

601

Geological Report
Rose Mineral Claim,
Britannia Beach Area, B.C.

The Anaconda Co. (Canada) Ltd.

R.W. Phendler, P.Eng.

November 6th, 1964.

924/11E

CONTENTS

	<u>PAGE</u>
Summary	1
Scope	1
Location	1
Ownership	1
Physical Features	1
General Geology	1 and 2
Mineral Deposits	2
Development	3

Accompanying Map - Geological Map, Rose Mineral Claim (L1922)

**Department of
Mines and Petroleum Resources
ASSESSMENT REPORT**

NO. 601 MAP

Geological Report - Rose Mineral Claim (L1922)

Anaconda Co. (Canada) Ltd., Britannia Beach, B.C.

Summary: The Rose Mineral Claim, which lies 2.5 miles east of Britannia Beach was found to be underlain by interbanded dacite intrusive and relatively fresh black slates. This area lies in the footwall of the mineralized zones in the Britannia shear zone and possibilities of finding commercial quantities of mineralization are poor. The claim is presently held by the Anaconda Co. (Canada) Ltd.

Scope: Time spent on property : (All men are employees of Anaconda Co. (Canada) Ltd.)

<u>Geologists</u>	<u>Days spent in Field</u>	<u>Cost</u>
R.W.Phendler, G.Delane	Oct.15,1964	\$65
R.W.Phendler, J.Paxton	Oct.19,1964	\$65
R.W.Phendler, J.Paxton	Oct.20,1964	\$65
R.W.Phendler - Writing Report - Nov.3,4,1964		\$70
		\$265

Field mapping was done by compass-chaining method at 200' to 1"

Location: This claim lies 2.5 miles east of Britannia Beach, B.C. on the south slope of the Britannia Creek in the NE quadrant of the quadrilateral whose SE corner lies at 49 N and 123 E.

Ownership: The present holders of the Rose claim are the Anaconda Co.(Canada) Ltd. The claim is delinquent as of April 5, 1964 but the present geological examination is being submitted as two years work to be done and recorded on the property as required.

Physical Features: The claim lies between 2400' and 3800' elevation on the north-facing slope about one thousand feet south of the abandoned town of Mount Shear. The slope is moderately well timbered and is drained by Jane Creek, which crosses the east side of the claim. An abandoned aerial tramway crosses the area, but no actual mining has been done on the claim.

The witness post on the north boundary of the claim was found during the recent examination, and outcrops were located in relation to it. A few small exploration pits were encountered in the northern part of the map area.

General Geology: Interbanded black slates and intruded feldspar porphyry underly the claim near the north limit of the Britannia shear zone. The feldspar porphyry intrusions emanate from a large mass of finer-grained dacitic material to the west, that appears to be a part of the granite stock that forms the north boundary of the Britannia roof pendant of older volcanics and sediments. The feldspar porphyry intrusives are dyke-like and irregular in character but tend to pinch out to the east.

Thin section studies by J.Hodgson, of similar rocks from the Britannia Mine show zoned feldspar phenocrysts set in a fine to medium grained quartz-feldspathic ground mass. Wavy indistinct lenses of fine grained siliceous matrix are oriented parallel to a weak alignment of the feldspars. Metamorphism has caused the assemblage quartz-albite-K feldspar-chlorite-muscovite-epidote-leucoxene to form at the expense of the original minerals. This textural and mineralogical character of the secondary foliation indicate that the feldspar porphyry intrusives have received the full impact of the regional metamorphic recrystallization process. This suggests that the reason for these rocks not having been more extensively schisted lies more in their competence than in their younger age.

The black slates are characterized by a very fine grained, dense looking sericitic groundmass with a good preferred orientation of mica defining a schistosity. Bedding is rarely discernable, except where distinct narrow bands of chert or ashy sediments are present. Lit-par-lit injection of siliceous material along bedding planes (?) was observed on a small scale close to a porphyry-slate contact.

The conglomerate on the south edge of the claim consists of angular and rounded rhyolitic fragments in a siliceous matrix. Fragments measure up to 4" and 5' of the north contact shows weak elongation parallel to local schistosity. This unit is a clearly-identifiable footwall marker bed of the mineral-bearing zone in the Britannia area.

