RED POINT EXTENSION 103 P 010

Telephone (416) 968-7384

018245

Dolly Varden Minerals Inc.

6th Floor 45 Charles Street East Toronto, Canada M4Y 1S2

March 16, 1987

Mr. David Lefebure
District Geologist
Province of British Columbia
Energy Mines & Petroleum Resources
Bag 5000
Smithers, B.C.
VOJ 2NO

MINISTRY OF ENERGY, MINES and PETROLEUM RESOURCES

Rec'd MAR 2 5 1987

SMITHERS, B.C.

Dear Mr. Lefebure:

In lieu of completing the enclosed form which you requested, I enclose instead a copy of the most recent report we have had prepared on our property. I also enclose a copy of our most recent annual report. I am sorry it is not more current, but our 1986 annual report has not yet been released.

Yours truly,

DOLLY VARDEN MINERALS LIMITED

land E. Pelmer

C. E. Palmer

CEP:jv

Public internation



# DERRY, MICHENER, BOOTH & WAHL CONSULTING GEOLOGISTS AND ENGINEERS

SUITE 410-CONFEDERATION SQUAR 20 RICHMOND STREET EAST TORONTO, CANADA M5C 2R9 TELEPHONE: (416) 368-4636 TELEX: 06-23686

TELECOPIER: (416) 367-3347

August 8th, 1986

Dolly Varden Minerals Inc. 6th Floor 45 Charles Street East Toronto, Ontario M4Y 1S2

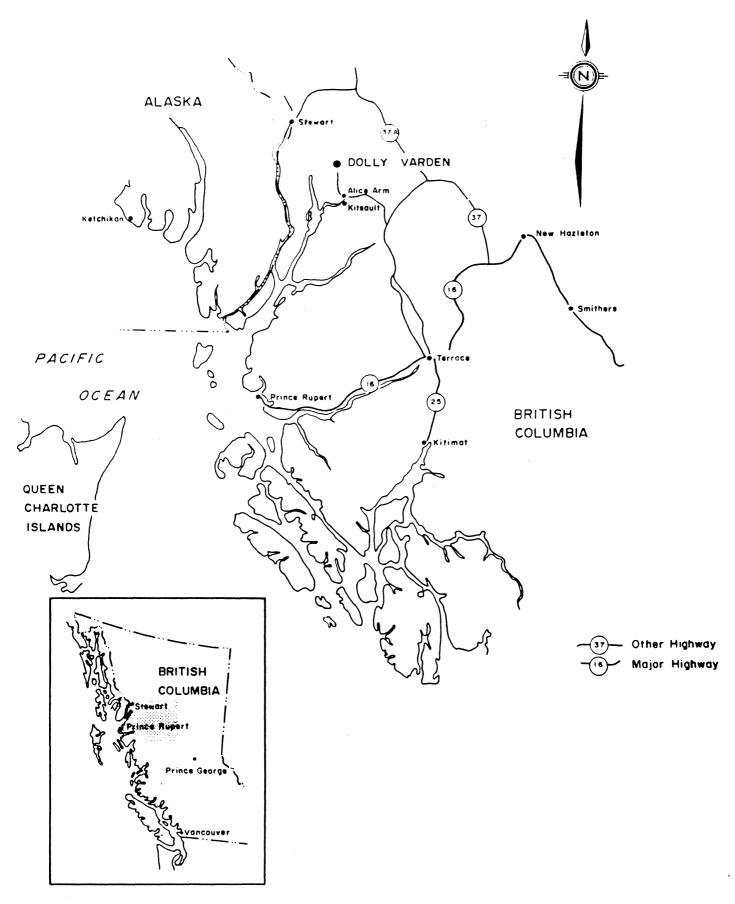
#### Gentlemen:

This report summarizes a thorough study of all known data on the Dolly Varden property near Alice Arm, B.C., prepared by Derry, Michener, Booth & Wahl (DMBW).

