

REPORT ON THE GEOLOGY AND BULK SAMPLING PROGRAM

Tide Claim Group

Skeena Division

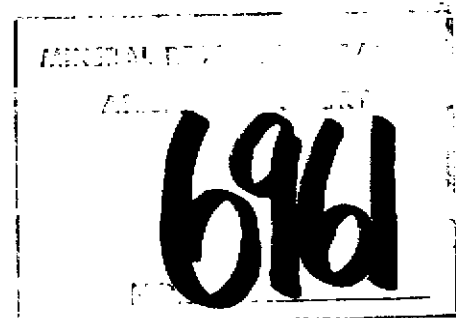
NTS 103 P/5

Owned by R.M. Dunn

Report by N.R. Tipman

Dated August 14, 1978

*Part 2 of 2*



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## INTRODUCTION

The Tide property was visited by two geologists by helicopter on November 26, 1977 with the objective of acquiring a bulk sample for assay and metallurgical testing. Along with the bulk sample, a general assessment was made of the engineering problems including those of mining, waste disposal, transportation, and dock facilities at tidewater.

The property is currently owned by Mr. R.M. Dunn. It consists of two Crown Granted claims called the "Tide Group", which were recorded in June, 1977. A Prospector's Report was filed on June 24, 1977.

The claim group is located 1 km north of Alice Arm inlet and 5 km southwest of the town of Alice Arm at an elevation covering 1000 - 2000 ft. above sea level. The terrain is rugged with a mixture of timbered slopes and generally swampy tablelands (Map 1).

Located on the property are two adits, which were developed over the years 1916 to 1931. In 1916 the production was 383 tons of ore grading 1.6%  $\text{MoS}_2$ . Between 1916 and 1931, 13,000 lbs. of molybdenite were produced. In 1930, the Dalhousie Mining Co. undertook further development of the property by opening a second adit and building a 100 ton per day flotation plant at tidewater. Consequently, located on the property are old, dilapidated buildings, an overgrown trail between the mining location and tidewater and a tailings dump containing an estimated 230 tons of development ore assaying about 0.5%  $\text{MoS}_2$ .

More recently, the property was optioned by Canex Exploration in 1964. During 1964 and 1965, about 2,700 ft. of diamond drilling was carried out along with geological and geochemical surveys (1).

BULK SAMPLING

The No. 2 adit, elevation 1121 ft., was sampled at the time of the visit to the property. The adit was in good condition, with the old timbers and supports having been repaired by Canex Aerial Exploration. The sampling was carried out across the numerous veins located as shown in Figure 1. A total of about 10 kg of material was taken, crushed, composited and sent for assay. The results, given below are also documented in Appendix 1.

<u>Bulk Sample Assay</u>			
Ag(O <sub>3</sub> /ton)	Pb(%)	Zn(%)	MoS <sub>2</sub> (%)
0.12	0.04	0.02	3.47

At the same time, a geological map of the adit was made, also shown in Figure 1. This map was somewhat modified by that reported by Stevenson (2).

The molybdenite is unevenly dispersed in the fine grained quartz veins. The veins vary in width from 10 cm to 5 meters. The locations of the veins indicate structural discontinuities and no estimate of mineable tonnages could be made.

However, mining of this ore, which consists of narrow to medium width veins, can only be carried out by the usual cut and fill methods.

METALLURGY

The ore consisted of massive blebs of molybdenite in fine grained quartz which makes the metallurgical process very straight forward. Crushing the ore to pass 150 microns and flotation with fuel oil and a frother such as Pine oil yielded recoveries greater than 98%. The low level of Pb in the ore indicated that additional processing to remove this contaminant would not likely be required.

Additional testwork is recommended to produce a final flowsheet if and when the scale of operation is determined.

#### WASTE DISPOSAL

The mining area contains a tailings disposal area which could be developed for containment of mill tailings. The mill water can be recycled with minimum impact on the environment. Water supplies can be obtained from any of the creeks that cut through the area. Although the water supply is quite variable, sufficient reserves should be available for a small mining operation. The details of water management will depend on the requirements of the Environmental Control Commission.

