

GEOLOGICAL SURVEY BRANCH ASSESSMENT REPORTS

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PROSPECTING REPORT TSIT 1 MINERAL CLAIM OMINECA MINING DIVISION BRITISH COLUMBIA NTS 93K/13E 57°54"52'N 125°36"3'W

by

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Work Paid for by

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August 6, 1996

GEOLOGICAL SURVEY BRANCH ASSESSMENT REPORT

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TABLE OF CONTENTS

JMMARY
TRODUCTION
DCATION AND ACCESS
AIM INFORMATION
ORK HISTORY
EGIONAL GEOLOGY
ROPERTY GEOLOGY AND MINERALIZATION
ORK PROGRAM
ESULTS
SBURSEMENTS

List of Figures

Figure 1 - Location Map	2
Figure 2 - Claim Map	3
Figure 3 - Regional Geology Map	5
Figure 4 - Prospecting Map pocke	et

Appendices

Appendix I - Rock Sample Results		. 8
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SUMMARY

This report summarizes prospecting undertaken on the Tsit 1 claim situated on Tsitsutl Mountain in the Hogem Ranges of the Omineca Mountains of central, B.C. Access to the area is by helicopter from bases located at Smithers, Fort St. James or Houston.

The property overlies a contact between porphyritic granodiorite of the Omineca intrusions and argillaceous quartzite of the Cache Creek Group. Work undertaken on June 30, 1996 consisted of prospecting in the central and northern cirque area of the claim. Four rock samples were collected and submitted for analysis.

GSC Memoir 252 identified a chromite occurrence near the southern boundary of the claim and a tin anomaly is noted on the southwest flank of Tsitsutl Mountain. Minor chromite was noted in rock samples collected from this work program. Sample number 53225 returned 1,317 ppm chromium and 3,062 ppm nickel.

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INTRODUCTION

This report summarizes results of prospecting conducted on June 30, 1996 on the Tsit 1 claim.

LOCATION AND ACCESS

The Tsit 1claim covers an area ranging in elevation from approximately 5,500 to 6,200 feet, located on the southeast flank of Tsitsutl Mountain in the Hogem Range of the Omineca Mountains. The claim area covers sparse to heavily timbered slopes of moderate topographic relief to open grassy meadows and exposed ridges. The timber cover consists of Alpine fir, Lodgepole pine and mature spruce which at higher elevations shows evidence of stunted growth.

The area lies approximately 100 kilometres east-northeast of Smithers and is only accessible by helicopter.

CLAIM INFORMATION

The Tsit property consists of one claim totalling 20 units staked on August 3, 1995 by Rick Roe acting as agent for Spokane Resources Ltd. of Vancouver. The claim is in good standing and has been staked in accordance with the mineral act. Claim details are set out below and the expiry date indicated assumes that current work will be acceptable for assessment purposes.

Claim	Tenure No.	Units	Expiry Date
Tsit 1	338599	20	August 3, 1997

WORK HISTORY

The Tsit property has no prior history of exploration other than what has been documented in G.S.C. Memoir 252 by J. F. Armstrong. Prior to 1935, the only geological mapping in the Fort St. James map area consisted of reconnaissance surveys along the main routes of travel. Since 1935, the Geological Survey of Canada has engaged in mapping of the area at a scale of one inch to four miles and during the course of this have discovered many deposits of mercury, copper, silver, lead-zinc and chromium minerals of which the Tsitsutl Mountain chromite deposit is included.







REGIONAL GEOLOGY

The most recently published geological work in the area is by J. E. Armstrong (G.S.C. Memoir 252). Map 907A shows that the Tsit 1 claim overlies the contact between Upper Jurassic to Lower Cretaceous age granodiorite of the Omineca intrusive suite and Permian argillaceous quartzite and chert of the Cache Creek Group. To the west, in the area of Gloyazikut Creek, Mesozoic peridotites and gabbros of the Trembleur intrusions cut the Cache Creek Group and appear faulted in several zones.

