GEOLOGICAL			
ASSESSM	ENT	REP	ORTS

DATE RECEIVED

NOV 1 3 1996

RECEIVED NOV 0 5 1996 Gold Commissioner's Office VANCOUVER, B.C. AND CL

VANCOUVER, B.C.

on the

MONTANA CLAIM

CANYON CREEK AREA

GREENWOOD MINING DIVISION, BRITISH COLUMBIA

49^o 26' North latitude 118° 53' 30'' West longitude N.T.S. 82E/07

OWNERS: ST. ELIAS MINES LTD. 604 - 700 WEST PENDER ST. VANCOUVER, B.C. V6C 1G8

MADMAN MINING CO. LTD. 548 BEATTY ST. VANCOUVER, B.C. V6B 2L3

OPERATOR: ST. ELIAS MINES LTD. 604 - 700 WEST PENDER ST. VANCOUVER, B.C. V6C 1G8

REPORT BY: LEONARD GAL M.Sc. P. Geo.

DATE: November 5, 1996

GEOLOGICAL SURVEY BRANCH ASSESSMENT REPORT

TABLE OF CONTENTS

Summary and Conclusions	1
Introduction	1
Claim Information and Property Ownership	1
Location and Access	1
Physiography	4
History of Previous Work	4
Regional Geology	4
Property Geology	4
Prospecting	6
The Fourth of July Vein	6
Other Mineralization	6
VLF - EM Survey	8
Selected Bibliography 1	1
Statement of Qualifications 1	12
Cost of Exploration Program 1	13
APPENDICES	••
I. Rock Sample Descriptions 1	14
II. Geochemical Rock Sample Assay Results 1	15
III. Raw VLF-EM data 1	18

LIST OF FIGURES

1	Property Location Map	. 2
2.	Claim Map	. 3
3.	Regional Geology Map	. 5
4.	Fourth of July adit plan	7
5.	VLF - EM Profiles	. 9
6.	Prospecting traverse map and sample locations	10

Page

SUMMARY AND CONCLUSIONS

The Montana Claim is a 20 unit 4 - post claim, staked in 1995 over an area of historic workings, and several old Crown Grants along Fourth of July and Canyon Creeks. The geology of the property consists mainly of Carboniferous or older Anarchist Group greenstones, meta-andesites and some sediments. These are intruded by granodiorites and feldspar porphyry dykes. A search was made for workings along Canyon and Fourth of July Creeks, as well as the old Montana and Mayflower Crown grants. The BCMEMPR MINFILE lists showings of copper, silver and gold on these Crown Grants. An adit on the old Fourth of July Crown Grant was opened and the quartz carbonate vein was sampled. Gold and silver values (to 27.74 g/t Au and 160.7 g/t Ag over 15cm) seemed to be associated with sulphide shoots within the veins. A limited VLF survey was carried out over the Fourth of July adit area. North - northwest and possible northeast trending conductors were indicated, that may be related to the vein structures. Further anomalous gold values were found in veins exposed by blast pits near the head of Fourth of July Creek, approximately 800m northwest of the adit.

INTRODUCTION

A short exploration program was conducted by White Wolf Explorations Ltd. on behalf of the claim owners from August 12 to 15, 1996. The aim of the program was to locate old workings, determine the style and extent of mineralization developed by such workings, and formulate a plan for further exploration based on observations in the field.

Prospecting traverses were conducted over the property, 16 rock samples collected, and a limited (400m) VLF-EM survey was conducted over the Fourth of July adit area.

