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CANNON-HICKS ASSOCIATES LTD.
SUITE 713-744 WEST HASTINGS ST.
VANCOUVER 1, B.C.

DUSTY MAC MINES LTD.

FEASIBILITY REPORT

BY

CANNON-HICKS ASSOCIATES LTD.

VANCOUVER, B.C.

FEBRUARY 24, 1971.

CANNON-HICKS ASSOCIATES LTD.

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STE. 713 - 744 WEST HASTINGS STREET, VANCOUVER 1, B.C. TELEPHONE: 685-0181

February 24th, 1971.

Dusty Mac Mines Ltd.,
1710-1177 W.Hastings St.,
VANCOUVER, B.C.

Dear Sirs:

We present herewith our preliminary report on the feasibility of placing into production your Okanagan Falls property, pursuant to our proposal of December 17, 1970, and your acceptance thereof.

Our primary conclusion is that optimum profitability lies in shipment of the material as raw siliceous ore to Cominco Ltd., at Trail, B.C.

Cominco Ltd. have indicated to us the terms under which they may be prepared to accept the ore but are not prepared to offer a firm contract at this time. They have suggested that they may be in a position to do so in about one month from the date hereof.

Yours very truly,

CANNON-HICKS ASSOCIATES LTD.

H. BRODIE HICKS, M.ENG., P.ENG.
Consulting Engineer

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA

HBH:mdc.
Encl.

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CONCLUSIONS AND RECOMMENDATIONS:

1. Metal prices assumed herein are: gold - $37.50 per ounce; silver - $1.75 per ounce.

2. Ore reserves readily available by open pit mining are estimated at a minimum of 55,350 tons grading 0.23 oz/ton gold, 4.9 oz/ton silver, 80.4% silica, 5.9% alumina and 1.8% iron. Waste:ore ratio is 0.84:1. The reserves are classified as "probable".

3. These reserves may be profitably mined by (a) shipment as siliceous ore to Cominco Ltd. at Trail, B.C., (b) production of a flotation concentrate, or, (c) production of a cyanide precipitate.

4. The tables immediately following show cash flow projections for each of these alternatives. They may be summarised as follows:

	Productive Life (Months)	Discounted Cash Flow	Capital Required
Siliceous Ore	37 months	$202,899	$ 83,500
Flotation	18 "	189,139	331,000
Cyandiation	18 "	218,025	356,000

5. The last alternative, cyanidation, is not recommended because the anticipated difficulties of disposing of the cyanide residues would probably outweigh the small financial advantage.

6. Of the remaining alternatives, the production of raw siliceous ore is the more attractive. While requiring twice as long to mine out the orebody as in the case of flotation concentration, it will return an ultimately higher profit at much lower capital cost and risk.

7. It is therefore recommended that Dusty Mac Mines Ltd. proceed with planning for the production of raw siliceous ore for shipment to Cominco Ltd., at Trail, B.C.

CASH FLOW PROJECTIONS

	Alternative		
	a	b	c
Capital Costs			
Equipment	$ ---	$250,000	$275,000
Preproduction	58,500	57,000	57,000
Working Capital	25,000	24,000	24,000
	83,500	331,000	356,000
Discounted Cash Value of Receipts	286,399	520,139	574,025
Discounted Cash Flow	$202,899	$189,139	$218,025

Notes To Cash Flow Projections:

1. Operating income as follows:

Raw ore	$ 6.78/ton
Flotation	$ 9.90/ton
Cyanidation	$10.80/ton

2. Present value of cash flow determined using an interest rate of 8%

   (Reference: Mining Engineers' Handbook, 45-54)