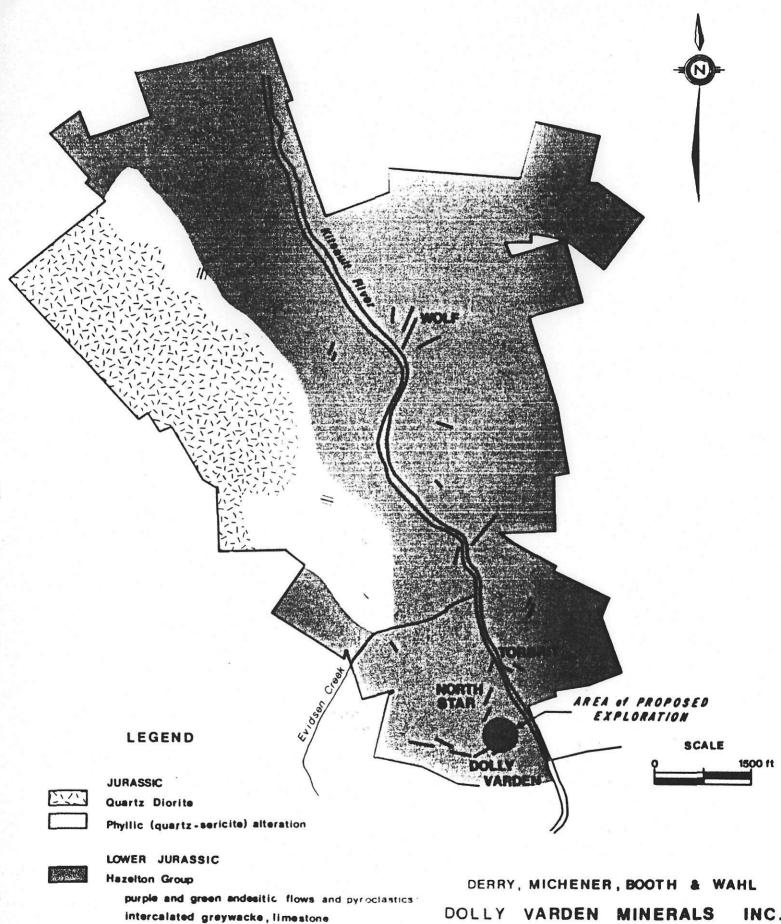
Geological reserves have been outlined in four separate deposits on the property as follows:

	Proven & Probable Tons Grade			Possible Tons Grade	
		(oz. Ag/ton)		2. Ag/ton)	Source
North Star	141,577	11.71			DMB(1981)
Wolf	326,773	9.17	110,556	8.15	DMB(1981)
Dolly Varden	47,000	22.00			Skerl(1964)
Torbrit			777,000	9.80	Dolly Varden
					Staff (1974)
Total	515,350	11.04	887,556	9.60	
Contained Silver	5,688,375 oz.		8,515,63	1 oz.	

Public information



Location map of Dolly Varden Property, Alice Arm, British Columbia.



Ag-Pb-Zn mineralization

\_\_\_\_ Au-Cu mineralization

DOLLY VARDEN MINERALS INC.

- SIMPLIFIED PROPERTY GEOLOGY -

The evaluation of the exploration data strongly suggests that evidence for a stratigraphic exhalation model for genesis of the silver-lead-zinc mineralization exists on the Dolly Varden property and is favoured as an exploration guide in evaluating the following prospective areas on the property:

### **DOLLY VARDEN - NORTH STAR AREA**

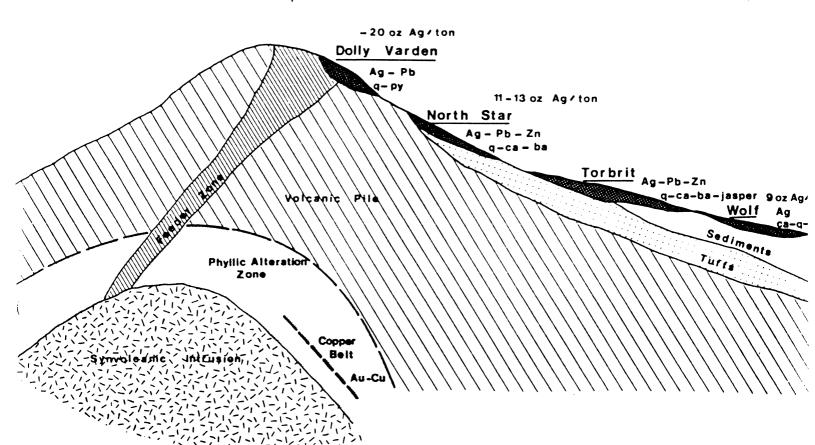
The Dolly Varden Mine operated from 1919 to 1921 and recovered 1,305,000 ounces of silver from 36,600 tons of ore mined at a recovered grade of 35.66 oz. Ag/ton. Reserves above the 1,410 ft. level are estimated to be up to 47,000 tons of "probable ore" averaging 22 oz. Ag/ton. The North Star deposit, located about 1,304 ft. north of the Dolly Varden Mine, contains proven and probable reserves of 141,577 tons at 11.71 oz. Ag/ton.

