

tions as having been demonstrated, at least so far as Mother Lode ore is concerned.

1. The magnetic oxides cannot be concentrated except by magnetic separators, followed by water concentration. With this plan the concentration is very complete. No trials have been made with any of the magnetic concentrators now on the market.

2. The calcite and silicious ores can be concentrated; the first more completely than the second.



Some of the "Boys."

3. The proportion of gold saved in the concentrates will be close to, if not exceeding, 95 per cent. of all gold present in ore.

4. The proportion of copper saved will vary from 60 to 80 per cent. according to the degree in which formation of slimes can be obviated, and the degree in which those formed can be concentrated.

5. The ratio of concentration will average about three tons into one.

The following examples illustrate the point in question. Of course only ores of lower grade were taken; it not being useful to experiment with high grade ones. In estimating the value of ores 1.3 per cent. of copper is deducted for loss in smelting, and the remainder multiplied by the present market price of copper, which at 17 cents is \$3.40 per unit.

SAMPLE OF ORE FROM BOTTOM 200-FOOT SHAFT.

Assay of	Gold.	Copper.	Value.
Ore.....	\$ 3.00	\$2.50	\$ 7.08
Concentrates.....	12.00	6.30	29.00
Slimes.....	.50	1.81	2.23
Tailings.....	.25	1.18	.25

Percentage of Concentrates.....	23
" " Slimes.....	20
" " Tailings.....	57
" " Gold saved in Concentrates.....	92
" " Copper saved in Concentrates.....	60
" " Copper lost in Slimes.....	14.5

SAMPLE ORE FROM SOUTH DRIFT 200 FOOT LEVEL.

Assay of	Gold.	Copper.	Value.
Ore.....	\$ 3.30	\$2.80	\$ 8.40
Concentrates.....	12.50	6.81	31.23
Slimes.....	.10	2.59	4.48
Tailings.....	.50	1.06	.50

Percentage of Concentrates.....	24
" " Slimes.....	23.4
" " Tailings.....	52.6
" " Gold saved in Concentrates.....	91
" " Copper saved in Concentrates.....	58
" " Copper lost in Slimes.....	22

In several other instances the saving of gold has been as high as 98 per cent. of all present. In the above examples with proper machinery for reducing the percent of slimes and with slime tables, the amount of copper lost in slimes would be greatly reduced.

The officers of the Company are H. L. Horton, President; James F. Tichenor, Vice-President; C. E. Laidlaw, Treasurer; Chas. E. Morris, Secretary and Frederic Keefer, Manager. The Mine Superintendent is Henry Johns. General offices, 31 Nassau St., New York; local office, Anaconda, B.C.



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