Scranton

801061

PROPOSAL BASED ON AN INVESTMENT OF $150,000 WITH A MINIMUM OF $60,000 SUBSCRIBED BEFORE INITIATING THE PROGRAM PLUS A $50,000 BANK LINE OF CREDIT. (Partially completed)

February 1975

Several projections have been made, based on varying metal prices and pertinent cost factors for the mining and milling of 25,000 tons of ore, classed as indicated, which is available for immediate extraction and the continued development of known ore occurrences. These programs would require an investment of $300,000 to $400,000. All calculations were based on the price of metals for the dates shown.

The following projection is based on a somewhat different approach to the operation and continued development of the Silver Star Mine.

For the purpose of this projection ONLY the following factors are considered for this phase:-

1. There is readily accessible 9,000-plus tons of ore in Block A-1 (classed as indicated). The average (undiluted) grade is 0.279 oz. Gold, 8.25 oz. Silver, 10.1% Lead, 10.3% Zinc plus Cadmium. (W.H. Sharp, E.M., Interim Report #71-1, July 1971)

U.S. Avg/75 : Au, 0.19; Ag, 6.2; Pb, 6.5%; Zn, 9.1%; Cd, 0.12%

2. It is proposed to extract and mill this block of ore which has a net smelter value of approximately $85.00 per ton after allowing for 25% dilution, 90% mill recovery, 4% royalty plus the super royalty and $8.00 per ton to cover freight, smelter charges and miscellaneous deductions. (See Schedule A-2) Diluted tonnage 11,250 plus tons.

3. The company has negotiated with two highly qualified mining contractors who have offered to extract this block of ore, with their own equipment, supplies, facilities and crew. They undertake to maintain grade within prescribed limits and deliver the ore to a designated point at the portal for a total cost to the company of $18.00 per ton.

4. The company has on hand a letter from Cominco stating that they will accept its concentrates at current rates and charges.

5. The company has arranged a revolving line of bank credit of up to $50,000 based on assay values of broken ore at the mill or concentrates shipped to the smelter.

6. A total of $150,000 cash is recommended to finance this proposal, with a minimum of $60,000 subscribed before initiating the program.

Following is a generalized estimate of the use and application of these funds. The accompanying Schedules A-1, A-2, B-1 and B-2 relate to the present phase of the operation and outline the anticipated cash flow based on processing the 11,250 tons at 700 tons per month, assuming a net smelter value of $85 per ton. Total mining, hauling and milling costs are estimated at $43 per ton including miscellaneous rehabilitation, repairs, replacements, supplies, overhead, operating andcontingency factors for this phase of the operation.

These are general guide line estimates only and will vary in actual practice in some phases depending on metal prices and other factors.

. . . 3

This proposal does not include any development program. The startup, mining and milling of the 11,250 ton ore block would require a minimum of sixteen months' work at 700 tons per month and final payment for ore treated would be received within an eighteen month period.

As the mining portion of this phase progresses, a program for continued mining and development of the mine would be formulated and carried out.

At the end of approximately twelve months' operation, all cash and credit advances should be refunded and the company should have funds on hand to carry forward on a limited scale.

On this basis the estimated cash flow would be as follows:

Cash investment		$ 150,000
Revolving Bank Credit		50,000
Estimated total receipts from 11,250 tons @ $85 P/T net smelter return		956,250
	Total:	$ 1,156,250

Less:	Estimated to operating & contingency costs	$ 483,750	
	Return of cash investment	150,000	
	Refund Bank Credit	50,000	
	20% Bonus on $150,000 plus miscellaneous costs	35,000	
	1974 Pre-production expenditures (approximately)	90,000	
	Estimated 1975 pre-production expenditures	60,000	868,750
Balance to Company to be applied to obligations and capital for continued operation			$ 287,500

The following projection is based on mining and milling 1100 Tons per month in proceeding with the foregoing proposal.

Factors used are: 5,000 Tons of Block A-1 ore, (diluted by 20% in mining) current Cominco smelter schedule, metal prices due to rapid fluctuations are arbitrarily fixed below current prices, particularly as to gold and silver.