Earlier exploration activity on the Dolly Varden Mine area was concentrated above the 1,410 ft. level with only token efforts expended to explore the deposit at depth or to investigate the possible extensions of the known ore zones into the area between the Dolly Varden and the adjacent North Star deposit.

Only the central portion of the Dolly Varden Zone has been mined in four faulted blocks for a total strike length of about 320 ft. and a vertical depth of 237 ft. Geological mapping in 1985, however, confirmed that the Dolly Varden horizon extends westward from the old workings at least 3,600 ft. Based on an analysis of fault geometry, the horizon probably extends down-dip at least 2,600 ft.

The surface extent of the North Star mineralized zone suggests a north-south strike; however, this is an apparent strike caused by the very extreme topographic relief in the area. The zone strikes approximately east-west and dips about 45° northwards, which is a similar attitude to Dolly Varden and hence, it is probable that the two deposits, the North Star and the Dolly Varden, are part of one single horizon which has been segmented by the numerous faults in the area.





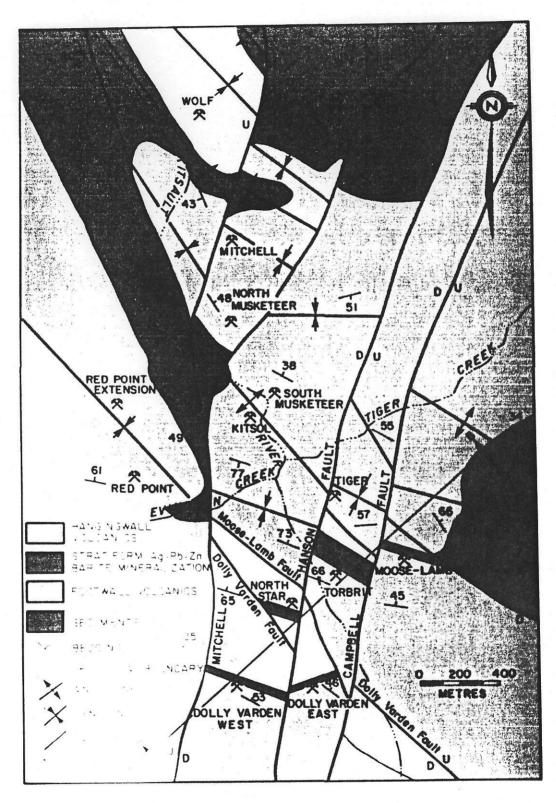
Schematic drawing showing possible stratigraphic relationships between Dolly Varden, North Star, Torbrit and Wolf deposits.

ba = barite

ca = carbonate

py = pyrite

q = quartz



DOLLY VARDEN MINERALS INC DETAILED PROPERTY GEOLOGY

## TORBRIT MINE AREA

The Torbrit Mine produced 18,706,847 ounces of silver and 10,772,575 pounds of lead from 1,377,832 tons of ore mined from 1949 to 1959. This yields a calculated recovered grade of 13.58 oz. Ag/ton and 0.39% lead.

Existing reserve figures are highly variable ranging from a low of 294,500 tons of "possible ore" averaging 9.5 oz. Ag/ton to a high of 867,000 tons of "proven and possible ore" averaging 9.1 oz. Ag/ton. The most detailed reserve calculations were carried out by Dolly Varden Mines and indicated 777,000 tons averaging 9.80 oz. Ag/ton.

Further exploration will concentrate on delineating the existing reserves through underground drilling as well as exploring for down-dip and down-plunge extensions of the known ore zones.

#### WOLF DEPOSIT AREA

The Wolf deposit has two main "ore" zones designated as the Wolf No. 1 and the Wolf No. 2 containing undiluted reserves of 74,700 tons averaging 12.98 oz. Ag/ton and 209,450 tons averaging 9.34 oz. Ag/ton, respectively.

Future exploration will be directed towards outlining a potential high grade zone within the Wolf No. 2 zone which will be investigated by diamond drilling from existing underground workings.

#### OTHER SILVER-LEAD-ZINC OCCURRENCES

Numerous silver-lead-zinc occurrences outside the main deposit area will be re-examined preparatory to diamond drilling of the more promising occurrences.

