit by the Division in approving alternative methods of compliance with the performance standards of the Act, the approved Utah State Program and the Federal Lands Program.

Sec. 11 **EXISTING STRUCTURES** - As applicable, the permittee will comply with R645-301 and R645-302 for compliance, modification, or abandonment of existing structures.

Sec. 12 **RECLAMATION FEE PAYMENTS** - The operator shall pay all reclamation fees required by 30 CFR Part 870 for coal produced under the permit, for sale, transfer or use.

Sec. 13 **AUTHORIZED AGENT** - The permittee shall provide the names, addresses and telephone numbers of persons responsible for operations under the permit to whom notices and orders are to be delivered.

Sec. 14 **COMPLIANCE WITH OTHER LAWS** - The permittee shall comply with the provisions of the Water Pollution Control Act (33 USC 1151 et seq,) and the Clean Air Act (42 USC 7401 et seq), UCA 26-11-1 et seq, and UCA 26-13-1 et seq.

Sec. 15 **PERMIT RENEWAL** - Upon expiration, this permit may be renewed for areas within the boundaries of the existing permit in accordance with the Act, the approved Utah State Program and the Federal Lands Program.

Sec. 16 **CULTURAL RESOURCES** - If during the course of mining operations, previously unidentified cultural resources are discovered, the permittee shall ensure that the site(s) is not disturbed and shall notify the Division. The Division, after coordination with OSM, shall inform the permittee of necessary actions required. The permittee shall implement the mitigation measures required by The Division within the time frame specified by The Division.

Sec. 17 **APPEALS** - The permittee shall have the right to appeal as provided for under R645-300-200.

Sec. 18 **SPECIAL CONDITIONS** - There are special conditions associated with this permit, as described in Attachment A.

The above conditions (Secs. 1-18) are also imposed upon the permittee's agents and employees. The failure or refusal of any of these persons to comply with these conditions shall be deemed a failure of the permittee to comply with the terms of this permit and the lease. The permittee shall require his agents, contractors and subcontractors involved in activities concerning this permit to include these conditions in the contracts between and among them. These conditions may be revised or amended, in writing, by the mutual consent of the Division and the permittee at any time to adjust to changed conditions or to correct an oversight. The Division may amend these conditions at any time without the consent of the permittee in order to make them consistent with any federal or state statutes and any regulations.

THE STATE OF UTAH

By: John R. Byer

Date: 5/22/2015

I certify that I have read, understand and accept the requirements of this permit and any special conditions attached.

_____

Authorized Representative of the Permittee

Date: _____

ATTACHMENT A

SPECIAL CONDITION

1. PacifiCorp will submit water quality data for the Trail Mountain Mine in an electronic format through the Electronic Data Input web site, http://linux1.ogm.utah.gov/cgi-bin/appx-ogm.cgi.

2. If during entry development, sustained quantities of groundwater are encountered which are greater than 5 gpm from a single source in an individual entry, and which continue after operational activities progress beyond the area of groundwater production, PacifiCorp must monitor these flows for quality and quantity under the approved monitoring plan. If significant quantities of groundwater which issues from a fault zone are encountered, PacifiCorp will: quantify the volume, sample for water quality according to the approved monitoring plan (baseline parameters for the two year period), conduct isotopic sampling using a systematic approach (phase 1: tritium analysis, phase 2: depending on the results of the tritium sampling, perform carbon age dating). Parameters analyzed are those listed in the "DOGM Guidelines for Groundwater Quality."