G.S.C. Memoir 252 describes the Tsitsutl Mountain chromite deposit which appears approximately 4,200 metres south of Tsitsutl Mountain. The occurrence consists of a lens of almost pure chromite over a five by seven foot area. Elsewhere nearby are a few nodules of chromite two to three inches in diameter. In the area just west of Tsitsutl peak a mineral occurrence of vanadium is noted.

PROPERTY GEOLOGY AND MINERALIZATION

The Tsit 1 claim overlies an intrusive contact between porphyritic granodiorite of the Upper Triassic to Lower Cretaceous Hogem Intrusive suite and argillaceous quartzite and chert of the Permian Cache Creek Group. The contact is exposed in a vertical cirque wall on the north edge of the property and is evidenced by strong limonitic staining and gossan. Elsewhere the contact appears is obscured by talus and scree.

The granodiorite contains large (3mm to 8mm) phenocrysts of plagioclase and orthoclase to 20%, rounded to clear to opaque quartz eyes to 8%, dark green to black hornblende phenocrysts to 8% and biotite phenocrysts 3% to 5%. The feldspar phenocrysts exhibit minor argillic and potassic alteration.

Argillaceous quartzite and chert was noted on the eastern prospected area. The rocks have a prominent northwesterly-trend and are vertical to steeply dipping. Coarse grained pyrite to 2% occurs throughout the quartzite and causes a strong limonitic stain on weathered surfaces.

Four rock samples were collected in the vicinity of the intrusive contact. Each sample contained a minor amount of sulphide. Sample number 53225, located within the granodiorite hosts a trace of chromite. No other mineralization was observed.

WORK PROGRAM

The 1996 work program on the Tsit 1 claim consisted of prospecting along the northern edge of the property in areas of prominent outcrop. Scree and talus slopes and an extensive blanket of remnant snow precluded prospecting elsewhere.

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SP	OKANE RES	SOURCES L	ſD.
PROJECT N	º 183	01	MINECA M.D.
RE	TSIT PR	OPERTY GEOLO	GY
Scale	Date	NTS	Fig. Nº
1:50:000	JULY 1996	93K713	3

One day, June 30, 1996, was spent on the property by two geologists prospecting along the intrusive contact. Four rock samples were collected and submitted to Acme Analytical Laboratories in Vancouver for analysis of 35 elements by ICP technique, gold by geochemical graphite furnace atomic absorption and fluorine by sodium hydroxide fusion. Results are presented in Appendix I. Sample locations and notable results are plotted in Figure 4.

RESULTS

The prospecting program on the Tsit 1 claim indicated an area of hydrothermal alteration adjacent to an intrusion. Minor sulphide mineralization was also noted along the contact. Large chromite lenses and pods are reported to occur in the vicinity. A minor amount of chromite was observed in one locality. Analysis of the chromite-bearing sample returned anomalous concentrations of nickel (3062 ppm), cobalt (145 ppm), manganese (1587 ppm), chromium (1317 ppm) and magnesium (22.7%). Two of the samples returned highly anomalous concentrations of fluorine.

CONCLUSIONS

Prospecting over the property confirmed that the claim overlies an intrusive contact. This contact hosts minor sulphide mineralization. A weak to moderate hydrothermal alteration of both the host rocks and the intrusive is present. Elevated values of chromite were observed in one sample. Two other samples contained anomalous concentrations of fluorine.

RECOMMENDATIONS

Further work is recommended for the Tsit 1 claim to determine the extent of the alteration and mineralization and to attempt to locate and trace the chromite occurrence. Follow-up of the anomalous fluorine samples is required in an attempt to locate molybdenum mineralization.

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DISBURSEMENTS

Expenditures for the Tsit claim are as follows.

Jim Irwin, Geologist Geoff Goodall, Geologist	1 day @ \$350/day 1 day @ \$350/day	\$ 350.00 <u>350.00</u>	\$ 700.00
Helicopter - 1.7 hours @	\$655.50/hour		1,114.35
Equipment Rental - 2 radi	ios @ \$20/day		40.00
Truck Rental - 1 day X \$6	65/day		65.00
Supplies & Services - Fie	ld		42.00
Analysis - 4 rock samples	@ \$26.00/sample		<u>104.00</u>
Total Expenditures			\$ <u>2,065.35</u>

Prepared by:

FOX GEOLOGICAL SERVICES INC.