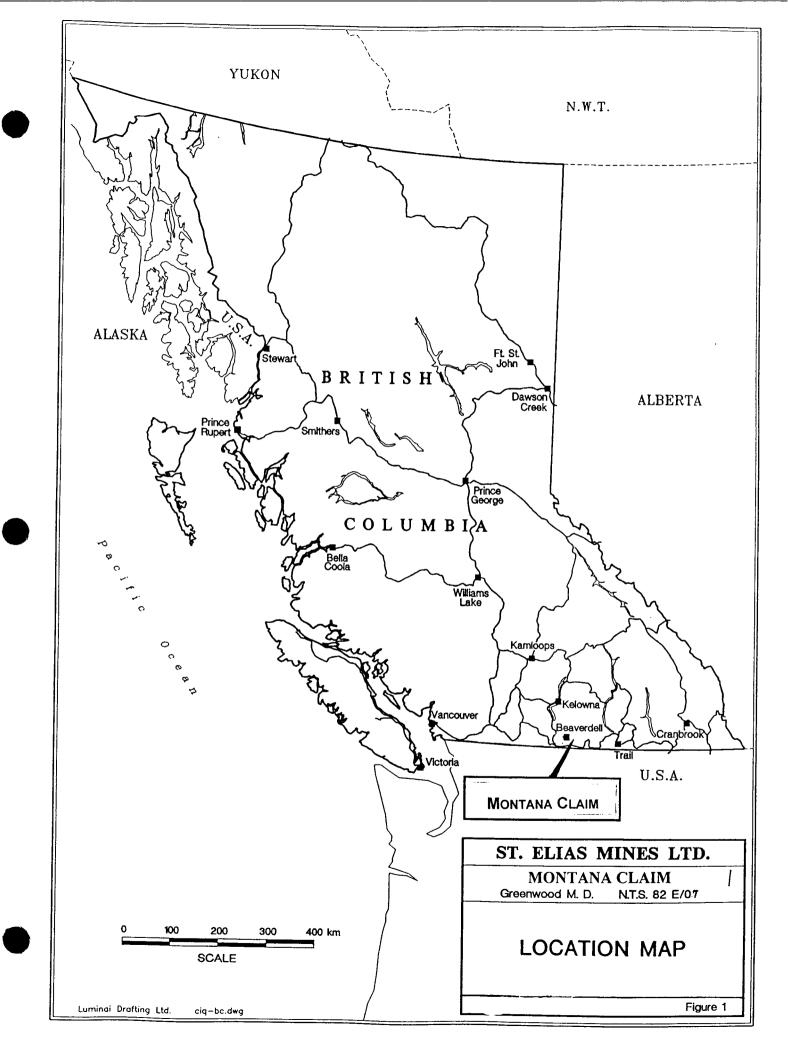
CLAIM INFORMATION AND PROPERTY OWNERSHIP

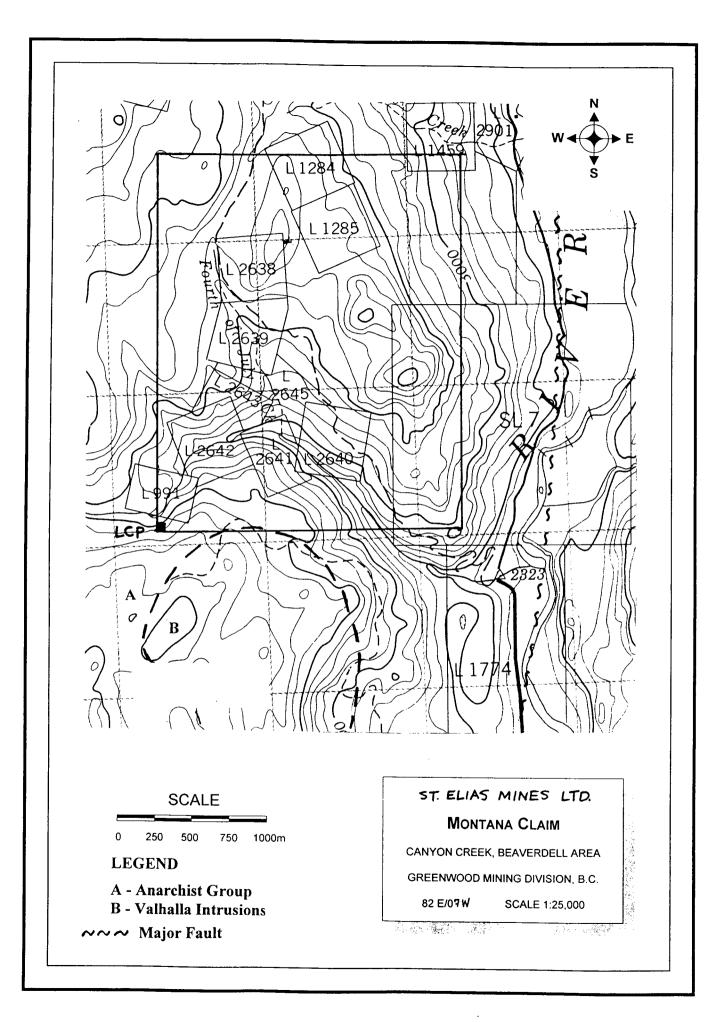
The Montana Claim, located in the Greenwood Mining Division is a 20 unit 4 - post mineral claim, staked on December 13, 1995 by Mr. Gerrard Gallissant (Figure 2). Through a Bill of Sale, the title (100%) was transferred to Madman Mining Co. Ltd. Subsequently, Madman Mining assigned an 80% interest to St. Elias Mines Ltd. Claim information is summarized below:

Claim	CLAIM	TENURE	NUMBER	ANNIVERSARY
Name	Type	NUMBER	OF UNITS	DATE *
MONTANA	4-post	342865	20	Dec. 13, 1996

LOCATION AND ACCESS

The Montana Claim is located 295 kilometers east of Vancouver, 25 kilometers north of Westbridge and just west of the Kettle River (Figure 1). The property is in the Greenwood Mining Division, and is centred at approximately 49°26'N latitude and 118°53'30'' W longitude on NTS Map Sheet 82 E/7W. The claim is accessed by the Fourth of July Forestry Service road which leaves the Westbridge - Christian Valley - Monashee Pass Road at kilometer 25. The Fourth of July FSR traverses the claim from southeast to northwest, with some minor trails branching off the main logging road.





