85-967-14136

8/86

GEOLOGICAL AND GEOCHEMICAL REPORT ON THE

LU 1, 3 AND 4 CLAIMS

LIARD MINING DIVISION

by

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and
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for

GETTY CANADIAN METALS, LIMITED
1200 - 150 York Street
Toronto, Ontario M5H 3S5

NTS 104I7W
58°22'N 128°40'W

Work Paid for by Getty Canadian Metals, Limited

October 28, 1985

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SUMMARY

The Lu 1, 3 and 4 claims, known as the Gold Creek property, are located 82 kilometres east of Dease Lake in northern British Columbia. Fox Geological Consultants Limited, on behalf of Getty Canadian Metals, Limited, conducted detailed geological mapping and rock sampling on the claims in order to locate possible source areas of anomalous gold and silver values obtained in heavy mineral and silt samples collected in the previous year. Current work was done between August 3rd and August 7th, 1985.

The property is underlain by Cache Creek Group phyllites and basic to intermediate volcanic rocks that have been intruded by bodies of serpentinite and granodiorite. In addition, six prominant gossans were examined. The gossans are weathering products of variable amounts of pyrite and pyrrhotite in narrow (15 to 40m) silicified fault zones.

Elswhere, a 25m silicified fault zone was discovered in the west-central area of the claims from which four rock samples returned significant concentrations of gold,110 to 310ppb, 3ppm silver and 266ppm copper. Seven other rock samples taken nearby returned elevated values of gold (9 to 45ppb), silver (0.1 to 0.9ppm), copper (84 to 1329ppm) and arsenic (2 to 34ppm).

CONCLUSIONS

The discovery of subeconomic amounts of gold, silver and copper in silicified and pyritized faults is believed to account for the anomalous samples obtained in the 1984 program. No further work is warranted.

INTRODUCTION

Results of prospecting work on the Gold Creek prospect between August 3rd and August 7th, 1985 are given in this report. The purpose of the program was to evaluate several anomalous heavy mineral concentrates and conventional silt samples obtained in a reconnaissance program in 1984.

LOCATION AND ACCESS

The Gold Creek prospect is located 82 kilometres east of Dease Lake in northern British Columbia (Figure 1). Access is by helicopter although float equipped aircraft can also land at Wolverine Lake, eight kilometres east of the property.

CLAIM INFORMATION

The Gold Creek property consists of the following claims (Figure 2).

Claim	No. of Units	Record No.	Expiry Date
Lu 1	8	3186	September 1, 1987
Lu 3	18	3187	September 1, 1987
Lu 4	18	3188	September 1, 1987

Together these claims cover an area of 1,100 hectares.

PHYSIOGRAPHY AND CLIMATE

The claims are located in a large valley bounded on both sides by northeast-trending ridges. Vegetation consists of mixed alpine and scrub brush with the latter dominant in valley bottoms. The west side of the property is rugged with rocky ridges and cliffs common.

Elevations range from 1,370 metres in the valley areas to 2,050 metres on ridge summits. Climate is typical of the northern interior. Winters are long and cold; summers are short and cool. Annual precipitation ranges from 100 to 125 centimetres.

HISTORY AND DEVELOPMENT

The Gold Creek prospect was staked by Getty Canadian Metals, Limited in 1984. Getty obtained significant gold and silver concentrations in Gold Creek, which drains the central part of the property. Prospecting carried out in 1984 discovered several quartz veins that contained gold contents ranging from 100 to 760ppb.

GETTY CANADIAN METALS, LIMITED				
PROJECT Nº: 125	LU 1, 3, 4 CLAIMS			
LOCATION MAP LU 1, 3, 4 CLAIMS GOLD CREEK PROSPECT				
SCALE	DATE	FILE	N.T.S. No.	FIG. No.
	28-10-85	BY:	104I7	1

1985 PROGRAM

Fox Geological Consultants Limited, Vancouver, on behalf of Getty Canadian Metals, Limited conducted a program of detailed geological mapping and rock sampling between August 3rd and 7th, 1985. Detailed geological mapping and sampling were carried out over an area of approximately 11 square kilometres. Airphotos and a 1:10,000 scale base map, prepared by The McElhanney Group Limited, Vancouver, were utilized for mapping control. Work crews were based at Dease Lake and commuted to the property by helicopter.

A total of 97 rock samples were collected during the program. Samples were analyzed for 30 standard elements by ICP methods and for gold by atomic absorption methods. Analytical work was done by Acme Analytical Laboratories Limited, Vancouver. Results are given in Appendix I. Sample locations and results are provided in Figures 3 and 4.

REGIONAL GEOLOGY

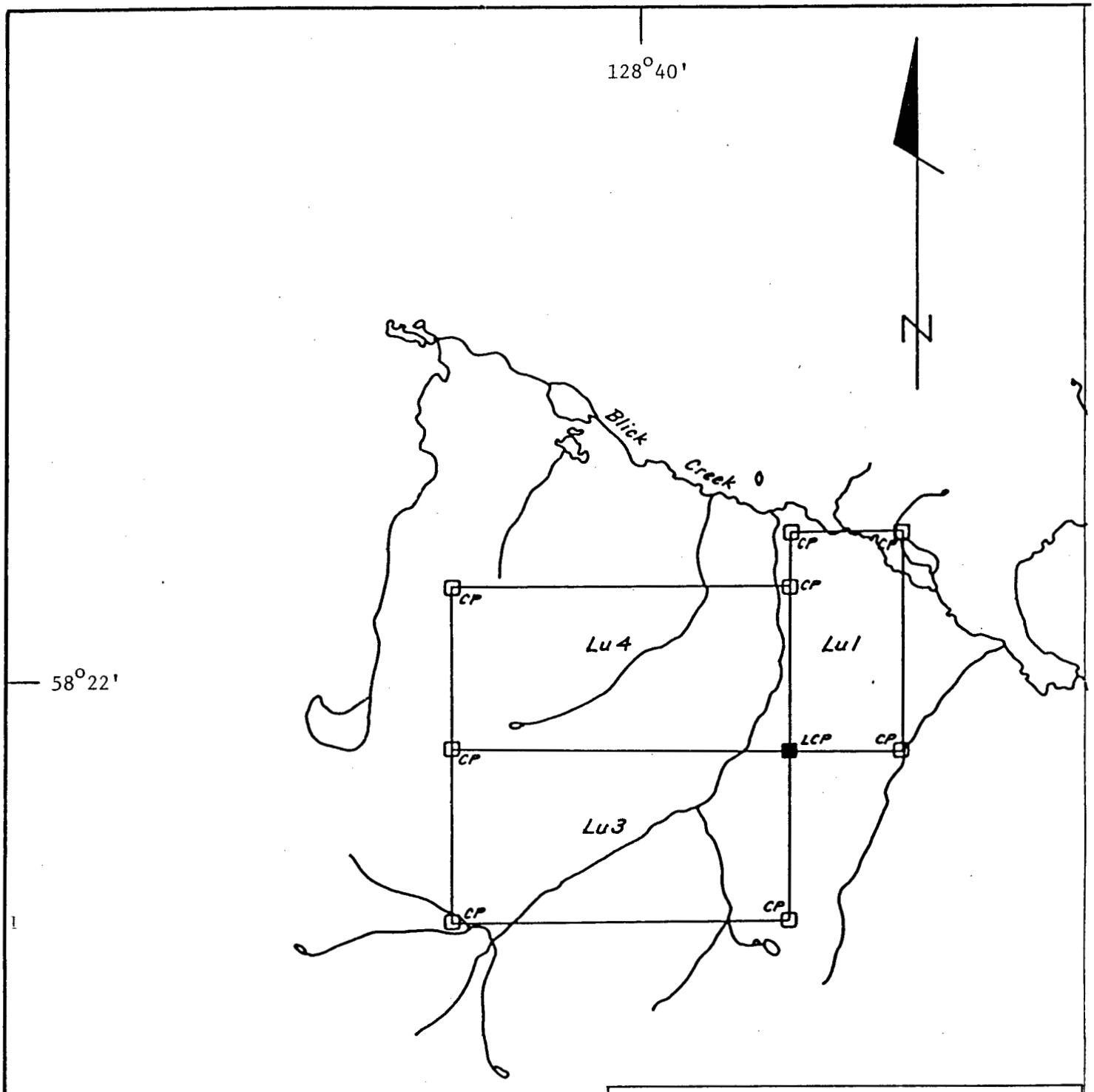
Ultramafic rocks, basic volcanics and sedimentary rocks of the Cache Creek Group underlie the property. These rocks form a northwest-trending belt approximately 15 kilometres wide that lies in fault contact with Jurassic-Triassic sedimentary and volcanic rocks to the northeast and southwest. Satellitic bodies of the Cassiar Batholith intrude both the Cache Creek rocks and younger Triassic-Jurassic formations.

DETAILED GEOLOGY

Lithology

The Lu claims are underlain by phyllite and basic to intermediate volcanic rocks (greenstone) of the Cache Creek Group, all intruded by irregular bodies of serpentinite and granodiorite (Figure 3). Phyllite underlies most of the northern and central parts of the claim block. These rocks are generally grey-black, fissile and contain alternating layers (0.5 and 1cm) of silty phyllite. The phyllite is locally iron-stained on fracture and cleavage surfaces.

