

3514

REPORT ON THE
GEOLOGY AND GEOCHEMISTRY
OF THE
KAKETSA MOUNTAIN AREA

N.T.S. 104.J
58°13'N - 131°49'W

<u>Name of Claim</u>	<u>Record Number</u>
Cu 1	14321R
2	14322R
17-20	14337R-14340R
33-36	14353R-14356R
49-56	14369R-14376R
65-72	14385R-14392R
81-88	14401R-14408R

for

SKYLINE EXPLORATIONS LTD.
VANCOUVER, B. C.

by

G. C. Gutrath, P.Eng
R. J. Darney, Geologist

ATLED EXPLORATION MANAGEMENT LTD.

JANUARY 1972

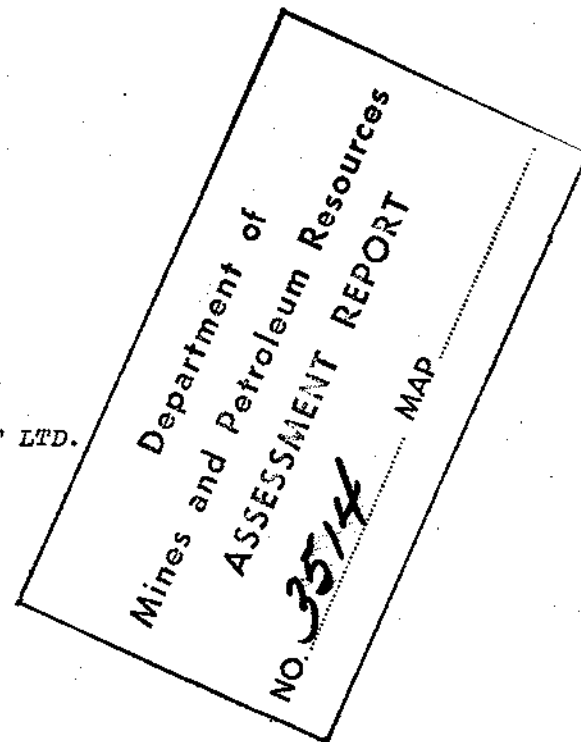


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CU CLAIM GROUP THREE #769

List of Claims

<u>Name of Claim</u>	<u>Record Number</u>	<u>No. of Claims</u>
Cu 1	14321R	1
2	14322R	1
17-20	14337R-14340R	4
33-36	14353R-14356R	4
49-56	14369R-14376R	8
65-72	14385R-14392R	8
81-88	14401R-14408R	8
		<hr/>
		34 claims

