

4717

104G/11E, 11W, 14W
GEOLOGICAL REPORT

on the

B # 1-10 & the BM # 13-16, 25-28, 37-40, & 49-53 Claims of

BART MINES LTD., (NPL)

Situated $12\frac{1}{2}$ miles South

and $3\frac{1}{2}$ miles West

of Telegraph Creek

4717

In the Liard Mining Division

of British Columbia

N.T.S. 104 G/11(E&W)

Lat: $57^{\circ}43\frac{1}{2}'N$, Long: $131^{\circ}15'W$

on behalf of

BART MINES LTD., (NPL)

by

D.R. Morgan P. Eng.

Dates of Survey: 12 August - 4 September 1973

Date of Report: 27 November 1973

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 4717 MAP

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Maps Accompanying This Report:

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1 - 0 SUMMARY:

Geological mapping on the B and BM Claims of Bart Mines Ltd (NPL) on Nightout Mountain near Telegraph Creek, B.C. in August and September 1973 by the writer has shown the following:

1. The property is underlain by granodiorite and to a lesser extent by a (probably) younger quartz diorite.
2. Copper mineralization (chalcopyrite, bornite) occurs mainly in southwesterly trending fractures in the centre of the property.
3. This copper mineralization is best exposed along the cliffs which extend northwesterly from the peak of Nightout Mountain. Other exposures are in an old trench and in minor occurrences in outcrop to the southwest.

2 - 0 CONCLUSIONS:

1. The "Main Showing" is the most important area of copper mineralization found to date on the property.
2. Any further exploration should be concentrated on investigating the extensions of this zone - possibly by geophysical means.

NTS 104 G/14(w)

NTS 104 G/14(e)

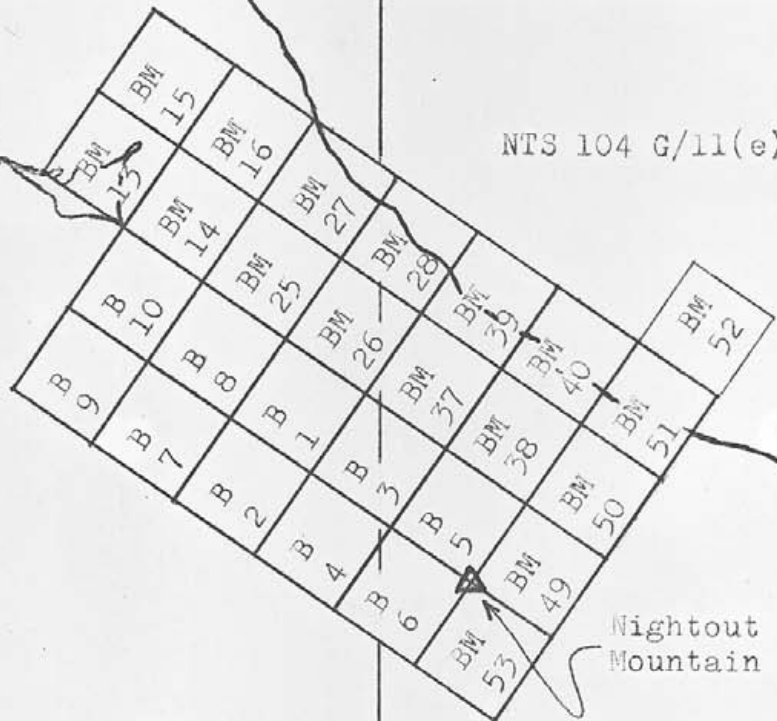
57°45' N

131°15' W

NTS 104 G/11(w)

NTS 104 G/11(e)

Nightout Creek



Nightout Mountain

Lingwell Creek

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 4717 MAP # 1



BART MINES LTD., (NPL)

CLAIM MAP

"B" and "BM" Claims

Telegraph Creek Area, B.C.

Scale: 1" - 3000 feet

Date: 27 November 1973

By: D.R. Morgan, P. Eng.

3 - 0 INTRODUCTION:

3 - 1 Scope & Dates of Report: On the 9th of August 1973 the writer was asked by Mr. R.E.A. Clarkson, President of Bart Mines Ltd (NPL), to map the geology of the Company's B and BM claims in the Stikine area near Telegraph Creek, B.C.

Geological field work was carried out between 12th August and 4th September 1973.

3 - 2 Title: The property consists of 27 claims as set out below:

<u>Number</u>	<u>Name of Claims</u>	<u>Record Number</u>	<u>Years Applied</u>	<u>New C of W Due</u>
5	B 1 - 5	67005 - 67009	2 years	17 August 1975
5	B 6 - 10	68730 - 68734	2 years	23 August 1975
4	BM 13 - 16	68197 - 68200	1 year	7 Sept. 1974
4	BM 25 - 28	68209 - 68212	1 year	7 Sept. 1974
4	BM 37 - 40	68221 - 68224	1 year	7 Sept. 1974
5	BM 49 - 53	68233 - 68237	1 year	7 Sept. 1974
<hr/>				
27 total				

4 - 0 HISTORY:

There are very few references available on the property area. The B.C. Minister of Mines Report for 1900 has a brief description of work carried out on Winona Vernon claim which mentions that a "well defined ledge" (vein) carries 15% copper. No width was given. This is probably the same showing which is described by Kerr (ref.1) for the G.S.C. in Memoir 246, p. 74. (See section 7 - 0 "Geology of the Property")

This prospect has also been known as the "Callbreath" and also "Nightout Mountain," but there are no records of work having been done.

