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# ASSESSMENT REPORTILE NO:

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# **GEOLOGICAL EVALUATION**

of the

## FORTUNA PROPERTY

# FORTUNA 1 - 5 MINERAL CLAIMS

### LOUIS CREEK AREA

# KAMLOOPS MINING DIVISION, B.C.

# GEOLOGICAL BRANCH ASSESSMENT REPORT

NTS: Latitude: Longitude: Owner: Operator: Author(s):

Date:

092P/01E 51° 05' 55" N 120° 02' 00" W W.R. Gilmour Discovery Consultants T.H. Carpenter, P.Geo. D. Duba September 6, 1994

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## LIST OF ILLUSTRATIONS

Figure 1	Location Map	Following Page 2
Figure 2	Claim Map (1:50,000)	Following Page 2
Figure 3	Sample Location Map (1:5,000)	In Pocket

# APPENDICES

Appendix 1 Rock Samples - Analytical Procedures and Results

#### SUMMARY

On the Fortuna property three large alteration zones occur in meta-sedimentary rocks of the Eagle Bay Formation. Characteristic alteration mineralogy in these zones consists of silica, sericite, kaolinite, gypsum and pyrite. The cores of the alteration zones are intensely sericitized and silicified.

The altered zones contain widespread disseminated pyrite (on average less than 5%) and locally trace chalcopyrite. Sulphide minerals are often weathered out, producing rusty-yellow gossanous knobs and lenses.

The alteration zones contain enhanced values in copper, lead, zinc, silver and gold.

In 1993 a program of examination and evaluation of the Fortuna property was carried out. Results of the 1993 program are contained in the following report.

#### LOCATION AND ACCESS

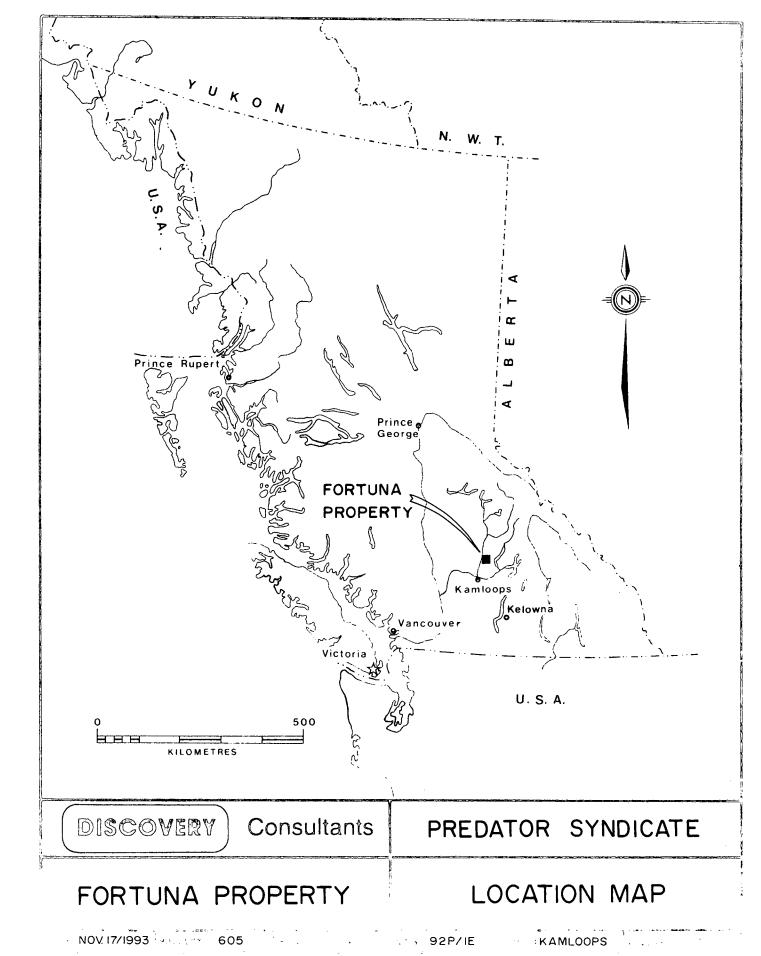
The Fortuna property is located approximately 12 kilometres east of Louis Creek, B.C., 60 kilometres north of Kamloops. The claims are centred at latitude 51°05'55" N and longitude 120°02'00"W (Figure 1).