Volcanic rocks form the western ridges and outcrop in Gold Creek valley. These rocks range from mafic-rich on the northwest to intermediate, light coloured rocks to the south. Generally the volcanic units weather brownish-grey and are massive, fine-grained and dark-green to black on the fresh surface. Thin sections indicate that most rocks are porphyritic basalts containing phenocrysts of plagioclase and



GETTY CANADIAN METALS, LIMITED				
PROJECT Nº: 125				
CLAIM MAP Lu 1, 3, 4 Claims Gold Creek Prospect				
SCALE	DATE	FILE	N.T.S. No.	FIG. No.
	28-10-85	BY:	104-7W	2

clinopyroxene set in an aphanitic matrix of plagioclase, epidote and chlorite (see Appendix II). Intermediate types are composed of 10% plagioclase phenocrysts set in a trachytic groundmass of plagioclase, chlorite and tremolite. Very fine-grained aggregates of plagioclase, actinolite, chlorite and epidote are also common in some of the volcanic members.

Ultramafic rocks, generally serpentinite, form the eastern ridges and outcrop sporadically in the central and east-central part of the claim block. Outcrops are light greenish-grey, yellowish-buff, limegreen to greenish-black. Some weathered surfaces are rough due to the differential weathering of small, resistant, magnetite grains. Exfoliation weathering is also common in faults and zones of sheared rock. Several large boulders of serpentinite at sample location 4731 (Figure 3, south-central area) have a porphyritic texture due to the presence of glomeroporphyritic of pyroxene and olivine. Elsewhere the serpentinite consists of talc, magnesite, and trace amounts of chlorite and antigorite. In general, magnetite and hematite comprises 4% to 5% of the rock.

Outcrops of a small granodiorite stock were mapped in the southeastern corner of the claims. The stock is enclosed by volcanic rocks, is light grey-green, and consists of 10% to 15% rounded quartz phenocrysts (5mm), 8% to 10% feldspar phenocrysts, 6% to 8% hornblende and biotite and trace quantities of pyrite and pyrrhotite all set in a aphanitic groundmass of feldspar and quartz.

STRUCTURE

Faults and shears are the dominant structural features, most notable on a prominent ridge in the west-central part of the map area. Here a series of fault zones ranging from a few metres to 40 metres thick strike northwest and dip steeply southwest. Elsewhere, outcrops of sheared volcanics are common and are often moderately to strongly fractured, pyritic and contain numerous quartz veins and stringers. Talus derived from such zones weathers to a rusty, iron-stained material.

ALTERATION AND MINERALIZATION

All rocks on the property have been altered to some degree. The most common secondary minerals are chlorite, epidote, actinolite, and quartz in the volcanic units and magnesite, talc, quartz, magnesite, antigorite and chlorite in the serpentinites. These mineral assemblages suggest the rocks have undergone low grade (greenschist) metamorphism.

Fault zones in the west-central part of the prospect are moderately to strongly silicified over widths of a few metres to 40 metres. Quartz stockworks and veins up to 2m wide commonly occur in faults and shear zones. The veins commonly contain 2% to 5% disseminated pyrite. Elsewhere irregular masses and concentrations of pyrite are common. These pyritic rocks commonly weather to conspicuous gossans. Other trace minerals present are chlorite, epidote, mariposite, pyrrhotite, magnetite, arsenopyrite and malachite.

Quartz veins are also common in volcanic rocks exposed along a prominent ridge in the west-central part of the claims. The veins here strike northwest parallel to the regional fault direction. The veins pinch and swell and range from 2cm to 2m thick. Most contain trace amounts of chlorite, epidote, pyrite, chalcopyrite, malachite and arsenopyrite.

A small ironstained outcrop of serpentinite in the central part of the claim block contains a moderately developed quartz vein stockwork. In the more siliceous zones, the serpentinite contains 1% to 2% disseminated pyrite, hematite, and mariposite.

ROCK GEOCHEMISTRY

A total of 97 rock samples were collected from various outcrops within the map area. Analytical results range from 1 to 765ppb Au, 0.1 to 3ppm Ag, 3 to 1440ppm Cu, 1 to 835ppm Cr and 2 to 990ppm As. Five rock samples collected from a cirque in the west-central part contain significant amounts of Au, Ag, Cu and Zn.

Elsewhere (sample 4073) a 2-metre chip sample, returned a 310ppb Au from a massive, fine-grained greenstone. Included in the sample is a barren, white quartz vein 5cm wide. The vein also contains small amounts of asbestos. Sample 4495 is a grab sample of sheared and siliceous greenstone containing 5% disseminated pyrite. This sample returned 110ppb Au, 271ppm Cu and 23ppm As. Sample 4496, a 1-metre chip sample of sheared, pyritic, greenstone, returned 135ppb Au and 26ppm As. Sample 4497, a chip sample taken across a 1-metre pyritic (2%) quartz vein, returned 190ppb Au, 3ppm Ag, 226ppm Cu and 34ppm As. Sample 4501 is a grab sample of siliceous greenstone talus that contains 10% disseminated pyrite. The sample returned 1329ppm Cu and 12664ppm Zn.

Eight rock samples (4070 to 4072, 4074, 4075, 4498, 4499 and 4500), all within the immediate area of the cirque in the central part of the claims, returned significant concentrations of Au (9 to 45ppb), Ag (0.1 to 0.9ppm), Cu (89 to 596ppm) and As (2 to 23ppm). In the southeast part of the claims, a sample from a 10cm-wide quartz vein containing trace amounts of pyrite returned 769ppb gold. In the same area, samples 4059, 4483, 4487 and 4737 taken from gossanous, sheared and locally silicified greenstone returned copper values ranging from 295 to 1440ppm.

Near the southern claim boundary, samples 4502, 4503, 4505 and 4507 returned 115 to 990ppm As. Three of these samples (4502, 4503, 4507) are samples of quartz vein float material containing mariposite (1-10%), tremolite and trace amounts of pyrrhotite. Sample 4505 is a breccia comprised of serpentinite fragments in a quartz-carbonate matrix.

DISBURSEMENTS

STATEMENT OF COSTS

Accomodation and Board	$ 1,568.04	
Air Charter	3,541.10	
Assays, Geochem Analyses	1,474.10	
Automobile Expense	360.88	
Consulting	1,235.00	
Field Supplies	298.77	
Freight	70.00	
Reproductions and Maps	346.20	
Travel Expense	665.61	
Pencil Manuscript (The McElhanney Group)	790.00	
Thin Sections (Vancouver Petrographics)	400.00	
		$10,750.00

Salaries

Name	Period (1985)	Days	Rate	Total	
C. Payne	August 3 to 7	5	$350	$1,750.00	
G. Goodall	August 3 to 7	5	150	750.00	
R. Konst	August 3 to 7	5	150	750.00	3,250.00
			TOTAL		$14,000.00

Work paid for by Getty Canadian Metals, Limited.

Prepared by:

FOX GEOLOGICAL CONSULTANTS LIMITED

P. E. Fox, Ph.D., P.Eng.

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA P. E. FOX

C. W. Payne

C. W. Payne, M.Sc.
October 28, 1985

STATEMENT OF QUALIFICATIONS

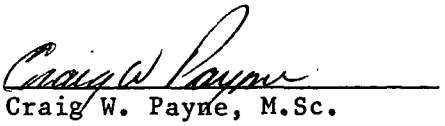
I, Craig W. Payne, do hereby certify that:

1. I graduated from Brock University, St. Catharines, Ontario, in 1979 with a Master of Science in Geological Sciences.

2. Since that time I have been employed as an exploration geologist in British Columbia and elsewhere.

3. I am presently temporarily employed by Fox Geological Consultants Limited, Vancouver, B.C.

4. The work described in this report was done under my direct supervision.



Craig W. Payne, M.Sc.

APPENDIX I

ANALYTICAL RESULTS AND PROCEDURES

by

Acme Analytical Laboratories Limited
Vancouver, B.C.

