

June 27 Mt. TOBIN CHICKSILVER CO. (Pilot Peak)
"Mike" Gould, U.N. President & Manager
Bell, roaster expert
Bill Jenkins, Superintendent (U.C.)

284
Item 2

3250 0002

Plant started June 13, 1940; Capital investment for plant about \$18,000.00. Now valued at \$20,000. Ore runs 2# to 38#; now on 10# ore - cutoff at 3#. Run about 22 tons per day through 18" x 24' roaster. Two pits produced best ore. Underground workings to 100'. No crystalline HgS seen - mostly as paint and almost impossible to pan. Property not assayed, but bought on general appearances. Buckskin and Wild Horse properties bought also with little weight put on assays. At present little ore in sight, but may uncover more with bulldozer - one pit stripped by hand. One man breaks all muck - 3 development faces. One pit now used as gloryhole to load cars and for storage. Ore makes below surface clay in agglomeratic material in Tertiary Tuffs which cover large local area. Rhyolite, andesite, diabase and basalt in area. Slips in tuff seem to be mineralizers. On hill above is hot spring that may have been Hg source. Pyrite and AgS only minerals found with mercury. HgS paint often looks good but is not.

Milling cost close to \$2.00 per ton with overall cost near \$7.00. Expenses about \$4,500.00 per 30 days - on 10# ore run makes very nice profit.

Average of 22 tons per 24 hrs. put through 18" x 24' Gould rotary furnace. One rev./48 sec. gives about 2 1/2 (?) hrs. contact. Small two-stage compressor for oil firing. Firing tube used. No trouble with rings. 2 H.P. electric drive for kiln. Fire 1150-1400 deg. F disch. 650 deg. F - last condensing tube 120 deg. F. About 90% extraction.

Ceraco dust collector 1 cone

Bin - Pacific Jaw Crusher - Bin - Cam vib. feed Kiln Burner

Hg fume from ceraco dust Calcine

Blower Wooden stack Dump

water

wooden
cooling
tank

Condensing tubes
20 gauge steel

trap

trap

trap trap trap trap

Traps all water-sealed. Dust to waste or to seal top joints of condensing tubes. H_2SO_4 ruins tubes in 8 months Cast iron better but cost \$6,000 against \$2,000 for 20-gauge steel. 6 tubes about 14" x 22' cleanup every 6 days - top elbows removed and tubes sluiced down with high pressure water through hacksaw cuts in 1" x 2' pipe. 10# soot with 150# Hg. Day or so for pipes to load up again with Hg. Cleanup takes about $1\frac{1}{2}$ hr. and only lost time in 6 days. Diesel is oiled, etc., during this time. Hg mixed with CaO and hoed.

Fuel: 6 gals. per ton in furnace; 30 gals. per 24 hrs. for diesel @ 9¢-10¢ per gal. - 73¢ per ton (@ 22 tons per day) Diesel to mill.

Power: 35 H.P. Caterpillar diesel, 25 K.V.A., 20 K.W. A.C. Generator. This unit approximately \$2,500.00. 0.56¢ per KWH for fuel.

Water: Gravity flow from springs higher in mountains.