## GOLD-COPPER BELT AREA

We have also carried out a preliminary assessment of the Gold-Copper Belt based on information in the Dolly Varden files, government data compiled by D. Muralt, and a recently released geological map of the Kitsault River area by Alldrich et al. (1986: B.C. Open File Map 1886/2).

The Gold-Copper Belt, as shown on Alldrich's map, is a major north-northwesterly trending structural/alteration zone that extends for a strike length of at least 9 miles. The Dolly Varden property covers about 5 miles of this total extent. The zone is characterized by silicification, seritization and pyritization. A number of gold showings with generally limited work have been found along this belt.

On the Dolly Varden property, the most significant gold showing found to date is the Red Point Extension. Sampling by M. Mitchell in 1973 returned values of 0.43 oz. ton over 5.0 ft. and 0.23 oz. Au/ton over 9.0 ft. The former value is particularly significant because it is associated with a low Cu value of 0.09%. This indicates that there is not a strict 1 to 1 correlation of Au with Cu hence Au is not necessarily restricted to the small massive pods of chalcopyrite prevalent along the belt. Little exploration beyond surface trenching has been carried out on this showing.

The Gold-Copper Belt has many similarities to epithermal Au-Ag bearing zones elsewhere in the Corderilla such as the Silbak-Premier property in the Stewart area and the Lawyers property in the Toodoggonne area. The most likely scenario for deposit genesis in the Dolly Varden area is as follows:

The Hazelton Group volcanics form a Jurassic island arc assemblage which during its early stages of development was submarine which accounts for the presence of marine sediments and the reduced character of the volcanics in the lower part of the sequence. It was during a quiescent period when the pile was submarine that the exhalative Ag-Pb-Zn mineralization formed. Following

renewed volcanism, the pile became emergent resulting in subaerial eruptions producing the characteritistic reddish pyroclastics. Once the pile became subaerial, the style of mineralization changed from exhalative to epithermal. The Gold-Copper belt is a manifestation of this epithermal style of mineralization which was superimposed on the earlier exhalative Ag-Pb-Zn horizon.

Evidence to support this hypothesis includes the similar alteration and structure of the Gold-Copper belt to other known epithermal areas in B.C.; the presence of hybrid showings with both Au and Ag-Pb-Zn such as the west part of the Dolly Varden which contains up to 1,500 ppb Au based on sampling by B. Devlin and the Surprise Au-Ag-Pb-Zn showing; and K-Ar dating of sericite from the Gold-Copper Belt intrusive by Devlin which eliminates the possibility of a younger Eocene event in the area.

From an exploration viewpoint, therefore, the Gold-Copper Belt is a completely separate target from the stratabound Ag-Pb-Zn. Most of the known showings have had only limited surface work with very little diamond drilling. Previous sampling has outlined several promising targets and it is likely that a reexamination of the complete belt will outline more prospective areas.

#### PROPOSED 1986 EXPLORATION PROGRAM

The emphasis for further exploration on the Dolly Varden property will be placed in the Dolly Varden-North Star Mines area with lesser priority attached to the Torbrit and Wolf deposits. The objective of the program is to outline a minimum of 100,000 to 200,000 tons grading 20 oz. Ag/ton. The Gold-Copper Belt and other silver-lead-zinc occurrences warrant further examination and this can be readily carried out by a relatively inexpensive surface prospecting and sampling program followed by contingent surface diamond drilling.

The proposed exploration program involves driving a new drift 1,300 ft. long between the North Star and Dolly Varden deposits at the 1,000 ft. elevation

to provide an effective drilling base and also serve as a haulageway for future development of the Dolly Varden-North Star deposits. A program of 15,000 ft. of BQ diamond drilling is planned from several slashes along the new drift. In addition field work is planned on the Gold-Copper belt occurrences and outlying silver-lead-zinc showings as well as a comprehensive data compilation of the underground and surface diamond drilling for the Dolly Varden and North Star deposits.

The estimated total cost of this program is \$2,300,000

## CONCLUSIONS

In conclusion, the exploration potential of the Dolly Varden property is excellent and it appears likely that additional reserves will be found through a conscientiously applied exploration effort. The Gold-Copper Belt is also an excellent target which adds an important dimension to the property.

Respectfully submitted,

DERRY, MICHENER, BOOTH & WAHL

W. N. Pearson, Ph.D.

Associate .

WNP:S

## WOLF DEPOSIT

