

MEMORANDUM

20 Sept 1990

TO: MINE MANAGER
FROM: Engineering Supervisor
SUBJECT: LUCKY B PROPERTY

INTRODUCTION

This report provides a brief economic analysis to mine the Lucky B property and custom mill the material at the Equity Silver minesite. The Lucky B property is located on Kleanza Mt. and is accessed by approx. 5 km of gravel road from highway 16, 7 km east of Terrace.

SUMMARY

Under the parameters used the Lucky B material cannot be mined and milled economically. At current gold price of approximately \$400 US/oz the project would result in a loss of \$534000 Can.

A price of \$745 US/oz would be required for the project to breakeven.

A price of \$932 US/oz would be required to provide a 25% return on the projected cost of \$1152000 Can.

PARAMETERS & CALCULATIONS**1. In Place Reserves**

In place reserves were calculated from drill hole assays and #2 adit assays obtained from the 1988 Total Erickson assessment report. The mining block measured 30m along strike and 70m along dip. Width and grade was obtained by averaging the diamond drill information in this zone. Tonnage factor was taken as 3t/m³.

In Place Reserves in this zone are calculated at 2016 t at a grade of .94 oz/ton (29.4 g/t). Average width is .32m.

2. Mining Reserves

Mining reserves assume a mining width of 1.7m. vs vein width of .32m

Mining reserves are:

In place	2016t @ 29.4g/t
Dilution	8694t @ 0 g/t
Mining reserves	10710t @ 5.5 g/t (.18 oz/t)

3. Recoveries

Testwork at a 1:1 ratio of Lucky B and Equity millfeed indicate a maximum recovery of 65% from flotation and gold recovery circuit. Only 25% of the gold would be recovered by flotation.

4. Prices and Exchange

\$400 US/oz gold; 1.15 exchange factor.

5. Costs**5.1 Mining**

Estimated minimum development	
140m of drift @ \$1200/m	= \$168000
70m raise @ \$1700/m	= 119000
Stoping 10710t @ \$30/t	= 321000
Mobilization & demobilization (10% of above)	= 61000
Overhead @ \$5/t	= 54000
Closedown & reclamation @ \$2/t	= 21000
Sub-total	= \$744000

Development and mining costs were estimated from a 1989 report by Tonto Mining. Overhead and closedown costs are guesses.

5.2 Transportation

Costs were obtained from recent limestone transportation estimates.	
@\$25/t Lucky B to Equity	= \$268000

5.3 Equity on property
 Current direct cost less mining @ \$8/t = \$86000

5.4 Equity off property
 Current contracts @ approx. \$5/t = \$54000

5.5 Total Cost \$1152000

6. Revenue
 Revenue = tonnes x 1.1 ton/tonne x grade(oz/ton) x recovery x payable factor
 x gold price/oz x exchange
 = 10710 x 1.1 x .18 x .65 x .975 x \$400 US/oz x 1.15
 = \$618000