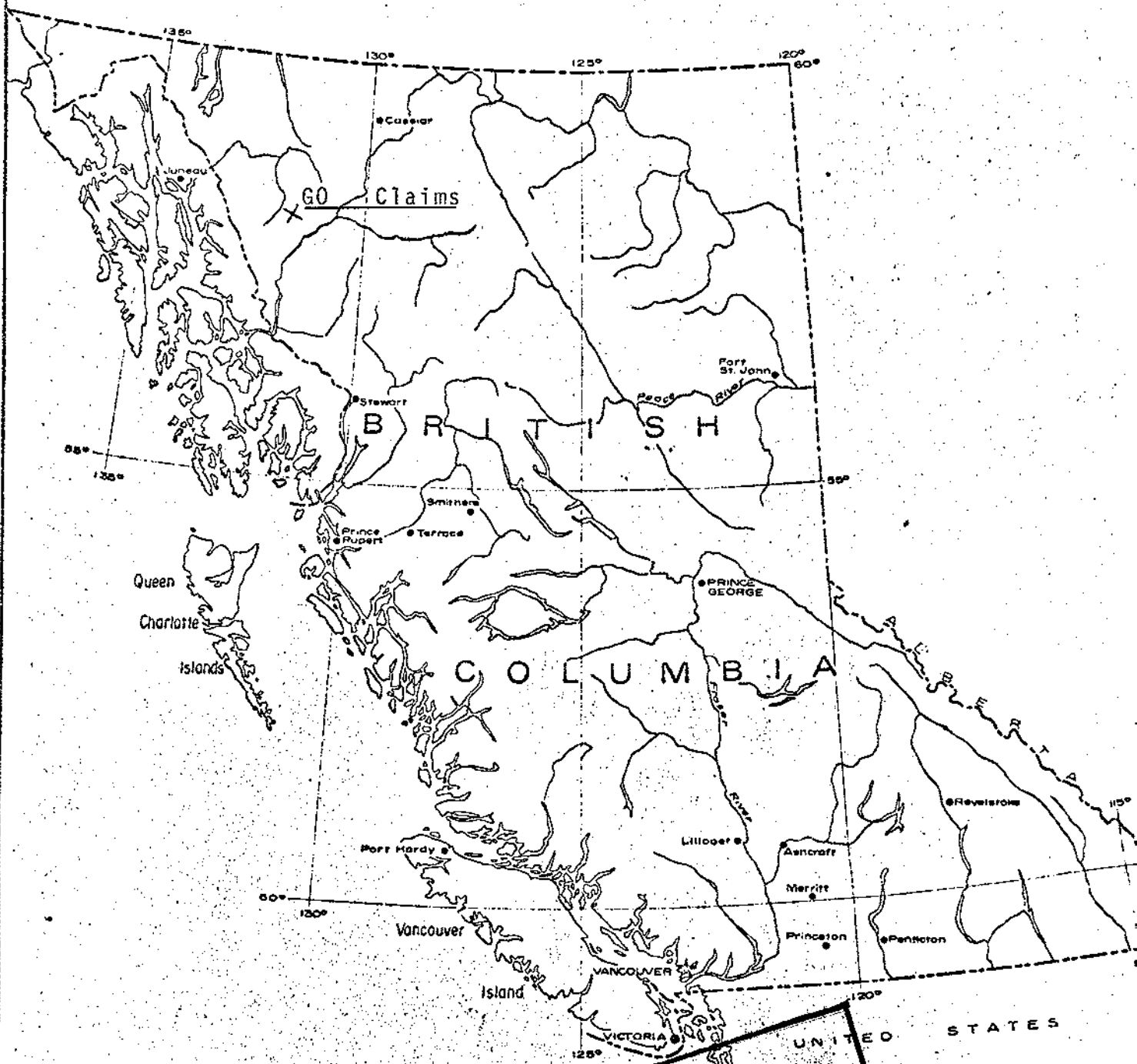
INTRODUCTION

During the 1971 field season, Skyline Explorations Ltd. conducted a detailed program of geologic mapping, sampling and geophysics on their Go mineral claims - Pyrrhotite Creek prospect. In conjunction with this detailed program a reconnaissance program was carried out on and around Kaketsa Mountain which is bounded by the Sheslay River, Hackett River and Pyrrhotite Creek. The main intension of the program was to outline the Kaketsa monzonite stock and to carefully evaluate the claims surrounding the Go claims. Special attention was given to the Cu group on the northwest slopes of Kaketsa peak.