3. Mining taxes estimated using B.C. Mining Tax Act.

COST FLOW PROJECTION

	RAW ORE (A)					FLOTATION (B)			CYANIDATION (C)		
	Present	Year 1	Year 2	Year 3	Year 4	Present	Year 1	Year 2	Present	Year 1	Year 2
Delivery-Tons	-	16,500	18,000	18,000	2,850	-	33,000	22,350	-	33,000	22,350
Operating Income	-	$ 111,870	$ 122,040	$ 122,040	$ 19,323	$ -	$ 323,400	$ 219,030	$ -	$ 356,400	$ 241,380
Taxes-Mining	-	-	12,665	13,952	14,899	-	-	36,580	-	-	41,725
-Federal	-	-	-	-	-	-	-	-	-	-	-
Capital Expen:											
Equipment	-	-	-	-	-	250,000	-	⟨75,000⟩	275,000	-	⟨85,000⟩
Preproduction	58,500	-	-	-	-	57,000	-	-	57,000	-	-
Working cap.	25,000	-	-	-	-	24,000	-	-	24,000	-	-
TOTAL	83,500	-	12,665	13,952	14,899	331,000	-	⟨38,420⟩	356,000	-	⟨43,275⟩
CASH FLOW	⟨83,500⟩	111,870	109,375	108,088	4,424	⟨331,000⟩	323,400	257,440	⟨356,000⟩	356,400	284,655
DISCOUNTED VALUE:											
Investment	83,500					331,000			356,000		
Receipts		103,580	93,767	85,800	3,252		299,436	220,703		329,990	244,035
NET			202,899				189,139			218,025	

LOCATION AND SERVICES:

The property is situated immediately east of the village of Okanagan Falls and is comprised of 116 Mineral Claims, all held by Right of Location in the Osoyoos Mining Division of British Columbia. The orebody is located on the Joe #1 Claim, which is in good standing until August 1975. Surface rights to the immediate area are reported to have been acquired by the Company but this has not been authenticated by us.

A good gravel road leads to within a few hundred feet of the proposed mining site. Power, if required, would be brought from the substation of the West Kootenay Power and Light Co. at Okanagan Falls, a distance of approximately one and one quarter miles. Water sufficient for milling would probably have to be brought from Skaha Lake, a distance of 7,000 feet. Housing is available either at Okanagan Falls or at Penticton, some 12 miles north.

Disposal of tailings, should milling be adopted, could be carried out by damming one or more existing small draws and pot-holes in the immediate area. Because the property is centred in a farming and orchard area, unusual care would be required in dealing with effluent.

HISTORY:

There is no record of any substantial work on the property prior to its acquisition by Dusty Mac Mines in 1968.

Commencing late in 1968 and continuing through 1969, a programme of exploration was carried out under the direction of Cannon Engineering Ltd., and, later, of Cannon-Hicks

Associates Ltd. The work included surface trenching, geological mapping, diamond and percussion drilling and a limited underground programme and resulted in outlining the orebody substantially as it is now known. A report by Cannon-Hicks Associates Ltd., dated December, 1969, fully covers all results obtained.

Subsequently, the property was optioned to Noranda Exploration Ltd. which, in 1970, carried out a programme including extensive diamond drilling without adding substantially to the known ore. The option was allowed to lapse.

GEOLOGY:

The overall geology of the property is fully covered in the report of December, 1969 cited above.

Briefly, the ore is contained in a quartz breccia zone which extends over a length of 1,200 feet with widths up to 150 feet. This is generally underlain by an andesite porphyry breccia but tongues of the latter are occasionally found within the quartz mass. Structure is obscure. Metallic mineralisation consists of pyrite, sparse chalcopyrite, bornite and tetrahedrite together with occasional native gold and silver.

Ore occurrence is erratic and visual identification difficult. Careful mining control will be required.

ORE RESERVES:

Ore reserves are estimated at a minimum of 55,350 tons readily available by open-pit methods, grading 0.23 oz/ton gold, 4.9 oz/ton silver, 80.4% Silica, 5.9% alumina and 1.8% iron. Waste:ore ratio is 0.84:1.

Reserves are calculated from the results of cross-sectional drilling of the mineralised zone at 25-foot intervals. Both diamond and percussion drilling were employed. In addition, information was available from surface exposures and from sampling of an exploratory decline and raise.

Included herewith are a plan and 16 cross-sections showing the ore areas outlined as well as a longitudinal section of the underground work.

In consideration of the nature of the mineralisation and the type of information available, the reserves are categorized as "probable ore".

There are a number of ore-grade intersections in drill holes which are not included in this estimate because continuity with ore reserve blocks cannot be proved. It is possible, therefore, that ultimately a somewhat larger tonnage may be mined but for present purposes the figures quoted above are used.