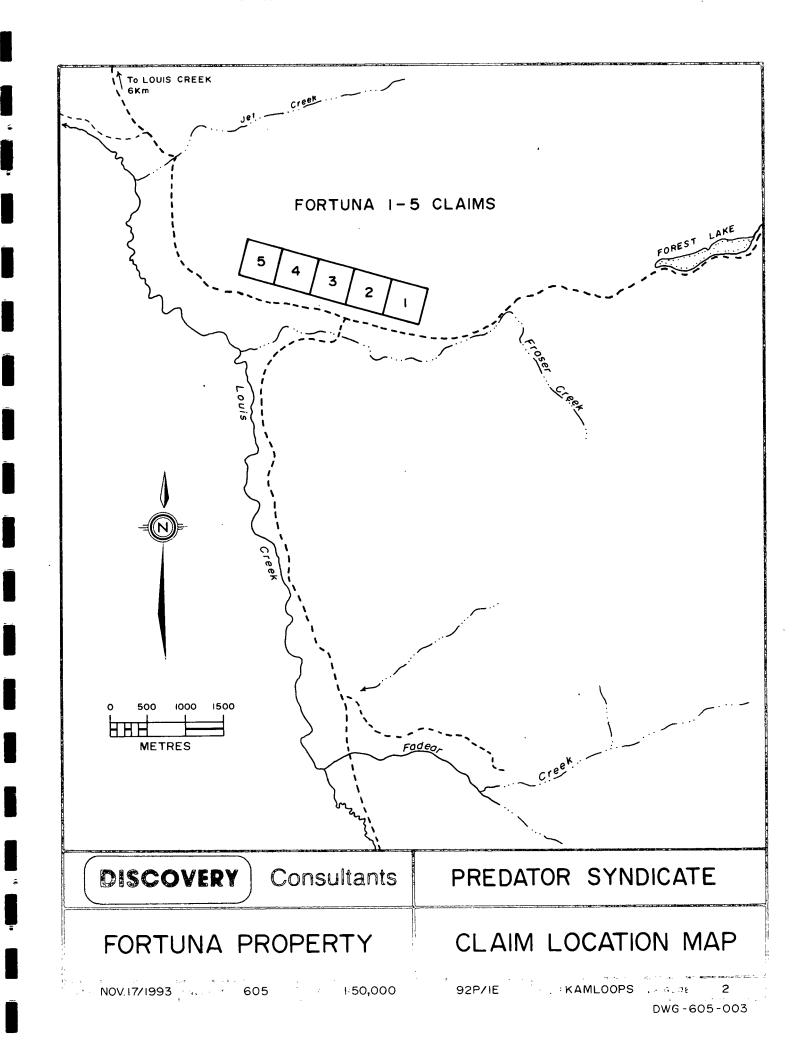
Access to the property can be gained by following the paved Skwaam Bay Road east from the junction with Highway #5 immediately north of Louis Creek.

#### TOPOGRAPHY

The topography of the area is rugged, with the property covering part of the steep, south facing slope of Mount Fraser. Elevations range from 2000 ft (600 metres) in the valley of Fraser Creek to in excess of 3000 ft (900 metres) at the northern boundary of the claims.

Vegetation ranges from ranch lands along the valley bottom to dry, open forests of pine and fir along the slopes of Mount Fraser.





### PROPERTY

The Fortuna property comprises five two-post claims designated Fortuna 1-5 inclusive (Figure 2), located by John Beggs on July 30, 1993 and recorded in Vernon, B.C. on August 17.

<u>Claim Name</u>	<u>Record #</u>	Owner of Record	<u>Anniversary Date</u> *
Fortuna 1 Fortuna 2 Fortuna 3 Fortuna 4 Fortuna 5	320121 320122 320123 320124 320125	W.R. Gilmour W.R. Gilmour W.R. Gilmour W.R. Gilmour W.R. Gilmour	July 30, 1999 July 30, 1999 July 30, 1999 July 30, 1999 July 30, 1999 July 30, 1999

The claims are owned by W.R. Gilmour on behalf of the Predator Syndicate.

\* Pending acceptance of this report.

#### <u>HISTORY</u>

Brief accounts of early work on the Fortuna Property are reported in Minister of Mines Annual Reports for 1907, 1908, 1913, 1914 and 1919. This work for the most part consisted of the driving of two adits in what is now the East Zone. The adits were driven to intersect a gossan zone.