In Telegraph Creek village Nightout Mountain is known as "Stingy Mountain," and an adit is rumoured to have been driven there. Time did not permit checking this rumour out.

5 - 0 GEOGRAPHY:

5 - 1 Location: The property is located $12\frac{1}{2}$ miles south and $3\frac{1}{2}$ miles west of Telegraph Creek in the Stikine area. It is in the Liard Mining Division, is in National Topographic System area 104 G/11 and has a latitude of $57^{\circ}43\frac{1}{2}'N$ and a longitude of $131^{\circ}15'W$.

5 - 2 Access: The property is accessible by a 13 mile helicopter flight from Telegraph Creek. Freight could be ferried from Glenora on the Stikine River to the property by helicopter involving a flight of only eight miles. The property is also accessible by a 10 mile horse trail from the ranch of Bobby Ball near Glenora.

Telegraph Creek is served on alternate days by Trans Provincial Airways flights from Terrace. Telegraph Creek is now accessible by a road which joins the Stewart - Cassiar highway at the south end of Dease Lake. It is also accessible by barge on the Stikine River from the port of Wrangell in the Alaska panhandle.

5 - 3 Topography: The claims cover a plateau-like ridge extending in a northwesterly direction from Nightout Peak. This ridge lies between Nightout and Lingwell creeks. Lingwell Creek is known locally as Cow Creek. Elevations on the property range from 5,000 to 7,000 feet. The main showing is at 6,100 elevation.

5 - 4 Climate: The property is in the dry part of the Stikine. Annual precipitation at Telegraph Creek is 12.59 inches at 600 feet elevation, however the high elevation on Nightout naturally results in more extreme conditions. Generally, the property can be expected to be snow free between mid July and mid September.

6 - 0 REGIONAL GEOLOGY:

The property lies at the northern tip of the Hickman Batholith - a 40 mile long pluton on the eastern flank of the Coast Range lying between Mess Creek and the Stikine River. Immediately north of the property this pluton has an intrusive contact with pre-Permian meta sediments and gneisses.

That part of the Hickman batholith which underlies the property is described variously as "oligoclase granodiorite; rare quartz diorite and diorite" (Map # 309A, ref.1) and "mainly quartz monzonite, granodiorite, granite"(Map # 9 - 1957, ref.2).

7 - 0 GEOLOGY OF THE PROPERTY:

7 - 1 General Statement: The property is underlain by a medium grained granodiorite and to a lesser extent by a fresher and less altered (and therefore probably younger) quartz diorite. Epidote and potassium feldspar alteration is common adjacent to fractures.

Copper mineralization (chalcopyrite and bornite) is mainly associated with a southwesterly trending fracture system in the central part of the property which is best exposed on the cliffs 500 feet N.E. of the # 1 post of B 1 and 2.

7 - 2 Rock Types: No microscopic examination of the rocks from this property has yet been made. The following descriptions are based on examinations in the field and from specimens which were taken at each outcrop.

Greywacke: This rock type was seen at only one outcrop (#34) on the N.W. of the property and presumably represents the contact with the meta-sediments and gneisses to the north. The rock is a fine grained, dark grey, very finely banded type whose 0.25 - 1.00 mm bands are made up of quartz and hornblende.

Granodiorite: A medium grained, equigranular, pinkish grey hornblende granodiorite with a composition typically as follows: Plagioclase 45% Orthoclase 20%, Hornblende 20%, quartz 10%, biotite 5%.

Quartz Diorite: A pale grey, fine grained, equigranular rock with a composition typically as follows: Plagioclase 60%, hornblende 20%, quartz 15%, biotite 5%.

Pyritic Felsite: A dove grey, aphanitic, splintery, pyritic, rusty weathering rock seen at only one locality (outcrop # 60) where it forms a 100 foot wide dyke.

7 - 3 Structures: The most important structures on the property are the fracture systems. These can be tabulated as follows:

<u>Strike/Dip</u>	<u>Outcrops</u>
220/Vertical	1, 2, 11, 14, 19, 24, 25, 42, 49, 51, 52, Main Showing
050/70 S.E.	15, 16, 33, 34, 38
110/67 S	14, 22, 34, Main Showing
180/80 W	25, 33, 50
250/Vertical	18, 19
300/70 N.E.	37
020/Vertical	38

Two bedding attitudes were obtained for the greywacke at outcrop 34, as follows: 100/65 S and 032/15 S.E.