Late lamprophyre dykes intrude dacite and black slates. This rock consists of unaltered zoned plagioclase and brown hornblende in a fine altered matrix and has not been subjected to the metamorphism which has recrystallized most of the rocks in the area.

The dacite (feldspar porphyry) plays an important part in the localization of sulphides (pyrite, chalcopyrite, sphalerite) in the mine area. Easterly-facing noses or closures act as dams for mineral solutions and these areas are considered to be most favourable for the location of commercial quantities of copper ores. Host rocks within the closures are coarse tuffs, andesitic ash tuffs, cherty sediments, meta-andesites or silica-healed breccias. Black slates are inhospitable for ore deposition, probably due to their lack of competence and homogeneity.

The dykes are considered to be pre-ore in the Britannia area.

Mineral Deposits: Because of the lack of rocks other than black slates in and around the feldspar porphyry intrusives, the area of the Rose Claim is considered to be completely unfavourable for the localization of commercial mineral deposits. Minor quartz-pyrite stringers were observed within the slates near a dacite contact and a piece of float containing quartz and chalcopyrite was encountered.

As the claim is in the footwall of the mineralized zone of the Britannia Mine and the dip of the formations is to the south, there is no possibility that the claim contains ore in depth.

Development: Although no development work has been undertaken within the boundaries of the Rose Claim, horizontal workings crosscut almost the entire extent of the claim both to the east and the west. The crosscut to the west (300') is the 2200' level of the mine and provides access to the workings. Rocks encountered were essentially black slates with minor ashy bands and a few irregular feldspar porphyry intrusives.

Respectfully submitted,

R. W. Phendler, P. Eng.












R.W. Phendler.

Dec 3, 1964

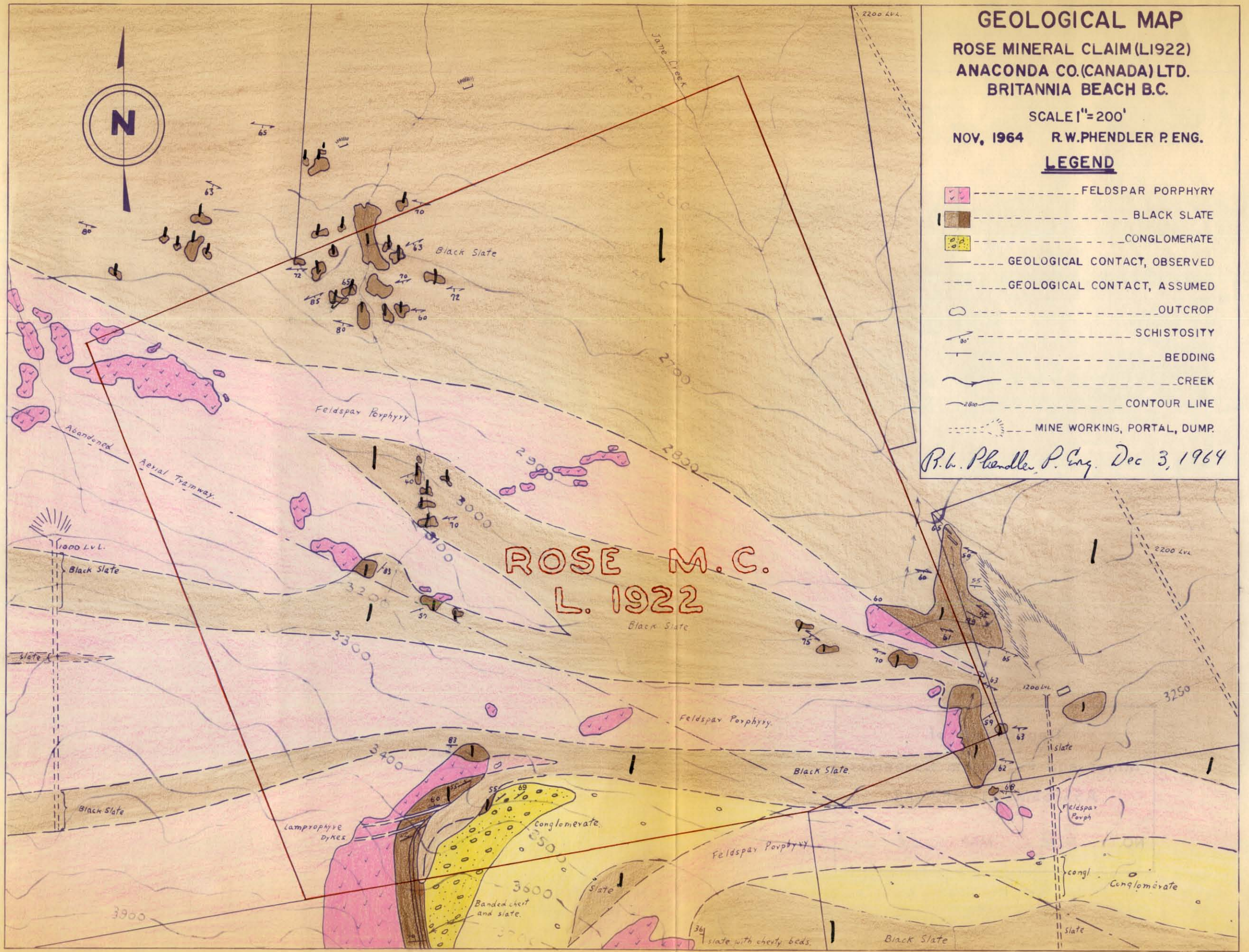
GEOLOGICAL MAP
ROSE MINERAL CLAIM (L1922)
ANACONDA CO. (CANADA) LTD.
BRITANNIA BEACH B.C.