	Av.Gold oz/Ton	Av.Silver oz/Ton	Av.Lead %	Av.Zinc %	Av. Cadmium %
Indicated Ore Grade	.279	8.25	10.1	10.3	0.14
Grade After 20% Dilution	.223	6.8	8.08	8.24	0.112
Mill Recovery @ 90%	.20	6.02	7.27	7.41	0.10
Cominco Pays For	93%	93%	92%	85%	60%
That is	.186	5.6	6.7	6.3	0.06
Arbitrary Value @	$150.00	$5.00	18¢	21¢	$3.25
Gross Payment	$ 27.90	$28.00	$24.12	$26.46	$3.90

TOTAL: $110.38

Payment for Metals		$110.38
Less:	Approximate pro rated deductions for smelting, miscellaneous deductions, freight, etc.	6.00
TOTAL NET SMELTER RETURN PER TON OF ORE MILLED		$104.38
Less	Estimated cost of mining, hauling, milling and overhead per Ton	30.00
INDICATED NET OPERATING PROFIT PER TON		$ 74.38

SCHEDULE A-2

Estimated Net Smelter Return and Net Operating Profit per ton based on values in Block A-1, assuming production @ 700 tons per month and a 25% dilution factor.

February 1975

	Av.Gold oz/ton	Av.Silver oz/ton	Av.Lead %	Av.Zinc %	Av.Cadmium %	Totals
Block A-1 Assay Value	.279	8.25	10.1	10.3	0.14	
figure on at least ⅓ dilution → @ 25% Dilution	.209	6.18	7.57	7.72	.0.105	
@ 90% Recovery	.188	5.56	6.81	6.94	0.094	
Smelter pays for	93%	93%	92%	85%	60%	
Nets	.174	5.17	6.26	5.90	0.056	
Smelter pays at Feb. 1975 Prices	$170.00 oz.	$4.25 oz.	18¢ lb.	21¢ lb.	4.25 lb.	
Gross return	$29.58	21.97	22.53	24.78	4.76	$ 103.62
4% Royalty	1.18	.87	.90	.99	.19	(4.13)
Super Royalty	3.97	-	-	1.77	.53	(6.27)
Total Royalty	5.15	.87	.90	2.76	.72	10.40
Balance after Royalties						93.22
Less Pro-rated deductions, freight, smelter charges, etc. @ $8 per ton						8.00
Balance Net Smelter Return						85.22
Less Estimated mining, milling, hauling, overhead per ton						43.00
Indicated Operating Profit per ton						42.22

@ 700 tons per month	-	$ 29,554
@ 80% repayment per month	-	$ 23,643
Balance to Company	-	$ 5,911