#### TRANSPORTATION AND DOCK FACILITIES

The dock located at tidewater requires repair and the trail leading to the campsite must be cleared for accessibility to mining equipment and supplies. The location of the mine is quite advantageous, in that Alice Arm is a regular shipping channel and supplies and equipment can easily be brought in by barge. Transport of equipment to the minesite may be difficult because of the steep (25<sup>0</sup>) terrain. The possibilities of rehabilitating the tramway should be considered.

#### CONCLUSIONS

1. The grade of ore in the subject area indicates that this property could be considered for production as a small, high grade mine. Confirmation of tonnage is required.
2. The location, particularly its nearness to tidewater and a regular shipping channel indicates that supplies and equipment could be brought in at reasonable cost.
3. The recovery of molybdenite from the ore should be very straight forward, and the bulk concentrate should be marketable without further processing.

RECOMMENDATIONS

1. Additional exploration is recommended, particularly to outline ore tonnages.

2. If sufficient tonnage is indicated, a viable small, high grade mining operation can be considered.

REFERENCES

1. Mines and Petroleum Resources Report (1964), B.C. Minister of Mines, pp 39 - 41.
2. Stevenson, J.S., B.C. Minister of Mines Bulletin 9, pp 61 - 67 (1940).

1)

STATEMENT OF COST

a) Wages 27 November 1977 2 men	\$100
b) Food and Accommodation Terrace 27 November 1977 2 men @ 35	70
c) Transportation Helicopter Terrace, Alice Arm, Terrace 1.8 hours: \$608 50%	304
d) Report	65
e) Assays	<u>25</u>
	TOTAL \$564