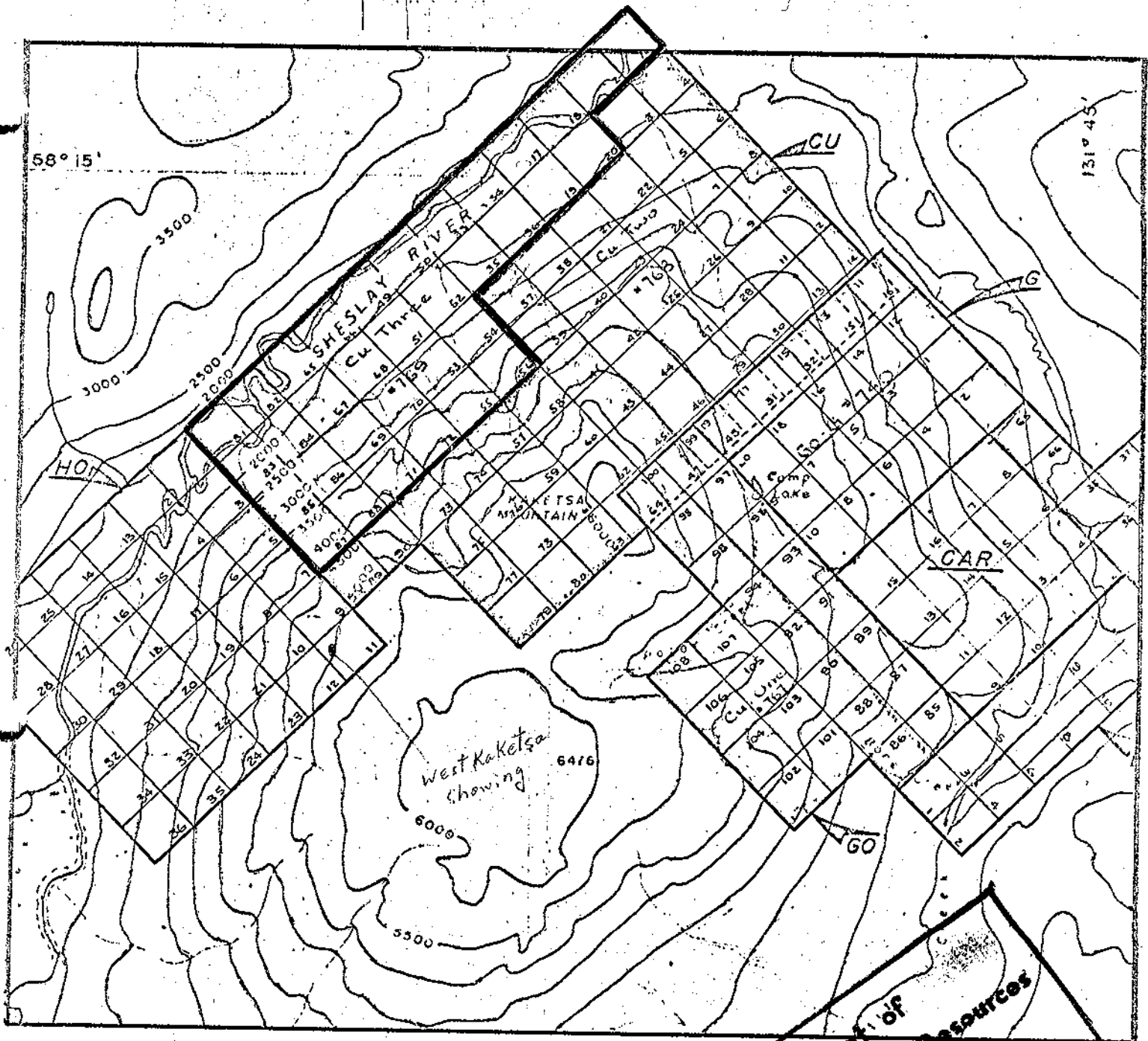
LOCATION AND ACCESS

The Kaketsa Mountain Area is centered at $58^{\circ} 13'N$ and $131^{\circ} 49'W$ and is bounded to the northwest by the Sheslay River, the Hackett River to the northeast and Pyrrhotite Creek to the south and southeast. Access to the general area is by fixed-wing aircraft to Kennecott or Hatchau Lakes which lie at the headwaters of the Hackett River approximately five miles to the southeast. Helicopter support is necessary to shuttle camp equipment and supplies to the various locations in the Kaketsa Mountain region.

Supplies are available at Dease Lake and Telegraph Creek. Telegraph Creek and Dease Lake are both serviced by Trans-Provincial Airlines on a regular schedule from Terrace. Harrison Airways also have a non-scheduled flight from Vancouver to Dease Lake during the field season.



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **3514** MAP # **1**



SKYLINE EXPLORATIONS LTD. (INCORPORATED)

LOCATION MAP

OF

KAKETSA MOUNTAIN AREA

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 3514 MAP #2



Scale

TOPOGRAPHY AND VEGETATION

The general area is moderately rugged with elevations ranging from 2000 feet in the valley floors to 6,233 feet on Kaketsa Mountain peak. Slopes on the south and eastern portions of the mountain vary between 10° - 30° and are normally quite accessible on foot. However, the slopes on the northwest section of the mountain are extremely rugged with up to 60° slopes. Accessibility is difficult and helicopter is extremely valuable as many areas cannot be reached on foot.

Vegetation varies from dense evergreen growth in the valley floor through dwarf birch, slide alder and pine on the slopes to scrub spruce at timberline at the 4,500 foot elevation.

GEOLOGY

The Kaketsa Mountain region lies on the eastern side of the Coast Range Mountains and just west of the Nahlin and Stikine Plateaus.

The Kaketsa Mountain monzonite-granodiorite stock, likely a satellite of the Coast Range Batholith, has been intruded into Triassic volcanics and sediments. Recent basalts subsequently cover the area and form the plateau regions to the east of Kaketsa Mountain. Glaciation has removed most of the recent volcanic rocks from the Kaketsa Mountain region leaving the older rock exposed to the valley floors.

