From: Steve Christensen
To: John Gefferth; Richard B. White
Date: 10/5/2007 4:37 PM
Subject: Emery Deep: Groundwater Availability Issue
Attachments: Groundwater Availability Deficiency_skc.doc

Outgoing of C/015/0015

CC: Mary Ann Wright; Pam Grubaugh-Littig

John and Richard,

As we discussed I've attached what is essentially a draft deficiency relative to groundwater availability based upon our meeting earlier today. If you have any questions, feel free to write me an e-mail and I'll get to them as soon as I can when I get back from vacation on October 15th.

As I mentioned on the phone earlier John, I did speak with Darrell Leamaster from Castle Valley Special Services District and he was o.k. with allowing Consol access to Emery Town Wells #1 and #2 for monitoring purposes. I mentioned to him that it would be quarterly monitoring and he said that would be fine. Mr. Leamaster indicated that he is the one to contact in terms of coordinating access to the wells. His phone number is (435) 381-5333. Apparently Well #2 is covered with a large slab of concrete that has to be lifted off with machinery. He also said that water level readings are obtained in Well #2 with the use of an air tube that runs the length of the casing. Well #1 can be sampled with a probe according to Mr. Leamaster.

The language that you e-mailed me regarding water replacement and the Emery Town wells is spot on. The page that you e-mailed me, Page V-42, is the water replacement section that it should be inserted in. In addition, please insert the language into the Impacts to Groundwater Availability section of the PHC as we discussed. I would suggest deleting the last sentence of the paragraph on page V-42 that reads "Static water level readings...no disruption of the aquifers in the vicinity of the town's wells has occurred." I'd like to hold off on that kind of definitive statement until we can obtain some actual water level data from the wells.

I guess that's it for now and with that, I'm off to the land of "God's frozen people" as Garrison Keillor likes to say.

Steve

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Groundwater Availability

The Permittee should provide further discussion as to the potential for groundwater availability impacts as a result of the proposed mining activity. The information presented in the PHC section of the application, Appendix VI-14's mass balance estimates as well as the MODFLO discussion in Appendix VI-15, provide thorough explanations as to the calculations and assumptions utilized in determining the inflow and discharge rates at the mine.

The Permittee should provide a *written* narrative/summary within the text of the MRP (beginning on page VI-16) as to what probable hydrologic consequences may or may not occur as a result of the continuation and increase in mine-water discharge as well as it's cumulative effect on the groundwater resources located within and adjacent to the permit area. The discussion should be specific and detailed in addressing: the potential for the Emery Town wells to be impacted (and if impacted, estimates for recovery to pre-mining conditions), potential impacts to springs and seeps, the potential for further impacts to all three of the Ferron Sandstone layers (including estimates for their recovery to pre-mining conditions) as well as the potential for altering groundwater flow directions and pressures. Essentially, connect the dots with a specific written narrative (based upon the presented data) as to the potential for groundwater availability impacts as a result of full extraction in the permit area.