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB		
4048	5	16	10	18	.1	983	51	671	3.82	2	5	ND	1	3	1	2	2	17	.22	.01	4	579	9.08	4	.01	9	.13	.01	.01	1	2		
4049	1	33	6	14	.1	57	13	295	1.32	2	5	ND	1	18	1	2	7	25	1.89	.04	2	69	.66	8	.07	6	.55	.03	.01	1	1		
4050	1	209	2	52	.1	39	40	758	5.90	2	5	ND	1	8	1	2	2	72	.66	.14	5	21	1.93	1	.21	3	1.93	.01	.01	1	1		
4051	1	16	9	40	.1	18	20	772	5.95	2	5	ND	1	15	1	2	2	218	2.37	.05	7	2	1.75	2	.12	2	2.56	.02	.01	1	1		
4052	2	5	5	28	.1	53	20	867	4.76	5	5	ND	1	53	1	2	5	30	7.25	.04	6	21	2.50	7	.01	2	.28	.06	.02	1	1		
4053	1	3	2	3	.1	5	3	87	.91	2	6	ND	1	2	1	2	3	5	.14	.02	2	5	.07	2	.01	5	.06	.01	.01	1	2		
4054	1	5	6	6	.1	14	10	375	2.08	2	5	ND	1	2	1	2	2	7	.08	.01	2	4	.05	8	.01	4	.08	.02	.02	1	20		
4055	2	5	7	15	.1	30	14	536	3.89	2	5	ND	1	31	1	2	4	34	5.71	.02	3	8	1.93	8	.01	4	.54	.05	.05	1	5		
4056	2	52	9	45	.1	47	25	712	4.01	2	5	ND	1	4	1	2	4	56	.21	.02	4	26	2.73	3	.04	5	2.31	.02	.01	1	2		
4057	2	75	7	94	.1	18	17	1015	3.92	2	5	ND	1	12	1	2	9	51	.41	.02	2	25	2.62	6	.17	5	2.32	.01	.02	1	1		
4058	2	13	3	9	.1	3	2	227	.70	2	5	ND	1	3	1	2	2	5	1.43	.01	2	2	.07	3	.01	5	.06	.01	.01	1	1		
4059	2	1440	6	97	.1	72	25	864	4.33	2	5	ND	1	2	1	2	5	75	.18	.05	2	199	2.64	1	.06	4	2.38	.02	.01	1	1		
4060	2	67	2	68	.2	78	27	795	3.54	2	5	ND	1	3	1	2	10	51	.27	.04	2	194	3.15	4	.14	6	2.38	.01	.01	1	2		
4061	2	46	2	7	.2	4	3	217	.65	8	7	ND	1	8	1	8	6	3	.70	.03	2	4	.33	2	.01	4	.12	.08	.01	1	1		
4062	54	146	9	41	.2	33	15	492	2.46	20	5	ND	1	26	1	10	7	14	2.46	.02	2	25	1.19	4	.01	2	.19	.06	.01	1	5		
4063	10	146	2	68	.1	131	26	1509	4.21	28	5	ND	1	69	1	3	5	25	7.28	.02	2	92	4.11	4	.01	4	.26	.03	.02	1	3		
4064	1	185	12	56	.3	46	23	961	3.91	4	5	ND	1	126	1	2	9	93	5.39	.02	2	50	2.07	6	.01	6	1.50	.02	.01	1	1		
4066	2	54	4	63	.1	102	25	903	5.29	6	5	ND	1	23	1	2	2	141	3.24	.04	2	236	4.36	2	.01	4	2.71	.01	.01	1	1		
4067	2	10	11	6	.2	8	2	439	.66	3	6	ND	1	83	1	2	6	4	3.66	.02	2	7	.22	4	.01	6	.14	.05	.01	1	2		
4068	1	47	2	44	.1	35	19	1061	4.33	3	5	ND	1	35	1	2	2	155	3.50	.04	2	80	3.10	14	.14	3	2.38	.02	.01	1	1		
4069	1	21	2	30	.1	3	2	167	.84	2	6	ND	1	9	1	2	7	9	1.25	.01	2	6	.35	2	.01	5	.30	.01	.01	1	1		
4070	1	251	19	48	.1	33	64	714	16.25	12	5	ND	1	2	1	2	2	116	.03	.04	2	70	2.45	4	.06	5	2.15	.01	.01	1	22		
4071	3	119	8	255	.2	25	16	1262	6.74	12	5	ND	1	1	1	2	5	108	.08	.04	2	44	3.47	4	.16	2	2.58	.01	.02	1	19		
4072	3	134	4	92	.2	14	12	454	4.13	15	7	ND	1	5	1	2	8	31	.19	.02	2	27	1.36	10	.11	3	1.11	.01	.03	1	22		
4073	2	45	2	72	.2	60	23	1721	3.91	2	5	ND	1	6	1	2	11	60	.47	.06	2	100	2.73	6	.24	4	2.27	.01	.01	1	310		
4074	3	458	7	336	.5	162	42	1293	6.78	3	5	ND	1	6	1	2	7	75	.09	.03	2	540	3.45	4	.18	3	2.51	.01	.01	1	20		
4075	3	596	2	52	.9	13	8	612	1.77	4	5	ND	1	2	1	2	4	36	.07	.02	2	37	.91	12	.04	4	.78	.01	.01	1	20		
4076	5	19	2	23	.1	1616	62	717	4.91	2	5	ND	1	2	1	2	2	4	.10	.01	2	167	9.11	4	.01	16	.07	.01	.01	1	6		
4077	1	56	2	55	.2	84	22	671	4.25	2	5	ND	1	9	1	2	10	125	1.88	.13	2	140	1.61	20	.40	6	2.45	.03	.01	1	2		
4078	5	11	2	9	.2	408	28	739	3.67	2	5	ND	1	1	1	2	2	14	.16	.01	2	678	8.70	3	.01	4	.07	.01	.01	1	4		
4079	1	341	2	66	.1	103	38	750	4.51	4	5	ND	1	7	1	2	9	94	.74	.05	2	72	2.13	68	.02	3	1.67	.05	.03	1	5		
4081	1	56	2	68	.2	84	26	698	4.84	2	5	ND	1	54	1	2	7	119	3.82	.06	3	132	2.28	8	.34	8	1.87	.04	.02	1	1		
4082	2	15	2	18	.2	12	4	181	.81	7	9	ND	1	22	1	2	2	3	.35	.07	2	7	.07	76	.01	5	.05	.01	.01	1	4		
4083	3	7	2	81	.1	62	36	3128	6.18	6	5	ND	2	130	1	2	4	39	11.37	.01	2	47	4.65	139	.02	4	.47	.01	.08	1	2		
4084	1	66	2	33	.1	21	11	613	2.37	2	5	ND	1	151	1	2	10	48	6.96	.04	2	78	.96	10	.20	3	1.06	.02	.01	1	2	Pt** PPB	Pd** PPB
4085	3	52	2	62	.1	26	9	425	2.41	5	6	ND	2	39	1	2	9	51	.81	.08	5	46	.93	65	.09	5	.70	.02	.03	1	1		
4086	10	12	2	21	.3	2073	67	788	3.79	2	5	ND	1	1	1	2	2	20	.10	.01	2	729	17.13	1	.01	103	.28	.01	.01	1	1	2	2

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
4469	1	14	4	14	.1	35	8	382	1.63	2	5	ND	2	33	1	2	2	38	4.97	.01	2	76	1.15	6	.02	2	.90	.04	.01	1	2
4470	5	19	14	17	.6	142	33	1826	6.84	3	5	ND	5	52	1	2	2	21	14.15	.01	2	454	8.04	8	.01	2	.43	.01	.01	1	70
4471	1	34	2	15	.1	15	19	234	3.34	2	5	ND	1	12	1	2	4	43	.86	.09	2	14	.53	2	.18	2	.64	.08	.02	1	1
4472	6	10	4	10	.1	1000	38	629	2.75	2	5	ND	1	12	1	5	2	10	1.65	.01	2	368	9.73	6	.01	2	.10	.01	.01	1	1
4473	1	636	7	11	.1	37	24	155	3.52	2	5	ND	1	9	1	2	6	47	.65	.07	2	14	.53	2	.31	2	.57	.03	.01	1	8
4474	1	13	2	4	.1	24	9	126	1.17	2	5	ND	1	5	1	2	2	11	.15	.01	2	19	.19	2	.01	2	.22	.01	.01	1	10
4475	2	8	2	22	.1	34	18	948	4.65	3	7	ND	3	41	1	2	2	34	6.82	.03	2	3	2.06	4	.01	2	.24	.06	.02	1	2
4476	2	7	7	41	.1	133	28	1113	6.28	35	5	ND	3	36	1	2	2	55	5.32	.02	3	133	3.38	6	.01	2	.23	.07	.02	1	2
4477	1	14	5	8	.1	7	7	470	3.31	14	7	ND	1	17	1	2	2	12	3.69	.04	2	2	.23	4	.01	2	.16	.04	.03	1	765
4478	1	7	2	5	.1	3	4	75	1.88	2	5	ND	1	3	1	2	2	2	.20	.04	2	1	.03	2	.01	2	.06	.03	.01	1	2
4479	2	28	9	17	.2	4	7	474	3.67	5	5	ND	1	5	1	4	2	6	1.65	.05	2	1	.11	4	.01	2	.24	.05	.02	1	11
4480	5	45	7	58	.1	154	26	1029	4.90	16	5	ND	3	45	1	5	2	32	7.08	.02	3	137	3.64	2	.01	2	.41	.06	.01	1	14
4481	2	41	2	41	.1	61	21	873	5.01	9	5	ND	2	33	1	2	3	48	5.02	.02	2	38	1.99	4	.01	2	.37	.07	.01	1	20
4482	3	33	2	45	.1	19	15	1147	3.85	6	10	ND	5	118	1	2	7	59	19.22	.03	4	15	1.95	4	.01	2	.16	.03	.01	1	3
4483	2	307	8	83	.2	15	23	729	5.12	4	5	ND	1	11	1	2	6	51	.53	.04	2	1	2.18	1	.11	2	2.28	.01	.01	1	2
4484	6	7	2	16	.1	14	3	1622	2.03	2	6	ND	3	44	1	2	2	7	7.58	.01	2	6	2.12	2	.01	2	.08	.02	.02	1	2
4485	17	55	9	80	.1	86	27	1441	7.56	13	6	ND	3	35	1	2	6	86	7.03	.03	3	96	1.37	6	.01	2	.70	.05	.01	1	4
4486	5	210	2	122	.1	27	37	948	7.52	2	5	ND	1	6	1	2	2	66	.28	.02	2	28	2.77	1	.16	2	2.17	.01	.01	1	1
4487	2	1282	12	67	.6	57	35	501	6.23	15	5	ND	1	16	1	2	4	62	.46	.03	2	127	1.20	4	.16	2	1.22	.01	.01	1	6
4488	17	75	3	23	.1	20	9	844	2.23	8	5	ND	1	28	1	2	3	9	3.48	.01	2	4	1.47	1	.01	2	.10	.06	.01	1	3
4489	1	81	2	50	.1	39	18	801	4.09	2	5	ND	2	9	1	2	4	86	5.60	.03	3	105	1.35	18	.02	2	1.41	.02	.02	1	1
4490	5	27	2	27	.1	28	6	1097	2.07	3	5	ND	3	113	1	2	4	37	9.04	.18	2	30	1.72	12	.01	2	.42	.03	.01	1	1
4491	3	17	3	12	.1	10	3	753	1.11	8	5	ND	3	146	1	2	2	11	8.89	.01	2	6	1.08	2	.01	2	.11	.04	.01	1	1
4492	2	7	2	26	.1	29	7	910	2.13	4	5	ND	1	40	1	2	2	43	4.26	.01	2	73	2.66	2	.01	2	.78	.01	.01	1	2
4493	2	39	2	74	.1	48	21	1083	5.01	2	5	ND	1	19	1	2	6	83	.85	.07	4	121	2.62	1	.37	2	2.53	.01	.01	1	2
4494	3	17	2	32	.1	65	12	1743	4.00	4	5	ND	5	110	1	2	2	98	18.14	.01	3	48	4.81	36	.01	2	.68	.01	.02	1	1
4495	26	271	8	141	.2	11	21	647	17.90	23	5	ND	1	2	1	2	2	101	.11	.02	3	111	1.16	8	.06	3	1.01	.01	.03	1	110
4496	16	106	5	107	.5	7	8	499	8.71	26	5	ND	1	4	1	2	5	48	.20	.02	2	30	1.40	16	.09	2	1.09	.01	.05	1	135
4497	10	266	26	233	3.0	12	11	685	5.47	34	5	ND	1	1	1	2	6	75	.03	.02	2	56	1.63	6	.15	2	1.21	.01	.02	1	190
4498	4	84	7	128	.2	28	10	1156	4.94	11	5	ND	1	2	1	2	5	105	.10	.02	3	77	3.29	4	.20	6	2.54	.01	.02	1	9
4499	1	32	11	30	.1	57	9	484	1.45	2	5	ND	1	16	1	2	2	27	1.53	.02	2	135	1.31	7	.06	4	1.06	.01	.02	1	2
4500	2	241	11	38	.1	67	35	1469	5.10	25	5	ND	1	5	1	2	9	123	1.04	.09	3	113	2.01	21	.17	3	1.81	.04	.01	1	23
4501	9	1329	17	12664	.7	32	30	905	7.21	2	5	ND	1	34	80	2	9	79	2.54	.07	2	89	2.08	4	.16	3	1.63	.01	.01	1	45
4502	9	22	3	149	.1	1111	53	565	4.28	855	5	ND	1	13	1	6	2	21	.19	.01	2	835	14.29	763	.01	16	.08	.01	.01	1	7
4503	7	50	11	62	.3	1313	59	1211	3.17	990	5	ND	4	429	1	6	2	13	8.77	.01	4	425	10.02	133	.01	14	.07	.01	.02	1	8
4504	1	148	8	26	.3	49	33	307	4.60	15	5	ND	1	14	1	2	2	88	.59	.03	2	11	.91	14	.32	4	1.05	.01	.01	1	5
4505	5	9	5	20	.1	484	31	698	2.91	115	5	ND	1	50	1	2	2	9	.89	.01	2	442	8.92	17	.01	5	.07	.01	.01	1	3
4506	2	290	2	24	.2	31	29	415	4.35	5	5	ND	1	9	1	2	6	68	.30	.03	2	21	2.07	8	.19	5	1.90	.02	.01	1	1
4507	8	8	11	27	.1	748	37	553	3.21	196	5	ND	1	21	1	2	2	8	.28	.01	2	277	12.97	125	.01	7	.05	.01	.01	1	1