Mapping of the Kaketsa stock was done on airphotographs at $1" = 800'$. These photos were enlargements of the government $1" = 1$ mile series. This data was then transferred to a $1" = 1000'$ topographic map which was a blow-up from the N.T.S. map 104J4.

The geology consists of Triassic volcanics intruded by a semi-circular stock approximately 2.5 x 3.5 plus miles in size.

GEOLOGY (con't)

The volcanics are composed mainly of dark greenish porphyritic augite and/or hornblende andesites with interbedded members of medium-grey fine-grained tuffaceous rocks. Volcanic sediments reported by the government survey are absent in the Kaketsa Mountain areas but have been reported in early mapping by P.H. Sevensma Consultants east of the Hackett River on the Copper Creek portion of the Go claims.

The Kaketsa stock is composed mainly of monzonite and granodiorite with local areas which are more syenitic. The intrusive rocks occur mainly above tree line and are well exposed on the higher elevations of the mountain. However, in most locations the contact between the stock and surrounding volcanics is below timberline and exposure is sparse.

Where exposed, the contact appears quite uniform with only the occasional embayment into the main intrusive mass. Two of these larger embayments occur on opposite sides of Kaketsa Mountain on an eastwest line passing through the saddle between the two Kaketsa peaks.

The volcanic rock on/or near the contacts are normally slightly hornfelsed and pyritized to varying degrees (up to 5% pyrite). However, these zones are not normally wide and the contact is usually well defined. Moderate chloritization is common in near contact areas, however, this is superimposed upon a mild pervassive metamorphic chloritization of the volcanics.

Little evidence of the intrusive-volcanic contact could be found on the northwest section of the mountain. Here, the terrain is extremely rugged and lower elevations are extensively rubble covered. The lack of volcanic outcrops southeast of the Sheslay River indicates that the contact may cross the Sheslay River in the area. The intrusive in this area is well fractured and gossanous in appearance.

MINERALIZATION

Several showings were found on/or near the contacts around the Kaketsa stock. Most of the showings consist of pyrite with minor chalcopyrite associated with narrow shear zones in hornfelsed volcanics bordering the contacts. Widths vary from a few inches to two feet. Exceptions to this are two showings which attain widths of greater than ten feet. One lies on the G claims on the northeast side of Kaketsa Mountain. This showing is also shear controlled but is wider and more significant than most other showings. A grid was located on the G claims to cover this showing. The results of the geochemical and magnetometer surveys can be seen in the report entitled Geochemical and Ground Magnetometer Surveys of the "G" Mineral Claims also written by the authors and Mr. P. Nielsen. No further work has been done on that showing since the writing of the above reports.

on G.

The other showing is a series of narrow quartz-carbonate veins on the west side of Kaketsa Mountain. Here, the mineralization consists of pyrite, chalcopyrite with minor galena and lesser sphalerite. No samples were collected nor was a proper evaluation of this showing made.

~~15/4
 A2
 HO?~~

Aside from the numerous small showings and the two showings described above, the most significant areas occur on opposite sides of Kaketsa Mountain where the volcanics "tongue" into the intrusive.

Extensive development work was done during 1971 on the mineralization area on the east side of Kaketsa Mountain. In this showing, the mineralization consists of pyrite and chalcopyrite in a highly fractured and altered broad contact zone. The mineralization is finely disseminated, fracture controlled and closely associated with K-feldspar and epidote. Assays to date show average values of .48% Cu. over an area 300 feet wide and 200 feet long. All data from the 1971 surveys can be

MINERALIZATION (con't)

found in the reports entitled "Geological and Geochemical report on Pyrrhotite Creek Project" by R. J. Darney and G. C. Gutrath, P.Eng., November 1971 and "Geophysical Report on the Pyrrhotite Creek Project by P.P. Nielsen and G. C. Gutrath, P.Eng., November 1971.

In a similar geologic setting on the west side of Kaketsa Mountain, mineralization was found adjacent to the contact where the volcanics again tongue into the intrusive. Weather conditions at the time of discovery did not permit any follow-up mapping. However, mineralization similar to the East Kaketsa area, was seen over widths of at least 80 feet in highly fractured and altered contact rocks. The finely disseminated and fractured-controlled chalcopyrite was again closely associated with K-feldspar and epidote. This new area is of top priority in future exploration due to its similarity to the one on East Kaketsa.

