

Location/Identification

MINFILE Number:	092L 303	National Mineral Inventory Number:	092L2 Au15
Name(s):	<u>BRITANNIA DYKE</u> B-2 FR. (L. 1054)		
Status:	Showing	Mining Division:	Alberni
		Electoral District:	North Island
Regions:	British Columbia, Vancouver Island	Forest District:	Campbell River Forest District
BCGS Map:	092L006		
NTS Map:	092L02W	UTM Zone:	09 (NAD 83)
Latitude:	50 01 30 N	Northing:	5543727
Longitude:	126 48 03 W	Easting:	657519
Elevation:	600 metres		
Location Accuracy:	Within 500M		
Comments:	Location of adit on Lot 1054 is 350 metres west of Gold rally.		

Mineral Occurrence

Commodities: Gold, Molybdenum, Copper

Minerals

Significant:	Pyrite, Molybdenite		
Significant Comments:	Gold, pyrite in quartz veins. Molybdenite as fracture coatings in porphyritic diorite.		
Associated:	Quartz		
Alteration:	Sericite		
Alteration Type:	Sericitic		
Mineralization Age:	Unknown		

Deposit

Character:	Vein, Stockwork		
Classification:	Hydrothermal, Epithermal, Epigenetic		
Type:	L04: Porphyry Cu +/- Mo +/- Au		
Shape:	Tabular	Modifier:	Folded
		Strike/Dip:	060/90
Comments:	Vein strike northeast to east, dipping steeply.		

Host Rock

Dominant Host Rock:	Plutonic		
Stratigraphic Age	Group	Formation	Igneous/Metamorphic/Other
Eocene	-----	-----	Catface Intrusions
Isotopic Age	Dating Method	Material Dated	
38 +/- 14 Ma	Potassium/Argon	Biotite	

Lithology: Quartz Diorite, Porphyritic Hornblende Diorite

Comments: Biotite from Zeballos (Geological Survey of Canada Paper 74-8).

Geological Setting

Tectonic Belt:	Insular	Physiographic Area:	Vancouver Island Ranges
Terrane:	Wrangell, Plutonic Rocks		

Inventory

Ore Zone: VEINS
Category: Assay/analysis

Year: 1983
Report On: N
NI 43-101: N

Sample Type: Grab

Commodity	Grade
Gold	10.2300 grams per tonne
Copper	0.4900 per cent

Comments: Highest value from samples of veins in area.

Reference: Assessment Report 12077 Fig. 4.

Capsule Geology

The Britannia Dyke vein lies in the Zeballos gold camp, which is underlain by the Lower Jurassic Bonanza Group. The Bonanza Group is an island arc sequence of basaltic to rhyolitic volcanic rocks. Conformably underlying the Bonanza rocks are limestones and limy clastics of the Quatsino and Parson Bay formations, and the tholeiitic basalts of the Karmutsen Formation, all belonging to the Upper Triassic Vancouver Group. Dioritic to granodioritic Jurassic plutons of the Zeballos Intrusion phase of the Island Intrusions have intruded all older rocks. The Eocene Zeballos Stock, a quartz diorite phase of the Catface Intrusions, is spatially related to the areas gold-quartz veins. Bedded rocks are predominantly northwest striking, southwest dipping, and anticlinally folded about a north- west axis.

The Britannia Dyke vein occurrences were explored by 2 adits in the 1930's. Three additional veins were sampled in the work reported in Assessment Report 12077. The highest sample (BB003-83) returned 10.32 grams per tonne gold and 0.49 per cent copper (Assessment Report 12077, Figure 4).

The vein consists of vuggy quartz with heavy pyrite. A 2 metre wide sericite alteration zone envelopes the vein which is hosted by Eocene quartz diorite.

A 60 metre wide molybdenite occurrence is reported in the vicinity of the veins, as fracture coatings accompanied by pyrite, quartz and porphyritic hornblende, in a quartz diorite host rock. The location is not specified (Assessment Report 12077, page 10).

Bibliography

EMPR ASS RPT *12077
EMPR BULL 20-V; 27, p. 97
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EMPR FIELDWORK 1982, p. 290; 1983, p. 219
GSC EC GEOL 1-1947
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CIM TRANS Vol. 42, 1939, pp. 225-237; 1948, pp. 78-85; 72, pp. 116-125
N MINER Apr., 1938, pp. 39-45
Carson, D.J.T., (1968): Metallogenic Study of Vancouver Island with emphasis on the Relationship of Plutonic Rocks to Mineral Deposits, Ph.D. Thesis, Carleton University, Ottawa
Stevenson, J.S. (1938): Lode Gold Deposits of the Zeballos Area

Date Coded: 1989/03/06 **Coded By:** Wim S. Vanderpoll(WV) **Field Check:** N
Date Revised: 1989/05/16 **Revised By:** Laura L. Duffett(LLD) **Field Check:** N