FOX GEOLOGICAL PROJECT - GETTY 125-3 FILE # 85-1783

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
4508	1	3	6	9	.1	22	4	176	.80	7	5	ND	1	9	1	2	2	7	.45	.06	2	15	.23	8	.01	7	.25	.07	.02	1	2
4509	4	24	10	69	.1	83	14	1290	3.65	5	5	ND	4	511	1	2	5	55	18.30	.11	4	136	4.88	22	.01	2	.19	.01	.02	1	3
4510	5	35	15	79	.6	16	16	531	4.00	5	5	ND	1	18	1	2	2	33	1.02	.12	6	10	.32	38	.16	7	.75	.03	.09	1	1
4511	2	155	2	11	.1	38	29	126	1.68	2	5	ND	1	25	1	2	2	31	.59	.02	2	3	.26	80	.11	8	.46	.02	.01	1	1
4512	1	16	4	11	.1	7	2	48	.80	2	5	ND	1	7	1	2	2	3	.03	.02	2	2	.02	71	.01	7	.09	.01	.03	1	1
4513	1	35	4	47	.1	10	3	50	1.61	8	5	ND	2	7	1	2	2	3	.02	.01	5	3	.02	70	.01	4	.08	.01	.01	1	2
4514	7	28	9	17	.3	928	44	1067	3.96	21	5	ND	1	89	1	2	2	9	2.21	.16	2	355	11.38	51	.01	6	.12	.01	.02	1	1
4515	6	5	19	28	.2	89	28	3358	8.54	14	7	ND	5	1393	1	2	3	119	18.25	.21	8	150	7.23	12	.03	3	.01	.01	.01	1	1
4516	2	57	7	23	.1	30	5	105	1.31	4	5	ND	1	14	1	2	2	6	.13	.01	2	14	.16	53	.01	7	.08	.01	.03	1	1
4517	1	13	6	3	1.4	9	2	102	.50	2	5	ND	1	19	1	2	2	4	.20	.01	2	8	.14	459	.01	4	.06	.01	.02	1	4
4731	5	7	5	20	.1	1279	60	656	4.09	2	5	ND	1	2	1	2	2	1	.14	.01	2	30	8.46	2	.01	13	.02	.01	.01	1	1
4732	2	51	4	41	.2	37	20	566	4.64	2	5	ND	1	11	1	2	7	72	.69	.26	3	24	2.16	6	.16	8	2.12	.03	.01	1	1
4733	2	55	6	12	.1	39	24	188	2.62	2	5	ND	1	5	1	2	2	32	.34	.02	2	12	.84	8	.09	5	.80	.03	.01	1	2
4734	11	7	2	14	.3	23	10	817	2.13	4	5	ND	1	18	1	2	2	40	2.37	.01	2	35	1.43	3	.01	4	.50	.01	.01	1	1
4735	2	49	12	44	.1	31	24	871	5.49	3	5	ND	3	36	1	2	2	31	6.36	.03	3	1	1.97	10	.01	2	.18	.06	.03	1	2
4736	3	23	12	46	.1	68	29	1048	5.31	18	5	ND	4	55	1	3	2	12	9.65	.02	2	18	3.16	8	.01	2	.16	.04	.04	1	26
4737	2	295	7	81	.1	22	25	761	3.96	2	5	ND	1	8	1	2	6	70	.34	.04	2	21	1.91	2	.11	4	1.89	.02	.01	1	5
4738	2	22	3	6	.2	8	5	131	.72	3	5	ND	1	5	1	4	2	2	.49	.02	2	1	.13	1	.01	7	.08	.06	.01	1	4
4739	2	16	2	6	.1	7	2	134	.46	2	5	ND	1	21	1	2	2	2	1.47	.02	2	2	.09	1	.01	5	.10	.07	.01	1	2
4740	3	151	10	54	.1	35	21	1911	5.04	9	5	ND	4	84	1	2	4	11	11.71	.01	3	4	3.54	8	.01	2	.15	.05	.02	1	5
4741	1	34	2	49	.1	16	18	495	4.67	2	5	ND	1	5	1	2	2	53	.28	.05	2	3	1.37	2	.20	5	1.14	.04	.01	1	2

ACME ANALYTICAL LABORATORIES LTD.
Assaying & Trace Analysis
852 E. Hastings St., Vancouver, B.C. V6A 1R6
Telephone : 253 - 3158

GEOCHEMICAL LABORATORY METHODOLOGY - 1981

SAMPLE PREPARATION

1. Soil samples are dried at 60°C and sieved to -80 mesh.
2. Rock samples are pulverized to -100 mesh.

Geochemical Analysis for Ag*, Bi*, Cd*, Co, Cu, Fe, Mn, Mo, Ni, Pb, Sb*, V, Zn

0.5 gram samples are digested hot dilute aqua regia in a boiling water bath and diluted to 10 ml with dimineralized water.

All the above elements are determined in the acid solution by Atomic Absorption.

* demotes background correction.

Geochemical Analysis for Au

10.0 gram samples that have been ignited overnite at 600°C are digested with hot dilute aqua regia, and the clear solution obtained is extracted with Methyl Isobutyl Ketone.

Au is determined in the MIBK extract by Atomic Absorption using background correction (Detection Limit = 5 ppb direct AA and 1 ppb graphite AA.)

Geochemical Analysis for Au, Pd, Pt, Rh

10.0 - 30.0 gram samples are subjected to Fire assay preconcentration techniques to produce silver beads.

The silver beads are dissolved and Au, Pd, Pt, and Rh are determined in the solution by Atomic Absorption.

Geochemical Analysis for As

0.5 gram samples are digested with hot dilute aqua regia and diluted to 10 ml.

As is determined in the solution by Graphite Furnace Atomic Absorption.

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Geochemical Analysis of Hg

Digestion

A .50 gram sample is digested with aqua regia and diluted with 20% HCl.

Determination

Hg in the solution is determinated by cold vapour AA using F & J Scientific Hg assembly. An aliquot is added to stannous chloride-hydrochloric acid solution. The reduced Hg is swept out of the solution and passed into the Hg cell where it determined by AA.