MINING:

It is proposed to mine the deposit through three open pits designated Nos. 1, 2 and 3, opened respectively from the south, west and north and comprising respectively 7,350, 15,000

and 33,000 tons. Local topography lends itself to this approach which entails minimum removal of waste rock. The ore reserve plan herewith outlines the ore areas of the three pits.

Mining would commence in the #2 pit, which contains the best grade of ore and is more readily accessible than the #3 pit. The small #1 pit would be operated as a spare working place for otherwise idle equipment.

The most economical mining cost will be achieved by breaking and stockpiling a full years supply of ore in a single concentrated mining period of from two to three months duration, dependent on the production rate required. By this method, the necessary heavy equipment will be rented on a short-term basis without the necessity of tying up capital and senior supervision and engineering services will also only be required on the property for this limited term.

The overall cost of mining and stockpiling is estimated at $3.00 per ton. Details are given in Table I herewith. Some explanatory details follow:

1. The mining rate is predicated on the preliminary Cominco proposal of accepting 1,500 tons per month of raw siliceous ore. This entails breaking of 18,000 tons of ore and 15,000 tons of waste annually.
2. In order to produce the size of material required by Cominco (maximum 12 inches) a large crusher would normally be required. Installed cost of a second-hand unit would be of the order of $60,000

or in excess of $1.00 per ton of reserves. As an alternative, it is proposed that a closer drilling pattern and higher explosive factor be adopted to break the ore to size in the pit at an approximate additional cost of $0.36 per ton.

3. The erratic occurrence of mineralisation and the difficulty of recognizing ore visually renders it imperative to sample and assay much of the drill-hole cuttings. This will require an additional engineer's helper on the job as well as estimated assaying costs of $5,000 annually.
4. Should circumstances permit a higher production rate, some improvement in costs would result but not of sufficient magnitude materially to affect the conclusions herein.

METALLURGICAL SAMPLE:

For purposes of metallurgical testing and determination of silica, alumina, and iron content, a new sample was selected making use of all available ore intersections from diamond drill holes. Percussion holes were not used because of a remote possibility of salting. The various intersections were weighted by length, holes were weighted into individual cross sections and these sections again weighted by ore reserve tonnages into a single composite.

Appendix "A" and attached tables give details of the procedure employed.

The single composite was made use of for metallurgical work while seven individual cross-section samples were assayed for silica, alumina and iron.

The metallurgical sample assayed 0.30 oz/ton gold and 6.1 oz/ton silver. This is higher than the ore reserve average because of the exclusion of percussion drilling results in certain lower-grade areas.

The silica, alumina and iron results are remarkably uniform as will be seen by reference to Table II. The weighted average is 80.4% silica, 5.9% alumina and 1.8% iron.

PRODUCTION OF RAW ORE:

Cominco Ltd. purchase siliceous material containing metallic values as siliceous ore. Tentative terms are set out in Appendix B.

At the moment of writing, Cominco have not confirmed these terms nor have they confirmed a delivery schedule although a maximum of 1,500 tons per month has been suggested. This proposed rate is made use of herein.

The net smelter return per ton of ore, based on the ore reserve grade of 0.23 oz/ton gold, 4.9 0z/ton silver, 80.4% silica, 5.9% alumina and 1.8% iron is $17.62. This is before mining and shipping costs. Details of the calculation are set out in Appendix B(2).

Mining cost, as above, would be $3.00 per ton delivered to a stockpile.

Loading, including rental of a small, second-hand loader, is estimated at $0.60 per ton.

Hauling from a bin on the property to the delivery point at Trail has been quoted at $6.40 per ton.

One part-time man at Okanagan Falls would be required at $500 per month for ten months per year, or $0.28 per ton.

Head office charges, engineering supervision and other overhead is estimated at $1,000 per month for ten months per year or $0.56 per ton.

In summary:		Per Ton
Net Smelter Return	-	$17.62
Less, Mining	- $3.00	
Loading	- 0.28	
Hauling	- 6.40	
Overhead	- 0.56	10.84
Operating profit	-	$6.78

11.50 — rail — = 8.50 + man for unloading - truck to 9.00

Preproduction Expenditures

It is estimated that 6 weeks would be required after a decision to proceed before breaking commenced. During this period the economics of contracting vs. Company operation would be investigated and in the latter case equipment rented and personnel hired. A detailed pit design would be prepared.

