

DOLLY VARDEN RESOURCES LIMITED

103P188

ALICE ARM, B.C.

PROPERTY FILE

Project: Re-opening of Government of British Columbia
Road: - Mine Site to Alice Arm, B. C.

INTRODUCTION:

Dolly Varden Mines (1979) Ltd. wishes to re-open the Dolly Varden Mine, (out-of-production for several years) by the summer of 1980. The estimated total capital cost of a concentrating mill to be initially located at Alice Arm, plus work at the mine site, 32 km up the Kitsault River from Alice Arm, is estimated at \$3.5 million dollars. Initial production rate of the mill will be 150 tons of ore per day.

It is proposed that the mine will operate during the six month snow free period whereas the mill will operate year-round. The mine will employ 20 - 25 men and the mill a similar number. An additional 15 people will be involved in the associated trucking operation.

Once the operation is producing a reasonable cash flow, and assuming that initial indications of larger ore tonnages are proven, the Company hopes to expand the operation to 800 to 1000 tons per day, possibly moving the mill site close to the mine. Total employment could reach over 100.

The road under discussion is a gazetted Provincial highway and has been in operation intermittently over the past fifty years, being originally a railroad bed.

ADVANTAGES TO BRITISH COLUMBIA

By re-opening this road the mine will be permitted to enter operation and in addition, new logging operations will be feasible. New jobs created in the mine and woods could be as high as 100 initially, rising to over 200 ultimately.

Other benefits outlined in detail following, will be new royalties, stumpage, sales and income taxes, capital taxes, plus an important addition to the relatively depressed economy of Stewart, B. C.

MINE PROJECT

The Alice Arm area has since the turn of the century been a source of active silver mining, Dolly Varden and Torbrit Silver Mines being the two companies that have been active.

Recently, B. C. Molybdenum received approval to open a 20,000 ton operation in this area.

The Dolly Varden and Torbrit properties have been out-of-production for many years. However, rising silver prices have now improved financial feasibility to the point where a new ownership group wishes to place the Dolly Varden properties back into production and through expanded exploration and modern methods eventually increase production as well as produce from the adjacent Torbrit properties, thereby creating a major new mining entity.

OPERATING METHOD

The mine will be operated initially for the snow free period (estimate 6 months) each year with ore trucked to a storage pile at the mill site near tidewater at the native village of Alice Arm. Sufficient tonnage will be stored to permit year-round mill operation.

Snow removal from the road is therefore eliminated as a major road maintenance cost.

Design capacity of the mill is 150 tons of ore per day. Provision will be made to expand the mill six-fold to 950 to 1000 TPD.

Mine crews will stay at the mine site in a fully integrated camp. Mill staff will have a similar installation at Alice Arm. Married personnel accommodation will be limited to the mill site.

Silver concentrates will be shipped to market by boat.

EMPLOYMENT LEVELS

Mine site employment is estimated at 20 to 25 men.

Mill Site employment is estimated at 25 to 30 men with an additional 10 to 15 engaged in transportation.

POWER SUPPLY

Depending on timing, power will be supplied either by B. C. Hydro or by on-site generation. Dolly Varden will provide sufficient power to accommodate the needs of the present village residents.

ECONOMIC BENEFITS TO BRITISH COLUMBIAINITIAL PRODUCTION RATE:- 150 TPDANNUAL VALUE OF PRODUCTION (Silver \$10.00 Can. per oz.):-

150 x 350 x 10 x \$10.00	\$5,250,000 per year
plus other recoveries estimated at	350,000 per year
TOTAL	\$5,600,000 per year

ROYALTIES

Estimate annual royalties	
\$5,600,000 x 2.40%	\$ 134,400

PAYROLL

50 employees x \$30,000	\$1,500,000 per year
(Note: Mine employees will work 12-hour shifts)	

INCOME TAXES

Provincial share of Income Taxes on Payroll	
\$1,500,000 x .35 x .26	\$ 136,500
Mine Income Tax - years 1 to 3	Nil

SALES TAXES

Annual consumable materials	\$ 400,000
Capital equipment purchases (taxable)	\$2,000,000
Initial year Sales Taxes	
\$2,500,000 x .04	\$ 96,000
Annual Sale Taxes	
\$400,000 x .04	\$ 16,000

CORPORATE TAX

Initial Capitalized Value	\$3,500,000
Corporate Tax	
\$3,500,000 x .0025	\$ 8,875