Oxalic Acid Leach of Rock, Soil & Silt Samples

A .50 gram sample is digested hot with 10 mls 5% oxalic acid solution. The oxalic acid will dissolve Fe and Mn from their oxided of M - 1 fraction (but not from magnetite & ilmenite) limonites and clays. The following metals are analysed by atomic absorption : Cu, Zn, Pb, Ni, Mo, Fe & Mn.

Cold HCl Acid Extraction

A .50 gram sample is leached with 10 ml 5% HCl solution at room temperature for 2 hours with ocasional shaking. Copper is dissolved from the organic and surface layers of clay fractions.

EDTA Extraction

A .50 gram sample is leached at room temperature for 4 hours with 10 mls of 2.5% EDTA solution.

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Geochemical Analysis for Barium

0.1 gram samples are digested with hot NaOH and EDTA solution.

Ba is determined in the solution by Atomic Absorption.

Geochemical Analysis for Uranium

0.5 gram samples are digested with hot aqua regia and diluted to 10 ml.

Aliquots of the acid extract are solvent extracted using a salting agent and aliquots of the solvent extract are fused with NaF, K_2CO_3 and Na_2CO_3 flux in a platinum dish.

The fluorescence of the pellet is determined on the Jarrel Ash Fluorometer.

Geochemical Analysis for Tungsten

1.0 gram samples are fused with KCl, KNO_3 and Na_2CO_3 flux in a test tube, and the fusions are leached with 10 ml water. W is in the solution determined by ICP with a detection of 1 ppm.

Geochemical Analysis for Fluorine

0.25 gram samples are fused with sodium hydroxide and leached with 10 ml water. The solution is neutralized, buffered, adjusted to pH 7.8 and diluted to 100 ml.

Fluorine is determined by Specific Ion Electrode using an Orion Model 404 meter.

Geochemical Analysis for Tin

1.0 gram samples are fused with ammonium iodide in a test tube. The sublimed iodine is leached with dilute hydrochloric acid.

The solution is extracted with MIBK and tin is determined in the extract by Atomic Absorption.

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Multi Element Analysis by ICP

Digestion of Sample

0.5 gram samples are digested with hot aqua regia for one hour and the sample is diluted to 10 ml. The diluted sample is aspirated by ICP and the analytical results are printed by Telex, either in percent or ppm as shown.

Please Note : This digestion is partial for Al, Ca, La, Mg, P Ti, W and very little Ba is dissolved.

Report Format

HO/22N 385ØW
EGC

BURN # 1 GE16 15:46 3FEB1981

IS									
1357									
MO	CU	PB	ZN	AG	NI	CO	MN	FE%	AS
3.92	41.5	9.ØØ	136	.332	15.3	5.7Ø	312	3.167	5.73
U	IS	TH	IS	CD	SB	BI	V	CA%	P%
4.11	.371	.424	1Ø73	.96Ø	1.94	4.51	52.7	1.1Ø7	.2Ø6
LA	IN	MG%	BA%	TI%	B	AL%	IS	IS	W
22.1	3.5Ø	.2589	.Ø184	.ØØ14	-.Ø5	1.72Ø	Ø	3.Ø6	.276

*O/M1
EGC

BURN # 1 GE16 15:48 3FEB1981

1358									
.563	29.3	34.6	171	.154	33.4	11.5	794	2.536	8.77
3.57	.Ø44	2.79	765	1.Ø8	.635	4.25	54.8	.6452	.1Ø9
6.42	2.88	.6ØØ8	.Ø252	.Ø753	-.37	1.944	Ø	2.32	-.61

Code :

HO, *O, EGC	Computer Intructions.
/22N 3850 W	Sample Number.
/M1	ACME Geochem standard for quality control.
15:46 3FEB1981	Time and Date of Analysis.
BURN # 1 GE16	Geochem Computer Program.
IS	Internal Standard.

APPENDIX II

PETROGRAPHIC REPORTS

by

Vancouver Petrographics Limited

and

ROCK SAMPLE DESCRIPTIONS

Gold Creek 4065 Meta-andesite flow; Plagioclase veinlet

The rock is a meta-andesite flow, with scattered plagioclase phenocrysts in a foliated groundmass of plagioclase, chlorite, epidote, and tremolite. It contains secondary replacement patches dominated by epidote, and a few, including one large patch dominated by chlorite-(opaque), with or without plagioclase. The rock is cut by a veinlet of plagioclase-(chlorite); it appears to have been deformed by the event which produced the foliation.

phenocrysts	
plagioclase	3- 5%
groundmass	
plagioclase	35-40
chlorite	17-20
epidote	17-20
tremolite	10-12
Ti-oxide/opaque	trace
secondary patches	
epidote	2- 3
chlorite	1½-2
pyrite/hematite	1½-2
plagioclase	0.3
veinlet	
plagioclase	1½-2
chlorite	minor

Plagioclase forms anhedral to subhedral prismatic phenocrysts averaging 0.3-1 mm in length. Many show Carlsbad twinning.

Plagioclase in the groundmass averages 0.03-0.07 mm in grain size, except in a few patches up to 1.5 mm in size, where it forms much finer grained intergrowths with chlorite and tremolite.

Chlorite forms clusters of extremely fine grained flakes, mainly in lenses parallel to foliation. It is also intergrown with plagioclase and tremolite in finer grained groundmass.

Epidote occurs mainly as disseminated, equant patches from 0.05-0.1 mm in size.

Tremolite forms fibrous to locally prismatic grains, intimately intergrown with plagioclase, and commonly with a preferred orientation in or near that of the foliation plane.

Ti-oxide and opaque (ilmenite) cores forms a very few patches up to 0.08 mm in size.

Secondary patches are of a variety of compositions and textures. Many irregular patches consist of very fine to fine grained epidote. A few of these show radiating textures in the core of the patch. Some contain minor grains and aggregates of hematite-pyrite. Other patches are dominated by very fine grained chlorite. The largest patch contains fine to medium grained chlorite, showing dislocation twinning, surrounding a cluster of subhedral to euhedral pyrite grains up to 1.5 mm in grain size. Pyrite appears to be completely replaced by semiopaque to opaque hematite. Some patches consist of chlorite with lesser plagioclase (or possibly quartz).

The rock is cut by a veinlet averaging 0.3-0.5 mm wide of very fine grained plagioclase with local grains and clusters of chlorite. The vein has an irregular texture of interlocking grains. It shows abundant warps along axes parallel to foliation, suggesting that it was deformed along axial planes formed during the production of the foliation.

Gold Creek MPu TS-4 4075 Meta-andesite flow

The rock is a very fine to fine grained meta-andesite flow dominated by plagioclase and tremolite, with amygdules? or secondary alteration patches dominated by chlorite with lesser sericite and epidote, and with minor plagioclase and opaque.

plagioclase	40-45%
tremolite	
a) fibrous aggregates	25-30
b) subhedral prismatic grains	15-17
Ti-oxide	1- 1½
secondary patches	
chlorite	5- 7
sericite	1½-2
epidote	1- 1½
plagioclase	005
opaque/hematite	minor

Plagioclase forms anhedral, equant to elongate grains averaging 0.03-0.07 mm in size, with some patches of elongate grains up to 0.15 mm in grain length. Plagioclase commonly is intimately intergrown with sheaves and irregular patches of extremley fine grained, fibrous tremolite. Relative abundances of plagioclase and tremolite vary moderately throughout the rock.

Tremolite also forms subhedral equant to prismatic grains from 0.05-0.1 mm in average size, with a few coarser grains up to 0.3 mm long. These are irregularly scattered through the rock with no preferred orientation.

Ti-oxide forms patches up to 0.02 mm in size of extremely fine grain size; these are uniformly distributed through the groundmass of the rock.

The rock contains irregular, commonly elongated secondary patches, either flattened amygdules or less probably, secondary replacement patches. They are dominated by patches of very fine to extremely fine grained chlorite, some of which contain up to 40% sericite of similar grain size. Epidote occurs in some patches, mainly as subhedral to euhedral prismatic grains from 0.1-0.5 mm in size. Plagioclase is abundant in a few patches with chlorite, and commonly occurs along the margins of the patch with chlorite in the core. Opaque with minor red-brown to orange-brown hematite/limonite forms scattered grains and clusters of grains in a few of the secondary patches.

The texture of the plagioclase-tremolite groundmass is relatively uniform, and variations are best explained as due to original magmatic differences in a flow rock.

Gold Creek 4081 Brecciated and Veined Basalt

The rock is a porphyritic basalt containing phenocrysts of plagioclase and clinopyroxene in an extremely fine grained groundmass. It is cut by abundant, braided breccia seams and late veinlets; the latter consist of calcite, tremolite, quartz, and chlorite.

phenocrysts	
plagioclase	20-25%
clinopyroxene	10-12
groundmass	45-50
breccia seams	5- 7
veinlets and patches	
calcite	5- 7
tremolite	1½-2
quartz	1- 1½
chlorite	0.3
opaque	minor

plagioclase 0.3%

Plagioclase forms a few prismatic phenocrysts up to 1 mm in size, and abundant lathy phenocrysts averaging 0.2-0.3 mm in length. They are unoriented. Alteration is slight to moderate to extremely fine grained sericite, chlorite, and possibly secondary more-sodic plagioclase.

Clinopyroxene forms ragged, equant to slightly prismatic phenocrysts averaging 0.1-0.3 mm in size.

The groundmass may be devitrified volcanic glass. It shows patches of high relief, possibly epidote, and others of extremely fine grained chlorite. Some extremely fine grained plagioclase also is present.

The rock is cut by abundant, braided, wispy seams dominated by dark brown semiopaque-opaque.