7 - 4 Mineralization: Two types of mineralization were observed on the property. First, and by far the commonest were fractures mineralized with chalcopryite. Second, was the quartz-bornite mineralization seen adjacent to the sloughed in and frozen trench 40 feet N.E. of the I.P.s of B # 1 & 2. Individual showings were as follows:

Main Showing: This showing occurs on the cliffs 500 feet N.E. of the I.P.s of B # 1 & 2. The rocks on the cliffs in this vicinity are fractured in several planes and it is only by mapping the surrounding areas that the trend of the mineralization is revealed. Both chalcopryite and bornite in fractures and in quartz veinlets from $\frac{1}{4}$ " to 2"

were observed. Attitudes and density of fracturing were as follows:

<u>Attitude of Fractures</u>	<u>Spacing between Fractures</u>
345/42 W	10 inches
090/40 S	12 "
245/65 N	
190/75 W	12 "
220/Vertical	10 "

The granodiorite adjacent to the fractures is chloritized and epidotized. K-feldspar alteration also occurs in and adjacent to fractures. The trend of the zone of mineralization at the Main Showing is 245° as revealed by an air photo lineament following a shallow draw along which there are some copper showings. The width of this zone at the Main Showing is approximately 50 feet as revealed by detailed mapping in its vicinity, however the south margin of the zone could not be examined or sampled as it is precipitous and below a snow cornice. Four samples cut at the Main Zone have not yet been sent for assay. Visual estimates of the accessible part of the zone indicate a grade of 0.5 - 1.0% Cu.

Quartz - Bornite Showing: Forty feet N.E. of the I.P.s of B # 1 & 2 surrounded by shattered talus there is a 30 foot long trench which was presumably blasted in outcrop, but which is now partly sloughed in and ice filled. Vein quartz fragments up to 12 inches across mineralized with bornite are scattered along the margins of this trench. The overall grade of this vein material would be about 0.75% Cu, but since this is probably the showing referred to in the 1900 Minister of Mines report, some of the higher grade pieces have probably been removed over the years. This trench lies on the same mineralized zone as the Main Showing.

Outcrop # 39 Showing: This showing occurs at the foot of the cliffs north of Nightout Peak and is at an elevation of 5,400'. Chalcopyrite is disseminated in fractured granodiorite across 6 inches. The fractures have an attitude of 010/Vertical

Outcrop # 41 Showing: A 24 inch wide shear in granodiorite with an attitude of 215/Vertical is bounded by irregular quartz-calcite vein-

lets mineralized with chalcopyrite. The elevation of this showing is 5,440'.

Respectfully Submitted,



David R. Morgan, Geologist, P. Eng.

Vancouver 27 November 1973



8 - 0 REFERENCES:

1. Kerr, F.A. "Lower Stikine & West Iskut River Areas."
 Memoir # 246, G.S.C., 1948. Accompanied by
 geology map # 309 A,
2. ----- "Stikine River Map Area," Map # 9 - 1957,
 G.S.C.
3. ----- B.C. Minister of Mines Report for 1900,
 p. 783.
4. Souther, J.G. "Telegraph Creek Map Area," (104 G) Paper #
 71 - 44 (38 pages) accompanied by map # 11 - 1971.

DOMINION OF CANADA: }
PROVINCE OF BRITISH COLUMBIA. }
To Wit:

The GEOLOGICAL SURVEY on the
In the Matter of B #1-10 & BM #s 13-16, 25-28,
37-40, 49-53 of Bart Mines Ltd, 12½ miles South
& 3½ miles West of Telegraph Creek, Liard M.D.,
carried out in August & September 1973,

I, David R. Morgan, Geologist, P. Eng.

of 3424 West 6th Avenue, Vancouver, B.C. V6R 1T3

in the Province of British Columbia, do solemnly declare that the following costs were incurred in carrying out the work:

Personnel:

D.R. Morgan, Geologist, 12 August - 4 September field work
plus 6 days report writing: 30 days at \$125/day: 3,750.
J. Moats, Assistant, 12 August - 4 September, 24 Days
at \$50/day: 1,200.

Groceries & Meals:

315.

Transportation:

Air fares, Van - Tel Creek - Van 350.
Helicopter support 550.
Air freight 205.

Hotels:

175.

6,545.

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the City
of Vancouver, in the
Province of British Columbia, this 28th
day of November 1973 A.D.



A Commissioner for taking Affidavits for British Columbia or
A Notary Public in and for the Province of British Columbia.

Sub-mining Recorder



LEGEND

	Quartz Diorite	Outcrops 4, 8, 9, 11-14, 20-23, 35, 47, 48, 49, 51-53
	Granodiorite	1-3, 7, 10, 14-19, 24, 30-32, 36-39, 41-43, 46, 50
	Greywacke	34
	Pyritic Felsite	6
	Copper Showings	



To accompany a report by D. R. Morgan: "A Geological Report on the 'B' & 'BM' Claims," dated 27 November 1973

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 4717 MAP #2

**4717
M2**

BART MINES LTD (NPL)
B & BM Claims Nightout Mtn
Near Telegraph Cr BC
GEOLOGY
Scale: 1" = 400 ft
Date: 27 November 1973
By: D. R. Morgan, P. Eng