

SILVER STAR - PRODUCTION ESTIM.

NET MILL VALUES @ CURRENT L.M.E. PRICES:

Au, ($\$92.00$) - $\$83.00$ /oz. (NOTE CURRENT $\frac{2}{3}$ RECOV.)
 Ag, ($\$2.25$) - $\$1.75$ /oz
 Pb, (16%) - 8.94 /lb.
 Zn (20.5%) - 9.04 /lb. (incl allow for Cd content.)

INDIC. ORE GRADE (@ 20% wt. = 25% vol. dilution)	GROSS VAL.
Au, 0.22 oz/Ton	$\$20.24$
Ag, 6.0 oz/Ton	13.50
Pb, 6.0% - - - 120#/T.	19.20
Zn, 6.7% - - - 134#/T.	27.47
	<u>$\\$80.41$</u>

NET MILL VALUE:

Au, $\$12.20$ (AFTER $\frac{1}{3}$ LOSS)	16.21
Ag, 10.50 ON MILL RECOV.	12.00
Pb, 10.68	10.80
Zn/Cd, 12.06 @ $\$45.44$ /Ton - - $\$45.44$	12.06 $\$51.07$

MINING COSTS, ESTIM. RANGE

	MIN.	MAX.	EST. AVG
DEVELOP. & MINING - - -	5.50	7.50	
ORE LOAD & HAULAGE - - -	4.00	4.50	
MILLING	6.00	7.00	
MINE ROAD	.50	1.00	
MINE SUPERVISION & ENG.	1.00	1.50	
MAINT., REP. REPLACEMENTS, & INS.	1.00	1.50	
ADMIN., MINING, & MUNICIPAL TAXES	1.50	2.00	
EXPLORATION (CONCURRENT)	4.00	6.00	
	$\$23.50$	31.00	$\$27.00$ $\frac{27.00}{24.07/T}$
CALC. RANGE NET OP. PROFITS/T.	$\$21.94$	14.44	$\$18.44$ /Ton

GROSS ON 50,000 T INDIC. BEFORE I.T. - $\$922,000$

Atomic Wts

Au - 197.2
 Ag - 107.8
 Pb - 206.0
 Zn - 65.3
 Cd - 112.4
 Fe - 55.8
 S. - 32.0

$\frac{PbS}{Pb} = \frac{238}{206} = 1.16$ Fe + Si + S = 1.20
 $\frac{ZnS (+6\% Fe)}{Zn} = \frac{101.3}{65.3} = 1.55$ + Si + S = 1.60

(A) 10,000 tons ore (under grade) contains

6% Pb x 1.20 = 7.2% "PbS"
 6.7% Zn x 1.60 = 10.7% "ZnS"

Gross Sulphur = 17.9% @ 1800 Tons.

(B) 10,000 tons ore per reg. Calc -> 850 tons Pb lens @ 6.5% Pb

(10,000 tons @ 27% /T) $\frac{1206}{2056}$ tons Pb/Zn Cons.

net op profit/10,000 t ore = $(2056.7 \times 250) - 270,000 = 242,000$ net @ $\$209,000$

April /73

Metall Performance - Au, 67%
 Ag, 94%
 Pb, 95%
 Zn, 90%

Develop & Mining	6.00 - 7.50
Pit Haulage	3.50 - 4.00
Milling	6.00 - 7.00
Wear road repair & maint.	.50 - .50
Wear equipment & exp.	.75 - 1.00
Maint, repair & additions, Insurance	1.00 - 1.50
Admin, Mining & Municipal Taxes	1.50 - 2.00
Exploration	2.00 - 3.00
	21.25 - 26.50 "Avg." 23.85

(prob. recover)

Indic Ore Res, cont. total, 40,000 tons @ 0.147% Au, 6.21% Ag, 7.55% Pb, 5.26% Zn	
Net Mine Values Au, 40 ⁰⁰	
Ag, 1.90	
Pb, 0.09	
Zn, 0.09	
	\$ 40.69 / T

With 20th wt (25% vol) dil'n West Summit Mine Sect:

25,150 tons @ Au, 0.23; Ag, 5.9; Pb, 6.0; Zn, 6.7%

Net Mine Value Au	.65 x .23 x .95 @ .75	10.65
Ag	5.9 x 1.90	11.20
Pb	120 ⁰⁰ x .09	10.80
Zn	134 ⁰⁰ x .09	12.07
		\$ 44.72

Less mine exp. costs - - - - - 23.85

Indicated net profit - - - - - \$ 20.87

(Econ - (uncertain) near - future ore only)

25,000 x 20. - - - \$ 500,000 - ~ Stage I + II Explor - Develop.