7. Profit (Loss)
 Profit = revenue - cost
 = \$618000 - \$1152000
 = (\$534000)

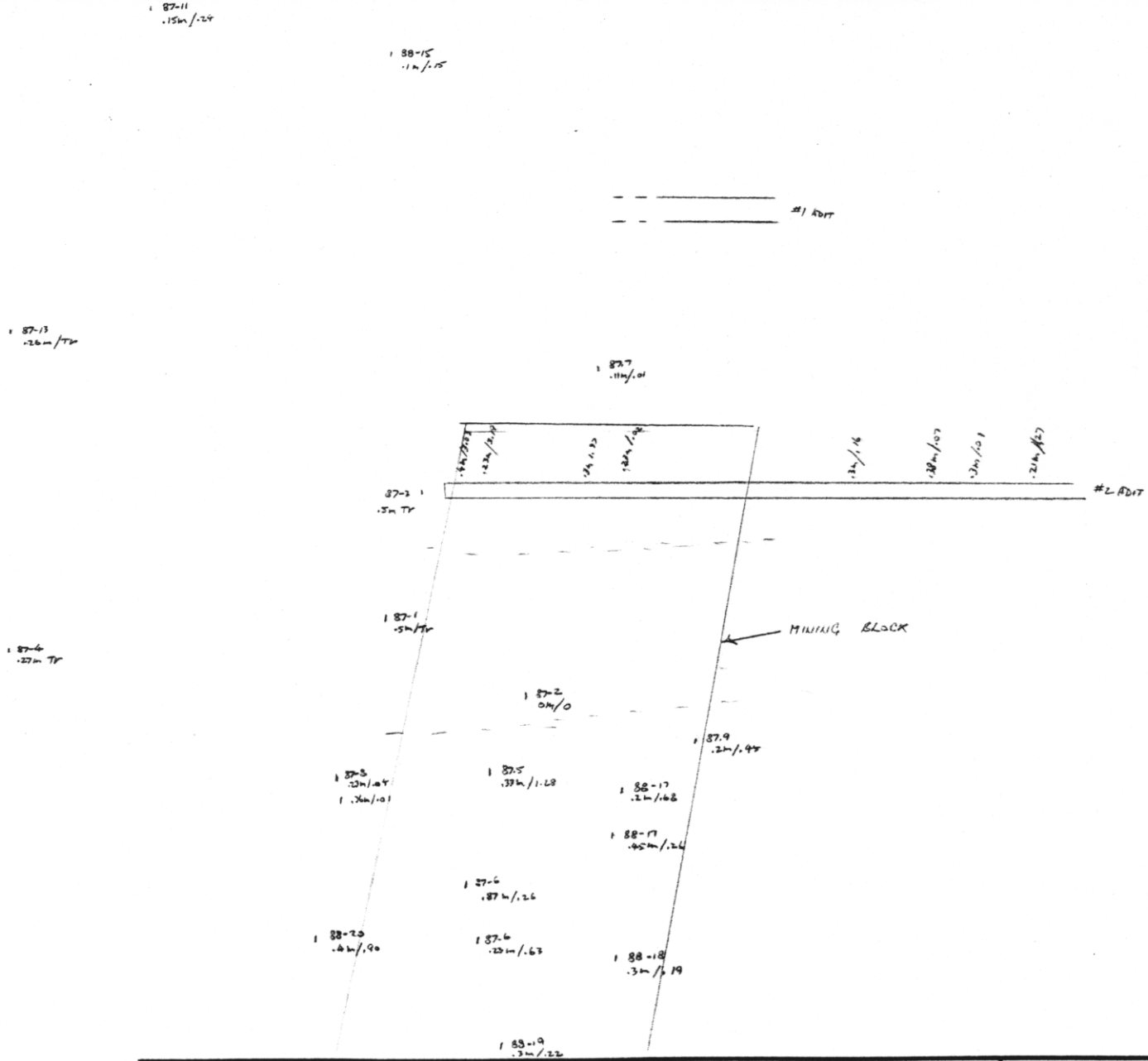
8. Breakeven gold price
 Price = \$1152000/10710 x 1.1 x .18 x .65 x .975 x 1.15
 = \$745 US/oz

9. Price to obtain a 25% return
 Price = \$1152000 x 1.25/10710 x 1.1 x .18 x .65 x .975 x 1.15
 = \$932

10. Additional points
 Dilution is likely to be higher. No provision was made for dilution beyond the 1.7m mining width.
 Recoveries could be lower as 65% in the testwork appeared to be maximum.
 In place grades are erratic and may not be continuous over the mining block. This would have the effect of lowering the calculated grade.

R Baase
 R. Baase
 Engineering Supervisor

cc D Hanson
 G Duthie



DRAWN	RAB	SCALE	1:500	EQUITY SILVER MINES LTD.	FILE REF No.
TRACED		DATE	20 SEPT. 1990		
APPROVED		REVISED			

DIST: A/C 150-090
 DEPT: Geol.

EQUITY SILVER MINES LIMITED

ASSAY CERTIFICATE

Attention: Engineering ✓
 Mine Manager _____ Geology _____
 Mill Supt. _____ Mill _____
 Pit Supt. _____ Research Met _____
 Plant Supt. _____ Research Leach _____
 Adm Supt. _____ Leach Plant _____

