

MEMORANDUM

TO: W. Krats FROM: P. M. Pettigrew
 SUBJECT: GRADE OF ORE MINED VS PREDICTED, DATE: April 16, 1973
 1972

1. Predicted:

An estimate was made of the tonnage and grade of ore expected in the rock volume mined during 1972. This was derived from the 1973 reserve estimate for benches 3910 - 3830 and from the 1970 reserve estimate for benches 4100 - 3950.

2. Mined:

Using the milled tonnage and grade for 1972 (as reported by the mill for year-to-date December 31st., 1972), the truck-counted tonnage and estimated (from 25/10/72 rotary drilling) grade of the low grade stockpiles, an estimate was made of the tonnage and grade actually mined as ore in 1972. An estimate was made (based on Pb/Zn ratio for 1972 and an arbitrary grade of 11%) of the tonnage and grade of the high grade stockpile. This was also included in the "mined, 1972" figures.

Below are the results:

	<u>Tonnage</u>	<u>Pb</u>	<u>Zn</u>	<u>Combined</u>	<u>Pb/Zn</u>
1. Predicted, 1972	3,914,693	3.7	6.3	10.0	0.59
2. (a) Mill-Reported	2,905,530	4.6	6.2	10.8	0.74
(b) High Grade SP	24,084	4.7	6.3	11.0	0.75
(c) Low Grade SP/Red	220,219	3.4	5.8	9.2	0.59
(d) Low Grade SP/Yellow	<u>924,150</u>	<u>2.7</u>	<u>4.5</u>	<u>7.2</u>	<u>0.60</u>
Mined, 1972	4,073,983	4.1	5.8	9.9	0.71

As noted in the writer's report dated September 13, 1972, there is a tendency for a net gain over bench-plan-estimated tonnages (in the present case a gain of 4%). The Pb/Zn ratio also follows the trend predicted in that report:
 (1) any projection of Pb/Zn < 0.7 is not realistic for the total ore removed,
 (2) stockpiling intensifies this trend.

P.M. Pettigrew

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