Per:

Geoffrey N. Goodall, B.Sc., P. Geo. August 6, 1996

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APPENDIX I

Rock Sample Results

Fox Geological Services Inc. #1409 - 409 Granville Street, Vancouver, B.C. V6C 1T8 Telephone (604) 669-5736 Fax (604) 681-3920

	ACME AN	נז ז	CAL	LAB	ORAT	ORI	ES 1	LTD	•	8	52 E	. B	ASI	CINC	s s	ST.	V.	101	UVE	RB	С	V6A	1R6	;	J	PHO	NE (604)25	3-3	158	B	FAI	(6	04	175	3-171
	4 4						<u>s</u>	po]	G <u>kan</u> 180 -	EOC <u>e R</u> 650	HEM <u>eso</u> V. Ge	ICI urc _{orgi}	AL Ses B St	EX:	TRA tđ. anco		ION ROJ		NAJ T : 489	L <u>83</u> Sut	IS] mitt	CE Fil	RTI 2 # /: Ge	FIC 90	CA1 6-2	ТЕ 278 Іаці	1										44
	SAMPLEN	Mo	Cu ppm	P b p p m	Zn ppm	Ag PPb	N1 ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	B1 ppm	V ppm	C.a. %	P %	La ppm	Cr ppm	Mg , %	Ba ppm	T1 %	B ppm	A1 %	Na %	к %	V ppm p	Fun t	Hg opb p	Se opmir	Te pm	G4 ppm	Au• ppb	F ppen
	- 53223	3.3	7.4	6.4	93.8	97	5	1	224	1.03	2.5	<5	9	1	. 38	. 5	<.1	<1	.064	. 00z	67	15	.03	10	.02	<2	.61	.03	. 33	3	. 4	17 -	c.3 <	:.Z	3.4	9	1100
ηî I	- 53224	2.3	16.0	15.5	29.4	126	13	3	344	. 36	2.6	<5	1	28	. 30	.4	<.1	2	.15	.002	3	12	. 10	31	.01	<2 .	.36	. 02	.03	~ <	.2	28 <	:.3 <	. 2	. 8	2	110
	- 53225	1.4	10.0	1.3	45.7	<30	3062	145	1587	6.70	3.8	[*] <5	1	1	. 39	<.2	<.1	19	.01	.004	<1	1317	22.72	7 <	01	67	.08<	. 01	<.01	~ <	.2	33 •	ε.3 <	:.2	<.5	1	60
	- 53226	7.6	4.7	4.1	46.5	88	16	3	347	1.37	1.1	<5	10	2	.06	. 3	. 8	5	.01	.003	27	14	.11	9	.04	<2	.80	.01	. 52	2	.8 <	(10 4	¢.3	.4	4.0	1	1 300
	53227	3559.0	228.0	4.5	28.7	2630	91	17	367	1.75	12.8	5	1	27	. 39	Š.0	3.0	23	1.65	.033	1	41	.23	36	.09	<2	1.40	. 22	.04	23 5	.0	14 5	.0 5		33.2	<1	220
	53228	11.5	267.9	3.2	162.8	372	132	40	644	13.00	1.0	<5	<1	129	. 53	<.2	.7	328	1.66	. 167	4	10	.86	248	. 32	<2	4.13	. 12	1.98	a <	.2	29	. 8	.5	13.2	à	720
	53229	21.4	17.7	118.0	78.3	2417	6	3	675	1.55	17.2	<5	4	5 2	. 12	11.2	.6	9	.07	.024	6	12	. 02	56<	10.3	2	. 35<	:.01	. 14	4 <	.2	16 -	c. 3	. 5	1.1	<1	1150
	53230	57.5	12.4	2.1	29.6	69	18	9	299	1.78	1.0	7	<1	70	. 18	<.2	<.1	80	3.01	.068	2	37	. 53	26	.23	<	3.12	.44	.10	~ ~	.2 <	<10 <	4.3	.2	8.4	4	420
	53231	2.6	76.4	3.7	54.4	455	8	6	541	1.65	1.8	<5	4	16	. 36	1.2	.1	21	.42	.051	15	15	. 45	76	.01	<2	. 69	.05	. 18	4 <	.2 <	<10	.3 4	:.2	3.4	3	600