PROPERTY TAXES

Estimated rate 50 mils combined	
\$3,500,000 x .005	\$ 17,500

LOGGING TAXES

Estimated annual cut by loggers using road
25 MMFBM

Estimated total levy in license fees,
stumpage etc. \$5.00 MFBM

Estimated logging revenue potential:
25,000 x \$5.00 \$ 125,000 per year

SUMMARY - ECONOMIC BENEFIT TO PROVINCE - 150 TPD OPERATION

Annual Taxes:	\$ 438,275
Tax on Initial Construction:	\$ 96,000

ULTIMATE PRODUCTION RATE:- 1000 TPD

Using analysis as in previous case the following
summarizes Revenues accruing to Province:

Royalties:	\$16,000,000 x 2.4%	\$384,000
Payroll Income Tax:	\$6,000,000 x .35	
	x .26	\$546,000
Sales Taxes on consumables		
	\$2,400,000 x .04	\$ 96,000
Sales Taxes on mill equipment		
	\$6,000,000 x .04	\$240,000
Corporate Tax	\$10,000,000 x .0025	\$ 25,000
Property Taxes	\$10,000,000 x .005	\$ 50,000
Logging Taxes		\$125,000

SUMMARY - ECONOMIC BENEFIT TO PROVINCE - 1000 TPD OPERATION

Annual Taxes	\$1,406,000
Taxes Construction (Expansion)	\$ 240,000

TEN (10) YEAR ESTIMATED ECONOMIC BENEFIT TO PROVINCE

(Assumes 150 TPD first 5 years, 1000 TPD next 5 years)

1) Cost to B. C.

Initial highway construction	\$375,000
Annual maintenance 10 x \$50,000	<u>500,000</u>
Total 10 year cost to B.C.	\$875,000 (1979 dollars)

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2) Total Income to B.C. Government (excludes Corporate Income Tax)

Annual tax income:	
5 x \$438,275	\$2,191,375
5 x \$1,406,000	<u>7,030,000</u>
Subtotal Annual Tax Benefit	\$9,221,375
Sales Tax on construction	
Initial	\$96,000
Ultimate	<u>\$240,000</u>
(i) Subtotal Construction Taxes	\$336,000

Note (i) does not include tax benefits accruing from Construction Payroll.

TOTAL ESTIMATED 10 YEAR BENEFIT =	\$11,844,750
	<u>Say \$12,000,000</u>

INDICATED RETURN ON PROVINCIAL EXPENDITURES =

$$\$12,000,000 \div \$875,000 \times 100 = \underline{\underline{1400\%}}$$

ECONOMIC BENEFIT TO STEWART, B. C.

- i) It is estimated that 20% of the annual payroll will be spent in Stewart, B. C. as well as approximately \$150,000 per year at the initial production rate and \$300,000 per year at the ultimate production rate.
- ii) In addition, expenditures by logging contractors and their employees could add an estimated \$500,000 minimum.
- iii) Services such as road maintenance, equipment maintenance services could be provided by Stewart, B. C. based companies.

SUMMARY

Estimated Annual Benefit - First 5 years

Item (i)	\$ 450,000
Item (ii)	500,000
Item (iii)	<u>75,000</u>
Total Annual	\$1,025,000

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Estimated Annual Benefit - Years 5 to 10

Item (i)	\$2,100,000
Item (ii)	500,000
Item (iii)	<u>150,000</u>
Total Annual	\$2,750,000

Therefore, the ECONOMIC BENEFIT over the next 10 years to Stewart could equal an estimated \$18,875,000 say \$19,000,000.

Respectfully submitted,

D. A. Duguid, P. Eng.

DAD/f

RE-OPENING ALICE ARM - DOLLY VARDEN MINE ROAD

ESTIMATED ECONOMIC BENEFIT TO
B. C. PROVINCIAL REVENUE INCOME -
1980 - 1990
(Current Dollars)

TOTAL TAX INCOME - (Excludes share of Corporate Profit Taxes)	<u>\$12,000,000</u>
TOTAL ECONOMIC EFFECT ON STEWART, B.C.	<u>\$19,000,000</u>
TOTAL COST TO PROVINCE THROUGH HIGHWAYS MINISTRY	<u>\$ 900,000</u>
ESTIMATED ADDITIONAL REVENUE FROM CORPORATE INCOME TAX	<u>\$ 7,000,000</u> (estimated)
FOR AN ESTIMATED EXPENDITURE OF	<u>\$ 900,000</u>
BRITISH COLUMBIA COULD GENERATE TAX REVENUES OF	<u>\$19,000,000</u>