GEOCHEMISTRY

During the 1971 field season 200 reconnaissance silt or soil samples were collected from around Kaketsa Mountain. However, several samples were lost in transit and only 135 results are therefore available.

The samples were collected at a depth of approximately 12 inches and placed in Kraft bags. They were then shipped to Vancouver Geochemical Laboratories Ltd. where they were sifted to -80 mesh and digested by a hot HClO_4 - HNO_3 procedure. Analysis for total copper, molybdenum and lead were made on a Techtron AA4 and AA5 atomic absorption unit.

The values of the samples analysed ran between 32 ppm-1400 ppm. Cu and not detectable - 14 ppm. Mo with one erratic high of 140 ppm. Mo. Only 38 samples taken from a traverse around Polar Cirque were run for Pb.

GEOCHEMISTRY (con't)

These values were very consistent between 10 ppm.-32 ppm. Pb. Twenty-one silt samples taken on Bone Creek ran between 85 ppm. - 400 ppm. Cu and not detectable - 4 ppm. Mo. The above results are plotted on Figure 1.

Previous sampling and geochemical interpretation of the Kaketsa Mountain - Hackett River area by P. H. Sevensma Consulting Ltd. has shown a background of approximately 200 ppm. Cu with a threshold of about 350 ppm. Cu. Preliminary statistics performed on values obtained during detailed sampling over known mineralization gave a background of 180 ppm. Cu and threshold or second order anomalous results of 450 ppm.; first order 1100 ppm.

In light of past experience and recent studies, several results obtained during this reconnaissance program approach and exceed the threshold levels.

CONCLUSIONS

The Pyrrhotite Creek showing on the east slope of Kaketsa Mountain was discovered through reconnaissance geochemical sampling during the 1970 field season. Since numerous other showings were located this year in similar geologic settings, the contact regions of the Kaketsa stock are extremely interesting and not yet fully explored. The recent reconnaissance geochemical results indicate several areas which should be prospected and geologically mapped in more detail.

One showing of major significance was discovered during the 1971 reconnaissance mapping program. This showing lies on the west slope of Kaketsa Mountain at approximately 5000 feet. The mineralization observed over at least 80 feet has a striking resemblance to that of the Pyrrhotite Creek showing. The geologic setting and lithologies are also very similar.

CONCLUSIONS (con't)

Since the west Kaketsa, Pyrrhotite Creek and Copper Creek showings all lie in straight line approximately east-west, it is possible that they are all related to some major structural feature that does not appear obvious in reconnaissance mapping.

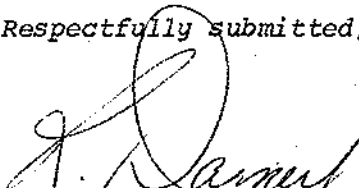
RECOMMENDATIONS


1. Continue prospecting and geologic mapping to fully outline the contacts of the Kaketsa stock. Emphasis should be placed in the areas on the northwest and south slopes of Kaketsa Mountain.
2. A uniform pattern of reconnaissance contour geochemical sampling in the areas mentioned above.
3. West Kaketsa showing area:
 - a) Preliminary geologic examination to assess the potential of the showing area.
 - b) Location of reconnaissance grid with 800-foot line spacing. Size and direction of lines to be determined after preliminary examinations.
 - c) Geologic mapping and soil sampling over grid area
 - d) Closer spaced sampling with Induced Polarization and Magnetometer Surveys on grid, contingent upon results obtained during the above surveys.
4. Prospecting and reconnaissance silt sampling of the areas, approximately five miles southwest and south of Kaketsa Mountain.

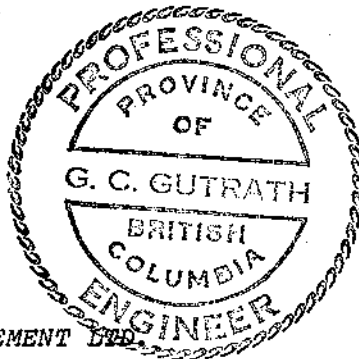
RECOMMENDATIONS (con't)

The above program should be carried out by a two man team employing fly camps from the main Pyrrhotite Creek base camp. The team should consist of a Junior Geological Assistant and a prospector soil sampler. Four camp locations of one week each should complete the reconnaissance program. Assistance for the West Kaketsa program could come from the main camp.

