KERR ADDISON MINES LIMITED

MEMO

VANCOUVER OFFICE

DATE

TO: $600 Canadian desirable

FROM: for ~~heading~~ production = 498.00 U.S.

SUBJECT:

Nov. 1980 $1 626. = U.S.

5624 Cdn

March 21st $ 465. = U.S.

$761 U.S

Grade .18 g/ton

Loss/ton of ore = 28.98 U.S.

= $34.92 Canadian

Lexington
Grenoble 823196

Grenoble Dec 5/80

Diluted grade of Proven & Probable 1.22 oz/ton x 0.176 Au
Approx 300,000 tons

Net Smelter Co = 24.4 x 0.80 x 0.70 * 90¢ = 12.394 U.S.
Au = 0.176 x 0.90 x 600 = 95.00 "
Combined grade or Value = 107.39 "

Operating Cost (Mining & Milling) = 40.00
Operating profit = 67.39

Capital Cost including interest
for 200 T.P.D. Plant = $10,000,000
Amortization tonnage = 150,000 tons approx.
Profit after amortization = 150,000 x 67.39 = 10,000. Approx
Kerr's Share pre tax - 60% = $6,000,000

or

P.V. of 4yrs earning: $67.20 x 200 x 350 x 0.716 x 4 = $12,702,912
Discount @ 15% Compound.

Lexington

Minimum drilling Cost	500' x 5 x $30 =	~~90,000.00~~ ~~75,000.00~~
Probable " "	500 x 9 x $30 =	135,000.00
Contingency drilling	3-500 holes @ $30 =	45,000.00
Possible total drilling Cost		~~180,000.00~~ ~~255,000.00~~

Other Costs.

Payments to Vendors		30,000.00
Supervision		25,000.00
Assaying		5,000.00
Exigency	10%	6,000.00
		66,000

66,000.00

246

Total year 1 Costs = ~~321,000.00~~

Minimum Work Commitment

Drilling ~~90,000.00~~ ~~45,000.00~~ ~~30~~ ~~2~~

Other Costs including Surveying in all drillable ~~45~~00.00 30,000

Payment to Vendors 30,000.00 ?

150,000.00

Factors to raise with Dave:

(1) 100,000 total Commitment Considered inadequate to make deal

(2) 150000 might be adequate in the light of Current Gold price of $465 U.S = $60 Cdn Versus $625 U.S or $753 Cdn a loss of ~~$293~~ $193 Canadian / oz or ~~$293~~ 193 x .18 = $34.74 / Lin oz ore

(3) Agreement (if made) would require force majeure on Clause Stating that $600 Canadian required for profitable operation and that once reserve has established property production would not necessarily ensue until $600 gold price has achieved. In that case. Should we make good faith annual payments

Dr. Seraghiun advised that he had met yesterday with the Bowes Bros. and they advised that Kerr's offer was so similar to Teck's that they were having a hard time deciding. Teck had requested an option on Granoble shares to be exercised ~~when~~ at some future time.

<u>Lexington</u> March 4/81

① Were prepared to take down shares (from treasury) if this would help Grenoble.

② Prepared to spend 250,000 first year provided work goes well but we feel there the a\[?\] [illegible] from the essentials of the deposit with an expenditure of 150,000 and we would not like to be searching for places to spend the balance. Also the property is very sensitive to gold prices and these have come off to the tune of $160 since our first discussion in November.

Grenoble - Lemington

Assume: 400.000 tons @ 1.27% Cu + 0.184 Au

Assume Prices - Cu = 0.90 Rec. 95% rec for Cu

Au = $600 Au = 95% " " Au

Value /per ton for Cu = 25.4# @ .95 x 0.98 = 21.72

" " " " Au = 600 x 0.184 x 0.95 104.88

Gross. 126.60

Net Smelter return - 70% x 126.60 = $88.62

Operating Costs $25 mining + $5 milling = 30.00

Operating profit. $58.62

For factor of Safety assume $50.00

Operating profit for 6 years (+ risk) = 400,000 x $50 = $20,000.000

P.V. @ 20% Compound = .6 x $20 x 10^6 = 12,000.000

Capital Cost of Plant + Power etc. 5,000.000

Net P.V. $7,001,000

Op. profit/yr = 330 x 50 x 200 $3,300,000

Return of Capital (borrowed)

Interest = 900.000

Capital Cost + Interest = 5,900.000 Say $6,000.000

Time to amortize = $\frac{\$6 \times 10^6}{3,300.000}$ = < 2 yrs.

Operating profit for last 4 yrs = $\frac{2}{3}$ x 20,000,000. = $13,000.000

Taxes for last 4 years @ 48% = 6.240.000

Profit after taxes = 6,760,000

KERR ADDISON MINES LIMITED

(FOR INTER-OFFICE USE ONLY)

To File *From* W.M. Sirola

Subject Grenoble Resources, Lexington Property
Greenwood Area, B.C. (82-E)
ECONOMICS

Date February 3, 1981.

Dave Lowrie made the following calculations on December 4, 1980 based on Fred Chow's ore reserves:

PROVEN ORE RESERVE

222,000 tons averaging 1.22 copper and 0.176 ozs. of gold.
The recoverable value of the proven ore is:

Copper	- 24 lbs. x 0.80 x 70¢	= $13.44	13.44
Gold	- 0.176 x $600 x 90%	= $95.00	73.62
	Total	=$108.44	87.06

PROBABLE ORE RESERVE

70,000 tons at 1.31% copper and 0.18 ozs. of gold.

NSR of copper content	- 26 lbs. x 0.8 x 70¢	= $ 14.50	14.50
Recoverable value of gold content	- 0.198 x $600 x 0.9	= $107.=	82.93
	Total	= $121.56	97.43

POSSIBLE ORE RESERVE

191,000 tons at 1.31% copper and 0.187 gold.

NSR of copper content	- 26 lbs. x 0.8 x 70¢	= $ 14.56	14.56
NSR of gold content	- 0.187 x $600 x 0.9	= $101.=	78.28
	Total	$115.56	92.84

Mill Capacity

The milling rate per annum for 483,000 tons total reserves to be mined over a four year period would be 120,750 tons. Daily tonnage would be 120,750 ÷ 350 = 345 tpd.

Operating Cost

Mining $30 per ton using last hole drilling and shrinkage stoping;

Milling $10 per ton.

Total operating cost $40 per ton.

.../2

KERR ADDISON MINES LIMITED

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To File *From* W.M. Sirola

Subject Grenoble Resources *Date* February 3, 1981.

Economics

Value of Production (operating profit) (47.06)

Proven reserves - 222,000 tons at $68.= per ton	= $15,000,000	12,667,320
Probable reserve - 70,000 tons at $81.= (57.93) per ton	= $ 5,670,000	4,053,100
Possible tonnage - 191,000 tons at $75.= per ton	= $14,300,000	10,092,440
Total value of all reserves (52.64)	= $34,970,000	26,814,860

Annual tonnage 250 × 330 = 82,500

Capital costs Ore reserve - 4.85 yrs

$10,000,000.= PV of 5 years reserve @ 20% discount = 3 16,089,000

Net PV = 16m − 10m = 6m.

or, if Capital Cost = 6m, Net PV = 5 10m

Interest costs

Year 1 - $5,000,000 at 14%	= $ 700,000	
Year 2 - $10,000,000 at 14%	= $ 1,400,000	
Year 3 - $5,000,000 at 14%	= $ 700,000 *	
Total interest costs	= $ 2,800,000	
Cost of capital plus interest	= $12,800,000.	

Pay out period

1.5 years.

W.M. Sirola,
Regional Exploration Manager.

WMS/al:

* Construction presumably complete at end of 2 years by which time Bank is owed $10,000,000 in capital and $2,100,000 in interest for a total of $12,100,000. For repayment during the 3rd year is $7,100,000 then balance on which interest must be paid is $5,000,000.

Lewiston

292
191

	Tons	Cu	Au
Proven	222,000	1.22	0.176
		0/0 = 24	

Cu 24 lbs x Rec 80% x Nsr 70% = $13.44

Au 0.176 x $600 x 90% = $95.00

109.44 /ton

		Cu		
Probable	70,000	1.31	0.198	60 40
		26 lbs		

Cu = 26 x .80 x .7 = $14.56

Au = 0.198 x 600 x .9 = 107.00

121.56 Cost

Possible	191,000	1.31	0.187

Cu .262 x .80 x .7 $14.56

Au = 0.187 x 600 x .9 = 101.00

115.56

Tons 292
191
483,000 Tons

48,300 / yr for 10 yrs.

139 tpd

Say 4 yrs   483,000 ÷ 4 = 120,750

120 750 ÷ 350 = 345 tpd

Cost at 345 tpd · [illegible] shrinking

Mining $30
Milling 10
$40

NSR = Pr. 221,000 × $68	(188 - 40)	=	15 million
Prob. 70,000 × 81		=	5.67 million
Poss. 191,000 × $75		=	14.3 million
			34.97 million

Cap Cost = $10 x 10^6

NSR = $0.5 million / yr

But Cap cost is

1st yr	5 million	x 14% (1 yr)	= 700,000
2nd yr	10 million	14%	1,400,000
			2.1
+ 3rd yr	5 million	x 14%	.7
			2.8

So max cap cost + int = 12.8 million

Pay out 1 1/2 yrs

Life 4 yrs