	53232	2.3	13.9	1.1	41.9	<30	1830	81	991	3.82	4.2	<5	<1	5	. 12	<,2	.6	26	.29	.008	<1	1087	13.47	10	.01	9	. 52<	:.01	<.01	~	.2	79 •	<.3 <	:.2	1.7	3	60
	53233	248.5	355.5	4.0	77.7	293	140	22	263	3.64	111.2	<5	5	70	. 36	<.2	<.1	77	.55	.038	9	38	. 34	407	.01	2	2.74	.06	. 12	~	.2	16 •	<.3	. 5	8.4	3	460
	53234	364.2	332.7	4.0	88.6	609	126	19	285	3.26	61.6	<5	4	102	. 32	2.0	1.0	62	.77	.045	9	43	. 40	577	. 02	<2	2.92	. 09	.16	~ 1	.0	22	1.0.1	1.0	8.1	<1	680
	RE 53234	355.9	315.0	3.5	89.0	607	122	18	268	3.05	58.3	<5	3	93	. 31	2.0	1.0	59	.74	.045	8	38	. 39	521	.02	<2 3	2.78	. 08	. 15	Q 1	.0	49	1.0.3	i.0	8.1	1	620
	53235	280.4	231.0	2.9	57.1	303	69	18	301	2.56	50.5	5	5	53	. 31	<.2	<.1	42	.41	.050	9	23	. 31	344	.01	2	2.60	.05	.09	a <	.2	17 •	<.3 <	¢.2	8.0	<1	520
	53236	461.2	280.9	3.5	71.0	428	75	29	331	3.06	66.9	8	5	33	. 32	<.2	<.1	58	.39	.047	5	76	. 58	206	.02	<2	2.88	.06	.24	~ ~	.2	34 •	:.3 <	:.2	8.3	<1	860
	53237	238.6	189.9	1.2	15.0	622	14	4	105	5.96	2.9	<5	<1	67	. 10	<.2	. 5	35	.08	.020	1	17	.27	142	.06	<2	. 47	.03	. 32	3 <	.2	18 2	2.8 ×	٤.2	3.5	10	400
	53238	22.2	24.5	2.5	16.2	74	10	3	198	. 67	4.6	<5	4	13	.04	.2	<.1	6	.04	.011	4	9	.04	264	c.01	<2	.23	.03	. 09	4 <	.2 4	<10 ·	<.3	. 2	. 9	6	260
	53239	4.0	25.6	2.2	49.3	50	48	14	222	2.18	1.0	<5	<1	16	.07	<.2	<.1	62	.81	. 172	5	72	1.25	179	. 19	<2	1.27	.07	.71	2 <	:.2	14 -	<.3 <	۲.2	6.8	2	600
	STANDARD	25.3	131.7	97.5	261.7	1966	33	19	1151	4.26	77.1	22	20	52 2	2.36	9.1	21.0	78	. 80	. 101	18	59	1.21	236	.13	28	2.41	.08	. 82	15 2		452	.5 1	1.9	7.4	541	440

Standard is STANDARD D2/HG-500/AU-R/C2.

ICP - 30 GRAM SAMPLE IS DIGESTED WITH 180 ML 3-1-2 HCL-HN03-H20 AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 100 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K GA AND AL. SOLUTION ANALYSED DIRECTLY BY ICP. MO CU PB ZN AG AS AU CD SB BI TL HG SE TE AND GA ARE EXTRACTED WITH MIBK-ALIQUAT 336 AND ANALYSED BY ICP. ELEVATED DETECTION LIMITS FOR SAMPLES CONTAIN CU,PB,ZN,AS>1500 PPM,Fe>20%. - SAMPLE TYPE: ROCK AU+ - AQUA-REGIA/MIBK EXTRACT, GF/AA FINISHED. F - NBOH FUSION - SPECIFIC ION ELECTRODE ANALYSIS. Samples beginning (RE' are Reruns and (RRE' are Reject Reruns.

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