PHYSIOGRAPHY

The property is situated within the Monashee Mountains of the Southern Interior Physiographic Region, and elevations range from 810m along Canyon Creek to 1230m on ridges adjacent to Fourth of July Creek. Slopes are gentle except in the Canyon Creek valley. Vegetation consists mainly of mature pine and fir with open grazing areas on the ridge adjacent to Fourth of July Creek. There is evidence of old woodlots, and recent winter logging has taken place west of Fourth of July Creek. There is relatively little underbrush, except along Canyon Creek where vegetation is thick. The climate features warm summers and mild winters. Water is plentiful in Canyon Creek, but Fourth of July Creek flow is intermittent.

HISTORY OF PREVIOUS WORK

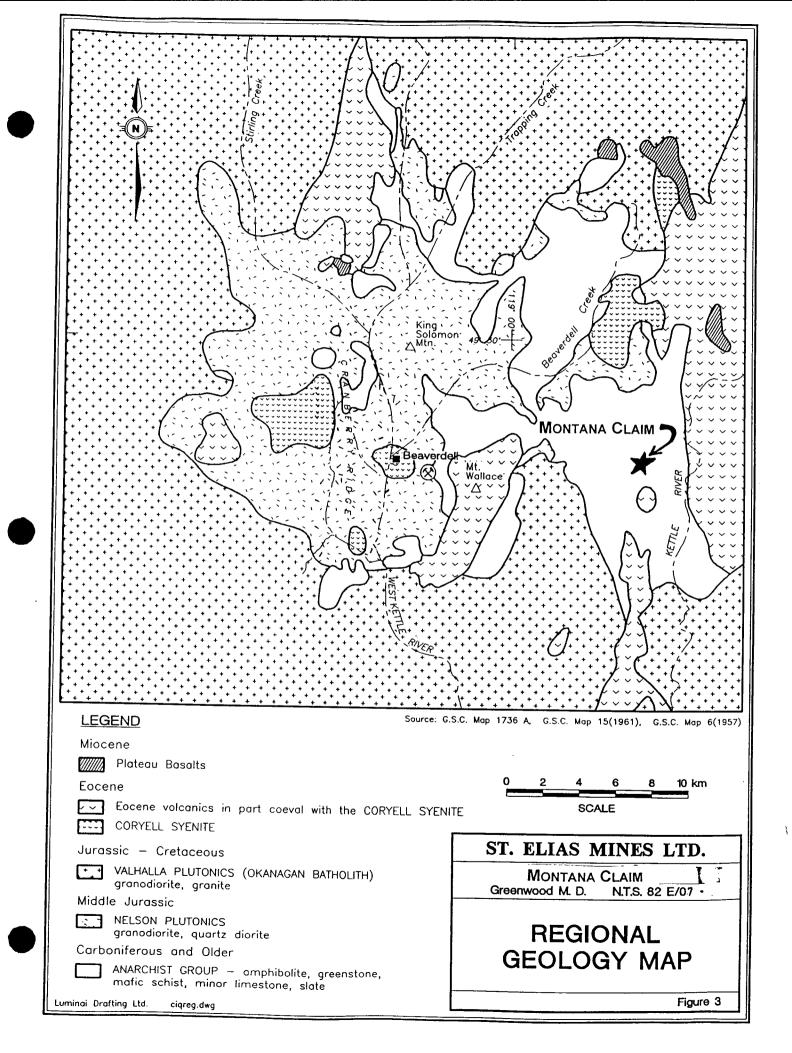
Old Crown Granted claims in the area date to the late 1800s. The B.C. Minister of Mines Annual Reports of the early 1900s mention developments on the Fourth of July (L. 2638), Montana (L.2640) and Mayflower (L.1284). Several other Crown Grants were located along Fourth of July Creek and Canyon Creek. MINFILE references list Assessment Reports that indicate work on past claims in the 1970s and 1980s that partly include the present Montana claim. The Lake Ridge district, 5km north of the Montana claim has seen more intensive exploration and development. The Barnato Mine on Lake Ridge was a former gold producer.

REGIONAL GEOLOGY

The area is within the Omineca Crystalline Belt, a NW trending belt dominated by plutonic and high grade metamorphic rocks. Regional geology is presented in Figure 3, simplified from G.S.C. Map 1736-A by Templeman-Kluit. The Montana claim is underlain by the Carboniferous or older Anarchist Group. This unit includes amphibolite, greenstones, quartz - chlorite and quartz - biotite schists, minor ultramafics, sediments and chert. Granodioritic plugs of middle Jurassic Nelson plutonics, as well as Jurassic - Cretaceous intrusions of the Okanagan batholith outcrop in the area. To the east of the Montana Claim, Eocene volcanics of the Marron Group outcrop in a fault-bounded graben expressed by the Kettle River valley. The Anarchist Group rocks are also overlain south of the property by Eocene Springbrook Formation Conglomerate.