The upper adit reportedly did not intersect mineralization in its 40 foot length, but may have been extended to crosscut the mineralized zone at a later date.

The second adit, 200 feet below the first, was driven 450 feet and intersected three bodies of pyrrhotite from two to sixteen feet in width in which values to 0.3 ounces per ton of platinum were reported.

Other work, of unknown age, on the property includes a blasted trench and adit of unknown length above the old Crowngranted claims and in excess of 500 metres of drilling at various locations on the hillside. About 560 metres of core is present at two sites on the property.

In 1986, geological mapping and lithogeochemical sampling programs were carried out on the property by BP Resources Canada Limited. Further work, including geophysical surveys and diamond drilling was recommended.

A limited drilling program was reportedly carried out in late 1986 by BP Resources Canada Limited. Results of the drilling program are not available.

#### **GENERAL GEOLOGY**

The Fortuna property is underlain primarily by rocks of the Eagle Bay Formation and consists largely of chloritoid-sericite schist and metasediments.

A distinctive quartz-eyed sericite schist occurs near the east end of the property and at scattered localities on the claims.

The majority of the rocks on the claims comprise chloritoidsericite schist, undivided meta-sediments, phyllite/quartzphyllite and phyllite breccia.

South and west of the claims occur several outcrops of serpentine and a possibly related serpentinized mafic sill.

Three large alteration zones are present on the property and are labelled the West Zone, Middle Zone and East Zone. These zones contain trace chalcopyrite and widespread disseminated pyrite (<5%) with enhanced values in copper, lead, zinc, silver and gold.

#### WORK COMPLETED

A program of geological examination and evaluation and rock sampling was carried out on the Fortuna property between August 30 and September 02, 1993.

#### a) Program Parameters

This program consisted of a field examination of the property and limited rock sampling of mineralized zones. Rock samples were shipped to Bondar-Clegg Company Ltd. in Vancouver, B.C. for analysis for Au (30g, fire assay, A.A.) and 27-element ICP.

Available maps of the property were used for field control.

#### b) Program Results

A total of nine rock samples was collected on the Fortuna property. The maximum gold value obtained in these samples was 202 ppb. Other anomalous values include 2.77% Cu, 1300 ppm Pb and 6700 ppm Zn.

#### **CONCLUSIONS**

The program of examination and evaluation of the Fortuna property shows the property to be underlain primarily by clastic metasedimentary rocks intercalated with carbonate horizons.

The alteration zones within the sequence may possibly be differentially altered rocks of felsic volcanic origin. Mineralization in the alteration zones consists of discontinuous, semi-massive lenses and pods of pyrite-chalcopyrite conformable to the schistosity and therefore considered stratiform.

Northerly and northeasterly structures on the property are obviously younger and do not appear to control the emplacement of sulfide mineralization as proposed by earlier workers.

The mineralization on the Fortuna property has been suggested to be of volcanogenic massive sulphide origin similar to the Homestake deposit and likewise may have felsic volcanic origin.

The mineralized lenses are stratiform in nature but it is unclear if they are volcanogenic massive sulphide or replacement type deposits.

#### RECOMMENDATIONS

Detailed sampling of the cliff face of the East Zone is recommended to further define the nature of the sulphide mineralization.

Detailed ground geophysical surveys should also be carried out to outline the extent of massive sulfide mineralization and potential drilling targets.

Respectfully submitted, . Н. イモー UMBIA T.H. Carpenter, P.Geo.

Daria Duba

Vernon, B.C. September 6, 1994

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#### REFERENCES

British Columbia Ministry of Energy, Mines and Petroleum Resources (BCMEMPR)

- 1907 Annual Report p. 220
- 1908 Annual Report p. 123
- 1913 Annual Report p. 209
- 1914 Annual Report p. 514
- 1917 Annual Report p. 236
- 1925 Annual Report p. 448

British Columbia Ministry of Energy, Mines and Petroleum Resources (BCMEMPR)

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Assessment Report #8858, #10008, #15438