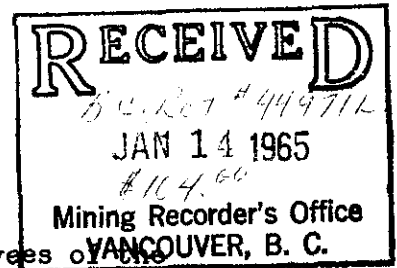
SCALE 1" = 200'
 NOV, 1964 R.W. PHENDLER P. ENG.

LEGEND

-  ----- FELDSPAR PORPHYRY
-  ----- BLACK SLATE
-  ----- CONGLOMERATE
-  ----- GEOLOGICAL CONTACT, OBSERVED
-  ----- GEOLOGICAL CONTACT, ASSUMED
-  ----- OUTCROP
-  ----- SCHISTOSITY
-  ----- BEDDING
-  ----- CREEK
-  ----- CONTOUR LINE
-  ----- MINE WORKING, PORTAL, DUMP

R.W. Phendler P. Eng. Dec 3, 1964





EVIDENCE OF EXPENDITURE INCURRED

I, R. W. Phendler, make oath that the following employees of the Anaconda Company (Canada) Ltd. worked on the Rose claim examination on the days as stated below:

<u>Employee</u>	<u>Title</u>	<u>Dates-1964</u>	<u>Work Done</u>	<u>Salary/Day</u>	<u>Total</u>
R.W.Phendler	Senior Geologist	Oct.15,19,20.	Geological Mapping	\$41.89	\$125.67
R.W.Phendler	Senior Geologist	Nov.3,4,7,8.	Plotting geology Writing Report	41.89	167.56
G. Delane	Geologist	Oct. 15.	Field mapping Ass't	28.77	28.77
J. Paxton	Geologist	Oct.19,20.	Field mapping Ass't	29.74	59.48
R. Sullivan	Draughtsman	Dec. 3.	draughting,printing, colouring maps	18.62	18.62
H.T.Madden	Secretary/Typist	Nov.10.a.m.	Typing Report	14.74	7.37
Total Amount Expended in Salaries					\$407.47

Other expenditures are as follows:

Transportation costs between Britannia Beach and Rose Claim

42 miles @ 8¢ per mile 3.36

Notarizing documents 2.00

\$412.83

R. W. Phendler
.....
R. W. Phendler, P.Eng.

Sworn Before Me At BRITANNIA BEACH
this 13....day of JANUARY....1965.

J. Bell
.....
A COMMISSIONER OF OATHS
IN & FOR THE PROVINCE OF BRITISH COLUMBIA.