Web posting 12/2/2010

Notice of Decision

Permit #NEV2005106 (Renewal 2010)

Homestake Mining Company

Ruby Hill Mine Infiltration Project

The Nevada Division of Environmental Protection has decided to issue renewal Water Pollution Control Permit NEV2005106 to Homestake Mining Company. This permit authorizes the construction, operation, and closure of approved water management facilities in Eureka County. The Division has been provided with sufficient information, in accordance with Nevada Administrative Code (NAC) 445A.350 through NAC 445A.447, to assure the Division that the groundwater quality will not be degraded by this operation, and that public safety and health will be protected.

The permit will become effective 17 December 2010. The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to Nevada Revised Statute (NRS) 445A.605 and NAC 445A.407. All requests for appeals must be filed by 5:00 PM, 13 December 2010, on Form 3, with the State Environmental Commission, 901 South Stewart Street, Suite 4001, Carson City, Nevada 89701-5249. For more information, contact Miles Shaw at (775) 687-9409 or visit the Division's Bureau of Mining Regulation website at www.ndep.nv.gov/bmrr/bmrr01.htm

One (1) comment letter was received by e-mail on 22 November 2010, from Great Basin Resource Watch (GBRW). The comments, included in a Technical Memorandum dated 19 November 2010 and prepared on behalf of GBRW by Tom Myers, Ph.D., Hydrologic Consultant, follow in their entirety with responses by the Division.

RESPONSE TO COMMENTS

The following comments are from a 19 November 2010 Technical Memorandum, received by e-mail at the Nevada Division of Environmental Protection (Division) prior to the close of the public comment period at 12:31 PM on 22 November 2010, from John Hadder of Great Basin Resource Watch (GBRW). The Division responses follow the GBRW comments, which were copied as submitted and are presented in *italics*.

GBRW 1: The draft permit has an error on the first page, where it states the permitee is "authorized to infiltrate up to 1,440,000 gallons per minute"; presumably the permit should say "per day".

Division 1: The drafting error has been corrected in the Permit, which now reads "…1,440,000 gallons per day…"

GBRW 2: The 2009 annual report shows that the permittee has exceeded the 1,440,000 gallons/day limit at least five times in 2009. Did the permittee report these exceedences as required by the permit at II.B.4? The Fact Sheet should acknowledge these exceedences and discuss any observed response in the piezometers. The Fact Sheet should discuss procedures to avoid the exceedences in the future and the permit should include them.

Division 2: The referenced 2009 Annual Report chart labeled "RIB Flows", illustrates four (4), not five (5), apparent bar-graphed 'exceedances' of the 1,440,000 average gallon per day permit discharge limit. The chart also illustrates a blank space of varying width to the left of (i.e., before) each exceedance bar, which suggests a data gap. Review of the quarterly report associated with each 'exceedance' indicates the flow meter was not read for one or more days prior to the 'exceedance' reading. The Permittee explained during a subsequent on-site visit that the flow meter could not be accessed due to physical impediments during these times and once the sampler did access the flow meter, the cumulative reading was recorded as a single day event rather than averaging the reading over the elapsed time since the previous reading. Based on the quarterly report information, it is unlikely any exceedance occurred and the Permittee did not report an exceedance in accordance with permit Part II.B.4. However, in the 2009 Annual Report review letter dated 19 April 2009, the Division reminded the Permittee of the requirement to manage discharge in accordance with the approved design and Permit Limitation I.G.3.

GBRW 3: The draft permit also indicates the RIBs will be managed to avoid the formation of surface seeps, but does not indicate any requirements for such monitoring. There should be a required time for visual inspection of potential seep locations.

Division 3: The Permit requires the discharge rate to the basins be monitored daily and the infiltration mound piezometers monitored weekly. Based on the location and frequency of these activities, a surface seep would be observed or, more likely, the potential for development of a surface seep would be indicated by mound water levels with sufficient time to preventively adjust

discharge rates. Water levels in the piezometers remain in excess of 190 feet below ground surface.

GBRW 4: The RIBs have started to form a mound, as may be seen from the water level in PZ-2 and PZ-3, which had been dry in 2005 when first constructed. Depth to water in PZ-2 varies more than in PZ-3, in which it appears to be almost level. The graph of depth to water in the 2007 annual report is almost unreadable due to the tiny scale. The data reviewed was not sufficient to assess whether the mound has developed as predicted, or not. The renewal application should have discussed the extent of the mound including the amount that the piezometers have risen since 2005.

Division 4: The graphical display format of data in annual reports has improved over time. In addition, actual water level measurements are provided in table form in the quarterly reports. Based on the historic data provided as required by the Permit, the basins are performing in accordance with the approved design and that no additional discussion is warranted.

GBRW 5: TDS concentration at upgradient monitoring well MW-7 has trended upward from a little less than 200 to 290 mg/l between March 2005 and December 2009 (2009 Annual Report, MW-7 TDS graph). However, in 2010, the TDS dropped to 230 mg/l by the first and second quarters (2nd quarter 2010 monitoring report). TDS concentration at the RIB has consistently varied between 220 and 250 mg/l. TDS concentration at downgradient wells MW-8 and MW-9 is slightly less than at the RIB or MW-7, suggesting either dilution or that the downgradient wells are not monitoring the same flow pathway as MW-7.

Division 5: The downgradient monitoring wells MW-8 and MW-9 are the groundwater quality compliance points for infiltration. These wells, including upgradient well MW-7, pre-date construction of the basins and initiation of infiltration activities. There is no data that would indicate degradation of groundwater in any of these wells. Fluctuation of reported constituent values could be related to modification of the larger groundwater regime due to dewatering wells being activated, deactivated, replaced, or removed as upgradient mining progresses.

GBRW 6: Nitrate has similar tendencies – the concentration at the upgradient well MW-7 is much higher than at the downgradient wells where it is generally less than 1 mg/. At MW-7, nitrate increased from about 2 to 8 mg/l in 2006. As of Dec 2009, it is still almost 5 mg/l. This indicates that well MW-7 is a poor up-gradient or background well for these RIBs.

Division 6: See response Division 5. Quarterly report data indicates the nitrate concentration in MW-7 was 3.9 mg/L in the 08 December 2009 sample and 3.1 mg/L in the 01 October 2010 sample. Historic baseline data collected prior to the Permittee's mining activities report elevated nitrate values are widespread and erratic.

GBRW 7: There has been arsenic measured at the wells and the RIB prior to 2009 (2009 Annual Report), but during the four quarters prior to the 2nd quarter 2010 monitoring report, it was nondetect at all of the wells.

Division 7: See response Division 5. Additionally, arsenic is a common elevated constituent in groundwater in the area and dewatering is managed by activating and deactivating wells to minimize potential for exceedances.

GBRW 8: In summary, this review finds that the permit should have some changes as discussed above. The NDEP should verify the mounds are developing as forecast, and include the discussion in the fact sheet.

Division 8: See response Division 4.

GBRW 9: The most important recommendation is that MW-7 should be replaced with a new well. Ostensibly, this well monitors background conditions but concentrations of at least TDS and nitrate in this well exceed that at the downgradient wells. Even if those wells started to show increased concentrations, it would not be possible to conclude it was not background because of the current higher concentrations at MW-7.

Division 9: See responses Division 5 and Division 6.