

MEMORANDUM

DATE: February 28, 2011

TO: Water Right File 72-7573

FROM: Shelley W. Keen *SWK*

RE: Annual Diversion Volume

IDWR places an annual diversion volume on all water right licenses except those for municipal use and those for fire protection. Establishing an annual diversion volume limit for the industrial use authorized by Right 72-7573 is proving difficult. The right authorizes the diversion of ground water from a mine pit. Surface runoff, snowmelt, and direct precipitation also collect in the mine pit and are pumped out with the ground water. Some of the water from the combined sources is directed to storage tanks and on to the milling operation. If the mine pit contains more water than is needed for milling, the excess water is directed to the tailings pond. If needed, water is sometimes routed from the tailings pond to the milling operation. Because the amount of surface runoff, snowmelt, and direct precipitation varies from year to year, the amount of water pumped from the mine pit can be highly variable. The water right holder is concerned that the annual diversion volume on the license will be less than the volume accumulating in the mine pit in wet years and that the water right limit will prohibit the right holder from dewatering the mine pit.

There are three keys to evaluating this situation.

- The water right is for ground water. It does not authorize the diversion of surface runoff, snowmelt, or direct precipitation.
- Surface runoff, snowmelt, and precipitation collecting in the mine pit are not public resources because they have not entered a natural watercourse. They are still private resources. Therefore, a water right is not needed for collection and use of them. This is akin to collecting rainwater in a barrel. A water right is also not required to dispose of surface runoff, snowmelt, and precipitation.
- Establishing a water right requires beneficial use of the water. Water pumped from the mine pit to the milling process is beneficially used. Water pumped from the mine pit solely for dewatering purposes is not beneficially used.

Based on these three keys, the license should be issued for the amount of ground water that is diverted to the milling process. Current water rights authorize 3108 AF to be diverted for milling purposes. Bert Doughty of Thompson Creek Mining Co. told Sandy Hemenway on 1/10/2011 that the company continues to mine and mill about the same amount of ore as it did when the 3108 AF limit was established. Therefore, the beneficial use is the same, and the overall diversion volume should be the same – a combined total of 3108 AF. The only difference is that

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with the addition of Right 72-7573, a greater portion of the 3108 AF can be ground water diverted from the mine pit.

In 2009 Thompson Creek pumped 487.4 AF of water from the mine pit. Previously, Right 72-7414 authorized the diversion of 192 AF from the mine pit. Right 72-7573 should authorize the difference between 487.4 AF and the 192 AF already authorized, or 295.4 AF, minus the amount attributable to runoff, snowmelt, and direct precipitation, which will have to be estimated separately.

Subtracting the volume attributable to runoff, snowmelt, and direct precipitation, should not be neglected. Otherwise, the volume of ground water diverted and used by the right holder would appear inflated, and the right holder could make delivery calls for the inflated volume against junior ground water users in future conjunctive management scenarios. If we cannot effectively estimate the portion of 2009 mine pit water attributable to runoff, snowmelt, and direct precipitation, then I recommend that License 72-7573 have a condition requiring Thompson Creek Mining Co. to rely on its other sources of industrial water, to the extent they are available, before making a call for ground water against junior appropriators.

Thompson Creek Mining Co. can pump surface runoff, snowmelt, and direct precipitation from the mine without a water right.