

# TECHNICAL MEMORANDUM

## Utah Coal Regulatory Program

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May 19, 2009

TO: Internal File

THRU: Jim Smith, Permit Supervisor *JS 06/08/09*

FROM: Steve Christensen, Hydrologist *SC*

RE: Mine Memorial and Portal Water Discharge Facilities, Genwal Resources, Inc., Crandall Canyon Mine, C/015/0032, Task ID #3260, Outgoing File

### SUMMARY:

On April 6<sup>th</sup>, 2009, the Division of Oil, Gas and Mining (the Division) received an application to amend the Crandall Canyon Mining and Reclamation Plan (MRP) from Genwal Resources, Inc. (the Permittee). The Permittee proposes to revise the reclamation sections of the approved MRP. The application reflects the newly constructed Crandall Canyon Mine Memorial. In addition, the application addresses the mine water currently discharging from the north portals at the mine site. A Division Order (DO08A) was issued to the Permittee in April of 2008 to revise the current MRP to include a plan for the discharge of post-reclamation mine water in accordance with R645-301-551, R645-301-731.521 and R645-301-751.

Factors have arisen that make it impossible at this time for the Permittee to design a final reclamation plan relative to the mine-water discharge. Several variables relative to the water-quality and water quantity of the mine discharge are unknown. The Division of Water Quality (DWQ) has issued a notice of non-compliance to the Permittee under the purview of the mine's Utah Pollution Discharge Elimination System (UPDES) permit. The mine-water discharging at Outfall 002 has exceeded the allowable iron concentrations. As a result, the Permittee has submitted a separate application to the Division that outlines the installation of a proposed aeration facility directly below the north portals (Division Task #3261). The aeration facility is to be utilized in an effort to reduce the iron concentrations to UPDES compliance levels.

It is unclear as to whether the iron concentrations will stabilize over time. Additionally, the effectiveness of the proposed aeration treatment facility is unknown. If iron concentrations do not stabilize, the Permittee will need to incorporate some method of long-term water treatment into the final reclamation plan.

TECHNICAL MEMO

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In addition, ground water is discharging from the sandstone ledge located directly below the north portals in the area of the Old Load Out. The amount of water discharging from this Star Point Sandstone layer is unknown and must be quantified in order to formulate a final reclamation plan.

In an effort to address these concerns/questions, the Permittee has submitted an application that attempts to address these variable factors and propose a future course of action. The following is a technical analysis relative to the hydrologic requirements of the State of Utah R645-Coal Mining Rules. Deficiencies have been identified.

Prior to receiving Division approval, the Permittee must address the following deficiencies:

**R645-301-114-** The Permittee should revise page 12 of Appendix 5-22 in the application to reflect (as accurately as possible at this point in time) the current situation relative to the Crandall Canyon Mine Memorial itself (the Memorial), and the associated access trail. It is the understanding of the Division that Emery County has a special use permit with the USDA Forest Service (Forest Service) for the Memorial. Furthermore, upon discussions with Forest Service representatives and the Permittee, the Division understands that a land swap/trade process is currently underway between the Forest Service and the Permittee. In an effort to make the plan as up to date as possible, the Permittee should add a brief discussion as to these particular elements of the Memorial and its associated access trail at this point in time (See Page 12 of Appendix 5-22 in the application).

**R645-301-731.200-**The Permittee must establish a groundwater monitoring point at the base of the sandstone ledge directly below the north portal area. In order to formulate a long-term final reclamation plan for the site, the quantity of the discharge from the ledge must be established. As such, the Permittee should revise the application to include a ground water monitoring point at this location. The Permittee must commit to supplying the flow data to the Division in a format and schedule to be determined in consultation with the Division.

**R645-301-742.300-** The Permittee must provide additional information regarding how the seepage from the sandstone ledge below the portals will be quantified. As required, the additional information must include a narrative that outlines the design considerations as well as provide the appropriate cross-sections and design drawings so as to clearly demonstrate how the Permittee intends to quantify the sandstone discharge.

**R645-301-742.300-** The Permittee must also clarify a statement on page 9 of Appendix 5-22. In the second paragraph of the aforementioned page, the Permittee states in reference to the proposed aeration treatment facility (Division Task ID #3261), "Once the ledge is cleaned off in anticipation of constructing the iron aeration facility, the flow pattern of the seepage can be better determined." Upon review of the proposed aeration treatment facility amendment,

cleaning off the sandstone ledge is not discussed. The aeration treatment facility amendment discusses the need to clean the area to “reveal the under-lying granular borrow base”. The two amendments do not provide a clear picture as to what preparation work will be performed on the sandstone ledge. The Permittee should clarify this component of the aeration facility construction.

**R645-301-731.520-** The Permittee must revise the Mine Dewatering section of the approved MRP. Beginning on page 7-11, the Permittee discusses the various components and flow rates associated with the encountered mine water. This section does not accurately reflect the current mine-water situation and should be revised.

**R645-301-731-** The Permittee must revise Plate 7-18, Crandall Canyon Mine Water Monitoring Sites Map to depict the location of the to be established ground water monitoring point at the base of the sandstone ledge.

**R645-301-542-** The Permittee must revise the information contained in Appendix 5-22 beginning on page 1 and continuing to page 2. This section of the plan discusses the various reclamation areas and refers to Figure 1, *Reclamation Areas* for their locations. The Permittee should revise the area descriptions beginning on page 1 of Appendix 5-22 to include the ‘Memorial Area’ as it is depicted on the submitted Figure 1, *Reclamation Areas*. The Permittee should provide a brief discussion of the Crandall Canyon Memorial and associated issues/status. Figure 1 is contained in Appendix 5-22 of the approved MRP, but was submitted in Chapter 5 of the application. The figure should be submitted in the appropriate section of the approved MRP.

**R645-301-760-** The Permittee must revise the approved MRP so as to accurately reflect the current mine water conditions at the mine site as they relate to final reclamation. Several sections of the approved MRP that address the reclamation of the old load out area and north portals must be revised relative to the current sandstone ledge and mine water situation. At this time, the final reclamation plan of the old load out area and north portals is unknown. In order to keep the approved MRP up to date and accurate, the Permittee should revise the following sections to reflect the current conditions, factors and variables relative to the mine water situation at the site:

- Chapter 5, Page 5-49 discusses the removal or reduction of cut slopes and highwalls in the area of the old load area.
- Chapter 7, Appendix 7-4, Page 39 discusses Reclamation Hydrology.
- Chapter 7, Page 7-54 discusses Reclamation relative to the hydrology regulations of the State of Utah R645-Coal Mining Rules.

**R645-301-537 and R645-301-553-** The Permittee should revise the approved MRP and application on page 5 of Section 4 in Appendix 5-22 to reflect the current mine water conditions and the associated complications relative to final reclamation. Section 4 of the Reclamation Plan

TECHNICAL MEMO

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Detail discusses the backfill, grade and topsoil elements of the Portal Area. The discussion is based upon the re-establishment of the approximate original contour in the Portal Area. Given the mine water considerations, it's uncertain as to whether establishing approximate original in the area of the old load out area/north portals is feasible. As such, this section of the plan should reflect this possibility.

**R645-301-529.100 and-551-** The Permittee must revise the application/approved MRP to discuss how the mine openings will be sealed during final reclamation. On page 5-42 of the approved MRP, the Permittee discusses how prior to final sealing of any openings, the BLM will require a formal submittal that would in turn be submitted to the Division for approval into the mine plan. As the working assumption behind any final reclamation plan is that the mine water will discharge from the mine in perpetuity, it follows that the Permittee's response to the Division Order (which deals specifically with how the mine water discharge will be handled during reclamation) should address how the openings will be sealed during final reclamation. As part of addressing the Division Order, the Division feels it is appropriate to produce a final sealing plan for the north portals at this time.

**TECHNICAL ANALYSIS:**

**GENERAL CONTENTS**

**RIGHT OF ENTRY**

Regulatory Reference: 30 CFR 778.15; R645-301-114

**Analysis:**

On page 12 of Appendix 5-22, the Permittee discusses the Crandall Canyon Mine Memorial (the Memorial). The Permittee has deeded a portion of the upper mine yard (Expansion Area) to Emery County to be used a permanent memorial to the deceased miners.

The Permittee should revise the MRP to reflect the current situation relative to the Crandall Canyon Mine Memorial and associated trail access. Page 12 of the application discusses how the Permittee has deeded a portion of the upper mine yard (Expansion Area) to Emery County to be used as a permanent memorial to the deceased miners (Appendix 5-7 provides a Memorandum of Agreement between the Permittee and Emery County). In addition, the Permittee discusses how a permanent easement for the access road through the privately owned part of the mine site has also been established with Emery County.

the Permittee discusses how a permanent easement for the access road through the privately owned part of the mine site has also been established with Emery County.

However, it is the understanding of the Division that Emery County has a special use permit with the USDA Forest Service (Forest Service) for the Memorial. Furthermore, upon discussions with Forest Service representatives and the Permittee, the Division understands that a land swap/trade process is currently underway between the Forest Service and the Permittee. In an effort to clarify the plan, the Permittee should provide a brief discussion as to these particular elements of the Memorial and it's associated access trail.

### **Findings:**

The application does not meet the Right of Entry requirements of the State of Utah R645-Coal Mining Rules.

**R645-301-114-** The Permittee should revise page 12 of Appendix 5-22 in the application to reflect (as accurately as possible at this point in time) the current situation relative to the Crandall Canyon Mine Memorial itself (the Memorial), and the associated access trail. It is the understanding of the Division that Emery County has a special use permit with the USDA Forest Service (Forest Service) for the Memorial. Furthermore, upon discussions with Forest Service representatives and the Permittee, the Division understands that a land swap/trade process is currently underway between the Forest Service and the Permittee. In an effort to make the plan as up to date as possible, the Permittee should add a brief discussion as to these particular elements of the Memorial and it's associated access trail at this point in time (See Page 12 of Appendix 5-22 in the application).

## **OPERATION PLAN**

### **HYDROLOGIC INFORMATION**

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

### **Analysis:**

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TECHNICAL MEMO

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### **Groundwater Monitoring**

The application does not meet the Groundwater Monitoring requirements of the State of Utah R645-Coal Mining Rules.

On page 9 of Appendix 5-22, the Permittee discusses the seepage discharging from the Starpoint Sandstone ledge located directly below the north portals. In order to formulate a long-term final reclamation plan, the quantity of this discharge must be quantified. The Permittee discusses the need of obtaining accurate flow measurements, however an outline/plan for how this will be achieved was not submitted in the application.

The Permittee must establish a groundwater monitoring point at the base of the sandstone ledge directly below the north portal area. In order to formulate a long-term final reclamation plan for the site, the quantity of the discharge from the ledge must be established (i.e. seasonal variation). As such, the Permittee should revise the application to include a ground water monitoring point at this location. The Permittee must commit to supplying the flow data to the Division in a format and schedule to be determined in consultation with the Division.

### **Diversions: Miscellaneous Flows**

The application does not meet the Diversions: Miscellaneous Flows requirements of the State of Utah R645-Coal Mining Rules.

On page 9 of Appendix 5-22 of the application, the Permittee discusses the ground water discharge from the Starpoint Sandstone ledge that lies directly under the north portals. The Permittee discusses how due to the unknown extent and quantity of discharge from the sandstone ledge, it's not possible at this time to formulate a long-term reclamation plan. The Permittee discusses how "once the ledge is cleaned off in anticipation of constructing the iron aeration facility, the flow pattern of the seepage can be better determined". The Permittee proposes that it may be "possible" to quantify the seepage from the sandstone ledge by "chipping some grooves" into the sandstone ledge so that the water can be confined into isolated channels.

The Permittee must provide additional information regarding how the seepage from the sandstone ledge below the portals will be quantified. As required, the additional information must include a narrative that outlines the design considerations as well as provide the appropriate cross-sections and design drawings so as to clearly demonstrate how the Permittee intends to quantify the sandstone discharge.

The Permittee must also clarify a statement on page 9 of Appendix 5-22. In the second paragraph of the aforementioned page, the Permittee states in reference to the proposed aeration treatment facility (Division Task ID #3261), "Once the ledge is cleaned off in anticipation of

constructing the iron aeration facility, the flow pattern of the seepage can be better determined.” Upon review of the proposed aeration treatment facility amendment, cleaning off the sandstone ledge is not discussed. The aeration treatment facility amendment discusses the need to clean the area to “reveal the under-lying granular borrow base”. The two amendments do not provide a clear picture as to what preparation work will be performed on the sandstone ledge. The Permittee should clarify this component of the aeration facility construction. It appears that the Permittee is indicating that the sandstone seepage can’t be quantified until the ledge is “cleaned off”. This is unclear, as it is not discussed in the aeration treatment facility application.

### **Gravity Discharges From Underground Mines**

The Permittee must revise the Mine Dewatering section of the approved MRP. Beginning on page 7-11, the Permittee discusses the various components and flow rates associated with the encountered mine water. This section does not accurately reflect the current mine-water situation and should be revised.

#### **Findings:**

The application does not meet the Hydrologic Information requirements of the State of Utah R645-Coal Mining Rules. The following deficiencies must be addressed prior to Division approval:

**R645-301-731.200-**The Permittee must establish a groundwater monitoring point at the base of the sandstone ledge directly below the north portal area. In order to formulate a long-term final reclamation plan for the site, the quantity of the discharge from the ledge must be established (i.e. seasonal variation). As such, the Permittee should revise the application to include a ground water monitoring point at this location. The Permittee must commit to supplying the flow data to the Division in a format and schedule to be determined in consultation with the Division.

**R645-301-742.300-** The Permittee must provide additional information regarding how the seepage from the sandstone ledge below the portals will be quantified. As required, the additional information must include a narrative that outlines the design considerations as well as provide the appropriate cross-sections and design drawings so as to clearly demonstrate how the Permittee intends to quantify the sandstone discharge.

**R645-301-742.300-** The Permittee must also clarify a statement on page 9 of Appendix 5-22. In the second paragraph of the aforementioned page, the Permittee states in reference to the proposed aeration treatment facility (Division Task ID #3261), “Once the ledge is cleaned off in anticipation of constructing the iron aeration facility, the flow pattern of the seepage can be better determined.” Upon review of the proposed aeration treatment facility amendment,

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TECHNICAL MEMO

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cleaning off the sandstone ledge is not discussed. The aeration treatment facility amendment discusses the need to clean the area to “reveal the under-lying granular borrow base”. The two amendments do not provide a clear picture as to what preparation work will be performed on the sandstone ledge. The Permittee should clarify this component of the aeration facility construction.

**R645-301-731.520-** The Permittee must revise the Mine Dewatering section of the approved MRP. Beginning on page 7-11, the Permittee discusses the various components and flow rates associated with the encountered mine water. This section does not accurately reflect the current mine-water situation and should be revised.

## MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

### Analysis:

#### Monitoring and Sampling Location Maps

The application does not meet the Monitoring and Sampling Location Maps requirements of the State of Utah R645-Coal Mining Rules.

As outlined previously in this memo, a deficiency was identified relative to ground water monitoring. The Permittee has been directed to establish a ground water monitoring point at the sandstone ledge located directly below the north portals. As part of establishing an additional monitoring point, the Permittee must revise Plate 7-18, Crandall Canyon Mine Water Monitoring Sites Map to depict the location of the to be established ground water monitoring point at the base of the sandstone ledge.

### Findings:

The application does not meet the Monitoring and Sampling Location Maps requirements of the State of Utah R645-Coal Mining Rules. The following deficiency must be addressed prior to Division approval:

**R645-301-731-** The Permittee must revise Plate 7-18, Crandall Canyon Mine Water Monitoring Sites Map to depict the location of the to be established ground water monitoring point at the base of the sandstone ledge.

# RECLAMATION PLAN

## GENERAL REQUIREMENTS

Regulatory Reference: PL 95-87 Sec. 515 and 516; 30 CFR Sec. 784.13, 784.14, 784.15, 784.16, 784.17, 784.18, 784.19, 784.20, 784.21, 784.22, 784.23, 784.24, 784.25, 784.26; R645-301-231, -301-233, -301-322, -301-323, -301-331, -301-333, -301-341, -301-342, -301-411, -301-412, -301-422, -301-512, -301-513, -301-521, -301-522, -301-525, -301-526, -301-527, -301-528, -301-529, -301-531, -301-533, -301-534, -301-536, -301-537, -301-542, -301-623, -301-624, -301-625, -301-626, -301-631, -301-632, -301-731, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-732, -301-733, -301-746, -301-764, -301-830.

### Analysis:

The application does not meet the Reclamation Plan requirements of the State of Utah R645-Coal Mining Rules.

The Permittee must revise the information contained in Appendix 5-22 beginning on page 1 and continuing to page 2. This section of the plan discusses the various reclamation areas and refers to Figure 1, *Reclamation Areas* for their locations. The Permittee should revise the area descriptions beginning on page 1 of Appendix 5-22 to include the 'Memorial Area' as it is depicted on the submitted Figure 1, *Reclamation Areas*. The Permittee should provide a brief discussion of the Crandall Canyon Memorial and associated issues/status. Figure 1 is contained in Appendix 5-22 of the approved MRP, but was submitted in Chapter 5 of the application. The figure should be submitted in the appropriate section of the approved MRP.

### Findings:

The application does not meet the Reclamation Plan requirements of the State of Utah R645-Coal Mining Rules. The following deficiency must be addressed prior to Division approval:

**R645-301-542-** The Permittee must revise the information contained in Appendix 5-22 beginning on page 1 and continuing to page 2. This section of the plan discusses the various reclamation areas and refers to Figure 1, *Reclamation Areas* for their locations. The Permittee should revise the area descriptions beginning on page 1 of Appendix 5-22 to include the 'Memorial Area' as it is depicted on the submitted Figure 1, *Reclamation Areas*. The Permittee should provide a brief discussion of the Crandall Canyon Memorial and associated issues/status. Figure 1 is contained in Appendix 5-22 of the approved MRP, but was submitted in Chapter 5 of the application. The figure should be submitted in the appropriate section of the approved MRP.

TECHNICAL MEMO

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## HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 784.14, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-301-512, -301-513, -301-514, -301-515, -301-532, -301-533, -301-542, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-733, -301-742, -301-743, -301-750, -301-751, -301-760, -301-761.

### Analysis:

#### Hydrologic Reclamation Plan

The application does not meet the Hydrologic Reclamation Plan requirements of the State of Utah R645-Coal Mining Rules.

The Permittee must revise the approved MRP so as to accurately reflect the current mine water conditions at the mine site as they relate to final reclamation. Several sections of the approved MRP that address the reclamation of the old load out area and north portals must be revised relative to the current sandstone ledge seepage and mine water situation. At this time, the final reclamation plan of the old load out area and north portals is unknown. In order to keep the approved MRP up to date and accurate, the Permittee should revise the following sections to reflect the current conditions at the site:

- Chapter 5, Page 5-49 discusses the removal or reduction of cut slopes and highwalls in the area of the old load area.
- Chapter 7, Appendix 7-4, Page 39 discusses reclamation hydrology.
- Chapter 7, Page 7-54 discusses reclamation relative to the hydrology regulations of the State of Utah R645-Coal Mining Rules.

### Findings:

The application does not meet the Hydrologic Reclamation Plan requirements of the State of Utah R645-Coal Mining Rules. The following deficiencies must be addressed prior to Division approval:

**R645-301-760-** The Permittee must revise the approved MRP so as to accurately reflect the current mine water conditions at the mine site as they relate to final reclamation. Several sections of the approved MRP that address the reclamation of the old load out area and north portals must be revised relative to the current sandstone ledge and mine water situation. At this time, the final reclamation plan of the old load out area and north portals is unknown. In order to keep the approved MRP up to date and accurate, the Permittee should revise the following sections to reflect the current conditions, factors and variables relative to the mine water situation at the site:

- Chapter 5, Page 5-49 discusses the removal or reduction of cut slopes and highwalls in the area of the old load area.
- Chapter 7, Appendix 7-4, Page 39 discusses Reclamation Hydrology.
- Chapter 7, Page 7-54 discusses Reclamation relative to the hydrology regulations of the State of Utah R645-Coal Mining Rules.

## **BACKFILLING AND GRADING**

Regulatory Reference: 30 CFR Sec. 785.15, 817.102, 817.107; R645-301-234, -301-537, -301-552, -301-553, -302-230, -302-231, -302-232, -302-233.

### **Analysis:**

#### **General**

The application does not meet the Backfilling and Grading requirements of the State of Utah R645-Coal Mining Rules.

On page 5 of both the approved MRP and the application, the Permittee discusses the backfill, grade and topsoil provisions of the portal area reclamation. Neither the approved MRP, nor the application discusses the mine water conditions at the north portals. The approved MRP and application provide a general description as to how (once the portals have been sealed and backfilled) the cuts associated with the Portal Area will be returned to approximate original contour. The Permittee could provide a brief discussion in this section and reference Appendix 5-22 where a more robust and thorough presentation of the final reclamation plans of the mine site are discussed.

The Permittee should revise the approved MRP and application on page 5 of Section 4 in Appendix 5-22 to reflect the current mine water conditions and the associated complications relative to final reclamation. Section 4 of the Reclamation Plan Detail discusses the reclamation (backfill, grade and topsoil) of the Portal Area and associated cuts. The Permittee discusses how the approximate original contour will be re-established. Given the mine water considerations, it's a distinct possibility that establishing the original contour may not be possible. As such, the plan should reflect this possibility.

### **Findings:**

The application does not meet the Backfilling and Grading requirements of the State of Utah R645-Coal Mining Rules. The following deficiency must be addressed prior to Division approval of the application:

TECHNICAL MEMO

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**R645-301-537 and R645-301-553-** The Permittee should revise the approved MRP and application on page 5 of Section 4 in Appendix 5-22 to reflect the current mine water conditions and the associated complications relative to final reclamation. Section 4 of the Reclamation Plan Detail discusses the backfill, grade and topsoil elements of the Portal Area. The discussion is based upon the re-establishment of the approximate original contour in the Portal Area. Given the mine water considerations, it's uncertain as to whether establishing approximate original in the area of the old load out area/north portals is feasible. As such, this section of the plan should reflect this possibility.

## MINE OPENINGS

Regulatory Reference: 30 CFR Sec. 817.13, 817.14, 817.15; R645-301-513, -301-529, -301-551, -301-631, -301-748, -301-765, -301-748.

### Analysis:

The application does not meet the Mine Opening regulations as required by the State of Utah R645-Coal Mining Rules.

The Permittee must revise the application/approved MRP to discuss how the mine openings will be sealed during final reclamation. On page 5-42 of the approved MRP, the Permittee discusses how prior to final sealing of any openings, the BLM will require a formal submittal that would in turn be submitted to the Division for approval into the mine plan. As the working assumption behind any final reclamation plan is that the mine water will discharge from the mine in perpetuity, it follows that the Permittee's response to the Division Order (which deals specifically with how the mine water discharge will be handled during reclamation) should address how the openings will be sealed during final reclamation. Per conversations with Bureau of Land Management (BLM) representatives, the BLM considers the portals still open. The Permittee has not submitted a plan for final sealing of the openings. It was the feeling of the BLM representative that there's no reason why a final sealing plan couldn't be submitted now.

On page 4 of Appendix 5-22, the Permittee discusses the sealing and backfilling of portals, however according to the BLM, this is not a final sealing plan and has not been approved as such. The Division made it clear to the BLM that it was not the intention to dictate when reclamation begins, but simply get as complete of a reclamation plan as possible given the current conditions. As discussed previously, it is assumed that the mine water will discharge forever from the north portals, as such, there's no reason to forgo the formulation of a final sealing plan for the portals.

**Findings:**

**R645-301-529.100 and-551-** The Permittee must revise the application/approved MRP to discuss how the mine openings will be sealed during final reclamation. On page 5-42 of the approved MRP, the Permittee discusses how prior to final sealing of any openings, the BLM will require a formal submittal that would in turn be submitted to the Division for approval into the mine plan. As the working assumption behind any final reclamation plan is that the mine water will discharge from the mine in perpetuity, it follows that the Permittee's response to the Division Order (which deals specifically with how the mine water discharge will be handled during reclamation) should address how the openings will be sealed during final reclamation. As part of addressing the Division Order, the Division feels it is appropriate to produce a final sealing plan for the north portals at this time.

**RECOMMENDATIONS:**

The application is not recommended for approval at this time.