FIGURE 1

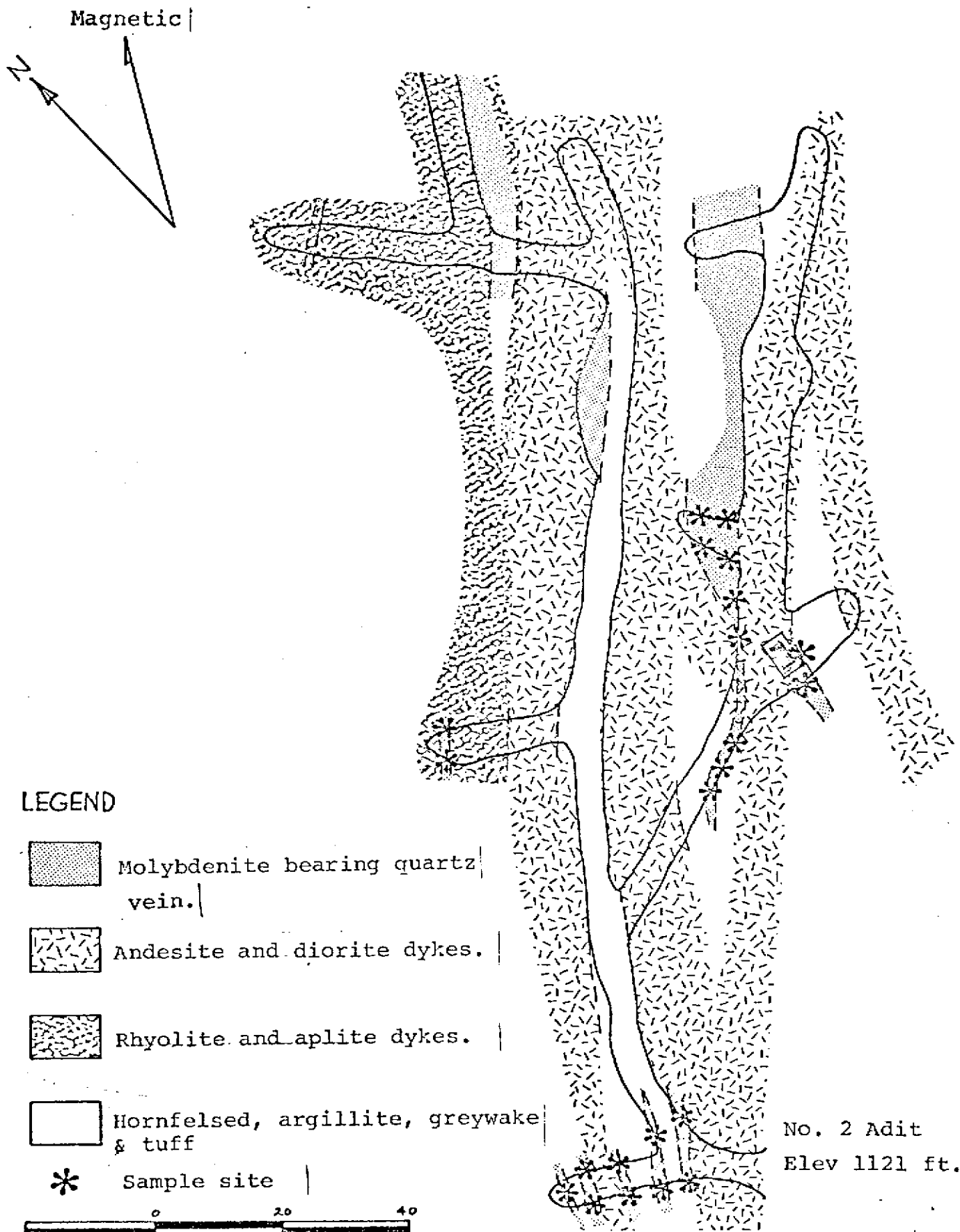


Figure 1. Tide Molybdenum property. Plan of No. 2 Adit showing sample points for metallurgical bulk sample. Geology modified from Stevenson (1940)



APPENDIX 1  
**GENERAL TESTING LABORATORIES**

DIVISION SUPERINTENDENCE COMPANY (CANADA) LTD

1001 EAST PENDER ST., VANCOUVER, B.C., CANADA, V6A 1W7  
 PHONE (604) 254-1647 TELEX 04-507514 CABLE SUPERVISE

TO:  
 Mr. Richard Dunn  
 #29 De Hreslay  
 Pointe Claire  
 Quebec  
 H9E 4M8

**CERTIFICATE OF ASSAY**

No.: 7807-2360 DATE: August 3, 1978

We hereby certify that the following are the results of assays on: **Ore**

MARKED	XXXXXX	SILVER	Lead	Zinc	Molybdenum to XXX	XXX	XXX
	XXXXXX	oz/st	Pb (%)	Zn (%)	MoS <sub>2</sub> (%)		
No Mark		0.12	0.04	0.02	3.47		
<p><u>REMARKS:</u> MoS<sub>2</sub> calculated from total molybdenum.</p>							
<p>cc. Mrs. I. Dunn                  cc. Mr. R. Tipman</p>							

REJECTS RETAINED ONE MONTH. PULPS RETAINED THREE MONTHS. ON REQUEST PULPS AND REJECTS WILL BE STORED FOR A MAXIMUM OF ONE YEAR.

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*[Signature]*  
 PROVINCIAL ASSAYER

**COPY**

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MEMBER American Society For Testing Materials • The American Oil Chemists Society • Canadian Testing Association  
 REFEREE AND/OR OFFICIAL CHEMISTS FOR National Institute Of Oilseed Products • The American Oil Chemists Society  
 OFFICIAL WEIGHMASTERS FOR Vancouver Board Of Trade

1. I, N.R. Tipman, have a Ph.D. in Mineral Engineering from the University of British Columbia.
2. I am a Professional Engineer with the Association of Professional Engineers, Geologists, and Geophysists of Alberta.
3. I possess eight (8) years experience in the fields of mineral exploration and mineral processing.
4. I have no material interest in the "Tide Group" claims, actual or contemplated.
5. I reside at 73 Galloway Drive, Sherwood Park, Alberta T8A 2M5.

  
N. Robert Tipman, Ph.D. P.Eng.

August 14, 1978

CAMPBELL

CHALONER RIDGE

TIDE GROUP

ALICE ARM

DAWSON RIDGE

MAP 1  
INDEX MAP  
103 P/5

Mans Pt  
Navigation Light  
Hans Hill

L68  
Navigation Light

L66

25'