Respectfully submitted,


R. J. Darney, B.Sc.


G. C. Gutrath, P.Eng.



ATLED EXPLORATION MANAGEMENT LTD.

LIST OF PERSONNEL - APPENDIX I

G. Gutrath, Supervisor
Vancouver, B. C.

R. Darney, Geologist
Vancouver, B. C.

C. Ikona, Geologist
Vancouver, B. C.

J. Burdette, Helper
Sechelt, B. C.

L. Basher, Prospector - sampler
Vancouver, B. C.

D. Hopper, Prospector - sampler
Vancouver, B. C.

I. Quock, Helper
Telegraph Creek, B. C.

Cu GROUP THREE # 769

SEASON 1971

GEOLOGY

Overall Supervision

G. Gutrath 3 days @ \$150.00/day \$ 450.00

Field Supervision and Geological Mapping

R. Darney (Geologist) 5 days @ \$90.00/day \$ 450.00
J. Burdette (Helper) 7 days @ \$50.00/day 350.00
C. Ikona (Geologist) 10 days @ \$90.00/day 900.00

Maps and Report Preparation and Compilation

R. Darney 10 days @ \$65.00/day \$ 650.00

GEOCHEMICAL

Field Sampling and Supervision

L. Basher (tech) 7 days @ \$60.00/day \$ 420.00
I. Quock (Helper) 7 days @ \$45.00/day 315.00
D. Hopper (tech) 8 days @ \$50.00/day 400.00

Geochemical Analysis

200 Samples @ \$1.50/sample \$ 300.00

Helicopter

34.7 Hours @ \$240.00/hour \$8325.00

Meals

44 days @ \$10.00/day \$ 440.00

TOTAL \$13,000.00

APPENDIX II

Vancouver Geochemical Laboratories Ltd.

1521 PEMBERTON AVENUE

NORTH VANCOUVER, B.C. CANADA

TELEPHONE 604-988-2172

71-81-014

COMPANY Renton Management Ltd. REPORT No. _____ PAGE 1 OF 2

MARKING	Mo	Cu		
CU 1	1	48		
2	1	50		
3	1	405		
4	2	45		
5	2	61		
6	nd	38		
7	2	80		
8	2	72		
9	1	70		
10	1	34		
11	1	62		
12	2	77		
13	1	85		
14	2	375		
15	nd	315		
CU 16	2	114		
HOP 890	4	145	105	105
1	2	540		119
2	3	200		12
HOP 893	nd	70		13

MARKING	Mo	Cu		
HOP 894	2	345	68E	14
5	4	700		15
6	4	800		16
7	6	395		17
8	2	136		18.5
9	4	320		19
900	4	110		20
3	2	124	68E	2.1
4	32	685	75.5E	205
6	5	195	76E	21N
7	3	127		20
8	6	635		19
9	10	375		18
910	8	380		17
I	7	230		16
2	6	255		15
3	13	498		14
4	5	144		13
HOP 915	4	105	76E	12N

REMARKS

Vancouver Geochemical Laboratories Ltd.

1521 PEMBERTON AVENUE

NORTH VANCOUVER, B.C. CANADA

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71-81-008

COMPANY

Renton Management

REPORT No.

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MARKING	Mo	Cu	Pb		MARKING	Mo	Cu	Pb	
HOP - 429	2	139	20						
30	2	50	19		HOP - 449	2	62	31	
31	1	135	18		50	2	73	23	
32	1	49	16		51	2	51	19	
33	1	90	18		52	2	72	21	
34	1	72	19		53	3	83	26	
35	2	124	20		54	2	95	22	
36	1	125	23		55	1	140	20	
37	2	123	24		56	2	137	20	
38	2	87	22		57	3	138	21	
39	1	55	16		58	1	51	11	
40	nd	37	16		59	2	167	21	
41	1	76	17		60	2	795	32	
42	2	94	21		61	2	425	25	
43	1	56	16		62	3	292	22	
44	3	53	23		63	2	170	24	
45	2	88	22		64	1	193	24	
46	3	38	21		65	3	92	25	
47	2	63	22		66	2	288	23	
HOP - 448	2	81	23		HOP - 467	3	153	21	

REMARKS

Vancouver Geochemical Laboratories Ltd.

1521 PEMBERTON AVENUE

NORTH VANCOUVER, B.C. CANADA

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71-81-008

COMPANY Renton Management

REPORT No.