# STATEMENT OF COSTS

1.	Professional Services D. Duba, Geologist: mapping, prospecting (Aug 30-31, 1993, Sept. 1-2, 1993) 4 days @ \$352 \$ 1408.00 data compilation, report writing 1.5 days @ \$320 480.00	
	T. Carpenter, P.Geo. report writing 0.625 days @ \$320.00	\$ 2088.00
2.	Transportation (4x4 vehicle) (August 30 - September 2, 1993)	377.00
3.	Lodging & Meals	347.10
4.	Geochemical Analysis a) Au (30g, fire assay - A.A.) 27 element aqua regia - ICP	
	9 samples @ \$16.35/sample \$ 147.15 b) Cu assay	
	1 sample @ \$9.009.00	156.15
5.	Drafting	400.00
6.	Data compilation, secretarial	200.00
7.	Printing, data processing, telephone, shipping	200.00
	sub total	3768.25
10.	7% G.S.T.	_263.78
		·

Total <u>\$4032.03</u>

#### STATEMENT OF QUALIFICATIONS

I, THOMAS H. CARPENTER of 3902 14th Street, Vernon, B.C., VIT 3V2, DO HEREBY CERTIFY that:

- 1. I am a consulting geologist in mineral exploration associated with Discovery Consultants, Vernon, B.C.
- 2. I have been practising my profession for 23 years.
- 3. I am a graduate of the Memorial University of Newfoundland with a Bachelor of Science degree in geology.
- 4. I am a Professional Geoscientist with the Association of Professional Engineers and Geoscientists of British Columbia.
- 5. This report is based upon knowledge of the Fortuna property gained from field work and/or supervision.
- 6. I hold no interest either directly or indirectly in the Fortuna property.



Vernon, B.C.

#### STATEMENT OF QUALIFICATIONS

I, DARIA DUBA, of R.R. 1, S.4, C.1, of Naramata, British Columbia, DO HEREBY CERTIFY that:

- 1. I am a contract geologist in mineral exploration.
- 2. I have been practising my profession for eighteen years.
- 3. I am a graduate of Concordia University, Montreal with B.Sc. (1978) and McGill University, Montreal with M.Sc. (1982) in Geological Sciences.
- 4. This report is based upon knowledge of the Fortuna property gained from the examination, geological mapping and sampling.
- 6. I hold no interest either directly or indirectly in the Fortuna property.

Na Daria Duba

September 6, 1994 Vernon, B.C.

# **APPENDIX 1**

# Rock Sampling Survey

Analytical Procedures and Results

## ANALYTICAL PROCEDURES

### Geochemical Analysis

## by Bondar-Clegg :

		LOWER		
ELEME	T	DETECTION LIMIT	EXTRACTION	METHOD
Au	Gold	5.0 ppb	fire-assay	atomic absorption
Ag	Silver	0.2 ppm	HNO3-HCI hot extr	ind. coupled plasma
AI*	Aluminum	0.02 %	HN03-HCI hot extr	ind. coupled plasma
As	Arsenic	5.0 ppm	HNO3-HCI hot extr	ind. coupled plasma
Ba*	Barium	5.0 ppm	HNO3-HCI hot extr	ind, coupled plasma
Bi	Bismuth	5.0 ppm	HNO3-HCI hot extr	ind. coupled plasma
Ca*	Calcium	0.05 %	HNO3-HCI hot extr	ind. coupled plasma
Cd	Cadmium	1.0 ppm	HNO3-HCI hot extr	ind. coupled plasma
Co*	Cobalt	1.0 ppm	HNO3-HCI hot extr	ind. coupled plasma
Cr*	Chromium	1.0 ppm	HNO3-HCI hot extr	ind. coupled plasma
Cu	Copper	1.0 ppm	HN03-HCI hot extr	ind. coupled plasma
Fe*	Iron	0.01 %	HNO3-HCI hot extr	ind. coupled plasma
Hg∎	Mercury	0.010 ppm	HNO3-HCI leach	cold vapour atomic absorption
K*	Potassium	0.05 %	HNO3-HCI hot extr	ind. coupled plasma
La*	Lanthanum	1.0 ppm	HNO3-HCI hot extr	ind. coupled plasma
Mg*	Magnesium	0.05 %	HNO3-HCI hot extr	ind. coupled plasma
Mn*	Manganese	0.01 %	HNO3-HCI hot extr	ind. coupled plasma
Mo*	Molybdenum	1.0 ppm	HNO3-HCI hot extr	ind. coupled plasma
Na*	Sodium	0.05 %	HN03-HCI hot extr	ind. coupled plasma
Ni*	Nickel	1.0 ppm	HN03-HCI hot extr	ind. coupled plasma
Pb	Lead	2.0 ppm	HNO3-HCI hot extr	ind. coupled plasma
Sb*	Antimony	5.0 ppm	HNO3-HCI hot extr	ind. coupled plasma
Sn*	Tin	20.0 ppm	HN03-HCI hot extr	ind. coupled plasma
Sr*	Strontium	1.0 ppm	HN03-HCI hot extr	ind. coupled plasma
Te*	Tellurium	10.0 ppm	HNO3-HCI hot extr	ind. coupled plasma
V*	Vanadium	1.0 ppm	HNO3-HCI hot extr	ind. coupled plasma
W*	Tungsten	10.0 ppm	HN03-HCI hot extr	ind. coupled plasma
Y	Yttrium	1.0 ppm	HNO3-HCI hot extr	ind. coupled plasma
Zn	Zinc	1.0 ppm	HNO3-HCI hot extr	ind. coupled plasma