PROPERTY GEOLOGY

Anarchist Group rocks outcropping on the Montana Claim comprise mainly green and grey meta-andesites. These are massive generally with little fabric, although phenocrysts are evident. Minor disseminated pyrite and lesser pyrrhotite are common. Silicified and pyritic altered zones are present on the ridge east of Fourth of July Creek. Thin bedded turbiditic siltstones were also observed here. Fine grained dioritic intrusives cut the Anarchist Group rocks in the vicinity of Fourth of July Creek, and may be related to the Nelson plutonics. Medium - grained granodiorites crops out along Canyon Creek in the southwest corner of the property. Intrusives are also present in the northeast corner and along the eastern margin of the claim. Feldspar porphyry dykes, trending northeast, was observed near the headwaters of Fourth of July Creek. Quartz - carbonate - sulphide veins were identified on the old Fourth of July Crown Grant, as well as in Canyon Creek. Several oxidized clay gouge and fault zones were also noted at the latter location.



PROSPECTING

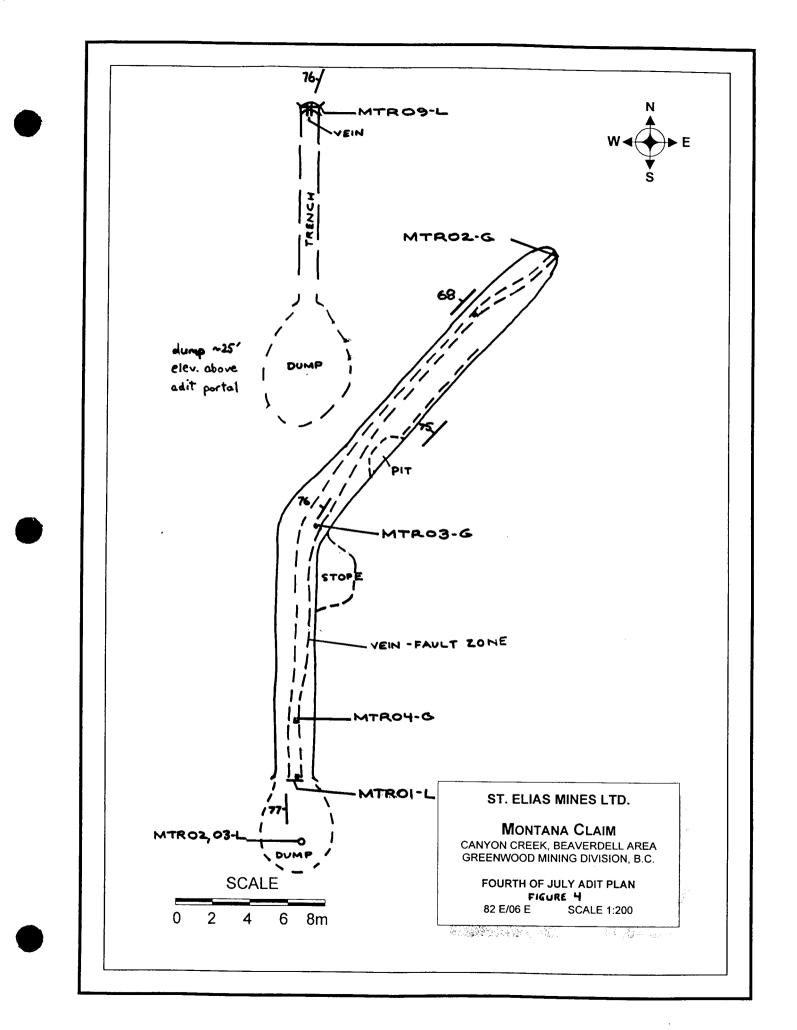
An effort was made to locate workings on the old Crown Granted claims on the property, specifically those mentioned in the Minister of Miners Annual Reports, i.e., the Mayflower, Montana and Fourth of July Crown Grants. Prospecting traverses are shown in Figure 6. The Mayflower lot covers a ridge of silicified volcanics and sedimentary rocks, rusty weathering and with local significant disseminated pyrite. The area had been logged in the past, and was possibly an old sawmill site. An intensive ground search failed to discover any major adits or workings, except for some possible old blast pits and caved trenches. On the Montana lot, the Fourth of July FSR was traversed, as well as Canyon Creek, with no old workings being discovered. An old adit on the Fourth of July Crown Grant was located (see below). The portal was opened up and the adit was mapped (Figure 4). Several samples were taken from the adit and dump.

FOURTH OF JULY VEIN

A north trending adit on the old Fourth of July Crown Grant was cleared out and inspected. The adit was accessible, but sampling efforts were limited due to loose rock along the back of the adit. At the portal, the fault zone is about 60cm wide, with 5cm of clay gouge on the hanging-wall. The zone consists of silicified and clay altered volcanics with disseminated pyrite and trace chalcopyrite. At the portal are two parallel veins up to 8cm wide, composed of quartz and carbonate with some clasts of altered wall rock. The veins merge into one and the adit follows the fault zone north for about 13m, where it then bends to the northeast (about 40°) and follows a quartz carbonate vein, dipping to the west, within a variably sheared and broken fault zone up to 2m wide. The vein here is generally up to 25cm wide. Within the vein are shoots of massive fine grained pyrite and pyrrhotite up to 20cm wide. Additional sulphide minerals observed in the carbonate and quartz vein material include chalcopyrite and galena. Sample MTR04-G assayed 27.74 g/t Au (0.809 oz/ton) over a 15cm width of sulphide within the guartz carbonate vein. Sample MTR03-L from the adit dump was a select sample of pyrrhotite with minor chalcopyrite, probably from a similar sulphide shoot within the vein. This sample yielded 4.03 g/t Au. Other samples of interest include MTR01-L, a 70cm chip sample from the adit portal which assayed 696 ppb Au. Other samples from the vein in the adit yielded low gold, although a representative grab of quartz from the dump with only minor pyrite and trace chalcopyrite yielded 556 ppb Au (MTR02-L). A trench was cut about 25m north and uphill from the adit, where the quartz - carbonater vein cut fine grained dioritic rock. Quartz, calcite, pyrite, pyritotite and chalcopyrite were noted in the trench dump. A chip sample across 1m of quartz -carbonate vein and rusty wall rock yielded 348 ppb Au.