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MARKING	Mo	Cu	Pb		MARKING				
HOP - 468	1	146	10						

REMARKS

All values are reported in parts per million unless specified otherwise. All values are believed to be correct to the best knowledge of the analyst based on the method and instruments used.

Vancouver Geochemical Laboratories Ltd.

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COMPANY

Renton Management

71-81-016
REPORT No.

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MARKING	No	Cu	PH		MARKING	No	Cu	PH	Remarks
1	1	84							
2	nd	32			21	1	234		
3	2	90			22	2	275		
4	4	35			23	2	104		
5	3	70			24	1	390		
6	2	103			25	2	365		
7	3	76			26	1	290		Organic
8	1	75			27	2	285		Organic
9	1	122			HO - 1	2	480		Organic
10	1	103			HO - 2	1	235		Organic
11	2	176			HO - 3	2	162		
12	2	24			HO- 983			4.9	
13	1	50			84			5.5	
14	2	65			85			5.1	
15	3	100			86			5.9	
16	1	249			87			5.4	
17	2	290			88			5.4	
18	2	270			89			6.3	Organic
19	1	218			90			6.1	
20	1	156			HO- 991			6.8	

REMARKS

All values are reported in parts per million unless specified otherwise. All values are believed to be correct to the best knowledge of the analyst based on the method and instruments used.

Vancouver Geochemical Laboratories Ltd.

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COMPANY Skyline - Renton Management

71-81-018
REPORT No.

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MARKING	Mo	Cu	Ph	Remarks	MARKING	Mo	Cu	Ph	Remarks
HOP - 1090			6.3	12E-11S	HOP - 1210	3	117		Silt - 6
91			6.4	12	11	3	150		7
92			6.8	13	12	3	136		8
93			7.0	14	13	2	107		9
94			6.1	15	14	2	133		10
95			5.5	16	15	4	140		11
96			5.4	17	16	3	256		12
97			6.8	18	17	3	170		13
98			6.7	19	18	nd	120		14
1099			8.0	12E-20S	19	nd	183		15
1200			6.2	36E-4N	20	2	162		16
01			6.0	BL-36E	21	1	142		17
02			6.9	36E-4S	22	2	400		18
03			6.5	8S	23	nd	135		19
04			6.9	36E-12S	24	2	100		20
05	3	102		Silt -1	HOP - 1225	nd	110		Silt - 21
06	2	100		2	HOP - 1100	24	2350		Rock
07	2	115		3	1101	5	3950		Rock
08	2	123		4	HOP - 1102	4	1200		Rock
HOP - 1209	3	85		Silt - 5					

REMARKS

Vancouver Geochemical Laboratories Ltd.

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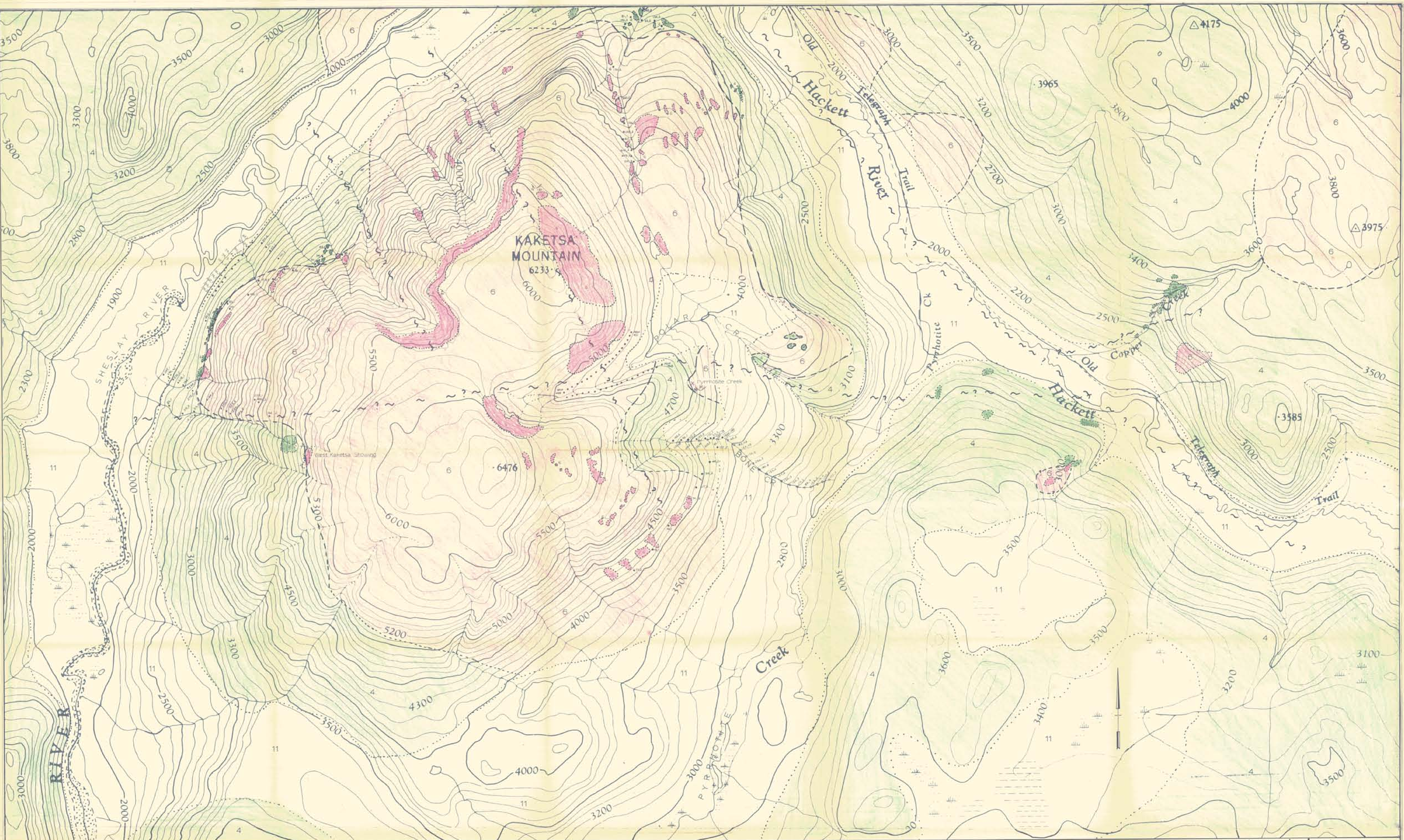
COMPANY Renton Management

71-81-017
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MARKING	Mo	Cu	Remarks	MARKING	Mo	Cu	Remarks
HCP 952	14	750		HOP 973	3	148	Organic
53	140	1400		74	2	135	Organic
54	2	122		75	2	350	Organic
55	2	44		76	2	170	Organic
56	2	55		77	2	146	
57	2	117	Organic	78	1	81	Organic
58	2	70		79	2	240	
59	1	56	Organic	80	2	35	
60	1	93		81	2	174	
61	2	77	Organic	HOP 982	nd	40	
62	2	152		HOP 1 - 4B + 15S	2	41	299S
63	1	96		HOP - 6 - 9 - 71	3	290	Organic
64	2	112					
65	2	105					
66	1	110					
67	3	57					
69	3	221					
70	3	205					
71	2	440	Organic				
HOP - 972	2	417	Organic				

REMARKS



LEGEND

- PLEISTOCENE AND RECENT
11 PLUVIALTILE GRAVEL, SAND, AND SILT; GLACIAL OUTWASH
- TRIASSIC AND LATER
5 GRANITIC ROCKS, MAINLY MONZONITE, GRANODIORITE
- UPPER TRIASSIC
4 MAINLY DARK GREEN PORPHYRYTIC ANDESITE WITH INTERBEDDED TUFF, & ANDESITE WITH INTERBEDDED VOLCANIC SANDSTONE, TUFF, CONGLOMERATE AND MINOR GREYWACKE, ARGILLITE AND SHALE

SKYLINE EXPLORATIONS LIMITED (N.P.L.) VANCOUVER B.C.

Division of Geological and Petroleum Resources
MINES AND PETROLEUM REVENUE
ASSESSMENT REPORT
No. 3514 Map # 3

**REGIONAL GEOLOGY MAP
KAKETSA MOUNTAIN AREA**



NTS 1:64,000

SYMBOLS

- OUTCROP
- - - OVERBURDEN LIMIT
- - - BIOLOGICAL CONTACT (APPROX ASSUMED)
- - - FRACTURE
- - - JOINTING
- - - FAULT (ASSUMED)
- GROUND SURVEY POINT
- GROUND SURVEY POINT LOCATION (ELEVATION NOT AVAILABLE)

3514
M-3