Estimated cost:	
Erection of a 100-ton bin	$3,000
Mining and Stockpiling 18,000 tons	1,500
Payment by Cominco may be delayed up to two months. Hence, provision must be made for costs of delivery of 3,000 tons @ $7.84, say -	54,000
	25,000
	$83,500

PRODUCTION OF A FLOTATION CONCENTRATE:

A copy of a metallurgical report prepared by Britton Laboratories is attached hereto as Appendix D.

The sample submitted was of somewhat higher grade than the ore reserve average, hence results are probably optimum.

By flotation, it is possible to recover 92.1% of the gold and 83.1% of the silver in a concentrate grading 14.5 oz/ton gold and 255.6 oz/ton silver. Ratio of concentration would be 52:1.

On the basis of a smelter schedule submitted by Cominco (Appendix C) and calculations therefrom (Appendix C(2)), the net smelter return per ton of ore is estimated at $16.80.

Mining costs would remain at $3.00 per ton and milling cost (see Table III) is estimated at $4.00 per ton. Operating profit would thus be $9.80 per ton.

A milling rate of 100 tons per day is suggested; thus, known ore reserves would be exhausted in approximately 18 months.

Capital cost of the mill is estimated at $250,000, using second-hand equipment. The recoverable value, after exhaustion of the ore, is estimated at $75,000. Capital costs are detailed in Table IV.

Preproduction Expenditures

It is estimated that four months would be required to achieve production and that a further two-months operating capital would be required thereafter. Mining would start one month before completion of the plant, but, in order to conserve funds, it is suggested that only 18,000 tons, or six-months supply, be broken during the first mining cycle.

Preproduction cash requirements would then be:

As per raw ore schedule, engineering	-	$ 3,000
As per raw ore schedule, mining, 18,000 tons	-	54,000
Mill	-	250,000
Two months working capital for mill, 6,000 tons @ $4.00 per ton	-	24,000
		$331,000

PRODUCTION OF A CYANIDE PRECIPITATE:

Use of cyanidation as opposed to flotation would result in a higher per ton profit but it is our opinion that disposal of the cyanide residue in a settled agricultural area would increase costs to a still higher degree.

The Britton Report advises that, by cyanidation, 96.4% of the gold and 94.4% of the silver are recoverable in a precipitate.

The net smelter return per ton would be approximately $1.50 higher than in the case of flotation. However, the capital cost would be increased by an estimated $25,000 and operating cost by an estimated $0.50 per ton. On this basis, operating profit would increase by $0.50 per ton.

Preproduction expenditures, including working capital, would be of the order of $360,000.

Before a decision to adopt cyandiation could be taken, lengthy negotiations with officials of the Pollution Board would be necessary.

CONCLUSION:

We appreciate being entrusted with the preparation of this preliminary feasibility report. We will continue negotiations with Cominco in respect to their proposed raw siliceous ore schedule.

Respectfully submitted,

CANNON-HICKS ASSOCIATES LIMITED

H. BRODIE HICKS, P.ENG.

:mdc.

TABLE I

MINING COST

Basis is breaking of 18,000 tons of ore and 15,000 tons of waste on a once-a-year basis. On a two-shift schedule, 5 days per week, breaking 500 tons of rock per shift, this would require 6.6 weeks. With mobilization, etc. two months should be allowed.

A crew of two men plus one mechanic would suffice to drill and blast, including time for maintenance, moving and secondary blasting.

Supervision would include a project manager, a junior engineer and a helper-sampler. Because of the short term of employment, salaries would be above normal rates.

PARAMETERS:

Hole diameter	- 3"
Hole pattern, ore	- 5' x 5'
Hole pattern, waste	- 6' x 6'
Drilling rate	- 40 ft/hr.
Subgrade drilling	- 10%
Rock density factor	- 12 cu.ft/ton

Then, Yield/Ft. of Hole, ore - $\frac{5' \times 5'}{12} \times 90\%$ - 1.88 tons

Yield/Ft. of Hole, waste $\frac{6' \times 6'}{12} \times 90\%$ - 2.70 tons

Weighted Av. Yield/Ft. of Hole - 2.25 tons.

