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John Buckley
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Distribution:
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Tilkinsky
(Return to WMA, 623-SS) *af*

Dear John:

I have been thinking about the possibility of organizing an underground mine tour in the Coeur d'Alene district for the NRC during the March BWIP ES Test Plan Meeting. The Lucky Friday Mine in Mullan, Idaho (about 1-1/2 hours east of Spokane, Washington) is a deep silver mine which experiences many of the same ground control problems that we expect at BWIP. Mining depth is currently at 5,300 feet; the rock is heavily jointed, brittle quartzite. The mine presently has a fairly severe rock-bursting problem as well as general ground control problems requiring significant support using rockbolts, timber, and shotcrete and cable anchors. The shaft is 20' ID circular and concrete lined. Several years ago, we installed four levels of displacement and stress instrumentation in the shaft during construction—the data from this may be of interest.

At this time, the Bureau of Mines is installing a large number of instruments on the 5,100' level to monitor an experimental stope. The reason for this is primarily rockbursting, but they are also attempting to determine the DRZ characteristics around the advancing opening. They are also currently measuring the in-situ stress state at this level by overcoring. They have also recently completed at 4' diameter reamed 200' orepass adjacent to this experimental panel. Hecla Mining Company also has a mine-wide microseismic system which is computer-controlled from the surface and used for rockburst detection. I think such a tour (requiring about 4-5 hours) would be very informative considering the possible similarities to BWIP.

This trip would require one extra day of travel. We would fly into Spokane, drive to Wallace, Idaho and spend the night, visit the mine from 7:00 a.m. - 12:00 noon, and return to Spokane. This could be done prior to the BWIP meeting—fly in Sunday night, have the mine tour on Monday, and go to Richland on Monday evening (Richland is about 130 miles from Spokane). A possible interesting side trip in Spokane might be to visit the laborator-

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ies of the U.S. Bureau of Mines, which has a fairly extensive rock mechanics laboratory including large specimen loading frames.

If a tour is of interest, please let me know as soon as possible; it will take some time to arrange. The mining company would like to limit the tour group to about 6 persons.

Yours,

Mark

Mark Board

mb/ks