



The State
of Wyoming



Department of Environmental Quality

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Email followed by U.S. Mail

March 30, 2005

Mr. Gary Janosko, Branch Chief
Fuel Cycle Facilities Branch
Division of Fuel Cycle Safety and Safeguards
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
11545 Rockville Pike
Rockville, MD 20852

Re: Biotic and Physical Surveys of the Spring Creek Drainage System in the Vicinity of the Shirley Basin Mine Tailings Site, October 2004,
Pathfinder Mines, Alternate Concentration Limits Application (ACL),
NRC Docket No. 40-6622, License No. SUA-442 (TAC No. L51931)

Dear Mr. Janosko:

The Wyoming Department of Environmental Quality (DEQ) has reviewed Pathfinder Mines Corp.'s (PMC) above referenced report concerning the Spring Creek biotic assessment. This work was based on the June 3, 2004 Work Plan which we reviewed and concurred with. Overall, the project was performed as planned and the results indicate there are no obvious impacts to Spring Creek from tailings seepage at this time. We have a few comments on the report as follows:

1. We are somewhat concerned over the relatively high pH readings in many locations along Spring and Medicine Bow creeks. This is something that needs to be monitored. The time of day that samples are collected could be affecting these readings. In future events, please make sure that the time is noted when sampling the surface water sites.
2. During any future aquatic sampling, we ask that the percentage of substrate be noted and reported. The current work did note the different types of substrate, but a break down by

percentage (e.g., 10 % cobble, 40 % coarse gravel, 50 % sand) would be more helpful.

3. The variation in uranium and other compounds in some of the background surface water and sediment locations, especially Fox Creek #1 (FC1) is puzzling. FC1 had a uranium concentration of 0.0217 mg/l in the water, but only 3.54 mg/kg in the sediment. Whereas Spring Creek #1 (SC1), had a water uranium analysis of 0.0166 mg/l and a sediment concentration of 6.17 mg/kg. We believe further sampling is needed to confirm that these readings.

4. Finally, in order to thoroughly track any impacts from mine seepage after the corrective action systems are terminated, we ask that continued chemical, physical and biological sampling be performed on an annual basis at least until after the anticipated peak contaminant concentration reaches Spring Creek. In the recent response to the NRC comments (January 11, 2005), PMC stated that the peak concentration will "...occur in roughly 9 years after cessation of the corrective action..." This surface water monitoring should be performed as was done in the current report, and reported along with the annual groundwater monitoring data.

I appreciate your interest in working to resolve these issues in order to help us ensure reasonable protection of human health and the environment. Please contact me at 307/332-3144 or at the address above if you have any questions concerning this letter or our comments.

Sincerely,



Mark Thiesse
West District Supervisor
GPC Program, Water Quality Division

cc: Mr. John Lusher, Mail Stop T8-A33, 11545 Rockville Pike, Rockville, MD 20852-2738.
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