Please note: certain mineral forms of those elements above marked with an asterisk will not be soluble in the HNO3/HCI extraction. The ICP data will be low biased.

• Please note: Hg will only be analysed upon request.

file: 605\ROCK\_93.wk3

Date of Report: 93.10.04

Project 605

Fortuna

Rock Sampling Results 1993

Sample ID	Au	<ul> <li>Ag</li> </ul>	Cu	Cu	Pb	Zn	Cď	Ho	As	Sb	Bi	Ni	Co	. Cr	i Fe
	ppb 	ppa 	ppm	X 	ppm 	ppm 	ppm 	ррв 	ppm 	ppm 	ppa 	ppm 	pp#	ppe.	X
FD-93-1	64	6.5	>20000	2.77	60	672	3.9	12	31	<5	<5	31	72	91	5.81
F0-93-2	<5	<0.2	120		3	236	<1.0	<1	<5	7	<5	7	2	123	3.80
F0-93-3	<5	<0.2	93		126	87	<1.0	1	9	<5	<5	11	4	168	2.99
F0-93-4	69	<0.2	1972		17	38	1.3	<1	75	5	15	27	34	108	
FD-93-5	20	<0.2	55		12	11	<1.0	<1	30	<5	<5	. 6	1	180	1.51
F0-93-6	<5	<0.2	26		<2	29	<1.0	6	<5	<5	<5	9	2	426	1.86
FD-93-7	202	<0.2	6554		90	155	1.7	<1	688	14	10	24	172	49	
F0-93-8	80	7.0	4874		1328	6728	31.0	6	105	17	22	4	48	123	9.61
FD-93-9	` <5	<0.2	94		39	59	<1.0	3	8	<5	<5	6	6	84	3.40
Duplicate:							٠	•					ι		
FD-93-3	<5	<0.2	88		122	84	<1.0	. 3	17	<5	<5	11	4	168	2.89

Project 605

Rock Sampling Results (part 2)

Sample ID	Mn ppm	Ba ppm	V ppm	Sr ppm	Y ppæ	La ppm	Te ppæ	. Sn ppæ	W ppm	Al X	Mg Z	Ca X	Na %	K Z
 F0-93-1	1973	31	15	10	3			<20	<20	1.68	0.97	0.09	0.02	0.13
FD-93-2	282	21	<1	5	<1	8	<10	<20	<20	0.19	0.03	0.03	0.02	0.09
F0-93-3	418	25	<1	8	2	4	<10	<20	<20	0.18	0.21	0.53	<0.01	0.09
F0-93-4	446	3	- (1	1	<1	<1	<10	<20	<20	0.21	0.04	0.01	(0.01	<0.01
F0-93-5	60	36	<1	5	<1	8	<10	<20	<20	0.16	<0.01	0.06	<0.01	0.12
FD-93-6	77	25	(1	5	<1	3	<10	<20	<20	0.17	0.01	0.03	0.01	0,08
F0-93-7	484	4	<1	39	<1	<1	<10	<20	<20	0.43	0.31	1.09	<0.01	(0.01
FD-93-8	381	18	19	39	(1	<1	<10	<20	107	1.49	0.46	0.22	0.05	0.15
F0-93-9	2594	8	<1	248	3	<1	<10	<20	<20	0.06	2.02	8.34	0.01	0.03
Duplicate:							·							
FD-93-3	402	24	<1	8	2	4	<10	<20	<20	0.18	0.21	0.51	<0.01	0.09

