

Location/Identification

MINFILE Number:	092M 002		
Name(s):	<u>ALEXANDER</u> DOLPHIN, IRON PYRITE, GILLIS, GLADYS, TIN HAT, GILLIS FRACTION, IRON PIRATE		
Status:	Prospect	Mining Division:	Vancouver
		Electoral District:	Powell River-Sunshine Coast
Regions:	British Columbia	Forest District:	North Island - Central Coast Forest District
BCGS Map:	092M017		
NTS Map:	092M02E	UTM Zone:	09 (NAD 83)
Latitude:	51 07 04 N	Northing:	5665456
Longitude:	126 41 31 W	Easting:	661536
Elevation:	344 metres		
Location Accuracy:	Within 500M		
Comments:	Located on Lot 1038, from description of occurrence No. 4, in a gully on the southeast side of Seymour Inlet, 9 kilometres from head of inlet (Geological Survey of Canada Economic Geology Report 1926).		

Mineral Occurrence

Commodities:	Iron, Magnetite		
Minerals	Significant:	Magnetite	
	Associated:	Pyrite	
	Associated Comments:	Pyrite is generally associated with disseminated magnetite.	
	Alteration:	Epidote, Limonite	
	Alteration Comments:	The product of oxidation, probably of pyrite, is presumed to be limonite.	
	Alteration Type:	Epidote, Oxidation	
	Mineralization Age:	Unknown	
Deposit	Character:	Massive, Disseminated	
	Classification:	Replacement, Industrial Min.	
	Type:	K03: Fe skarn	
	Shape:	Irregular	
	Dimension:	15x4x0 metres	Strike/Dip: 295/90
	Comments:	Typical orientation and dimensions of zones of magnetite.	

Host Rock

Dominant Host Rock:	Metasedimentary		
Stratigraphic Age	Group	Formation	Igneous/Metamorphic/Other
Mesozoic-Cenozoic	-----	-----	Coast Plutonic Complex
Isotopic Age	Dating Method	Material Dated	
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Lithology:	Hornblende Biotite Schist, Meta Sediment/Sedimentary, Meta Volcanic, Diorite, Granodiorite, Dike		

Geological Setting

Tectonic Belt:	Coast Crystalline	Physiographic Area:	Fiord Ranges (Southern)
Terrane:	Undivided Metamorphic Assembl., I		
Metamorphic Type:	Regional		

Inventory

Ore Zone: SHOWING
Category: Assay/analysis

Year: 1903
Report On: N
NI 43-101: N

Sample Type: Rock

Commodity	Grade
Iron	60.7000 per cent
Magnetite	83.8200 per cent

Comments: Average analysis from one body of magnetite.

Reference: Property File - Gilman, E.P., 1903.

Capsule Geology

This occurrence consists of a number of magnetite showings on the Alexander group of claims on the southeast side of Seymour Inlet, a fiord on the western edge of the Coast Mountains. It is located 9 kilometres south of the head of Seymour Inlet. Two other magnetite deposits, the Kitchener (092M 001) and Wigwam (092M 010) occurrences are also in this area, on the opposite, northwest side of Seymour Inlet.

The area is part of the Jurassic to Tertiary Coast Plutonic Complex, a complex of metasedimentary and metavolcanic schists and gneisses, and intrusive rocks typically of dioritic or granodioritic composition (Geological Survey of Canada Map 1386A).

A steep-sided gully drains into Seymour Inlet opposite Wigwam Bay. Locally, the rocks consist of dark grey, fine to medium-grained hornblende-biotite schists of sedimentary and/or volcanic origin, which are intruded by sheets of diorite, granodiorite, and late-stage dykes (Geological Survey of Canada Economic Geology Report 1926). Commonly the rocks are sheared and epidotized (Minister of Mines Annual Report 1919; Property File - Gilman, E.P., 1903).

At least 11 different zones of magnetite mineralization occur in the vicinity of this gully, at various elevations ranging from about 100 metres to 600 metres above sea level (Property File - Gilman, E.P., 1903). Typically, the zones measure 3 to 5 metres by 10 to 20 metres, and consist of a core of pure, massive, fine-grained, bluish-black to black magnetite, grading into a zone of disseminated magnetite, and finally into barren country rock (Geological Survey of Canada Economic Geology Report 1926). Pyrite is commonly associated with the disseminated magnetite, and some outcrops of mineralization have rusty-weathering oxidation.

An average sample from one magnetite body was analyzed at 83.82 per cent iron oxide (magnetite), or 60.7 per cent iron (Property File - Gilman, E.P., 1903). The average assay of samples from a number of bodies was 48.5 per cent iron; the maximum assay was 61.2 per cent iron (Property File - Gilman, E.P., 1903).

The zones of magnetite have a strike of 295 degrees and dip subvertically. The mineralization is discontinuous so its actual dimensions are not clear. However, it has been estimated that the maximum "ore" content is 18,000 tonnes, which was not regarded as economic (Geological Survey of Canada Economic Geology Report 1926).

The magnetite has been interpreted as a replacement deposit, related to the plutonism in the area (Geological Survey of Canada Economic Geology Report 1926).

Bibliography

EMPR AR 1917-65; 1919-210
EMPR ASS RPT 12204
EMPR PF (*Gilman, E.P. (1903): Report on the Alexander Group of claims)
GSC MAP 1386A
GSC EC GEOL *3, Vol.1, 1926, pp. 59-62

Date Coded: 1985/07/24	Coded By: BC Geological Survey (BCGS)	Field Check: N
Date Revised: 1992/02/26	Revised By: Chris J. Rees(CRE)	Field Check: N