DATE Aug 21/90

	SAMPLE	Cu	Ag	Au	Sb	As	Fe	Pb	Bin	
D		%	g/t	g/t	%	%	%	%	%	%
1	rockchips									
1	001B	0.04	9	1.66 ²	nd	nd	2.5	tr	0.01	#2 Basement floor
2	19	0.06	4	.58 ²	tr	nd	8.6	tr	0.01	alpine #2 drinking H ₂ O
3	20	2.22	64	13.5 ²	nd	0.001	3.6	tr	0.01	#3 basement floor
4	21	0.03	4	.40	tr	nd	9.8	tr	0.01	alpine #2
5	22	0.01	4	.20	tr	nd	1.1	0.01	0.04	outside ground no.2
6	23	0.49	9	.22	tr	nd	6.5	tr	0.01	alpine #1 northern
7	24	0.03	3	.44	nd	nd	4.5	tr	tr	outside ground no.1
8	25	0.11	9	3.47 ²	nd	0.008	1.4	tr	nd	#4 basement floor
9	28	0.03	3	.17	0.01	nd	1.3	nd	tr	10-20 hole 4
10	29	0.03	3	.66 ²	0.01	0.003	1.5	tr	tr	0-10 hole 3
11	30	0.01	1	.23	0.01	nd	1.2	nd	tr	20-30 hole 3
12	31	0.01	2	.43	0.01	nd	1.2	nd	tr	30-40 hole 3
13	32	0.01	2	.63 ²	tr	0.001	1.3	nd	tr	10-20 hole 3
14	33	0.04	2	.32	0.01	0.003	1.1	nd	0.01	20-30 hole 4
15	34	tr	1	.20	0.01	nd	1.1	nd	tr	10-20 hole 1
16	35	0.01	2	.37	tr	nd	1.2	nd	tr	30-40 hole 4
17	36	0.01	1	.30	tr	nd	1.2	nd	tr	0-10 hole 1
18	37	tr	nd	.10	tr	0.003	1.1	nd	tr	30-40 hole 1
19	38	0.01	1	.16	nd	nd	1.4	nd	nd	20-30 hole 1
20	39	0.01	3	.73 ²	nd	0.002	1.3	nd	nd	10-20 hole 2
21	40	0.01	1	.24	tr	nd	1.3	nd	tr	20-30 hole 2
22	2989	0.01	3	.32	tr	0.005	1.3	nd	tr	30-40 hole 2
23	90	0.02	3	.40	tr	0.004	1.3	nd	0.01	0-10 hole 2
24	91	0.05	5	.58 ²	tr	0.007	1.5	nd	tr	0-10 hole 4

ND - Not Detected
 TR - .01 %
 IN Ag TR - 1.0 gm/TONNE

DIST A/C 150-096
 DEPT Leach

EQUITY SILVER MINES LIMITED

ASSAY CERTIFICATE

Attention: Engineering
 Mine Manager _____
 Mill Supt. _____
 Pit Supt. _____
 Plant Supt. _____
 Adm Supt. _____

Engineering ✓
 Geology _____
 Mill _____
 Research Met. _____
 Research Leach _____
 Leach Plant _____

DATE Aug 23 '90

SAMPLE	Cu	Ag	Au	Sb	As	Fe	Pb	Zn		
	%	g/t	g/t	%	%	%	%	%	%	
1 <u>Rock Chips</u>										
1	2988	.65	21	1.35	ND	ND	1.77	TR	.01	#3 FACE
2	92	.01	1	.06	↓	↓	1.53	.01	.01	Blackrock #3
3	93	.02	6	.04	↓	↓	5.92	TR	.02	Alpine new property
4	94	.03	10	3.03	.01		3.44	TR	TR	top vein B&W
5	95	.63	65	21.8	.01	↓	3.28	TR	.01	new property alpine
6	96	.05	11	.85	.01	ND	1.95	TR	.11	grey rock sidewall no. 2
7	97	.03	10	.35	ND	TR	3.19	.02	.21	Gold no. 1 B&W
8	98	.07	8	.16	↓	ND	.90	ND	.01	grey rock sidewall
9	99	.33	9	.28	↓	ND	.71	ND	.01	#5 Pick AUG. 18 '86
0	100	0.01	10	0.05	ND	TR	1.00	TR	.01	
1	101	0.01	10	0.05	ND	TR	1.00	TR	.01	
2	102	0.01	10	0.05	ND	TR	1.00	TR	.01	
3	103	0.01	10	0.05	ND	TR	1.00	TR	.01	
4	104	0.01	10	0.05	ND	TR	1.00	TR	.01	
5	105	0.01	10	0.05	ND	TR	1.00	TR	.01	
6	106	0.01	10	0.05	ND	TR	1.00	TR	.01	
7	107	0.01	10	0.05	ND	TR	1.00	TR	.01	
8	108	0.01	10	0.05	ND	TR	1.00	TR	.01	

ND - Not Detected
 TR - .01 %
 IN Ag TR - 1.0 gr/TONNE

EST A/C 150-090
DEPT Geol.