Veinlets range up to 1.5 mm in length. MOst are discontinuous, and in large part follow breccia seams. Textures and mineralogies vary widely. The largest and most abundant consist of irregular aggregates of extremely fine to fine grained calcite with lesser extremely fine grained tremolite. Others are dominated by very fine to extremely fine grained quartz or chlorite. Some show a banded texture. Plagioclase occurs in some larger calcite-tremolite veins. Opaque forms scattered, extremely fine, subhedral to euhedral grains (possibly pyrite).

Calcite and to a lesser extent chlorite form irregular very fine to fine (calcite) grained patches associated with veins.

Gold Creek 4734 Meta-andesite (Center of thick flow or hypabyssal rock)

The sample is a massive, fine grained andesite, with minor slightly coarser grains of actinolite and plagioclase, and patches of extremely fine grained aggregates of plagioclase-actinolite-chlorite-epidote. A few replacement patches of epidote are up to 2 mm across.

plagioclase	55-60%		
actinolite	25-30		
chlorite	5- 7		
epidote	4- 5	pyrite	minor
Ti-oxide/sphene	1		
veinlet			
plagioclase	0.5 (in rock, not in thin section)		

Plagioclase forms prismatic to anhedral grains averaging 0.1-0.3 mm in size, with a very few over 0.5 mm across. Some grains are moderately altered to irregular patches of epidote; most are slightly altered to disseminated epidote, with or without chlorite and actinolite.

Actinolite forms prismatic grains up to 0.8 mm in size (some of which may represent phenocrysts), and finer, commonly fibrous to acicular grains. It is pale green in color. Grains are intergrown with plagioclase in a typical massive, igneous texture. Actinolite probably formed by pseudomorphic replacement of hornblende or clinopyroxene during metamorphism.

Chlorite occurs in extremely fine to very fine grained interstitial ptches up to 0.5 mm in size; these are commonly intergrown with minor acicular actinolite. It also forms intergrowths with other groundmass minerals in extremely fine grained aggregates.

Epidote occurs as a partial alteration of some plagioclase grains, and in the extremely fine grained groundmass. It forms prominent alteration (replacement) spots up to 2 mm in size of very fine to fine grained aggregates, generally with fine grained actinolite needles near the borders of the patches, and locally with very fine grained pyrite cubes.

Ti-oxide and lesser sphene occur in equant grains from 0.05-0.08 mm in size, and in much finer grained, irregular aggregates. Sphene probably was the primary mineral, and is partly altered to Ti-oxide, especially in the finer grained aggregates.

The hand specimen is cut by a veinlet 0.2-0.3 mm in width; it probably is plagioclase, but may also include epidote and minor actinolite/chlorite.

Gold Creek 4514 Carbonate-Chert-(Mica-Opaque) Altered Ultramafic

The rock has an irregular, wavy foliation caused by elongation of chert-rich lenses in a carbonate matrix. Chert contains patches of slightly coarser grained quartz, some of which contain abundant interstitial mica (mariposite?), which gives the lenses a bluish-green color. Carbonate is either ankerite or magnesite, or possibly some of both. The texture is completely secondary, and evidence of a primary ultramafic origin is taken from the field notes, plus the fact that such a rock as this could come from an ultramafic host under extreme metasomatism.

carbonate	65-70%
chert-quartz	25-30
mica	1
opaque	1
veinlets	
quartz	0.3

Carbonate shows a variety of textures. Larger patches generally have cores of medium to coarse grains and aggregates with minor to moderate dusty semiopaque-opaque inclusions. Towards the borders of these patches and in the smaller (thinner) patches, carbonate is much finer grained, and commonly contains more abundant brown semiopaque (Fe-oxide). A few late recrystallized patches are relatively free of inclusions. Carbonate has moderately high relief, and reacts with cold dilute HCl only when powdered. It is probably ankerite (based on the Fe content of the finer grained zones), but magnesite also is possible (based on the ultramafic origin of the rock). These minerals have almost identical optical properties.

Chert generally forms an interlocking, unoriented aggregate of grains averaging 0.01 mm in size. Locally, it is recrystallized in irregular patches to coarser grains which grade along their borders into the finer grained chert. Elsewhere, feathery aggregates of very fine grain size are developed, mainly along borders of carbonate or in small patches within carbonate.

Chert commonly contains minor, extremely fine grained flakes of mica and patches of carbonate. Locally, chert contains patches of slightly coarser grained, granular quartz (0.02 mm) with abundant mica along grain borders. The mica is extremely fine grained and colorless. The blue-green color of the chert patches is probably due to the presence of mica on quartz grain borders. Whether the mica is the Cr-bearing variety (mariposite) can only be suggested from the color of the hand sample.

Opaque occurs mainly in a few medium to coarse grained patches. The mineral shows strong alteration to opaque to deep red-brown hematite. It may have been pyrite or less probably magnetite.

The rock contains a few wispy veinlets up to 0.03 mm wide of quartz. These probably are fracture filling veinlets formed by recrystallization of chert or finer grained quartz. Generally quartz within a given veinlet is in optical continuity.

Gold Creek MPu TS-3 Altered Dunite (Talc-Magnesite-Hematite)

The rock is strongly altered. The original dunite (medium to coarse grained) was altered to serpentine-magnetite, which in turn was altered to talc-magnesite-hematite.

talc	55-60%
magnesite	35-40
opaque	4- 5
chlorite	minor
antigorite	trace

Talc forms aggregates of unoriented, slightly radiating flakes averaging 0.05-0.15 mm in size.

Magnesite forms irregular patches up to a few mm across of anhedral grains averaging 0.5-1 mm in size. A few grains contain relic textures of serpentine-magnetite alteration of olivine, with opaque along thin, crosscutting seams interpreted as fractures in original olivine grains. Elsewhere, a few magnesite grains contain elongate patches which preserve original antigorite veinlet textures. One magnesite patch contains a relic core of sub-parallel antigorite flakes.

Opaque occurs in a variety of textures, mostly typical of serpentine-magnetite alteration of olivine. Thin seams of opaque occur in both talc and magnesite, and in places cut talc-magnesite borders. Opaque also is concentrated in coarser grains up to 0.2 mm in size, mainly in magnesite. The rock is not magnetic, suggesting that the opaque is hematite after magnetite.

Chlorite occurs in a few patches of magnesite as relic patches and seams, possibly formed during the serpentine-magnetite alteration. Chlorite has a light to medium olive green color.

Gold Creek MPu TS-2 4735 Meta-gabbro

The rock is a medium grained meta-gabbro, similar in some respects to TS-1, with abundant secondary replacement patches of actinolite-plagioclase. The original rock consists of tremolite-chlorite (after clinopyroxene) and plagioclase (strongly altered to epidote).

tremolite	25-30%
plagioclase/epidote	20-25
chlorite	8-10
actinolite	30-35
secondary plagioclase	7- 8
hornblende/actinolite	0.3
opaque	minor
apatite	trace

The original rock consists of fine to medium grained tremolite intergrown with lesser medium grained plagioclase. Tremolite may be secondary after clinopyroxene, as textures are similar to those in TS-1. Tremolite is commonly twinned in extremely fine intergrowths in two different orientations. Some tremolite grains are replaced in patches by extremely fine to very fine grained chlorite; in part the chlorite alteration appears to favor one orientation in the twinned grains. Grain borders of tremolite are moderately irregular, and in part interlocking. Plagioclase forms grains up to 1 mm in size. These are strongly altered to dense patches of extremely fine grained epidote. Some grains show veinlets of extremely fine grained plagioclase cutting through the epidote; these may represent early plagioclase veinlets of albitic composition, which were not altered when the main grains were replaced by epidote. Their texture is very different from the late plagioclase associated with actinolite. Hornblende/actinolite (pale to light green) forms ragged patches along borders of tremolite and some plagioclase/epidote grains. The rock contains scattered patches of opaque, mainly very fine grained, and in part with deep red-brown rims, suggesting that the mineral is hematite. Apatite forms one euhedral prismatic grain 0.2 mm long by 0.07 mm across.

The rock is replaced in irregular patches by coarser grained actinolite, with a pale brown color in thin section and a dark green color in hand sample. Grains commonly contain subrounded relic inclusions of earlier amphibole. Interstitial to coarse actinolite aggregates are patches of fine to very fine grained albitic plagioclase; these grains are fresh and show weakly developed albite twinning.It is possible that some chlorite is associated with the later actinolite/albite, but most of it is intimately intergrown with early tremolite.

Gold Creek MPu TS-14731 Meta-gabbro

The rock is a medium grained meta-gabbro dominated by clinopyroxene with lesser epidote (after plagioclase). Replacement patches consist of chlorite-(tremolite). The rock contains minor hornblende intergrown with clinopyroxene, and relic patches of plagioclase, normally extremely finely granulated. A few veinlets are of chlorite-plagioclase?

clinopyroxene	40-45%
epidote	30-35
chlorite	10-15
plagioclase	5- 7
tremolite	2- 3
hornblende	0.5
hematite/spinel	trace
veinlets	
chlorite-(plagioclase)	minor

Clinopyroxene forms anhedral grains averaging 0.5-1.2 mm in size. It is characterized by closely spaced prismatic cleavage, and smooth, rounded grain borders against epidote. A few grains, mainly along one side of the section, contain moderately abundant, irregularly intergrown grains of pale to light brown hornblende. A few grains are moderately to strongly replaced by unoriented aggregates of extremely fine to very fine grained chlorite with minor to locally moderately abundant tremolite.