SCHEDULE B-1

PRELIMINARY ESTIMATE OF STARTUP EXPENSES TO JUNE 1, 1975

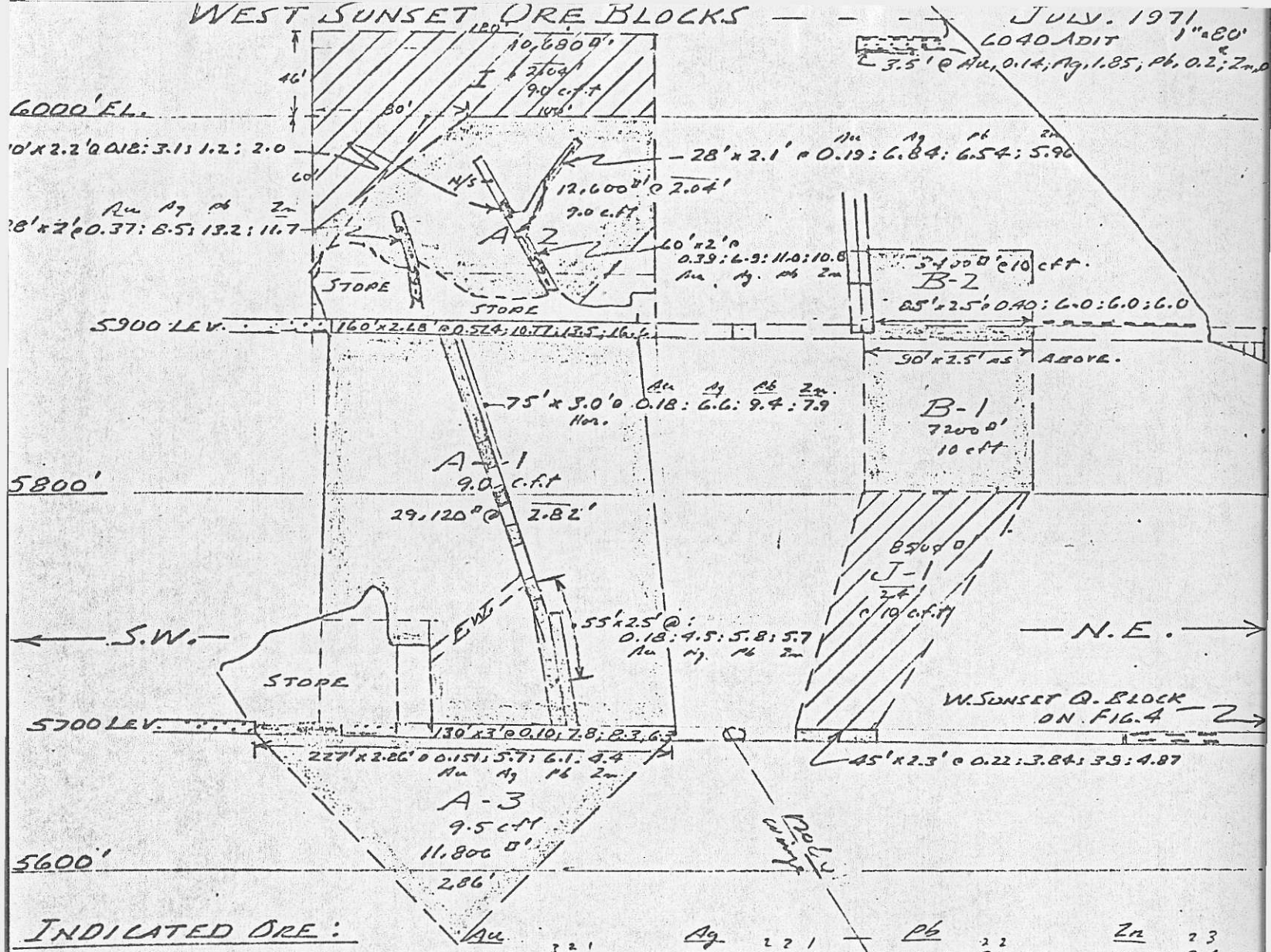
Purchase used D6 Cat $6,000, Tax & Transport. etc. $1,000 Total -		$ 7,000
Re-open road - Wages $1,700 plus fuel, etc. $300 "		2,000
Re-open camp, labour, repairs, etc.		2,500
Timbering, ore chutes, etc. 5700' level, preparation for continued stoping		3,000
Miscellaneous		500
		$ 15,000
Mill taxes		1,000
Repair transformer, replace wiring, check motors for startup of mill		3,000
Initial reagents for mill		1,000
Power hookup (deposit) for mill (quote West Kootenay Power)		1,000
Labour re mill startup		3,000
Purchase and installation of new tailings disposal, pipe, etc. (quote Newport Diving)		6,500
Truck licences and insurance		1,000
Mill and general insurance to June 1st		1,000
Travel and miscellaneous overhead to June 1st		3,000
Hauling 700 tons ore to mill at $5 per ton (Ron Hewitt quote)		3,500
Miners (four men) to June 1st		6,000
Payments re ATCO Bldgs. to June 1st		2,000
Payments re Loader to June 1st		1,400
		$ 48,400
Miscellaneous		1,600
	TOTAL:	$ 50,000
Contingency allowance 20%		10,000
	TOTAL:	$ 60,000

SCHEDULE B-2

ESTIMATE

OPERATING COST PER TON AT 700 TONS PER MONTH

MINING, MILLING, ETC		
Wages - Mill Superintendent	$ 1,200	
2 Helpers @ $1,000	2,000	
Compensation, U.I.C., etc. 17%	550	$ 3,750
Power	500	
Insurance	250	
Reagents	500	
Mill Balls, greases, oils, general maintenance	750	2,000
TOTAL:		$ 5,750
Contingency 20%	$ 1,150	
Rental @ 50¢ per ton (to Blue Star)	350	1,500
TOTAL MILLING - per month:		$ 7,250
Approximate milling cost per ton @ 700 tons/month		$ 10.00
Contract mining to Portal per ton		18.00
Hauling mine to mill " "		5.00
Outside work at mine, road maintenance, repairs, general surface work, etc., plus 2 men Estimate approx. $5,000 per month per ton		7.00
Overhead @ $2,000 per month " "		3.00
		$ 43.00