DRILLING COST: (Table I Cont'd)

Drill & Compressor Rental: $3,000 mo/9,333	- $0.32		
Fuel Oil, 8 g.p.h. @ $0.20/gal.	- 0.04		
Lubricants	- 0.01		
Repairs & Maintenance	- 0.14		
Bits and Rods	- 0.11		
	$0.62		
Whence, drilling cost/ton before labour charges - $0.62 / 2.25		- $0.28	
Explosives		- 0.15	
Labour:			
Driller/Shift inc. fringes	$38.00		
Helper / " " "	36.80		
Mechanic/ " " "	40.00		
	114.80		
@ 500 tons/shift, cost/ton		- 0.23	
		$0.66	
COST/TON ORE BROKEN - $0.66 x 1.84			- $ 1.21
OVERHEAD CHARGES:			
Supervision:			
Project Manager, 2 months @ $2,000	- $4,000		
Junior Engineer, 2 " @ $1,000	- 2,000		
Helper-Sampler, 2 " @ 600	- 1,200		
	$7,200		
Per Ton - $7,200 / 18,000	-	$0.40	
Assaying: 1,000 samples @ $5.00 per sample	-	0.28	
Engineering & Administration:	-	0.17	0.85
LOADING, HAULING & STOCKPILING			
Rental of 4 yd. loader & 25 ton truck @ $2,500/mo. per ton	- $0.28		
Load and Haul Ore, 1,000 ft.	- 0.20		
Load and Haul Waste, 1,000 ft.	- 0.17		0.65
			$2.71
Contingencies, 10%			0.27
GRAND TOTAL COST/TON ORE DELIVERED TO STOCKPILE			$2.98
		say,	$3.00

TABLE II

SILICA, ALUMINA AND IRON GRADES

Section	Tons Assigned	SiO_2	Al_2O_3	Fe
10,000	6,666	81.3	5.86	1.7
9,975	-	83.8	5.60	1.0
10,025	5,500	80.8	5.50	1.8
10,050	3,200	78.0	4.14	1.7
10,100	6,500	72.3	10.60	2.2
10,150	10,500	85.5	3.90	1.5
10,200	-	82.1	5.10	1.7
	32,366	80.4	5.9	1.8

Subsequent to the selection of the above samples, a new ore reserve was calculated, based on a three-pit mining sequence and no reserves are now assigned to sections 9,975 and 10,200.

TABLE III

MILLING COST

(Flotation @ 100 tons per day)

		Per Ton
Overall Supervision	-	$ 0.67
Labour, 5 men @ $35/shift	-	1.75
Sampling & Assaying	-	0.15
Reagents and steel	-	0.25
Operating & Maintenance Supplies	-	0.75
Power	-	0.30
Heat, Water, Tailings Disposal	-	0.10
		$3.97
	say,	$4.00

TABLE IV

CAPITAL COST FLOTATION MILL

(100 tons per day)

Purchase, second hand equipment	-	$100,000
Delivery	-	2,500
Housing	-	25,000
Installation	-	60,000
Design	-	10,000
Electrics	-	25,000
Water Supply	-	20,000
		$242,500
	say,	$250,000

APPENDIX "A"

SAMPLE SELECTION FOR METALLURGICAL TESTING AND DETERMINATION OF SiO_2 AND AL_2O_3

Ore reserves are based on the results of both diamond drill and percussion holes. Because there is a remote possibility of salting in the latter, only the diamond drill cores were used in compiling samples. Where assay office rejects were available these were taken; otherwise the remaining half cores were used.

Significant results are available on holes from sections 9,975, 10,000, 10,025, 10,050, 10,100, 10,150 and 10,200. Some additional samples were taken of ore-grade material from holes outside the ore-reserve boundaries to provide additional test material if required.

Table A-1 shows a list of sections with samples selected.

Samples for each of the seven significant sections were made up by combining the core from the various holes, weighted by length of ore intersection in each hole. Table A-2 gives details.

The seven section samples were each assayed for silica and alumina. For purposes of metallurgical testing, however, all except the sample from section 9,975, which was too small, were combined into a single sample by weighting on the basis of ore-reserve tonnage calculated for each section. The weights assigned are shown in Table A-3.