Plagioclase forms anhedral grains from 0.3-1 mm in average size. Most are completely or almost completely altered to dense aggregates of epidote. Some plagioclase grains show an extremely fine grained granular texture, possibly formed by deformation or by incipient alteration. Some plagioclase grains show disseminated flakes of secondary chlorite.

Chlorite generally occurs in patches up to a few mm across as extremely fine to locally fine grained, unoriented aggregates of unoriented to slightly radiating flakes of pale green color. Scattered through chlorite patches are ragged, prismatic grains of colorless tremolite. Locally tremolite is pseudomorphic after clinopyroxene.

One large chlorite patch contains an irregular core up to 0.1 mm across of deep red-brown hematite (less probably spinel).

The rock is cut by a few wispy veinlets of extremely fine grained chlorite and lesser plagioclase.

GOLD CREEK ROCK SAMPLE DESCRIPTIONS

SAMPLE #	SAMPLE DESCRIPTION	SAMPLE TYPE
4048	green serpentinite, 1% disseminated pyrite, magnetite, pyrrhotite	float
4049	light grey/green calcareous serpentinite with 2% disseminated pyrite	float
4050	grey/green finegrained greenstone, 7% disseminated pyrite	grab
4051	grey/green finegrained greenstone with quartz veinlet stockworks <1% disseminated pyrite	grab
4052	tan/brown weathering rock, tuff?/greenstone?, 15% disseminated coarse pyrite cubes, weak quartz veinlet stockwork	grab
4053	50cm wide quartz vein, 1-2% disseminated pyrite vein is fractured	grab
4054	20cm wide quartz vein, 2-3% disseminated pyrite cubes	grab
4055	grey/green siliceous tuff?/greenstone?, 3-4% fine-grained disseminated pyrite	grab
4056	dark green, finegrained greenstone, abundant sericite <1% disseminated pyrite	grab
4057	light grey, siliceous tuff, 2-3% disseminated finegrained pyrite	float
4058	20cm wide white quartz vein, iron oxide stained	grab
4059	grey, very finegrained volcanic?, 3-4% disseminated pyrite <1% green stained malachite?	grab
4060	grey/green finegrained tuff, siliceous, <1% disseminated pyrite	grab
4061	large angular quartz boulder, iron oxide stained	float
4062	2m wide quartz vein,iron oxide stained on fractures	2m chip
4063	same vein as 4062	1m chip

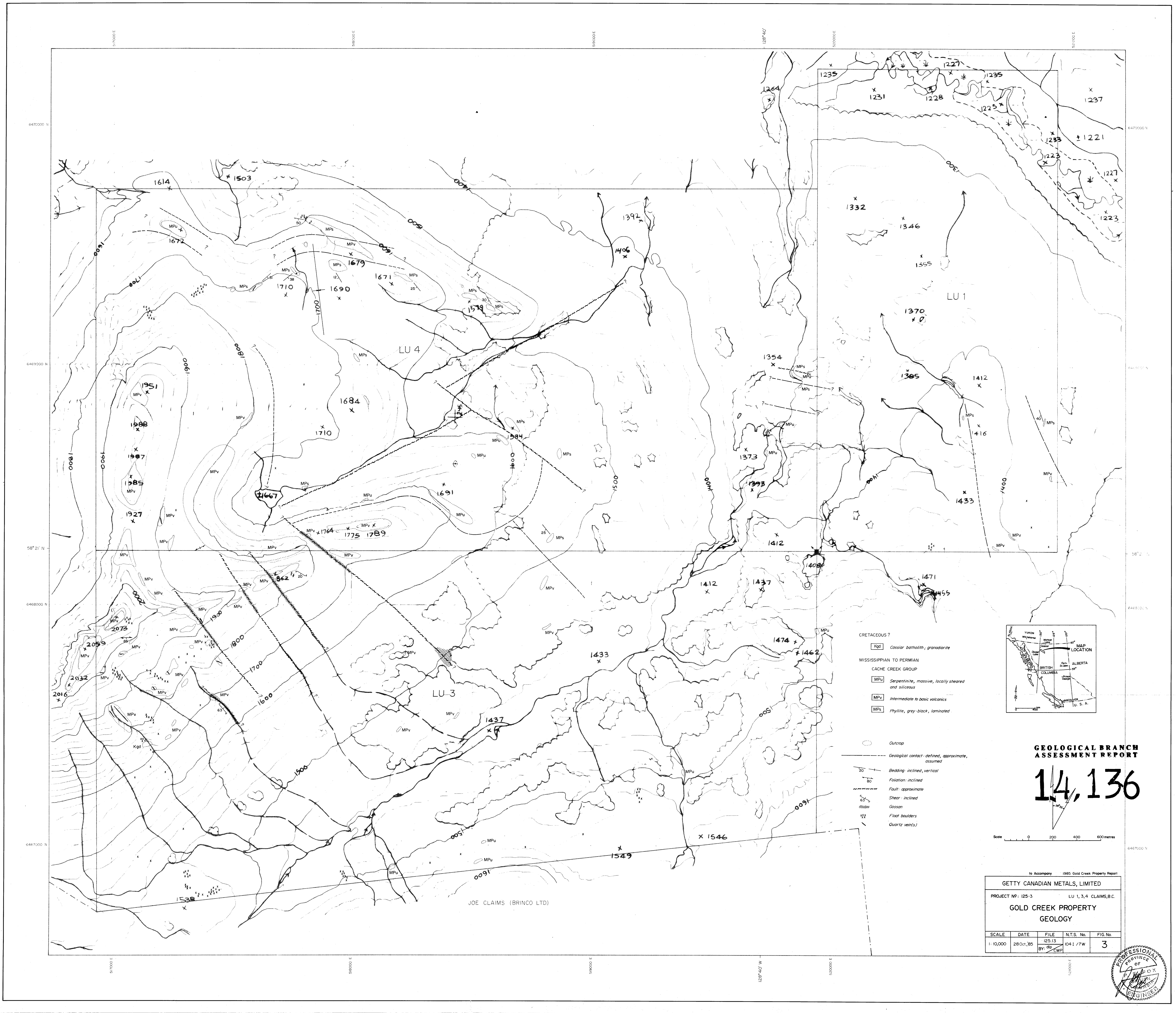
4064	light tan/white quartz/carbonate vein, <1% disseminated pyrite and minor chalcopyrite	grab
4066	iron oxide stained greenstone, 3-5% disseminated pyrite and quartz/calcite veinlets, in 20m wide shear zone	grab
4067	2m wide quartz/calcite vein in 20m wide shear zone	2m chip
4068	light green greenstone, 1-2% disseminated pyrite	grab
4069	quartz vein material in 30m wide shear zone	grab
4070	sample of sheared greenstone, 30% disseminated pyrite green clay rich matrix, trace pyrrhotite	grab
4071	iron oxide stained greenstone, 10-12% disseminated pyrite	2m chip
4072	sample of quartz vein and contact greenstone, both sides of quartz veins	2m chip
4073	green, finegrained greenstone. Sample includes 5cm wide quartz vein, vein is locally asbestos	2m chip
4074	iron oxide stained, sheared, greenstone, sample contains 20-20% disseminated pyrite, trace malachite, locally siliceous	grab
4075	siliceous greenstone, 1-2% disseminated pyrite and 1% malachite	float
4076	iron oxide stained serpentinite with 3-5% disseminated magnetite	grab
4077	very finegrained grey tuff, 1-2% disseminated pyrrhotite	float
4078	mottled blue/grey, finegrained, noncalcareous, altered serpentinite, locally vesicular	grab
4079	iron oxide stained greenstone, trace pyrite	float
4081	grey to brown tuffaceous rock, 1% disseminated pyrrhotite	grab
4082	angular quartz boulder, contains irregular pods of pyrite	float
4083	mottled green-brown, siliceous serpentinite, 1-2% mariposite, 1% disseminated magnetite, trace pyrite	float

4084	green, finegrained greenstone with 3cm wide quartz vein both vein and greenstone contain 1-2% disseminated pyrite	grab
4085	grey-black siliceous phyllite, sample contains trace pyrite	grab
4086	dark green/black serpentinite, strongly magnetic	rep.chip
4469	boulder quartz vein (2cm wide) in greenstone, 3% disseminated pyrite	float
4470	greenstone, very siliceous, 10% disseminated pyrite	float
4471	greenstone, siliceous, 2% disseminated pyrite	float
4472	serpentinite, talc rich, 1% disseminated pyrite	grab talus
4473	greenstone, contains irregular quartz veinlets throughout 2% disseminated pyrite	"
4474	grey/green siliceous tuff? with 2% disseminated pyrite	"
4475	green/grey siliceous greenstone, 1% disseminated pyrite	"
4476	green/grey siliceous greenstone, 3% disseminated pyrite	grab
4477	quartz vein, 10cm wide, 1% disseminated pyrite	10cm
4478	quartz boulder (angular), 10% disseminated pyrite	grab talus
4479	quartz vein, 1.5m wide, <1% disseminated pyrite	1.5m chip
4480	greenstone, iron oxide stained, siliceous, quartz veinlet stockwork	1m chip
4481	greenstone, iron oxide stained 3-4% disseminated pyrite	0.9m chip
4482	iron oxide stained calcite vein, 1% disseminated pyrite	grab talus
4483	greenstone, iron stained, siliceous, 3% disseminated pyrite, pyrrhotite	grab talus
4484	angular quartz debris, sample contains mariposite	"
4485	greenstone, sheared, 1-2% pyrite, 1% mariposite	grab