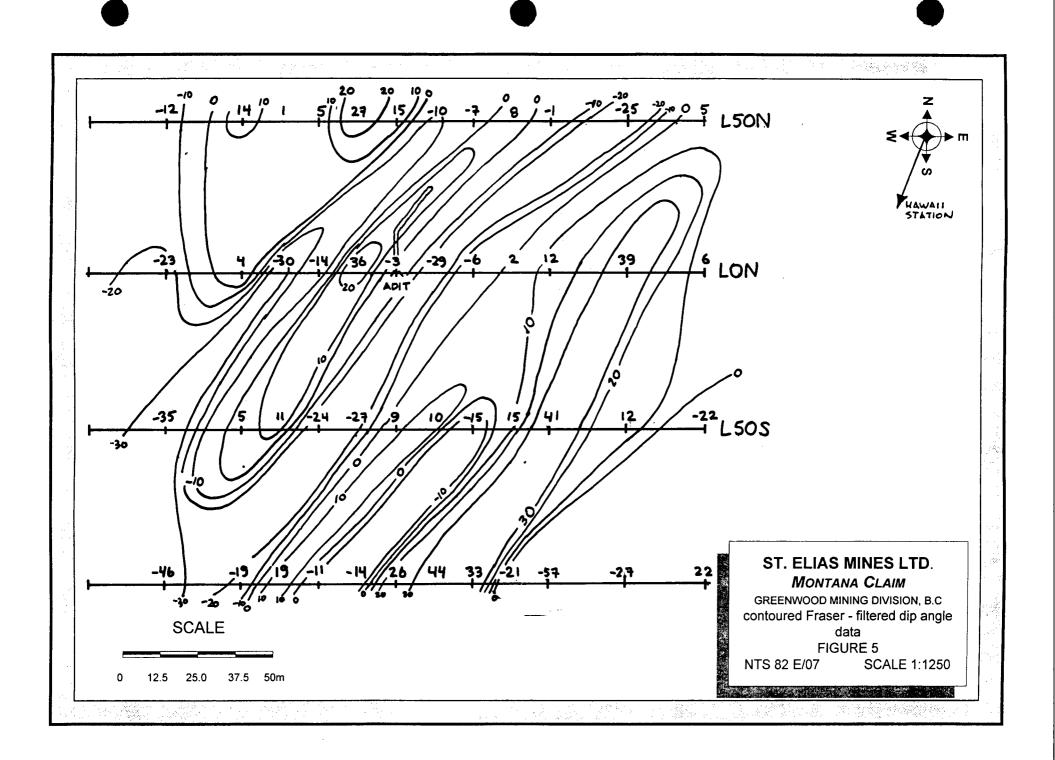
OTHER MINERALIZATION

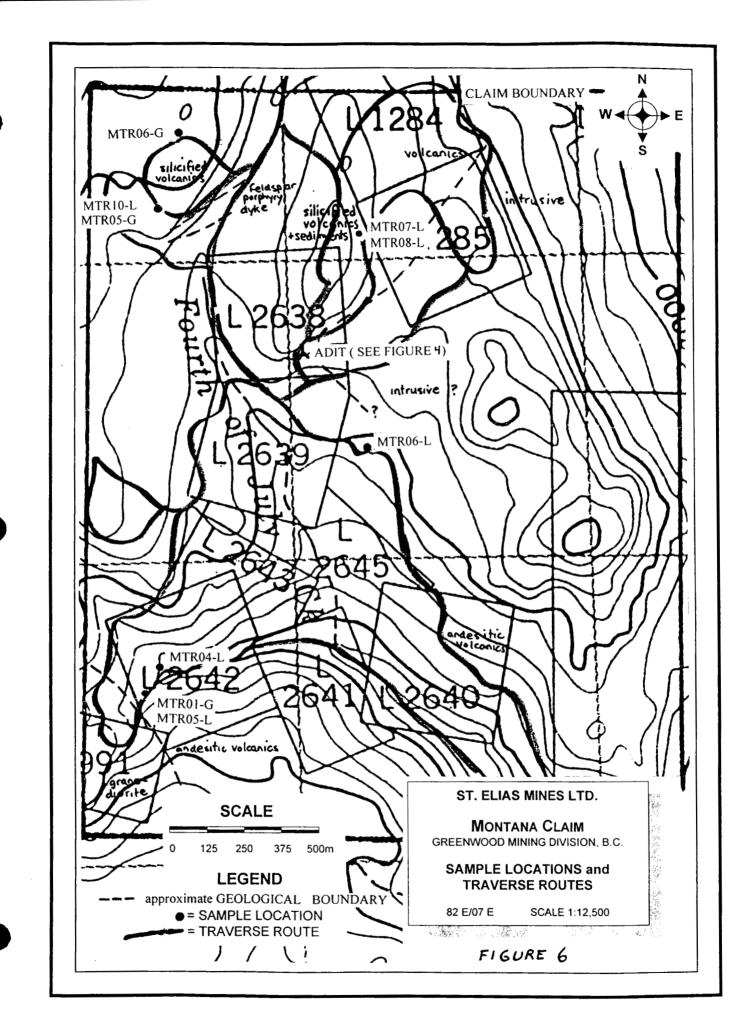
Northwest of the adit across Fourth of July Creek near the northwest corner of the property, two samples from old blast pits yielded anomalous gold. Sample MTR-05G was a selection of weakly mineralized quartz that returned 364 ppb Au. Sample MTR06-G was a grab of oxidized and limonitic vein adjacent to a porphyry dyke, yielding 279 ppb Au. The country rock was silicified pyritic andesite and feldspar porphyry dykes.