Pb Conc. See page 4, Rept / July 26/71.

E.M.D.
Au - 20.00
Ag - 2.20
Pb - 16.000
Zn - 20.25
Cd - 3.75

Au, 1.37g. Ag, 40.0g; Pb, 20%, Zn 6%

Zn Conc.

Au, 0.50g; Ag, 12.0g; Pb, 4.0%, Zn, 5.2%

Net Smelter Values:

Pb Conc.

Au, 1.37g x 90% = 1.233 x 90.00 = 110.00

Ag, 40.0g x 95% = 38.0g x 2.25 = 85.60

Pb (20 - 1.5)% = 1870# x 95% = 1301# x (0.16 - 0.0175) = 185.50

Zn, (6 - 2.5%) = 70# x 12 1/2% = 8.75# x 0.2025 = 1.77

Gross Payments \$ 382.87

Less Treat. Charge - 30.00 (?)

Freight - 15.00

miscell. - 5.00

NET \$ 332.87

Zn Conc.

Au, 0.50 x 80% = 0.40 x 90.00 = 36.00

Ag, 12.0 x 80% = 9.6g x 2.26 = 21.70

Pb (4.0 - 1.0%) = 60# x 50% = 30# x 0.16 = 4.80

Zn, 52% = 1040# x 85% = 884# x 0.16 = 141.50

Cd, 1.1% = 22# - 3# = 19# x 70% x (3.75 - .40) = 44.50

Gross Payments \$ 248.50

Less Treat. Chg. - 65.00 (?)

Freight - 15.00

miscell. - 5.00

NET \$ 163.50

10,000 tons Ore @ 880 lbs Pb conc @ 332.87 = 283,000

1206 " Zn " @ 163.50 = 196,000

Net net Pb/Zn \$ 479,000

Less Op Costs 10,000 x 22.00 = 220,000

NET RET. \$ 209,000

B & C

June/71

Mill rated @ ± 2500 T/mo. For purposes of this report, 5 days @ 24^{hrs}
Reservation made re. present mine-production capability re above &
recomm. depr. milling until development is sufficient for
production.

Ore Supply - assessed at 1 year $(12 \times 2500) = 30,000$ tons; hence
1 yr, or interim, development period mandatory.

Metals prices @ Au. \$ U.S. 35⁰⁰ = 37.62 Con.

Ag @ U.S. 1.88 = 2.02 Con. } same way /70

Pb - - - - - 16.54 " }

Zn - - - - - 15.54 " }

Cd - U.S. 4.00 \rightarrow 4.00 - - - up in May/70

Mill recoveries of Au, 90.2%

Ag, 96.4%

Pb, 92.1%

Zn, 90%

} employed, but considered
somewhat high.

Performance:

Max net Sm. Ret. of 412,644 might result via extraction
rate of 120 T/day or ≈ 2500 T/mo. - Doubtful if can be realized.

Above operating profit excludes allow. for explor. & develop.,
head office, financing, prov. & local tax costs.; In addition no
allowances for depreciation, depletion, or Federal taxes. - U.S.
notes dep'n & depletion (30%) normally considered, counter-
cost items.

* The property possesses excellent exploration potential, and
it is considered chances for discovery of additional ore of equine grade
are good.

P.8 Ore Potential of Western ($\frac{1}{2}$) segment estimated @ 575,000 tons
 $\times 20\% = 115,000$ tons.

Net sales:

100 tons (6-2 block) ore \rightarrow 10.48 tons Pb Conc.

\rightarrow 13.70 " Zn "