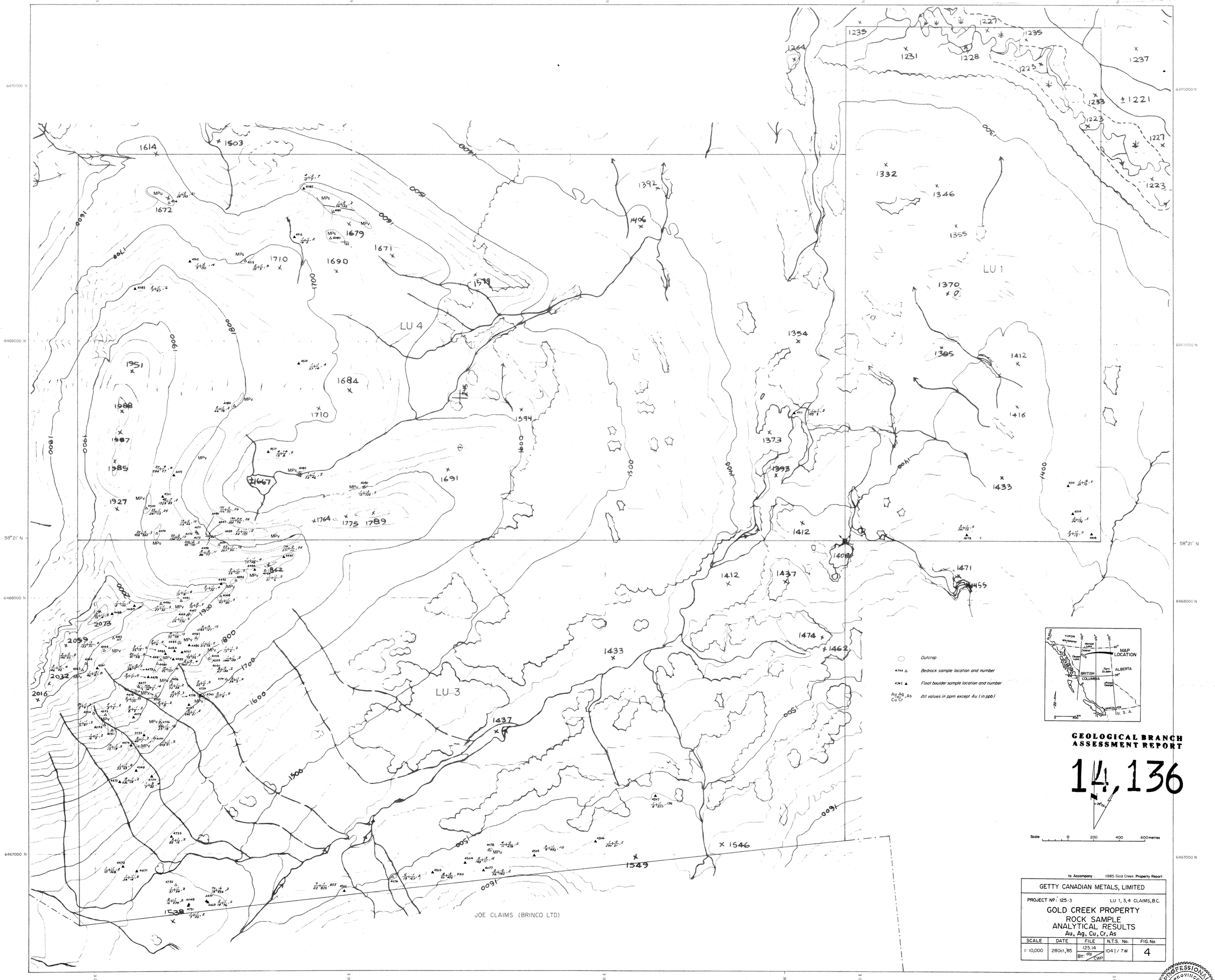
4486	greenstone, siliceous, 5% disseminated pyrite, pyrrhotite	grab talus
4487	greenstone, iron oxide stained, 5% disseminated pyrite, sample is siliceous and sericitic	grab
4488	quartz/carbonate rubble, contains 10% disseminated pyrite	grab talus
4489	greenstone, iron oxide stained, quartz veinlet stockwork, 5% disseminated pyrite	grab talus
4490	quartz/carbonate lense (lense is 2.5x1.5m), 1% disseminated pyrite	grab
4491	quartz/carbonate vein, 10cm wide, 3m exposed length	grab
4492	quartz vein, 5cm wide, 1% mariposite, 4% limonite	grab talus
4493	greenstone, siliceous, 1% disseminated pyrite, pyrrhotite	grab
4494	brownish/yellow calcite, tremolite, mariposite	grab talus
4495	greenstone, sheared, silified, 5% disseminated pyrite	grab
4496	greenstone, sheared, 20-30% pyrite	1m chip
4497	1m wide quartz vein, iron oxide stained, 2% disseminated	1m chip
4498	greenstone, siliceous, 1% disseminated pyrite, pyrrhotite	1m chip
4499	greenstone, siliceous, mariposite, sample includes 30cm quartz vein	2m chip
4500	quartz vein, 3% disseminated pyrite	grab
4501	greenstone, siliceous, 10% disseminated pyrite	grab talus
4502	quartz/carbonte boulder, angular, 10% mariposite iron oxide stained	float
4503	quartz vein with abundant tremolite, 1% mariposite trace pyrrhotite	grab talus

4504	greenstone, siliceous, 5% disseminated pyrrhotite	"
4505	serpentinite, brecciated, sheared, iron oxide stained quartz/carbonate matrix	"
4506	serpentinite, siliceous, 3% disseminated pyrite, pyrrhotite	float
4507	quartz boulder with abundant mariposite	float
4508	quartz boulder, angular (1x2m),limonite on fractures	grab talus
4509	greenstone, very siliceous, iron oxide stained, 10% mariposite	float
4510	greenstone, siliceous, iron oxide stained, 3% disseminated pyrite, pyrrhotite	float
4511	greenstone, siliceous, 1% pyrite, trace chalcopyrite, arsenopyrite and bornite	float
4512	quartz vein, 10cm wide	grab talus
4513	quartz vein, 15cm wide, iron oxide stained	grab
4514	serpentinite, 40m wide zone, siliceous, quartz veinlet stockwork, mariposite, trace disseminated pyrite	rep. chip
4515	quartz/carbonate debris, 15% disseminated magnetite	grab talus
4516	quartz vein, iron oxide stained, trace pyrite, vein contains angular argillite fragments	"
4517	black chert breccia, trace disseminated pyrite, limonite on fracture surfaces	float
4731	serpentinite, sheared, angular boulder, magnetic	float
4732	greenstone, siliceous, biotite rich, 6-8% disseminated pyrite and pyrrhotite	float
4733	greenstone, siliceous, quartz veinlet (3-4mm) stockwork,4-6% disseminated pyrite, pyrrhotite and trace chalcopyrite	float

4734	quartz boulder (angular), 1% disseminated pyrite, vein also contains mariposite	float
4735	yellow/white quartz clasts set in siliceous brown matrix, 1-2% disseminated pyrite talus	grab
4736	siliceous shear zone (2m wide), 3-5% disseminated pyrite, trace mariposite	grab
4737	greenstone, boulder is angualr (20x50cm), sample contains 1-2% disseminated pyrite, pyrrhotite, trace chalcopyrite	float
4738	1.5m wide quartz vein, iron oxide stained on fracture surfaces, 1-2% disseminated pyrite	grab
4739	1.5m wide quartz vein, same as 4738	rep. chip
4740	host rock of quartz vein (sample 4739), iron oxide stained serpentinite? 1% disseminated pyrite, trace mariposite	grab
4741	greenstone, very fine grained, siliceous, 15-20% disseminated pyrite	float



LU 1
LU 3
LU 4
JOE CLAIMS (BRINCO LTD)
CRETACEOUS ?
Kgd Cassiar batholith; granodiorite
MISSISSIPPIAN TO PERMIAN
CACHE CREEK GROUP
MPu Serpentinite, massive, locally sheared and siliceous
MPv Intermediate to basic volcanics
MPs Phyllite, grey-black, laminated
Outcrop
Geological contact: defined, approximate, assumed
Bedding: inclined, vertical
Foliation: inclined
Fault: approximate
Shear: inclined
Gossan
Float boulders
Quartz vein(s)
YUKON
Whitehorse
Watson Lake
Cassiar
Dease Lake
MAP LOCATION
ALBERTA
Fort St John
BRITISH COLUMBIA
Prince George
VANCOUVER
U. S. A.
ALASKA
GEOLOGICAL BRANCH ASSESSMENT REPORT
14,136
28°35'
Scale 0 200 400 600 metres
to Accompany 1985 Gold Creek Property Report
GETTY CANADIAN METALS, LIMITED
PROJECT Nº: 125-3
LU 1, 3, 4 CLAIMS, B.C.
GOLD CREEK PROPERTY
GEOLOGY
SCALE 1:10,000
DATE 28 Oct.,'85
FILE 125.13
BY: dlp CWP
N.T.S. No. 104 I /7W
FIG. No. 3



to Accompany 1985 Gold Creek Property Report

GETTY CANADIAN METALS, LIMITED

PROJECT Nº: 125-3 LU 1, 3, 4 CLAIMS, B.C.

GOLD CREEK PROPERTY
ROCK SAMPLE ANALYTICAL RESULTS
Au, Ag, Cu, Cr, As

SCALE	DATE	FILE	N.T.S. No.	FIG. No.
1: 10,000	28Oct,'85	125.14	104 I / 7 W	4
		BY: dlp / CWP		

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA