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DEPARTMENT OF NATURAL RESOURCES

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Outgoing
C0250005
#3935
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October 28, 2011

Kirk Nichols, Resident Agent
Alton Coal Development, LLC
463 North 100 West, Suite 1
Cedar City, Utah 84720

Subject: Drainage Control Adjustments, Alton Coal Development, Coal Hollow Mine, C025/0005, Task ID #3935

Dear Mr. Nichols:

The Division has reviewed your application to implement an alluvial groundwater management plan at the Coal Hollow Mine.

The Division has determined that there are some deficiencies that must be addressed before a determination can be made that the requirements of the R645 Coal Mining Rules have been met, and an approval can be granted. Those deficiencies are listed as an attachment to this letter and the technical memo prepared by the reviewer has also been included for reference.

Each deficiency identifies its author by that author's initials in parentheses; such that your staff can directly communicate with that individual should any questions arise relative to the preparation of Alton Coal Development, LLC's response to that particular deficiency.

The plans as submitted are denied. Please resubmit the entire application.

Sincerely,

Daron R. Haddock
Coal Program Manager

DRH/AAA/sqs
Attachment
cc: Price Field Office
O:\025005.COL\WG3935\WG 3935DEFICIENCIES_AAA.DOC



Deficiency List

Task No. 3935

Task Name: Drainage Control Adjustments

The members of the review team include the following individual(s):

April A. Abate (AAA)

1. [R645-301.724.100]: The Permittee will need to update Tables 7-5 and 7-7A to reflect the new protocol for sampling wells Y-38 and Y-61 for acidity for a two-year time period until data can be reevaluated to determine if acidity is being produced in groundwater wells screened in the coal seam.
2. [R645-301.728.333]: Page 7-41 of Section 728.333 references a groundwater management contingency plan is found in Appendix 7-9. The information contained in this appendix outlines a detailed contingency plan for the management of groundwater from the coarse alluvial sediments identified in the eastern portions of the permit area. The management of higher magnitude groundwater inflows from the coarser alluvial material is presented as a very detailed step by step contingency plan to manage the inflows that are anticipated from this coarser alluvial material, including more details of implementing an engineered barrier - further discussed in Appendix 7-10. Although this plan focuses on the management of groundwater from the coarser alluvial sediments, the plan acknowledges that inflow from alluvial horizons into the mine openings is anticipated. In the interest of presenting clear and concise information, it would seem logical for the Permittee to combine the groundwater contingency plan found in Appendix 7-9 of the Mining and Reclamation Plan (MRP) with the new alluvial groundwater management plan instead of creating a separate Appendix 7-14. Chapter 7 Section 728.333 should then reference the alluvial groundwater management plan in the narrative.
3. [R645-301.728]: In the Probable Hydrologic Consequences (PHC) Section 728, Page 7-34 of the MRP the plan to construct an engineered barrier to manage alluvial groundwater from the coarser grained sediments found in the eastern portion of the permit area is discussed. The alluvial groundwater management plan to divert upgradient groundwater to a sump and eventually discharge to LRC away from mine pits should *also* be detailed in this section of the PHC. Please revise this section of the PHC to include/reference the implementation of the alluvial groundwater management plan.
4. [R645.742.333]: The Permittee will need to demonstrate in the alluvial groundwater management plan that the temporary upgradient trenches used to reroute groundwater to the sump collection system will meet the 2-year, 6-hour standard by providing an appropriately sized detailed cross-section of the proposed trench. The Permittee presented a conceptual diagram only as Figure 1 of their submittal. The Permittee will need to revise the diagram to show that the trenches will meet the design criteria outlined in Rule R645.742.333.
5. [R645-301.744.100 & 200]: All diverted alluvial groundwater from the trenches upgradient of the mine pits will route to a sump collection system, according to the plan submitted by the Permittee. No as-built drawings detailing the size of the sump and storage volume were provided. Please submit an updated as-built drawing of the sump showing the total storage volume.

6. **[R645-301-750]:** The Division is concerned that with operational sump collection system discharging groundwater to LRC could have the potential to significantly alter the ephemeral nature of LRC channel and cause a significant amount of erosion to the channel. A careful protocol should be designed so that the flow of discharged water is regulated and does not significantly alter the channel of LRC causing erosion from the introduction of large volumes of groundwater as a result of discharges from the sump. A carefully considered discharge protocol should be prepared in consideration of the ephemeral nature of LRC. Other erosion mitigation structures, such as the use of energy dissipaters into the LRC channel should also be evaluated in this protocol. Please include this protocol as part of the alluvial groundwater management appendix.