Table A-4 sets out the calculations leading to an estimate of the average grade of each section and of the final metallurgical sample. This was expected to assay 0.32 oz/ton gold and 6.1 oz/ton silver. The actual values obtained were 0.30 oz/ton gold and 5.9 oz/ton silver. This is above the ore reserve grade due to the omission of the percussion hole samples but, is considered sufficiently close to be satisfactory for metallurgical investigations.

TABLE A - 1

METALLURGICAL SAMPLE LIST

Line	D.D.H. Nos.	Footage	Tons Assigned
9,800	Nil		170
9,825	Nil		3,170
9,850	Nil		1,570
9,875	Nil		2,470
9,900	Nil		2,790
9,925	Nil		2,170
9,950	61	5'	2,000
9,975	20	10'	5,180
10,000	1	35'	
	2	30'	
	3	30'	
	4	10'	8,600
	5	10'	
	6	30'	
	7	20'	
	45	5'	
10,025	9	20'	
	10	30'	6,900
	11	20'	
	12	35'	
	13	15'	
10,050	60	10'	8,300
	69	30'	
10,075	Nil		5,300
10,100	25	30'	
	26	15'	3,800
10,125	Nil		11,100
10,150	59	65'	14,100
10,175	Nil		12,200

METALLURGICAL SAMPLE LIST

Line	D.D.H. Nos.	Footage	Tons Assigned
10,200	30	5'	
	31	35'	6,100
	47	10'	
	58	10'	
10,300	35	10'	
	36	10'	Nil
	37	5'	
10,400	40	10'	Nil

TABLE A - 2

METALLURGICAL SAMPLE - Makeup of Section Samples

Section	Hole No.	Length Feet	Weight %
9,975	20	10	100
10,000	1	5	4
	2	10	7
	3	35	26
	4	30	22
	5	10	7
	6	10	7
	7	30	22
	45	5	5
10,025	9	20	17
	10	30	25
	11	20	17
	12	35	29
	13	15	12
10,050	60	10	20
	69	40	80
10,100	25	30	67
	26	15	33
10,150	59	65	100
10,200	30	5	8
	31	35	58
	47	10	17
	58	10	17

TABLE A - 4

METALLURGICAL SAMPLE - Grade Estimate

Section	Hole No.	Grade Au oz/ton	Grade Ag oz/ton	Weight %	Weighted Grade Au oz/ton	Weighted Grade Ag oz/ton
10,000	1	0.59	13.1	4		
	2	0.04	2.0	7		
	3	0.02	1.4	26		
	4	1.25	14.1	22	0.37	6.8
	5	0.50	11.9	7		
	6	0.24	15.7	7		
	7	0.08	2.7	22		
	45	0.12	3.1	5		
10,025	9	0.29	5.8	17		
	10	0.52	12.6	25		
	11	0.38	9.1	17	0.26	7.0
	12	0.02	3.0	29		
	13	0.09	3.2	12		
10,050	60	0.46	9.0	20	0.36	5.2
	69	0.34	4.3	80		
10,100	25	0.12	2.8	67	0.11	2.6
	26	0.08	2.1	33		
10,150	59	0.27	6.0	100	0.27	6.0
10,200	30	0.10	0.8	8		
	31	0.99	14.4	58	0.59	10.3
	47	0.02	8.7	17		
	58	0.08	2.1	17		

SUMMARY

METALLURGICAL SAMPLE

Section	Grade		Weight	Weighted Grade	
	Au oz/ton	Ag oz/ton	%	Au oz/ton	Ag oz/ton
10,000	0.37	6.8	18		
10,025	0.26	7.0	14		
10,050	0.36	5.2	17	0.33	6.4
10,100	0.11	2.6	8		
10,150	0.27	6.0	30		
10,200	0.59	10.3	13		

APPENDIX B

TENTATIVE COMINCO TERMS FOR PURCHASE OF SILICEOUS ORE

NOTE:

Cominco will purchase siliceous material either as flux or as siliceous ore. Terms are identical except that flux is not sampled and there is no payment for metallic content. Hence, for Dusty Mac, the material would have to be handled as siliceous ore.

PAYMENTS:

Gold - Pay for 95% of contained gold with a minimum deduction of 0.03 oz/ton at London price less $1.25/oz.

Silver - Pay for 94% of contained silver with a minimum deduction of one oz/ton at Handy and Harmon unrefined quote less one cent/oz.

Silica - Pay for 100% of contained silica at $0.075/unit.

DEDUCTIONS:

Silica: (100% - actual content %) x $0.08

Al_2O_3 : $0.15/unit.

Fe : $0.50/unit.

Handling: $1.00 - $2.50 (see below)

Over 6% Al_2O_3 is not desired. Individual lots carrying more than this would not be rejected, but this should be the cumulative target. The smelter has an overall limited

APPENDIX B (Cont'd)

capacity to absorb alumina.

QUANTITIES:

Would probably require 1,000 tons per month up to, depending on other deliveries of siliceous materials, a maximum of 1,500 tons per month.

LOTS:

For a continuous operation, 500-ton lots are optimum. This is the daily capacity of the larger crusher - sampling unit. Handling charges through this unit are $1.00 per ton. Smaller lots are handled through a smaller unit with handling charges running up to $2.50 per ton.

DELIVERY:

May be by truck or gondola rail car.

With trucks, loads are dumped in the yard until a lot (500 tons) has accumulated.

With cars, these are switched to a yard siding (with consequent demurrage) until a lot has accumulated.

LUMP SIZE:

The crushing and sampling plants are integral so all material must go through the crusher. There is no reduction in handling charges for pre-crushed material.

Maximum lump size is 12". Larger lumps are hand-broken at day-labour rates.

APPENDIX B(2)

NET SMELTER RETURN PER TON, RAW ORE

Using the January 1971 ore reserve calculation, the overall grade may be cited as:

Gold	-	0.23 oz/ton
Silver	-	4.9 oz/ton
Silica	-	80.4%
Alumina	-	5.9%
Iron	-	1.8%

Payments:

Gold:	(0.23 x 95%) x $37.50 - $1.25	-	$7.92
Silver:	(4.9 x 94%) x $ 1.75 - $0.01	-	8.01
Silica:	80.4 x $0.075	-	6.03
			$21.96

Less:

Silica:	(100.0 - 80.4) x $0.08	- $1.57	
Alumina:	5.9 x $0.15	- .87	
Iron:	1.8 x $0.50	- .90	
Handling:		- 1.00	4.34
Net Before Mining & Freight		-	$17.62

Shipping & handling & breaking - 12.84

APPENDIX C

TENTATIVE COMINCO TERMS FOR PURCHASE OF HIGH GRADE CONCENTRATES

Gold - Pay for 95% of contained gold with a minimum deduction of 0.03 oz/ton at London price less $1.25 oz.

Silver - Pay for 94% of contained silver with a minimum deduction of one oz/ton at Handy and Harman unrefined quote less one cent per ounce.

DEDUCTIONS:

Treatment Charge	-	$9.00 per dry ton.
Container Handling	-	$4.00 per dry ton.
Sampling and Assaying	-	$250.00/lot, maximum 15 tons (or $16.67 per dry ton).
Iron penalty	-	$0.50/unit over 0.1%.
Arsenic penalty	-	$2.50/unit over 0.1%.

APPENDIX C(2)

NET SMELTER RETURN, FLOTATION CONCENTRATE

heads with 32.94 gms

CONCENTRATE GRADE:

Gold - 14.5 oz/ton.

Silver - 255.6 oz/ton.

Iron - 8.6%

Arsenic - 0.05% (below penalty limit)

PAYMENTS:

Gold - (14.51 x 95%) x ($37.50 - $1.25) - ~~$499.34~~ 978.66 (72.25 - 1.25)

Silver - (255.6 x 94%) x (~~$1.75~~ $2.25 - 1¢) - ~~$418.06~~ 536.09 (255.6-1 x 94%)

~~$917.40~~

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1514.75

DEDUCTIONS:

Treatment	-	$9.00	
Handling	-	4.00	
Sampling, etc.	-	16.67	
Iron Penalty	-	4.25	
Freight	-	10.00	43.92

NET SMELTER RETURN/TON CONCENTRATE ~~$873.48~~ 1470.83

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NET SMELTER RETURN/TON ORE - $\frac{\$873.48}{52}$ (53) - ~~$16.80~~ 28.28 = 85.8% of gross

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~~27.15~~

grade of ore zone = .2304 x 72.25 = 16.65

4.9656 x 2.25 = 11.17

27.82

return / ton 85.8% of 27.82 = $23.87