VLF-EM SURVEY

A limited VLF-EM survey was conducted in the area of the Fourth of July vein. Four east - west lines were chained and flagged, 50m apart and 250m long. The Fraser filtered and contoured dip angle data are shown on Figure 5. Station readings were taken every 25m (or 12.5m) using a Geonics -16 instrument, and Hawaii as a transmitting station. Northeast trending conductors are apparent the adit location. The bend in the vein from north to northeast trending, as exposed in the adit, may indicate that two sets of structures could influence the vein position. The strong anomaly in the southeast corner of the grid is probably due to a fault that lies in the gully at this position.





SELECTED BIBLIOGRAPHY BCMEMPR MINFILE B.C. Minister of Mines

Little, H.W. (1961)

Tempelman-Kluit, D.J. (1989)

MINFILE 032×16^{32} (Mayflower), MINFILE 022×55^{32} (Montana) Annual Reports 1900 (p.879), 1901 (p.1136), 1902 (p.182), 1903 (p.248).

Geology, Kettle River (West Half), British Columbia; Geological Survey of Canada, Map 15-1961

Geology, Penticton, British Columbia; Geological Survey of Canada, Map 1736A, scale 1:250 000

STATEMENT OF QUALIFICATIONS

I, Leonard Gal, of Kelowna, British Columbia hereby certify that:

- I am a Professional Geoscientist registered in good standing of the Association of Professional • Engineers and Geoscientists of British Columbia.
- ٠ I am a graduate of the University of British Columbia, with a B.Sc. in Geology (1986).
- I am a graduate of the University of Calgary, with a M.Sc. in Geology (Metamorphic Petrology) . (1989).
- I have been engaged in geological work more or less continuously since 1986, in British Columbia, the ٠ Northwest Territories, Saskatchewan and the United States.
- The information in this report is based on review of published reports and maps, and a visit to the . Property on August 12 - 15, 1996.
- I grant permission to use this report in a prospectus or other financial offering. •

Signed this _____ day of November, 1996.

Leonard Gal M.Sc., P.Geo.

MONTANA CLAIM COST of WORK PROGRAM - August 1996

DESCRIPTION CH	DATES	RATE	T SUB TOTAL
Leonard Gal, M.Sc, P. Geo.	Aug 12 - Aug. 15	3.5 days @ \$375.00	\$1,312.50
Gerard Gallissant, B.Sc. (Geography)	Aug 12 - Aug. 15	3.5 days @ 275.00	\$962.50
Crew board (food)	7 man/days	@ \$52.00 m/d	\$364.00
Vehicle rentals 1 ton 4x4 crewcabs	3.5 days	@\$75.00/d	\$262.50
VLF-EM rental	Geonics EM-16	4 days @ \$750/mo (pro rata)	\$100.00
ATC rental	Honda 250cc -	3.5 days @ \$50.00/d	\$175.00
Survey supplies, fuel & oils (consumable)	Flagging, Topofil, sample bags,		\$74.00
Analytical analysis (Bondar Clegg Inchape) North Vancouver	16 rock samples	@ \$25/ samples	\$400.00
Report preparation, drafting and research	1.5 days	@ \$250/day	\$375.00
Communications, management		@ 3%	\$124.50
		-	
TOTAL			\$4150.00

APPENDIX I

ROCK SAMPLE DESCRIPTIONS

MTR01-L: Fourth of July adit, 70cm chip sample at portal across zone of at least two sub-parallel quartz veins (up to 8cm wide) in silicified volcanic bounded by gouge zones. Pyrite and chalcopyrite noted.

MTR02-L: Representative grab from dump of quartz - carbonate vein material with minor altered wall rock. Trace pyrite and chalcopyrite noted.

MTR03-L Grab massive pyrrhotite (plus pyrite) pieces from dump. Overall, few massive sulphide chunks in dump.

MTR04-L Canyon Creek. 50cm chip across rusty, strongly fractured volcanic rock with some gouge development on north dipping zone. Not silicified.

MTR05-L Canyon Creek. 20cm chip sample across vein - fracture zone. Pyrite veinlets and stringers subparallel to carbonate vein sampled by MTR01-G.

MTR06-L Roadcut grab of typical pyritic and silicified andesitic volcanics

MTR07-L Mayflower C.G. 15cm chip sample across brecciated and fractured fault zone in thin bedded turbidites. Slightly pyritic.

MTR08-L Mayflower C.G. Grab from talus below bluff of rusty, silicic metasediment (?) with pyrite and pyrrhotite

MTR09-L Fourth of July trench. 1m chip sample across rusty, heavily oxidized fractured fault zone with minor vein material. Host rock appears intrusive.

MTR10-L Blast trench near head of Fourth of July Creek. Grabs of brecciated, pyritic, fractured silicified volcanic from trench dump.

MTR01-G Canyon Creek. Carbonate vein, highly fractured and oxidized. Wall rock andesite hosts disseminated sulphides.

MTR02-G Fourth of July adit. 33m from portal. 35cm chip across fault gouge in andesitic volcanics with disseminated sulphides.

MTR03-G Adit, 13m from portal. Fault gouge with 2-5cm quartz vein with disseminated sulphides.

MTR04-G Adit, 3m from portal. Highly oxidized vein 15cm wide with abundant disseminated sulphides

MTR05-G Grabs from dump of trench. Apparently unmineralized quartz vein material

MTR06-G Second trench uphill from MTR05-G, highly leached and oxidized andesitic volcanics adjacent to a porphyry dyke.

APPENDIX II

Geochemical Lab Report Rock Samples



Geochemical Lab Report

PCT PCT PCT PPM PPM PPM

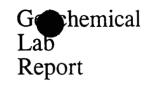
REPORT: VS																	PROJE	ECT: SEM	I				
		•••••					· · · · · · · · · · · · · ·										DATE	PRINTED:	19-SEF	>-96	F	PAGE	2A
SAMPLE	ELEMENT	Au30	Au+	Ag AgOL	Cu CuOL	Pb	Zn ZnOL	Mo Ni Co	0-1 D:										•••••				
NUMBER	UNITS	PPB	OPT	PPM PPM	PPM PCT			PPM PPM PPM	Cd Bi PPM PPM	As Sb						W La			Ca N	la	K Sr	· Y	Ga
									FEM FEM	PPM PPM	PCT	PPM PPM	PPM	PPM F	PM PPM	PPM PPM	PCT	PCT	РСТ РС	T Pr	CT PPM		PPM

MTR-01G MTR-02G	73 30	1.4 1.1	30	11	58	2	10	-		<5	10	<5	1.62	1077 <	<10	41	24	39 <20	<20	7 1,14 1,16	>10.00 0.01 0.10 1	04	,	,
MTR-03G	36		59	11	100	1	8	14	0.8	<5	36	10	4.69					94 <20			• • • • • • •	58	4	· .
	50	0.3	33	4	14	2	4	4	<0.2	<5	10	<5	0.86	491 <		16		15 <20				58 43	4 <	5 2
MTR-04G	>10000 0.809	160.7	1085	83	180	<1	4	6	66.8	<5	7083	5/	10.00	107		•								
MTR-05G	364	3.9	55	4	67	<1	8	5	0.3	<5	221		>10.00			·9		4 <20			0.07 <.01 0.06	3	5 <	:2
MTR-06G	279	4.7	1063	54	47		10	<1	9.1	<5		. 6		954 <				56 <20		3 1.36 1.23	0.23 0.03 0.09	5	3 <	:2
MTR-01L	696	1.1	154	87	630	<1	3	26		-	323		>10.00			14		35 <20		60 0.43 <.01	0.02 <.01 0.08	3	3 <	2
MTR-02L	556	3.5	835	29	48	-	-		<0.2	<5 	6354	25				30	63	11 <20	<20	23 0.68 0.09	0.11 <.01 0.22	6	3 <	2
				27	40		11	Y)	<45.9	<5	>10000	24	2.38	1111 <	10	4	58	2 <20	<20	2 0.12 0.03	8.68 <.01 0.02	79	3 <	2
MTR-03L	4025	71.1	>10000 1.5	54	369	<1	<1	11	103.3	26	3298	25	>10.00	277 6	10	1	10	20 -20	.20	54 0 07 0 00				
MTR-04L	96	<0.2	77	72	455	14	36	6	1.5	<5	131	<5		1313 <				20 <20			1.44 <.01 <.01	7	2 <	2
MTR-05L	30	5.3	503	33	3675	<1 1	31	87		<5		-						84 <20				53 1	1 <	2
MTR-06L	15	0.3	51	10	116	32		6		<5	33	14						68 <20		15 1.83 1.12		5 4	4 <2	2
MTR-07L	11	0.5	107	10	76	2		43		<5	34	-14 <5		1642 <						6 2.05 0.87	3.79 0.02 0.03 3	6 10	0 <2	2
						-	22	40	0.5	~)	54	< <u>></u>	3.98	1061 <1	10 2	26	30	85 <20	<20	2 4.33 1.28	1.91 0.01 0.22 16	3 (4 5	;
MTR-08L	28	1.9	267	9	62	<1	14	15	0.6	~5	10	7	5.38	2/2										
MTR-09L	348	14.6	1609	13	50	<1		<1		<5		14 .		242 <1	-				<20	3 1.61 0.68	1.21 0.15 0.05 6	8 5	5 <2	2
MTR-10L	18	0.7	78	10	93	·	-	14		<5				540 <1					<20	2 2.46 1.27	0.17 <.01 0.17	8 3	3 <2	2
		·	. 2	.0	/4	~1	L)	14	0.5	5	21	8	5.41 1	1838 <1	0 3	33 3	37 12	28 <20	<20	4 1.96 1.86	3.31 0.03 0.02 7	78	8 3	;

Bondar-Clegg & Company Ltd 130 Pemberton Avenue, North Vancouver, D.C. Van and Kast



CLIENT: WHITE WOLF EXPLORATION REPORT: V96-01355.0 (COMPLETE)



PROJECT: 5EM 1 DATE PRINTED: 19-SEP-96 PAGE 2B

SAMPLE ELEMENT LI NO SC TA TI Zr NUMBER UNITS PPM PPM PPM PPM PCT PPM

MTR-01G	19	2	<5 <10 <.01	2
MTR-02G	28	2	<5 <10 <.01	<1
MTR-03G	8	2	<5 <10 <.01	<1
MTR-04G	<1	2	<5 <10 <.01	<1
MTR-05G	17	1.	<5 <10 <.01	<1
MTR-06G	<1	2	<5 <10 <.01	4
MTR-01L	4	<1	<5 <10 <.01	2
MTR-02L	1	1	<5 <10 <.01	<1
MTR-03L	<1	<1	<5 <10 <.01	4
MTR-03L MTR-04L	<1 21	<1 8	<5 <10 <.01 <5 <10 <.01	4 1
MTR-04L	21	8	<5 <10 <.01	1
MTR-04L MTR-05L	21 14	8 3	<5 <10 <.01 <5 <10 <.01	1 2
MTR-04L MTR-05L MTR-06L	21 14 9	8 3 5	<5 <10 <.01 <5 <10 <.01 <5 <10 0.06	1 2 4
MTR-04L MTR-05L MTR-06L	21 14 9	8 3 5	<5 <10 <.01 <5 <10 <.01 <5 <10 0.06	1 2 4
MTR-04L MTR-05L MTR-06L MTR-07L	21 14 9 23	8 3 5 2	<5 <10 <.01 <5 <10 <.01 <5 <10 0.06 <5 <10 0.07	1 2 4 2
MTR-04L MTR-05L MTR-06L MTR-07L MTR-08L	21 14 9 23 7	8 3 5 2 3	<5 <10 <.01 <5 <10 <.01 <5 <10 0.06 <5 <10 0.07 <5 <10 0.10	1 2 4 2

APPENDIX III

Raw VLF-EM data Station Hawaii

LINE 0+00	DIP ANGLE	QUADRATURE
1+25W	+50	+12
1+00W	+20	+12
0+75W	+50	+37
0+50W	+80	+10
0+37W	+85	+35
0+25W	+130	+42
0+13W	+90	+17
0+00	-90	+24
0+13E	-130	+38
0+25E	-60	+32
0+37E	+100	+36
0+50E	-110	+32
0+75E	+120	+24
1+00E	+110	+5
1+25E	-70	+38
LINE 0+50N		
1+25W	+25	+10
1+00W	+65	+35
0+75W	+60	+31
0+50W	+20	+26
0+37W	+40	+26
0+25W	-80	+30
0+13W	-25	+17
0+00	+80	+12
0+13E	+80	+20
0+25E	-90	+19
0+37E	-120	+20
0+50E	-30	+11
0+75E	-130	+29
1+00E	-75	+27
1+25E	+105	+8
LINE 0+50S		
1+25W	+50	+8
1+00W	+60	+10
0+75W	+100	+32
0+50W	+100	+21
0+37W	+90	+16
0+25W	+70	+26
0+13W	+130	+35
0+00	+130	=34
0+13E	-110	+18
0+25E	-75	+41
0+37E	-60	+26
0+50E	-100	+18

LINE 0+50S	DIP ANGLE	QUADRATURE
0+75E	-60	+8
1+00E	-70	+24
1+25E	-100	+24
LINE 1+00S		
1+25W	-50	+15
1+00W	+70	+8
0+75W	+100	+32
0+50W	-80	+39
0+37W	+50	+20
0+25W	+100	+32
0+13W	+75	+38
0+00	+120	+28
0+13E	+110	+16
0+25E	+80	+6
0+37E	+60	+5
0+50E	+90	+38
0+75E	-100	+30
1+00E	-8 5	+40
1+25E	+85	+6

•