

US EPA ARCHIVE DOCUMENT

Kennecott Eagle Minerals

Jonathan C. Cherry, P.E.
General Manager
504 Spruce Street
Ishpeming, Michigan 49849
(906) 486-1257

November 24, 2009

Ms. Tinka Hyde, Director
Region 5, Water Division
United States Environmental Protection Agency
77 West Jackson Boulevard
Chicago, Illinois 60604-3507

**Re: Response to November 18, 2009 Request for Information Concerning
Kennecott Eagle Minerals Company Waste Water Treatment Plant**

Dear Ms. Hyde:

During our meeting with you on November 18, 2009, you indicated that EPA staff had requested (but had yet to receive) a copy of the Kennecott Eagle Minerals Company ("KEMC") mine Waste Water Treatment Plant ("WWTP") treatability study, and that EPA would like to have a copy of the study. Note that, based on our prior discussions with EPA staff we believed that EPA did not need the study in order to review the Kennecott UIC permit application for the Treated Water Infiltration System ("TWIS"). In response to your oral request for the study last week however, we are pleased to provide you with the study, which is enclosed.

In order to properly frame the study from a practical standpoint and to place in context the technical conclusions of the study relative to EPA's review, this letter provides a brief summary of the findings. The study was conducted in 2 parts: the primary reverse osmosis (RO) double pass treatment system and the concentrate reverse osmosis (CRO) system. The results demonstrate that the primary RO system performance was very successful. All Part 22 discharge criteria were easily met. Additionally, the large majority of discharge criteria were met after the first RO pass.

During the CRO test phase, there was an inadvertent laboratory technician error where the mercury content of the sample solution was prepared to 1000 times higher than intended which compromised the mercury results. However, testing from the primary RO treatment phase demonstrates the effectiveness of RO in the treatment of mercury.

Ms. Tinka Hyde
United States Environmental Protection Agency
November 24, 2009
Page 2

For all of these reasons, combined with well established and published WWTP literature outlined in Appendix C of the KEMC UIC permit application for the TWIS, dated April, 2007, KEMC is confident (along with the MDEQ and the administrative law judge who recently adjudicated the issue) that the WWTP design will have the capacity to meet Part 22 discharge criteria and the requirements set forth in KEMC's Part 22 Groundwater Discharge permit issued by the state of Michigan (GW1810162). These criteria and permit requirements are much more comprehensive in scope than what the SDWA UIC requirements would impose.

If you should have any further questions, or require additional information, please contact me or Vicky Peacey directly at 906-485-1267.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jon Cherry".

Jonathan C. Cherry
General Manager

Treatability Test Report PDF (55 pp, 593K)
Foth Infrastructure and Environment, LLC
Treatment of Simulated Mine Wastewater
Kennecott Minerals Company

May 15, 2007