EQUITY SILVER MINES LIMITED

ASSAY CERTIFICATE

Attention:
 Mine Manager _____ Engineering
 Mill Supt. _____ Geology _____
 Pit Supt. _____ Mill _____
 Plant Supt. _____ Gold Plant _____
 Adm. Supt. _____ Metallurgy _____

DATE Aug 28/90

exploration rockchips

SAMPLE	Cu	Ag	Au	Sb	As	Fe	Pb	Zn	Bi
	%	g/t	g/t	%	%	%	%	%	%
0026	.01	1	.10	.02	.01	1.99	TR	.01	outside ground #3
27	.05	21	7.3	.01	.01	1.85	ND	ND	basement floor #1
3000	.13	6	.70	.02	TR	3.89	TR	.01	lucky B core (wallrock)
4394	100/200 5.62	200	31.9	.04	.01	16.92	TR	.04	qtz vein (pop jar)
95	.03	4	1.02	.01	ND	6.59	ND	ND	new property alpine below bus
4410	.12	83	24.3	ND	TR	6.98	.01	ND	08-20-1
11	.02	9	2.30	ND	TR	3.09	ND	ND	08-20-6
12	.01	168	60.8	.01	ND	8.62	TR	ND	08-20-3
13	TR	7	1.63	.01	TR	1.29	ND	ND	08-20-4
14	.01	7	1.43	TR	TR	2.50	TR	TR	08-20-5
15	.03	38	14.8	TR	.01	3.41	ND	TR	08-20-2
16	2.63	86	9.1	.02	.01	4.14	.01	.09	08-24-7
17	.02	2	.28	.01	.01	1.24	ND	TR	08-24-8
18	1.00/200 .13	8	.33	.04	.02	45.6	ND	TR	08-24-10
19	.03	5	.16	ND	TR	1.07	.01	.04	08-24-9

ND - Not Detected
 Tr - < .01 %
 Ag Tr - < 1.0 gm/TONNE

Signed _____

DIST.: A/C 150-090
 DEPT. Geol.

EQUITY SILVER MINES LIMITED
ASSAY CERTIFICATE

Attention:

Mine Manager _____ Engineering
 Mill Supt. _____ Geology _____
 Pit Supt. _____ Mill _____
 Plant Supt. _____ Gold Plant _____
 Adm. Supt. _____ Metallurgy _____

DATE Aug 31ST 1990

		Cu	Ag	Au	Sw	As	Fe	Pb	Zn
		%	g/t	g/t	%	%	%	%	%
1	19 9350	TR	ND	.05	TR	ND	.6	TR	ND
2	15 51	.04	117	51.4	.01	ND	13.2	.01	ND
3	16 52	ND	ND	4.05	TR	ND	1.7	ND	ND
4	18 53	ND	ND	.24	TR	ND	1.7	ND	ND
5	20 54	.01	ND	.11	.01	ND	3.5	TR	ND
6	17 55	.02	11	.03	.01	ND	9.5	TR	ND
7	21 56	.03	ND	.13	.01	ND	4.3	TR	ND
8	22 57	.03	7	.22	TR	ND	4.3	TR	ND
9	24 58	.34	ND	.32	.01	ND	5.1	01	ND
10	23 59	.08	ND	.25	.01	ND	4.0	.01	ND
11									
12	08-29-90	series							
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									

ND - Not Detected

Tr - < .01%

Ag Tr - < 1.0 gm/TONNE

Signed _____

DIST.: A/C 150-090
 DEPT. Geol

EQUITY SILVER MINES LIMITED
ASSAY CERTIFICATE

Attention: Engineering
 Mine Manager Geology
 Mill Supt. Mill
 Pit Supt. Research Met
 Plant Supt. Research Leach
 Adm. Supt. Leach Plant

Metallics Gold

DATE Aug 14-20/90

		+150 mesh		-150 mesh		WHOLE SAMPLE
		%	Au $\frac{9}{4}$	%	Au $\frac{9}{4}$	Au $\frac{9}{4}$
1	2972	3.45	.20	96.55	.02	.03
2	73	5.08	.25	94.92	.02	.03
3	74	1.23	1.6	98.77	.02	.04
4	75	7.27	.12	92.73	.02	.03
5	76	6.65	.35	93.35	.03	.05
6	77	8.58	.07	91.42	.02	.03
7	78	18.89	.03	81.11	.04	.04
8						
9						
10						
11						
12						
13	<p>Remaining portion of original pulverized sample passed through 150 mesh screen. % passing (-150) and % retained (+150) reported. 25 g of -150 fraction and all of +150 fraction assayed for Au separately - results reported. +150 mesh and -150 mesh results combined and reported as WHOLE SAMPLE result.</p>					
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						

ND - Not Detected
 Tr - \leftarrow .01%
 Ag Tr - \leftarrow 1.0 gm/TONNE
 Form C200/85-Revised-3

Signed *Ed. [Signature]*