INDICATED ORE:

		Au	Ag	Pb	Zn
A-1	= 9120 TONS	@ 0.279 = 2550.0	@ 8.25 = 75,200	@ 10.1 = 92,200	@ 10.3 = 94,000
A-2	= 2850 TONS	@ 0.322 = 918.0	@ 6.90 = 19,680	@ 9.6 = 27,320	@ 9.1 = 25,950
A-3	= 3550 TONS	@ 0.151 = 537.0	@ 5.70 = 20,500	@ 6.1 = 21,600	@ 4.4 = 15,600
B-1	= 1800 TONS	@ 0.400 = 720.0	@ 6.00 = 10,800	@ 6.0 = 10,800	@ 6.0 = 10,800
B-2	= 850 TONS	@ 0.400 = 350.0	@ 6.00 = 5,100	@ 6.0 = 5,100	@ 6.0 = 5,100
Q	= 1600 TONS	@ 0.175 = 280.0	@ 4.57 = 7,300	@ 3.7 = 5,910	@ 4.15 = 6,640
	19,770 TONS @:	5,355.0	138,660	162,930	158,090
		0.27 oz/T Au;	7.0 oz/T Ag.;	8.2% Pb.	8.0% Zn (+Cd)

INFERRED ORE, CLASS A:

BLOCK 'I': $\frac{10,680 \text{ D}'}{9.0} \times 2.04 = 2420$ TONS.

: 2420 TONS @ 0.322 oz/T Au; 6.90 oz/T Ag; 9.6% Pb; 9.1% Zn.

BLOCK J-1:

REL. SAMPLE-ASSAY AREAS: 5900 LEV. @ 90' x 2.5' = 225 D'
5700 LEV. @ 95 x 2.3' = 104 D'

AVG. GRADES:

225 x 0.40 =	90.0 x 6.0 = 1350	x 6.0 = 1350	x 6.0 = 1350	
104 x 0.22 =	22.9 x 3.84 = 399	x 3.9 = 405	x 4.87 = 506	
329	112.9	1749	1755	1856

2040 TONS @ 0.344 oz/T Au; 5.5 oz/T Ag; 5.3% Pb.; 5.6% Zn.

TOTAL BLOCKS 'I' + 'J-1':

FIG. 3.
SILVER STAR - STRANTON

GENERAL OUTLINE

OF

MILL LEASING ARRANGEMENT

Blue Star Mines Ltd. owns a complete 150 - 170 ton per day flotation mill, located one mile south of Ainsworth, B. C. The mill is located just off the black-top highway on the west shore of Kootenay Lake and is served by West Kootenay Power & Light Company Limited.

Blue Star Mines Ltd. has leased the mill to Silver Star Mines Ltd. for a period of ten years, after which the lease may be renewed on terms to be mutually agreed upon.

The terms of the lease are as follows:

Silver Star Mines Ltd:

(a) Will maintain the mill and equipment in good operating condition.

(b) Will pay all Taxes and maintain full insurance coverage.

(c) Will pay all operating and maintenance costs.

(d) May make additions and alterations as may be required to increase the efficiency of the mill. All such changes and additions shall become the property of Blue Star Mines Ltd., unless otherwise agreed to from time to time.

(e) Silver Star Mines Ltd. will pay to Blue Star Mines Ltd. a fee or royalty of 50 cents per ton for the use of the mill to be paid monthly after operations commence.

****

DATA RELATING TO

SILVER STAR MINES LTD., (N.P.L)

The following includes a resume of the data provided by Mr. William M. Sharp, P. Eng., Consulting Geological Engineer, in reports to Silver Star Mines Ltd., on the results of exploration and development of the property since 1967, plus information on development and ore shipments dating back to 1892. (The detailed data is available for study.)

Property: 6 Crown Grants and 2 staked claims owned outright by Silver Star Mines Ltd.

Location: Some 7 miles due west of Kootenay Lake and 11 miles southwest of Kaslo, B.C. in the Slocan Mining District.

Transportation: 10 miles of gravel road to black-top highway at Woodbury Creek. 3 miles on black-top to Mill at Ainsworth, B.C.

Mill: Company has a long-term lease on a 150 T.P.D. flotation plant on powerline and highway.

Camp & Equipment: The Company has complete modern camp facilities for a crew of 24 men and is fully equipped throughout the mine, in addition to tractor and transportation equipment.

Objective: As can be seen on the accompanying sketch showing a vertical longitudinal section along the Scranton Lode, only a small portion of the area has been explored to date.

The immediate objective in the development of the mine by Silver Star was to drift southwest at the 5900' level, as shown on the sketch under and towards the ore previously located by diamond drilling and drifting on the Grandview, Sunrise Basin, and S.W. Sunrise sections of the property. Two previously unknown ore shoots were encountered early in the program.

Geology and Mineralization: (Continued)

Mineable vein intervals normally range between 1 - 5 feet in width. Average vein widths in the West Sunset section (the area under immediate development) are about 3 feet. One-third of drifting on the vein has been in good grade ore. Raising on one shoot (Block A) developed to date has established 335 feet of continuous ore with ore still in the raise and below drift level.

Development:

The one known vein/lode has been developed by a series of open cuts, approximately 5,000 feet of X cuts, drifts, raises, shafts and about 3,000 feet of diamond drilling over a length of 7,200 feet and a depth of 1,150 feet with continuity indicated at both ends and in depth.

Ore Shipments:

Prior to 1954, the recorded production via separate small scale mining operations over the length of the lode amounted to:

7,063 tons Ore, averaging

Gold	0.216	oz/ton
Silver	11.1	oz/ton
Lead	10.7%	
Zinc	9.16%	
Cadmium	not recorded	

In 1969-70 Silver Star milled 4,200 tons of highly diluted ore which produced:

452 tons of Lead and Zinc concentrates containing -

377.6 oz	Gold
9,802 oz	Silver
3,371 lbs.	Cadmium
278,552 lbs.	Lead
205,012 lbs.	Zinc

Also, in 1969-70 a small test shipment of ore:

37.6 tons Ore, averaging: "high-grade"

Gold	.36 oz/ton
Silver	15.4 oz/ton
Lead	16.5%
Zinc	16.7%
Cadmium	not recorded

Ore and Grade Estimates:

The estimates made in the current report refer only to the West Sunset section of the vein/lode. The Pontiac section is not included. No ore is referred to as proven as no ore is developed on four sides nor sufficiently drilled to firmly designate as proven. Ore is developed on two and three sides and drilling is sufficient to designate it as indicated.

Class of Ore	Tons	Av. Gold oz/ ton	Av. Silver oz/ton	Av. Lead %	Av. Zinc %	Av. Cadmium %
Indicated	50,720	0.147	6.21	7.55	5.26	.11
Inferred	37,310	0.14	6.55	5.7	3.6	.075

N O T E:

The designation 'Indicated' refers to ore-blocks defined by combinations of drift, raise, and trench assays, or by groups of drill-hole assays.

The designation 'Inferred' refers to two classes of probable and possible extensions of 'Indicated' ore-blocks.

Production Revenue:

Estimates vary as to the earning potential of the property depending on the scale of operation and metal prices. At present there is immediately available a 24,000 ton block of ore which will yield a net operating profit of $300,000 based on June 1971 metal prices.

In addition, the capital required to extract and treat this ore will be fully recovered.

Further, as a part of the operation, planned additional ore should be developed to provide continued operation.

N O T E: Although treatment costs have increased, the net return would now be higher due to increased metal prices and the projection is for still higher prices.

Conclusion: The Project has very good possibilities of developing into a profitable long-life operation.

****

E. & M. J.

Metal Prices:

Gold per Troy Oz.	Silver/Troy Oz.	Lead/Lb.	Zinc/Lb.	Cadmium/Lb.
June '71 $40.00	$1.61	14.25¢	16,00¢	$2.25
March '72 $48.00	$1.53	15.50¢	18.00¢	$2.80
Dec. '72 $62.91	$1.81	13.50¢	17.30¢	$3.00
Feb. '73 $67.00	$2.15	16.00¢	19.50¢	$3.25

COMINCO

Metal Quotes:

Mar. '74 $175.60	$5.40	21.00¢	31.00¢	$3.75